





THE OLD WAYS.

Barley

THE
PENNSYLVANIA
RAILROAD:

ITS ORIGIN, CONSTRUCTION, CONDITION, AND CONNECTIONS.

EMBRACING

HISTORICAL, DESCRIPTIVE, AND STATISTICAL NOTICES OF CITIES, TOWNS, VILLAGES,
STATIONS, INDUSTRIES, AND OBJECTS OF INTEREST ON ITS VARIOUS
LINES IN PENNSYLVANIA AND NEW JERSEY.

BY WILLIAM B. SIPES.

ILLUSTRATED WITH

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INTRODUCTORY.

THE design of this book is indicated by its title. Accuracy has been the principal end in view in its preparation, and its execution has necessarily required condensation rather than elaboration. All available sources of information on the subjects treated—printed, written, and oral—have been freely drawn upon, and these have been supplemented, when necessary, by personal observation and investigation. The statistical data given has generally been taken from the United States census of 1870—the few exceptions to this rule being stated in the text.

In the arrangement of the book, the stations on the main line are given continuously, with distances, on the New Jersey Division, from New York to Philadelphia, and on the Pennsylvania Division, from Philadelphia to Pittsburg. The branch roads are taken up as they are reached from the east, and distances given on them from the point of connection with the main line. The Philadelphia and Erie Railroad is described from its initial point at Sunbury.

Perfection is not claimed for the work. Its character renders even a close approximation to this desired end impossible, for the subject upon which it treats changes, in essentials or details, almost daily. A book of this kind can be ended—not completed.

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J. Edgar Thomson
1st President Pennsylvania Railroad Co.

THE PENNSYLVANIA RAILROAD.

THE problem of transportation is one that has taxed the ingenuity and resources of mankind from the earliest recorded history down to the present time. As man progressed in civilization, the interchange of commodities and products between different countries, and consequent intercommunication, became necessities which had to be met. Water afforded the earliest available course, and wind the power, which carried the wealth of the Orient and the Ind to the centres of industry in Western Asia and Eastern Europe. The "ships of the desert," in long caravans, wended their way over the arid sands, freighted with the purple and fine linen, the gems and spices, which refinement craved and avarice supplied, through dangers and sufferings that modern mankind can hardly realize. During these early periods roads were almost unknown, the tracks for trade being those of nature alone; and it was left for military chieftains of a later time—the Greeks, the Romans, the Carthaginians—to prepare ways for the movement of their legions and their supplies, which were the first steps in improvements that the nineteenth century has perfected.

Experience demonstrated, at an early day, the utility of providing a hard, smooth surface upon which to move heavy bodies; and it is believed that the stones used in building the pyramids of Egypt were brought from the quarries on causeways constructed of stone, over which rollers were made to pass by human power, carrying the blocks of many tons weight. This is the germ of the railroad, and from it has grown the system now in operation. The same idea was subsequently applied in many places throughout Europe, and more than two hundred years ago continuous tracks of marble were laid in Milan, Italy, and other cities. But these were in no sense railroads, as the term is understood in the present day. They were simply improvements on the Appian Way of the Romans, which was paved with stone blocks fitted

closely together, and was so well built that portions of it are still in place, after a lapse of more than nineteen centuries.

While these improvements in roadways were being slowly made, the ingenuity of mankind was turned principally to the development of natural water communications and the construction of canals. The discoveries made by the Spaniards and Portuguese in the fifteenth century, and the consequent great impetus given to ocean traffic, demonstrated the necessity of providing cheaper and easier means of transportation on land. This the people of Western Europe sought to establish by canals, as the Egyptians and Chinese had done ages before. Some of the plans devised for rendering canals practicable everywhere were certainly ingenious, if not successful; and among the most prolific in designs of this kind was Robert Fulton, whose name is inseparably connected with the introduction of steam navigation. A native of Pennsylvania, he spent some years in England, where he published a large work, profusely illustrated with drawings, showing his designs for boats, bridges, aqueducts, elevators, etc. After his return to the United States, he continued to urge this subject on public attention, and a sentence of his, contained in a letter addressed to a governor of Pennsylvania, that "the time will come when canals shall pass through every vale, wind round every hill, and bind the whole country in one bond of social intercourse," was often quoted by the early advocates of internal improvements.

The first introduction of anything like the present railroad, and from which the latter was ultimately developed, was at the coal mines in England, some time between the years 1602 and 1649. These consisted of wooden tracks, on which the coal wagons were drawn by horses. The first road of this kind was built at Newcastle-on-the-Tyne, and seems to have been the invention of a man named Beaumont. From there they

gradually spread through the mining districts of England, Scotland, and Wales, and improvements in their construction were, from time to time, made. Originally the roads were constructed entirely of wood. These were improved by having a plating or moulding of cast iron placed upon them in the first half of the eighteenth century; and, according to Mr. George Stephenson, the celebrated engineer, the first rails wholly made of iron were cast in 1766. When the cast-iron plate rails were first made, they appear to have been similar to those used on our street railways—the flange being cast on the rail; but on the introduction of iron wheels, in 1754, the flange was cast on the wheel, and was found to be an improvement.

It would be tedious to follow, in detail, the progress made by these primitive railroads. They were designed merely for the transportation of coal and other minerals, and for the first three-quarters of a century of their existence no one dreamed of applying them to the purposes of general traffic. They did improve, however, and among the improvements was the pattern of the rails, which was changed to something similar to the old T rail, once so common on all our roads, but still made of cast iron, and in sections of about five feet in length.

The commencement of the nineteenth century was marked by the practical results which had been achieved in the application of steam-power, and by the fact that efforts were being made to use this power on roadways. The steam-engine was of slow development. For a century and a half it had been experimented upon: by the Marquis of Worcester, to elevate water at Vauxhall, in 1656; by Pepin, a Frenchman, (who appears to be the inventor of the principle of the safety-valve,) in 1680; by Newcomen and Cawley, who completed an engine in 1710; by Savary, a Cornish miner, who constructed one to pump water from a mine in 1718; and by James Watt, who, about 1770, succeeded in bringing it to something like perfection. This new power had been utilized on land and water. It had been made to assist the miners, to drive machinery, and to propel boats.* Why should it not, then,

be used as a motive power on land? This question was asked by more than one active mind in England, and a number of machines were constructed to run by steam-power on common roads. These were exhibited, found impracticable, and abandoned,—the roads were too rough for the machinery.

In 1804, Richard Trevithick, a foreman at a tin mine in Cornwall, undertook to construct a locomotive to run upon a railroad. The same year he completed it, and it was tried on the Merthyr-Tydvil Railroad, in Wales. It drew after it, on its trial-trip, several wagons laden with ten tons of bar iron, at the rate of five miles an hour. A writer, in describing it, says that, "Lightly loaded, it did very well upon a level surface or moderate grade, but more severely tasked, the wheels would slip round without advancing." This machine was imperfectly constructed and did not last long, but it demonstrated the fact that locomotives could be made practicable.

Following this successful experiment came many others, intended to overcome the defects of Trevithick's locomotive, and improve upon its construction. None of these possessed sufficient merit to achieve success, and most of them were more remarkable for their peculiarities than their excellencies. It is somewhat surprising that many of these experimental locomotives were constructed

through the water by means of steam generated in a large kettle. While his experiment was successful, it did not become practicable, and was soon forgotten. Numerous other experiments followed in different parts of Europe during the succeeding two hundred years, but none of them amounted to anything; and it was not until after the independence of the United States that the subject assumed practical shape and was started on a career of success. In 1775, John Fitch, a citizen of Bucks county, Pennsylvania,—a watch and clockmaker by trade, and an erratic genius, who had been a manufacturer of arms and a sutler during the Revolutionary war, and after it a land surveyor in Kentucky and Ohio,—commenced experimenting on the subject. He appears to have had no knowledge of even the existence of such a thing as a steam-engine, and he made everything he needed as his experiments progressed. Working thus, by the power of his inventive genius combating prejudices which met him on every hand and overcoming difficulties which seemed almost insurmountable, he actually completed, in all its details, a steamboat which, in 1787, navigated the Delaware river successfully. This fact is sustained by incontrovertible testimony, David Rittenhouse, the astronomer, certifying, in December of that year, that he had frequently seen Mr. Fitch's boat, and had been on board when it was "worked against wind and tide with considerable velocity, by the force of steam only." Fitch continued his experiments for the purpose of improving his machinery and increasing the speed of his boat, and in 1790 advertised to carry passengers regularly to and from Burlington, Bristol, Bordentown, and Trenton, on the Delaware. His boat at that time ran, on an average, seven and a half miles per hour; and during the summer of that year she ran upon the waters around Philadelphia not less than three thousand miles. But accidents and misfortunes interfered with his plans; money could not be raised to build new boats, and, disheartened and impoverished, Fitch became a wanderer over the world, and finally committed suicide in Kentucky, where his remains rest in an unmarked and almost unknown grave.

* The question, Who is entitled to the credit of applying steam to the purposes of navigation? is one that has given rise to much discussion; and it is only recently that a satisfactory conclusion has been reached. The records of the province of Catalonia, in Spain, prove that in 1543, Blasco de Garay, an officer in the service of the Emperor Charles V., made an experiment at Barcelona with a vessel which he forced

to overcome a difficulty which was only imaginary. From the beginning of the experiment of using steam upon railroads, the idea had fixed itself in the minds of all engaged in it that a smooth wheel on a smooth rail would have no traction;—that, in fact, the wheel, when steam was applied, would spin round on the rail without advancing. To overcome this imagined difficulty, various devices were made, some of them being almost ludicrous in appearance. Accident at last demonstrated that the fancied drawback did not exist,—that a smooth-surfaced wheel on a smooth rail had traction, and that all required was weight on the driving-wheels to cause them to haul, at any desired rate, almost any given load.

It was in 1813 that the man who, more than any other, may claim the honor of being the father of the modern railroad system, commenced the construction of a locomotive. That man was George Stephenson, the English engineer.* Born and reared in the mines of England, where railroads and engines were first used,—acquiring with difficulty the simple rudiments of an education while working for his daily bread, he yet, at the age of twenty-six years, by the force of his indomitable energy and wonderful mechanical ingenuity, if not genius, stepped to the first place among the practical engineers of his country, and succeeded in placing upon the railroads of England locomotives which performed more than the most sanguine had hoped for, and established a new era in the world's progress. Mr. Stephenson, after more than a year of labor, completed his first locomotive in 1814. It worked, but not well enough; and, with the experience gained, he built others,—the last always being better than those which had preceded it,—until he constructed the "Rocket," which took the premium of five hundred pounds sterling offered by the Liverpool and Manchester Railroad Company for the best

locomotive tested, under prescribed conditions, on their road, in October, 1829.

Up to 1825 the railroads constructed had been exclusively used for the transportation of coal and other heavy products, and were confined to private use only; but about this time it was proposed to build them for purposes of general traffic and travel, and it was for this that the Liverpool and Manchester was constructed, being the first of the kind in the world. This road was not completed until 1829; but the experiment of transporting passengers and merchandise on a railroad by locomotives had been practically tested on the Stockton and Burlington road, of which Mr. Stephenson was chief engineer, in 1825. This was a coal road, but running as it did between the towns of Darlington and Stockton, a distance of twelve miles, it afforded an opportunity to test the experiment. Travel over it soon became popular and profitable to the company. A year later locomotives were successfully placed by Mr. Seguin, a French engineer, on a railroad running from Roanne (via St. Etienne) to Lyons. Little is known of this early French experiment, but Mr. Seguin made several important improvements to the locomotives then in use.

In construction, the Liverpool and Manchester Railroad was superior to any previously built. It had been made of the best known materials and in the most substantial manner, at a cost of about one hundred thousand dollars per mile, and it therefore afforded every advantage for running heavy engines at a high rate of speed. At the trial, when the superiority of Mr. Stephenson's locomotive was demonstrated, he ran at the rate of near thirty miles per hour with perfect safety, and almost an equal rate was maintained upon this road from the time it was opened to travel. Such a result could not fail to startle a plodding world, and among the first people to realize and adopt the advantages of the new means of transportation were those of the United States.

Immediately after the termination of the Revolutionary war, the people of the United States had turned their attention to the subject of creating facilities for transportation. Gradually but steadily the tide of emigration had pushed its way westward from the Atlantic seaboard, until the valley of the Ohio and its tributaries gave promise of the immense population they were destined to hold, and it became essential that outlets

* Previous to Stephenson's success, others in England had, theoretically at least, devoted much attention to the subject of railroads to be operated by steam. Dr. James Anderson, in a work entitled "Recreations in Agriculture," published in 1800, suggested the construction of railroads by the side of the turnpikes, and was so minute in his details as to how they should be made, that his description might almost pass for that of a modern railroad. About 1820, Thomas Gray commenced advocating the introduction of a general railroad system, similar to that now in use, and persevered in its advocacy until he was pronounced insane. He died in abject poverty before his countrymen caught up with his ideas; and an effort subsequently made to erect a monument to his memory, as a token of national gratitude, failed for want of support. Stephenson himself was at first declared crazy by writers in the "Quarterly Review," but he fortunately lived long enough to demonstrate the "method in his madness."

for their surplus products, as well as channels by which their wants could be supplied, should be provided. The great channel of trade in subsequent years—the Mississippi river and its tributaries—was virtually closed to Americans, because a large portion of it was held by a different nation, not then on very amicable terms with our Government. The opening of means of communication between the East and the West, therefore, became a subject which interested not only individuals, but State and National governments. As early as 1791 a "Society for promoting the improvement of roads and inland navigation" existed in Pennsylvania, and devoted much attention to the exploration of the various routes considered most feasible for connecting the Delaware with the waters of the Ohio and the lakes. From time to time examinations of the courses of the Schuylkill, the Delaware, the Susquehanna, the Juniata, and their tributaries, were made, under authority granted by the general assembly of Pennsylvania, and reports submitted. Similar explorations were made by the States of New York, Maryland, Virginia, and the Carolinas. All these investigations had in view the construction of water communications, by slack-water and canal,—the waters of the East and West to be connected by means of roads over the Allegheny mountains. As steam-power had not then been applied to locomotive purposes, these connecting roads were intended to be merely turnpikes, and the desideratum to be reached was to find the shortest possible portage dividing the streams that could be utilized.

Pennsylvania was the first State to commence these improvements. Albert Gallatin, then Secretary of the Treasury, in a report to the Senate of the United States, in 1807, says that "the Lancaster road, the first extensive turnpike that was completed in the United States, is the first link of the great western communication from Philadelphia. * * * The State of Pennsylvania has also incorporated two companies, in order to extend the road by two different routes as far as Pittsburg, on the Ohio. * * * The southern route, following the main post-road, passes by Bedford and Somerset. The northern route passes by Huntingdon and Frankstown." Both these roads were subsequently completed. Mr. Gallatin, in the same report, says that the State of New York had then a capital of one million eight hundred thousand dollars invested in completed

turnpikes, and the construction of three thousand miles more was authorized in that Commonwealth. He also refers, in detail, to the explorations of water-course routes already noted, and recommends the General Government to undertake the construction of four such routes between the East and West, estimating the aggregate expense at four millions eight hundred thousand dollars.

The United States Government never embarked in public improvements to any considerable extent, and what was done had to be done by individual and State enterprise. New York led the way by the construction of the great Erie canal, and was closely followed by Pennsylvania with her general system of internal improvements. In fact, the last-named State is fairly entitled to precedence in the commencement of her canals, as the Union canal, connecting the Schuylkill with the Susquehanna, was incorporated in 1791, and completed in 1827. This was intended as a part of a system to run to the lakes, but the design was abandoned.

About this period, when the American people were displaying such wonderful energy in opening up their extended country, came the intelligence of the success of steam-power on the railroads of England, and the inauguration of a new system of transportation between the cities of Liverpool and Manchester. Previous to this, railroads similar to those in operation in the mining districts of Great Britain had been built here.* One of these was four miles in length, and ran from a granite quarry to the port of Neponset, in Massachusetts, and was called the Quincy Railroad. It was completed in 1827. The same year a more extensive one was completed at Mauch Chunk, Pennsylvania, connecting a coal mine with the Lehigh river. It was, with its branches and sidings, thirteen miles long, and was operated by inclined planes and gravity. During 1828, several railroads were commenced. Among them was that of the Delaware and Hudson Canal Company, at

* In September, 1809, the first experimental railroad track built in the United States was laid out by John Thomson, Esq., civil engineer, of Delaware county, Pa., and constructed under his direction by Somerville, a Scotch millwright, for Thomas Leiper, of Philadelphia. It was sixty yards in length, and graded an inch and a half to the yard. The gauge was four feet, the sleepers eight feet apart. The experiment with a loaded car was so successful that Leiper had the first practical railroad built in the United States constructed for the transportation of stone from his quarries on Crum creek to his landing on Ridley creek, Delaware county, Pennsylvania, a distance of about one mile. It continued in use for nineteen years.

Honesdale, in Pennsylvania, to connect their mines with the canal, which road became famous as the first in America on which a locomotive was run. This locomotive was named the "Stourbridge Lion," and was tried on the road on the 8th of August, 1829. It was found to be too heavy for the roadway, was housed up, and finally taken to pieces and destroyed.

The most important railroad projects of the year 1828 were the Baltimore and Ohio and the Charleston and Hamburg. The first of these was originated in Baltimore, the design being to build a road through to the Ohio river, and it was, for that age, a truly herculean scheme. The second had its origin in Charleston. It was intended to develop the resources of the State of South Carolina, and particularly to facilitate the transportation of cotton to the seaboard for shipment. The first stone of the Baltimore and Ohio was laid on the 4th of July, 1828, by Charles Carroll, of Carrollton, the last survivor of the signers of the Declaration of Independence. In the construction of the first twelve miles of this road, "every mode hitherto suggested by science or experience was tested, and thus the work may be regarded as having solved most of the problems which presented themselves in this early period of railroad building in the United States. 'The granite sill and iron rail; the wood and iron on stone blocks; the wood and iron on wooden sleepers, supported by broken stone; the same supported by longitudinal ground-sills in place of broken stone; the log-rail, formed of trunks of trees, worked to a surface on one side to receive the iron, and supported by wooden sleepers; and the wrought-iron rails of the English mode, had all been laid down, and, as early as 1832, formed different portions of the road.'"^{*} The original designers of the road were not determined in their opinion to operate it by locomotives when they commenced the work, and the first portion completed was operated by horse-power. Many experiments were made with motive power—among them cars propelled by sails—but finally locomotives were adopted, and the first regularly run upon it were built by Mr. Phineas Davis, at York, Pennsylvania, in 1831.

The Charleston and Hamburg Railroad, one hundred and thirty-six miles in length, was intended, from its commencement, to

be operated by locomotive power, and was constructed to meet that requirement. Upon it the first locomotives built in the United States were run. These locomotives were built at the West Point Company's foundry, at Cold Spring, New York; were named the "Best Friend" and the "West Point," and were put upon the road towards the end of the year 1830.

America having embarked in the construction of railroads,—for while those named were under way, others in various parts of the country were projected and commenced,—the ingenuity and inventive skill of her citizens soon rendered her independent of England for all the machinery and appliances necessary to their success. Curves were run without danger here which in Europe would have been considered utterly impracticable; and gradients were overcome which there were deemed insurmountable. Experience soon enabled our railroad men to demonstrate what was practicable, and hence the introduction of wooden cross-ties followed soon after the construction of the earliest roads—the question having been debatable among English engineers whether they were equal to the stone sleepers or not.

The first railroads constructed here were modeled after the roads of England; and the earliest locomotives used being of English manufacture, caused the gauge of our roads to be copied from those of the mother country. In this way the gauge of four feet eight and a half inches was introduced. This peculiar measurement originated from the fact that the early English roads were built to suit the wagons in use at the time, and these were of the width specified. Locomotives having been constructed to suit the railroad tracks, were, of course, made of the same gauge, and thus it was established. The introduction of this peculiar gauge was undoubtedly an evil, because it led to the establishment of independent gauges in different States, and to the consequent confusion and injury of the American railroad system.*

Reference has already been made to some

* The first roads built in the Eastern States conformed to the English gauge of four feet eight and a half inches. New Jersey and Ohio established a gauge of four feet ten inches; five feet was fixed as the gauge of the South Carolina Railroad, by Horatio Allen, civil engineer—was adopted by its connecting roads, and thus extended generally throughout the South. Five and a half feet was established for Missouri and Canada roads; and six feet as that of the New York and Erie, and the Atlantic and Great Western.

* Brown's "History of the First Locomotives in America."

of the movements of Pennsylvania, both as a colony and a State, toward the establishment and improvement of channels of intercommunication. It now becomes necessary to dwell more particularly upon these efforts, and to point out, step by step, the progress made from the incipency of her canals and railroads to the present time, when she has achieved a prominence in these respects equal to any other State in the Union. Her geographical position rendered it indispensable that the natural barriers within her borders should be overcome, so that the important sea-ports north of the Chesapeake bay could be made accessible to the vast and growing West; and, at an expenditure of labor, skill, and capital almost incalculable, these barriers were ultimately conquered. The tedious journey between Philadelphia and Pittsburg—a journey which, a third of a century ago, occupied an entire week in its performance—has been reduced to a pleasant excursion of a few hours, and the lumbering mail-coach superseded by improvements which enable the present generation to travel with the speed of the wind and communicate with the velocity of the lightnings.

One of the first railroad projects inaugurated in America was in Pennsylvania; and although it was not at the time consummated, yet its agitation helped to prepare the public mind for the reception of the new means of transportation and travel, and paved the way for ultimate success. The legislature of that State, on the 31st of March, 1823, passed an act incorporating a company to construct a railroad from Philadelphia to Columbia, on the Susquehanna river, in Lancaster county, a distance of about eighty miles. This act recites that, whereas John Stevens had memorialized the legislature for authority to build such a road, and stated that he had made many discoveries and improvements in the manner of constructing railroads, therefore the privilege was granted to him. Among the corporators named in the act were Horace Binney and Stephen Girard, of Philadelphia,—the former of whom is still living at the time this is written. John Stevens was, however, to be the master-spirit of the enterprise. The road was to be built under his supervision and according to his plans. All transportation over it was to be under his superintendence or that of his legal representatives, and he was authorized to charge tolls on all freight carried over it at a rate not to

exceed seven cents per ton per mile on that passing westward, and three and a half cents per ton per mile on all moved eastward. The road was “not to rise above an angle of ten degrees with the plane of the horizon,” was to cross all roads by means of causeways, and the capital stock was fixed at six thousand shares at one hundred dollars each. The charter was to continue in force for ten years, and to be forfeited if the road, after construction, was permitted to become impassable for two years. It does not appear that any serious effort was made to build the road under the authority thus obtained; and it is altogether probable that the scheme was John Stevens’ own, and that he, like John Fitch, was in advance of the age in which he lived.*

At that time the people had but little, if any, faith in the practicability of steam-railways. Water communication, by means of canals, was still the favorite theory of all who desired anything better than turnpikes, and in 1824 the legislature of Pennsylvania authorized the appointment of three commissioners to explore a route from Philadelphia to Pittsburg for such an improvement. This exploration was made, and the report appears to have been favorable to the construction of a combined slack-water and canal line; connected, of course, over the Allegheny mountains by a road of some kind. So well convinced was the legislature of the practicability and utility of such a channel of communication, that in the following year, on the 11th of April, a law was enacted establishing a regular board of canal commissioners.

In 1826 Pennsylvania fairly embarked in the work of constructing her public improvements. An act was passed that year providing for the commencement of a canal, to be styled “The Pennsylvania canal,” and to be constructed at the expense of the State. It was to be built from the river Swatara, at or near Middletown, where the Union canal commenced, to the mouth of the Juniata, and from Pittsburg to the mouth of the Kiskiminetas, on the Allegheny river. On the 4th of July of that year ground was broken for the work near Harrisburg. The design appears to have been to make both the

* Col. John Stevens was a citizen of Hoboken, N. J. In 1811 he presented a memorial to the legislature to authorize a railroad in New Jersey; and, in 1815, a law was passed incorporating “The New Jersey Railroad Company,” authorizing a road from Trenton to New Brunswick. It was not built. In 1820 Colonel Stevens built a short road, at Hoboken, as an experiment.

Juniata and Kiskiminetas rivers navigable by slack-water, and to use the Union canal as the eastern end of the line, connecting it with Philadelphia. Three hundred thousand dollars were appropriated to enable the canal commissioners to commence the work. The same year an act to incorporate the "Columbia, Lancaster and Philadelphia Railroad Company" was passed, with a capital of six hundred and fifty thousand dollars. This act covered the same ground, and repealed the John Stevens charter of 1823. Like its forerunner, it proved a dead-letter, but it showed that the idea of a railroad to connect the Susquehanna and the Delaware still lived. During the same session of the legislature five railroad companies were incorporated, but none of them were of any particular importance.

Pennsylvania having thus inaugurated a system of public improvements, persevered in their construction and enlargement with commendable energy. Satisfied that private enterprise, at that time, was unequal to the task of building a railroad between Philadelphia and Columbia, and knowing that anything like a direct water communication to connect those points was impracticable, the legislature, in 1827, authorized the canal commissioners to make examinations for such a road through the counties of Chester and Lancaster to connect with the canal. They were also to extend their examinations, for the same purpose, from Wrightsville, in York county, and from Harrisburg, through the Cumberland valley, to Chambersburg. The following year (1828) these commissioners were directed to locate and put under contract a railroad from Philadelphia (via Lancaster) to Columbia, and complete the same within two years, if practicable. They were also, by the same act, required to examine a route for a railroad from Huntingdon to Johnstown, over the Allegheny mountains. The sum of two millions of dollars was appropriated for these purposes, and to continue work upon the canals already commenced.

This was the actual commencement of the Columbia and the Portage Railroads,—works which, at that early date, were of great magnitude, and one of which (the Portage) has never, for peculiarities of construction rendered necessary by the great barrier to be overcome, been surpassed in the world. The main line of canal, extending from Columbia to Hollidaysburg, at the eastern base

of the Allegheny mountains, and from Pittsburgh to Johnstown, at the western base, was at the same time being pushed to completion as rapidly as possible. The State was stimulated in this work by the fact that New York had, in 1826, completed the Erie canal, connecting the lakes with her metropolis, and the knowledge that that improvement alone was carrying annually nearly seventy millions of dollars worth of the products of the West to the seaboard. This line of canal had deprived Philadelphia of her commercial supremacy, while it had stimulated the growth of her rival to a remarkable degree. Self-preservation required prompt and liberal action on the part of Pennsylvania, and the requirement was met by an annual expenditure for her public works of about two millions of dollars, running through a period of many years. This expenditure taxed her resources to the utmost, and various means were resorted to for the purpose of raising revenue. Among these devices may be mentioned an arrangement by which, in 1830, the charter of the Bank of Pennsylvania was extended for the period of eighteen years, on condition that it loan the State four millions of dollars at five and a half per cent. per annum interest, which sum was to be appropriated toward completing the canals and railroads.

While the State was thus pushing forward the main line, individuals were likewise engaged in constructing railroads within her borders. In 1831 a number of companies were incorporated; and in 1832, among others, the construction of the Harrisburg and Portsmouth, the Strasburg, and the Philadelphia and Trenton Railroads were authorized, two of which are now controlled by the Pennsylvania Railroad Company. During this year portions of the Columbia Railroad were completed and cars commenced running upon it.

In 1833 the canal commissioners were directed by law to complete the Columbia Railroad with a double track and the Portage with a single track, and to finish the main line of canal. This was promptly done, and in 1834 the entire line between Pittsburgh and Philadelphia was opened to trade and travel. The line as finished consisted of the Columbia Railroad, eighty-two miles in length, running from Philadelphia to Columbia, on the Susquehanna river; the eastern division of the canal, one hundred and seventy-two miles in length, extending from

Columbia to Hollidaysburg; the Portage Railroad, from Hollidaysburg to Johnstown, a distance of thirty-six miles; and the western division of the canal, from Johnstown to Pittsburg, one hundred and four miles in length,—making an aggregate length of three hundred and ninety-four miles. Being thus broken, and consequently requiring the re-shipment of freight consigned through, it was both difficult and expensive to operate, and never proved remunerative to the State. It was, however, of great benefit to the country through which it passed, and contributed vastly toward the development of its resources.

The Columbia Railroad being one of the first built in the United States, contained most of the defects of our primitive roads. It was very crooked—some of the curves being of but six hundred and thirty-one feet radius. Its gradients, owing to the comparatively level country over which it was built and the care of the engineers who located it, were not heavy,—in no place exceeding forty-five feet per mile, and that for a very short distance,—while the uniform grade was kept at thirty feet. An inclined plane was at each terminus—that at Philadelphia being two thousand eight hundred and five feet in length and one hundred and eighty-seven feet rise, while that at Columbia was eighteen hundred feet in length and ninety feet rise. These were at a subsequent period avoided without materially increasing the average gradient of the road. The track was of varied construction, consisting in part of granite or wooden sills, on which were secured flat rails; of edge rails on stone blocks and stone sills, and of edge rails on stone blocks and locust sills. These gradually gave place to modern improvements, and many of the sharper curves were straightened.

The road having been constructed to be operated by horse-power, the track and turn-outs were adapted for that purpose. For several years these horse-cars were regularly run between Columbia and Philadelphia. They were built something like the old stage-coach, but larger,—the entrance-door being at the side, and the driver occupying an elevated seat in front. The time of these cars over the road—a distance of eighty-two miles—was about nine hours, the horses being changed every twelve miles.

The first locomotive put on the road was built in England and named the "Black

Hawk," after the celebrated Indian chief. As the eastern end of the road was not then completed, this engine was hauled over the turnpike to Lancaster, where her trips were to commence, and she was to be used between that city and Columbia. The day for her trial-trip was a beautiful one, and thousands of people had gathered from the surrounding country to witness the novel performance. Governor Wolf and the State officials were all in Lancaster to participate, and the excitement ran high. Men were stationed along the track to keep the too-venturesome boys out of danger, and among these guardians was an Irishman, who made himself particularly officious. Armed with a club, he paraded along the road, shouting to the eager urchins, "Get out of the track! When she starts she'll go like a bird, and ye'll all be kilt." The important moment came,—the engineer pulled the lever, but the locomotive would not go. At length, by pushing, the train was got under way; but the wonderful machine did not "go like a bird." She proved a failure, in fact, and her history is lost in oblivion.

Soon after, three smaller engines were imported and put on the road. These did better than their predecessor, and about 1836 locomotives were regularly put to work, to the exclusion of horse-power.* From this time on the State furnished the motive power, while all cars used for the transportation of passengers and freight were the property of individuals. A regular rate of toll was charged for the use of the road and for motive power.

The Portage road† over the Allegheny mountains was, during all the time it remained in operation, one of the wonders of America. It consisted of eleven levels or grade lines and ten inclined planes. The ascent from Johnstown to the summit was eleven hundred and seventy-one and a half feet in a distance of twenty-six and a half miles, and the descent from the summit to Hollidaysburg was thirteen hundred and

* It is difficult to fix the precise date at which locomotives were put on the Columbia Railroad to the exclusion of horse-power. In 1834 a number of locomotives appear to have been contracted for, but there was considerable opposition to their employment by persons using the road or residing near it. They feared that the engines would destroy the value of their horses, and that sparks from them would set fire to their houses and barns. Mr. Edward F. Gay, then chief engineer of the road, strongly urged the exclusive use of locomotives in several reports made. In 1835 three locomotives only were on the road. In 1837 forty were reported in use. This would indicate that no other motive power was then used.

† Account of Portage Railroad, by S. W. Roberts, assistant engineer. Philadelphia, 1836. The road, as described, was located by Mr. Sylvester Welch, engineer.

ninety-nine feet in a distance of ten miles. The planes were numbered eastwardly—the one nearest Johnstown being number one, and that nearest Hollidaysburg number ten. The length and rise of the planes were (omitting fractions of feet) as follows:

	LENGTH.	RISE.
No. 1,	1,607 feet.	150 feet.
No. 2,	1,760 "	132 "
No. 3,	1,480 "	130 "
No. 4,	2,195 "	187 "
No. 5,	2,628 "	201 "
	SUMMIT LEVEL.	FALL.
No. 6,	2,713 feet.	266 feet.
No. 7,	2,655 "	260 "
No. 8,	3,116 "	307 "
No. 9,	2,720 "	189 "
No. 10,	2,295 "	180 "

The cars were passed over these planes by means of wire ropes attached to stationary engines, and it is a notable fact that during the twenty years the road was used no serious accident ever occurred upon it. Boats used on the canal for carrying through freight were built in sections, which sections were placed upon trucks and carried over the railroad.

The cost of the main line to the State was, according to a report made by the Auditor General in 1843, as follows:

Columbia Railroad,	\$4,204,969 96
Eastern division of canal,	1,736,599 42
Juniata division of canal,	3,521,412 21
Portage Railroad,	1,828,461 38
Western division of canal,	3,069,877 38
Total,	\$14,361,320 35

This sum was, however, but a part of the expenditure made by the State for public improvements. Between the years 1791 and 1828 she had appropriated for turnpike roads, bridges, and inland navigation, \$22,010,554, and she was then only upon the threshold of her works. Canals were located along nearly every important stream, and roads and bridges were multiplied almost indefinitely. Not one of these improvements proved remunerative to the Commonwealth, however beneficial they may have been, and in many instances unquestionably were, to her citizens. In 1835 the act incorporating the Cumberland Valley Railroad (now controlled by the Pennsylvania Railroad Company) was revived and extended for ten years, and under this extension the road was built—the State taking a portion of the stock to aid in its completion.

The main line was now in successful operation, and the long-sought desideratum of connecting the waters of the Ohio with those of the Delaware accomplished, yet it soon became evident that it was not calculated to meet all the requirements of trade. It was too slow, too expensive to operate, and too complicated; and public attention was very soon directed to the necessity of building a through line of railroad. The first companies incorporated for this purpose were the Sunbury and Erie and the Pittsburg and Susquehanna, charters for which were authorized by act of April 3d, 1837. The first named was empowered to build a railroad from Sunbury (via Northumberland) to Erie, and the second from Pittsburg along the Allegheny river, and thence to connect with the Sunbury and Erie. Six thousand shares of the stock of the Sunbury and Erie Company were at once subscribed for, principally by the Pennsylvania Bank of the United States. But the undertaking, despite the favorable auspices under which it started, languished, and it was many years before it was finally consummated.

The following year a general convention, to urge the construction of a continuous railroad to Pittsburg, assembled at Harrisburg, on the 6th of March. Delegates were present from twenty-nine counties of the Commonwealth, and also from the city of Cleveland, Ohio. Robert T. Conrad, of Philadelphia, presided, and the subject was thoroughly and ably discussed. Addresses were prepared, memorials to the legislature drawn, and everything else that zeal and ability could suggest done to stimulate the State and the people to commence the great work. Some effect was undoubtedly produced by these efforts, because the same year Hother Hagé, an engineer of distinction, surveyed, under authority from the State, a route for a continuous railroad through the counties of Franklin, Bedford, Somerset, Westmoreland, and Allegheny; and the following year Charles L. Schlatter was appointed by the canal commissioners to survey similar lines from Harrisburg to Pittsburg. Mr. Schlatter made a report in 1840, in which he specifies three routes which had been examined and surveyed through. The first of these was Mr. Hagé's route, which was called the southern, and was pronounced practicable with the exception of about fifty miles over the mountains of Bedford and Franklin counties, where it was suggested the turnpike

be improved and used. The second was styled the northern route, and followed the Susquehanna to Northumberland; thence up the West Branch, and by the Bald Eagle creek to the head of the western waters. This was also considered a feasible route, but too circuitous. The third was called the middle route, and was by way of the Juniata and the Conemaugh. This was deemed in all respects the best, and is the one upon which, at a subsequent period, the Pennsylvania Railroad was built. The survey of this route by Mr. Schlatter first conclusively demonstrated that it was possible to cross the Allegheny mountains without the use of inclined planes, and it was not long afterward that a new road to accomplish this was commenced by the State. Mr. Thomson, chief engineer of the Pennsylvania Railroad, under whose immediate supervision and direction the route of that road was located, was convinced at an early period of the advantages of the middle, or Juniata, route, and in his first annual report says:—"This stream has its source in the Alleghenies, and consequently severs, as it flows towards the Atlantic, all the secondary mountain ranges that lie east of them, and it heads opposite to the Black Lick and Conemaugh rivers, both of which sever those on the west, leaving the main Allegheny only to be surmounted, which would have to be encountered upon any other direct route, in addition to many of the inferior mountain ranges." Further on, in the same report, he adds:—"The searching examinations made of the whole region offering any chance for a more practical route, on the north or south of the Juniata, leaves no doubt upon my mind but that the best line has been secured for the eastern division. Its comparatively easy curvature and low gradients, adapted in their inclination to the direction of the largest business, and extending from the eastern terminus of our road to the foot of the great barrier that divides us from the West, gives it advantages that are not equaled by any other route proposed between the East and West, and cannot be too highly appreciated by the company."

Great as was the necessity for a through railroad, and thoroughly as that necessity was now realized by the people of the State, years were permitted to elapse before the work was actually commenced. In 1845 a public meeting was held in the Chinese Museum, in Philadelphia, to urge the improve-

ment, but it was not until 1846 that the project assumed a tangible shape. On the 13th of April of that year, the act to incorporate the Pennsylvania Railroad Company was passed. The capital of the company was fixed at seven millions five hundred thousand dollars, with the privilege of increasing the same to ten millions. The company was authorized to build a road to connect with the Harrisburg, Portsmouth, Mount Joy and Lancaster Railroad, and to run to Pittsburg, or other place in the county of Allegheny, or to Erie, as might be deemed most expedient. The act also provided that in case the company should have three millions of dollars subscribed and one million actually paid into its treasury, and have fifteen miles of its road under contract for construction at each terminus of its road prior to the 30th of July, 1847, the law granting the right of way to the Baltimore and Ohio road from Cumberland, Maryland, to Pittsburg, should be null and void. All these conditions were complied with, and on the 25th of February, 1847, Governor Shunk granted a charter to the company, and on the 2d of August he issued his proclamation declaring the privileges granted the Baltimore and Ohio abrogated. This action created considerable dissatisfaction in Allegheny and other south-western counties of Pennsylvania, and it required the lapse of time to satisfy those sections that it was for their advantage, as well as for the best interests of the State of Pennsylvania. The energy with which the construction of the Pennsylvania Railroad was prosecuted, and the careful manner in which its route was located, soon changed the antagonism of Western Pennsylvania to the East to friendship and sympathy.

The principle which governed the early managers of the Pennsylvania Railroad in its construction was to build it out of the cash subscribed and paid by the stockholders. To accomplish this, they determined to make their *bona fide* capital sufficient to cover the necessary expense of its construction and equipment, and to pay the stockholders six per cent. from the time their money was contributed. They argued that it was as easy, and more just, to pay this interest to those who contributed to the enterprise from its inception, than to borrow money at usurious rates on bonds, the holders of which, too frequently in our railroad history, absorbed, in a few years, the entire

property of the undertaking, and left the first promoters without anything in return for their enterprise and liberality. Books were opened for subscriptions to the stock, at various places in the State, on the 22d of June, 1846, and the utmost zeal was displayed by the originators of the enterprise in securing the co-operation of the people. Committees went from house to house in Philadelphia; public meetings were held; the newspaper press were untiring in their efforts to demonstrate the importance of the work; and, as has already been intimated, a reasonable degree of success followed their efforts. In their first annual report the directors state that out of some twenty-six hundred subscriptions upon the books, near eighteen hundred are for five shares and under. Many of these subscriptions were made without any hope, on the part of the subscribers, that their investment would ever prove profitable. The necessity of the road was admitted, and the people were willing to aid its construction. But it was not long until a different opinion of its future profitability prevailed, and this stimulated the desire to invest in its stock. Mr. Thomson, the chief engineer, contended, from its commencement, that the road would certainly prove remunerative to the stockholders, and in his first annual report stated that "dividends from its revenue can be made of six, eight, or ten per cent., by changing the rates of freight and passage, at the discretion of the directors." In support of these prophetic words he states, in the same report, that "if the road possessed no other source of revenue than the local travel and transportation of the rich and populous region to be traversed by it—secured, as it will be, from competing lines by natural barriers, stretching out on either side from the Susquehanna to the Potomac—they would be sufficient to justify its construction."

Mr. Thomson entered upon his duties as chief engineer of the road in the early part of 1847. The directors say, in their first annual report, that "in the selection of a chief engineer the board was fortunate in obtaining the services of Mr. John Edgar Thomson, a gentleman of enlarged professional experience and sound judgment, who had obtained a well-earned reputation upon the Georgia road, and in whom the board place great confidence." Mr. Thomson at once proceeded to organize his forces, and to apportion the work to be performed. Such

distinguished and experienced engineers as Mr. Edward Miller, Mr. William B. Foster, Jr., Mr. S. W. Mifflin, Mr. G. W. Leuffer, Mr. Strickland Kneass, Mr. Edward Tilghman, Mr. Oliver Barnes, and others, were employed in the location and construction of the road; and with such ability engaged, it is not surprising that a distinguished authority has said that no similar work was ever commenced with better engineering. Mr. Thomson himself had an extended railroad experience, and his reputation was well earned. He was a native of Delaware county, Pennsylvania, and commenced his professional career in 1827, in the engineer corps employed upon the original surveys of the Philadelphia and Columbia Railroad, having received his appointment from the secretary of the board of canal commissioners of Pennsylvania. He continued in this service until 1830, when, the State failing to make the necessary appropriations for the continuance of the construction of the road, he entered the service of the Camden and Amboy Railroad Company as principal assistant engineer of the eastern division. After leaving their service he visited Europe, to examine the public works of that continent, and shortly after his return, in 1832, was appointed chief engineer of the Georgia Railroad, extending from Augusta to Atlanta, in that State, with a branch to Athens, in all two hundred and thirteen miles of railway,—the longest amount of railway at that time under the control of one company in the United States. He continued in that service, as chief engineer and general manager, until his unsolicited election to the position of chief engineer of the Pennsylvania Railroad.

The grading of the first twenty miles of the road west of Harrisburg was let on the 16th of July, 1847, and on the twenty-second of the same month fifteen miles east of Pittsburg were put under contract. Work on the eastern end was pushed vigorously. Governor Shunk referred encouragingly to it in his annual message of that year, and a summer tourist, wandering through the mountains, wrote as follows to a Philadelphia paper:—"The great central railroad—that imperishable chain, destined to more closely unite the interests of the East and West of this continent—is rapidly progressing along the banks of the Juniata. Day by day the engineers and workmen may be seen surveying, arranging, digging, and blasting away,

by which the highest, most rugged, and rocky bluffs bordering on the river crumble and are subdued, forming the foundation for this life-artery of Pennsylvania." On the 26th of November of the same year, forty miles additional were let, carrying the portion under contract of the eastern end to Lewistown; and about the same time a contract was made by the company for fifteen thousand tons of rails, to be manufactured in Pennsylvania. The city of Philadelphia, during the same year, subscribed two millions five hundred thousand dollars to the road, and the county of Allegheny followed, the year after, with a subscription of one million. On the 1st of September, 1849, the first division, extending from Harrisburg to Lewistown, a distance of sixty-one miles, was opened to trade and travel, in connection with the canal and turnpike. A year later, on the 17th of September, 1850, the line was opened to the "Mountain House," one mile east of Hollidaysburg, where connection was made with the State Portage road over the Allegheny mountains. In August of the succeeding year, twenty-one miles west from Johnstown were finished, which, with the portion built east from Pittsburg, left a gap of but twenty-eight miles to complete the line. This was closed up during the following year, and on the 10th of December, 1852, the cars were run through from Philadelphia to Pittsburg. Connection between the eastern and western divisions was formed by using the Portage road over the mountains,—the road of the company not being finished there until February 15th, 1854, when it was formally opened, and the first trains passed through Pennsylvania without using the inclined planes. On the 2d of February, 1852, Mr. Thomson was elected president of the company, and it was in that capacity he saw the great work completed which he had commenced as chief engineer. He was continued in the position without interruption, up to the time of his death, devoting to the great enterprise twenty-seven years of his life, and bestowing upon it an amount of care and attention never given by any other American to a similar work.

The Pennsylvania Railroad was constructed in a superior manner, and, with the improvements since made, is undoubtedly the most perfect road in America. Notwithstanding it had to overcome the great Allegheny mountain,—a barrier which, for

a quarter of a century, had been considered insurmountable by a railroad without inclined planes,—yet it was carried across by engineering skill with a facility really astonishing. The road commences a gradual ascent at Harrisburg, where it is three hundred and ten feet above tide, and rises regularly. At Lewistown it is four hundred and eighty-eight feet above tide; at Huntingdon it has ascended to six hundred and ten feet; at Tyrone it has climbed to an altitude of eight hundred and eighty-six feet; and at Altoona, where it reaches the base of the mountain proper, it is at an elevation of eleven hundred and sixty-eight feet. Up to this point the heaviest gradient per mile has not exceeded twenty-one feet. From a short distance west of Altoona this gradient is increased to ninety-five feet per mile on straight lines, and eighty-two feet per mile on curves. Thus ascending, it reaches its culminating point at the west end of the great tunnel, where its altitude above tide is twenty-one hundred and sixty-one feet. Its maximum gradient is twenty-one feet per mile less than the Baltimore and Ohio Railroad, and is equaled by several railroads in the New England States. The highest gradient west of the tunnel is fifty-two and eight-tenths feet per mile, and the average gradient on that end is twenty-six and four-tenths feet per mile. At Johnstown the elevation above tide is eleven hundred and eighty-four feet; at Greensburg it is ten hundred and ninety-one feet; and at Pittsburg it is seven hundred and forty-eight feet, being four hundred and thirty-eight feet higher at its western terminus than at Harrisburg, where it commences to overcome the barrier presented by the mountains.

When the through line of railroad was finished and in operation, many of the people of the State became anxious to sell the improvements which had cost them so much, and had proved, in an economic sense, at least, to be failures. For a quarter of a century they had labored under a heavy debt, and had submitted to onerous taxation, to construct and maintain canals and railroads which brought no return to the public treasury, and were often used as auxiliaries to political schemes. They had borne the burden in the past, because they were unwilling to see their State blotted out of the highways of travel and traffic; but now that individual enterprise had secured her against competition, they wanted to rid



Thomas A. Scott
President Pennsylvania Railroad Co.

Engraved by the Lithographers of Fairbanks & Company

themselves of the incubus. On the 27th of April, 1854, the legislature passed a law providing for the sale of the main line, but its provisions were so drawn that no purchaser could be found under it. In 1855 a similar act was passed, but it, too, proved ineffectual. During this time the Pennsylvania Railroad Company was protesting against the injustice of a tonnage tax which was imposed upon all traffic over its road, and a large portion of the citizens of the Commonwealth (particularly those who were compelled to ship their goods over the railroad) espoused the cause of the company. The State partially yielded to this pressure by repealing the tax on coal and lumber; but instead of allaying the demand for repeal, this concession only added to its urgency. It was at once observed that these two interests were greatly stimulated by the repeal and consequent reduced cost of transportation, and the representatives of other interests insisted upon similar justice and favor. In the midst of this discussion the Commonwealth again determined to sell her public works, and on the 16th of May, 1857, a third law for this purpose was passed. It fixed the minimum price for the main line at seven millions five hundred thousand dollars, and provided that if the Pennsylvania Railroad Company became the purchaser, it should pay one million five hundred thousand dollars additional, and in consideration was to be relieved of all taxes on tonnage or freight carried over its road, as well as of other taxes which were specified. Under this act the company became the purchaser, and on the 1st of August, 1857, the governor, by proclamation, transferred the main line to its new owner.

But the difficulty did not end here. The Supreme Court of Pennsylvania pronounced so much of the act of 1857 as related to the general taxes imposed upon the railroad company unconstitutional; and the company, therefore, found itself the owner of the State improvements and still taxed by the State for their protection. Such a position was so manifestly unjust, and, besides, was so clearly in violation of the spirit and intent of the law under which the main line had been sold, that the company declined to pay the tonnage tax to the State, but held it subject to judicial decision or amicable adjustment.

By the purchase of the main line the com-

pany was enabled greatly to improve its facilities and add to the comfort of passengers. In 1858, Colonel Thomas A. Scott—a gentleman whose name is perhaps as familiar to the American people as that of any other man connected with railroads—was appointed general superintendent of the road. In their report of that year, the board of directors say that Colonel Scott "has been connected with the transportation department since its organization, and has acted, since the operations of that department were extended beyond the mountains, as superintendent of the western division. From the successful administration of the duties heretofore confided to him, the board has entire confidence that the high reputation of the road for safety, and the dispatch of its business, will be fully preserved."

Colonel Scott was born in Franklin county, Pennsylvania, and commenced his long and eminently successful railroad career on the main line of State improvements August 1st, 1841, when he was appointed clerk to the collector of tolls at Columbia. From there he was, in 1847, transferred to the collector's office at Philadelphia as chief clerk. In 1850 he entered the service of the Pennsylvania Railroad Company as station agent at Duncansville, the then western terminus of the road, from whence he was transferred to the western division as its superintendent. It was there he displayed that wonderful executive ability and indomitable energy which have made him famous wherever American railroads are known. During Colonel Scott's management of the road, as general superintendent, many improvements were introduced, and the transportation facilities of the company greatly increased. Sleeping cars were put upon the road, and connections were perfected at Pittsburg by which the use of omnibuses and drays in the transfer of passengers and freight was avoided.

While these improvements were being made, and the question of the tonnage tax imposed upon the road was agitating the public, William B. Foster, Jr., the vice-president of the company, died, and on the 4th of March, 1860, Colonel Scott was elected to succeed him. He at once took measures, under the direction of Mr. Thomson, to secure an adjustment of the difficulties existing between the Commonwealth and the company, and on the 7th of March, 1861, "An act for the commutation of the

tonnage tax" was passed. By it the Pennsylvania Railroad was to pay, in annual installments, the sum of thirteen millions five hundred and seventy thousand dollars to the State in full for the purchase of the main line and the repeal of the tax. The tax which had accumulated in the hands of the company during the pendency of the question of its validity and repeal, amounting in the aggregate to eight hundred and fifty thousand dollars, was to be used in aiding the completion of eleven different local railroads in the State. Thus, after a contest extending over a period of six years, the vexed question was settled to the satisfaction of all parties interested: the railroad was relieved of an imposition which subjected it to the mercy of its competing rivals, and the State was placed in a position which enabled her to rapidly extinguish her indebtedness, and relieve her people from a burdensome taxation they had long and patiently borne.

During the same year the Harrisburg and Lancaster Railroad was leased by the Pennsylvania Railroad Company for the period of nine hundred and ninety-nine years, thus giving the latter company the ownership of the entire through line between Philadelphia and Pittsburg. Previous to this that road had been operated under a contract made in 1849, for twenty years, which, by the new arrangement, was annulled.

The year 1861 opened a new and painful era in the history of the United States, which called into exercise abilities and energies that ages of peace could not have developed. It will not be expected that a work of this kind shall embrace the incidents that crowded upon each other immediately after the bombardment of Fort Sumter, and it is only as those incidents are connected with the subject under consideration that they can be referred to. The reverberation of the cannon which proclaimed that war had been appealed to as final arbiter between the North and South, awakened a degree of determined enthusiasm throughout the loyal States such as the world had rarely witnessed. All past differences of opinion were, for the time, forgotten, and every man seemed anxious to assist in the preservation of the Union. But the willingness to help alone existed—the means to make that assistance available and effective had to be created and supplied. Pennsylvania lay in the track by which

alone the endangered National Capital could be reached, and it became essential that her lines of communication should be utilized to their fullest extent. In this emergency Governor Curtin called Colonel Scott to his assistance, and placed him in charge of the transportation of troops rallying by thousands at the call of the President. Colonel Scott in a few hours had constructed a telegraph line to the executive chamber in the capitol, and, seated at the instrument, directed the movement of trains bearing troops from the time they entered Pennsylvania until they left her borders. The system was perfect, and there was no delay until Mason and Dixon's line was reached.

Unfortunately, however, Maryland, and particularly Baltimore, was divided in sentiment on the issues involved in the contest, and the element sympathizing with the South soon determined to interrupt the passage of Northern troops to Washington. This feeling first exhibited itself in Baltimore by attacks on regiments passing through the city, and was followed soon after by the burning of the bridges on the Northern Central Railroad. This road had been relied upon by the Government as the principal channel for receiving reinforcements from the North and West, and on the 22d of April, 1861, the Secretary of War had sent the following telegram to Colonel Scott, at Harrisburg:

"DEAR SIR:—This department needs at this moment a man of great energy and decision, with experience as a railroad officer, to keep open and work the Northern Central Road from Harrisburg to Baltimore, for the purpose of bringing men and munitions to this point.

"You are to my mind the proper man for this occasion and this duty. Will you report to me to-morrow morning?

"Very respectfully,

"SIMON CAMERON,
"Secretary of War."

To this Colonel Scott replied that he was then serving on the staff of Governor Curtin, and could not, in the judgment of the Governor, be, at that time, spared from Harrisburg. He expressed himself willing to perform any duty required of him in the emergency, and if the Governor would relieve him he would go to Washington, or to any other point where he could be most useful.

The destruction of the Northern Central Railroad rendered it indispensable that some

other channel of communication with Washington should be opened, and the repeated calls for Colonel Scott's assistance in this work induced Governor Curtin to relieve him from duty at Harrisburg. In company with one or two friends he made his way, by private conveyance, through Maryland and Virginia, and reported for duty to the Secretary of War. He was instructed by that officer and the President to open a line, by way of Annapolis, to Philadelphia and the East and North. The following order was issued, dated the 27th of April, 1861:

"TO WHOM IT MAY CONCERN,

"Thomas A. Scott has been appointed to take charge of the railways and telegraphs between Washington City and Annapolis. Parties in charge thereof will place Mr. Scott in possession, and in future conform to his instructions in all matters pertaining to their management.

"SIMON CAMERON,
"Secretary of War."

The Pennsylvania Railroad Company placed all its resources at the disposal of Colonel Scott to accomplish the work he had undertaken,—a work upon which, in the judgment of the President and others in responsible positions, the safety of the National Capital depended; and, calling to his assistance men whom he knew as efficient railroad managers, he completed, in connection with Mr. Felton, president of the Philadelphia, Wilmington and Baltimore Railroad, as if by magic, a line by way of Perryville and Annapolis to Washington. President Lincoln took a deep interest in the opening of this line, and very soon after Colonel Scott had demonstrated to him the practicability of constructing it, he met that gentleman and asked him how the work progressed. "The road is completed," replied the Colonel. "Completed!" he exclaimed, in astonishment. "When may we expect troops over it?" "A train is already in with a regiment, and others are on the way," was the response. "Then, thank God! we are all right again!" ejaculated the President.

Operating in a military capacity, in connection with the War Department, it was soon found essential that Colonel Scott should possess military rank, and he was therefore mustered into the service of the United States, as colonel of the District of Columbia volunteers, on the 3d of May, 1861. His name stands first upon the roll preserved in the War Department, and is followed by others that have since become

historic. His certificate of muster is signed by Major McDowell, now major-general in the army of the United States. Following his appointment as colonel came an order extending his jurisdiction and powers, dated the 23d of May, as follows:

"TO ALL WHOM IT MAY CONCERN.

"Col. Thomas A. Scott has been appointed to take charge of all Government railways and telegraphs, or those appropriated for Government use.

"All instructions in relation to extending roads, or operating the same on Government account, must emanate from his department.

"SIMON CAMERON,
"Secretary of War."

Colonel Scott continued to perform the duties required by this appointment until August 1st, 1861, when he was appointed Assistant Secretary of War,—being the first man ever appointed to that position. His wonderful faculty for the dispatch of business will be remembered by thousands who, during that exciting period, visited the War Department. He was never confused; never at a loss as to what to do or how to do it; and his courtesy to all who approached him made him many and lasting friends in all ranks of life.

While chaos was giving away to order in and around Washington, confusion prevailed in other fields of military operations, and on the 29th of January, 1862, Colonel Scott was sent by the Secretary of War to the West. The annexed letter of instructions will show the important and varied duties intrusted to him:

"WAR DEPARTMENT,
"WASHINGTON CITY, D. C.,
"January 29th, 1862.

"SIR:—For the purpose of efficient organization of this department, ascertaining and organizing the requisite forces and means for combined active operation, you are requested to proceed from this city—

"First.—To Pittsburg: Examine the condition of the arsenal there, and the condition of the mortars, &c. being constructed at the arsenal and at the Fort Pitt works. You will also ascertain what amount of railroad transportation can be had on the various railroads leading from Washington to Pittsburg for a concentrated movement. Also, what transportation from Pittsburg to Cincinnati, Louisville, and Cairo, by railroad and by steamboats, and the rates. It is desired to know how many thousand men, with their equipments, baggage, artillery and cavalry, can be moved at once from Washington to the Ohio river, and what time would be required for the movement; and also the means of transport and time required for a movement from the river to the interior of Kentucky and Tennessee.

"*Second.*—From Pittsburg you will proceed to Columbus, Ohio, and there ascertain: 1. The number of Ohio troops enlisting, and their state and condition. 2. Where they are encamped. 3. To what degree they are organized and equipped. 4. By what time they can be ready for the field. If, on ascertaining their condition, you find fragments and incomplete parts of regiments, you will instruct their immediate consolidation, so as to be ready to take the field without delay.

"*Third.*—From Columbus you will proceed to Indianapolis, Indiana, and Springfield, Illinois, and there make similar investigations, and take similar measures.

"*Fourth.*—From Springfield you will proceed to St. Louis, and there, or wherever else may be the headquarters of General Halleck, you will confer with him in regard to the state and condition of his command, and ascertain what he needs for the full and efficient action of his force.

"*Fifth.*—From St. Louis you will proceed to Cairo and Paducah, and from thence to Louisville, or wherever may be the headquarters of General Buell, and make similar investigations.

"*Sixth.*—The facilities for railroad and other transportation in each department will be specially investigated and reported upon in detail.

"*Seventh.*—At Cincinnati you will examine into the state and condition of the quartermasters' department, and at each point where investigations have been directed, you will give particular attention to the quartermaster and commissary departments, and to whatever concerns the equipment, subsistence, and transport of the troops. Especially, take measures to have *exact* weekly returns of the forces from the executives of the respective States. You will announce your arrival at each point by telegraph, and make full report from thence in writing, by mail. Also, reporting and asking instructions by telegraph, respecting any matter requiring immediate action. You will remain at each point until directed to proceed.

"You will, of course, direct attention and report upon any other points that may be essential to the efficient action of the army, the safety of the Government, and the protection of the public property.

"EDWIN M. STANTON,
"Secretary of War.

"To HON. THOMAS A. SCOTT,

"Assistant Secretary of War."

In compliance with these instructions, Colonel Scott visited all the points designated, organized thoroughly the means of transportation, and materially assisted the great States of the North-west in preparing their volunteers for actual service. He returned to Washington on the 14th of March, 1862, having traveled near five thousand miles. Immediately after his return he went to Fortress Monroe, to facilitate the movement of the Army of the Potomac; and on the 26th of March again proceeded to Cairo, under orders from the Secretary of War, to perfect the military transportation on the western waters. He

returned to the War Department in May, having traveled on official duty more than ten thousand miles in three months, and performed a vast amount of arduous and useful service.

On the 1st of June, 1862, Colonel Scott resigned his position as Assistant Secretary of War, and resumed his duties as an officer of the Pennsylvania Railroad. The following letter from the great War Secretary will attest the value of his services, and the estimation in which he was held by one who was never lavish in his praises:

"WAR DEPARTMENT,
"WASHINGTON CITY, D. C.,
"June 1st, 1862.

"DEAR SIR:—In taking leave of you, in consequence of your resignation of the office of Assistant Secretary of War, it is proper for me to express my entire satisfaction with the manner in which you have discharged your duties during the whole period of our official relations. Those duties have been confidential and responsible, requiring energy, prudence, and discretion; and it gives me pleasure to say that to me you have proved to be, in every particular, an able and faithful assistant.

"Yours, truly,

"EDWIN M. STANTON,
"Secretary of War.

"THOMAS A. SCOTT, Esq."

The summer of 1863 brought some dark days to the Union cause, and when it became necessary to reinforce General Rosecrans, at Chattanooga, with troops from the East, Mr. Stanton recalled Colonel Scott to his assistance, appointed him colonel and assistant quartermaster on the 24th of September, 1863, and ordered him to report to General Hooker for "special service" on his staff. The letter apprising him of his appointment and defining his duties, is as follows:

"WASHINGTON, D. C.,
"September 24th, 1863.

"COL. THOS. A. SCOTT,
Assistant Quartermaster of Volunteers.

"COLONEL:—Enclosed find letter of appointment as assistant quartermaster of volunteers; also, a copy of the order of the President of the United States by the Secretary of War, authorizing Major-General Hooker to take military possession of any railroads.

"You are charged with the duty of sending forward, with the utmost despatch, the troops of General Hooker's command.

"The portion of the route assigned to you is from Louisville, Kentucky; thence to Nashville, Tennessee, and beyond towards Chattanooga.

"You are hereby authorized and empowered to take possession of any roads, or the property of any road, made necessary for the proper execution of the duties for which you are made responsible.

"You will see that every preparation is made to

put the troops over the portion of the route assigned to you with the utmost despatch, and in advance of all other trains or business, subject, of course, to such orders as you may from time to time receive from Major-General Hooker.

"By command of Major-General Hooker.

"WILLIAM H. LAWRENCE,

"Major and Aid-de-camp."

The service performed by Colonel Scott, under this appointment, consisted in forwarding Hooker's and Howard's corps to Chattanooga with wonderful rapidity. He connected railroads by improvised tracks; utilized the resources placed under his control, and poured almost a ceaseless stream of cars through half a dozen States, until nearly fifty thousand men, with their artillery, cavalry, and complete field equipment, were safely deposited where they were most needed. With this service his connection with the Government terminated, and he again resumed his railroad duties. He had at no time severed his connection with the Pennsylvania Railroad, but had retained his position as vice-president during all the period of his absence; and it was with feelings of gratification that he returned to duties and associations dearer to him than any political honors.

In 1862 a contract and lease were entered into by the Pennsylvania and the Philadelphia and Erie Railroad Companies, by which the former, on the 1st of February of that year, took possession of the latter for nine hundred and ninety-nine years.

During the years immediately following the completion of the Pennsylvania Railroad, and previous to the occurrence of the events stated, it had been greatly improved. Its track had been doubled throughout; a road had been built connecting it with the Delaware river, below Philadelphia; its principal depots had been enlarged; the curves on the old Columbia road had been straightened; wooden bridges had been replaced by stone and iron structures; and, generally, it had kept pace with modern improvements and discoveries, as well as the demands of a rapidly enhancing business. In 1864 it turned its attention to the introduction of steel rails, and greatly aided the development of their manufacture in this country. Improvements in their construction, to adapt them to our climate and railroad system, were suggested by its experienced officers; and, principally by its liberal aid and encouragement, some of the largest works for their manufacture in the world were built up.

It has solved the problem of the utility and economy of these improved rails satisfactorily, and now pronounces their general introduction wholly a commercial question.

The management of the road realized, at an early period of its existence, the importance of securing connecting lines from Pittsburg to the West, to act as feeders for their improvement. They saw that the roads leading to rival seaboard cities had, by their earlier completion, diverted the transit of the products of the Mississippi valley from Pennsylvania, and a prudent foresight taught them that, if the great work which had cost their State so much was ever to rise above local importance and usefulness, it must be prepared to compete for the through trade and travel. Acting upon this forecast, they adopted the system of aiding the construction of lines west of Pittsburg; and this policy has been continued until it is but fair to say that the western connections of the Pennsylvania road are now the most complete upon the continent, and its facilities for the expeditious and economic movement of passengers and freight superior to any of its competitors.

The Pittsburg, Fort Wayne and Chicago Railroad was one of the first to receive encouragement and assistance. This road, running from the western terminus of the Pennsylvania Railroad to Chicago, the great metropolis of the North-west, was an essential link in the chain which was to bind together the Atlantic seaboard and the Mississippi valley, and every assistance possible was extended to secure its completion. Being four hundred and sixty-eight miles in length, (with its branches near six hundred,) running through a new country comparatively undeveloped, and having, above all, the rivalry of the Lake Shore lines, controlled by New York interests, to contend with, its construction was attended with many difficulties. Financial embarrassments at one time compelled a suspension of work upon it, and it was then that Mr. Thomson, of the Pennsylvania Railroad, was elected president of the company. This was done to secure the weight of his high character and well-known experience for the temporarily prostrated enterprise, and he pledged his private fortune and credit to secure the funds necessary for its completion. His labors and sacrifices were successful, and on Christmas day, 1858, it was completed and opened for business. By reason of the interest which the Pennsylvania

Railroad Company held in the new road, it then had a practical through line from Philadelphia to Chicago. On the 7th of June, 1869, the Pittsburg, Fort Wayne and Chicago Railroad was leased by the Pennsylvania Railroad Company for nine hundred and ninety-nine years. This lease also included the branch road, called the Akron branch, from Hudson to Millersburg, Ohio, sixty-five miles in length, connecting with the coal fields in Summit county. By the same agreement the leases of the New-castle and Beaver Valley Railroad, the Lawrence Railroad, and the Massillon and Cleveland Railroad, all in Ohio, held by the Pittsburg, Fort Wayne and Chicago Company for ninety-nine years, were transferred to the Pennsylvania Railroad Company. The latter also assumed the contracts and agreements existing between the former and the Cleveland and Pittsburg Railroad Company and the Indianapolis and St. Louis Railroad Company.

On the 6th of November, 1867, the Pittsburg and Steubenville Railroad was sold at auction, and purchased by the Pennsylvania Railroad Company. This road, which extends from Pittsburg to Steubenville, Ohio, and is commonly called the "Pan-handle road," from the fact that it runs through the strip of West Virginia wedged in between the State of Pennsylvania and the Ohio river, had an eventful and by no means agreeable financial history prior to the purchase mentioned. After that purchase it was promptly finished. The bridge over the Ohio river at Steubenville was built by a separate company to connect the road with the Steubenville and Indiana Railroad, extending to Columbus, Ohio. These three organizations were consolidated into one, under the title of the Pittsburg, Cincinnati and St. Louis Railroad, and the Pennsylvania Railroad Company becoming the owners of a majority of the stock, controlled the line. The Pittsburg, Cincinnati and St. Louis Railroad Company secured several connecting roads, completing lines to Indianapolis, Indiana, and to Chicago and State Line, Illinois. These roads had previously been consolidated under the title of the Columbus, Chicago and Indiana Central Railroad, and as such were leased by the Pittsburg, Cincinnati and St. Louis Railroad on the 1st of February, 1869. The Cincinnati and Muskingum Valley Railroad, after a varied experience, was sold and reorganized

in 1869, and is now operated in the same interest. The St. Louis, Vandalia and Terre Haute Railroad, leased by the Terre Haute and Indianapolis Railroad, is operated jointly in the interest of that company and of the Pittsburg, Cincinnati and St. Louis Railroad.

The Little Miami Railroad was secured through a lease to the Pittsburg, Cincinnati and St. Louis Railroad Company for ninety-nine years, on the 1st of December, 1869. On the 24th of March, 1870, the Erie and Pittsburg Railroad, running through the north-western counties of Pennsylvania, was leased for nine hundred and ninety-nine years; and on the 25th of October, 1871, the Cleveland and Pittsburg Railroad was leased for the same length of time.

During the same year the Pennsylvania Railroad Company purchased a controlling interest in the Jeffersonville, Madison and Indianapolis Railroad, extending from Indianapolis to Louisville, Kentucky, with branches to Madison and Cambridge City. This acquisition gave them the control of the bridge over the Ohio river at Louisville, and afforded the lines of the company direct connection with the railroad system of the South-west. The Chartiers Railroad, extending from Mansfield, on the Pittsburg, Cincinnati and St. Louis Railroad, to Washington, Pennsylvania, was completed during 1871,—the Pennsylvania Railroad Company holding a majority of its capital stock. Favorable contracts were also made with the Mansfield, Coldwater and Lake Michigan Railroad, whereby the control of that line was secured, and similar arrangements effected with the Cairo and Vincennes Railroad, for the purpose of obtaining access to the trade of Arkansas and south-western Texas, upon the completion of the Cairo and Fulton and the International Railroads. The Pennsylvania Railroad Company furnished the funds to build the bridge over the Ohio river at Cincinnati, and owns a majority of its stock and all its bonds. The bridge was completed in April, 1872.

These extensions and connections have contributed materially to the profitability and stability of the Pennsylvania Railroad. In the annual report for 1868, after the effect of the system upon the welfare of the company had been fully tested during the years of war, with its attendant embarrassments, the board of directors say that the wisdom of the investments made for these purposes "has been fully vindicated by the beneficial effect

that the construction of the avenues thus facilitated with the trade centres of the West has had upon the revenues of the company and the prosperity of Philadelphia."

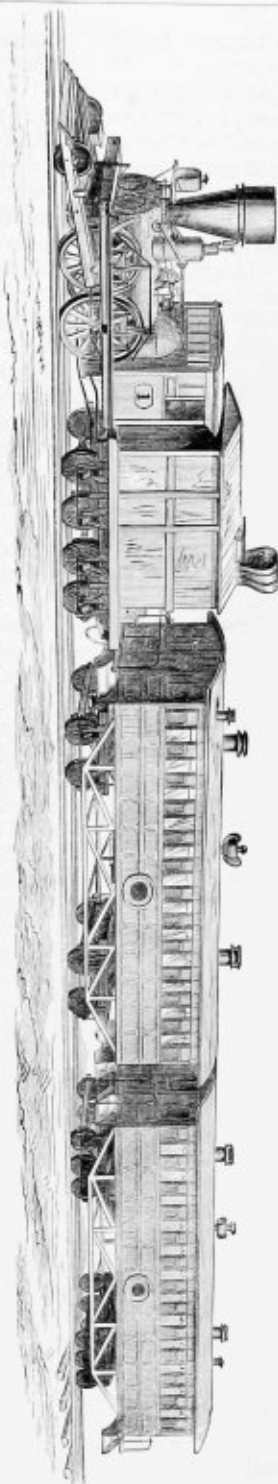
In 1866 the company originated the Connecting Railroad, extending from Mantua, near Philadelphia, to Frankford, on the Philadelphia and Trenton Railroad, for the purpose of decreasing the heavy cost of passing its New York and Eastern trade through Philadelphia, and in the expectation of returning to its roads much of the trade and travel which delays and obstructions had driven to other channels. The result was all that was anticipated in the way of business; while the road itself, having been leased to the Philadelphia and Trenton and the Camden and Amboy Companies, paid interest on its cost of construction from the time it was opened. In addition to the advantages stated, the control of these connections has enabled the company to establish a uniform gauge of four feet nine inches throughout its railroad system, thus simplifying and facilitating its business.

With its rapidly extending feeders in the West, and the consequent growth of its through carrying trade, came the necessity for increased facilities to New York City. A large portion of the trade of the Mississippi valley went to that port for shipment abroad, and the company found it impossible to arrange with the New Jersey canal and railroads for the facilities it required. In consequence, its business was restricted, and the expense to shippers was necessarily increased. To remedy these evils, negotiations were opened in 1870 for the leasing of the railways and canals of the joint companies of New Jersey, and on the 1st of December, 1871, the lease was consummated, for the term of nine hundred and ninety-nine years, by the delivery of those works to the Pennsylvania Railroad Company. Since the Pennsylvania Railroad has controlled the lines between Philadelphia and New York, the improvement in the facilities afforded the traveling and trading public has been apparent to all who are familiar with these great channels of communication.

These leased improvements, including the Philadelphia and Trenton Railroad, which is leased on the same terms, are now operated as a part of the great through line between New York and Pittsburg, under the title of "The United Railroads of New Jersey," and as

such are styled a division of the Pennsylvania Railroad. The works embraced in the lease are those of "The Camden and Amboy Railroad and Transportation Company," which was incorporated on the 4th of February, 1830; "The Delaware and Raritan Canal Company," incorporated at the same time, and which, in 1831, was consolidated with the Camden and Amboy Company; "The New Jersey Railroad and Transportation Company," incorporated on the 7th of March, 1832, and "The Belvidere Delaware Railroad Company," incorporated March 2d, 1836. On the 17th of March, 1870, these companies were authorized to consolidate their capital stocks, or to consolidate with any other railroad or canal company or companies, in New Jersey or otherwise, with which they are, or may be, identified in interest, or whose works shall form, with

OLD TRAIN ON NEW JERSEY ROADS.



their own, continuous or connected lines; or to make such other arrangements for connection or consolidation of business with any such company or companies, by agreement, contract, lease, or otherwise, as to the directors of said united companies may seem expedient. It was under the general provisions of this law that the works enumerated were leased to the Pennsylvania Railroad Company.

As will be seen by the date of their incorporation, these public works of New Jersey were commenced at an early period. The portion of the railroad between Newark and Jersey City was opened and operated with horse-power on the 15th of September, 1834. It was not then deemed safe to use locomotives on the embankments extending over the marshes which lie between those cities; and not until those embankments were thoroughly settled by time was steam-power considered secure upon them. The line was extended to Elizabethtown in 1835, to Rahway in 1836, and opened through to Philadelphia on the 1st of January, 1839. Previous to this the line of travel between Philadelphia and New York was via the Camden and Amboy Railroad to South Amboy, and thence by steamboats, twenty-seven miles, to New York. This route continued to be a favorite with travelers until a recent period,—the trip on the boats being a pleasant feature in fair weather.

Thus extending and growing in the East and West, the Pennsylvania Railroad Company found a large passenger and freight business under its control which required an outlet at Baltimore and Washington, and a connection with the Southern Atlantic States. To meet this requirement, it purchased, several years ago, a controlling interest in the Northern Central Railroad, extending from Baltimore to Sunbury, in Pennsylvania, and having connections with the through New York lines and the Philadelphia and Erie. The Northern Central road was of early origin, having been chartered by the Maryland legislature, under the title of the Baltimore and Susquehanna Railroad, on the 13th of February, 1838. In 1854 the Northern Central Railroad Company proper was formed by the consolidation of various roads, forming a line to Harrisburg, Pennsylvania. About 1857 the road was completed. During its growth various projects were originated for the purpose of reaching tide-water at Baltimore, and at an early period it projected the system

of underground communication which has now been completed.

While the interest which the Pennsylvania Railroad Company had in the Northern Central gave it the required outlet at Baltimore, it was still cut off from Washington and the South, and about 1866 it took hold of the Baltimore and Potomac Railroad, an incompleted work which had been commenced as early as 1853. Under the authority thus obtained, it completed the line to Washington in 1873, and the same year finished, through Baltimore, a tunnel connecting the roads under its control.

This tunnel is one of the greatest enterprises of the kind that has ever been executed. It is, including five hundred and fifty feet of open cuts, seven thousand five hundred and nineteen feet long. The materials used in its construction are the best that could be procured. The side walls are of solid masonry, of Cockeysville marble, rock-faced, but dressed at beds and joints. The arch is built of five rings of brick and backed up with rubble masonry. At places where the bottom was composed of quicksands or yielding earth of any kind, an invert arch was constructed of four rings of brick. The construction of this is such that the weight of the sides of the arch press upon the brick work forming the invert arch, so that it would remain firm and stable even should the earth beneath it partially give way. About one million two hundred and fifty thousand feet of masonry and fifteen million bricks were used in its construction. The tunnel is laid with a double track of steel rails. It consumed about two years in building, and cost near two millions and a half of dollars.

The completion of this great work gives the Pennsylvania Railroad Company admirable freight and passenger facilities in Baltimore and Washington. Their depots are in the centre of business in those cities, and are accessible from all parts by street cars. The Union Tunnel, connecting the Philadelphia, Wilmington and Baltimore Railroad with the Baltimore and Potomac Tunnel and road, was also completed in 1873, and enables the trains of the Pennsylvania Railroad Company, between New York and Washington, to pass through without interruption or delay. About the same time the roads now known as the Piedmont Air-Line Railroad, consisting of the Richmond and Danville Railroad, the Atlanta and

Richmond Air-Line Railroad, the North-western North Carolina Railroad, and the Roanoke Valley Railroad, were acquired by the Pennsylvania Railroad Company, and are operated in its interest. This line extends from Washington, by way of Richmond, Virginia, to Atlanta, Georgia, with branches to Salem and Goldsboro, in North Carolina, and is, with the exception of a link of eighty-two miles, under the control of this corporation.

For the purpose of simplifying and rendering more efficient the large Western interests of the Pennsylvania Railroad Company, and to secure, by a single management of those works, harmonious action, and at the same time to utilize the rolling stock upon them to the best advantage, a charter was procured from the State of Pennsylvania, incorporating the "Pennsylvania Company," to which all the interests of the Pennsylvania Railroad, west of Pittsburg, with a single exception, were transferred on the 1st of March, 1871. The capital of the Pennsylvania Company was fixed at twelve millions of dollars, of which the Pennsylvania Railroad Company received eight millions of dollars, which sum fully covers the cost of all the lines and leases transferred, with interest up to the time of transfer. This eight millions is preferred six per cent. stock, and is to participate in all the profits of the company above six per cent. In organizing the Pennsylvania Company, it was understood that the net revenues for 1871, from the lines committed to its charge, were to be expended in their maintenance and improvement, and this was done to the great enhancement of the value of the property. Several additional lines of road have been leased by the Pennsylvania Company, under the restrictions of its charter, which requires that all such contracts and arrangements are to be submitted to, and approved by, the directors of the Pennsylvania Railroad Company; and that none of them are to extend beyond the Mississippi on the west, or Chicago on the north-west. By this arrangement these extended feeders of the Pennsylvania Railroad are concentrated under one management, over which it has the control. The simplicity of the plan, as well as its effectiveness and economy, can be understood when it is stated that by it the general direction of near four thousand miles of railroad is intrusted to one experienced and competent head.

More than a quarter of a century of well-directed effort had brought its fruit in the prosperous condition of the Pennsylvania Railroad Company, and it can readily be understood how the devotion and care of those who nurtured the enterprise in its infancy, carried it successfully through the years of experiment, and directed it in its greatness, had taxed their physical and mental powers. Among the first to show the effects of this continued strain was Mr. Thomson, president of the company. By slow but marked degrees his system weakened, and about the commencement of the present decade the breaking of his splendid *physique* became apparent to those intimately associated with him. While his intellectual faculties remained unclouded, and his strong will evinced no signs of relaxing, yet the human machinery that for near fifty years they had propelled in the wearing grooves of railroad life faltered in its work, and, like a piece of mechanism worn out by continuous usage, refused at times to answer the demands upon it. At intervals more or less frequent he was compelled to yield the discharge of his duties to those whom, with his remarkable discrimination, he had collected around him. The habits of his life were, however, so strongly fixed that he could not throw off the cares of his official position. Willing hands and anxious hearts were always ready to relieve him, and considerate forethought was taxed to keep from his enfeebled frame constantly-recurring trials. But all was in vain. The brilliant career of success had run its course, and, after a protracted illness, he died on the night of the 27th of May, 1874.

To the American people his death, though not unexpected, came as a calamity. It was felt that the foremost man in the greatest industrial system of the continent had fallen. Clearly was it demonstrated, then, that John Edgar Thomson had no enemies. Rivalries had been engendered by his indomitable energy: jealousies had grown out of his almost unvarying triumphs: envy may have planted its sting in the breasts of some who had been distanced in the race; but not one shaft of malice was aimed at the man who lay in the calm repose that comes to all the weary—not one word of detraction was whispered over the narrow bed in which the exhausted leader had found rest. His untarnished honor was conceded by all: his unbending justice was everywhere admitted:

his mental greatness and acquired abilities were unquestioned: his usefulness and energy as a director of the nation's material progress were not denied. The whole English-speaking world pointed with pride to the career of a man who, for so many years, had controlled millions of property entrusted to his management by others, and had never for one moment been faithless to his trust or forfeited the confidence of those who trusted him.

Mr. Thomson was the son of the engineer who planned the first experimental railroad constructed in America.* Thoroughly trained and educated in the profession of his father, and inheriting a love for it, he commenced an active railroad career on one of the first important lines built in the United States, when only nineteen years of age, and continued in the same line of duty for forty-seven years, rising by merit alone to the first position in his branch of service in America, and probably in the world. His reputation was established South as well as North, and, when chosen chief engineer of the Pennsylvania Railroad, he confessedly stood at the head of his profession. He did more than any one man who ever lived to establish, create, and perfect the railway system of the American continent; and it is not surprising that the strain of such duty, continued for near half a century, brought his life to a close before he had numbered the threescore and ten years allotted to mankind. The peculiar bent of his mind is illustrated by the fact that the larger portion of his fortune was devised for the foundation of an institution for the benefit of a class of people connected with the railways he had been instrumental in creating.

Noticeable traits of Mr. Thomson's character were reticence and taciturnity. Devoting all his life and his great natural abilities to the cultivation of one set of ideas, his accumulation of professional information was enormous. This vast knowledge made him exceedingly cautious and careful,—conservative in his ideas and generally slow to execute. But when his conclusions were reached, and the emergency required it, he became grandly enterprising, and permitted no obstacle to stand in the way of success. His thoughts and opinions were rarely made known, while he displayed infinite patience in listening to the views, desires, hopes, fears, and plans of others. Actions spoke for him,—not words. He absorbed the knowledge of others, weighed, considered, and digested it thoroughly, and reached conclusions by cool, methodical reasoning. When convinced, he knew no hesitancy or doubt. The determination was as fixed as the laws of nature, and success appeared to come as a result of his faith. His conception of the future of American railroads seems now almost supernatural. For twenty years he marked out and reiterated in his annual reports the plan of the Pennsylvania Railroad Company, and he never deviated from that plan,—pursuing it persistently, patiently, and faithfully, until it was fully accomplished. To such a man system was everything; and there can be no question that much of the success attending the Pennsylvania Railroad was owing to the almost military rigidity with which its workings were arranged and managed under his inspiration. He had that great faculty of a general—a good judgment of character and capabilities. In this he was rarely mistaken; and, his confidence once placed, he was loyal to its recipients, never abandoning or failing to sustain them. This friendship was undemonstrative except in acts. He had few intimate associates outside of his own family, and was utterly indifferent to popular applause. His affections seemed centred in the great corporation he controlled, and whatever conduced to the success of that, present or remote, was the thing to be done,—the end to be attained. In this endeavor he established and built up a system of civil service for the Pennsylvania Railroad Company. Its employes were taught to understand that their services were appreciated, and their qualifications fully understood, by those controlling the

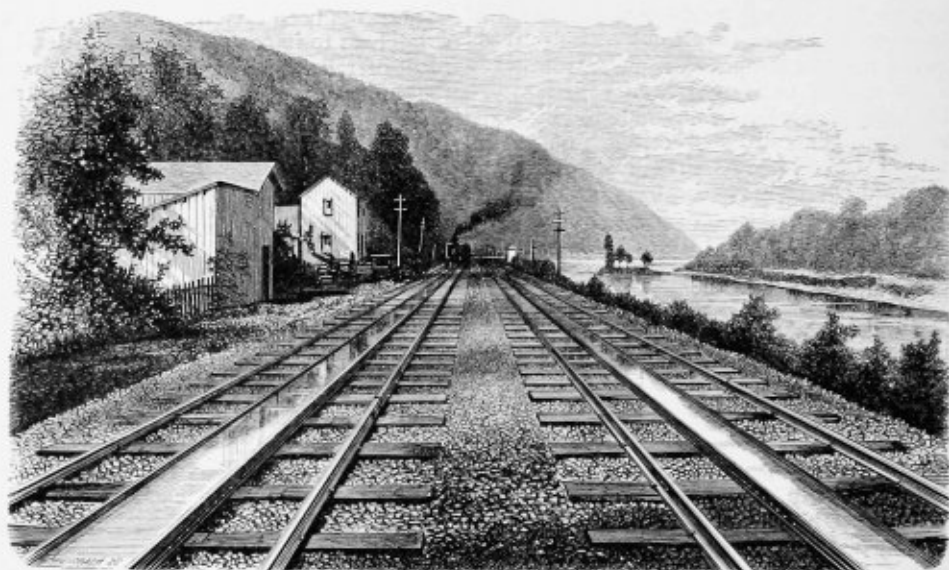
* John Thomson, father of John Edgar Thomson, was a man of extraordinary energy and ability. His ancestors came from England, with William Penn, and settled in the vicinity of Philadelphia. He attained a high reputation as a civil engineer toward the end of the last century, and was employed in the construction of some important works, among which was the Delaware and Chesapeake canal. For several years he was in the service of the "Holland Land Company," an organization which controlled much of the land in north-western Pennsylvania, and while thus engaged, he, in 1793, encamped at Presque Isle, now Erie, and with one assistant, without other tools than usually attend an engineering expedition, built the schooner "White Fish," which he conveyed by ox-teams from the Falls of Niagara to Lake Ontario, thence to where Oswego now stands, and up a small river to Oneida lake, passing through which, and carrying his vessel again by land to the Mohawk, he followed that stream to the Hudson and thence to the Atlantic ocean. From this he entered the Delaware bay and reached Philadelphia, when his schooner was taken to Independence Square, where it remained until destroyed by decay. This was the first vessel that ever passed from Lake Erie to New York and Philadelphia. Mr. Thomson died in 1842.

corporation. Their pride was enlisted in its success, because they were considered a part of it,—not temporarily, but for all time, if the mutual obligations were satisfactory. They rose slowly from one grade to another, but it was generally their own fault if they did not rise at all. As a result, the carefully managed company has been a seminary of civil engineers, and has provided skilled managers for many of the successful railways in the United States.

Occupying the important business position he did, it was natural that Mr. Thomson's influence should be sought for many enterprises. So far as these were for the general good, he cheerfully promoted them. One of his favorite objects was the thorough development of the mineral resources of Pennsylvania, in the value of which he had unlimited faith. Every coal and iron field was thoroughly understood and appreciated by him; and if the great corporation over which he presided could facilitate its development, the work was promptly done. The American Steamship Company of Philadelphia was largely indebted to his sagacity and unwavering interest in the business of the city for its existence. As a member of the Park Commission of Philadelphia he gained the esteem of his associates, who have placed on record a tribute to his high character as an engineer, a citizen, and a gentleman of many accomplishments. Other public bodies united in posthumous tributes to his sagacity and enterprise, leaving no room for doubt as to the respect and esteem his quiet, unobtrusive services had gained in the community where so many years of his laborious life were passed.

The vacancy caused by the death of Mr. Thomson was filled by the election of Colonel Scott, first vice-president, to the presidency of the company, and led to the advancement of other officers. The number of vice-presidents was increased to three, each being charged with the performance of a special line of duties connected with the management of the company's affairs—these diversified responsibilities being so arranged as to secure a perfect working system of harmony and efficiency. Other promotions were also made without violating the rule of the company—that merit and faithful service are the essentials to advancement. The organization of the company, for the efficient and economical control of its business, is now more perfect than at any period of its history.

Thus has been sketched, cursorily but accurately as to important events, the development of railroads from their origin down to the present time, when they may with truth be said to have superseded, in enlightened countries, all other means of general inland transportation; and particularly has the rise and progress of the Pennsylvania Railroad been dwelt upon. Some of the men continue to control that improvement who assisted to locate and build it,—who established its general policy, and have developed that policy until the road, which at first was but a link in a line between Philadelphia and Pittsburg, has become the greatest highway the world ever saw. Reaching Boston, the metropolis of New England, under favorable arrangements: with its eastern termini at New York, Philadelphia, and Baltimore—the manufacturing and commercial centres of the Atlantic sea-coast, and at Washington City—the capital of the nation: it unites them, by its own direct lines, with the cities of Pittsburg, Erie, Cleveland, Toledo, Chicago, Cincinnati, Indianapolis, Louisville, and St. Louis, the points of distribution, on the lakes and in the Mississippi valley, for the importations and manufactures of the East, and the outlets for the rich products of the West and South. Perfect connections are likewise made with St. Paul and Duluth—the gates to the North-west: with Omaha and Denver,—the portals to the auriferous and fertile territories: with the wonderful State of California, whose cities are concentrating the commerce of the Pacific islands and of Asia; and with Memphis, Mobile, and New Orleans,—the marts for the great Southern staples. Every section of the country is now directly or indirectly penetrated—every product of its soil is accommodated—by the Pennsylvania Railroad. To transact its extended and diversified business, the company now owns and runs upon its own lines eleven hundred locomotives, one thousand cars devoted to passenger traffic, and twenty-six thousand in freight service. It owns two thousand miles of completed road, and controls nearly five thousand miles more. Its workshops cover an area of more than five hundred acres. It employs an army of twenty-five thousand men, many of whom are mechanics and experts of the highest skill. It has two hundred and twenty-two foreign ticket offices and agents (independent of those at its own stations) established in thirteen different States. It has developed



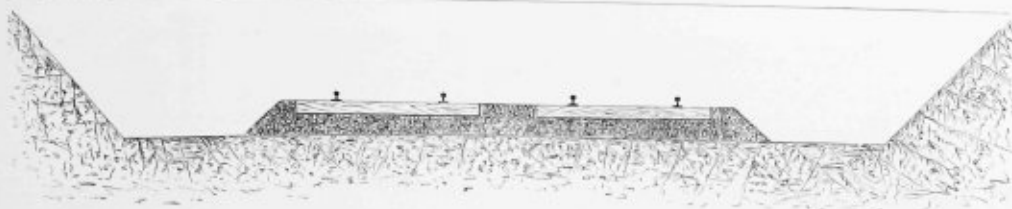
SAMPLE TRACK AND TRACK TANK.

mines, created manufactories, and established commerce. All this has been accomplished within a score of years, without causing a monetary or business panic, or itself becoming the victim of one. Its principles of operation are simplicity and system. It secures the best talent available, and cares for it when secured. It employs no drones and pays no supernumeraries: and it hesitates at no project, however stupendous, which has for its object the good of the country and the people.

The managers of the Pennsylvania Railroad Company have long recognized the importance of keeping the track of their roadways in the best condition, and in late years have realized the necessity of bringing it to the highest attainable standard. Efforts in this direction convinced them that supervisors and track foremen were satisfied with an excellence far below their own ideas of perfection; and, to remedy this, they adopted the plan of having each supervisor prepare, on his division, one mile of sample track, not limiting him as to cost, but requiring that it be made as perfect as possible. The officers, the supervisors, and the foremen then passed over these sample miles, carefully examining each, and at the conclusion of this inspection the most experienced supervisors acknowledged they had never before known what a perfect track was. As

the result of these experimental efforts, a standard of track construction and maintenance was established, which has been in operation since on all the lines of the company. Premiums are awarded, after careful annual inspection, to supervisors and foremen who succeed in approximating most nearly the standard; and each of the competitors for these distinctions is facilitated to compare his division with all others on the line, thus giving him the advantage of the efforts of all, and stimulating a laudable rivalry. Among the specifications published for the guidance of those in charge of track divisions are the following:

"The track must be in good surface; on straight lines the rails must be on the same level, and on curves the proper elevation must be given to the outer rail and carried uniformly around the curve. This elevation should be commenced from one hundred to one hundred and fifty feet back of the point of curvature, depending on the sharpness of the curve, and increased uniformly to the latter point, where the full elevation is attained. The same method should be adopted in leaving the curve. The track must be in good line. The splices must be properly put on with the full number of bolts, nuts, stop-washers, and stop-chairs. The nuts must be screwed up tight. The joints of the rails must be



CROSS-SECTION OF ROAD-BED.

exactly midway between the joint-ties, and the joint on one line of rail must be opposite the centre of the rail on the other line of the same track. In winter a distance of five-sixteenths of an inch, and in summer one-sixteenth of an inch, must be left between the ends of the rails to allow for expansion. The rails must be spiked both on the inside and outside on each tie, on straight lines as well as on curves.

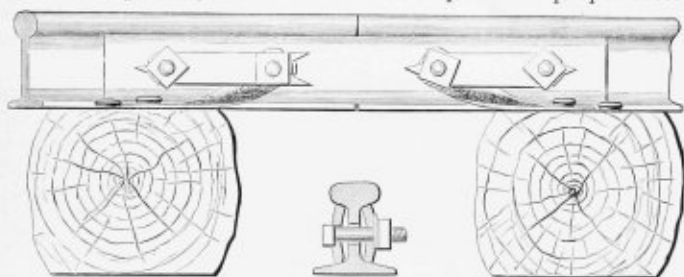
"Cross-ties must be properly and evenly spaced, sixteen ties to a thirty-foot rail, with ten inches between the edge of bearing surfaces at joints, with intermediate ties evenly spaced a distance of not over two feet from centre to centre, and the ends on the outside, on double track, and on the right-hand side going north or west on single track, must be lined up parallel with the rails. The ties must not, under any circumstances, be notched, but should they be twisted, must be made true with the adze, and the rails must have an even bearing over the surface of the ties.

"Switches and frogs must be kept well lined up and in good order. Switches must work easily and safety-blocks must be attached to every switch-head. The switch signals must be kept bright and in good order.

"Ballast must be broken evenly and not larger than a cube that will pass through a two-and-one-half-inch ring. There must be a uniform depth of at least twelve inches of clean broken stone under the ties. The ballast must be filled up evenly between, but not above, the top of the ties, and also between the main tracks and sidings, where there are any. In filling up between the tracks, large stones must be placed in the bottom in order to provide for drainage, but care should be taken to keep the coarse stone away from the ends of the ties. At the outer ends of the ties the ballast must

be sloped off evenly to the sub-grade. The road-crossing planks must be securely spiked; the planking should be three-quarters of an inch below the top of rail, and two and one-half inches from the gauge line. The ends and inside edges of planks should be beveled off.

"Ditches must be graded parallel with the track so as to pass water freely during heavy rains and thoroughly drain the road-bed. The lines must be made parallel with the rails and well and neatly defined. The necessary cross-drains must be put in at proper inter-



CONNECTING JOINT.

vals. Earth taken from ditches or elsewhere must be dumped over the banks and not left at or near the ends of the ties, but distributed over the slope. Earth taken out of the ditches in cuts must not be thrown on the slope. The channels or streams for a considerable distance above the road should be examined, and brush, drift, and other obstructions removed. Ditches, culverts, and box drains should be cleared of all obstructions, and the outlets and inlets of the same kept open to allow a free flow of water at all times.

"Telegraph poles must be kept in proper position, and trees near the telegraph line must be kept trimmed, to prevent the branches touching the wires during high winds.

"All old material must be gathered up at least once a week, and neatly piled at proper points. Briers and undergrowth on the right of way must be kept cut close to the ground. Station platforms and the ground about stations must be kept clean and in good order."

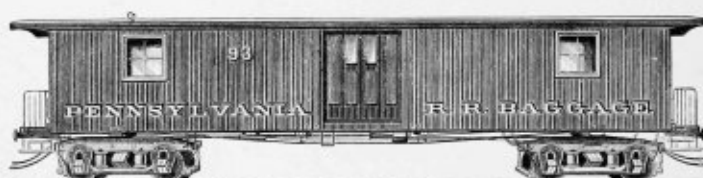


LOCOMOTIVE AND TENDER, PENNSYLVANIA RAILROAD.

The standard rail used on the Pennsylvania road is the steel rail, weighing sixty-seven pounds to the yard. These are connected together by a patent joint, so arranged as to hold the ends of the rails in place without possibility of the bolts becoming loose by jarring, and the perfect connection thus formed gives the effect of a continuous rail.

The Pennsylvania Railroad was one of the first in this country to adopt iron in the construction of bridges; and on the portion

principles of construction fully kept up to the highest standard of both European and American practice. The present bridges on the road, therefore, may justly take rank with any in the world for excellence and durability. In addition to the weekly, and sometimes almost daily, inspection of the bridges by those in charge of them, the engineer of bridges and buildings makes a thorough half-yearly inspection, carefully noting their condition and action under service, and suggesting any improvements and



BAGGAGE CAR, PENNSYLVANIA RAILROAD.

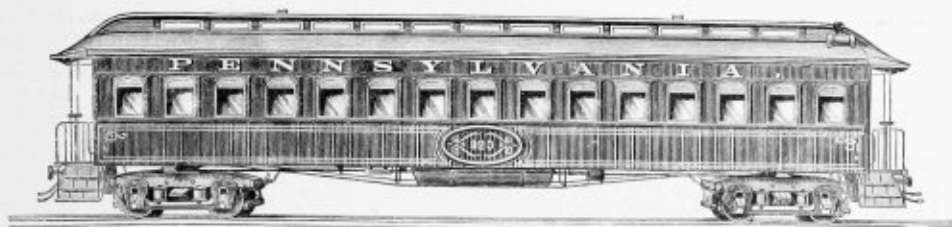
between Altoona and Pittsburg iron bridges were erected when the road was first opened. Wooden bridges have been gradually replaced with iron structures on the other portions of the road as renewals were required, until now there are only four wooden bridges remaining; and on the main line, between Philadelphia and Pittsburg, there are at present one hundred and seventy-three iron bridges. The plans for each bridge are carefully matured by the engineer of bridges and buildings before being ordered, and the

repairs that may be necessary. According to the present practice, for small spans up to twenty feet, the bridges are constructed of solid-rolled "I" beams, two under each rail; from twenty to seventy feet length, built girders of boiler plate are used; and for spans over seventy feet, open trusses. Wrought iron is used entirely,—no castings being employed except for ornamental work.

There are eight tunnels on the main line, all carefully arched where necessary, of the following lengths in feet, respectively:—two



U. S. POSTAL CAR, PENNSYLVANIA RAILROAD.

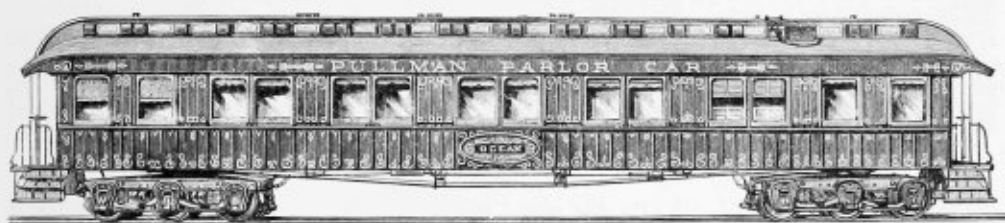


PASSENGER CAR, PENNSYLVANIA RAILROAD.

hundred; nine hundred; twelve hundred; thirty-six hundred and twelve (Allegheny mountain); six hundred and fifty; three hundred; four hundred and fifty, and four hundred and fifty,—making an aggregate length of seventy-seven hundred and sixty-two feet, or near one mile and a half.

In the mechanical branch of the motive-power department there has been a constant and persistent effort to bring all engines, cars, and other machinery up to the highest standard of excellence. Engines were designed of different classes to suit the

and machinery, and replacing worn-out parts with new. Since this practice was abandoned, and the old engines thrown bodily into the scrap-heap,—new ones, built on uniform plans, taking their places and numbers,—the cost of repairs per mile run has decreased from twelve and twenty-one one hundredths cents in 1866 to eight and sixteen one hundredths cents in 1872, and this notwithstanding the fact that the load of the engines has, during the same time, been very much increased. This result is the more remarkable, as all the new engines



PARLOR CAR, PENNSYLVANIA RAILROAD.

work required of them, and all engines, whether built at the company shops or by private firms, are constructed after standard plans furnished from Altoona. This secures uniformity and interchangeability of the parts.

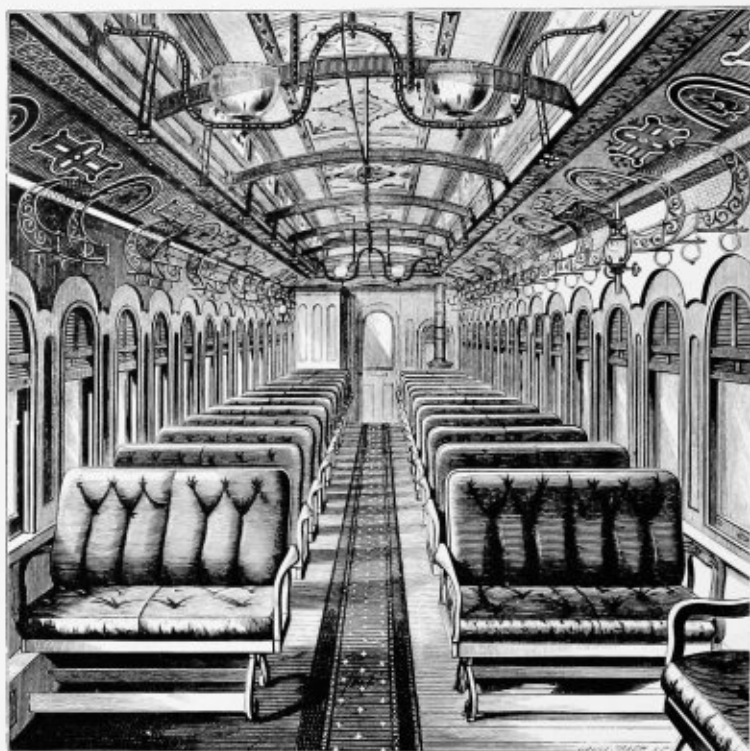
The Pennsylvania Railroad Company has abandoned, for several years, the very general practice of "rebuilding" locomotives; that is, of reconstructing them on an altered plan, retaining a portion of the old boiler

built to replace old ones have been charged to repairs.

To suit the service upon the different parts of the line, it was, of course, necessary to have engines of several kinds or classes. These classes are known by the first eight letters of the alphabet, (see Appendix I.) and, however plain in appearance and finish, are constructed with the greatest care; the very best materials that can be procured being used without stint.



SLEEPING CAR, PENNSYLVANIA RAILROAD.



INTERIOR OF PASSENGER CAR.

The boilers are made of soft crucible cast steel, great pains being taken to secure the best attainable quality. From every sheet of steel a test piece is taken, which is heated to redness and is then dipped in cold water, after which (while cold) it is bent double and hammered flat. Any sheet that will not bear this test is rejected.

The tires, crank-pins, and guides of all the engines are of steel; and on the passenger engines the connecting-rods, tender and truck axles are of steel also.

The passenger cars of the Pennsylvania Railroad Company are built at its own shops, and, like the locomotives, are constructed upon plans carefully prepared by the engineers of the company, the utmost pains being taken to make them safe, comfortable, and handsome. In the consummation of these objects no expense is spared. The body of the car is built of great strength, so that, in almost any kind of an accident, the person who is cool enough to keep his seat is sure to escape injury.

In the construction of cars, as in every-

thing else, the desideratum of the company is to prevent accidents. As a most efficient means to this end, particular attention is given to the wheels and axles, and the trucks in general.

The wheels are made upon the now well-established process—the invention of W. G. Hamilton—of combining cast steel with the very best grades of charcoal iron. In this manner a metal is produced which it is almost impossible to break. The wheels are also made of the double-plate pattern, which gives additional security; for, should the smallest crack be discovered in either plate, the wheel is at once removed, although it

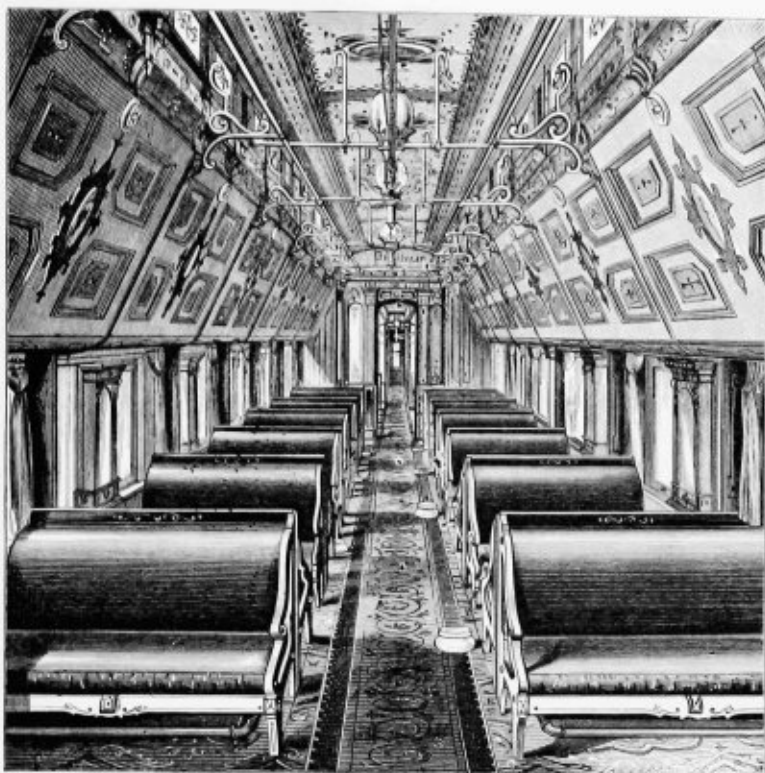
might run for weeks without the slightest danger.

In the highly important part—the axles—the effort for safety may be said to reach its climax. The journals are seven inches long and three and one-quarter inches in diameter. In the wheel the axle is four and three-quarter inches, and in the centre four inches in diameter. This proportion of the axle renders it nearly impossible to break inside the wheel, and makes the journal the weakest part of the axle. The breaking of a journal is of little consequence, as the arrangement of the safety-beams of the trucks is so thoroughly secure that after the journal has broken it will hold the wheel in its place for a distance of at least twenty miles, giving ample time to stop the train. Although the form of the axles is probably as perfect as any that has ever been produced, yet the greater claim to excellence lies in the quality of the metal used in their construction. They are made from soft crucible steel out of Swedish charcoal iron; are carefully turned to the proper size

throughout; and before accepting them from the maker, are subjected to the following test:—From every lot of fifty axles, one is taken at random and tested under a drop, weighing eighteen hundred and forty pounds. The axle is placed upon supports three feet apart, and struck in the centre. If the axle bears five blows, of twenty-five feet each, without breaking, the lot is accepted. As an illustration of the quality of the steel used, a fact may be mentioned. On the 15th of November, 1867, one of these axles was broken only after fourteen blows, of which three were at thirty-five feet, one at thirty-six feet, two at thirty-

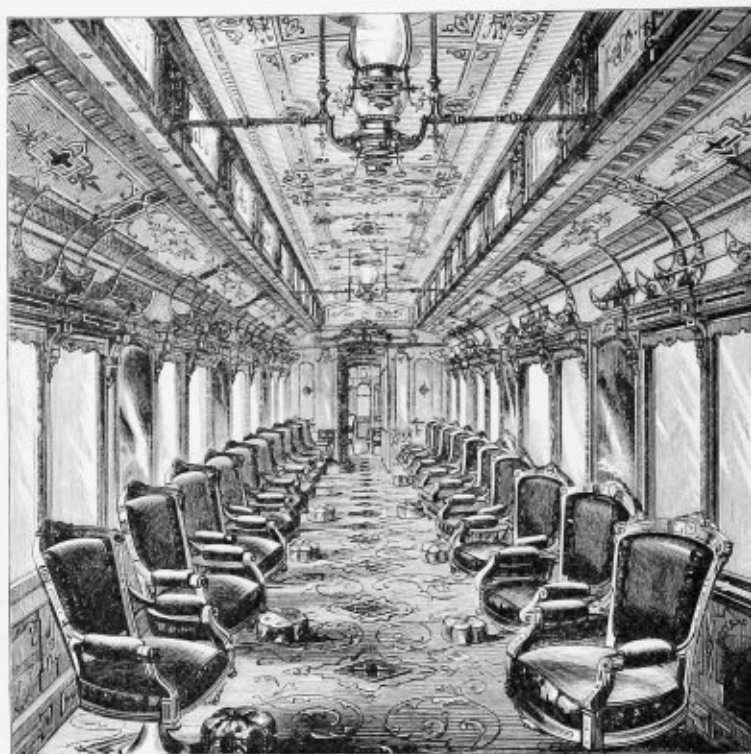
eight feet, seven at thirty-nine feet, and the last at forty feet, the axle being turned over at each blow. The care of the company does not end here. Each axle in the passenger equipment department has an individual number, and the date on which it was placed in service stamped upon its ends; these are recorded in the office of the superintendent of motive power. These records are regularly inspected, and as soon as an axle is found to have been under a passenger car eighteen months it is ordered into the freight service, although it may be as good as new.

For safety, as well as to render the passenger cars more cheerful, they are lighted with ordinary coal gas, condensed to a pressure of two hundred pounds per square inch, and carried in small steel tanks suspended under the floors of the cars. They are heated by stoves securely bolted to the floor, the fire-doors having gratings, which effectually prevent the escape of the fire in case the car should be upset. All passenger trains on the Pennsylvania Railroad are equipped with the "Westinghouse Air-Brake," an invention



INTERIOR OF SLEEPING CAR.

which has been pronounced by every prominent railroad mechanic who has examined it the most perfect brake in the world. The use of this brake places the train entirely under the control of the engineer, and he can, by a simple movement of the hand, apply it with the utmost force, so as to almost instantly stop the train, or graduate it to any speed. He can as readily release the brake, so that, in case of danger, he can not only stop his train, but back it at once. All this is accomplished without any jar. The London "Times," in describing an experiment with this brake in England, said:—"Its chief advantages are that it is very simple, very powerful, always ready, and capable of being applied instantaneously by the engine-driver himself, and this at the first suspicion of danger." Some of the experiments made with this brake on the Pennsylvania Railroad have been wonderful in their results. On the 17th of September, 1869, a train of six cars, running down a grade of ninety-five feet to the mile, at the "Horseshoe Bend," on the Allegheny mountain, at the rate of thirty



INTERIOR OF PARLOR CAR.

miles an hour, was brought to a stand-still, in the presence of the Master Mechanics' Association, in a distance of four hundred and twenty feet. At Altoona, the same train was stopped in less than its own length. Recently improvements have been made to this brake, by which it can be applied from the interior of any car of a train, or upon the accidental severing of the train it will apply itself; and at a trial on the eastern division of the Pennsylvania Railroad, made on the 20th of May, 1873, the following results were obtained:

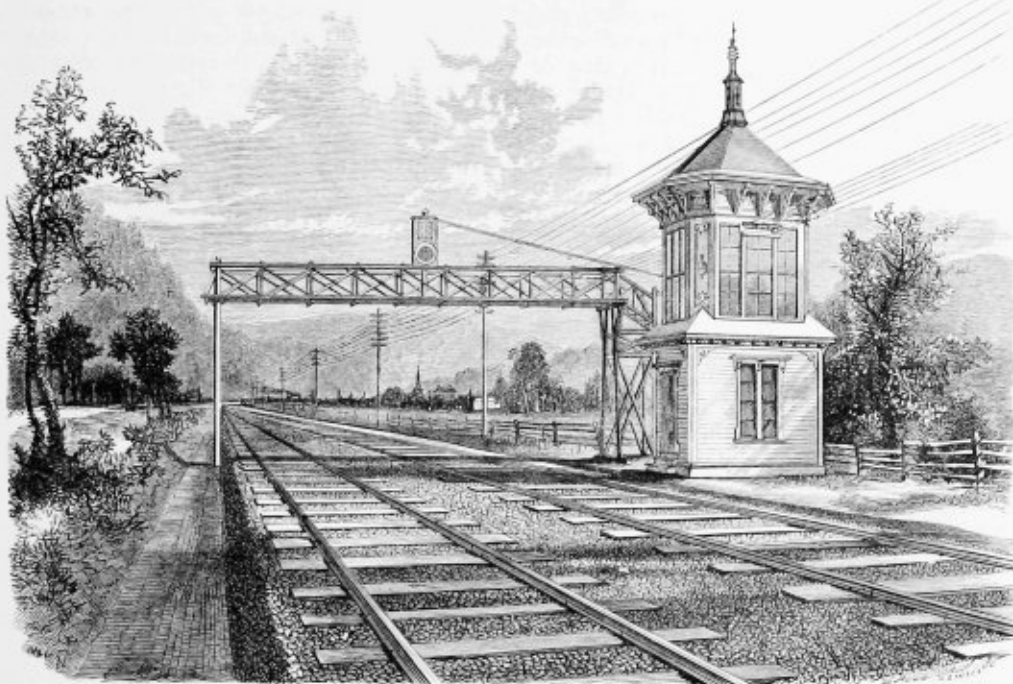
After some experiments similar to those given, and with like results, a trial was made by applying the brake from the interior of one of the cars. The rate of speed was thirty-five miles an hour, and the stoppage took place in fifteen seconds and five hundred and six feet. The next experiment was made by uncoupling five cars while going thirty miles an hour. The five cars suddenly uncoupled stopped in eleven and eight-tenths seconds and in three hundred and sixty-seven feet,—the locomotive and the rest of the cars stopping in about the same time.

Two experiments were then made by severing the locomotive from the train. In the first, the rate was forty miles, time ten and a half seconds, and distance two hundred and sixty-five feet; and in the second trial, the rate was forty-six miles, time ten and a half seconds, and distance two hundred and sixty-five feet. A trial was then made to stop the train by suddenly applying the brake in one of the cars, the engine remaining open and working ahead. The train was then traveling at about thirty-six miles an hour, and was still fifteen and eight-tenths seconds after the brake was applied, having gone

five hundred and two feet in that time. Two full stops were then made in succession, to test the time required to get the train in motion from a state of rest. In the first trial the time was four and a half seconds, and in the second two and eight-tenths seconds.

Attached to the brake, and under each car, an iron arm projects downwards, its lower end being about six inches from the level of the rails. In the event of the car running off the track the wheels would naturally sink, and the bottom of the arm coming in contact with the ground immediately causes the brake to operate. This was tested by placing an obstruction on the track, high enough to catch the arm, which, when it was reached, brought the train to a halt in a few seconds.

These tests demonstrate the power and efficiency of the "Westinghouse Air-Brake." The Pennsylvania Railroad Company was the first to adopt it, and its managers have extended every facility for its improvement. The consequence is that their road receives the full benefit of the invention, and all the



BLOCK-SIGNAL STATION.

security it gives to the traveling public is enjoyed by their customers.

The "Wharton Patent Switch"—to the inventor of which a prize medal was recently awarded by the Franklin Institute of Philadelphia—is also adopted and used by the company. This switch is the only one in the world that enables a railroad to grant switch facilities without breaking the main track. Perfect security is thus given to trains, even if the switch is, by accident, left wrong; and not the slightest incumbrance to a passing train is presented should the switch be fastened wrong or not fastened at all.

Another improvement in use upon the road is the track tank, which enables a locomotive to supply itself with water while the train is in motion. This is an English invention, and in practice here is found to work satisfactorily. Heretofore much time has been lost by the frequent stoppages necessary to fill the water-tank; and, in consequence, express trains had to acquire an extremely high rate of speed between stations to make up for this loss. As now

arranged, but two stoppages are necessary between Philadelphia and Pittsburg—at Harrisburg, after a run of one hundred and five miles, and at Altoona, after a run of one hundred and thirty-two miles, leaving a run of one hundred and seventeen miles to Pittsburg. Through passenger trains are made up of weight suited to the capacity of the locomotives, and these now average a regular rate of speed per hour over the entire road,—the gradients to be overcome presenting no obstacle to the regularity of progress. The fastest trains, therefore, present the paradox of not actually attaining as high a rate of speed as those occupying more time in a through trip.

As an additional safeguard, the Pennsylvania Railroad Company has adopted the system of block signals, which may be described as follows:—The road is divided into blocks between telegraph stations. These blocks are under the charge of the telegraph-operators, who display signals, elevated so as to be plainly seen by engineers and others in charge of trains—RED indicating danger; BLUE indicating caution

necessary; and WHITE indicating safety, or that the track of the block is clear. These signals are operated from both directions, and their use renders it absolutely impossible for accidents to occur by trains overtaking or running into each other. The danger of collision is obviated by the double track.

The rules governing the transportation department of the Pennsylvania Railroad are so complete and perfect that they are presented in detail in Appendix II. These rules were prepared by Mr. A. J. Cassatt, when general manager, and approved by the board of directors early in 1873. In presenting them to the employes of the road, Mr. Cassatt says:

"All officers, agents, and employes are hereby informed that they are required by these rules and regulations, and by their own interest, as well as the interest of the company, to be polite and considerate in their intercourse with the patrons of the road. The reputation and prosperity of the

road depend greatly upon the promptness with which its business is conducted, and the manner in which its patrons are treated by the officers and employes. They must always remember that in accepting office or position in the service of the company they are bound thereby to obey strictly the rules and regulations issued from time to time by their superior officers."

An effort has been made to present, in this introductory chapter, such information on the history of railroads as seemed essential to a proper understanding of the subject, and to compile a statement of facts that would give a just comprehension of the Pennsylvania Railroad in all its ramifications. In the succeeding portions of the work the history, industries, and statistics of all cities, towns, and stations reached by the road and its branches, in New Jersey and Pennsylvania, together with sketches of scenery and other objects of interest along its lines, will be given.

NEW JERSEY DIVISION—MAIN LINE.



NEW YORK BAY, FROM PIER I.

NEW YORK—the first city in population, wealth, and commercial importance in America—is built upon Manhattan Island, at the confluence of the Hudson and East rivers,—the latter of which is but little more than an inlet of the ocean. The island is thirteen and a half miles in length, and about two miles in width at the widest part. It is all embraced within the corporate limits of the city, and before many years will be compactly built up. Improvement of the upper end of the island has been retarded by the difficulty of establishing speedy and certain means of communication with the lower end, where business is now concentrated; but this obstacle promises to be overcome by the construction of elevated and underground railways. The limited territorial area available for building purposes on the island has driven thousands who do business in New York to seek residences elsewhere, and has materially contributed to the building up of numerous large

suburbs, such as Brooklyn, Williamsburg, and Jersey City. These suburbs are essentially parts of New York—mainly deriving their population from her surplus, and reflecting her prosperity.

The general aspect of New York is not only metropolitan but cosmopolitan. All varieties of architecture are seen in her buildings, and natives of every land are found among her people. The din of traffic never ceases, and the hurry and excitement of business rarely abates. A large portion of the commerce of the world is tributary to her, and the wealth of a continent is continually pouring into her coffers. With these resources at her command, it is altogether within the range of probability that she will ultimately become the greatest commercial emporium in the world.

The city of New York was one of the first European settlements made on the American continent, being colonized in 1614 by an

expedition of two ships from Holland, commanded by Captains Adrian Block and Hendrick Christianse. This was about fifty years after the settlement of St. Augustine, in Florida, by the Spaniards; seven years after the colonization of Jamestown, Virginia, and six years before the landing of the Pilgrims at Plymouth, Massachusetts. The island upon which this settlement was made was first visited, in 1609, by Henry Hudson, an English mariner in the service of the Dutch East India Company. Hudson had sailed from England in 1607 in search of the north-west passage to India, but after two years of fruitless endeavor to penetrate the ice-barriers of the North, his patrons abandoned the enterprise, and he tendered his services to what he considered a more adventurous people. He returned to the American shores in a schooner-yacht, called the "Half-Moon," and entered the Narrows on the 3d of September, in the year above stated. Heckewelder, the Indian historian, describes the natives as greatly perplexed and terrified when they beheld the approach of the strange object—the ship in the offing. They deemed it a visit from the Manitou, coming in his big canoe, and began to prepare an entertainment for his reception. "By and by the chief, in red clothes and a glitter of metal, with others, came ashore in a smaller canoe, mutual salutations and signs of friendship were exchanged, and after a while strong drink was offered, which made all gay and happy. In time, as their mutual acquaintance progressed, the whiteskins told them they would stay with them if they allowed them as much land for cultivation as the hide of a bullock, spread before them, could cover or encompass. The request was gratified, and the pale men thereupon, beginning at a starting-point on the hide, cut it up into one long-extended, narrow strip, or thong, sufficient to encompass a large place. Their cunning equally surprised and amused the confiding and simple Indians, who willingly allowed the success of their artifice, and backed it with a cordial welcome." Such was the acquisition of the site of New York, on the island called *Manhattan*,—an Indian name, signifying "the place where they all got drunk."

Hudson proceeded to explore the river which now bears his name, and after sailing up to the present site of Albany, returned to Manhattan and immediately sailed for Europe, where his report of the newly-dis-

covered land led to the formation of the colony already mentioned.

"New Amsterdam," as the settlement was named by the Dutch, had a checkered history. The English, without any claim of right, took it in 1664, but the Dutch succeeded in recovering it in 1673. About one year afterward the Duke of York—to whom it had been given by Charles the Second when the English claimed possession of it—seized it, and it was named New York in his honor. Prior to British rule, the city was laid out in streets, some of them as crooked as the paths made by the roaming cattle, and "contained one hundred and twenty houses, with extensive gardens." In 1677 it comprised three hundred and sixty-eight houses, and the assessed value of property was ninety-five thousand pounds sterling. "During the military rule of Governor Colve, who held the city for one year under the above-mentioned capture for the States of Holland, everything partook of a military character, and the laws still in preservation at Albany show the energy of a rigorous discipline. Then the Dutch mayor, at the head of the city militia, held his daily parades before the City Hall (*Stadt Huys*), and every evening at sunset he received from the principal guard of the fort—called the *hoofd-wagt*—the keys of the city, and thereupon proceeded with a guard of six to lock the city gates, then to place a *burger-wagt*—a citizen guard—as night-watch, at assigned places. The same mayor also went the rounds at sunrise to open the gates and to restore the keys to the officers of the fort."

In 1683 the first constitutional assembly, consisting of a council of ten and of eighteen representatives, was elected to assist in the administration of the government. In 1685 the Duke of York ascended the throne of Great Britain, with the title of James II., and immediately signalized himself by forbidding the establishment of a printing-press in the colony which was named in his honor. This system of tyranny was continued by the king, and culminated in a few years in a popular uprising, which proclaimed Jacob Leisler, a Dutch merchant, leader, and invested him with the reins of government. Leisler summoned a convention of deputies from those portions of the colony over which his influence extended, levied taxes, and adopted other governmental measures. But his rule was of brief duration, for his meas-

ures awakened the bitterest prejudices. In less than two years the experiment of free government was abandoned and the "king enjoyed his own again." Leisler was executed for high treason in May, 1691.

With the commencement of the eighteenth century New York entered upon that course of enterprise and success which has ever since distinguished the city. Education, which had been entirely neglected, was provided for by the establishment of a free grammar school in 1702. In 1725 the first newspaper made its appearance, and four years later the city received the donation of a public library of one thousand six hundred and forty-two volumes from England. In 1732 a public classical academy was founded by law, and with the advance of general intelligence came a higher appreciation of popular rights. A charter for the city was granted by George II. in 1730.

One of the darkest pages in the history of the city is that which records the events of 1741. On the 17th of March of that year was discovered an alleged plot of the negro slaves to burn the city and murder the inhabitants. New York then contained a population of about twelve thousand, of which one-sixth were slaves. Many of the supposed conspirators were arrested, and their trials continued for two years. Thirteen of them were burned at the stake, eighteen were hanged, and many were sold in the West India Islands. It was charged at the time that the plot was instigated by Catholic priests, but no evidence was ever adduced to substantiate the allegation, and it is even doubted whether any plot of the negroes existed. A late writer pronounces it "a cruel and bloody delusion, under which judges and lawyers prostituted their stations."

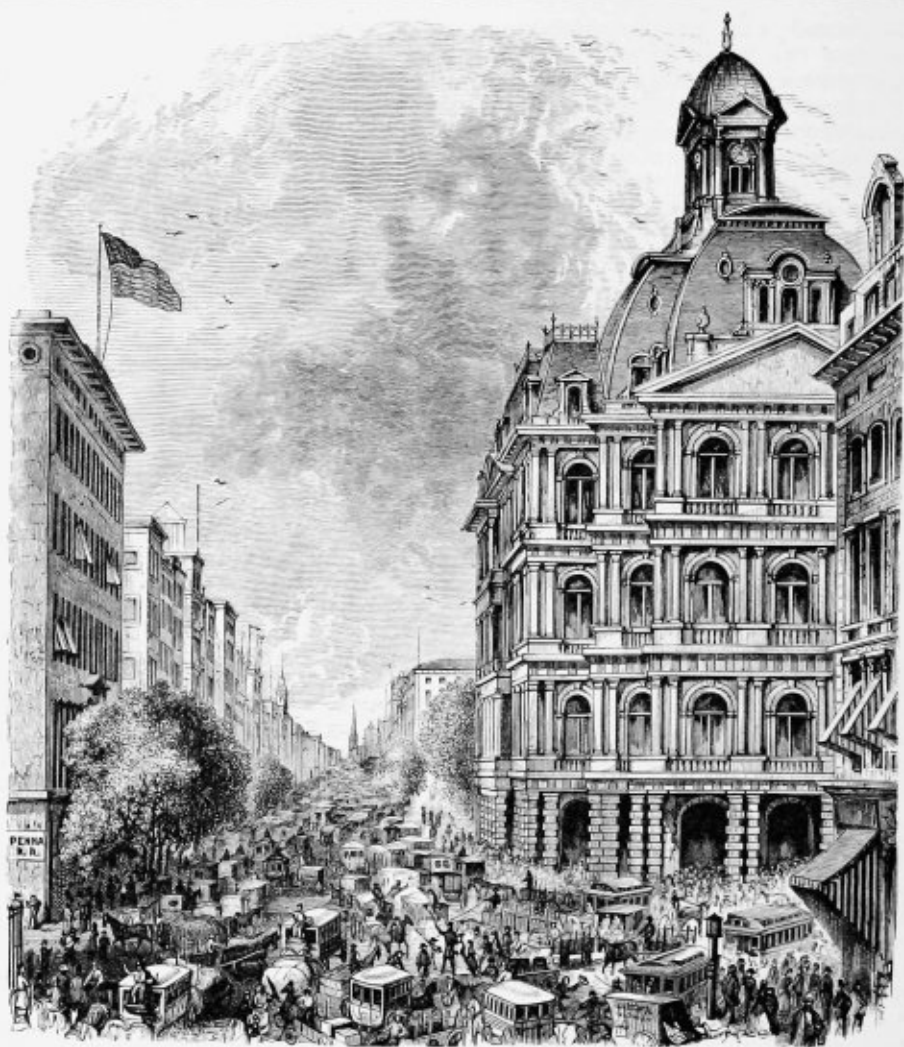
A long system of injuries and usurpations on the part of the crown now began to produce its natural fruit, and New York was not behind her sister colonies in denouncing the aggressions of the mother country and preparing for resistance. In 1765 a congress of delegates met in the city and prepared a declaration of the rights and grievances of the colonies. The events which followed are a part of the nation's history, and cannot be dwelt upon in a work like this. The war came, and with it a new experience for New York—that of military occupation by an enemy. On the 28th of June, 1776, the British army and fleet, which had been driven from the city and harbor of

Boston, entered the southern bay of New York. The troops were landed on Staten Island. On the 22d of August the British forces crossed the Narrows and encamped near Brooklyn, where the American army was stationed. The battle of Long Island ensued, in which the Americans were entirely defeated. Washington, with consummate skill, crossed the East river the succeeding night without observation, but the previous disasters and the subsequent landing of the British troops rendered it impossible to save the city. For eight years New York was the headquarters of the British troops in America and the prison-house of American captives. Public buildings were despoiled and churches converted into hospitals and prisons. The "Old Dutch Church," on Nassau street, which at a later period was for many years the post office of the city, was used by the British as a riding-school for their cavalry. But the day of relief came, and the British army evacuated the city on the 25th of November, 1783, after the independence of the United States had been acknowledged. This day has been celebrated by the local military ever since.

With the independence of the country began a new career of prosperity for New York. Her commerce, and with it her population, grew rapidly. New enterprises developed new energy; and it was not many years before she assumed the first rank in American cities—a position she has ever since maintained.

The first government of the United States was organized in New York; and in April, 1789, General Washington was inaugurated the first President, in the gallery of the "Town Hall," on Wall street, on the site of the present United States treasury building. This ceremony took place in the presence of an immense concourse of citizens. Dr. Duer thus describes the scene of the inauguration:

"This auspicious ceremony took place under the portico of Federal Hall, upon the balcony in front of the Senate chamber, in the immediate presence of both Houses of Congress, and in full view of the crowds that thronged the adjacent streets. The oath was administered by Chancellor Livingston, and when the illustrious chief had kissed the book, the chancellor, with a loud voice, proclaimed, 'Long live George Washington, President of the United States.' Never shall I forget the thrilling effect of the thundering cheers which broke forth, as from one voice,



BROADWAY, FROM THE NEW POST OFFICE.

peal after peal, from the assembled multitude. Nor was it the voices alone of the people that responded to the announcement; their hearts beat in unison with the echoes resounding through the distant streets; and many a tear stole down the rugged cheeks of the hardiest of the spectators, as well I noted from my station in an upper window of the neighboring house of Colonel Hamilton."

Space will not permit an extended notice of the events in the history of New York during the present century. A brief *résumé* alone can be given. In 1807 a steamboat was built here to navigate the Hudson.

It was called the "Clermont," and was constructed and commanded by Robert Fulton, who was assisted in the enterprise by Chancellor Livingston. This was the successful beginning of steam navigation. In 1825 the Erie canal was opened, and gave a great impetus to the trade and commerce of the port. In 1832 the Asiatic cholera appeared, and four thousand three hundred and sixty persons fell victims to the disease. In 1835 the great fire occurred, which destroyed, in one night, more than six hundred buildings, and property to the value of twenty millions of dollars. In 1842 the Croton Water-works

were completed; and in 1853 the World's Fair was opened in the Crystal Palace erected for the purpose.

The New York of to-day has but little left to mark it as the city of a few decades ago. Her old buildings have been swept away by the irresistible tide of improvement, and palace-like structures have sprung up to cover and obliterate the pasture-fields of the last century. Her beautiful harbor is filled with vessels of every character and clime,—the mighty steamer, pulsating like a thing of life, as it bears its freight of hopes and happiness; the stately ship, spreading its wing-like sails to soar away after the treasures of the antipodes; the bustling little tug, puffing and blowing as it seeks out its prize and hurries it away; the beautiful yacht, all brightness and grace, dancing over the waves as lightly as fairy feet trip upon its polished deck; the gigantic ferry-boat, pursuing its irresistible course, carrying thousands to experiences of joy and sorrow,—all these go to make up a scene which Henry Hudson, as he lay rocked in the "Half-Moon," never could have imagined in his wildest flight of fancy.

The reader will not expect to find this a guide-book to the city. In every room of every hotel, and upon every news-stand, such will be found, carefully compiled and reliable. A few only of the most prominent features of the metropolis can be noticed here, and first of these is Broadway, the main avenue of the city.

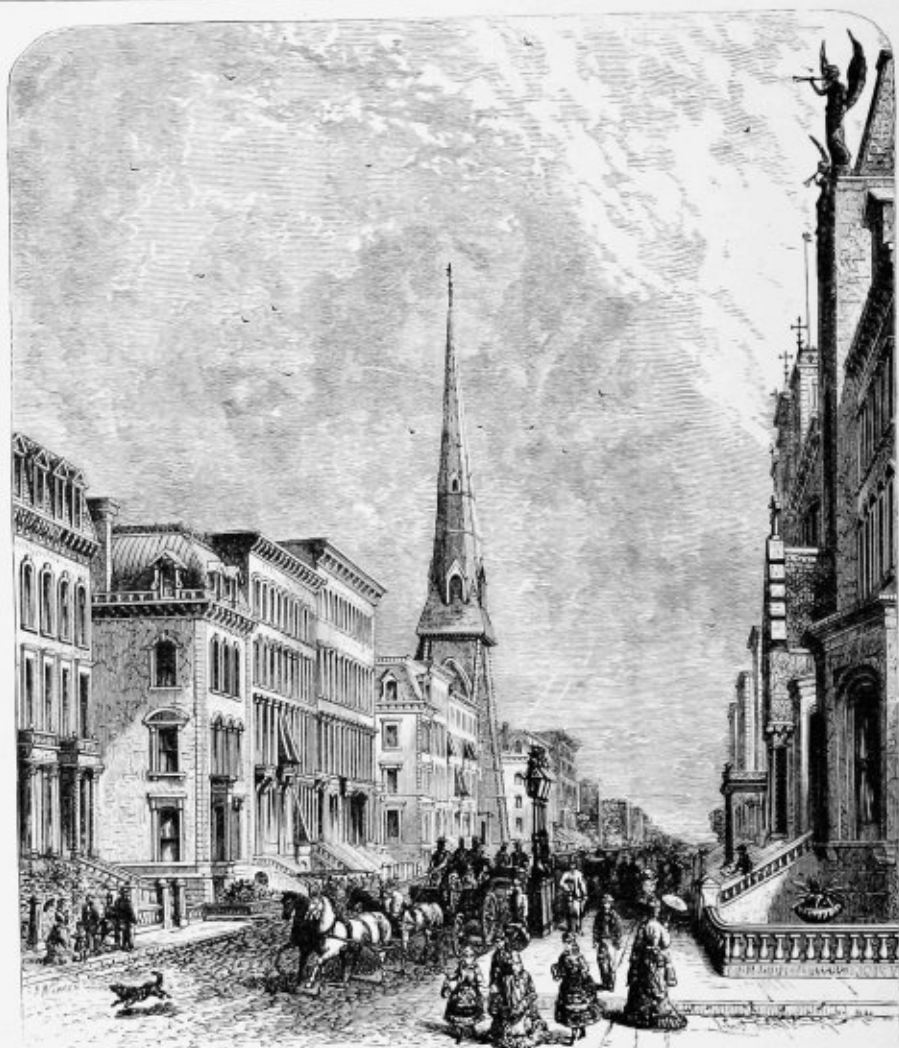
This magnificent street, which is undoubtedly one of the finest in the world, commences at the Battery*—the extreme southern point of the island—and runs north through the heart of the city for a distance of about four miles. Like a river, it receives into its channel the traffic and travel of hundreds of thoroughfares, and then pours the hurrying, seething tide through the busiest part of the metropolis. The crowd culminates, probably, at the lower portion of the park, where the Bowery intersects with Broadway. Here, from morning until

night, there is moving by an ever-changing procession of vehicles that have poured into the great artery from a thousand tributaries, and to cross this often-jammed highway requires from the pedestrian no little care and agility. Throughout its entire extent it is lined with magnificent buildings devoted to trade and business, with here and there an exceptional structure, such as Trinity Church, at the head of Wall street; St. Paul's, at the corner of Vesey street; and Grace Church, at the corner of Tenth street. No street in the world can show such an array of "signs" as gild the sides of Broadway. From the sidewalks to the roofs of the buildings they garnish every story and glare in every angle. Most of the principal hotels, and many of the places of amusement, are on Broadway.

Next to Broadway, the handsomest and most attractive street is the Fifth avenue, which is principally occupied with magnificent residences. The same may be said of Sixth and Seventh avenues and numerous cross streets "up town," which, though probably less aristocratic than the Fifth, are its rivals in beauty. Union and Madison Squares are great attractions to the city, blooming forth, as they do, in all the loveliness of umbrageous trees, trained shrubbery, fragrant flowers, smooth walks, and graceful statuary, in the midst of a wilderness of buildings. There are several other squares in different parts of the city, but none of them require any particular notice, or will be likely to attract the attention of a stranger.

Central Park is the great attraction of New York in the summer months, and it deserves the praises so lavishly bestowed upon it. It occupies the parallelogram included within Fifty-ninth street on the south, One Hundred and Tenth street on the north, Fifth avenue on the east, and Eighth avenue on the west. It is two-and-a-half miles long, about half a mile wide, and contains eight hundred and forty-three acres, of which one hundred and forty-one acres are occupied by the Croton reservoirs, over forty-three acres by the waters of the park, and of the remaining space one hundred and three acres are in drives, bridle-roads, and walks. The cost of the land embraced in the park was five million twenty-eight thousand eight hundred and forty-four dollars, and the total expenditures for construction, from the commencement of work in 1857 up to 1872, was seven million four hundred and nineteen thousand

*The Battery is so called from the circumstance of its being the site of the battery and ravelins of old Fort George, built by the English in colonial times. It is in the form of a crescent, and is delightfully shaded. The circular building at the water's edge is called Castle Garden, and was formerly a fort called Castle Clinton, in honor of Governor Clinton, of the State of New York. It was built by the Federal Government in 1807, and used as a fortification until 1823, when it was ceded to the city. In later years Castle Garden was used for concert purposes. Here Jenny Lind first sang before an American audience, and the famous orchestra of Julien delighted and instructed thousands. The building is now used by the commissioners of emigration.



FIFTH AVENUE, ABOVE MURRAY HILL.

seven hundred and ninety-eight dollars, making a total cost of twelve million four hundred and forty-eight thousand six hundred and forty-two dollars. When the improvement was commenced, it was one of the most forbidding spots that can be conceived, being little else than a huge marsh, relieved here and there by patches of trap-rock, and utterly destitute of natural beauty; now it is, in attractiveness, excelled by few parks in the world. It contains about fifteen miles of carriage roads, eight miles of bridle-paths, and twenty-five miles of walks. There are

three ponds in the park, upon which boats ply in the summer, and which are open to skaters in winter. A special feature are the archways and bridges, of which there are over thirty, and no two of them are alike. The mall—a spacious promenade running due north and south, and terminated by the terrace, where music is given in summer; the ramble; the reservoirs; the casino; the art gallery; the menagerie; the aviary; are attractions that should be seen by every visitor to the metropolis.

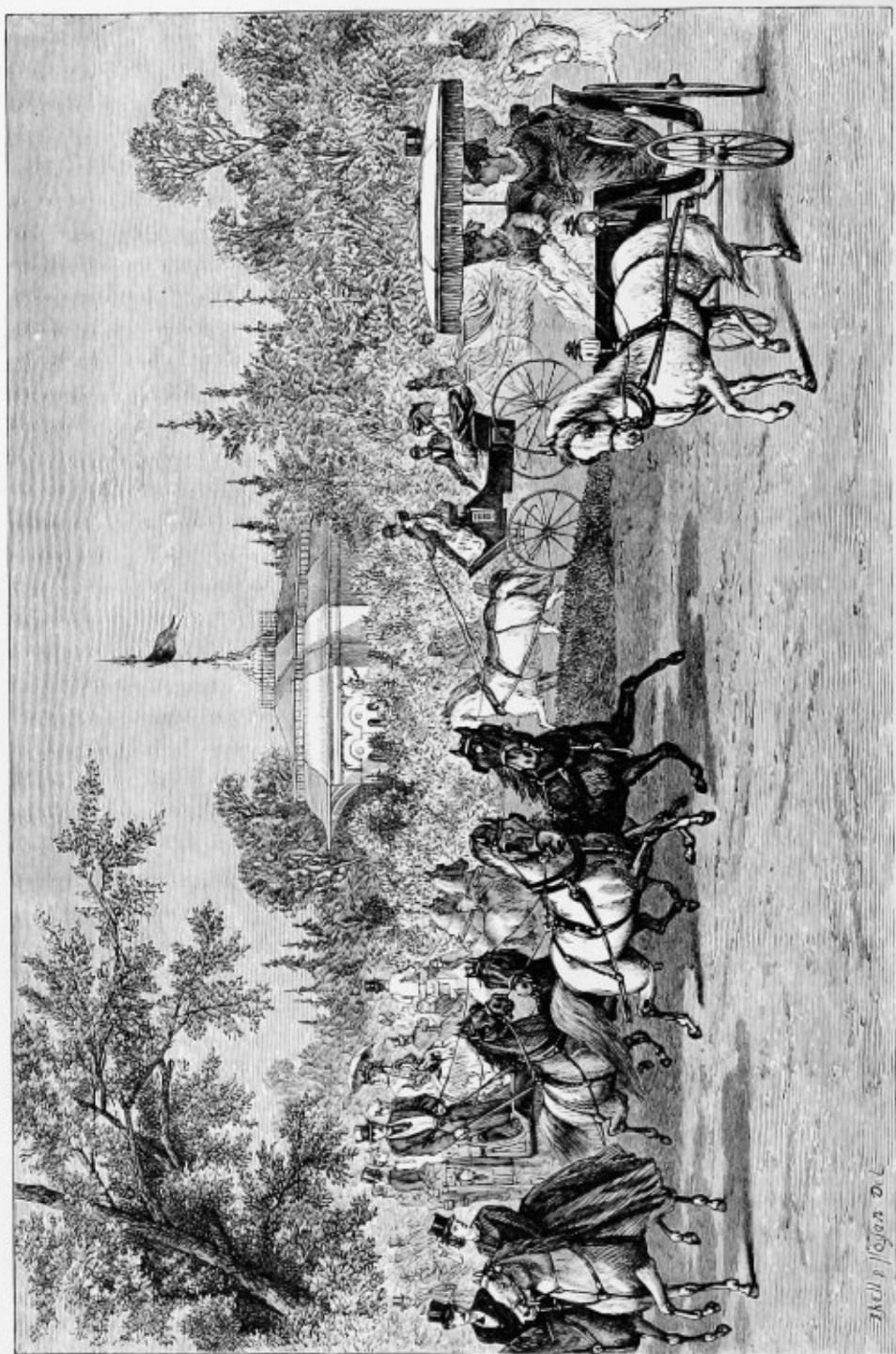
The charitable and benevolent institu-



MADISON AVENUE AND PARK.

tions of New York are numerous and well worth attention and examination. They will be found, as a rule, to be admirably arranged, liberally supported, and embrace, in their range of charity, provision against almost all human ailments. The Hotel for Working-women stands on Fourth avenue, between Thirty-third and Thirty-fourth streets, and is an imposing structure, well adapted for the purpose of its construction—to provide a home for working-women, where they may enjoy every comfort at the least possible cost. The New York Lunatic Asylum is at Bloomingdale, between One Hundred and Fifteenth and One Hundred and Twentieth streets. The grounds include about forty acres, handsomely and tastefully laid out. In location, arrangement, and in all other respects, it

furnishes an elegant retreat for its unfortunate inmates. The New York Orphan Asylum is beautifully situated on the bank of the Hudson, between Seventy-third and Seventy-fourth streets. Its grounds occupy about nine acres, and in its design and appointments it is a noble charity. The Institution for the Deaf and Dumb is on Washington Heights, and is liberally endowed and well managed. The Institution for the Blind occupies the block between Thirty-third and Thirty-fourth streets and Eighth and Ninth avenues, and is a beautiful specimen of architecture. The Cooper Union occupies the block bounded by Seventh and Eighth streets and Third and Fourth avenues. It contains a large and well-supplied reading-room, a library, an art gallery, and a number of instruction and lecture rooms, free to all



GRAND DRIVE, CENTRAL PARK.

W. H. P. 1873 Del.



BETHESDA FOUNTAIN, CENTRAL PARK.

who choose to avail themselves of the advantages therein offered. A large hall in this building is a favorite place for holding public meetings, and is rented for that purpose. The Astor Library, on the eastern side of Lafayette place, founded by John Jacob Astor, contains over one hundred thousand volumes, and is free to all persons over sixteen years of age for consultation only. The Five Points House of Industry occupies the site of the "Old Bowery," once noted in the criminal annals of the city, a little east of Broadway, on Worth street, and is a useful and beneficial reformatory school. There are many other institutions of a similar character to those noted, the names and locations of which will be found in every guide to the city.

A feature of New York are the islands that dot the bay, all of which are utilized by

the city or national governments. Those under the jurisdiction of the United States are Governor's Island, at the entrance to East river, upon which are Castle William, Fort Columbus, and South Battery; Bedloe's Island, where Fort Wood is built, and Ellis' Island, the site of Fort Gibson. The city owns Blackwell's, Ward's, and Randall's Islands. Blackwell's Island is a narrow strip of land one and three-quarter miles long, embracing one hundred and twenty acres, in the East river, and extends from opposite East Forty-eighth street to Eighty-third street. On this island are the Charity Hospital, Small-pox Hospital, Fever Hospital, Infants' Hospital, Hospital for Incurables, Hospital for Epileptics, Hospital for Paralytics, Penitentiary, Almshouse, Workhouse, and Lunatic Asylum. Ward's Island, containing two hundred and twenty acres, is at



IN THE RAMBLE, CENTRAL PARK.

the junction of East and Harlem rivers, opposite One Hundredth and One Hundred and Fourteenth streets. It contains a Hospital for Emigrants and a Lunatic Asylum. Randall's Island is a short distance north of Ward's. On it is a nursery, in which children over two years old are placed and kept until their parents or guardians are able to provide for them. A school for idiot children is also located on this island. All these islands are under the charge of the commissioners of charities and corrections. A good view of the islands can be had by taking one of the steamboats from Peck slip for Harlem.

Any sketch of New York would be incomplete that did not mention its hotels. These are more numerous, extensive, and magnificent than those of any other city in the world. The business of the city is of such a character as to attract, at all seasons of the

year, a large number of strangers from all portions of the Union and from every country in the civilized world. To accommodate this immense and continuous floating population, extensive hotel accommodations are necessary, and the enterprise of the city meets the requirement. The structures erected for the purpose have become the models for every land, and in London, Paris, and other European cities, they have been closely copied. Every variety and style can be found in the metropolis, and the traveler must be difficult to please if he cannot there find his ease in his inn.

No city on the American continent possesses so many places of amusement as New York, and their number is only equaled by their variety—ranging from the highest to the humblest grade. The endorsement of the metropolis is necessary to the reputation of any artist seeking the favor of the New World, and its verdict may be considered final as to the merit of any work of art offered to the American public. It is likewise the literary and news centre of the continent, and to it are drawn the aspiring or successful author as surely as London attracts him in Great Britain. Its churches are fitting emblems of a great city's morality, and it is no exaggeration

to say that the pulpit eloquence of the metropolis reaches every portion of the Union. In art, in literature, and in religion—in business enterprise and financial magnitude—in fertility of origination and energy of execution—New York is a fitting representative of the genius of the American people.

Population.—Aggregate, 942,292: native, 523,198; foreign, 419,094; Irish, 201,999; German, 151,203; colored, 13,073. *BROOKLYN.*—Aggregate population, 396,099: native, 251,381; foreign, 144,718. Aggregate population of city and immediate suburbs, 1,441,234.

Manufactures.—Capital invested, \$129,952,262; hands employed, 129,577; wages paid, \$63,824,049; materials used, \$178,696,939; value of products, \$332,951,520.

Commerce, 1872.—Vessels arrived—American, 2189; tonnage, 1,008,069; crews,

28,227. Foreign, 3452; tonnage, 2,961,270; crews, 93,397. Aggregate arrived—vessels, 5641; tonnage, 3,969,339; crews, 121,624. Vessels cleared—American, 1716; tonnage, 852,478; crews, 24,050. Foreign, 3347; tonnage, 2,896,038; crews, 90,512. Aggregate cleared, 5063; tonnage, 3,748,516; crews, 114,562. Of the arrivals, 825 were steam-vessels, of which 184 were American and 641 foreign. Of the clearances 811 were steam-vessels, of which 172 were American and 639 foreign.

Imports, 1872.—Value, \$418,515,829.

Exports, 1872.—Domestic, value, \$270,413,674; foreign, value, \$15,161,218. Aggregate exports, \$285,574,892.

Emigrants.—Number in 1872, 283,226.

Banking Capital.—Aggregate in 1873, \$88,276,350: national banks, \$71,285,000; State banks, \$16,991,350. Number of savings banks, 41; deposits, \$169,503,273.

BROOKLYN, which lies opposite to New York, on the south side of East river, on Long Island, is now the third city in population in the United States. It occupies a beautiful and healthy situation, and is a favorite place of residence for many of the solid men of Manhattan Island, who have adorned it with palatial mansions. It presents many attractions to the tourist, and should be visited by all who desire to obtain a correct idea of the magnitude and magnificence of our commercial centre.

STATEN ISLAND is about three miles south of the Battery, and occupies a large portion of the bay. It rises into hills which can be seen for a great distance, and is noted for its beautiful and commanding residences, excellent drives, and fresh ocean breezes. Fort Richmond, one of the largest and strongest defensive works in the United States, guards the "Narrows," or entrance to New York bay proper, from the Staten Island shore.

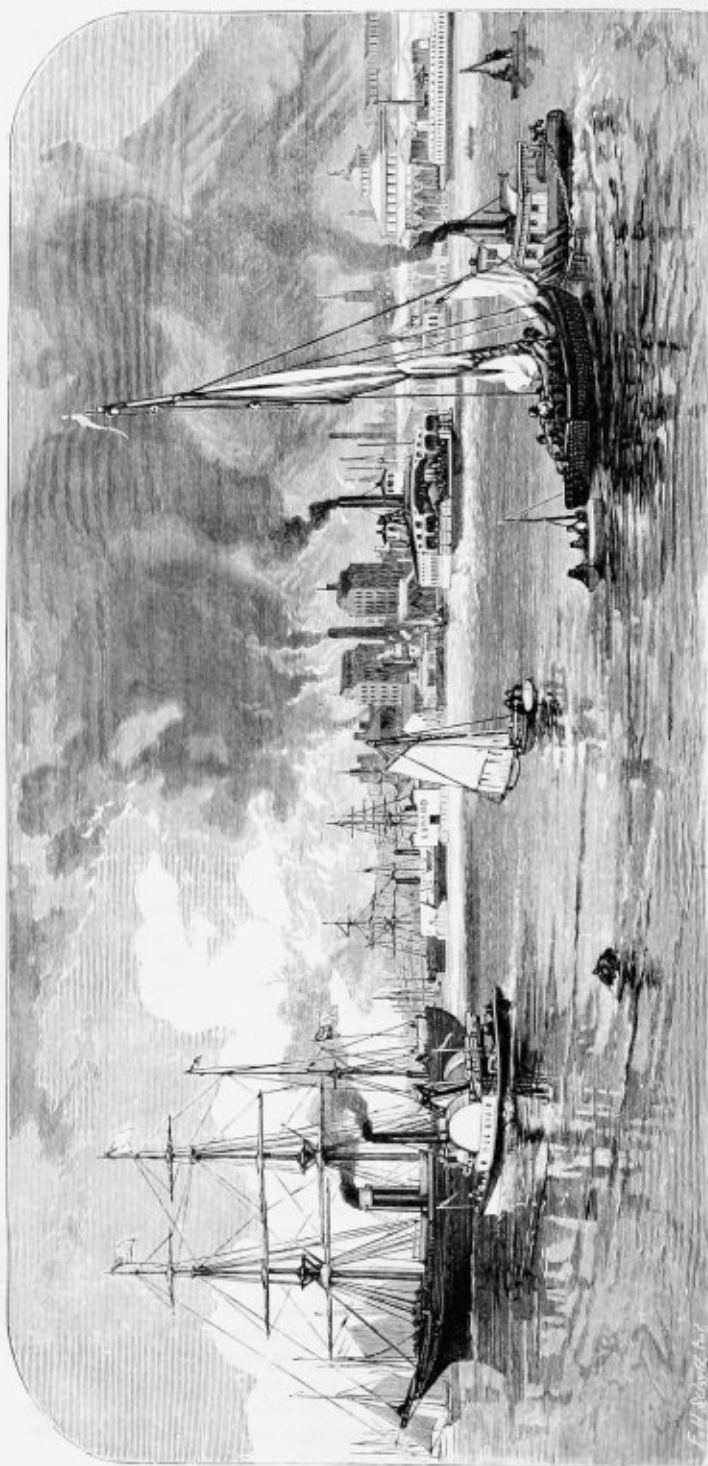
Since the acquisition of the New Jersey railroads, centring at New York, by the Pennsylvania Railroad Company, extensive improvements have been made for the accommodation of travel and trade. Ticket offices, where tickets are sold to almost every point in the United States, and where baggage is checked and collected from residences and hotels, have been established at the following places:—No. 1 Astor House, No. 526 Broadway, No. 944 Broadway, No. 8 Battery place, and at the piers on the Hudson river at Courtlandt street and at Desbrosses street.

The company also owns the following piers, where every facility is afforded for the comfort of travelers and the convenience of shippers over its lines:

Piers 1 and 2 Battery place, Pennsylvania Railroad regular freight; piers 4 and 5, foot of Morris street, fast freight; pier 16, between Liberty and Courtlandt streets, New Jersey Division local freight; pier 16½, foot of Courtlandt street, passenger ferry and station; pier 38, foot of Hubert street, fast freight; pier 39, foot of Vestry street, Philadelphia, Baltimore, and Washington freight; pier 39½, foot of Desbrosses street, general passenger station and ferry.

JERSEY CITY, one mile,—formerly known as Paulus Hook,—is the seat of justice of Hudson county, New Jersey. It is situated on the west bank of the Hudson river, at its entrance into New York bay, and immediately opposite New York City, with which it is connected by large and powerful ferry-boats, running night and day. Owing to the number of railroads terminating within its limits, it is probably the greatest thoroughfare in the United States. The celebrated Cunard line of British steamers sail from docks adjoining those of the Pennsylvania Railroad Company, and many other lines leave its wharves. Its water frontage is unsurpassed, and is never obstructed with ice, which is not the case with New York. It has a large number of manufactories, including those of locomotives, machinery, glass, pyrotechnics, porcelain ware, etc. Among its many churches probably the finest once stood in Wall street, New York, and was removed, stone by stone, and rebuilt here. It has several seminaries, and a high school enjoying a distinguished reputation. Its banks and savings institutions are numerous and substantial, and its hotels are excellent.

The first settlements were made on the present site of the city about 1623, by the Dutch, who claimed the territory now embraced in New Jersey as being within the limits of New Netherlands. During the Revolutionary war it was held by the British forces, who then occupied New York, and in August, 1779, was the scene of a gallant adventure, thus described in Sparks' "Life of Washington":—"Major Harry Lee, at the head of three hundred men and a troop of dismounted dragoons, surprised the enemy's post at Paulus Hook, opposite New York, and took one hundred and fifty-nine



JERSEY CITY.

prisoners, having two only of his party slain and three wounded. The plan originated with Major Lee, and great praise was bestowed upon him for the address and bravery with which it was executed. A medal of gold, commemorative of the event, was ordered by Congress to be struck and presented to him."

It was incorporated as a city, with its present title, in 1820, at which time it was in Bergen township, Bergen county, and comprised "all that portion of the township of Bergen owned by the Jersey Associates, formerly called Paulus Hook." The company calling itself the Jersey Associates was chartered November 10th, 1804, for the sole purpose of purchasing the place from Cornelius Van Vorst, the former proprietor. Jersey City continued in Bergen county until February 22d, 1840, when the county of Hudson was set off from the county of Bergen. In 1870, in compliance with the request of the voters, the legislature passed an act consolidating into one the cities of Jersey City, Hudson, and Bergen.

The Pennsylvania Railroad Company has made, and is still making, extensive improvements here and in the immediate vicinity, to accom-

modate the immense travel and traffic centering at this terminus of its railroad system. Among these are a new passenger depot, enclosing a space of six hundred and twenty by two hundred and twenty-eight feet, through which are run twelve tracks of railway for the accommodation of passenger trains alone. At the river end of this edifice is a passage-way, forty feet wide by two hundred and twenty-eight feet long, from which access is had to the general waiting-rooms, covering an area of eighty by eighty-four feet, including the adjacent ticket offices and restaurants. These waiting-rooms open upon a covered way, sixty feet wide, running the entire length of the river front, on which all the ferry-slips open. The ferry-house is forty by one hundred and twenty feet, and contains large and comfortable rooms and offices for the public accommodation. Over these rooms are the offices of the superintendents and other officials of the company located here. These improvements are substantial in construction, and will relieve the immense travel of the road and ferry from all inconvenience and detention.

The principal freight improvements are located at Harsimus cove, a short distance north of the passenger depot. They have been made at a cost of several millions of dollars, and probably exceed, in their magnitude and perfectness, anything of the kind on the continent. It is impossible to give more than a mere outline sketch of them here, but their careful study would well repay all interested in the railway business of America.

The general plan of these improvements embraces a frontage of about eleven hundred feet on the Hudson river, opposite New York. From this front extends:—First, stock-yards, thirteen hundred by two hundred and twenty-five feet, connected with and in front of which is an *abattoir*, two hundred and twenty-five by two hundred feet. These yards can receive and deliver five hundred cars of stock daily. Second, a water-slip, one hundred and eighty feet wide and fifteen hundred feet long, which runs the entire length of the *abattoir* and stock-yards. Third, a pier, fifteen hundred by two hundred feet, on the rear of which is a grain elevator, six hundred by one hundred feet. Fourth, a water-slip, extending the length of this pier, fifteen hundred by two hundred feet. Fifth, freight-sheds, one thousand by one hundred and twenty-five feet; a grain-pier and covered sheds, five

hundred by sixty feet, from which one hundred and fifty car-loads of grain can be transferred daily; and reserve space for a warehouse, five hundred by one hundred and twenty-five feet. This warehouse will, when completed, be eighty feet high. Sixth, and last in the series, are tracks connected with floats, on which cars are transferred to barges and carried across the river to and from New York. By this arrangement cars are loaded in New York, at the freight-piers of the company, and at once, without difficulty or delay, ferried to the Jersey City terminus and attached to trains.

Nearly two hundred trains arrive and depart from Jersey City over the lines of the company every day, and of these ninety-one are passenger trains alone. This immense business, added to other facilities and advantages Jersey City enjoys, cannot fail to make it one of the great marts of American industry.

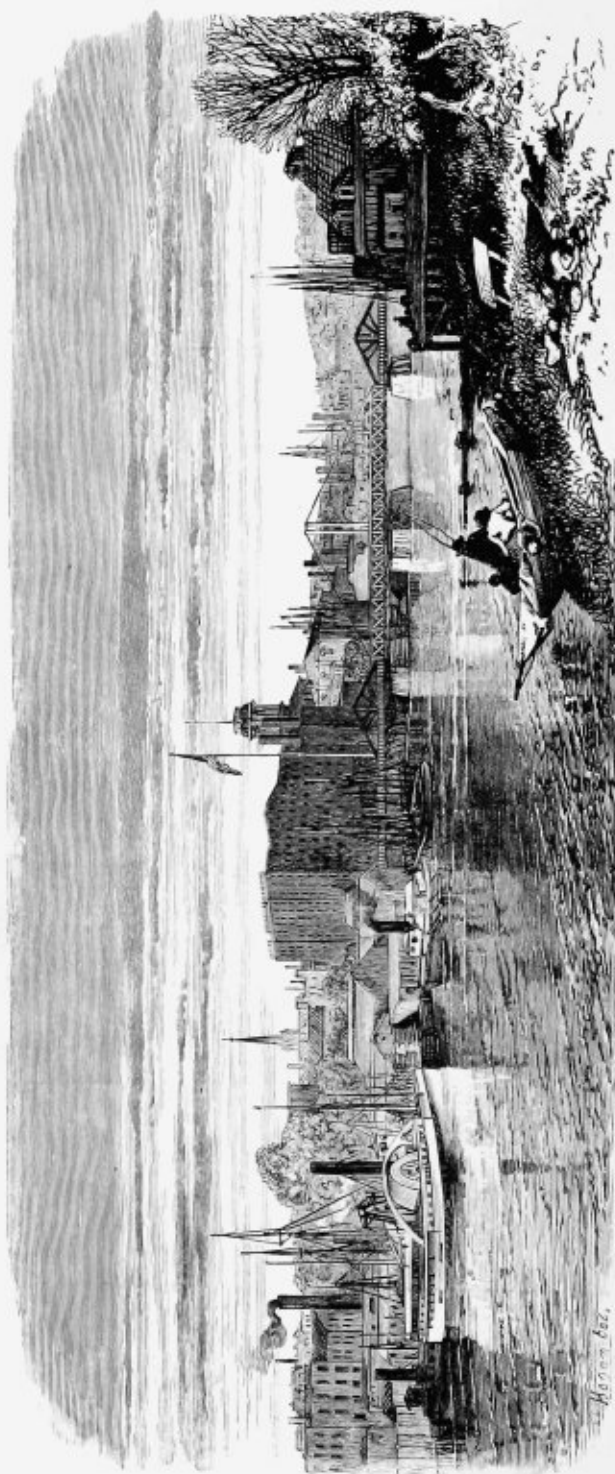
Population, 82,546: native, 50,711; foreign, 31,835. Number of manufacturing establishments, 333; capital invested, \$11,718,400; hands employed, 5624; wages paid, \$3,280,526; materials used, \$17,229,652; value of products, \$24,256,017.*

MARION, three and one-half miles, is the location of an extensive watch factory and a large hotel. It is on the Hackensack river.

MEADOWS, five miles.—Here are located the new repair-shops, freight buildings, and coaling platforms of the railroad company, covering fourteen acres of ground. At this point the freight and passenger business of the road are separated, each running over its own tracks to destination.

NEWARK, nine miles,—the first city in population and wealth in New Jersey,—is located in Essex county, on the right bank of the Passaic river, about four miles from its entrance into Newark bay. It was settled in 1666 by emigrants from the State of Connecticut, who came to this spot at the invitation of Governor Carteret, the first governor of New Jersey, to enjoy their religion—that of the Congregational church—without interference or hindrance. They purchased the site of the town from the Indians, and the deed of purchase, bearing date July 11th, 1667, is on record in the office of the secretary of state, at Trenton. The consideration of this purchase was "fifty double hands of powder, one hundred bars of lead, twenty axes, twenty coats, ten guns,

* Includes Hudson county.



twenty pistols, ten kettles, ten swords, four blankets, four barrels of beere, ten pairs of breeches, fifty knives, twenty howes, eighteen hundred and fifty fathom of wampum, two ankors of liquers, (or something equivalent,) and three troopers' coats." The territory included in this deed embraced the whole of two townships and part of two others, as subsequently created, and most of it is now within the city limits. The purchase first made was considerably extended shortly afterward, the consideration for the extension being "two guns, three coats, and thirteen cases of rum." A local historian, in commenting upon this purchase, says:—"It must be satisfactory to every townsman thus to know that every foot of land lying within our bounds was honestly and openly purchased of its original proprietors. However unjustly the aborigines may have been dealt with elsewhere, no act of our ancestors can be pointed to with the slightest reproach by the most zealous advocate of Indian rights."

The settlers first located in separate neighborhoods; but fearful of danger in being thus scattered about in different localities, they determined, in 1666, to form one township, with specific rules for government, and "to be of one heart and hand in endeavoring to carry on their spiritual concerns, as well as their civil and town affairs, according to God and godly government." They appointed a committee of eleven to "order and settle the concerns of the people of the place," and this committee established a system of government which specified, among other provisions, that

"no person could become a freeman or burgess of their town, or vote in its elections, but such as was a member of some one of the Congregational churches, nor be chosen to the magistracy, nor to any other military or civil office. But all others admitted to be planters were allowed to inherit and enjoy all other privileges save those above excepted."

On the 23d of October, 1676, a warrant was granted by the governor for two hundred acres of land and meadow for parsonage grounds, and also for so much as was necessary for landing-places, school-house, town-house, market-place, etc.; and in 1696 a patent from the proprietaries to the town covered all the lots in various parts of the townships, called "parsonage lands," which have been since divided, with some difficulty and contention, among five churches, viz., the three Presbyterian and the Episcopal at Newark, and the First Presbyterian Church at Orange.

In 1721 the first freestone was quarried here for shipment, and this article, celebrated for its excellent quality, has since been exported in large quantities.

The name of the city is said to have been given it by Rev. Abraham Pierson, the first minister located here, in 1667, in honor of Newark, England, where he was ordained in the Episcopal church.

An election for determining the location of the court-house, in 1807, is still remembered by some of the inhabitants as the most exciting in their annals. The contest was between Newark and Day's Hill. By a construction given to the State constitution women were then permitted to vote, and they seem to have been so delighted with the privilege that they were unwilling to circumscribe it within the legal limit,—many of them voting, it is reported, seven or eight times, under various disguises.

Like most colonial towns, Newark made but little advance in population for the first century and a half of its existence, and in 1810 it showed an aggregate, including several adjacent townships, of only eight thousand inhabitants. About 1830 it commenced a career of progress which has continued unchecked, and its growth has since been remarkably rapid. In 1836 it was incorporated as a city, and it now covers about seventeen and a half square miles of territory. It is regularly laid out, with wide, straight streets crossing each other at right angles. Broad street, the principal thoroughfare, is

one hundred and twenty feet in width, extending through the entire length of the city, dividing it into two nearly equal parts, and is one of the finest avenues to be found anywhere. Bordering on Broad street are two beautiful public squares, called the Upper and Lower Parks, which are adorned with magnificent elm trees, as is also the South Park, in the lower part of the city. Around these parks are many of the finest residences. The public buildings are imposing and numerous. Among them may be specified the United States Custom House and Post Office, the County Court-house, the library building, and numerous churches of various denominations.

The rapid growth of Newark is chiefly owing to its manufactories. These have been and still are encouraged by the city, and are very prosperous. Contiguity to New York, with great facility of communication, added to the low rates of taxation and excellently-managed municipal government, are making it, to a large degree, a workshop of the metropolis. Its manufactories embrace almost every branch of industry, but particularly do they excel in jewelry, iron fabrics, India rubber goods, leather and leather goods, drugs, clothing, and in the production of malt liquors. Intercourse with the surrounding country is facilitated by excellent roads and horse-railways. The Morris canal passes through the city, and upon this is a steep inclined plane over which boats are passed and repassed by the application of water-power from the canal. Banking capital, amounting to twenty-two millions of dollars, is employed in the active business of the place, and the first bank established in New Jersey is located here. The hotel accommodations are extensive and good. There are five passenger stations in the city limits, used by the Pennsylvania Railroad Company for the accommodation of local travel, in addition to the Market street depot, which is used for through trains. Seventy-seven trains per day pass over this road to and from New York. Population, 105,059: native, 69,175; foreign, 35,884. Number of manufacturing establishments, 1015; capital invested, \$34,407,670; hands employed, 29,147; wages paid, \$14,767,527; value of products, \$72,879,036. (The manufacturing statistics are from the board of trade report for 1872.)

WAVERLY, twelve miles.—The State agricultural fair grounds are at this station.



STREET SCENE IN ELIZABETH.

ELIZABETH, fifteen miles,—the county seat of Union county,—was named after Lady Elizabeth Carteret, the wife and executrix of Governor Sir George Carteret. It is pleasantly situated in a level and fertile country, highly improved. It was formerly the capital and principal town of the State, and contains many imposing and substantial public edifices and several important manufactories, the principal of which are those of oil cloths. This town was the first English settlement made in the State. The land was purchased for a company called the "Elizabethtown Associates," from the Indians, in 1664. These associates, seventy-four in number, were originally from Jamaica, Long Island. They held adversely to Berkeley and Carteret, the grantees of the Duke of York, and their pertinacious adherence to their right, real or supposed, obtained under the Indian grant, was cause of disturbance, not only during the government of the proprietaries, but for many years of royal administration. During the revolution the town suffered much from its contiguity to New York. On the 21st of January, 1780, the First Presbyterian Church was burned by the British, and in the following November its

minister, Rev. James Caldwell, was shot by an American sentinel, under an alleged misapprehension of orders.

Elizabeth is a desirable place of residence, whether health, business, or pleasure be in view. The excellent order and morals which prevail—the advantages derived from its schools—the short distance from New York, with which frequent and rapid communication is had by rail—all contribute to its attractions. The town is built upon streets uncommonly wide, and has many handsome private buildings, surrounded by large, well-improved grounds. It was originally incorporated by Governor Philip Carteret, prior to 1680, by one of the most liberal charters ever given in America, and subsequently, the 28th of November, 1789, by act of assembly, as the borough of Elizabeth, with bounds including part of the present adjacent townships. Its area has been greatly diminished by various subsequent laws. It had power to regulate general police, markets, roads, etc., and had a court of common pleas and general sessions, which met four times annually, with a jurisdiction similar to, and exclusive of, that of the county courts. It continued under the borough charter one

hundred and seventy-five years, and on the 13th of March, 1855, it was incorporated as the city of Elizabeth.

The College of New Jersey, now located at Princeton, received its first charter in 1746, and was opened with eight pupils at Elizabethtown, under President Dickinson, in 1747. Upon his decease, the same year, the pupils were removed to Newark, and placed under the Rev. Aaron Burr, father of the brilliant but unfortunate vice-president of the United States.

The city now shows many evidences of improvement, and its suburbs are rapidly building up with handsome cottages and country-seats. It has several good hotels. The Pennsylvania Railroad crosses the Central Railroad of New Jersey here. North and South Elizabeth are passenger stations for the accommodation of local traffic. Seventy-one trains per day pass between this city and New York over the Pennsylvania Railroad. Population, 20,832. Number of manufacturing establishments, 315; capital invested, \$3,570,450; hands employed, 2754; wages paid, \$1,384,293; materials used, \$3,440,423; value of products, \$5,986,512.*

LINDEN, eighteen miles.

RAHWAY, twenty miles, is in Union county, on the Rahway river, which is navigable to this point. It is a place of considerable trade, and its manufacturing interests are extensive and diversified. Previous to the late rebellion, three thousand carriages were annually made here for the southern market. It is still extensively engaged in this branch of industry, and has also manufactories of hats, stoneware, felt cloth, and a large muslin-printing establishment. There are excellent boarding-schools here for both sexes, and the church edifices are numerous. The city was settled in 1720. It has good hotel accommodations. The Perth Amboy and Woodbridge Railroad runs from Rahway Junction to Perth Amboy. Population, 6258.

HOUTENVILLE, twenty-two miles.

UNIONTOWN, twenty-three miles.

MENLO PARK, twenty-four miles.

METUCHEN, twenty-six and one-half miles.

CAMPBELL'S, twenty-seven miles.

STELTON, twenty-nine and one-half miles.

NEW BRUNSWICK, thirty-two miles,—the seat of justice of Middlesex county,—is located on the right bank of the Raritan river, at

the head of navigation. It is the eastern terminus of the Delaware and Raritan canal, which forms the inside water communication between New York and Philadelphia. This canal is seventy-five feet wide and seven feet deep, and is navigated by steamboats and sloops of one hundred and fifty tons burden.

At the close of the seventeenth century, the place where the city now stands was covered with woods and called, after the name of its proprietor, "Pregmore's Swamp." The first inhabitant of whom any account is preserved was one Daniel Cooper, who resided where the post-road crossed the river, and kept the ferry which afterwards, in 1713, when the county line was drawn, was called Inian's Ferry. This ferry was granted by the proprietors, November 2d, 1697, for the lives of Inian and wife, and the survivor, at a rent of five shillings sterling per annum.

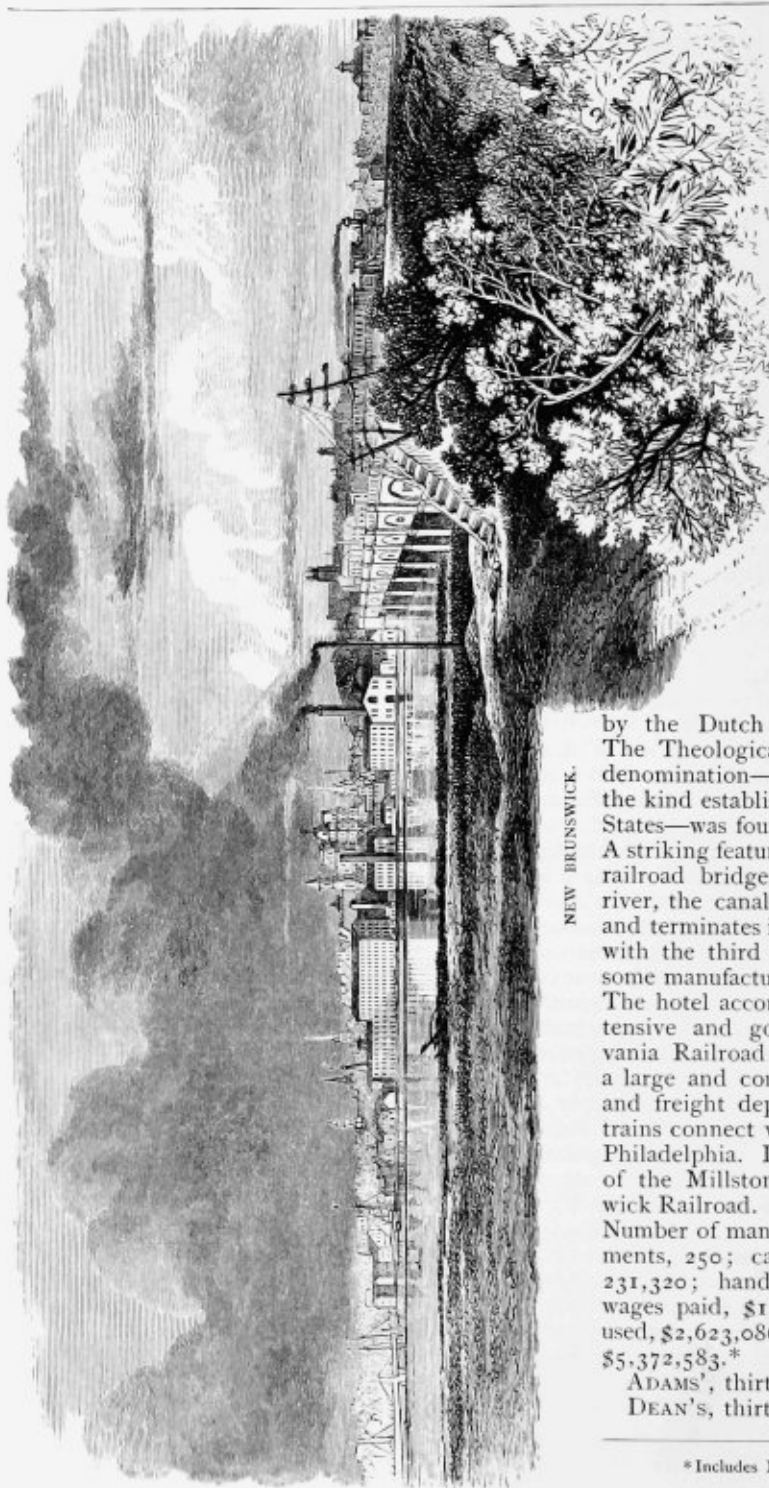
The first inhabitants of European origin were from Long Island. About 1730 several Dutch families emigrated from Albany, bringing with them their building materials, in imitation of their ancestors, who imported their bricks, tiles, etc., from Holland. Some of them built their houses upon the existing post-road, which thus acquired the name of Albany street, though originally it was called French street, in honor of Philip French, Esq., who held a large tract of land on the north side of it. About this time the name of New Brunswick was given to the place which had, previous to that time, been distinguished as "The River." It was incorporated as a city in 1794.

The portion of the town lying immediately on the river is low, and the streets are narrow, crooked, and lined principally with small frame houses, extending for nearly half a mile from the bridge to the landings for steamboats. Albany street is a broad, well-paved thoroughfare, ornamented with some excellent buildings. The streets upon the upper shelving bank are generally wide, and the houses neat and commodious, many of them expensively built and surrounded by gardens. From the top of the hill or bank, especially from the site of Rutgers College, there is a wide prospect, terminating on the north by the Green Brook mountains, and on the east by Raritan bay.

There is a vein of copper ore adjacent to the city, which was formerly very extensively worked, but the mines have been for many years abandoned.

New Brunswick was formerly the northern

* Includes Union county.



NEW BRUNSWICK.

terminus of the Camden and Amboy and the southern terminus of the New Jersey Railroad, and so continued until the consolidation of the two roads in 1872.

Rutgers College is located in this city, and was chartered by King George III., of England, in 1770, under the name of Queen's College. The name was changed by the State legislature in 1825, in honor of Henry Rutgers, one of its most liberal benefactors. The institution is controlled

by the Dutch Reformed church. The Theological Seminary of this denomination—the first school of the kind established in the United States—was founded here in 1771. A striking feature of the place is the railroad bridge, which crosses the river, the canal, the turnpike road, and terminates in the city on a level with the third or fourth stories of some manufacturing establishments. The hotel accommodations are extensive and good. The Pennsylvania Railroad Company has here a large and commodious passenger and freight depot, and sixty-seven trains connect with New York and Philadelphia. It is also the junction of the Millstone and New Brunswick Railroad. Population, 15,058. Number of manufacturing establishments, 250; capital invested, \$4,231,320; hands employed, 3513; wages paid, \$1,349,701; materials used, \$2,623,086; value of products, \$5,372,583.*

ADAMS', thirty-six miles.

DEAN'S, thirty-nine miles.

* Includes Middlesex county.



COLLEGE BUILDINGS, PRINCETON.

MONMOUTH JUNCTION, forty-two miles.—Intersection of the Rocky Hill Railroad, which runs north, a distance of seven miles, to Rocky Hill, and of the Jamesburg Branch, connecting with the Freehold and Jamesburg Railroad for Long Branch, the celebrated sea-side resort.

PLAINSBORO, forty-six miles.

PRINCETON JUNCTION, forty-eight miles.—Intersection of branch to Princeton, distant three miles. Princeton is a pleasant borough, in Mercer county, situated about midway between New York and Philadelphia, on an elevated ridge commanding a fine view toward the east and south. The town is proverbial for its salubrity and its intellectual and refined society. It was settled about the year 1700, and for more than a century has had an enviable reputation throughout the country. This is owing to three causes: the removal of the College of New Jersey here from Elizabeth in 1757; the important battle fought here January 3d, 1777, and the establishment of the Theological Seminary of the Presbyterian Church in 1812. For many years it was also the residence of gentlemen of great political influence, largely interested in the internal improvements of the State. But at present its prestige is exclusively educational and re-

ligious. Princeton College is one of the most celebrated institutions of learning in the United States. With it have been connected some of the greatest scholars of the century, and from it have graduated many of the most influential men of the country. The college buildings and grounds possess great interest, and the visitor will find in and around them much to see and study. Nassau Hall, the main college edifice, was built in 1756, and although it has been twice destroyed by fire the walls are the same as first constructed. When erected it was the largest edifice in the colonies, and it was named by Governor Belcher, "to the immortal memory of King William the Third," who was of the house of Nassau. During the Revolutionary war it was occupied alternately as a barrack and a hospital by both the British and American forces, and in the battle of Princeton it was struck by cannon-balls,—the indentation made by one of them being still pointed out. In 1783, when the Continental Congress was obliged to leave Philadelphia, it adjourned to Princeton, and held its sessions in the library-room of the college, then in the second story of the hall. In the present library—an elegant room containing nearly twenty thousand volumes—a number of valuable

portraits are preserved, among them being an original of Washington, painted by the elder Peale at the request of the board of trustees. The frame of this picture is said to have formerly contained a portrait of George the Second, presented by Governor Belcher. During the battle of Princeton a cannon-ball crashed through the window and carried off the king's head. In the philosophical hall, which is in a separate building, are a number of articles of interest, including two of Dr. Franklin's electrical-machines. Some of the college buildings are, architecturally, very fine, and the "*campus*" on which they stand is beautifully laid out and handsomely shaded. In the middle of it are two cannon, planted there by the students, both relics of the Revolution, having been abandoned after the battle of Princeton.

This battle was one of the most important events in early American history. The success of Washington, at Trenton, on the 26th of December, 1776, recalled Cornwallis to New Jersey as he was about sailing to England, under the impression that the rebellion was crushed. The courage of the American troops, and the military genius of Washington, enabled him to out-general the British commander. Leaving his camp-fires burning on the banks of the Assumpink, in Trenton, on the night of the 2d of January, he withdrew with his main body towards Princeton, to defeat the British troops remaining there, and to seize, if possible, their supplies at New Brunswick. The American forces avoided the main road to escape the rear of Cornwallis' army, and reached Stony brook, near Princeton, at sunrise of the 3d. Washington crossed Stony brook, and sent General Mercer up the eastern bank of the stream to seize a bridge which Colonel Mawhood, the commander of the British, had already crossed with a portion of his troops. Mawhood discovered Mercer's advance, recrossed the bridge, and both detachments then endeavored to gain a rising ground in the vicinity. The Americans gained the position first, and a sharp engagement ensued, in which some of their officers fell, producing great confusion. The British charged with the bayonet, and as the Americans were without this arm, they were obliged to give way. General Mercer's horse was shot under him, and he then fought on foot. He was severely wounded, and refusing to surrender, was bayoneted and left for dead. Washington himself now

appeared on the field and rallied the broken troops. To do this he exposed himself to imminent peril, being between the contending forces and exposed to the fire of both.

A regiment of Virginians, with a battery of artillery, now opened upon the British and compelled them to retreat toward Trenton. The action was brief, yet the Americans lost thirty men, besides a number of excellent officers, and the British left about one hundred dead upon the field. Washington pushed on into Princeton, where he encountered and defeated another regiment. A detachment of the enemy were in Nassau Hall, which the Americans attacked, and compelled their surrender to the number of more than three hundred. Washington pursued the flying enemy toward New Brunswick. Cornwallis had, in the meantime, by a forced march, reached Princeton with his army, but Washington delayed them by the destruction of some bridges. Cornwallis repaired these and pushed on also to New Brunswick, which place he reached the same evening to find that, while his stores were intact, his troops there had been routed and the Americans had escaped with their prisoners. General Mercer died from his wounds on the 12th of January following. His remains were taken to Philadelphia and buried, with military honors, in Christ church-yard. Captain William Shippen, of Philadelphia,—also killed at Princeton,—was buried at St. Peter's, in that city. Washington added greatly to his military reputation by this battle and those preceding it at Trenton.

Independent of the college, there are in Princeton three classical schools and two schools for the instruction of young ladies. The hotels are good and extensive. Population, 2798.

LAWRENCE, fifty-two miles.

TRENTON, fifty-seven miles,—the capital of New Jersey and seat of justice of Mercer county,—is situated on the left bank of the Delaware river, at the head of navigation. The river at this point abruptly changes its character. Below it is a wide channel of commerce, flowing between low sand and alluvial banks and feeling the pulsations of the tides of the great Atlantic, while above it is a rippling stream, fringed by wooded hills, and presenting many vistas of beauty. The city of Trenton is regularly planned, with wide, straight streets and imposing residences. Many of these are surrounded



TRENTON.

with handsome grounds, beautifully shaded and ornamented with shrubbery. The capitol building, which has recently been enlarged and refitted, is a handsome structure and commands an extended prospect up and down the river. The State Lunatic Asylum and Penitentiary are here, and are well constructed and managed. In the capitol building is the State library, which now contains eighteen thousand volumes. Two bridges, substantially built and about eleven hundred feet in length, cross the river. The Delaware and Raritan canal passes through the city.

The first settlements were made on the site of Trenton about the year 1680, by Israel Pemberton, an English Quaker, and others, and in 1720 the present name was given to the city in honor of Colonel William Trent, then speaker of the house of assembly. The place was selected as the capital of New Jersey in 1790, and incorporated in 1792. While the growth of Trenton has been slow, it has always maintained a prominent rank among the cities of New Jersey for industry and enterprise, and its manufactures are extensive and important, consisting principally of pottery, iron products and machinery, paper, and flour. Its excellent water-power, as well as its nearness to immense iron and coal deposits, must always render it a favorite

locality for manufactories. In the immediate vicinity are stone quarries which are extensively worked, and the Trenton brown stone is largely used in the construction of public and private buildings in the neighboring cities and towns.

The early history of Trenton is full of interest to all Americans. It was through it and to the Pennsylvania side of the Delaware, immediately opposite, that Washington retreated, with his shattered and almost disheartened army, after the reverses suffered on Long Island, in the vicinity of New York, in 1776. It was on the 8th of December of that year that he crossed the river. Although the river was not frozen, yet it presented a barrier to the pursuing forces—consisting principally of Hessians, under Colonel Rall—which they did not dare to cross, and they went into camp on the Trenton side. Here they remained in confident security, anticipating no danger from the patriots on the opposite side, many of whom Washington, in one of his dispatches, describes as being “quite barefoot and ill-clad.” But their security was of short duration, for on the morning of the 26th of December, Washington and his forces recrossed the Delaware, surprised and completely routed the enemy, capturing nearly one thousand of them. In this

encounter Colonel Rall, the Hessian commander, was killed. After the engagement the Americans returned to the Pennsylvania side of the river. This blow was as encouraging to the patriotic Americans as it was astounding to the British. In conception and in daring it was so utterly unexpected, and its success so brilliant, that it compelled both friends and foes alike to respect and admire the American army and its leader. But Washington was not content to end the campaign with the laurels thus won. He knew that the scales between hope and despair were almost equally poised, and that determined action alone could turn the balance in favor of liberty. He, therefore, recrossed the Delaware on the 1st of January, 1777, and with his handful of men prepared to encounter the army of Lord Cornwallis in Trenton. On the 2d he met, and by courage and skill baffled, if he did not actually defeat, the enemy. This engagement continued during the entire day, commencing in the morning on the northern outskirts of Trenton, and terminating in the evening at the bridge over the Assumpink, in the city. Soon after midnight the American forces withdrew from the position they held in front of the British, and by a forced march reached Princeton, ten miles distant, where they fought the successful battle described in the sketch of that town. In the engagement at Trenton, Lieutenant Monroe, of a Virginia regiment,—who was afterwards President of the United States,—was wounded, and the weather was so intensely cold that several American soldiers were frozen to death. These movements and successes of the American army inspired new hope in the colonies, and enabled Washington to go into winter quarters at Morristown, New Jersey, instead of abandoning the State to the hitherto triumphant foe.

In 1793 the public offices of the United States Government were removed here, during the prevalence of the yellow fever in Philadelphia, and in 1798 Mr. Adams, President of the United States, took up his residence, temporarily, in Trenton.

Trenton has a number of excellent hotels, and offers many attractions to visitors. A banking capital exceeding three millions of dollars is employed in the business of the place. The Pennsylvania Railroad has large and commodious passenger and freight depots here, and two lines of railway belonging

to that company run to New York—the main route, and that via Bordentown and South Amboy. Two lines also connect with Philadelphia,—one by way of Camden, on the Jersey side of the Delaware, and the principal road, through Pennsylvania. The Belvidere Delaware Railroad—a division of the Pennsylvania Railroad, running along the beautiful and picturesque shore of the Delaware river to the celebrated Water Gap and the wonderful mineral region of the Lehigh valley—terminates in Trenton, where connection is made with the main line. Population, 22,874. Number of manufacturing establishments, 475; capital invested, \$5,022,349; hands employed, 5100; wages paid, \$2,092,349; materials used, \$4,981,541; value of products, \$8,881,074.*

SOUTH TRENTON, fifty-eight miles.

MORRISVILLE, fifty-eight and one-half miles, is opposite Trenton, on the Pennsylvania side of the Delaware river, in Bucks county. Like many other villages in the country, its proximity to a flourishing city seems to have exhausted its vitality, and it is a question whether Morrisville now contains the population or controls the trade it had half a century ago. But if it has nothing else to commend it to particular notice, it possesses a history, and one, too, with which romance is blended to a remarkable degree. During the Revolutionary war it was several times occupied as a camp of the American army, and here it was that Robert Morris, after whom it is named, paid over to General Washington the fifty thousand dollars he had borrowed on his own credit from the merchants of Philadelphia, which sum materially assisted the Father of our country to keep his army together, capture the Hessians at Trenton, check Cornwallis' triumphant advance, defeat Mawhood at Princeton, and turn the tide of success in favor of American independence. It is connected, too, with a noted name in European history, and this connection must ever shed the halo of romance over the decayed village.

Jean Victor Moreau, one of the greatest of Napoleon's generals, was born at Morlaix,

* Includes Mercer county. The aggregate of manufactures in the State of New Jersey, according to the census of 1870, was as follows:—Number of establishments, 6636; capital invested, \$79,606,719; hands employed, 75,552; wages paid, \$32,648,409; materials used, \$103,415,245; products, \$169,237,712. The population of the State in 1870 was 906,096. New Jersey lies between thirty-eight degrees fifty-six minutes and forty-one degrees and twenty-one minutes north latitude, and between seventy-four degrees and seventy-five degrees thirty-three minutes west longitude. It contains 8320 square miles, or 5,324,800 acres, of which 1,976,474 acres were improved in 1870.

France, in 1763, and was destined for the law, but when eighteen years of age enlisted in a French regiment. His father procured his discharge, determined, if possible, to check his military ambition. But destiny had ordained otherwise, and when the revolution broke out—that revolution which deluged France in blood, and remodeled the institutions of the civilized world—Moreau was made commander of a battalion of volunteers, and soon distinguished himself as a soldier. He rapidly rose to the highest rank, and was intrusted with the most important commands by Napoleon when first consul. It is claimed by some of his biographers that he excelled even the "little corporal" in strategic talent, and certain it is that he rivaled him in the affections of the army and the people. He did not approve of Napoleon's assumption of the rank and power of emperor, but made no open opposition. Napoleon appears both to have doubted and feared him, and to get rid of him caused his arrest, trial, and banishment from France for alleged treason.

Moreau was deeply imbibed by this act of injustice, and after traveling for some time, purchased a house in Morrisville, which had been erected and occupied by Robert Morris, where he was joined by his wife and child, and resided for several years. When the sovereigns of Europe combined, in 1813, to overthrow the Corsican whom they so much dreaded, Moreau in his retirement was remembered, and, presuming on his well-known hostility to Napoleon, emissaries were sent over by the Emperor Alexander of Russia to specially invite him to take service in his army, and aid by his skill in the delivery of a continent from its so-styled oppressor. Moreau consented and returned to Europe the same year, where he accepted command in the Russian army, stipulating, however, that no title or rank should be conferred upon him. To this the emperor acceded, and it was as his friend and adviser that Moreau took the field. His service was brief, however, for at the battle of Dresden, where he virtually commanded the allied army against the French, while talking to the Emperor Alexander he was struck by a cannon-ball, which shattered both his legs and killed his horse instantly. He was borne from the field, and the following letter, addressed to his wife, not only tells what followed, but illustrates the wonderful

heroism as well as the prejudice of the man:

"MY DEAR LOVE:—At the battle of Dresden, three days ago, I had both legs carried off by a cannon-ball.

"That scoundrel Bonaparte is always fortunate.

"The amputation was performed as well as possible.

"Though the army has made a retrograde movement, it is not at all the consequence of defeat, but from a want of *ensemble*, and in order to get nearer General Blucher.

"Excuse my hasty writing. I love and embrace thee with my whole heart.

"I charge Rappatel to finish.

"August 30th, 1813.

V. M."

Three days afterward Rappatel, who was his aid-de-camp, finished by writing to Madame Moreau that her husband was dead. The Emperor of Russia also wrote to the bereaved widow in the most consoling and affecting terms, tendering his friendship and gratitude.

Half a mile from the Grosse Garten, a pleasure-park near Dresden, the tourist will find, in the midst of the fields and slopes where hard fighting preceded the retreat of the French to Leipsic, at the great "battle of the nations," as the Saxons term it, a monument to Moreau,—a large, square block of granite, surmounted by a helmet,—marking the spot where he received his mortal wound. His dismembered legs were buried here, but his body was conveyed to St. Petersburg for interment, by order of his friend, the Czar Alexander. The mansion at Morrisville, owned and occupied by General Moreau, was destroyed by fire many years ago, and nothing now remains of it but the brick coach-house, which is used by the railroad company as a workshop. Population, 813.

PENN VALLEY, sixty-one miles.

WHEAT SHEAF, sixty-two miles.

TULLYTOWN, sixty-four miles.—Population, 150.

COLD SPRING, sixty-five miles.

BRISTOL, sixty-eight miles, is the most important and populous town in Bucks county. This was one of the three original counties established by Penn on the organization of his province, and was originally called Buckingham, after Buckinghamshire, in England, but the title was, at an early day, condensed to its present form.

Bucks county embraces a variety of soil and scenery. Some of its valleys are rich limestone, and the lower portion of the county is an alluvial soil very productive, while portions of it are poor and sterile.

Along the Neshaminy, Tohickon, and Durham creeks, as well as the smaller streams, the scenery is remarkably beautiful, and in many instances picturesque. Iron ore is found in the northern portion of the county, and a vein of plumbago has been worked, at different times, in the southern portion. Along the Delaware river, which forms the north-eastern and south-eastern boundary of the county, are some peculiar natural curiosities, such as caves, waterfalls, ravines, and springs. One of the latter, about three miles west of Doylestown, bears the name of Tammany, the great chief of the Delawares and the St. Tammany of American politics, and tradition claims—not very conclusively, however—that his remains are buried near it.

The early history of Bucks county is closely blended with that of Philadelphia. It was settled by various nationalities,—the English followers of Penn monopolizing the lower end, the Irish Presbyterians the central portion, and the Germans the upper end. The descendants of these early settlers are still found on the lands of their fathers, and their distinguishing peculiarities are plainly observable. During the Revolutionary war the county was often the scene of military operations, but escaped the horrors of battle,—the American army marching out of its boundaries, on more than one occasion, to fight. Washington had his headquarters, during a portion of the year 1776, at Newtown, a pleasant borough six miles from the bank of the Delaware.

Settlements were made in this county previous to the arrival of Penn, by Quakers who crossed from the Jersey shore, and as early as 1671 some families were located on the present site of Bristol.

The town was laid out upon lands granted to Samuel Clift, in March, 1681, by Sir Edmund Andros, provisional governor of New York. In 1720 it was incorporated as a borough by Sir William Keith, governor of Pennsylvania, being the second in the province. It was then, and continued to be, the seat of justice of the county until 1812, when Doylestown was elevated to that dignity because of its more central location. The town contains some venerable buildings,—among them a Friends' meeting-house built in 1712, and an Episcopal church more than a century old. About five miles above Bristol, on the shore of the Delaware, Penn's manor of Pennsbury was located. Here he

had erected a fine mansion immediately after the settlement of his colony, in which he hoped to live with his family, enjoying the honors of his station as proprietary, and surrounded by an affectionate and happy people. But his dream was never realized, and the mansion went to decay. During the early portion of the Revolutionary war Bristol was occupied as a camp of rendezvous and instruction for the Pennsylvania volunteers under General Cadwalader.

Bristol is built on the bank of the Delaware, at the mouth of Mill creek, and is the terminus of the Delaware division of the Pennsylvania canal. It contains a number of manufacturing establishments of various kinds, several grist and saw mills, good hotels, excellent schools, fine churches, public halls, and is altogether a flourishing and pleasant borough. During the summer months steamboats ply regularly between Philadelphia and Bristol, and twenty trains per day are run over the Pennsylvania Railroad to and from this point. Population of Bucks county, 64,336; of Bristol, 3,269. Number of manufacturing establishments, 739; capital invested, \$2,808,968; hands employed, 3,425; wages paid, \$817,292; materials used, \$2,909,773; value of products, \$4,732,118.*

SCHENCK'S, seventy and one-half miles.

EDDINGTON, seventy-two miles.

CORNWELL'S, seventy-three miles.

ANDALUSIA, seventy-three and one-half miles.

BORIE'S, seventy-four miles.

TORRESDALE, seventy-five miles.

PIERSON'S, seventy-six miles.

PENNYPACK, seventy-seven miles.

HOLMESBURG JUNCTION, seventy-eight miles.—Holmesburg is a suburb of Philadelphia, and is within the city limits. The House of Correction is located here. The branch road is continued to Bustleton, distant four miles, also within the limits of the city.

TACONY, seventy-nine miles.—Within the corporate limits of Philadelphia.

WISSINOMING, eighty miles.—Within the city limits.

BRIDESBURG, eighty-one miles.—Within the corporate limits of Philadelphia. A United States arsenal is located here.

FRANKFORD, eighty-one and one-half miles.—An important suburb within the

* Includes Bucks county.

corporate limits of Philadelphia. The Frankford Arsenal—one of the most extensive belonging to the United States Government—is located here. Junction of branch road to Kensington, which is a part of the compactly-built portion of the city, and the terminus of the branch. Previous to the construction of the Connecting Railroad, which unites the New Jersey Division with the Pennsylvania Railroad proper, at West Philadelphia, Kensington depot was the principal point for the departure of trains to New York.

HARROWGATE, eighty-three miles.

NORTH PENNSYLVANIA JUNCTION, eighty-four and one-half miles.—Intersection with North Pennsylvania Railroad, running to Bethlehem.

GERMANTOWN JUNCTION, eighty-five and one-half miles.—Point of intersection with Germantown, Norristown, and Chestnut

Hill Railroads. Germantown and Chestnut Hill are within the corporate limits of Philadelphia.

MANTUA JUNCTION, eighty-nine miles.—Intersection of the New York Division with the Pennsylvania Railroad proper.

WEST PHILADELPHIA, ninety miles.—Terminus of New Jersey Division and general passenger depot of the Pennsylvania Railroad, from which trains leave for the West, South, and East. It is connected with all parts of the city by passenger railways, on which cars run at all hours, day and night. The large and extensive workshops and warehouses of the company are located here. In approaching or leaving the depot, passengers have a fine view of portions of Fairmount Park, including the city water-works and the beautiful Schuylkill river. West Philadelphia is a compactly-built portion of the city.

PENNSYLVANIA RAILROAD.—MAIN LINE.

PHILADELPHIA—the second city in the United States in population, and the first in the number of its buildings, territorial area, and manufacturing importance—is built upon the right bank of the Delaware river, ninety-six miles from the ocean. It was laid out by direction of William Penn, the proprietor and founder of Pennsylvania, in 1682.

Previous to that time the country along the Delaware bay and river,* to a point considerably above the site of the city, had been settled by the Dutch, the Swedes, and some English who came here while the colony at New York claimed jurisdiction over the land north of the territory granted to Lord Baltimore, embraced in the colony of Maryland. The boundaries of the first charters granted by the English Government to American colonies were very much confused. For instance, the limits of both North and South Virginia included New York. The charter of Maryland invaded the territory of New York; while that of Connecticut encroached upon both Pennsylvania and New York, and extended, in fact, to the Pacific ocean. The indefinite character of the Connecticut charter led, at a subsequent period, to serious difficulty between that colony and Pennsylvania, both claiming jurisdiction over the Wyoming valley, and both insisting upon their right, even to the point of shedding blood.

The Dutch are unquestionably entitled to the credit of being the first Europeans to explore and endeavor to settle the country adjacent to the Delaware bay and river. Captain Cornelius Jacobus Méy, in the service of the Dutch East India Company, entered the bay in 1623, and his name is perpetuated in the cape which bounds it on the east. Cape Henlopen, which bounds it on the west, is so named from Jelmer Hin-

lopen, another Dutch navigator. About the same year the Dutch effected a settlement at Gloucester Point, opposite Philadelphia, and erected a stockade for its defense, which they called Fort Nassau. In 1631 they formed several expeditions for the purpose of colonizing the country. A company of merchants of Amsterdam, of whom Samuel Goodyn was one, sent out two vessels, under command of Captain de Vries, to carry out their plans. This company purchased Cape May from the Indians, and there effected a settlement, which they called Swandale, "from the number of swans they found in a creek near by," which settlement was designed to "raise tobacco and grain, and catch whales and seals." But the venture was not successful. The Indians destroyed their settlement, and the whale and seal fishery proving a failure, the Dutch appear to have abandoned the country until they had grown more powerful at New Amsterdam, when, in 1655, they made the invasion, immortalized in "Diedrich Knickerbocker's History of New York," under Governor Stuyvesant, and conquered it from the Swedes.

The Swedes appear to have effected their lodgment here about 1637, under the reign of Queen Christina, and her name was given to a number of localities and improvements; such, for instance, as Christina creek, Christina church, Christina hundred, etc. They were a hardy, honest, frugal, and enterprising people, and the settlements they established soon became flourishing. Their intercourse with the natives must have been fair and generous, for the Indians were their firm friends. Several years before the publication of Eliot's Bible in the Indian dialect, in New England, the Swedes here had their religious service printed in the language of the aborigines. In all respects their settlements appear to have been well regulated, and justice was meted out with an impartiality and firmness that would have been creditable even to their mother

*The Indian name of the bay was *Poutaxat*. The river was called *Lenape Whittuck*, signifying "the rapid stream of the Lenape." It also bore the name of *Makerick Kitten*. The Dutch called the bay *Zuydt*, signifying south. The English gave it its present name, in honor of Lord Delaware.

country. When they were conquered by the Dutch, and subsequently came under the jurisdiction of the English colony at New York, they submitted to the inevitable with good grace. One of them, in a letter, tells how they lived:—"We are almost all of us husbandmen, and our meat and drink is after the old Swedish custom. The country is very rich and fruitful, and we send out yearly to our neighbors on this continent bread, grain, flour, and oil. We have here, thank God, all kinds of venison, birds, and fishes. Our wives and daughters spin wool and flax, and many of them weave. We live in good peace and friendship with the Indians; and we only wish we had good and faithful shepherds and guardians of our souls. We may add, that since we are no longer under the government of Sweden, we have been well and kindly treated by the Dutch and the English." They appear to have preserved their native language for many years after their absorption into the English colony, and many of them occupied places of distinction and trust under that government. The titles to the lands they held were confirmed by the new authorities, and some of their descendants continued in possession of them until the present century. But the lapse of ages has obliterated their nationality and so anglicized their names that but few of them can now be recognized as those of their forefathers.

The Indians who inhabited the country bordering on the Delaware appear to have been a superior and peaceful race. They were called the Lenni Lenape, which signified in their language "the original people." They claimed by their traditions to have come from west of the Mississippi river, and to have conquered and driven off the people they found here. The early Swedish writers describe them as being "tall, strong, nimble, and limbs well proportioned. Their color was yellowish-brown, their faces broad, small black eyes, large lips, and short, broad teeth, very white." Their language was thought, by those writers, to resemble the Hebrew, and the Indians themselves were not physically unlike the children of Israel. In their dealings with the white men they were scrupulously honest, and many of them became strongly attached to the early settlers. The treaties they made, which cost them so much and profited them so little, were never broken; and when they had dwindled away, before the advancing tide of

civilization, to a mere remnant of a mighty race, they left the burial-places of their fathers in search of new homes without a stain upon their honor.

William Penn acquired his right to the territory embraced in Pennsylvania by a grant from Charles the Second, confirmed under the great seal on the 5th of January, 1681. It was made to him in liquidation of a debt due to his father, Admiral Penn, of the British navy. In describing this grant, and explaining the name given it, Penn writes:—"This day my country was confirmed to me by the name of Pennsylvania, a name the king would give it, in honor of my father. I chose New Wales, being, as this, a pretty hilly country; but Penn being Welsh for a head, they called this Pennsylvania, which is the high or head woodlands, for I proposed (when the secretary, a Welshman, refused to have it called New Wales) Sylvania, and they added Penn to it; and though I much opposed it, and went to the king to have it struck out and altered, he said 'twas past, and he would take it upon him; * * * for I feared lest it should be looked on as a vanity in me, and not as a respect in the king, as it truly was, to my father." Penn, being thus in possession of his province, at once began to offer inducements for its settlement. His terms were "forty shillings per one hundred acres, and one shilling per one hundred acres for quit-rent." These terms soon brought many purchasers, among them the "Free Society of Traders," formed in London, Bristol, etc., which bought at first twenty thousand acres, and the appurtenant city lots assigned them were "an entire street, and on one side of a street, from river to river." The lots thus acquired are said to have been on Spruce and Pine streets of the present city. In addition to this, they had four hundred acres in the Liberties. The original cost of this purchase was about \$2000; but it must be remembered that money had a much higher relative value then than now. Many other sales were made, including the present site of Germantown to a society of Germans formed in Frankfurt.

The first colony for Pennsylvania left England in August, 1681, in three ships, and the earliest to arrive was the ship "John and Sarah," from London, commanded by Captain Smith. The other two vessels did not arrive for some time after. It appears that



NEW PUBLIC BUILDINGS, FROM BROAD AND ARCH STREETS.

these colonists landed at the Swedish settlement of Upland (now Chester), and remained there during the first winter. At the time of their arrival Philadelphia had not been located or surveyed. Indeed, it would seem that Penn was in no great hurry to lay out his metropolis, being determined to select the most available position for it. This was finally accomplished, and in 1683 Penn writes, saying, "Philadelphia is at last laid out, to the great content of those here;" and adds, "of all the many places I have seen in the world, I remember not one better seated, so that it seems to me to have been appointed for a town." The survey of the town was made by Thomas Holme, who had been appointed surveyor-general of the province in England, and arrived here in the early part of the summer of 1682. His plot was completed about the end of that year, and copies of his original map are still in existence. The ground embraced in his survey extended from Cedar street on the south to Vine street on the north, running through from the Delaware to the Schuylkill, and this continued to be the limits of the "old city" up to the consolidation of the districts, and, in fact, the entire county, in 1854. At the time this survey was made, there were no improvements within its limits. The Swedes had a settlement on its southern border, and it is probable that some lived north of it; but its area was an unbroken wilderness, intersected by creeks and streams, dotted with swamps and ponds, and crossed at various places by Indian paths. The forest trees were noted for their magnitude, and gave to the place the Indian name of *Coquanock*, signifying "the place of tall pines." On the Delaware front was a high bank, in which the first settlers excavated caves, where they resided while their new homes were being erected. Philadelphia was organized as a borough, with a mayor and six aldermen, in 1684; and on the 25th of October, 1701, Penn granted it a charter as a city. In the midst of such scenes and under such circumstances was commenced the building of a great city—a city founded by deeds of peace and named *Brotherly Love*—devoted by its founder "to freedom for all mankind," "where the will of no one man should hinder the good of a whole country;" and from the seed thus planted has sprung a metropolis which has known only prosperity, and which combines within itself as much of comfort and happiness for its

people as can be found in any one place in the world.

The character of William Penn, both public and private, presents an admirable blending of simplicity, purity, generosity, and wisdom. He devoted all his energies and abilities to the welfare of the colony he had founded, and his private fortune was liberally used for that purpose. In return for all this he received but little, either in gratitude or money, and his life was full of cares and sorrows. His first residence here was about two years, as his business concerns compelled him to return to England in 1684. In 1699 he came back to Philadelphia and remained until 1701, when he was again called to England by the exigency of his affairs, and he never again set foot upon the soil of the New World which he so much loved. While in England he was imprisoned once for debt and four times for his religion. His financial embarrassments became so great that he was compelled to mortgage his colony, and finally, in 1712, he negotiated a sale of it to the crown for the sum of twelve thousand pounds sterling, which sale, however, was never consummated. Broken in health, disappointed in hope, and saddened by the ingratitude of many whom he had loved and befriended, he died on the 30th of July, 1718, in the seventy-fourth year of his age, and was laid to rest in the peaceful burial-ground at Rushcombe, in Buckinghamshire. His character has been assailed and his motives impugned, but there is no evidence in contemporaneous history to sustain the aspersions. His proprietorship was paternal, his government generous, his laws reasonable and just, and the Commonwealth he founded is the only one in the world that perpetuates the name of its founder.

From its foundation Philadelphia may be said to have had an uninterrupted career of prosperity. Freed, as it was, from hostile Indians, and having none of the calamities to contend with which so harassed and impoverished the early settlements in Virginia and New England, it increased steadily in population and commerce, and soon became the first city on the continent—a position it continued to hold until long after the Revolutionary war, and in some respects still maintains. Its trade with England at an early period was flourishing and profitable, and its commerce with the West Indies grew to a magnitude which, at the present time, can hardly be realized. In 1701 the



GRAVE OF BENJAMIN FRANKLIN.

revenues of the port were returned at forty thousand dollars. This commerce was to some extent interfered with, during the first decade of the eighteenth century, by the war between England and France, in which privateers of the latter nation visited the lower Delaware and burnt a number of vessels belonging to the colonists. A feeling of resentment among the Philadelphians was inspired by these hostilities, and public meetings were held to provide means of defense and urge protection from the home government.

The Quaker element for a long time held a controlling influence in the community, and at an early period exerted itself for the amelioration of the condition of the slaves and the abolishment of the colonial slave

trade. The Friends' meeting at Germantown issued an address in 1688 against slavery. In 1712 William Southbee petitioned the assembly of the colony for a law freeing the negro slaves, but the house resolved that "It is neither just nor convenient to set them at liberty." These humanitarian efforts were revived and renewed from time to time, and as long as slavery had an existence in the country its most determined opponents were found among the Friends in Pennsylvania.

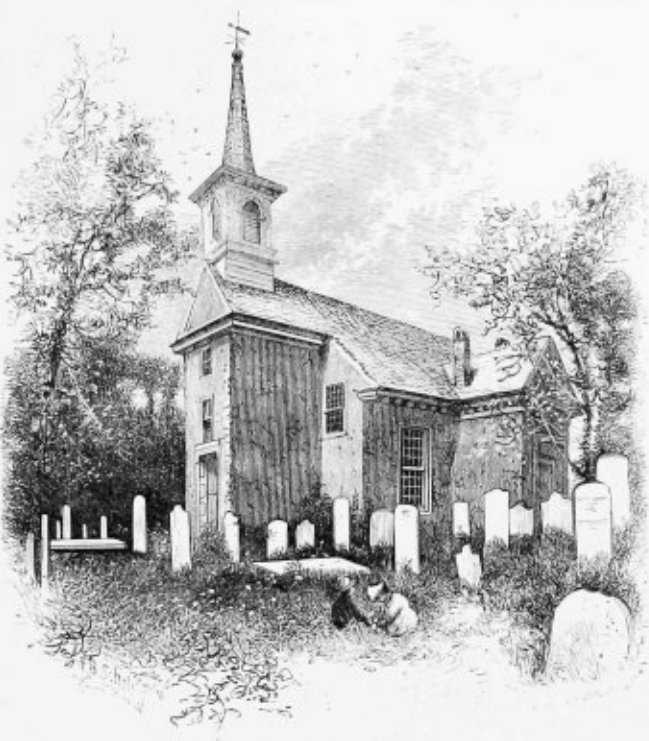
Not only did the city flourish and grow in wealth and population, but it evinced considerable interest in the dissemination of knowledge, and became noted for its scholars and inventors. This, doubtless, to a great extent, was owing to the freedom which Penn allowed in his laws to the press, and to the marked ability of some of its early inhabitants. The names of Benjamin Franklin,* Adam Smith, David Rittenhouse, Thomas Godfrey (the inventor of the quadrant), Oliver Evans (an early and successful experimenter with the steam-engine), and John Fitch (who unquestionably may claim the honor of building and running the first steamboat), are known to the world, and around them clustered many other men of genius and ability who died and left no

memories to outlive their time. In 1731 Dr. Franklin established the first public library on this continent. It consisted of an association of thirty-eight persons, who paid forty shillings each per year for its support and increase. In 1740 a room was given it in the State House, and in 1742 it was incorporated as the "Library Company of Philadelphia." As such it still exists, and has grown to a magnitude and value

* Franklin was as remarkable for his wit as his wisdom, and many anecdotes are told illustrating his peculiarities. Among them is the following:—In 1756 Franklin and others, including Governor Denny, were at Easton making a treaty with the Indians. When the Indians gave their names to the governor he would ask "Ben," as he called him, what he should think of to remember them by. He was always answered promptly. At last an Indian came whose name was Tocarededhogan. "What shall I think of to remember this name by, Ben?" asked the governor. "Think of a wheelbarrow—to carry a dead hog on!" promptly answered the doctor.

second to no other institution of the kind in the United States. Medical lectures were first given in the city in 1762, by Dr. Shippen; and not long afterward the first medical school in America was regularly established by the authority of the trustees of the College of Philadelphia, of which Dr. Franklin was president. This college is still continued, under the title of the University of Pennsylvania. The Pennsylvania Hospital—an institution of the highest order of merit, and based upon the broadest principles of philanthropy—was founded in 1755.*

Notwithstanding the rapid improvement and growth of Philadelphia, the city possesses more relics of the past—more edifices around which hang a halo of history—than any other in the Union. The oldest among these is a portion of Penn's cottage, in Letitia court—a small street running from Market to Chestnut, between Front and Second. This house was built for Penn's use before his first arrival in the colony. It is a little two-story brick house, and is now occupied as a tavern. Near this is the Old London Coffee House, on the corner of Front and Market streets, a noted place in early colonial days, and which is at present a tobacco store. It was built in 1702. The Old Swedes' Church, which stands on Swanson street, (so named from the Swedish family who once owned all the land in that part of the city,) below Christian, is one of the most venerable edifices in America. The first church upon the site was erected in 1677, and served both for a place of worship and a block-house, being constructed with loop-holes and other appliances of defensive warfare. The present brick edifice was built in 1700, to take the place of the old one,



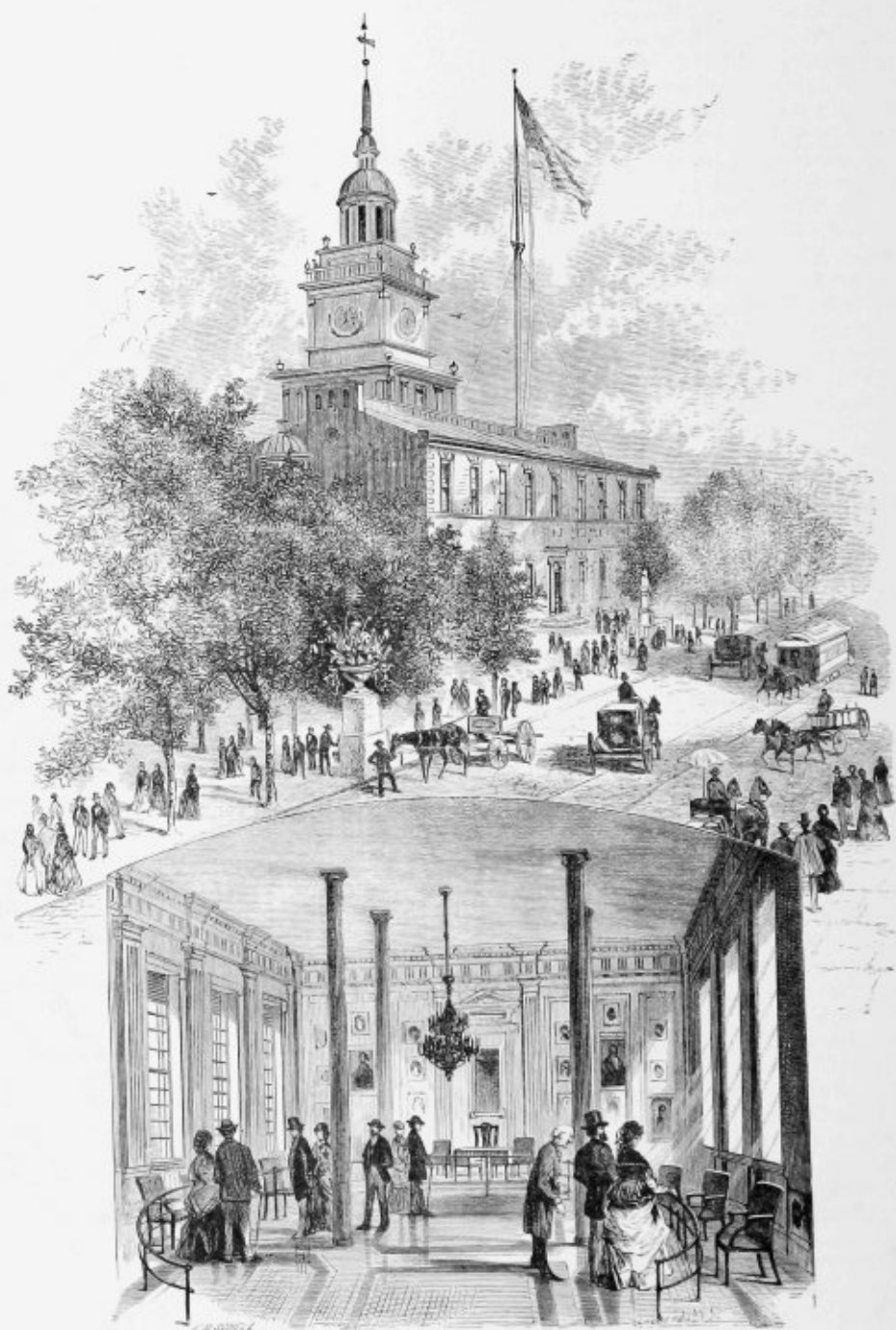
SWEDES' CHURCH.

and it stands venerable in its antiquity and hallowed by its associations.

Another sacred relic of colonial times is Christ Church, on Second street, north of Market. It was begun in 1727 and finished, by the raising of the steeple, in 1754. Its chime of bells is among the oldest on this side of the Atlantic. On the tenor is inscribed, "Christ Church, Philadelphia. Thomas Lester and Thomas Peck, of London, made us all." When the British troops took Philadelphia, these bells, like others in the city, were removed to prevent them falling into the hands of the enemy and being cast into cannon. They returned with the patriots, and have remained to peal forth their music ever since. In their time they have summoned to worship some of the greatest men our country has produced. Washington was a regular attendant at Christ Church when President of the United States, and many of the heroes and patriots of the "times that tried men's souls" rest in its vaults.

"Independence Hall," the Mecca of American freemen, stands on Chestnut

* The corner-stone of the hospital building contains the following inscription, which succinctly shows the origin and objects of the institution:—"In the year of Christ MDCCLV., George the Second happily reigning, (for he sought the happiness of his people,) Philadelphia flourishing, (for its inhabitants were public-spirited,) this building, by the bounty of the government and many private persons, was piously founded for the relief of the sick and miserable. May the God of mercies bless the undertaking!"



STATE HOUSE AND INDEPENDENCE HALL.

street, between Fifth and Sixth. It was commenced in 1729 and completed in 1734. This building has been so often described, that almost every school-boy is familiar with its history. It was in it that the Declaration of Independence was considered and adopted, and from its portals it was proclaimed. In it Washington received his commission as commander-in-chief of the American army; in it the Articles of Confederation were adopted in 1778; and in it the Constitution of the United States was framed in 1787. Almost every name and every incident connected with the birth of the nation is associated with this edifice. It is a shrine which hundreds visit daily, and its sacredness must increase as experience demonstrates the wisdom of those who, within its walls, perfected a system of government "by the people and for the people."

Another edifice, scarcely less sacred, is "Carpenters' Hall," which stands to the south of Chestnut street, between Third and Fourth streets, and is reached by a passage-way from the street first named. It was built in 1770 by the Association of House Carpenters, and is still owned by them. The first Colonial Congress assembled in this building September 5th, 1774,—that body which Lord Chatham declared to Benjamin Franklin to be "the most honorable assembly of men that had ever been known,"—and it was in it that Patrick Henry poured forth those passionate appeals for liberty which so electrified the colonies. This hall was occupied for a number of years by the Bank of the United States, subsequently as the custom-house, and for other purposes; but is now restored, as nearly as possible, to its original condition.

While Philadelphia was growing in wealth and importance, her enterprising citizens were not unmindful of the advantages to be gained by intercourse with the country around them. To facilitate this, regular post-routes were established to New York, Baltimore, and places even more remote,



CHRIST CHURCH.

as early as 1756. The most distant places were reached only by post-riders; but to New York and Baltimore stage lines ran, and it was deemed an achievement when those cities were brought within three days' travel. Roads were opened to several points in the colony—particularly to the Susquehanna river,* and from those points trails were continued to the Ohio, and supplies carried to trading and military posts there by trains of pack-horses. In 1771 a commission, of which Dr. Franklin was one, was appointed to select a suitable point for bridging the Schuylkill river, and Market street was fixed upon. When the bridge was

* In "An Account of the European Settlements in America," published in London in 1761, the authorship of which is attributed to Edmund Burke, after alluding to the commercial enterprise of Philadelphia, the writer says:

"Beside the quantity of all kinds of produce of this province which is brought down the rivers Delaware and Schuylkill, * * * the Dutch employ between eight and nine thousand wagons, drawn each by four horses, in bringing the produce of their farms to this market."



CHESTNUT STREET, FROM NINTH.

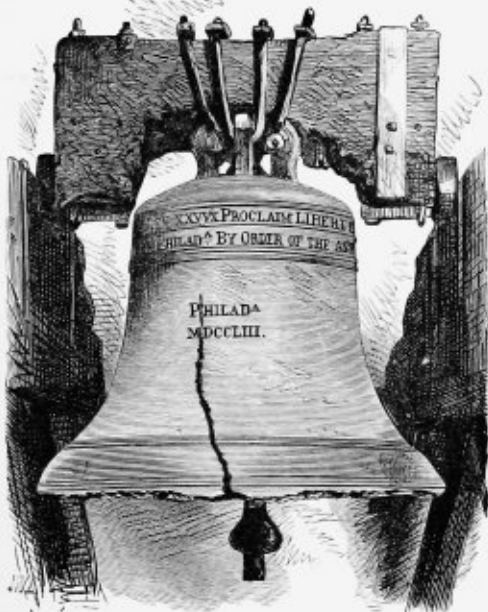


CARPENTERS' HALL.

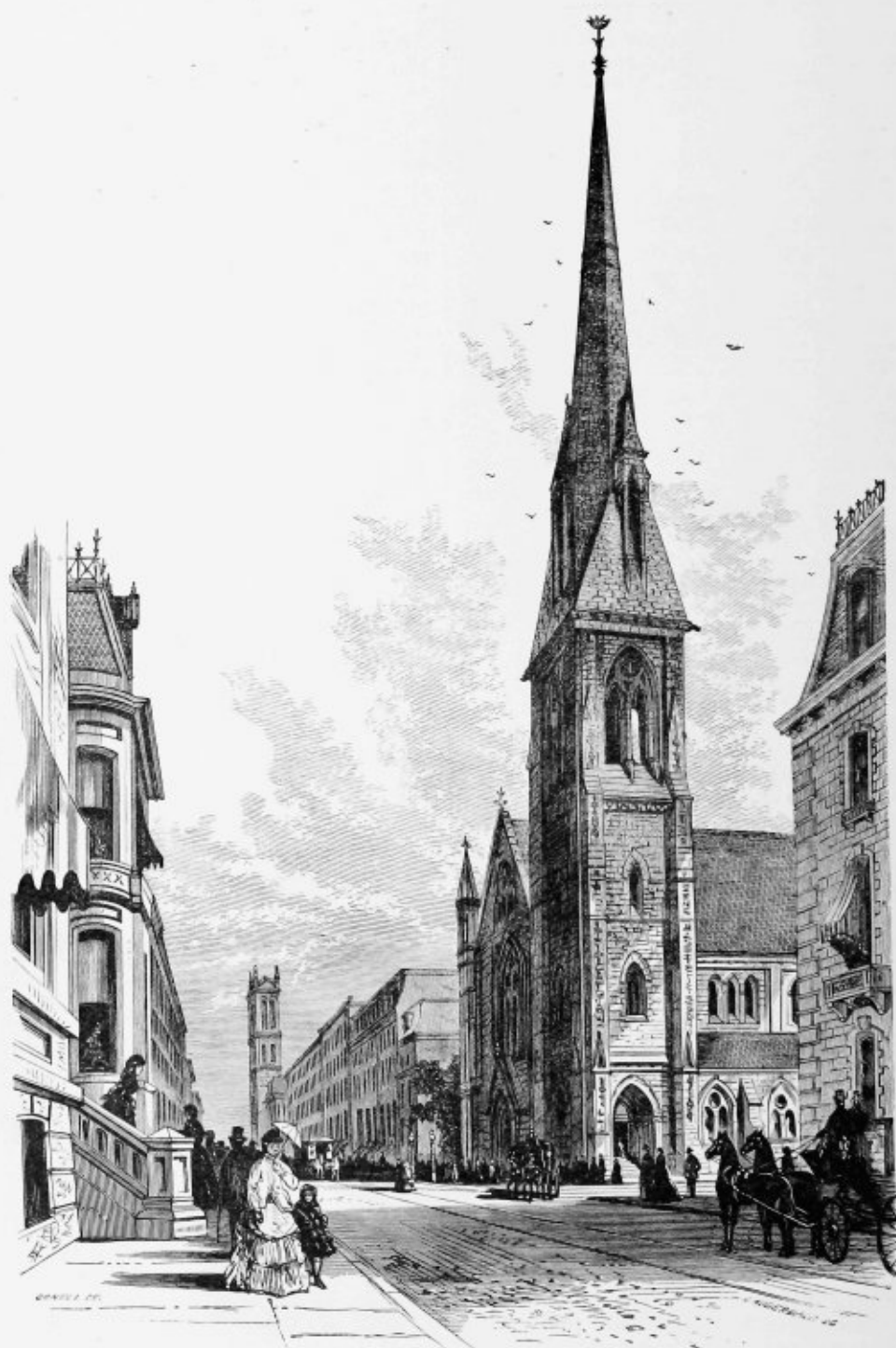
built it proved, according to early chronicles, "a great convenience to the people."

Thus passed away more than three-quarters of a century, while the colonists of Penn and their descendants were building up a city, founding a State, and firmly establishing those principles of justice and liberty which had induced them to seek homes in the new world. But the reign of peace was ended, and the colonies were preparing to resist an oppression they could no longer endure. The first Colonial Congress had met in Carpenters' Hall, and, after declaring their determination to insist upon their rights as men and as freemen, had adjourned. The second now convened in Independence Hall, on the 10th of May, 1775. When it adjourned the colonists had girded on their armor, and pledged their lives, their fortunes, and their sacred honor to be free and independent. Philadelphia then became, more than ever, the centre of the United States, and for the next eight years her history is a most stirring one. It was here that Washington was proclaimed commander-in-chief of all the forces raised and to be raised for

the achievement of independence. It was here that Mercer and Wayne and Sullivan, and hundreds of other heroes whose names are immortal, rallied around the great chieftain, never to desert him while life lasted and the cause he championed needed their services. It was here that Robert Morris planned and executed his financial schemes, which kept the suffering band of patriots together through the long struggle that so gloriously terminated with the surrender of Cornwallis at Yorktown. During the struggle the country around Philadelphia was made sacred by many battles. To the west, and at the distance of but a few miles, lies the field of Brandywine, where the Americans, under Washington, so gallantly but fruitlessly, contended for an entire day, on the 11th of September, 1777, against the well-appointed veterans of Great Britain, commanded by General Howe. Again, at Germantown, within the present city limits, the same forces met, on the 4th of October of the same year, and fought with equal desperation, but with similar results. It was at Red Bank, a month later, in sight of the city, that the Hessians were so gallantly repulsed by Colonel Greene, and Count Dunop, their commander, fell and lies buried. It was through the counties of Chester and Bucks that "Mad Anthony Wayne" and



LIBERTY BELL.



WEST WALNUT STREET.

Col. John Lacy and their Pennsylvanians raided, with a daring that no obstacles could check, for provisions to feed Washington's starving army at Valley Forge. It was through the streets of Philadelphia that the Hessians, captured at Trenton, were marched by their tattered guards. It was through the same streets that the entire Continental army paraded, headed by Washington, when it became necessary to convince the doubting that the struggle against the power of Great Britain was not a hopeless one. And it was here that Pennsylvania's Committee of Safety put forth that unconquerable zeal and determination which knew no shadow of fear and no abatement of hope until the war had accomplished all they desired.

During the war the British forces held possession of Philadelphia about nine months, having entered it on the 26th of September, 1777, and evacuated it on the 19th of June, 1778. The winter they passed here was marked by unusual gayety, and the British officers were untiring in their efforts to provide amusements for themselves and the ladies with whom they associated. Theatrical performances were frequently given, and one of the most active participants in and promoters of these was Major André, whose sad fate at a later period is so well known. Before leaving the city, in the spring, a magnificent *fête* was given by the officers in honor of their commander. It was called the "Meschianza," and consisted of a regatta, a tournament, and a ball, all carried out with a regard to detail and a lavish expenditure never surpassed, if equaled, on this continent. Major André pronounced it, in a written description, "the most splendid entertainment ever given by an army to its general."

After the evacuation of the city by the British, the American army retook possession, and General Benedict Arnold was placed in immediate command. His style of living rivaled that of the English lords who had preceded him; and it is believed that this extravagance led to the embarrassments which afterward caused him to attempt the sale of his country. The Continental Congress resumed its sessions here, and the invaders never again trod the streets as conquerors. From that time until the close of the war Philadelphia continued to be the centre of the struggling colonies.

During the Revolution the first bank in the United States was established here.

This was called the Bank of Pennsylvania, and was founded by some patriotic gentlemen in 1780, for the temporary purpose of supplying the army with provisions. In 1781 the first permanent institution of the kind was established. This was the Bank of North America, which was incorporated by the Continental Congress, and began its existence with specie sent from France, at the instance of Robert Morris. This, and the specie left in the city by the British, placed it on a firm basis. In 1789 it issued bills of the denomination of one penny, for the purpose of supplying change. The bank is still in successful operation.

When peace was proclaimed and the national existence recognized, New York became, for a time, the seat of government; but in 1790 it was removed to Philadelphia, where it remained for ten years, and then was finally fixed at Washington. The establishment of the national capital here brought with it Washington, who was then President; John Adams, Vice-President; and Thomas Jefferson,* Alexander Hamilton, General Knox, and others who were connected with the cabinet. Not one of the mansions occupied by these men is now standing. Congress held its sessions in the building at the south-east corner of Sixth and Chestnut streets, which still remains, externally, in the condition it then was,—the House of Representatives occupying the first floor and the Senate the second. The Supreme Court of the United States sat in the second floor of the building at the corner of Fifth and Chestnut streets, now occupied by the mayor.

Washington's residence in Philadelphia has been very minutely described by the chroniclers of the times. "He had formal receptions as President every two weeks, on Tuesday afternoon. At three o'clock the visitor was introduced to his dining-room, from which all seats had been removed. On entering he saw the tall, manly figure of Washington, clad in black silk velvet, his

* The following anecdote is related of Jefferson's residence here:—"Being of an investigating mind, the philosopher, it is said, tried a philosophical experiment, which did not come up to his theories. Reasoning on the fact that plants may be preserved in hot-houses in winter merely by the warmth of the sun shining through the glass, the 'Sage of Monticello,' arguing on the supposition that men require no more caloric than plants, tried the experiment as to whether he could do without other heat in winter than that yielded by the sun's rays, which were to be admitted by properly fitting up the south veranda. Unfortunately for philosophy, practical knowledge satisfied him that men are not precisely similar to plants, and the experiment was declared unsuccessful."



GIRARD COLLEGE.

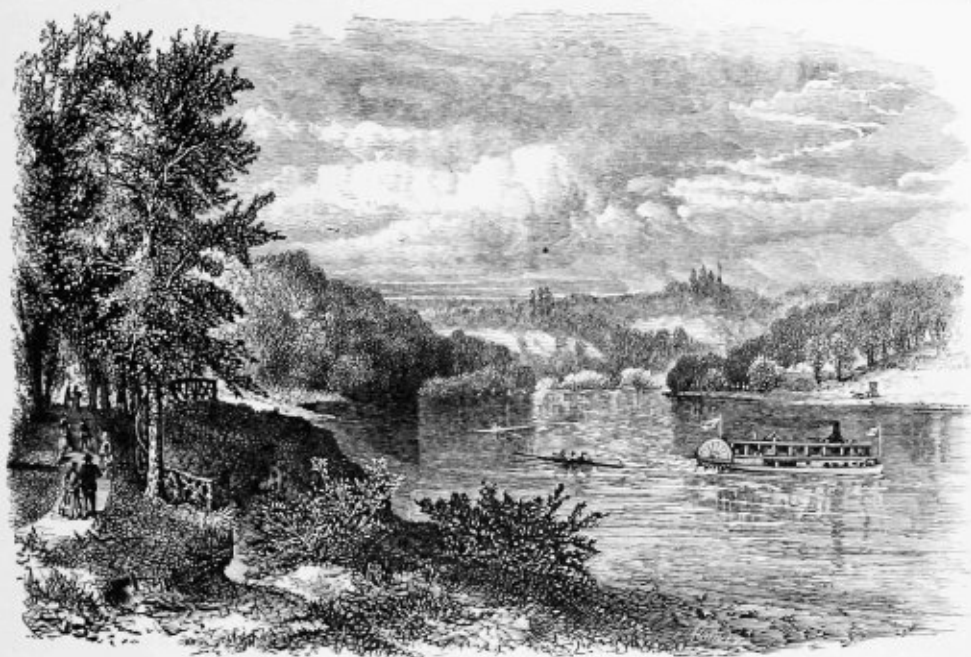
hair in full dress, powdered and gathered behind in a large silk bag; yellow gloves on his hands, holding a cocked hat, with a black cockade in it, and adorned with a black feather about an inch deep. He wore knee and shoe buckles and a long sword. He stood always in front of the fire-place, with his face toward the door of entrance. The visitor was conducted to him and his name distinctly announced. He received his visitor with a dignified bow, in a manner avoiding to shake hands, even with best friends. As visitors came they formed a circle round the room; and at a quarter past three the doors were closed and the circle was formed for that day. He then began at the right and spoke to each visitor, calling him by name and exchanging a few words. When he had completed his circuit he resumed his first position, and the visitors, approaching him in succession, bowed and retired. His dinner-parties were given every Thursday, at four o'clock, precisely,—never waiting for any guests. He always dressed in a suit of black, sword by his side, and hair powdered. Mrs. Washington often, but not always, dined with the company, and if there were ladies present they sat on each side of her. Mr. Lear, his private secretary, sat at the foot of the table, and was expected to be specially attentive to all the guests. The President himself sat half-way from the head to the foot of the table. He always asked a blessing at his own table, and in a standing position. If a clergyman was present he

asked him to do it. The dishes were always without covers; a small roll of bread, enclosed in a napkin, was on the side of each plate. The President generally dined on one dish, and that of a very simple kind. He avoided the first or second course as 'too rich for me!' He had a silver pint cup or mug of beer placed by his plate, of which he drank; he took but one glass of wine at dinner and commonly one after. He then retired, (the ladies having gone a little before,) leaving his secretary to tarry with the wine-bibbers." He used a coach-and-four, with two footmen in livery, when he went abroad, and it was a common thing to see a

crowd collected in front of Christ Church, waiting to catch a glimpse of him as he emerged and drove away. His manner is described as being affable—almost paternal, his expression grave, and his dignity marked and impressive.

After the removal of the seat of government to Washington, Philadelphia lost much of her political prestige, but none of her importance as a place of business. Her commerce grew rapidly during the early part of the nineteenth century, and her supremacy in this respect over all American rivals was unquestioned. Her trade with the East and West Indies developed into prominence, and the accumulation of wealth by her merchants was rapid and vast. Some of the names connected with her commerce are familiar to most readers, and one of them, by the magnificent charity and wonderful foresight of him who bore it, is so blended with Philadelphia that no sketch of the city could be complete without its mention.

Stephen Girard came here in his youth, comparatively poor. He was a Frenchman by birth, but at an early age went to sea and followed it for many years. It was as captain of a ship that he first entered the Delaware, and he continued to make his voyages for some time after he had fixed upon this as his home. Finally he settled down in Philadelphia as a general trader, and by his almost supernatural sagacity and indomitable energy accumulated the largest fortune ever, up to that period, gained by an American. He died in 1832, leaving all



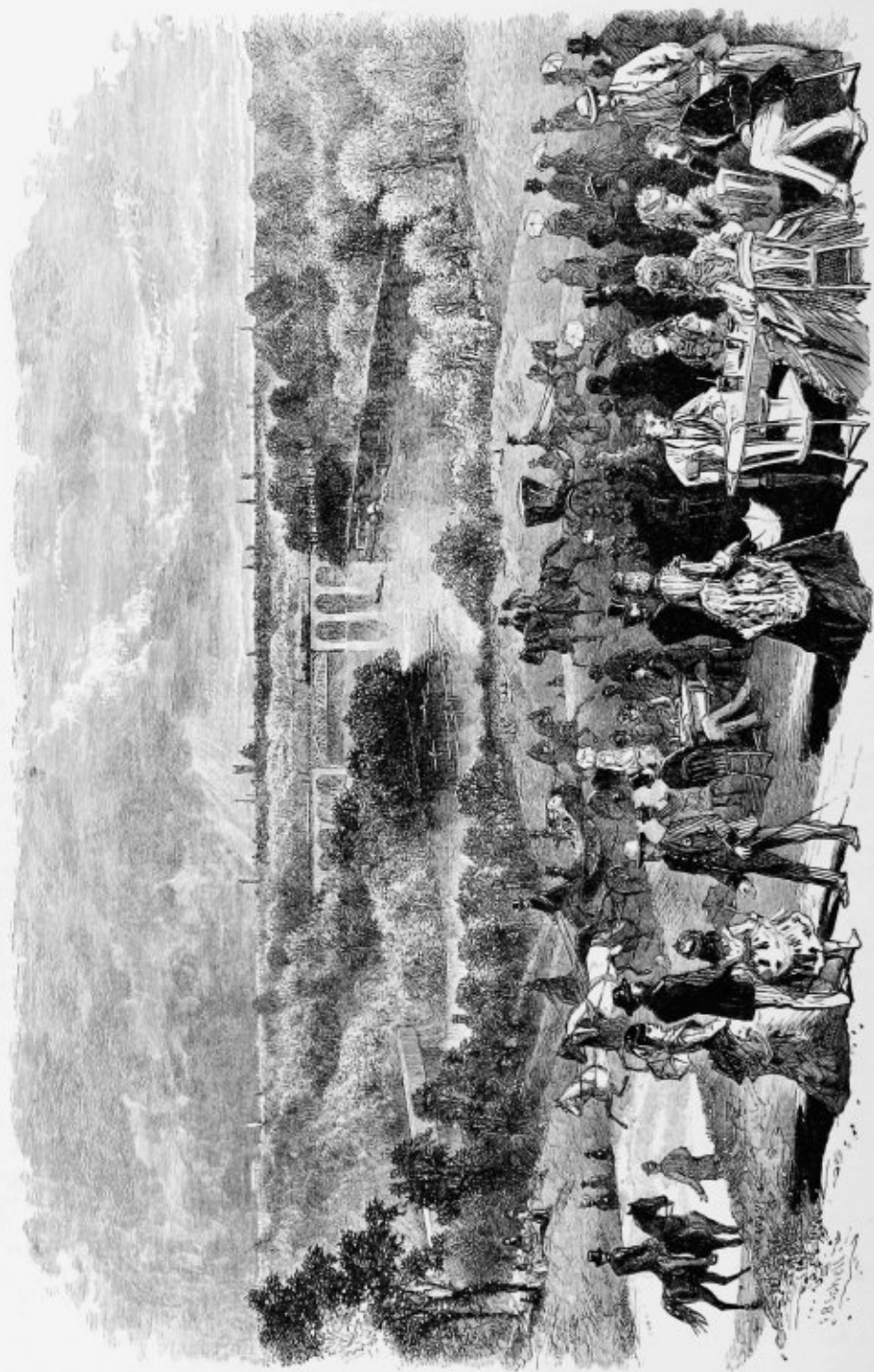
FAIRMOUNT PARK, FROM CONNECTING RAILROAD BRIDGE.

his property, with the exception of a few insignificant personal bequests, to the city. At that time his estate so bequeathed was estimated at several millions of dollars, and now it is probably worth more than fifty millions. A part of this estate was, by his will, to be devoted to the foundation of a college, which should accommodate not less than three hundred children, who must be poor white male orphans, between the ages of six and ten years, and who are to be supported and instructed until they arrive at the age of sixteen, when they must be apprenticed to good trades or other useful avocations.* To meet this requirement the city erected, on the site designated and bequeathed by Girard, consisting of forty-five acres of ground on Ridge road, a structure at a cost of two millions of dollars, which is one

of the most beautiful buildings in America, and the truest specimen of Corinthian architecture of modern times. It now contains five hundred and forty-six pupils, and the number is from year to year increased.

Although Philadelphia was founded by a peaceful people, and possesses a fair reputation for quiet and order, yet on several occasions partisan feeling has run so high that the wildest excesses have been committed in her streets. As early as 1742 a riot occurred at the polls, which is known in history as the "bloody election;" but it was reserved for a hundred years later to demonstrate how frenzied our people can become in the midst of excitement. In 1844 occurred the "great Native-American riots," during which churches and other buildings were burned and several lives destroyed. On two occasions during that year did those disturbances occur, and on both of them blood was shed. The first was in May, in the then district of Kensington, and the second in July, in the district of Southwark. The cause of those outbreaks was a dispute between what was called the Native-American party and the Irish Catholics. Fortunately they were mere ebullitions of passion, and they soon passed

* A peculiar restriction in the will of Girard, and one that has caused much comment, is the following:—"I enjoin and require that no ecclesiastic, missionary, or minister of any sect whatsoever, shall ever hold or exercise any station or duty whatever in the said college; nor shall any such person ever be admitted for any purpose, or as a visitor, within the premises appropriated to the purposes of the said college." He makes this restriction, he says, "not to cast any reflection upon any sect or person," but "to keep the tender minds of the orphans free from the excitement which clashing doctrines and sectarian controversy are apt to produce." He desires, also, that pains shall be taken by instructors to instill into the minds of the children "the purest principles of morality," and "a love of truth, sobriety, and industry."

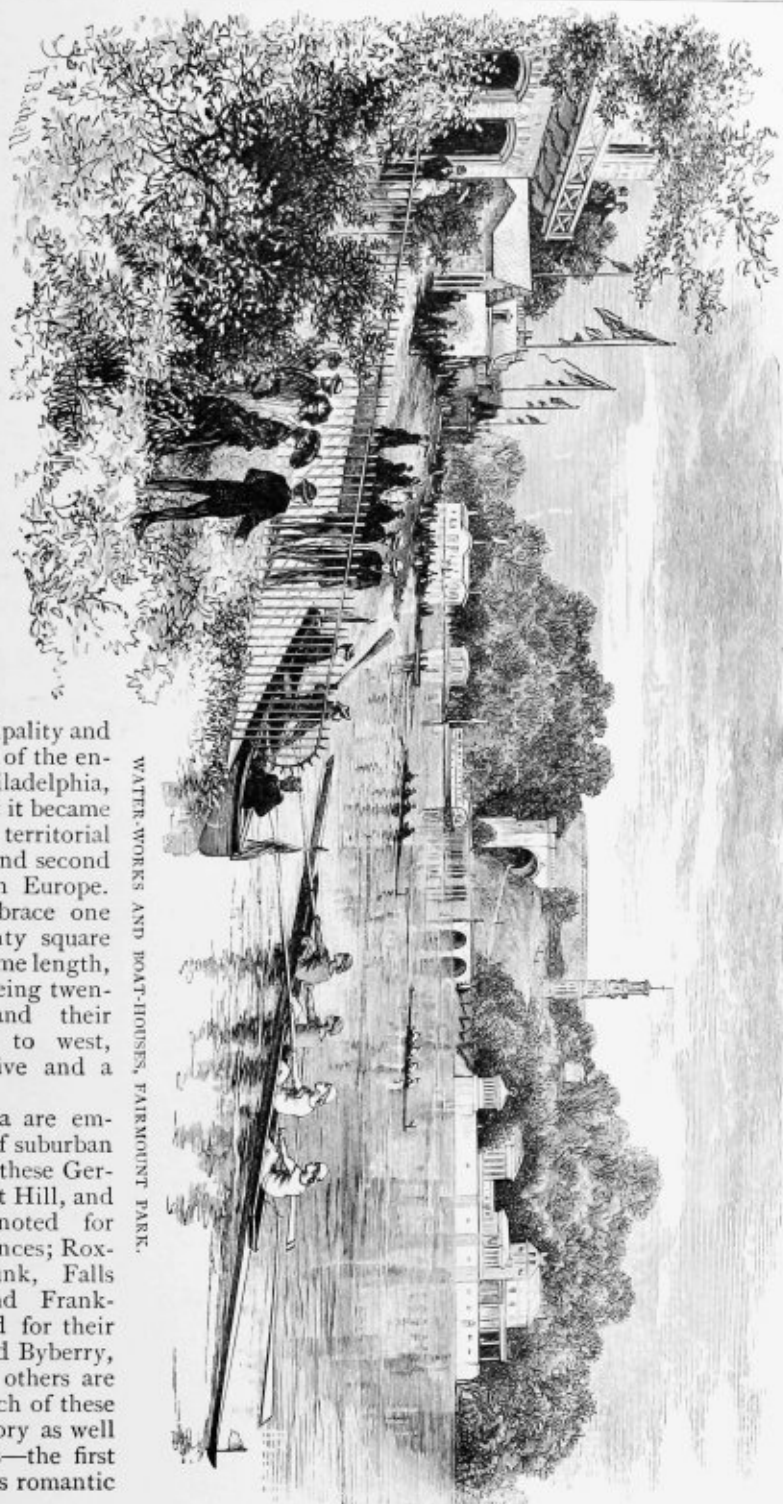


VIEW FROM BELMONT MANSION, FAIRMOUNT PARK.

away, leaving no other feeling than regret.

As the city increased in population it was found that the divided authority which existed in it and its many suburbs, called districts, was a serious obstacle to the preservation of order. A street became a barrier which an officer of the law could not pass, and rogues and rioters, by fleeing from one square to another, were free from molestation. This led to the consolidation, in one municipality and under one charter, of the entire county of Philadelphia, in 1854. By this act it became the largest city in territorial area in America, and second only to London, in Europe. Its limits now embrace one hundred and twenty square miles,—their extreme length, north and south, being twenty-three miles, and their width, from east to west, averaging about five and a half miles.

Within this area are embraced a number of suburban villages. Among these Germantown, Chestnut Hill, and Torresdale are noted for their elegant residences; Roxborough, Manayunk, Falls of Schuylkill, and Frankford are celebrated for their manufactories; and Byberry, Holmesburg, and others are rural villages. Each of these places has its history as well as its peculiarities—the first frequently being as romantic



WATER-WORKS AND BOAT-HOUSES, FAIRMOUNT PARK.



BELMONT GLEN, FAIRMOUNT PARK.

as the second is striking; but they are all now parts of one grand city, and it is as well, perhaps, that the blending be complete.

Philadelphia has long been noted for her public squares and parks. In the original plan of the city, as laid out by the direction of Penn, five of these squares were reserved, viz., Washington Square, on Walnut street, between Sixth and Seventh streets; Franklin Square, between Race and Vine and Sixth and Seventh streets; Rittenhouse Square, on Walnut street, between Eighteenth and Nineteenth streets; Logan Square, between Race and Vine and Eighteenth and Nineteenth streets; and Centre (afterward called Penn) Square, at the intersection of Market and Broad streets. Of course the names they now bear were given to them long after the time of Penn, in honor of distinguished Americans. The four first named are handsomely improved and enclosed, and are favorite resorts in summer. Penn Square has been chosen as the site for the new public buildings, and, when completed according

to the design adopted, they will present an appearance unsurpassed in grandeur on the continent. There are also a number of squares or parks in the new portions of the city, which are now enclosed and planted with trees, and in time will become as ornamental as those of the olden time.

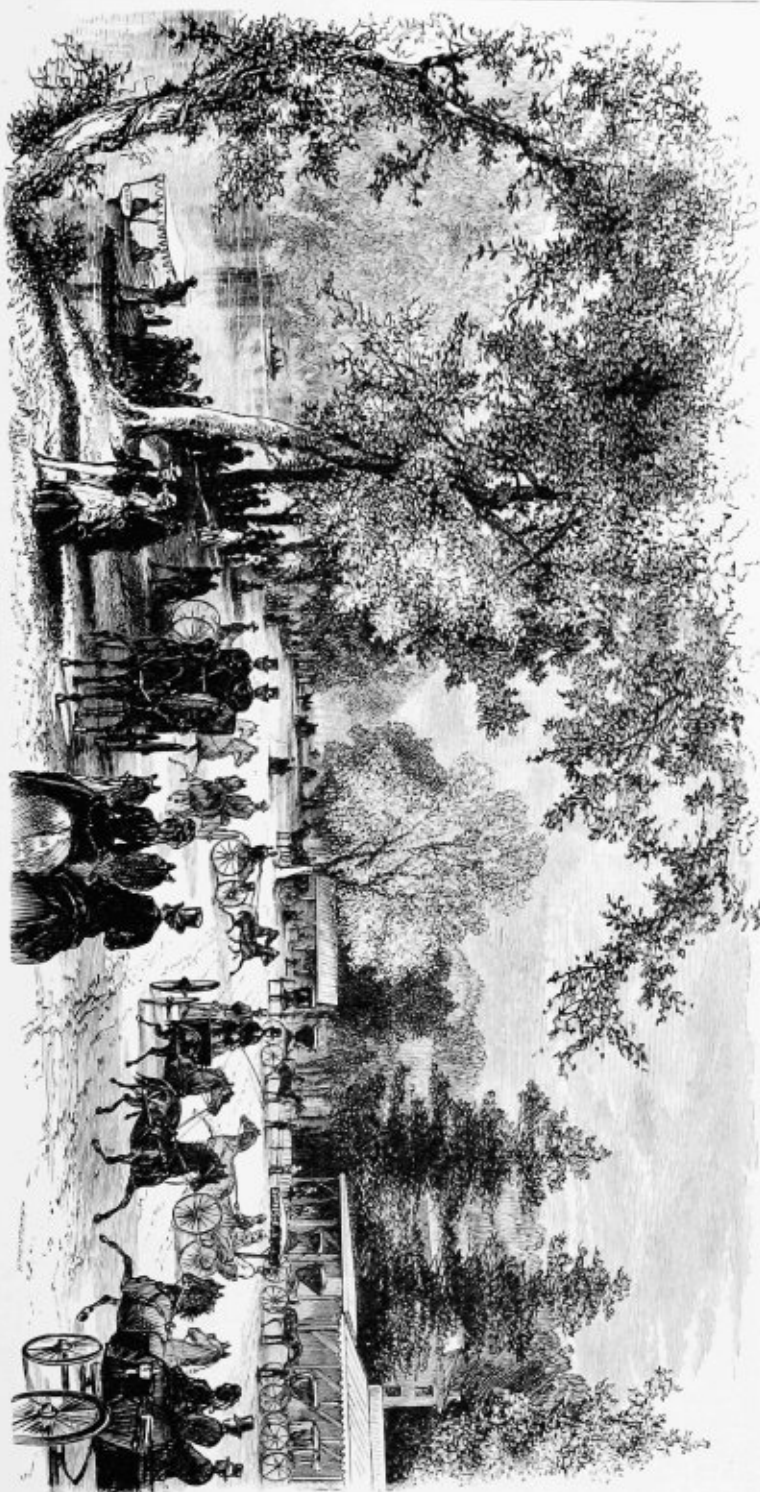
Fairmount Park—the greatest public park ever designed in the United States, and surpassed in extent and natural beauty by few in the world—owes its origin to the necessity of securing an ample supply of pure water for the city.* To accomplish this the Fairmount Water-works were commenced at what was known as Morris Hill, on the Schuylkill, in 1819, and completed in 1836. In the construction of these works the grounds adjacent to them were beautified, and soon became celebrated throughout the country. From time to time the area of these grounds was enlarged, until now they embrace two thousand nine hundred and

ninety-one acres, extending for a distance of five miles along the river and six along its romantic tributary—the Wissahickon. Within this wide-spread area are rocky precipices and grassy plains—wooded hills and secluded dales—meandering rivulets and murmuring waterfalls—extended prospects

* Benjamin Franklin was, it is believed, the first person to publicly call attention to the necessity of providing some other water supply than the wells used in early times. He recommended that the water from the Wissahickon be brought into the city by pipes. In 1780, Mr. B. H. Latrobe recommended that the water of Spring Mill creek be brought a distance of about twelve miles by an aqueduct. In 1792 the Delaware and Schuylkill Canal Company was authorized by its charter to supply the city with water. This was to be done by a canal on Broad street, from which it was to be conducted into all parts of the city. About 1790, water-works were constructed at the termination of Chestnut street, on the Schuylkill, and the water brought into Centre (now Penn) Square, from whence it was distributed, by means of steam-power. In 1811, the supply being inadequate, Mr. Frederick Graff, who afterward constructed the Fairmount works, proposed that water be pumped by water-power into reservoirs on Morris Hill. This led to the commencement of works there, but they were not put in operation until 1817. These, too, soon proved inadequate, and led to the commencement of the present works. There are also three other works for supplying the city with water in operation, known as the Spring Garden, Kensington, and West Philadelphia. The first and last named of these draw their supply from the Schuylkill, the Kensington works from the Delaware. Gas was introduced in the city in 1836.

over city and country—the placid Schuylkill and the picturesque, legend-haunted Wissahickon,—combining a variety and beauty of scenery that can nowhere else be found. The park is under the charge of a number of distinguished gentlemen, known as the park commission, who serve without remuneration, and devote a great deal of time, as well as taste and skill, to its improvement and adornment. From year to year the drives, bridle-paths, and walks are extended, and the ruggedness of nature toned to please the eye and add to the enjoyment of the people. Already the continuous carriage drive, mostly along the Schuylkill and Wissahickon, extends a distance of over twelve miles, and of this five miles is through the beautiful valley of the last-named stream. This continuous drive, in circuit almost a day's journey, carries one across the Schuylkill; through tunnels cut in the solid rock; by mansions made memorable as the homes of such men as the

WISSAHICKON DRIVE, FAIRMOUNT PARK.





LINCOLN MONUMENT, FAIRMOUNT PARK.

Penns and others who took conspicuous part in our early history; by the monuments in Laurel Hill—the most beautiful cemetery, probably, in this country; by the towering rocks of the Wissahickon, which the legends of Lippard have made familiar; and on into solitudes as deep as can be found a thousand miles away from a city. The Schuylkill, within the park limits, is the favorite aquatic course of the United States, and is often selected for contests between champions of the oar. A number of local boat clubs have their houses on its banks, some of them being expensive, and all of them tasteful, structures. An art gallery, containing some magnificent paintings, is free to all, and a zoological garden is now in the full tide of prosperity. Numerous monuments and statues have been erected—some of them gems of art imported from Europe at great expense. Altogether, both as nature made it and as art has adorned it, it would be difficult to find a more beautiful spot than Fairmount Park.

This park has been selected as the site of the buildings to be erected for the centennial

celebration of American independence in 1876. An area of four hundred and fifty acres has been set apart by the city for this purpose, and it would be impossible to find a more convenient or commanding situation. On this will be erected the largest and most imposing series of buildings ever constructed in America, or possibly in the world,—a portion of which will be permanent, and dedicated for all time as a free art museum for the people. Ample means are already guaranteed for the purposes of the exhibition, and when the character of the American people is considered,—their veneration for everything connected with the national birth and the establishment of their liberties—their homogeneity—their wonderful mechanical ingenuity and inventiveness—their diversified products and industries—their position in the centre of the great highway between Asia

and Europe—the fraternal feeling that links them with the sister republics of Spanish origin—the natural and artificial wonders which the United States present to attract travelers from every clime,—no doubt can be entertained of the complete success of this World's Exposition.

Philadelphia is well supplied with places of amusement. Her Academy of Music is the most extensive and perfect building of the kind on the continent, and her theatres are capacious and handsome. She can boast, also, the largest public hall in the United States. The new Academies of the Fine Arts and of Natural Sciences, now in course of erection, will compare with any similar institutions. The collection of specimens in the last-named institution has long been celebrated for its extent and completeness. The beautiful hall of the Pennsylvania Historical Society contains a library and museum of great interest. The city has also a number of superior hotels,—some of them unsurpassed in elegance,—and new ones are being erected from year to year to meet the demands of business. In no respect,

indeed, can Philadelphia be considered deficient in the requisites necessary for the pleasant sojourn and entertainment of both citizens and strangers.

Among the many charitable and benevolent institutions which have so long made the city renowned may (in addition to the Pennsylvania Hospital and Girard College, already noticed) be mentioned the Episcopal Hospital, the Presbyterian Hospital, St. Joseph's Hospital, St. Francis' Hospital, the German Hospital, the Jewish Hospital, the Hospital of the University of Pennsylvania, the Children's Hospital, Pennsylvania Hospital for the Insane, Wills' Hospital for the Indigent Blind and Lame, the Philadelphia Hospital, at the Almshouse, and many others of more limited operation; also, the Pennsylvania Institution for the Deaf and Dumb, the Pennsylvania Institution for the Instruction of the Blind, the Dispensaries, and hundreds of others intended to relieve the suffering, help the deserving, and minister to the wants of the unfortunate. Indeed, it is doubtful whether any city in the world can show such an array of charitable institutions as Philadelphia. Any of these places can be found by reference to a city directory, and a visit to them will well repay the humanitarian.

In architecture Philadelphia contains some of the finest specimens on the continent. The new building of the University of Pennsylvania is a beautiful structure, and the same may be said of the Cathedral and many other institutions. Its churches are numerous, and a large number of them are really magnificent. Its school buildings are admirably constructed, some of them being models in their way. The new Masonic Temple is the finest edifice of the kind in the world, and will stand for ages a monument of the liberality and taste of the order that erected it. Many of its private residences are superb in their appointments and designs. It is emphatically a CITY OF HOMES. The unlimited area of territory open to improvement, the perfect system of passenger railways,* the straight streets extending for miles and constantly lengthening, combine to make it a delightful place

of residence for all classes of people; and the productive, highly-cultivated country surrounding it renders its markets equal to any in the world. All these, added to its advantageous location, have made it the great manufacturing centre of the Union—a pre-eminence it will probably always maintain.

Within the last few years the commerce of Philadelphia, which had languished for a long time, has been greatly stimulated, and it is probable that during the next decade it will grow to proportions greater than ever before. The wonderful development of the transportation system controlled by the Pennsylvania Railroad Company is making Philadelphia an outlet for the products of the West, and the shipping interests of Europe are learning that freights for their vessels can as certainly and conveniently be obtained here as at any other American port. In consequence of this, regular lines of steamers have already been established to and from Antwerp and Liverpool, and irregular steamers are arriving from many other European ports. Sailing vessels from India, China, the West India Islands, South America, and Europe can at all times be seen loading and unloading at her wharves, and local lines of steamships connect her with Havana, New Orleans, Savannah, Wilmington, and Charleston. The trade in petroleum has grown into vast proportions, and fleets of ships are constantly loading with this product of Pennsylvania for various foreign markets. The Red Star Line, between Philadelphia and Antwerp, established under the auspices of the Pennsylvania Railroad Company, commenced running in the early part of the year 1873. It carries the Belgian and United States mails. The vessels of this line have gained an exalted reputation for their performance at sea. They are nearly uniform in size, are constructed of iron, and have received the highest class at English Lloyds, under whose special inspection they were built. The docks and wharves of the Red Star and American Lines are also a terminus of the Pennsylvania Railroad, so that passengers destined for points in the United States, beyond Philadelphia, are transferred with their baggage directly from the steamships to the cars, by which arrangement they are saved expense and annoyance.

With that breadth of enterprise which has marked the Pennsylvania Railroad Company

* The street-railway system of Philadelphia is the most extensive in the world. By it every portion of the city is connected together, and the remotest suburb is made accessible. There are fifteen passenger railway companies, and in 1873 these companies carried sixty-eight millions seven hundred and seventy-one thousand nine hundred and ninety-five passengers, receiving in fares the sum of \$4,456,676.69.



STEAMSHIP DOCKS ON THE DELAWARE.

from the earliest period, its managers, several years ago, expressed a willingness to assist in the establishment of a regular line of American steamers between Philadelphia and Liverpool, and in 1871 succeeded in organizing a company, of which it has the control, for that purpose. This company has now completed four first-class iron steamships, built in Philadelphia, equal, in all respects, to any vessels ever floated, and they are the only vessels of the kind that have been constructed in the United States for the Atlantic trade during the last fourteen years. The materials used in the construction of these ships are of American production or manufacture, and the vessels of the American Line now in service have proved themselves to be among the fastest and most comfortable afloat.

The Pennsylvania Railroad Company has offices at Broad and Chestnut streets, at Ninth and Chestnut streets, and at 116 Market street, where tickets are sold to almost every point in the United States. At these offices sleeping-car tickets can also be procured, and baggage checked to destination. The traveler can enter any one of them and complete the arrangements for his journey; can procure a ticket which will carry him almost anywhere; can have his baggage called for and checked at his home; can provide for a comfortable carriage to be in readiness at his door when the time for departure arrives; and can arrange the details of personal comfort for his journey to the extent of a berth, a state-room, or a parlor car, as his taste or inclination may require. These facilities are now so complete, and the comfort and safety of the road so well established, that travel has been changed from tedious labor to pleasant recreation.

With a history embracing so much that is interesting to Americans—with resources which have stimulated her manufactories to the highest degree of proficiency and prominence—with transportation connections binding her to all portions of the United States—with a comparatively unlimited area open to her growth—with a rich and vast territory tributary to her markets—with her commerce resuscitated and rapidly growing in importance—Philadelphia can fairly claim a position among the great cities of the world.

Population.—Aggregate, 674,022. Native,

490,398; foreign, 183,624; Irish, 96,698; German, 50,746; colored, 22,147.

Manufactures.—Number of manufacturing establishments, 8184; capital invested, \$174,016,674; hands employed, 137,496; wages paid, \$58,780,130; materials used, \$180,325,713; value of products, \$322,004,517.

Commerce, 1872.—Vessels arrived—American, 503; tonnage, 185,727; crews, 4943; foreign, 522; tonnage, 232,184; crews, 6325. Aggregate arrived—vessels, 1025; tonnage, 417,911; crews, 11,268. Vessels cleared—American, 343; tonnage, 153,845; crews, 3741. Foreign, 547; tonnage, 251,467; crews, 6526. Aggregate cleared—vessels, 890; tonnage, 405,312; crews, 10,267. Of the arrivals, 27 were steam vessels, of which 21 were American and 6 foreign. Of the clearances, 27 were steam vessels, of which 16 were American and 11 foreign.

Imports, 1872.—Value, \$20,383,853.

Exports, 1872.—Domestic, value, \$20,982,876; foreign, \$33,874. Aggregate exports, \$21,016,750.

Banks and Banking Capital.—National and State banks, 44. Aggregate capital, \$28,000,000. Savings banks, 5.

MANTUA, two miles.—Junction of "Connecting Railroad," uniting the Pennsylvania Railroad proper with the New Jersey Division. Through trains from the West to New York pass directly on from this junction, and those from New York unite here with westward-bound trains from Philadelphia. Mantua Junction is within the corporate limits of the city.

HESTONVILLE, three miles.—Within the corporate limits of Philadelphia.

OVERBROOK, four and a half miles.—Within the corporate limits of Philadelphia, and immediately on the line of Montgomery county. The extensive College of St. Charles Borromeo, under the control of the Catholic Diocese of Philadelphia, is near, and accessible from, this station.

MERION, five miles, is in Lower Merion township, Montgomery county. This county, originally a part of Philadelphia, was established by act of September 10th, 1784. The surface of the county is undulating, and the soil generally fertile and highly cultivated. Lying in close proximity to Philadelphia, and accessible by numerous lines of railroad, the advantages of its beautiful scenery, pure water, and salubrity of



ARDMORE STATION.

atmosphere have been extensively utilized by persons doing business in that metropolis, and magnificent country residences dot it in every part. A small portion of the county only lies on the line of the Pennsylvania Railroad; but this is charmingly picturesque, and is rapidly being transformed into a suburb of the great city. Population of Montgomery county, 81,612. Value of agricultural productions, \$7,959,263. Number of manufacturing establishments, 1089; hands employed, 8475; wages paid, \$2,904,448; capital invested, \$9,050,983; materials used, \$10,674,495; value of products, \$16,933,703. Iron-ore mines, 19; hands employed, 227; wages paid, \$90,253; capital invested, \$75,960; tons mined, 52,179; value, \$156,736. There are five marble quarries in operation in the county.

ELM, six miles, is a favorite locality for summer boarders, and superior accommodations for about one hundred exist in the vicinity of the station.

WYNNEWOOD, six and one-half miles.—This station is named after Thomas Wynne, president of the first colonial assembly of Pennsylvania,—convened by Penn on the 21st of January, 1683,—who accompanied the early colonists from Wales, and resided in the immediate vicinity on property still in possession of his descendants.

ARDMORE, seven and one-half miles.—An active local business is done here. The village contains four churches, representing as many denominations; two private and one large public school; two public halls, one belonging to the Masonic fraternity and one to the Athensville Library. Extensive accommodations, both public and private, are provided for summer boarders.

Haverford, eight miles.—South of this station is Haverford College, an institution belonging to and controlled by the Society of Friends, but open to all students. The college buildings occupy a pleasant position, and are surrounded by extensive and well-kept grounds. The average attendance of students is about fifty. All the leading religious denominations have churches in this vicinity, and there are here two good private schools. At the distance of a mile and a half from the station are cotton and woolen mills, employing some three hundred hands. Considerable local business is transacted in the shops and stores, and during the summer season the public and private boarding-houses in the locality are well patronized.

A few miles south of Haverford College, in Delaware county, is the birthplace of Benjamin West, the great artist. He was of Quaker parentage, and remained true to the creed and practices of his ancestors in the

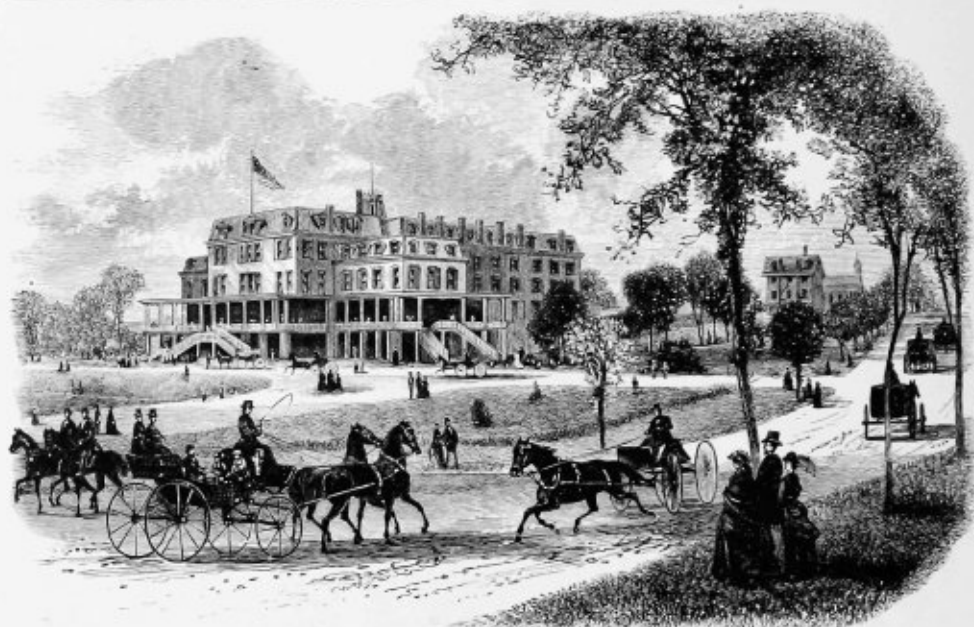


BRYN MAWR STATION.

midst of all the temptations of European court-life and the great popularity he enjoyed as an artist and a man. Born on the 10th of October, 1738, he, at the age of seven years, made a drawing, in red and black ink, of a sleeping infant niece, while in charge of her cradle, which indicated his talent, although at that time he had never seen a picture or engraving. His mother was charmed with his performance and encouraged him to persevere. At his labors on the farm and in school he was constantly drawing. A party of Indians taught him to prepare red and yellow colors, such as they used to decorate themselves; his mother gave him some indigo, and, thus supplied, he improvised brushes and toiled at his art. At the age of sixteen he went to Philadelphia, with the consent of his parents, to pursue painting as a profession. In 1759 he went to Italy, and in 1763 to London, where

he settled and attained the summit of his fame. He became quite popular with King George III., and was offered knighthood by that monarch, but declined the distinction. Mr. West died in London, at the age of eighty-one, and was buried in St. Paul's Cathedral. Several of his large paintings, and many of his smaller ones, are preserved in Pennsylvania. "Christ Healing the Sick" was painted for and is owned by the Pennsylvania Hospital. "Death on the Pale Horse" is among the collection of the Philadelphia Academy of the Fine Arts, and "Christ Rejected" (the property of a gentleman lately deceased) is now exhibited in the free art gallery in Fairmount Park.

BRYN MAWR, nine miles.—This station might well be cited as a model of taste and



BRYN MAWR HOTEL.

beauty. Occupying a delightful position in the midst of a fertile and well-watered country, the railroad company saw its advantages and determined to improve them. Beautiful and comfortable station-houses were built, and these were followed by a superb hotel and other improvements. Naturally these conveniences attracted visitors and residents, and from a scattered hamlet the place is growing into the proportions of an elegant town. Villas and cottages are springing up with wonderful rapidity, and it is altogether within the range of probability that Bryn Mawr will, in a few years, be one of the largest, and certainly one of the most beautiful, suburbs of Philadelphia. The old Columbia Railroad, when purchased by the Pennsylvania Railroad Company, swept, with many a wonderful curve, around the low hills which characterize this portion of the State, and one of these bends carried it half a mile south of its present route here. Progress and experience alike demonstrated that these curves must be straightened. It was speedily and successfully accomplished, but in doing it the station of White Hall was abandoned and Bryn Mawr arose to take its place. Population, about 800.

ROSEMONT, nine and three-quarter miles,

is patronized in summer by sojourners from the city. There are five churches in the vicinity and a public hall. The road at this station leaves Montgomery county.

VILLANOVA, ten and three-quarter miles. —This is the first station in Delaware county, which embraces within its limits the earliest settlements made by white men in Pennsylvania. Originally Delaware was included in Chester county, and the sketch of that, (see Eagle station,) as well as of Philadelphia, gives the incidents and dates connected with its settlement. On the 26th of September, 1789, Delaware county was established. The old town of Chester—the “Upland” of the Swedes, where Penn first landed, and where the first legislative assembly was held—is the county seat. A large portion of the county is alluvial bottom, bordering the Delaware river and its tributaries, and on these rich meadows great numbers of cattle are kept,—dairy farming and stock-raising being principal industries. The north-western portion of the county is hilly, and in some places fine building-stone is quarried,—the beautiful green “serpentine,” so extensively used in ornamental architecture, coming from this region. The county is highly improved and cultivated. Population, 39,403. Value of agricultural

productions, \$2,938,587. Number of manufacturing establishments, 314; hands employed, 6448; wages paid, \$2,155,554; capital invested, \$5,927,187; materials used, \$6,845,504; value of products, \$11,041,654. Villanova College, from which the station is named, was founded in 1846, by the Augustinian Fathers, and incorporated in 1848, by the State, with power to confer degrees in the arts and sciences. It employs twelve professors, and has about one hundred students in attendance. The Baptists, Catholics, Episcopalians, and Methodists each have a church in the vicinity. A hall, capable of seating four hundred persons, is connected with the college, and used occasionally for public purposes.

UPTON, eleven and one-half miles.

RADNOR, twelve miles.—Among the industries in operation in the vicinity of this station are two flour-mills, and an ice-cream manufactory which does an extensive business.

WAYNE, fourteen miles.—Churches, public halls, public and private schools, and industries of various kinds exist here. The locality is a beautiful one, and is advancing rapidly in improvement, quite a town, called "Louella," having sprung up around the station.

EAGLE, fifteen miles.—First station in Chester county. Chester is one of the three original counties established by William Penn on the settlement of his colony in 1682, and embraced at that time the present Delaware county and all the territory, except a small portion now included in Philadelphia, south-west of the Schuylkill, to the extreme limits of the province. It received its name in the following manner:—When Penn landed at Upland, he turned to his friend Pearson, who had accompanied him on the ship "Welcome," and said: "Providence has brought us here safely. Thou hast been the companion of my perils. What wilt thou that I should call this place?" Pearson replied: "Chester, in remembrance of the city from whence I came." The name thus suggested was conferred upon the Swedish town, and, when the county was created, upon that also.

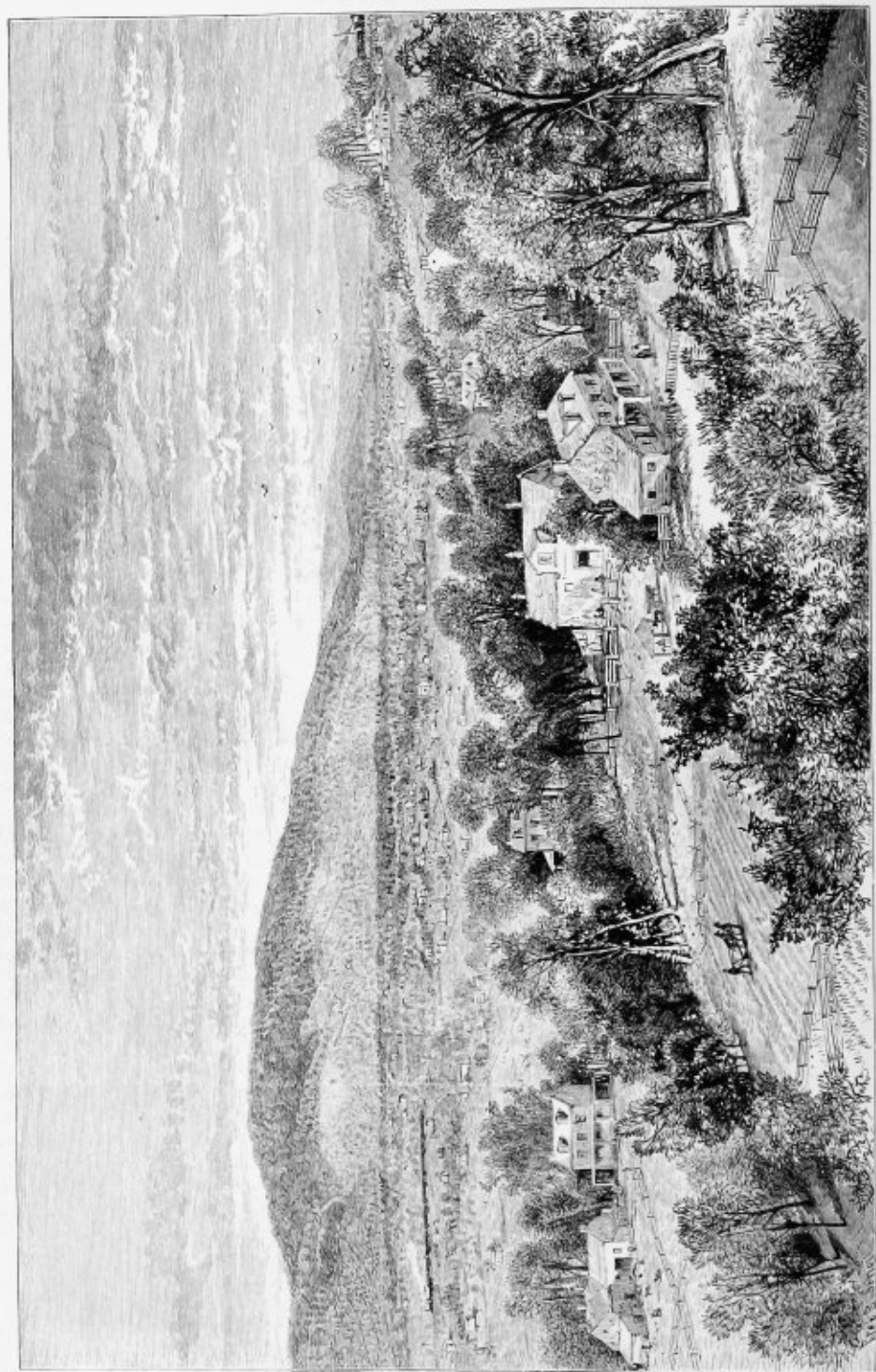
The territory included in Chester county was acquired from the Indians by purchase, and was conveyed by several distinct deeds. The first—dated June 25th, 1683, and signed by an Indian named Wingehone—

conveys to William Penn all his lands on the west side of the Schuylkill, beginning at the first falls, and extending along and back from that river, in the language of the instrument, "so far as my right goeth." Other purchases were made about the same time, conveying lands from the Chesapeake bay to the Susquehanna. On the 30th of July, of the same year, a deed was executed conveying the lands between Chester and Pennypack creeks. This instrument so well illustrates the manner of conveyancing, and the value set upon their lands by the Indians, that it deserves perpetuation: "This indenture witnesseth, that we, Pakenah, Jackhane, Sikals, Portquesott, Jervis, Essepenarck, Felktrug, Porvey, Indian kings, sachemakers, right owners of all lands from Yuing Yuingus, called Duck creek, unto Upland, called Chester creek, all along the west side of Delaware river, and so between the said creeks backwards as far as a man can ride in two days with a horse, for and in consideration of these following goods to us in hand paid, and secured to be paid, by William Penn, proprietary of Pennsylvania and the territories thereof, viz.:" Here follows a list of articles, including guns, powder, lead, tomahawks, knives, awls, needles, tobacco-pipes, tobacco, beer, wampum, looking-glasses, Jews'-harps, etc., of the possible aggregate value of five hundred dollars.

The Indians then settled in the territory embraced in Chester county were of the Lenni Lenape, and possessed the same amiable peculiarities described in the sketch of Philadelphia. They rapidly dwindled away before the white settlers, and the last one known in the county died in the poor-house in 1803.

The early settlers of the county embraced English, Irish, Welsh, and German emigrants, who settled in different sections, and for some years preserved their national peculiarities and language; but previous to the Revolutionary war these were, to a great extent, lost, and they had become one people. Many of the residents were then wealthy, and in intelligence and comfort they were second to no community in colonial America.

At the commencement of the Revolution Chester county raised a regiment of volunteers, of which Anthony Wayne was colonel. A second regiment was soon after raised in this county and Lancaster. Wayne



CHESTER VALLEY.

entered the regular service and recruited many men in the county for his celebrated brigade of "Pennsylvania Blues." Patriotism was the predominating attribute of the county during the long struggle, and not even the unfortunate day at Brandywine, nor the bloody night at Paoli, could dismay it. Its rich valleys furnished most of the supplies for the American army when operating in the vicinity of Philadelphia, and in the great Chester valley Washington established his barracks for the sick and wounded. These were at the Yellow Springs, about eight miles from the line of the Pennsylvania Railroad, where now is located a soldiers' orphans' school.

Chester county embraces every variety of soil, from the barren sandstone formation to the richest limestone valleys. The "Great Valley," of primitive limestone, forms the most distinguishing feature of the county. This valley is from two to four miles wide, and crosses the county in a south-east and north-west direction. It is shut in by hills of moderate elevation, generally densely wooded, from which the most beautiful views may be had of the highly-cultivated and improved farms below. Marble of good quality is found in it, and lime is largely manufactured. Very valuable deposits of iron ore exist in various parts of the county, and the manufacture of iron is extensively carried on. Fine building-stone abounds, and excellent clay for the manufacture of porcelain-ware is produced. The streams flowing through the county are large and numerous, furnishing excellent water-power, extensively utilized for manufacturing purposes. In short, Chester county may justly claim to rank, in all respects, among the most favored counties in the United States. Population, 77,805. Value of agricultural productions, \$8,554,928. Number of manufacturing establishments, 996; hands employed, 6548; wages paid, \$1,997,615; capital invested, \$5,277,561; materials used, \$7,650,940; value of products, \$11,494,543. Iron-ore mines, 12; hands employed, 116; wages paid, \$43,320; capital invested, \$128,400; tons mined, 33,100; value, \$131,500. One marble quarry is in operation.

REESEVILLE, sixteen and one-half miles.

PAOLI, nineteen miles.—Six accommodation trains are run daily to and from this station, over the Pennsylvania Railroad, for the convenience of residents on the line between it and Philadelphia. It is beautifully

situated on the edge of the great Chester valley, and is a favorite resort for Philadelphians.

Paoli is an old settlement, and was a noted point on the road leading to Lancaster before the Revolutionary war. The time-honored tavern, which has always been its distinguishing feature, was named in honor of Pasquale di Paoli, the celebrated Corsican general, who was born in 1726, and at the age of twenty-nine was chosen general-in-chief of the Corsicans, then in revolt against the Genoese. He was successful as a leader, and soon rendered himself master of most of the island, organizing a government for it on the representative plan. When the island of Corsica was ceded to France he was continued in command, with the rank of lieutenant-general, but subsequently transferred his allegiance to England, and died near London, in 1807. Such a hero could not fail to become popular in the American colonies at the time they were preparing to achieve their own independence, and the name, localized here, appears at that period to have been very generally known, as the "Massacre of the Paoli"—one of the most disastrous and exasperating events of the Revolutionary war—occurred more than two miles from the tavern.

This venerable hostelry stands close by the station, and its substantial stone walls show but few traces of the hundred years that have rolled by since they were erected. Immediately in front of it passes the Lancaster turnpike,—the first road of the kind made in America; and, if tradition can be credited, the bed of this highway is here upon the Indian trail which led from the Delaware to the Susquehanna. The tavern has been owned and kept by one family for near a century.

General Anthony Wayne was born in Easttown township, Chester county, about one and a quarter miles south of Paoli, on the 1st of January, 1745. He received an excellent education, and was particularly skilled in mathematics. After leaving school he became a land-surveyor, and also paid some attention to astronomy, thus attracting the notice of Dr. Franklin, who became his friend and patron. At the commencement of the Revolution he was a prominent member of the provincial legislature. He commenced his military career as colonel of a volunteer regiment raised in Chester

county, from which he was transferred to the regular service, participating actively in the campaign on the northern frontier, and acquitting himself with credit at Ticonderoga. For his services there he was made a brigadier-general by the Colonial Congress, on the 21st of February, 1777. In the battle of Brandywine, in the same year, he commanded a division, and this division alone withstood the attack of the British and Hessians,—none giving way until the rest of the army had retreated, when he found himself overpowered and was compelled to fall back. At Germantown he evinced his usual valor, and was in the thickest of the fight. He was always for the most active and energetic measures; and it is said that at Monmouth he and General Cadwalader were the only two generals favorable to attacking the enemy. His conduct in that engagement won the special encomiums of Washington.

Wayne's attack on Stony Point is well known to Americans. This was an almost inaccessible height, garrisoned by six hundred men and a strong battery of artillery. He determined to attack it, and did so on the night of July 5th, 1779. His orders were to have no loads in the muskets, to remove all the flints from the locks, and to advance in death-like silence, using the bayonet only. The attack thus made was successful,—the fort, with all its artillery and five hundred and forty-three prisoners, was taken, and he had the distinction of accomplishing the most brilliant achievement of the war. In this engagement Wayne was wounded, but not seriously. He continued in active service until the surrender of Cornwallis and the conclusion of peace, when he retired to private life. In 1789 he was a member of the Pennsylvania convention, and strongly advocated the adoption of the Constitution of the United States.

After the disastrous defeat of General St. Clair by the Indians of the North-west, Wayne was, in 1792, appointed by Washington to the supreme command of the army sent to operate against them. He thoroughly organized and disciplined his troops, and gained the decisive battle of Maumee. The treaty of Greenville followed in 1795, and peace was restored. His campaign against the Indians was one of great brilliancy, and added much to his military reputation. On the 15th of December, 1796, he died at Presque Isle, on the shore of Lake Erie, and

was buried under the flagstaff of the fort. His remains were removed in 1809, by his son, to Radnor churchyard, in Delaware county. Here, by direction of the Pennsylvania State Society of the Cincinnati, an elegant monument of white marble, suitably inscribed, was erected over them.

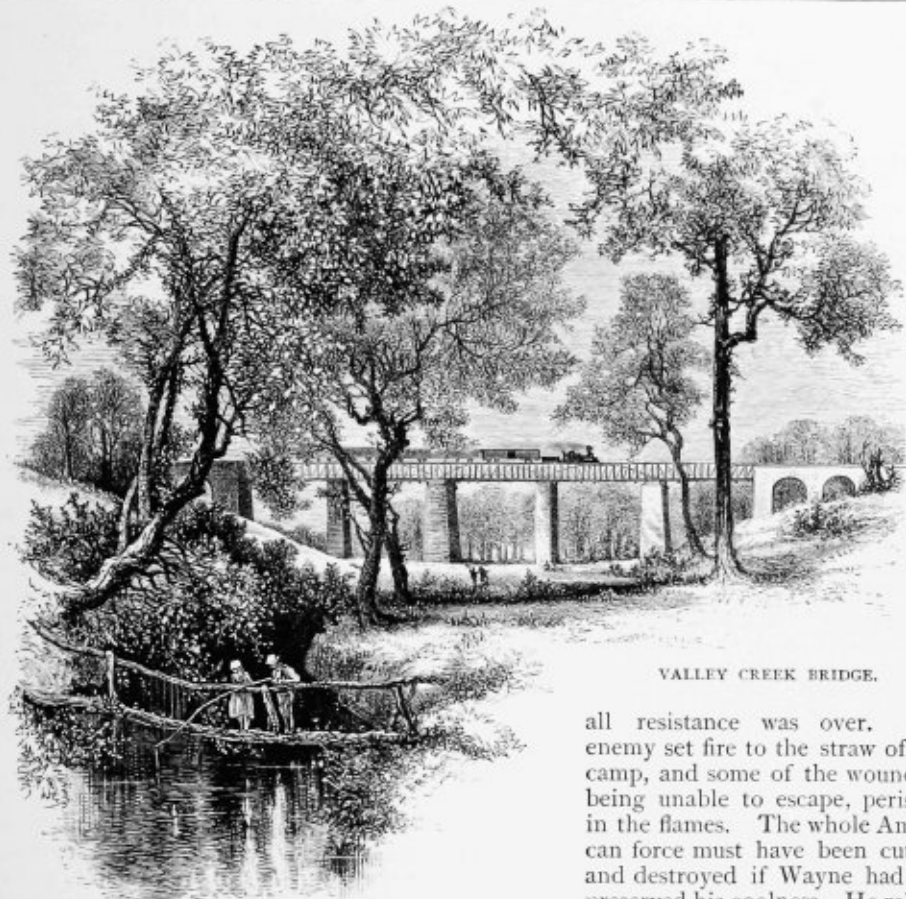
The house in which he was born, and where he spent most of his life when not engaged in military campaigns, is now owned and occupied by one of his descendants, who preserves intact the magnificent old homestead of five hundred acres, as well as the apartments occupied by the general during his life, with all their furniture unchanged.

General Wayne is described, by a contemporaneous writer, as "about the middle size, with a fine, ruddy countenance, commanding port, and eagle eye. His looks correspond well with his character, indicating a soul noble, ardent, and daring. In his interviews with his officers and men he was affable and agreeable, and he had the art of communicating to their bosoms the gallant and chivalrous spirit which glowed in his own." The daring he at all times displayed made him a popular hero, and no general of the Revolution has a warmer place in the American heart than "Mad Anthony Wayne."

GREEN TREE, twenty miles.

MALVERN, twenty-one miles.—Junction of road to West Chester, the county seat of Chester county. The business of lime-burning is carried on here, and the product, to the amount of nearly one hundred and fifty thousand bushels annually, is shipped, principally to Philadelphia. The culmination of the high ground between Philadelphia and the Chester valley is reached at this station, the road here being at an elevation of five hundred and forty-five feet above tide, and from it the descent into the valley is rapid, being nearly two hundred feet in a distance of ten miles. The abrupt ridge, forming the south-eastern boundary of the valley, drops immediately away from the railroad, and, through openings in the trees, charming glimpses of the highly-improved farms below can be had.

About half a mile south-west of Malvern the treacherous and disastrous surprise of a detachment of the American army, under General Wayne, occurred, on the night of the 20th of September, 1777, known in history as the "Paoli massacre." After the battle of Brandywine, Washington withdrew



VALLEY CREEK BRIDGE.

across the Schuylkill river, and sent General Wayne, with a force of fifteen hundred men, to join General Smallwood and annoy the rear of the enemy, then advancing toward Philadelphia. Wayne, on the night of the massacre, had encamped his detachment in a very retired position, near the present monument, and at some distance from the public road. The British commander receiving information from the Tories of Wayne's position, detached General Grey, a brave and desperate officer, to cut him off. Piloted by these Tories, who knew every defile and pathway, Grey stole his way through the woods, drove in the American pickets, and rushed upon the sleeping camp. Some volleys were fired by the Americans, but they were soon overpowered. General Grey, it is said, ordered his troops to give no quarter; and one hundred and fifty American soldiers were killed, many of them in cold blood, after

all resistance was over. The enemy set fire to the straw of the camp, and some of the wounded, being unable to escape, perished in the flames. The whole American force must have been cut off and destroyed if Wayne had not preserved his coolness. He rallied

a few detachments, who withstood the shock of the enemy and covered the retreat of the others.

The bodies of fifty-three Americans killed in this attack were found near the scene of action and buried in one grave on the field. On the 20th of September, 1817, forty years after the massacre, a monument, composed of a blue marble base and white marble pyramid, the whole being about eight feet high, was erected over their remains. This monument bears upon its four sides the following inscriptions:—East side—"This memorial, in honor of Revolutionary patriotism, was erected September 20th, 1817, by the Republican Artillerists of Chester county, aided by the contributions of their fellow-citizens." West side—"Sacred to the memory of the patriots who, on this spot, fell a sacrifice to British barbarity, during the struggle for American independence, on the night

of the 20th September, 1777." North side—"The atrocious massacre which this stone commemorates was perpetrated by British troops, under the immediate command of Major-General Grey." South side—"Here repose the remains of fifty-three American soldiers, who were the victims of cold-blooded cruelty in the well-known massacre at the Paoli, while under the command of Gen. Anthony Wayne, an officer whose military conduct, bravery, and humanity were equally conspicuous throughout the Revolutionary war."

The monument is reached after a short walk through the fields from Malvern station. It stands on the centre of the grave in which the slaughtered heroes were buried, in the south-east corner of a large field owned and used by the military organizations of Chester county for parades and encampments. The grave itself is about sixty feet long by twenty wide, is surrounded by a stone wall some two feet high, and is covered by a smooth green sward. Immediately adjacent to it, and encircling the field, are some fine old oak, chestnut, and other trees, many of which must have been of good size when the massacre occurred. The entire scene of the memorable conflict is probably the best preserved of any that marked the progress of the Revolutionary war, and no doubt will always remain a sacred shrine to the citizens of a free country. But, unfortunately, the relic-hunters have so battered and broken the monument that its outlines are destroyed, and portions of the inscriptions effaced. Unless soon protected and restored, it promises, before another half century has elapsed, to crumble entirely away under the combined attacks of vandalism and time.

FRAZER, twenty-three miles.

GLEN LOCH, twenty-five miles.—Iron mines and marble quarries are in operation near this station, and lime-burning is actively carried on. Beautiful and extended scenic views open in the vicinity, and churches have been erected by various denominations to accommodate the thickly-populated and rapidly-improving region.

WHITELAND, twenty-seven miles.

OAKLAND, twenty-eight miles.—Marble quarries are extensively worked near this station, producing the white marble so generally used for architectural purposes in Philadelphia. Two iron-ore mines are also in operation, employing about sixty men. Lime-burning is extensively carried on. Stage

lines connect this place with West Chester and Norwood, running three times per week. Oakland is the first station in the Chester valley, through which the railroad runs for a distance of twenty miles. The hills skirting the valley, with marked regularity of outline and altitude, are covered with a dense growth of timber, generally called "chestnut sprouts," from the fact that, when a chestnut tree, which is the indigenous growth, is cut down, three, four, or five sprouts spring from the stump, and, being nourished and stimulated by the vigorous roots of the parent tree, soon grow to a respectable and useful size. From these wooded hills issue innumerable springs of pure, clear water, flowing in unfailing streams through the fields below, imparting an unsurpassed richness to their verdure.

WOODBINE, thirty-one miles.

DOWNINGTOWN, thirty-two miles.—This town is beautifully situated, in the midst of the great valley, on the Big Brandywine. It was first settled about 1700, although a deed for a part of the ground on which it stands is dated in 1682. It was originally called Milltown, from the fact of a mill being erected on the Brandywine about 1735, by Thomas Downing, and eventually the town was named after that family, one of whom, Richard Downing, was a commissary during the Revolutionary war. During the early years of its history it was a peculiarly staid and respectable place,—noted for its "spacious, substantial houses, shaded by tall elms and pines, and situated in the midst of verdant yards and gardens." An able historian describes it as "one of the very few green spots that have been left unscathed by the mania of modern speculation. Not even the passage of the railroad along its southern border could seduce the old-fashioned citizens from their quiet, staid, and thrifty ways into the delusive dream of making haste to be rich." "Even the temptation of being the county seat was resisted; and although at an early date the commissioners had obtained the refusal of a single lot, not another lot in the vicinity would any one sell. They were opposed both to parting with their homesteads and to the noise and brawling of a county town."

During the Revolutionary war Downingtown was used as a garrison for American troops and as a commissary post. It had its stirring incidents and romantic events,

and suffered many of the hardships attendant upon the conflict. The "Rob Roy McGregor" of Pennsylvania—Jim Fitzpatrick by name—learned his trade of blacksmithing in it, and made the valley around the scene of many of his adventures. According to a local historian, this man Fitz, as he was commonly called, was of Irish parentage, and became distinguished in early youth for his activity and physical strength. On attaining his majority he enlisted in the American army, but soon deserted, and roamed the country for some time, working as a day-laborer for his support. While thus engaged he was seized unawares by two soldiers, who proposed taking him immediately to Wilmington, where a detachment of the army was stationed. At his entreaty, his captors were induced to accompany him to his mother's to procure some clothing. On opening his mother's door he seized his rifle, and, presenting it, threatened to shoot down the soldiers unless they left immediately. They profited by the warning and departed, leaving Fitz free. From this time he became an Ishmaelite, so far as the loyal people were concerned,—his hand being against them all. He claimed to sympathize with the Tories and the British cause, and pursued his career as an outlaw under the flimsy pretext of loyalty to the king. Many of his deeds of daring and adventures are preserved by local historians, among them the following:—Meeting an old woman on her way to the city, with all her little stock of money to purchase supplies, she, little dreaming who he was, made known to him her fear of meeting Captain Fitz and being robbed of her fortune. Fitz heard her patiently, and then informed her that he was the man she dreaded, but her fear was groundless, as he would scorn to wrong a defenseless woman. Drawing from his pocket a purse well filled, he handed it to her and turned off into the woods, leaving the poor woman overcome with her adventure and her good fortune.

On one occasion about fifty men assembled, well armed, determined to take him dead or alive. After hunting him for some hours over the hills, they became weary and stopped at a tavern for rest and refreshment. While sitting in a room together, Fitz suddenly appeared among them, rifle in hand, declaring that he would shoot the first man that moved. Calling for a glass of rum, which he drank, he walked backwards some

paces, with his rifle presented, then wheeling he took to his heels and was soon out of sight, leaving the company of pursuers stupefied with amazement.

In some of his adventures his enemies did not escape so easily. On more than one occasion he entrapped or captured those who he thought had wronged him, and, binding his prisoner to a tree, flogged him severely. It does not appear that he ever wantonly deprived any one of life. His individual warfare was waged to revenge what he considered his individual wrongs, and, from his point of view, he waged it honorably. The collectors of public money were the special objects of his vengeance, and all he could capture or extort from them he considered lawful prey. But, like Samson of old, and many others of later times, he was betrayed by a woman, and the courage which had daunted multitudes proved useless and powerless to combat treachery. His Delilah was his mistress, who lived in a retired house in which she concealed his captors, who conveyed him to Chester, where he was tried, condemned, and hanged. His courage and coolness remained with him to the last.

Downingtown has considerable local business, and possesses a full share of enterprise. Among its industries are a manufactory of carriages and a flour-mill. Besides public schools, it has two academies for young men and a seminary for young ladies. All the leading religious denominations have churches here. It contains several good hotels and a national bank. Stage lines run daily to West Chester and Guthrieville. Population, 1077. (Junction of branch road to Waynesburg, distance eighteen miles.)

GALLAGHERVILLE, thirty-three and one-half miles.

THORNDALE, thirty-four and one-half miles.—A rolling-mill for the manufacture of boiler-plate, employing seventy hands, is in operation at this station; also, a paper-mill. The Pennsylvania Railroad Company employs about fifty men in stone quarries near here.

COATESVILLE, thirty-eight miles, is beautifully situated on the Brandywine, over which the railroad is carried on a magnificent iron bridge eight hundred and thirty-six feet in length and seventy-three feet above the water. In passing over this structure the traveler can gaze from the car-windows at furnace-stacks belching forth their smoke

below him, while far down in the valley a panorama of industry is seen. Few places, if any, in Pennsylvania improve more rapidly than Coatesville, and it promises, at no distant day, to take rank among the first manufacturing towns within the State. At present there are in operation here six iron-manufacturing establishments, employing five hundred and fifty men, a number of paper-mills, several woolen and cotton mills, and other industries. The trade of the place is, necessarily, considerable, giving business to many stores and shops, and employing the capital of two national banks. The scenery along the Brandywine is noted for its beauty, and this, added to other attractions, brings many summer sojourners to Coatesville and its vicinity, for whose accommodation excellent hotels and boarding-houses are provided. Within half a mile of the town there is a mineral spring which enjoys considerable celebrity and is much frequented. Coatesville contains six churches, two public halls (one of them new and large), a seminary, and other public institutions. The first settlements were made here at an early period by the Coates family, from Montgomeryshire, England, members of the Society of Friends, who came over soon after Penn, and after whom the town is named; and by the Bizallions—a French family, and the Flemings. Descendants of all these still reside in the neighborhood. For many years it was an agricultural hamlet, and it was not until after the railroad was completed that it developed signs of progress. It was incorporated as a borough August 15th, 1867. Population, 2025.

POMEROY, forty-two miles.—A mill for the manufacture of cotton yarn, and three grist-mills, are located here. Good accommodations are furnished for summer boarders. (Junction of Pennsylvania and Delaware Railroad to Delaware City, on Delaware bay, distance thirty-eight miles.)

PARKESBURG, forty-three and one-half miles.—This town owes its existence to the old Columbia Railroad, for it was here that the State built her machine-shops when that work was constructed, and here the principal officers of the road were located. The site was probably selected because of its position midway on the line, and for twenty years it prospered as a centre of railroad industry and management. But when the State sold the Columbia Railroad, the Parkesburg

shops were abandoned and remained idle, showing the marks of decay, until a recent period, when they were put in operation as a rolling-mill, and now fifty men are employed in them. There are a steam flour-mill and a carriage manufactory here, and some minor industries are carried on. The town contains a good hotel, a banking house, a public hall, an academy, and five churches. A stage line runs daily from this place to Oxford, distant fifteen miles. Population about 600.

PENNINGTONVILLE, forty-six and one-half miles, is an active village, doing considerable business. Iron ore is mined about six miles distant and shipped in considerable quantities. The village contains a good hotel, an excellent school, a public hall, and three churches. A stage runs three times per week from here to Oxford, distance fifteen miles.

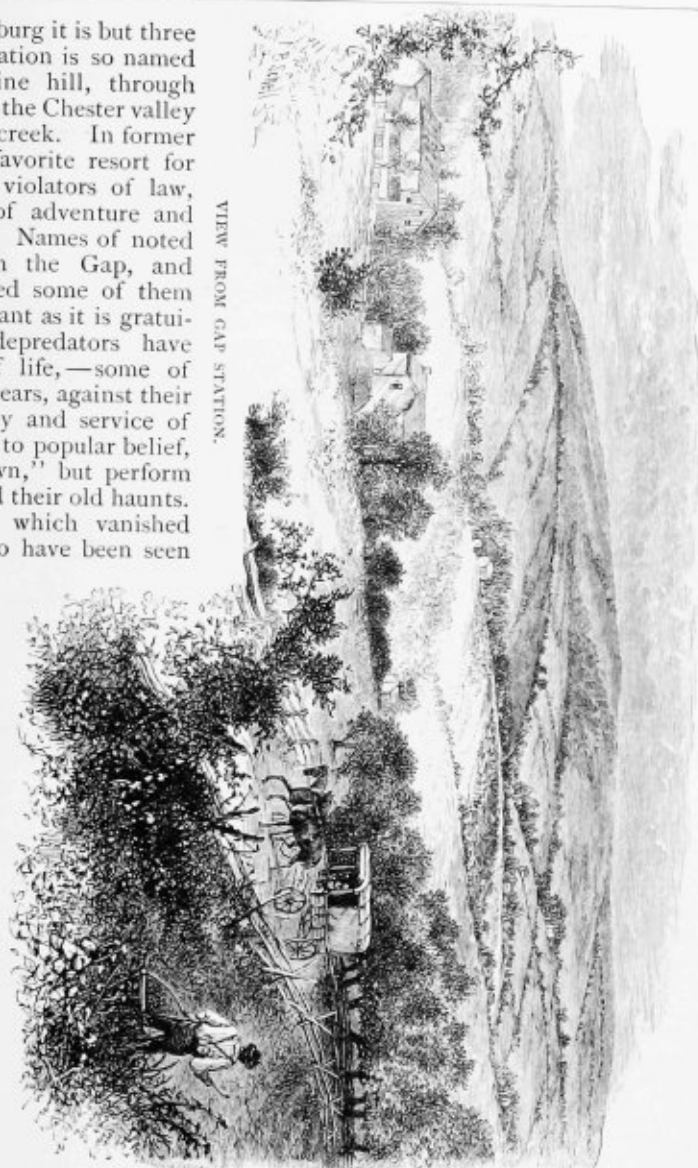
CHRISTIANA, forty-eight miles.—This place, immediately within the line of Lancaster county, is known in history as the scene of the riots, in 1851, growing out of an attempt to capture some fugitive slaves by their owners, from Maryland, assisted by local officers. In this riot a Marylander was killed, and several others, white and colored, were wounded. For a time the occurrence caused great excitement, and furnished a fruitful text for the newspapers of the country. Many arrests were made by the civil authorities for alleged complicity in the affair, the prisoners held being removed to Philadelphia for confinement and trial. The action of the United States District Court was tedious, and the cases were not disposed of for many months; but finally all the prisoners were discharged,—one of them having gained a national reputation by the nerve and determination he displayed in the defense of what he considered the right. Christiana is a place of considerable business activity. It has a foundry and machine-shop, a large nursery, and near it valuable iron-ore mines are worked, shipping about three thousand tons annually. The local business maintains several stores and shops, and the village contains a good hotel, two public halls, a church, school, and other public edifices. A daily stage runs from here to Kirkwood. Population about 350.

GAP, fifty and one-half miles, is the highest point on the railroad between the Schuylkill and the Susquehanna rivers,—the elevation being five hundred and sixty feet

above tide, while at Harrisburg it is but three hundred and ten. The station is so named from the opening in Mine hill, through which the road passes from the Chester valley into the valley of Pequea creek. In former years this region was a favorite resort for counterfeiters and other violators of law, and many are the tales of adventure and daring connected with it. Names of noted criminals are linked with the Gap, and imagination has surrounded some of them with a romance as extravagant as it is gratuitous. Although these depredators have passed from the stage of life,—some of them having spent many years, against their inclination, in the custody and service of the State,—yet, according to popular belief, their spirits “will not down,” but perform some fantastic tricks around their old haunts. Phantom railroad trains, which vanished like a flash, are reported to have been seen and heard near here; and even his satanic majesty is said to have paid midnight visits to engineers, or taken solitary rides on cow-catchers. But however these things may be, certain it is that a more upright, industrious, or enterprising people than those now surrounding this station cannot be found. Large amounts of grain are shipped from here to Philadelphia, and the local trade is considerable. There are two good hotels and a public hall near the station. A daily line of stages runs from the Gap to White Horse, four miles distant. Population, 168.

KINZER'S, fifty-three and one-half miles.—Near this station are the American nickel mines—the only mines of the kind worked in the United States. These mines are owned by a company, who employ about one hundred men, and ship twelve hundred tons of *matte* annually. This *matte* is the nickel ore reduced by smelting to a solid mass of metal, which is then shipped to Swansea, Wales, where the nickel is extracted. The mine returned, according to the census of 1870, a product of sixty-six thousand dollars. There is a good hotel here, and lime-burning is carried

VIEW FROM GAP STATION.



on to some extent. The soil in the neighborhood is very rich and highly cultivated.

LEAMAN PLACE, fifty-six and one-half miles.—Five thousand tons of iron ore are annually shipped from this station—the mines being located about eight miles south of it. Lime-burning is an important industry here. (Junction of railroad to Strasburg, Lancaster county.)

GORDONVILLE, fifty-eight miles.—The Pequea stone quarries, near this station, employ about forty men. The village contains



LANCASTER FARM.

a good hotel, a public hall, and a church, and has an active local business. Population, 250. A daily stage runs from here to Lancaster.

BIRD-IN-HAND, sixty-one miles.—An agricultural station, surrounded by a productive country. The peculiar name of this station is derived from a tavern sign. Two good hotels are here, capable of accommodating a hundred guests. A stage runs from Bird-in-Hand to Terra Hill three times a week, distance fifteen miles.

LANCASTER, sixty-nine miles,—the seat of justice of Lancaster county,—occupies a beautiful situation in the midst of the most fertile portion of the county. Lancaster was the first county created after the three original counties into which the province was divided by Penn., being established by act of the colonial legislature, on the 10th of May, 1729. Its boundaries then comprised "all the province lying to the northward of Octorara creek and westward of a line of marked trees running from the north branch

of the said Octorara creek north-easterly to the river Schuylkill." The general surface of the county is an undulating plain, broken by a few abrupt elevations. The South mountain, known by the local name of the Conewago hills, forms the northern boundary. To that succeeds a belt of red shale and sandstone. South of this, and occupying the centre of the county, is a wide expanse of the richest limestone land. A few sandstone ridges, such as Chiques ridge and the Welsh mountain, are protruded through the limestone formation. Another broken sandstone range, composed of Mine ridge, Martick hills, and Turkey hills, crosses the county south of the limestone; and the southern portion of the county is composed principally of primitive talc-slate, causing rather a sterile soil. Iron ore is found in great abundance in the southern and northern portions of the county. Slate is quarried near the Susquehanna river. Copper ore, it is said, has been found in Mine ridge, where there are the remains of

an ancient mining-shaft, and at one time indications of gold were discovered in Chiques ridge, near Columbia, but never developed. Marble, chrome, and magnesia are also found and worked, and most of the nickel used by the United States Government in its coinage is mined in this county. The county is extremely well watered by the Octorara, *Conewingo, Conestoga, Pequea, Conewago, and Chiques creeks, and by the Susquehanna river, which flows for forty miles along its south-western boundary. The Conestoga is made navigable from Lancaster City to Safe Harbor, on the Susquehanna, a distance of eighteen miles, by a series of slackwater pools and dams with locks.

From the accounts of early historians, it appears that the lower valley of the Susquehanna was, at the period of the first white settlements in this portion of America, a vast, uninhabited highway, through which hordes of hostile savages were constantly roaming between the northern and southern waters, and where they often met in bloody encounters. The Five Nations, consisting of the Onondagas, the Cayugas, the Oneidas, the Senecas, and the Mohawks, whose domain stretched from the borders of Vermont to Lake Erie, and from Lake Ontario to the head waters of the Allegheny, Susquehanna, and Delaware rivers, and whose grand council-fire was held in the Onondaga valley, near the city of Syracuse, in the State of New York, were acknowledged as the sovereigns of the Susquehanna valley, and they regarded with jealousy, and permitted with reluctance, the settlement of other tribes upon its margin. A Cayuga chief told the Moravians of Wyalusing, in 1765, that the place they had chosen was not proper, all that country having been "stained with blood." Toward the close of the seventeenth century—according to Bancroft about 1698, but probably earlier—some remnants of southern tribes, driven out by the encroachment of European colonists in Virginia and Maryland, settled in this valley. These detachments represented the Shawanees, the Canoise, the Nanticokes, the Conestogas, and the Tuscaroras, and peopled the valley from the lower line of Lancaster county up to the mouth of the Juniata. They were all at first friendly with the whites,

made many treaties with Penn and the early colonial governors, and some of them never broke their faith. The Tuscaroras, who had come from North Carolina and Virginia, were adopted into the confederacy of the Five Nations, and after their adoption the title was changed to the Six Nations. All the other tribes enumerated paid tribute to this confederacy. As the number of white settlers increased the Indians diminished. Some tribes moved off bodily to the north and west; others appear to have become extinct, and the most friendly of them all—the Conestogas—were exterminated by the cruel and murderous attack of the "Paxton Boys."

Lancaster county was first settled by the whites about the year 1700. These early settlers consisted of German and Irish emigrants, and English and Welsh Quakers, who gradually spread from Chester county into the territory subsequently embraced in Lancaster. The Germans were generally induced to come here by Penn's offer of free toleration for all religions. The Mennonists* came in principally about 1717, but some had settled here earlier. The

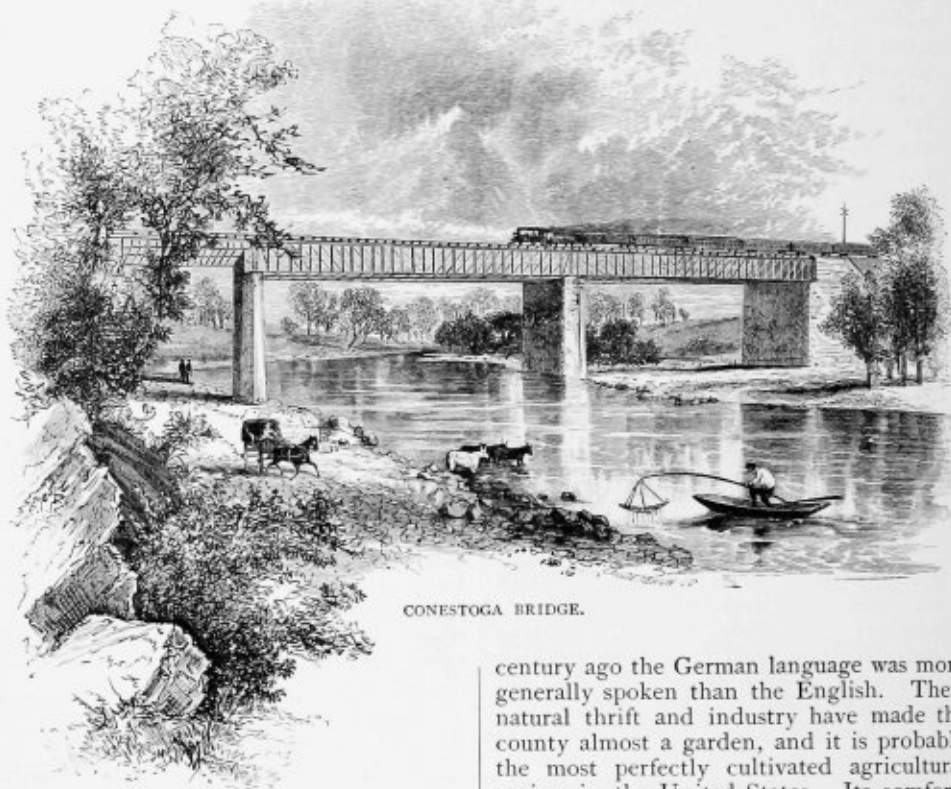
* The Mennonists are a sect of German Baptists, deriving their name from Menno Simonis. He was born in Friesland, in 1505. Originally a Catholic priest, he, in 1537, united with the Baptists. A few years previous to his union with them, this sect had been led, by their zeal, into the most fanatical excesses at Munster. Menno collected the more sober-minded of the sect into regular societies, who formed an independent church, under the name of Mennonists. They professed to derive their creed direct from the Bible, and to follow, in their organization and social intercourse, the peculiarities of the primitive apostolic church. Menno traveled through Germany and Holland, preaching his doctrine and gathering many followers. He died at Oldeslohe, in Holstein, in 1561. Before his death his followers had divided into two parties, differing in regard to the rigor of discipline. The more rigid, who called themselves "Pure," were in favor of excommunication for the least offense; the moderate party, which bore numerous names, only excommunicated for long continuance in transgression. They were much persecuted in Europe, and gladly came to America to enjoy religious liberty. They are opposed to infant baptism, refuse to take oaths, bear arms, hold offices, or go to law with one another. They are remarkable for their industry, sobriety, and good morals.

The Aymish, or Omish, are a sect of the Mennonists who profess to follow more rigidly the primitive customs of the apostolic church. They derive their name from Aymen, their founder, and were at first called Aymenites. They wear long beards, and reject all superfluities of dress, diet, and property.

The Dunkers are a sect of Baptists—the name Dunker or Tunker being simply a corruption of "Täufer." Baptist. In 1708, Alexander Mack and seven others, in Schwarzenau, Germany, met together regularly to examine the New Testament, and to ascertain the obligations it imposes on professing Christians. Their inquiries resulted in the formation of the society called Dunkers, or First-Day German Baptists.

Conrad Beissel, a native of Germany, who had been a Presbyterian, came with the Dunkers to America, and settled with the colony on Mill creek, Lancaster county. He became convinced that there was an error among the Dunkers—that the "seventh day" was commanded to be observed as the Sabbath. In 1725 he published a tract on this subject, which created much excitement, and led to the formation of the society at Ephrata, which was monastic in its organization and regulations. The habit of the Capuchins was adopted, and monastic names were given to all who entered the cloister. This society flourished for about forty years, and then began to decline. It has now become entirely extinct.

*The prefix "con," attached to the names of so many streams in Pennsylvania, is a perversion of an Indian word, signifying "long."



CONESTOGA BRIDGE.

Dunkers came about 1720 and in the years immediately following. The Presbyterians from the north of Ireland arrived about the same time. Each of these sects settled in different localities; but it was not long before dissensions arose among them on the subjects of elections, bearing of arms, the treatment of Indians, etc., and when these troubles were reported to the agents of the proprietary at Philadelphia, they directed that the Germans should be encouraged to settle along the southern boundary of the province, while the Irish were to be located nearer the Kittatinny mountains, in the region now forming Dauphin and Cumberland counties. "There was deeper policy in this," says a historian, "than the mere separation of the two races. The Irish were a warlike people, and their services were needed in the defense of the frontier."

As a natural result of this course of the proprietary and early authorities in Pennsylvania, the population of the county is mainly of German descent, and until a third of a

century ago the German language was more generally spoken than the English. Their natural thrift and industry have made the county almost a garden, and it is probably the most perfectly cultivated agricultural region in the United States. Its comfortable dwellings, its wonderful barns, its trim fences and smooth fields have gratified the gaze of many travelers and been quoted as models in every section. Population, 121,340; value of agricultural productions, \$11,845,008;* number of manufacturing establishments, 1616; hands employed, 6479; wages paid, \$2,037,841; capital invested, \$9,504,162; materials used, \$9,100,637; value of products, \$14,034,180. Iron-ore mines, 17; hands employed, 864; wages paid, \$321,871; capital invested, \$638,000; tons mined, 145,321; value, \$545,501. One nickel mine is in operation.

The first settlement was made on the site of Lancaster City previous to the formation of the county; but at the time of formation the only building standing within the present municipal limits was a tavern, with a sign of a hickory tree, kept by a man named George Gibson. The original county

* The tobacco crop of Lancaster county, for the years 1870, 1871, and 1872, was estimated to be worth, at fifteen cents per pound, \$4,634,285. There are over four hundred cigar factories in the county, turning out about 45,000,000 cigars annually.

buildings were erected at Postlewaite's, about five miles east of the city, but this situation did not satisfy the settlers on the Susquehanna river and the western portion of the county. It will be remembered that at this time the county embraced the entire western and north-western portions of the province. To satisfy these settlers, and at the suggestion of the proprietaries, Governor Hamilton had the present town laid out. This was done by Roger Hunt, of Downingtown, Chester county, a surveyor, in 1730, who built the first house after the plot was made. Governor Hamilton himself was proprietor of the land on which the town was located, and offered inducements which caused a rapid influx of settlers. Lots were let on ground-rent, instead of being sold, and many poor people were thus induced to build. In 1754 Governor Pownall visited Lancaster, and in his journal says the place then contained "five hundred houses and two thousand inhabitants; that it was a growing town and making money, having then a manufactory of saddles and pack-saddles." In 1734 the seat of justice was removed from Postlewaite's to Lancaster, and the town from that time not only grew rapidly in population, as already shown, but in political importance. It soon became a favorite place for holding councils and making treaties with the Indians, and the early colonial records give accounts of many such conclaves. In 1748, at a council held here, attended by commissioners from Virginia, Maryland, and Pennsylvania, the first purchase of territory west of the Allegheny mountains was effected. Most of the men whose names are connected with the history of the province of Pennsylvania visited it, and it ranks second only to Philadelphia in the annals of the State.

At the time of Braddock's expedition against Fort Du Quesne, in 1753, Lancaster became the scene of active military operations. Dr. Franklin took a prominent part in fitting out this expedition, and through his personal exertions two hundred and fifty wagons and as many pack-horses were raised, principally in Lancaster county, to carry supplies and provide for the sick and wounded. He pledged himself personally to secure the proper remuneration for this service, and, as a natural consequence, got into serious embarrassment. The colony was not willing to pay the expense, and the crown hesitated, so the doctor

himself was annoyed and threatened with many suits. Ultimately the bills were paid, and he was relieved. In 1758 General Forbes' celebrated expedition against the same point was fitted out, consisting of regulars and the provincial troops of Pennsylvania and Virginia, under Colonels Bouquet and Washington, and Lancaster again assumed a military aspect. On the return of this expedition—which found Fort Du Quesne abandoned and partially destroyed by the French, and rebuilt and named it Fort Pitt, after the celebrated prime minister of Great Britain—barracks for five hundred men were erected here for the protection of this portion of the province. These barracks remained standing until a comparatively recent period, and during the Revolutionary war were used as a prison in which to confine captured British soldiers.

Braddock's defeat may be said to have terminated the peace which had existed for seventy years between the settlers in Pennsylvania and the Indians. In the language of a historian, "the whole frontier, from the Delaware to the Potomac, was now lighted with the blaze of burning cottages, and the hamlets in the lovely limestone coves west of the Susquehanna were reduced to ashes." These outrages aggravated beyond endurance the hot-blooded Scotch-Irish settlers along the Susquehanna. They believed a secret understanding existed between the hostile tribes of the West and the Indian settlements among the Moravians, claiming to be Christianized, and that information was conveyed by the latter to the former which enabled the savages to attack unprotected settlements and escape pursuit. A long-continued series of murders—some of them horrible in their details—inspired these settlers with a blind fury, and on the night of the 14th of December, 1763, a party of them from the townships of Donegal and Paxton, (near the present city of Harrisburg,) known by the name of the "Paxton Boys," attacked the Indian village of Conestoga, near Lancaster, for the purpose, as they alleged, of securing some hostile Indians who were harbored there. The number of assailants is variously estimated at from twenty to fifty. Few of the Indians were at home. Dr. Franklin, in his narrative, says there were only three men, two women, and a boy, and these offered but a feeble resistance. All that were found were massacred, and their



LANCASTER DEPOT.

dwelling reduced to ashes. The citizens and magistrates of Lancaster, shocked at the horrible outrage, gathered the scattered individuals of the tribe who remained into the stone workhouse, where, under bolts and bars, they were considered safe until they could be conveyed to Philadelphia for protection. But the "Paxton Boys" were not satisfied with anything short of the extermination of the tribe. Concealing themselves at night, near Lancaster, they waited until the next day, (Sunday, December 27th,) when the citizens were attending religious services, and then dashing into the town they seized the keeper of the workhouse, and rushing into the building murdered every Indian in it, some fourteen in number. Their work was quickly done, and before the citizens could assemble they were gone.

Elated by their success, the "Paxton Boys" assembled in greater numbers, early in January, and threatened to march to Philadelphia in a body, and destroy the Indians who had been sent there for protection. This threat led to preparations for repelling them, and several companies of foot, horse, and artillery were formed in the city to resist the attack. The "Paxton Boys" advanced nearly to the Schuylkill river, but finding such a force ready to receive them, prudently withdrew and returned home.

These outrages—for outrages they certainly

were—caused the most intense excitement throughout the province. The press of the day teemed with pamphlets, letters, and caricatures. The affair entered into political discussions, and was hotly handled: into religious feuds, and was as intemperately considered there. One thing, however, was certain,—the perpetrators of the outrage "were not the ignorant and vulgar of the border counties—persons more likely to yield to their passions than to respect the laws of their country and humanity. They were of such consideration that, whilst the public voice and the press execrated the cruelty and illegality of their conduct, they forebore to name the guilty individuals." No arrests were ever made for the outrage, nor, indeed, does it appear that the authorities used any particular effort to discover the participants in it.*

Among the early peculiarities of Lancaster was an annual fair, held on the first Thursday and Friday in June. An old writer, in describing those fairs, says:—"You could hardly see the street for the tables and booths, covered with merchandise and trinkets of every kind. There were silks, laces, and jewelry; calicoes, gingerbread, and sweetmeats, such as the ladies love,—and that was the time they got plenty of them, too, for the young fellows used to

* For a more extended account of the "Paxton Boys," see Harrisburg.

hoard up their pocket-money for months together to spend at the fair. Then the corners of the streets were taken up with mountebanks, rope-dancers, and all the latest amusements. To see these each young man took the girl that pleased him most; or, if he had a capacious heart, he sometimes took half a dozen." In every tavern there was heard the sound of a violin, and the dances were the crowning pleasure of all. Of taverns there appears to have been an abundance. One writer says that the portraits of half the kings of Europe, of many warriors and statesmen, and of numerous things, animate and inanimate, made the streets an out-door picture-gallery.

During the Revolutionary war Lancaster played no insignificant part. While the tide of battle never reached her borders, nor the din of strife sounded through her streets, she proved a city of refuge for the Continental Congress, which fled here after the disastrous battle of Brandywine. As has already been stated, the old barracks, built to accommodate General Forbes' returning army, were now used as a prison in which captured British soldiers were confined; and in connection with this prison the following singular adventure is related:

In spite of all precautions, many prisoners disappeared in an unaccountable manner, and nothing was heard of them until they resumed their places in the British army. It was presumed that they were aided in their escape by tories, but where suspicion should fall no one could conjecture. General Hazen was in command of the post. He devised a stratagem for the detection of the culprits, and selected Captain—afterward Major—Lee to carry it out. Major Lee is described as one of the most vigilant and active partisan officers in the American Revolutionary army. He was short and slight, but active and energetic. His face was small and freckled, and his look eager and sprightly. In appearance he was quite youthful. It was given out that Major Lee had left the post on furlough; but, having disguised himself, he entered the prison as a British prisoner. So complete was his disguise that the prison officials, who had long been familiar with him, did not penetrate it.

For many days he remained in the prison without making any discoveries. He thought he perceived, at times, signs of intelligence between some of the prisoners and an old

woman who was allowed to bring fruit for sale within the inclosure. She was considered deaf and half-witted, and therefore no suspicion attached to her. Her son had been disgraced and punished in the American army, but she had never shown any malice on that account. Her dwelling was about a mile from the town, in a lonely spot, where she shared her miserable quarters with a dog and cat, isolated from humanity, and powerless, it was thought, for any evil. Lee watched her closely, but saw nothing to confirm the suspicions that had entered his mind.

One dark, stormy night in autumn, Lee was lying awake at midnight. Suddenly the door was opened, and a figure silently entered the room. It stooped toward one of the sleepers, who suddenly arose. Next it approached and touched him on the shoulder. He immediately started up. The figure allowed a slight gleam from a dark lantern to fall on his face, and as it did so muttered, impatiently, "Not the man—but come!" It then occurred to Lee that this was the opportunity he desired. The unknown whispered to him to keep his place until another man was called, but at that moment something occurred to alarm him, and making a signal for Lee to follow, he moved silently out of the room. They found the outer door unbarred, a small part of the fence removed, and passed out unmolested. The sentry had retired to a shelter, and perceived them not, although Lee saw that his conductors were prepared to silence him if he interfered. Just outside of the fence appeared a stooping figure in a long cloak, which Lee at once recognized as the old woman he had suspected. The most profound silence was observed; a man came out of a little thicket and joined them, and the procession moved off under the guidance of the woman. At first they frequently stopped to listen, but hearing the sentinel cry "all's well," they seemed reassured, and moved with more confidence. They soon came to the bel-dame's cottage, where a table was spread with provisions, and upon it was a large jug, which one of the soldiers was about to seize, when the man who conducted them stopped him. "No," said he, "we must first proceed to business."

The conductor, a middle-aged, harsh-looking man, was here about to require all present, before he could conduct them further, to swear upon the Bible not to make

any attempt to escape, and never to reveal the circumstances or agents in the proceeding, whatever might befall them. Before he had time to administer the oath, they heard the sound of the alarm-gun, and the conductor, directing the party to follow him in close order, immediately left the house, taking with him the dark lantern. Lee's reflections were not now of the most agreeable kind. If he were to be compelled to accompany the party to the British lines at New York, he would certainly be detected and hanged as a spy, and he saw that the conductor had prepared arms for them, which were to be used in taking the life of any one who should attempt to escape. They proceeded with dispatch, but not without difficulty. Lee might have escaped in the hurry and darkness, but he had as yet made no important discovery, and he could not bear to confess that he lacked the nerve to carry him through the enterprise he had undertaken. They were concealed in a barn the whole of the next day. Provisions were brought them, and low whistles and other signs showed that the owner of the barn was in collusion with his secret guests. Lee was so near the house that he could hear the conversation carried on about the door. It was evident, from the inquiries of horsemen who galloped to and fro, that the country was alarmed at the escape. The farmer gave short answers, as if unwilling to be interrupted in his labor; but the other members of the family were eager in their questions, and Lee gathered that the means by which he and his companions had escaped were as mysterious as ever. The next night they resumed their march, explaining to Lee, before starting, that as he was accidentally included in the party, they should take the precaution to keep him in full sight by placing him in front, just behind the guide. He submitted without opposition, although the arrangement considerably lessened his chances of escape.

For several nights they went on in this manner, being delivered over to different persons from time to time, who, Lee gathered from whispered conversations, were regularly employed and well rewarded by the British for their services. Their employment was full of danger; and although they appeared to be desperate men, they never remitted their precautions. They were concealed, in day-time, in barns, cellars, caves made for the purpose, and similar retreats, and one

day was passed in a tomb,—the dimensions of which had been enlarged, and the dead inmates banished, to make room for the living. Burying-grounds were favorite retreats, and on more than one occasion they were obliged to resort to superstitious alarms to drive intruders from their vicinity. Their success fully justified the experiment; and unpleasantly situated as he was, with a prospect of soon being a ghost himself, Lee could not help laughing at the speed with which old and young fled from the fancied apparitions.

Though the distance to the Delaware was not great, they had now been twelve days on the journey; and so thorough was the vigilance of the loyal people, that they almost despaired of being able to reach the river at all. The conductor grew impatient, and one of Lee's companions became furious. On the twelfth night Lee was placed in a barn, while the rest of the party sheltered themselves in the cellar of a little stone church, where they could talk, as they thought, with freedom. While engaged in refreshing themselves, the truculent soldier, who had drank freely, asked his companions, in an off-hand way, if they knew "whom they had in their party." The others started, and asked what he meant. "I mean," said he, "that the little man in the barn is Captain Lee, of the rebel army. He punished me once, while I was a prisoner, and I never mistook my man when I had a debt of that kind to pay. Now I shall have my revenge." The others objected to his ferocity, and said if their companion was an American officer all they had to do was to watch him closely. As he had come along uninvited, he must go with them to New York and take the consequences; but in the meantime it was their interest not to seem to suspect him, or he might give an alarm. The other persisted in saying he would have his revenge with his own hand, upon which the conductor drew a pistol and declared that if he saw the least attempt to injure Captain Lee, if such he was, or any conduct which would lead him to suspect his disguise was discovered, he would shoot the soldier on the instant. The fellow muttered something, with his hand on his knife, and the conversation, which Lee had overheard, ended.

The next night they went on as before, but the difficulties in their way seemed to increase. About midnight they came to the bank of the river, where, much to the

dismay of their conductor, no boat was to be seen. Their party now consisted of only two soldiers, Captain Lee, and their conductor. The latter, thinking the boat might be further down the river, took one of the soldiers and went in search of it. Handing a pistol to the other soldier—the one who had denounced Lee the day before—he said:—"If the rebel officer attempts to betray us, shoot him; if not, you will not, for your own sake, make any noise to show where we are."

Lee believed the soldier did know him, and now he was convinced by his actions that he would seek his revenge. He was unarmed. The soldier was in possession of a knife and a pistol, and, besides, was the larger and more powerful man. To wait for the assault was, as Lee thought, only certain death; so, nerving himself, he suddenly sprang upon his antagonist, seeking, if possible, to wrest the pistol from his grasp. But the soldier was on his guard, and as Lee sprang fired full upon him. Fortunately, the pistol contained no ball, or the career of an American officer would have been suddenly terminated. The shock prostrated Lee, but the soldier accidentally dropped the pistol where Lee could reach it, and as his adversary stooped over him in the act of drawing his knife to give him his quietus, Lee struck him a stunning blow with the discharged weapon. A desperate struggle then took place, which would probably have resulted disastrously to Lee had not a party of countrymen, who were armed and patrolling the river bank, attracted by the discharge of the pistol, come up in time to separate the desperate combatants and arrest them both.

Their captors were at a loss what to do with their prisoners, and determined to call upon a local magistrate to help them out of their perplexity. This dignitary heard Lee's story with incredulity, and ordered both the prisoners to be taken to Philadelphia in irons. There they were lodged in prison, and Lee then prevailed upon the jailor to carry a note to General Lincoln, secretary of war, informing him of his condition. The general received it as he was dressing, and immediately sent one of his aids to the jail. That officer could scarcely credit the fact that the tattered, dirty, unshaven object before him, arrayed in the rags of a British uniform, was Major Lee, although he knew him well. In this plight he was taken to the office of the secretary, where that officer received him cordially, but laughed heartily

at his appearance. Lee returned to Lancaster, and immediately proceeded to retrace his route of "escape." So accurate was his memory, and so thorough his observation, that he brought to justice fifteen persons who had been instrumental in aiding the escape of British prisoners, and the system was finally broken up.

On the 19th of June, 1777, Lancaster was incorporated as a borough, and in 1799 it was made the capital of Pennsylvania. It continued such until 1812, when the seat of the State government was removed to Harrisburg. In 1818, on the 20th of March, it was given a city charter.

The city of Lancaster has been the birth-place or the home of many distinguished men. Robert Fulton, who is justly entitled to the credit of successfully introducing steam navigation, was born in the township of Little Britain, Lancaster county, and received his early education in Lancaster City, to which his parents removed soon after his birth. His career was, in many respects, a remarkable one—full of adventure and thick with incidents. He died on the 24th of February, 1815. In more recent times James Buchanan, fifteenth president of the United States, resided in the immediate vicinity of the city, at a beautiful place called "Wheatland," and here he died and was buried. Thaddeus Stevens, who filled such a prominent place in the history of the United States preceding and during the Rebellion, was a citizen of Lancaster, and his grave is within the city limits.

The manufacturing business of Lancaster is varied and extensive. Most of it is the growth of the last quarter of a century, and it is altogether probable the increase in the future will more than keep pace with the past. There are now six cotton-mills in operation, employing thirteen hundred and fifty hands, extensive boiler works, locomotive works, comb factory, woolen and flour mills, three extensive breweries, and a "printing and publishing company," employing one hundred and seventy-five hands. Several iron mines are worked in the vicinity of the city.

Church edifices are particularly abundant, there being no less than twenty-six in all, or an average of one for every eight hundred and fifty inhabitants. All the leading denominations are supplied, and in addition to these, the Swedenborgians and Dunkers each have a church.

Franklin and Marshall College is located here. Franklin College was founded in 1787, but after a brief existence expired for want of patronage. It was at a later period revived, and Marshall College, then located at Mercersburg, Franklin county, united with it—the two being under the control of the Lutheran church. The institution is now in a flourishing condition, having an attendance of over one hundred and thirty students, while the theological seminary connected with the college has twenty-six. A State normal school is located at Millersville, a few miles south of Lancaster, where it has extensive and beautiful grounds and buildings.

The city also contains three public halls, ten public and private banks, and a number of fine hotels. The other public edifices are a splendid court-house, a large prison—built in the form of a Norman castle, a children's home, and a county poor-house, to which is attached a hospital and a lunatic asylum. The local trade of the place—being, as it is, the centre of an extremely rich and densely populated country—is extensive. Population, 20,233.

DILLERVILLE, sixty-nine and one-half miles.—Point of intersection of the Harrisburg and Lancaster Railroad with the Columbia Railroad (built by the State of Pennsylvania, and now owned by the Pennsylvania Railroad Company). The Harrisburg and Lancaster Railroad is leased by the Pennsylvania Railroad Company for the period of nine hundred and ninety-nine years, and, being the most direct line, the through passenger trains are run over it, while most of the freight and the accommodation trains pass over the Columbia Railroad, which connects at Columbia with the Wrightsville and York Railroad, and by it with the Northern Central, at York.

LANDISVILLE, seventy-five and one-half miles.—About one mile from this station a zinc mine has recently been opened. The Methodists have a beautiful camp-ground here, where camp-meetings are annually held, concentrating large numbers of people. The village contains two hotels, three churches, and a population of about 200.

MOUNT JOY, eighty miles, is a flourishing place, in the midst of a fertile country. It contains manufactories of reapers, plows, carriages, edge-tools, a machine-shop, and malleable-iron works, and several other industries. A soldiers' orphans' school, containing two hundred pupils, is located here.

The town contains six churches, two national banks, three hotels, and good schools. Beautifully located near Little Chiques creek, and beside the railroad, are the fine buildings of the female seminary, built in 1837. Mount Joy was laid out in 1812, by Jacob Rohrer, and the lots disposed of by lottery. Population, 1896.

SPRINGVILLE, eighty-one and one-half miles, is a point of shipment for large amounts of coal used in the iron-works of the region, and also for flour and grain. There are a public hall and a good hotel here.

ELIZABETHTOWN, eighty-seven miles, is delightfully situated and has an active local trade. Just before reaching this station from the east, the train passes through the only tunnel on the road for a distance of near two hundred miles. The business of the place is principally merchandising. A machine-shop is in operation, and the town contains four hotels, five churches, and a national bank. Elizabethtown was laid out soon after the city of Lancaster. Population, 858.

CONEWAGO, ninety and one-half miles.—The scenery near this station is marked by striking peculiarities. Around it the country is covered with fragments of trap-rock, and the soil is unproductive. Its name is taken from the Conewago creek, which is crossed here on a high bridge, over a rugged, wooded gorge, through which, looking north-eastwardly, glimpses of the Conewago valley and hills are seen. This creek forms the boundary between Lancaster and Dauphin counties.

MIDDLETOWN, ninety-five and one-half miles.—First station in Dauphin county, and point of junction of the Harrisburg and Lancaster and Columbia Railroads. Middletown is an active, enterprising place, and a large trade is centred here. Among other industries it contains two furnaces, car-works, iron-works, boat-yards, paint-works, and saw-mills, employing together a large number of men. Iron ore and mineral paint are mined in the vicinity, and a very extensive business is done in lumber. It has eight churches, a large public hall, and several good hotels. The Emaus Institute, "devoted to the education of poor orphan children, who are to be carefully trained in the doctrines of the Evangelical Lutheran Church," is located here. This institution owes its existence to the liberality of George Frey, a citizen of Middletown, whose life



CONEWAGO BRIDGE.

was marked with considerable romance. His true name was Everhart, and, a poor German lad, he commenced his career here as a farm laborer. When he had accumulated a little money he purchased a stock of trinkets, and started up the Susquehanna river to trade with the Indians. Passing the Blue mountain—then the frontier of the white settlements—he was arrested by some soldiers as a runaway “redemptionner” (a servant who had been sold for a time to pay his

passage from Europe). In his broken language he declared to the soldiers, “*Ich bin frey!*” and finally convinced them that he was “free.” Locating himself at Fort Hunter, where he became a favorite, the name of “Frey”

was given him, and by it he was afterwards known. He prospered as a trader, opened a store at Middletown, speculated extensively and judiciously, accumulated a large fortune, and, with a part of it, endowed this benevolent school. He died in 1808, leaving no children.

Middletown was laid out in 1755, by George Fisher, in the centre of a large tract of land conveyed to him by his father, John Fisher, of Philadelphia. The site was that

of an Indian village. It was named Middletown because of its situation midway between Lancaster and Carlisle—the town of Harrisburg not being laid out until thirty years later. It soon acquired an active trade, and during the Revolutionary war a commissary post was established here, from which supplies were sent to Wilkesbarre for General Sullivan's expedition against the Six Nations. During the time the lead mines in Sinking valley were worked by the Government to supply the Continental army, the lead was refined and prepared for use at Middletown. Until 1796 it was considered the termination of navigation on the Susquehanna, as the rapids below it were thought to be impassable for the arks and boats used; but in that year a German miller, named Creider, from the neighborhood of Huntingdon, on the Juniata, safely ran these rapids to tide-water. This changed the course of trade, and the products which before had stopped at Middletown for shipment to Philadelphia now went to Baltimore. In 1827 the Union canal was completed, terminating at the mouth of the Swatara, at Middletown, and a water route being thus opened to Philadelphia, the trade came back to its old channel. Following this it had its fluctuations, as new lines of trade and travel were opened; but a few decades ago its advantages as a manufacturing site were utilized, and since then it has known only prosperity. In 1851 the adjacent town of Portsmouth was merged into it. Population, 2980. At this point the railroad by way of Columbia, and the direct line which has been followed in the description, again unite. Returning to Dillerville to take the Columbia branch, the first station reached is—

MOUNTVILLE, seventy-six miles, the outlet for a productive agricultural region. Iron ore is mined in the vicinity. The town contains two churches, a public hall, several hotels, and a graded free school. Population about 600.

COLUMBIA, eighty-one miles, is a borough in Lancaster county, on the Susquehanna river. The town is built upon the level ground on the bank of the stream and the hills rising above it. From these hills a magnificent panoramic view of the broad, sweeping river, and the scenery bordering it, is had. The river here is fully a mile in width, and contains many islands, some of them densely wooded.

Robert Barber, a Quaker of Chester county,

took up the first land purchased from the proprietaries in this vicinity, in 1727, and the following year came here, with two other families, and settled upon it. At the time of their arrival the Indians had a number of settlements in the vicinity, but they were not hostile to the whites, and gave the newcomers no trouble. Some of these early Quaker pioneers appear to have been persons of superior intelligence and education, and notable among them was Susanna Wright, —the eldest daughter of John Wright, one of Barber's companions,—who was educated in England, and was unquestionably a very superior woman. An early chronicler states that "she was consulted in all difficult matters, did all the writings necessary in the place, was charitable to the poor, and gave medicine gratis to all the neighborhood. She defended the cause of the Indians who were murdered by the 'Paxton Boys,' and wrote in answer to a clergyman of Lancaster, who took the opposite side." From this family of Wrights the town of Wrightsville, on the opposite side of the river, took its name. Another noted woman in the early history of the place, but of an entirely different kind, was Mary Ditcher, a German, who acquired a large amount of land, which she sold from time to time to German emigrants. The same chronicler states that this Mary Ditcher "used to go through the country making what was then called improvements." These improvements consisted in piling a few sticks together, setting them on fire, and hanging a pot over. This was considered a "first right." If she could then pay for the land, she had the privilege of keeping it. "She wandered through the wilderness, in a sheep-skin dress, leading an old horse,—her only movable property,—with her knitting constantly in her hand."

At one time it was proposed to make Columbia the county seat, and Robert Barber, who was sheriff of the county, built a prison near his house. It was a strong log structure, and remained standing for many years. With this prison is connected an episode which has more than once been woven into fiction, and has recently caused considerable comment on both sides of the Atlantic. In it was confined James, the rightful Lord Altham, whose remarkable career furnishes the ground-work of Charles Reade's novel, "The Wandering Heir."

As related in the story, James Annesley, the true heir to the estates and title of Lord

Altham, in Ireland, was spirited away from that country when thirteen years of age, by his uncle, and sent to America, where he was sold as a "redemptioner," or "slave," as Reade calls him, to a farmer. This sale took place in Philadelphia, where he landed, in 1728. The novelist rather confusedly locates his place of servitude in New Castle county, Delaware, but another account states that he served his time with an old German farmer, near the forty-mile stone, on the Lancaster road. All the accounts agree in stating that he did run away from his master, was captured, and imprisoned; that he had his troubles because of his master's daughter and a young Indian girl voluntarily bestowing their affections upon him, and that, finally, after twelve years of servitude, he was discovered to be the rightful Lord Altham,—was taken back to England by Admiral Vernon, and after the adventures and trial, as detailed by Reade, was declared to be the true heir. The circumstances of his discovery are thus related:—Two Irishmen, named John and William Brodus, traveling the Lancaster road, stopped at the house where James was in service. Entering into conversation with him, they discovered they were all from Dumaine, in the county of Wexford, and the Irishmen were convinced that the servant was James Annesley, the son and heir of Lord Altham. They volunteered to go back to Ireland and testify to what they had discovered, and this they did, appearing as witnesses at the trial which followed the heir's return. It is also said that James was a great singer, and when he was confined in the log jail at Columbia the neighbors frequently visited the prison to listen to him. The events of his life furnished the ground-work for "Guy Mannerling," "Roderick Random," and "Florence Macarthy," popular novels in their day. James, it would appear, was a man of no particular talent, and easily discouraged. After his heirship had been substantiated, he permitted his uncle, who had so greatly wronged and persecuted him, to remain in possession of his title. He married twice, had sons and daughters by both wives,—none of his sons, however, surviving him,—and died at the age of forty-five, the last of his line. The descendants of the wicked uncle inherited the title and estates.

About 1745 a mill was built at Columbia by John S. Wright, and was, at the time, the only one in this part of the province.

Flour was made at this mill for the use of Braddock's army. It was packed in small casks made for the purpose, and carried on pack-horses to Raystown, now Bedford. Braddock's defeat caused great excitement here, as at other frontier settlements, because of the threatening and hostile attitude assumed immediately thereafter by the Indians. All the women and children of the place—about thirty in number—were sent to Philadelphia, where they spent the winter of 1755-6. The men remained and fortified a storehouse for their defense. The Indians, however, made no attack upon the settlement at that time; but tradition states that, at probably an earlier period, an attack was made and repulsed, with great slaughter of the savages, by the white settlers, led by a man named Bell. Whether this is correct or not cannot now be determined, but certain it is that the name of Bell was much dreaded by the Indians in the vicinity.

Columbia was incorporated as a borough on the 25th of February, 1814. It was then an active business place, and evinced considerable energy. The first bridge over the Susquehanna was erected the same year by a company, and cost two hundred and thirty-one thousand seven hundred and seventy-one dollars. This bridge was five thousand six hundred and ninety feet long, and was for the time a most stupendous work. The entire capital of the bridge company was four hundred and nineteen thousand four hundred dollars, of which the State held ninety thousand dollars. The excess, over the cost of the bridge, was used for banking purposes. In 1832 about one-half of the structure was carried away by the memorable ice-flood, but it was completely repaired in 1834. In 1863 the bridge was burned to check the advance of Lee's army into Pennsylvania, but it has again been rebuilt.

In 1834 the Columbia and Philadelphia Railroad was completed by the State, and connected at this place with the Pennsylvania canal. The opening of these improvements made Columbia a busy and important town, the transshipment of all freight passing over the main line having to be made here; and it was during the score of years which followed the completion of those works that the town became the school of so many young men who have since distinguished themselves in the railroad and transportation service of the United States.



CHIQUES ROCK.

The "flush times" which marked this period in the history of Columbia will be long remembered by those who had any connection with that highway of business and travel—the old "main line." But the completion of the Harrisburg and Lancaster Railroad diverted the through travel from Columbia, and at a later period the construction of the Pennsylvania Railroad deprived the canal of its prestige, and the place felt the change. Still it continued to be, and is now, a prosperous town, controlling much wealth and business. Its iron production and its lumber trade are important industries, the

former of which must naturally increase from year to year. As a point of shipment Columbia has many advantages, being connected by railroad with Baltimore, Philadelphia, and the West, as well as with the anthracite coal fields; and by canal with the interior of Pennsylvania and the Chesapeake bay at Havre de Grace.

The manufacture of iron and iron products is extensively carried on, and in the various branches of this industry nearly a thousand men are employed. There are also here a manufactory of agricultural implements, an oil refinery, two planing-mills, and other industries. The mercantile business transacted is extensive, as the country tributary to Columbia is fertile and well cultivated, producing large crops of wheat, tobacco, etc. It has fine churches—representing all the prominent religious denominations, a flourishing private academy, several commodious public halls, excellent hotels, two national banks, a savings bank, and a deposit bank. The town is lighted with gas and supplied with water from works erected for that purpose. Population, 6461. (Junction of Wrightsville and York Branch Railroad, running to York,—distance fourteen

miles,—where connection is made with the Northern Central Railroad to Baltimore. Also of the Reading and Columbia Railroad to Reading, and of the Columbia and Port Deposit Railroad to Perryville, Maryland.)

CHIQUES, eighty-two and one-half miles.—The scenery on this branch of the road may be said to culminate in grandeur and beauty at this point. From Columbia to "Chiques Rock" the road is cramped for room between the hills and the river, but as soon as this point is passed the valley widens. A popular American writer, in describing his travels, says:—"One of the

loveliest landscapes on which my eyes have fallen is the scene which, on a sunshiny day, one surveys from the summit of Chiques Rock. The whole region round about is a miracle of God's handiwork—not mountainous, but hilly, as if, in Mrs. Browning's phrase, 'His finger touched, but did not press, in making it.'" There are at this station four furnaces, one rolling-mill, and three grist-mills. Iron ore is mined in the vicinity. Population about 1000.

WATTS', eighty-three miles.

MARIETTA, eighty-four miles, is on the left bank of the Susquehanna, along which it extends for a distance of two miles, commanding many beautiful views of river scenery. It was settled about the commencement of the present century, and was then known as Anderson's Ferry, so called from a settler of that name who owned a considerable part of the land on which the town is now built, and who constructed extensive accommodations for his ferry across the river. The erection of the bridge at Columbia diverted travel from this place, and the owner found himself a ruined man.

Marietta was incorporated as a borough in 1812, and the act of incorporation included within its limits the villages of Waterford and New Haven. The venerable Donegal Presbyterian Church, built about 1740, stands four miles north of the borough. This was the parent church of the Scotch-Irish settlements on the Susquehanna, and from it sprang those which soon after spread through the Kittatinny valley and along the great river. "All this region," says a historian, "was famous in early times, especially during the Revolution, for the convivial and sprightly spirit characteristic of the Irish. Fiddling, dancing, and carousing, or what were then known as 'hup-se-saws,' were as common as eating and drinking."

There are in Marietta six iron furnaces, a rolling-mill, a manufactory of enameled and hollow ware, a foundry, two saw and planing mills, and several other manufactories. A large business is done in lumber, and four iron mines are worked in the vicinity for local consumption. The trade of the place is considerable. The hotels are numerous and good, and there are three public halls. An excellent system of graded public schools is in operation, with an average attendance of six hundred pupils. The town contains, also, seven churches, a lyceum of



ENTRANCE TO WILD CAT GLEN.

natural history, a co-operative mutual life insurance company, and a national bank. Near Marietta, on the opposite side of the river, is "Wild Cat Glen," a romantic spot, which has been purchased by the Masonic fraternity as a summer resort of the brotherhood. Duffy's Park and Donegal Springs are resorts in the immediate neighborhood, the latter of which is the location of the hatching-establishment of the Pennsylvania fish commissioners. Population, 2397.

BAINBRIDGE, ninety-one miles.—Lime-burning is carried on here, and the shipment amounts to about one thousand tons per month. The village contains three hotels, a public hall, and several churches. In former years this was the site of a profitable shad fishery, but the construction of the dam at Columbia destroyed the industry. Recent improvements having opened a passage-way for the finny tribe from the Chesapeake bay, it is probable



WILD CAT GLEN.

that the former wealth of Bainbridge may return to it.

This portion of the Susquehanna river has been prolific in speculations, many of which proved abortive. A few miles above Bainbridge are the Conewago falls, a dangerous obstruction to navigation in years past, when rafts and flat-boats were the only means by which the products of the interior could reach a market below. A distinguished lawyer in Lancaster undertook

to construct a canal around these falls. He spent his fortune in the enterprise, and failed. On the opposite side of the river a number of extensive mills, propelled by the water-power of the falls, were built to manufacture flour for the Baltimore market, but these, too, have been abandoned, and their ruins alone remain to mark the enterprise that constructed them. A short distance beyond this station the diverging branches of the road, which have been

followed through, unite, forming a single line.

HIGHSPIRE, ninety-nine miles (formerly Tinian, the seat of Colonel James Burd).—A distillery, a saw-mill, and car-shops are located here. Iron ore is mined in the vicinity. The adjacent country is well improved and productive. The village contains several hotels, two churches, and a public hall. Population, 612.

BALDWIN, one hundred and two miles.—The Pennsylvania Steel Works, employing nearly six hundred men, are at this station. These works manufacture steel rails and other railroad supplies. The settlement contains two churches and several stores. Population, 477.

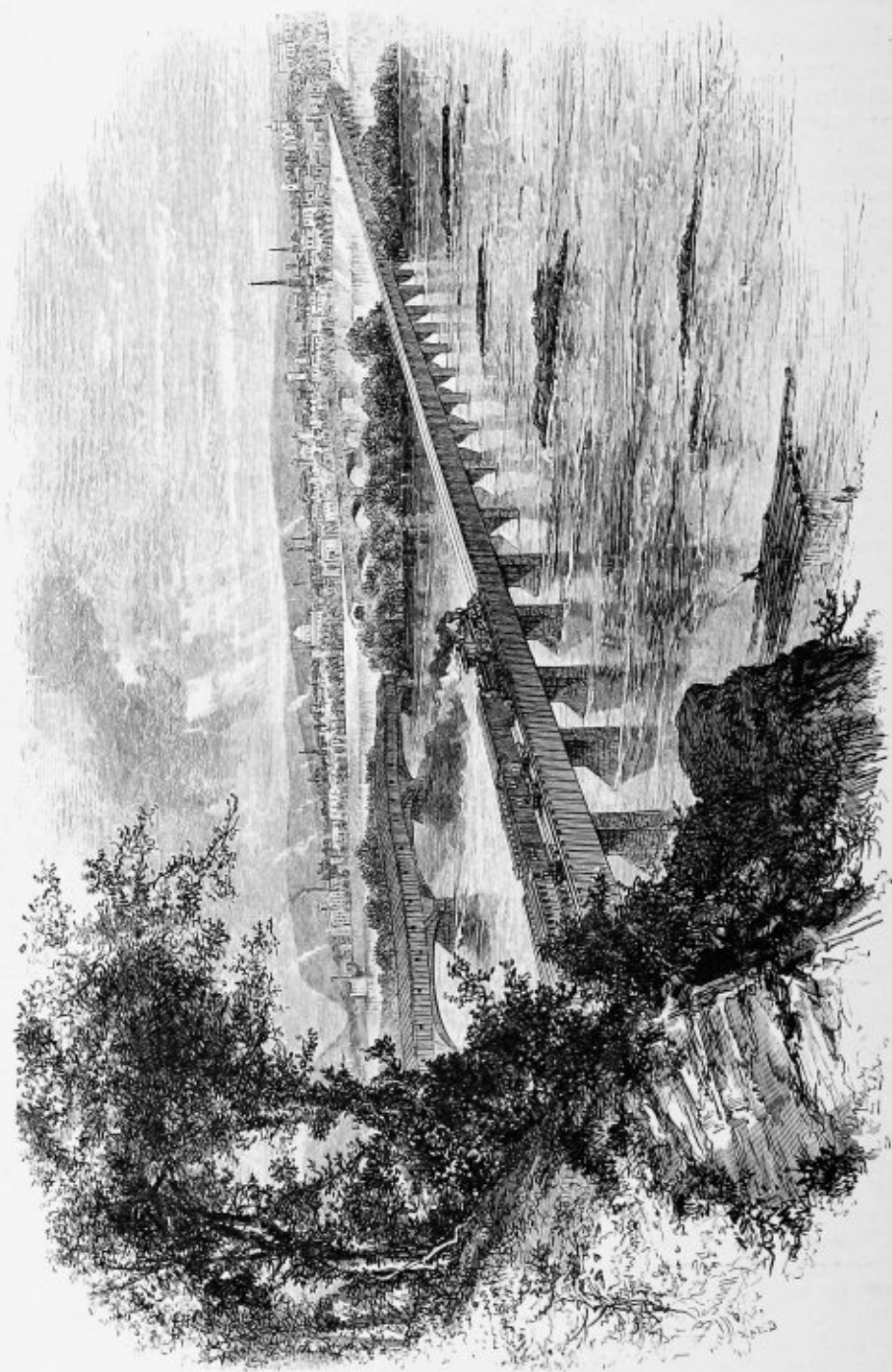
LOCHIEL, one hundred and four miles.

HARRISBURG, one hundred and five miles,—the capital of the State of Pennsylvania, and seat of justice of Dauphin county,—is situated on the left, or east, bank of the Susquehanna river.

Dauphin county was created by act of March 4th, 1785, and named in honor of the Dauphin of France, son of Louis XVI., who had so generously aided the colonies in their struggle for independence. The territory embraced in the county had previously been a part of Lancaster county, and was called Paxton township. "It was originally settled by emigrants from the north of Ireland,—an enterprising and daring race, who for many years defended the frontier against the Indians, and were conspicuous in many of the sanguinary scenes of border warfare." The large majority of these emigrants were Presbyterians, who, because of the civil and religious liberty promised them here, selected Pennsylvania as their place of refuge from the tyranny and exactions to which they were subjected in Ireland and Scotland by a profligate monarch and an obsequious parliament. Many of their ministers were men of great learning and ability, and these, at an early period, opened schools where the higher branches of learning were imparted to young men preparing for the ministerial office. Of these schools, the "Log College," as it was derisively called, established by the Rev. William Tennent, on Neshaminy creek, in Bucks county, near Philadelphia, in 1726, became the most useful and best known. It consisted of a log cabin, about twenty feet square, near Mr. Tennent's residence, and the founder was the only instructor. The celebrated preacher, George Whitfield, visited

it when in the colonies, and in his journal says:—"The place wherein the young men study now is called, in contempt, 'The College.' To me it seemed to resemble the school of the old prophets, for their habitations were mean. From this despised place seven or eight worthy ministers of Jesus have lately been sent forth, more are almost ready to be sent, and the foundation is now laying for the instruction of many others." Similar schools were established in this and other provinces, and from them were graduated men who took an active and influential part in the establishment of our free institutions. A distinguished descendant of these Scotch-Irish pioneers, in a "Tribute to their principles, virtues, habits, and public usefulness," says:—"Having neither silver nor gold to give, in founding institutions for the intellectual, moral, and religious improvement of the people, they gave what they had,—their time, labor, talents, and learning. They planted and watered, and under God their work prospered; the fruits of which were gathered and enjoyed, not only in their own day, but by generations then unborn." The same writer adds:—"The descendants of the Irish and Scotch, in whatever district they may have cast their lot and fixed their stakes, are amongst the most prominent, virtuous, religious, active, useful, industrious, and enterprising of the community."

These Scotch-Irish Presbyterians at once erected churches in the wilderness they had come to reclaim. The edifices they reared for religious worship were generally imposing structures for the time at which they were built, and some of them are still standing. As already stated, that near Marietta, in Lancaster county, was the parent institution, and the Presbytery of Donegal was the first organized in Western Pennsylvania. From it those further west have from time to time been severed. Churches were, about the same period, erected at Paxton, Derry, and Hanover. Paxton Church is three miles north of Harrisburg, in the great Lebanon valley, and occupies a beautiful situation. It was built about the year 1740, and being a solid stone structure, bids fair to remain a venerable monument of American Christianity for centuries to come. The Rev. Mr. Elder, who lived in the immediate vicinity of this church, was its first pastor, and continued in that office for sixty years. He was also colonel of the "Paxton Rangers," and in many respects appears to



HARRISBURG.

have been a remarkable man, well fitted to instruct and lead the hardy pioneers, whose duty it was to serve God and fight the Indians. His remains, as well as those of many of the early pioneers of Dauphin county, repose under moss-covered tablets in the Paxton churchyard, which is overgrown with myrtle brought from the "old country" and planted by hands of affection in this sacred spot.

The early history of this Paxton settlement was very different from that of the eastern portions of the province. While the latter had nothing but peace and prosperity, the former was accompanied with danger and death.* An early writer says:—"Imagination cannot conceive the perils with which the settlement of Paxton was surrounded from 1754 to 1765." Murder followed murder,—settlement after settlement was abandoned and destroyed,—hostile Indians from the north and west made constant in-

roads and attacks; and against all these outrages there was but little protection save that of the settlers themselves. The emergency called into existence the "Paxton Rangers," already referred to, and a more hardy, daring, and resolute body of men never trod the American continent. Parson Elder, their colonel, says the men in private life were "virtuous and respectable, mild and merciful." This was said when defending them for the murder of the Conestoga Indians, described in the sketch of Lancaster. But as rangers they were certainly not "mild." They are described, in time of peace, as roaming through the mountain wilds as traders, or seeking out rich lands unpurchased from the Indians; and in time of war, or frontier disturbance, they were ranging the border, watching the movements of the Indians, fighting them and breaking up their haunts. They had laws and usages of their own, separate and distinct from those of the lower counties of the province, with the people of which they had but little sympathy, and who seem to have looked upon them as outlaws,—worse, even, than the savages. Some of their leaders were arrested and imprisoned for their course against the Indians, but the jails were not strong enough to hold them, because they could not understand the principle of proprietary justice which sought to punish rigorously every white man who killed an Indian, but considered an Indian who murdered white settlers an unfortunate, to be reclaimed by kindness and prayers. Lazarus Stewart, a captain among them, and a daring leader, was signaled out for punishment for his part in the Conestoga massacre, but declined to be arrested and tried in Philadelphia, declaring that he could not hope for justice there; and in a declaration, published at the time, uses glowing and strong language against the Indian policy of the government. "Let me," he says, "be tried where prejudice has not prejudged my case. Let my brave rangers, who have stemmed the blast nobly, and never flinched,—let them have an equitable trial. They were my friends

* About the commencement of the fifth decade of the eighteenth century, the settlements in the Province of Pennsylvania had extended to a considerable distance up the Delaware and Susquehanna rivers, and the Indians on the northern border becoming hostile to these encroachments, it became necessary to provide for the safety of the frontiers. To secure this a chain of fortifications was built, or existing stockades were strengthened, by the proprietary government, across the province from the Delaware to the Allegheny mountains, and from there extended, as settlements were made or military exigencies required, to the Ohio, at Pittsburg. These fortifications commenced above Easton, and struck the Susquehanna near where Harrisburg now stands. From that place the main chain extended up the Cumberland valley and across the mountains by way of Bedford, while another line was built through the Juniata valley, with one or two important posts above the mouth of that stream on the Susquehanna. The posts near the line of the Pennsylvania Railroad and its branches were the following:

HARRIS STOCKADE.—Built by John Harris, at Harrisburg, about 1754.

FORT HUNTER.—Six miles above Harrisburg, on the Susquehanna. Built about 1755.

FORT HALIFAX.—Near the village of Halifax, Dauphin county. Built about 1756.

FORT MANADAY.—In East Hanover township, Dauphin county. Built about 1755.

POMFREY CASTLE.—On Mahantango creek, near village of Mount Pleasant, in Snyder county. Built about 1755.

FORT BINGHAM.—In Tuscarora valley, about twelve miles from the town of Mifflin. Built by settlers about 1749. Destroyed by Indians.

FORT GRANVILLE.—Near Lewistown. Built by settlers about 1755. Taken and destroyed by French and Indians.

FORT SHIRLEY.—At Shirleysburg, Huntingdon county. Built about 1756.

STANDING STONE FORT.—At Huntingdon. Built about 1754.

ANDERSON'S FORT.—At Petersburg, Huntingdon county. Built about 1756.

FORT LOWMYER.—At Carlisle. Built about 1754.

FORT MORRIS.—At Shippensburg, Cumberland county. Built about 1755.

FORT CHAMBERS.—At Chambersburg. Built by Col. Benjamin Chambers about 1756.

FORT LOUDON.—Near village of that name in Franklin county. Built about 1756. (Near Fort Loudon was McCord's Fort, built by the settlers in 1756, and destroyed by the Indians the same year.)

FORT LITTLETON.—At village of same name in Fulton county. Built in 1756.

FORT BEDFORD.—At town of Bedford. Built about 1757.

FORT LIGONIER.—Near borough of same name in Westmoreland county. Built about 1758.

FORT PITT.—At Pittsburg. Taken from the French, by

whom it was called Fort Du Quesne, in honor of the governor of Canada. Rebuilt by the English about 1758.

FORTS MILLER AND REED.—Near Greensburg. Built by settlers about 1773, and destroyed by the Indians in 1782.

During the Revolutionary war the following forts were built by the colonial government:

FORT HAND.—At the junction of the Loyalhanna and Kiskiminetas, in Westmoreland county. Built about 1778.

FORT MCINTOSH.—At town of Beaver. Built about 1778.

FORT ROBERDEAU.—In Sinking valley, Blair county. Built to protect the lead mines in 1778.



MOONLIGHT ON THE SUSQUEHANNA.

in the hour of danger; to desert them now were cowardice! What remains is to leave our cause with our God and our guns." None of them were ever arrested or tried for participation in this affair. Perhaps it was not deemed prudent to push legal proceedings to extremities against men who could write as well as fight.

At the commencement of the Revolution most of the Paxton rangers entered the patriot army, from which comparatively few of them returned to settle at their old homes. Many of the survivors settled on the new lands of the West Branch of the Susquehanna; others around Pittsburg, and, after Wayne's treaty with the Indians, beyond the Allegheny river. In those regions their descendants may be found; here and there an isolated family remains in Dauphin county, surrounded by the descendants of the German emigrants who came into the county about the close of the last century, and came to stay. The ancient churches and graveyards of the Scotch-Irish still remain as monuments of the former occupants and owners of the land. Little else is left to remind one of the hardy, noble race who conquered it from the savages and reclaimed it from the wilderness.

Dauphin county possesses different qualities of soil, varying from rich limestone to poor slate. The upper portion of the county is very mountainous, but contains several narrow red-shale valleys, and some fertile flats along the Susquehanna. The mountainous region abounds with anthracite coal, especially Lykens valley, where extensive mining operations are carried on. The Susquehanna runs for forty-eight miles along the western edge of the county, its western bank being the county line. The other prominent streams in the county are the Swatara river, along which the Union canal is constructed, connecting with the Schuylkill; Conewago creek, the southern boundary; Paxton creek; Fishing creek; Stony creek; Big and Little Wiconisco creeks, and Mahantango creek, the northern boundary. Population of Dauphin county, 60,740. Value of agricultural productions, \$3,034,199. Number of manufacturing establishments, 587; hands employed, 4865; wages paid, \$1,998,486; capital invested, \$6,557,520; materials used, \$9,248,585; value of products, \$13,514,156. Anthracite coal mines, 5; hands employed, 1732; wages paid, \$571,924; capital invested, \$3,855,000; tons

mined, 411,355; value, \$983,265. Iron-ore mines, 2; hands employed, 42; wages paid, \$16,500; capital invested, \$11,250; tons mined, 13,000; value, \$63,750.

The city of Harrisburg is advantageously and beautifully located. North of it the Lebanon valley extends through the county of that name and into Berks, embracing an immense area of highly-cultivated, rich territory, abounding in iron ore and dotted with manufactories; while to the south runs the Cumberland* valley, forming the counties of Cumberland and most of Franklin, and second to no region in America, of the same extent, in picturesqueness, fertility, and mineral wealth. The scenery in all directions is fine, but particularly lovely is that of the Susquehanna river. Front street presents an uninterrupted perspective of sparkling waters, verdant islands, and rolling hills, bounded in the distance by blue mountains. The residents of the city fully appreciate these beauties, and have adorned the river-bank, for a long distance, with tasteful, and, in some instances, magnificent residences.

The first settlement made at the site of Harrisburg was about 1725, by John Harris, a native of Yorkshire, England, who came here from the eastern part of the State. At the time of this settlement Indian towns existed on the opposite side of the river, inhabited by members of the Six Nations, and it was asserted that, by a signal, several hundred warriors could be assembled at the present site of Harrisburg. John Harris fixed his habitation on the bank of the river, and here had a son born in 1726, who is said to have been the first white child born in Pennsylvania west of the Conewago hills. This son was also named John Harris, and became, in time, the proprietor of the place and the founder of Harrisburg.

The first John Harris was an extensive trader with the Indians, transporting the supplies he needed and the furs he purchased from and to Philadelphia on pack-horses. He also cultivated the soil as an agriculturist, and, according to the Rev. Col. Elder, was the first person to introduce the plow on the Susquehanna. He established a ferry to

*This valley was known to the early settlers by the Indian name of "Kittochinny,"—softened by dropping some of its consonants into "Kittatinny,"—which it retained until the formation of Cumberland county, when the name of the county was applied to it. The Indian name for the valley was borrowed from the extensive mountain range forming its western boundary, called the "Kittochinny," signifying "endless mountains." This range is now known as the "Blue mountains," and extends through several States.

accommodate the travel through the Kittatinny valley to Virginia and the more southern provinces, and, by his energy and prudence, acquired a large amount of property. His house was well known throughout the province, and was frequented by all classes of people who visited the valley of the Susquehanna. Many incidents are related connected with this pioneer and his home, and one is worth repeating here. A band of Indians came to his house, all of whom were more or less intoxicated. They wanted more rum,—whisky was not then the common drink in Pennsylvania,—but Harris, seeing their condition and fearing mischief, refused to supply them. They seized and bound him to a mulberry tree in front of his house, determining to burn him. While they were kindling the fire another band of Indians came upon the scene, and, after a struggle, released him uninjured. In remembrance of this event he directed that, on his death, he be buried at the foot of this tree; and when he died, in 1748, his direction was carried out, and his remains, with those of some of his children, still repose there. The tree itself has rotted away, but a handsome enclosure preserves the ground and its relics from desecration.

John Harris, Jr., succeeded his father in business, and inherited all his energy. He continued to trade with the Indians and to farm, and in his time "Harris' Ferry" became a noted place. Letters were sent from Europe directed "to the care of John Harris, Harris' Ferry, North America." He accumulated considerable wealth, and when the Declaration of Independence was promulgated he loaned the Government of the United States three thousand pounds,—a goodly sum for that day,—taking treasury certificates for it. He had strong faith in the advantageous position of his property, and when the town of Harrisburg was laid out, in 1785, he conveyed to certain commissioners named four acres of ground on Capitol Hill, to the east of the present public buildings, "in trust for public use, and such public purposes as the legislature shall hereafter direct." This was done because he believed that, at some future period, the capital of Pennsylvania would be established here. The town was surveyed and laid out by William Maclay, a son-in-law of John Harris, who owned the ground upon which the upper portion of the present city of Harrisburg is built, including the site of the

public buildings. When first laid out as a town this was known as Maclaysburg, but was ultimately absorbed in Harrisburg. William Maclay was one of the first representatives of Pennsylvania in the Senate of the United States, under the Constitution,—his colleague being Robert Morris, the financier of the Revolution. John Harris, Jr., died in 1791, and was buried in the graveyard of Paxton Church. Some of his descendants still remain in Harrisburg.

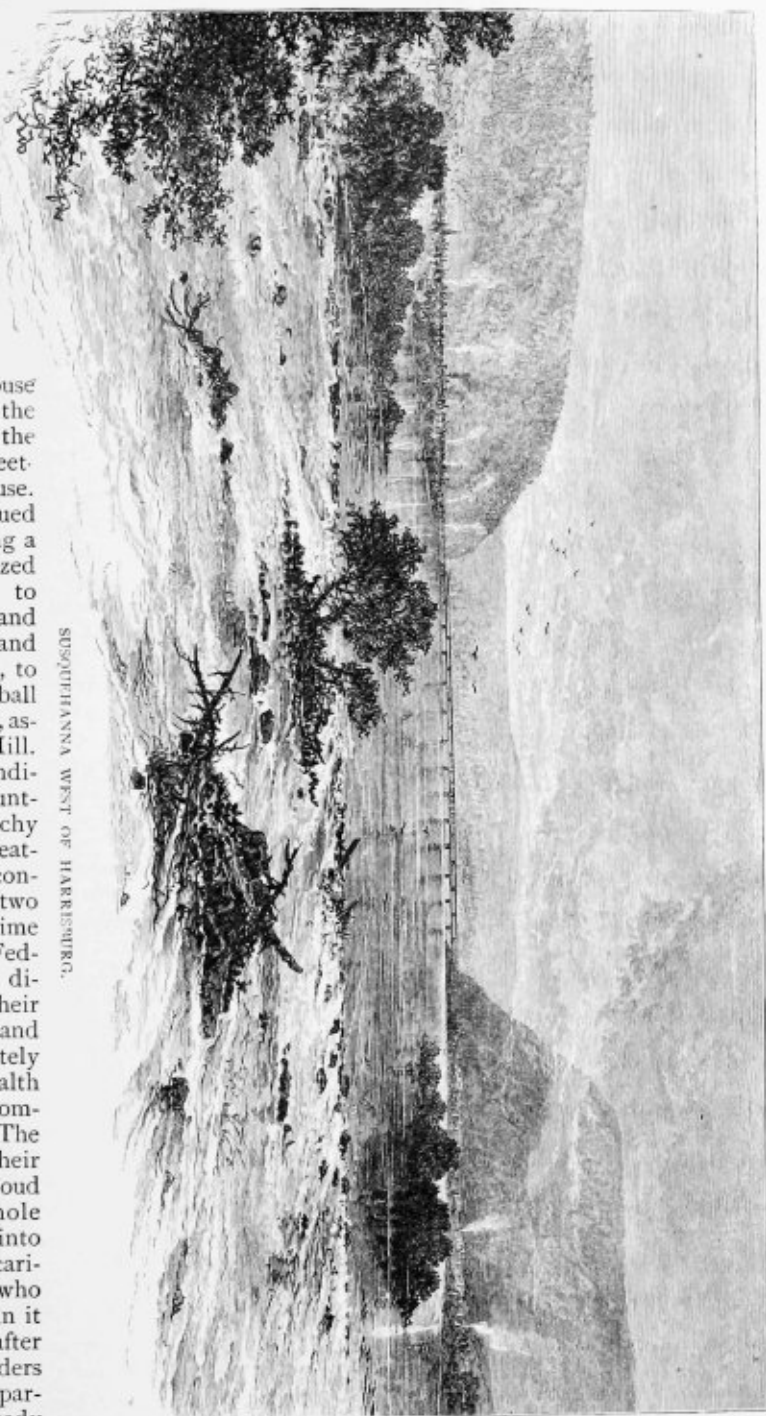
In the early part of the present century the subject of the navigation of the Susquehanna excited considerable attention, and about 1813 the river was surveyed by engineers in the service of the United States Government, who reported that it could be made navigable to a point six miles above Harrisburg, at a cost of three millions of dollars. The project, for some cause, was abandoned, although, if carried out, it would have been of the utmost importance to the interests of Pennsylvania, probably giving a new direction to her trade, and, to a great extent, changing the channels of transportation for the coal and other products of the interior of the State.

Stirring incidents are not very abundant in the early history of Harrisburg. Springing into life after the Revolution, it escaped the events of the war, and had before it many years of peace. In 1808, on the 1st of February, it was incorporated as a borough, and on the 21st of February, 1810, was made the capital of the State,—thus realizing its founder's dream. The public offices were removed from Lancaster to Harrisburg on the 12th of October, 1812. In 1817 the bridge over the Susquehanna was erected by Mr. Burr, a distinguished bridge architect, at a cost of \$155,000, of which the State subscribed \$90,000. In 1821 the present public buildings were completed and occupied—the legislature having, previous to that time, held its sessions in the court-house.

On the 2d of December, 1838, Harrisburg witnessed the commencement of a political difficulty which threatened the most serious consequences, and caused great excitement throughout the State and nation. This difficulty is known as the "Buckshot War," and originated in a dispute between the Democratic and Whig parties as to the correctness of certain election returns in Philadelphia county. The senators and representatives from that county

gave preponderance in the legislature to the party that gained them, and the leaders of both were determined to secure the return of their supporters. The Whig party succeeded in organizing the senate and held that chamber, while the Democrats controlled the house of representatives—the Whig minority of the house seceding and meeting in the court-house. Governor Ritner issued a proclamation, calling a portion of the organized militia into service to “enforce the laws” and “preserve peace,” and a large body of them, to whom buckshot-and-ball cartridges were issued, assembled on Capitol Hill. This unfortunate condition of things, amounting almost to anarchy and momentarily threatening bloodshed, continued for more than two weeks, during which time the attention of the Federal authorities was directed to it, and their interference invited and urged. But fortunately for the Commonwealth and the country, a compromise was effected. The military returned to their homes, and the war-cloud dispersed. The whole affair was turned into ridicule, and many caricatures of the men who figured prominently in it were published. In after years some of the leaders of the contending parties, who were then ready to fight each other to the death, became bosom

SUSQUEHANNA WEST OF HARRISBURG.



friends, and were proud to march under the same political banner.

During the late Rebellion, when Pennsylvania was invaded, the advance of Lee's army reached the Susquehanna river opposite Harrisburg, causing the most intense excitement in the city. The capital of the State was thought to be the objective point of the rebel movement, and that an attack upon it would certainly be made. The archives of the Commonwealth were hastily packed, and many of them shipped to a point of safety. Troops assembled from all quarters to resist the advance; but a retrograde movement was ordered by Lee—the tide of war drifted to another scene, and the beautiful hills of the Susquehanna were not drenched with fraternal blood.

The State capitol buildings are of plain red brick, without external ornament of any kind, but they are well constructed, and occupy a beautiful position in the midst of ornamental grounds overlooking the majestic river. Interiorly these buildings present many attractions, and a visit to them cannot fail to prove interesting. The halls of the Senate and House are well arranged. The State library is a splendid room, well filled with books—many of them valuable. It is claimed that the law department of this library is the only one in the Union containing full sets of all the law reports of the various States. In the Executive apartments a complete set of the portraits of the governors of Pennsylvania is preserved, and the walls and tables are decorated with many quaint documents and curiosities, such as old English charters, treaties between the colonial authorities and the Indians, signed by the latter with rude hieroglyphics, and other mementoes of the State's early history. In the quaint old arsenal a number of obsolete arms are preserved, and near by a marble shaft, surmounted by a winged angel, is erected in honor of the Pennsylvania volunteers who fell in Mexico. The eastern State Lunatic Asylum occupies a commanding site about two miles north-west of the capitol.*

There are fifteen church edifices within the limits of the city, representing all leading religious denominations. There are also an academy, a female seminary, and an excellent system of graded common-schools, having an attendance of near five thousand pupils. The city contains three halls—two belonging to secret orders—which are open for public use. The new Masonic hall is a massive structure, and in all its appointments is perhaps the finest building of the kind in the State, outside of the cities of Philadelphia and Pittsburg. The hotel accommodations are commodious and excellent,—well suited to the requirements of the capital of a great Commonwealth. The county court-house is an imposing building, and the prison is well constructed, after designs by Haviland, the well-known architect. The business of the community supports eight banking institutions, public and private, with a large aggregate capital.

Manufacturing of various kinds is extensively carried on at Harrisburg. The central position of the city: the splendid railroad system radiating from it to all points of the compass—reaching the great anthracite and bituminous coal mines, the rich deposits of iron ore in Cumberland, Lebanon, and York counties, and draining a highly-productive agricultural country—have combined to build up many large establishments; and these advantages are being more and more appreciated each year, giving assurance of a grand future for the place. The largest industrial establishments here are now engaged in the production and working of iron and steel and the building of railroad cars. These works alone employ more than fifteen hundred men; while machine-shops, tanneries, planing and flouring mills, and other industries, give employment to many hundreds more. Population, 23,104. (Junction of Lebanon Valley Railroad, running to Reading, distance fifty-four miles; of Cumberland Valley Railroad, running to Martinsburg, Virginia, ninety-four miles; and of the Schuylkill and Susquehanna Railroad, running to Auburn, Schuylkill county, Pennsylvania, distance fifty-nine miles.) Connections are also formed here

*STATISTICS OF STATE OF PENNSYLVANIA.—Population, 3,521,951: white, 3,456,609; colored, 65,294; Chinese, 14; Indians, 34; native, 2,976,530; foreign, 545,261.

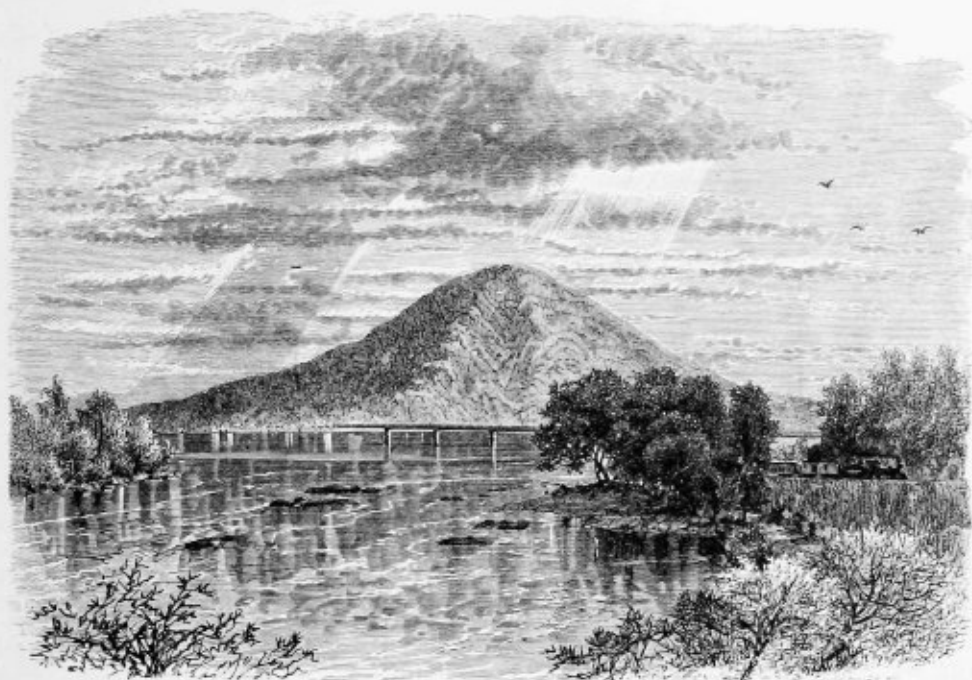
Farms and farm products.—Acres improved, 11,515,965; value of farms, \$1,043,481,582; value of farm implements and machinery, \$35,658,196; value of farm products, \$183,946,027.

Manufactures.—Number of establishments, 37,200; hands employed, 319,487; wages paid, \$127,976,594; capital invested, \$406,821,845; materials used, \$421,197,673; value of products, \$771,894,344.

Mining.—Establishments, 3086; hands employed, 81,215;

wages paid, \$38,815,276; capital invested, \$84,660,276; materials used, \$6,069,517; value of products, \$76,208,390.

Pennsylvania lies between thirty-nine degrees forty-three minutes and forty-two degrees fifteen minutes north latitude, and between seventy-four degrees and forty-two minutes and eighty degrees thirty-five minutes west longitude. It contains an area of 46,000 square miles, or 29,440,000 acres.



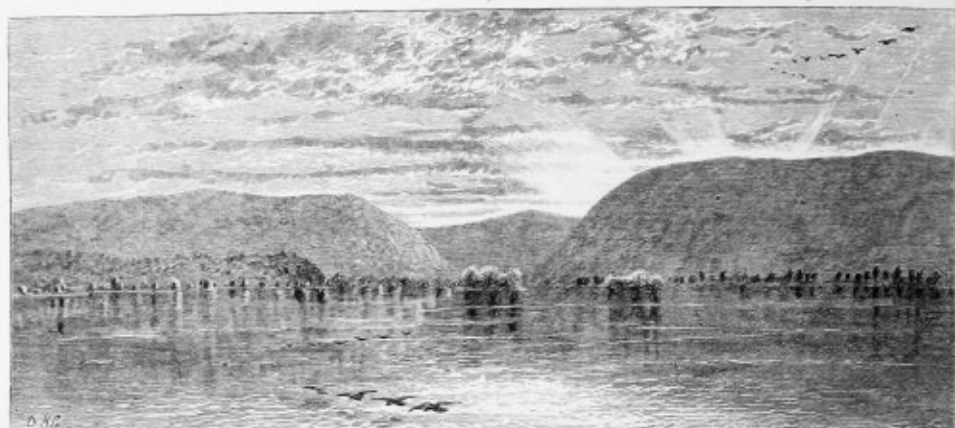
KITTATINNY MOUNTAIN.

with the Northern Central Railway, south, to Baltimore, eighty-four miles, and Washington, one hundred and twenty-four miles; and north, to Canandaigua, New York, two hundred and forty-one miles. By the Northern Central Railway connection is made with the Philadelphia and Erie Railroad, at Sunbury, to Erie, Pennsylvania, on the lake of that name: with the Erie Railway, at Elmira, and the New York Central Railroad, at Canandaigua, for Rochester, Buffalo, and Niagara Falls. Of these roads the Northern Central and the Cumberland Valley are controlled, and the Philadelphia and Erie is leased, by the Pennsylvania Railroad Company.

ROCKVILLE, one hundred and ten and one-half miles.—At this point the railroad reaches the Blue Ridge, or Kittatinny mountain, the first of the great Allegheny range. Bending abruptly to the west, it crosses the Susquehanna river on a bridge three thousand six hundred and seventy feet in length. From this bridge, looking both up and down the river, the views are magnificent. To the north are seen the gigantic mountains, sundered by the water in its passage, leaving numerous rocks in its channel

to break it into rapids and fret it into foam; while the great bridge of the Northern Central Railway stands out in bold relief, uniting the villages of Dauphin and Marysville. To the south the broad river sweeps away, studded with islands and bordered by fertile farms, until the spires and domes of Harrisburg are seen, and the blue hills of Cumberland and York close the prospect. Rockville contains two churches and several hotels. Population, 259.

HALEY'S, one hundred and twelve miles. MARYSVILLE, one hundred and thirteen miles.—First station in Perry county, at the point where the Pennsylvania Railroad crosses the Northern Central. Perry county was created by act of March 22d, 1820, out of Cumberland. It lies between two great ranges of mountains,—the Kittatinny on the south-east and the Tuscarora on the north-west,—and is intersected by numerous subordinate ridges, which subdivide it into many valleys, some of them of limestone and others of slate, all fertile, well cultivated, abundantly watered, and picturesque to a remarkable degree. The Susquehanna river forms the eastern boundary of the county. It is rich in iron ore, and the manufacture



EARLY MORNING ON THE SUSQUEHANNA EAST OF DUNCANNON.

of iron is extensively carried on within its limits. The original settlers were Scotch-Irish, who pushed up into these valleys soon after the same hardy race had made their homes in the northern part of Lancaster county and in the great Cumberland valley. They met with much hostility from the Indians, and many families were massacred. At one period almost all the settlers were driven from their homes, but they soon returned, and taught the aborigines that they could not be conquered or exterminated. Population, 25,447. Value of agricultural productions, \$2,793,127. Number of manufacturing establishments, 282; hands employed, 1037; wages paid, \$299,300; capital invested, \$1,438,174; materials used, \$1,743,601; value of products, \$2,412,626. Iron-ore mines, 6; hands employed, 68; wages paid, \$23,780; capital invested, \$7215; tons mined, 17,520; value, \$66,000. Marysville contains a forge for the manufacture of blooms, a flour-mill, a door and sash factory, three churches, and several hotels. The scenery around it is grand in its massiveness. Population, 863.

DUNCANNON, one hundred and nineteen miles.—Here are located the extensive works of the Duncannon Iron Company, which manufactures pig and bar iron and nails; also, a forge belonging to another firm. An active mercantile business is transacted. Iron ore is extensively mined in the vicinity. The village contains six churches, three public halls, four public school-houses, and several hotels. Population, 960. (The post-office name of this station is Petersburg.) Near by is a spur of the mountain, which presents

a strong resemblance to the human face, and is called "Profile Rock." One mile above Duncannon is the mouth of the Juniata, and the location of Duncan's Island, a place noted in the early history of Pennsylvania. This island, though apparently in Perry, is really in Dauphin county,—the original boundary of Cumberland county, out of which Perry was formed, being the western shore of the Susquehanna. According to the account of David Brainerd,—a missionary who traveled much among the Indians of Pennsylvania about 1745,—this island contained a large Indian town, and was a favorite point of concentration of the tribes in the Susquehanna and Juniata valleys. Mr. Brainerd describes an Indian religious enthusiast whom he met on the island, and his description portrays a creature so uncouth that it is worth preserving. "He made his appearance," says the missionary, "in his pontifical garb, which was a coat of bearskins, dressed with the hair on, and hanging down to his toes; a pair of bearskin stockings, and a great wooden face, painted, the one-half black, the other half tawny, about the color of an Indian's skin, with an extravagant mouth, cut very much awry; the face fastened to a bearskin cap, which was drawn over his head. He advanced towards me with the instrument in his hand which he used for music in his idolatrous worship, which was a dry tortoise-shell, with some corn in it, and the neck of it drawn on to a piece of wood, which made a very convenient handle." Mr. Brainerd describes many of the services and performances, not only of this uncouth zealot, but of the Indians



generally collected upon the island, many of whom, he says, could speak the English language; but, as a rule, they were drunken, vicious, and profane. At a later period this island became the scene of various outrages

on the part of the Indians, and adventures by the white settlers. In 1756 the settlers abandoned it, and in 1760 a bloody fight took place upon it between the whites and Indians. On one occasion the wife of the

owner of the island, with a child before her, swam the Susquehanna river on a horse to escape from the savages. When it is remembered that the river is here fully a mile wide, and that it was then swollen by the spring freshet, the perilousness of the feat can be realized. A large Indian mound was built upon the island, and also an extensive burial-place, but the construction of the canal destroyed both. In excavating this many relics were found, such as beads, stone hatchets, arrow-heads, and the like. The Pennsylvania canal here crosses the Susquehanna river—a dam being constructed for that purpose, and a bridge with a double towing-path. At one time this island was a favorite summer resort, the scenery around it being peculiarly attractive, and the air very salubrious.

AQUEDUCT, one hundred and twenty-three miles.—Here the canal crosses the Juniata river on an aqueduct constructed of wood. Until the completion of the Northern Central Railway, in 1858, passengers for points up the Susquehanna river took packet-boats on the canal at this station. The Pennsylvania Railroad here leaves the Susquehanna and follows the "Blue Juniata" in its course, through mountains and valleys, until its sources are reached amid the great Alleghenies.

Massiveness, softness of outline, and variety are the distinguishing peculiarities of the Juniata scenery. The miniature river, in its course of a hundred miles through the numerous outlying mountains, has apparently overcome the obstacles in its way by strategy as well as by power. At many places it has dashed boldly against the wall before it and torn it asunder; at others it winds tortuously around the obstruction—creeping stealthily through secret valleys and secluded glens. At some points the mountains appear to have retired from the attacking current, leaving numerous isolated hills standing, as sentinels, to watch its progress. But the severed mountains, the towering embankments, and the sentinel-like hills, are all toned into form and moulded into shape by the action of the elements and the foliage of nature, leaving no abrupt precipices and but few naked rocks to mar the uniform beauty. The valleys and many of the hills are brought under cultivation, and some of the latter rise in the distance, presenting alternate squares of yellow, green, and brown, showing the progress of agricultural industry, while their summits are crowned with clumps

of forest trees, indicating the luxuriance of the growth before the march of civilization invaded it. Every hour of the day—every change of the season—gives new tints to these mountains and valleys. The morning mist often shrouds them beneath its veil; and as this is penetrated and dispersed by the sun, cloud-like forms sail away toward the sky, pausing at times amid the higher summits as if to rest before taking their final flight to join their sisters in the illimitable firmament. The tints of evening spread over them golden and purple halos, while deep and dark shadows sink into the water and creep up the wooded embankments. Spring clothes the entire landscape in a tender green. Summer deepens this into a darker tint, and intersperses it with the yellow of the ripening harvest. Autumn scatters its gems over all, lighting up the forests with the many bright hues of changing foliage; and winter brings its pure mantle of white, over which tower the ever-verdant pines, or repose dark beds of rhododendrons. In the river valley almost every tree has its parasite in a Virginia creeper, festooning it from the ground to the topmost branch; and here and there a larger vine binds a number together, as if it had grown weary of its first love and taken others to its embrace. At some places the road passes through broad, cultivated valleys, and at others it is built along ravines so narrow that its bed is carved out of the overhanging rocks. Now a mountain spur bars its way, and a tunnel is pierced through the obstacle; and again, the river is so tortuous that engineering skill disdained to follow it, and numerous bridges carry the roadway from bank to bank. Almost every mile of its course opens up new scenes, which present themselves to the traveler like the ever-changing pictures of a kaleidoscope.*

NEWPORT, one hundred and thirty-two and one-half miles, is the second town in population in Perry county, and possesses considerable trade. The name given it when laid out, in 1814, was Reiderville, by which it was known until 1820, when its present title was conferred upon it. It

* The Juniata, in its course from the Allegheny mountains to the Susquehanna river, passes through and displays nearly the whole of the geological formation of Pennsylvania. The primary rocks are to the east of the Susquehanna, and the bituminous coal fields commence on the western slope of the mountains. The student of geology finds, therefore, along the Juniata river, the finest possible field for his research, inasmuch as the rock stratification through which the river cuts its channel is something like six miles in thickness.

contains a furnace, two steam-tanneries, a planing-mill, foundry, grist-mill, saw-mill, a stone and earthen ware factory, and several other industries. A large commission and mercantile business is transacted here. Iron ore is mined about two miles from the station, for local use. There are in the borough six churches, a bank, good schools, and several hotels. Population, 945. Stage lines run from this station as follows:—Daily to New Germantown, via Bloomfield, the county seat, distance thirty miles; tri-weekly to Ickesburg, distance fifteen miles; tri-weekly to Montgomery's Ferry, distance ten miles.

MILLERSTOWN, one hundred and thirty-eight miles, is beautifully situated on the bank of the Juniata, and is a favorite resort for visitors in summer. It is an old town, having been laid out as early as 1800. A furnace and a foundry are located here. Iron-ore mines are extensively worked near the station, employing about one hundred and seventy men, and shipping large amounts of ore to distant points. The village contains two churches, three public halls, a bank, several good hotels, and is the location of the Juniata Valley Normal School, which has an attendance of about one hundred pupils. Population, 533. A stage line runs tri-weekly between this station and Ickesburg.

THOMPSONTOWN, one hundred and forty-three miles,—the first station in Juniata county,—is situated in the midst of beautiful river and mountain scenery. It has some local trade, and contains several churches and a hotel. Population, 280.

PERRYVILLE, one hundred and fifty-one and one-half miles, is a pleasant borough, containing three churches, two academies, a bank, two hotels, and other public institutions. A woolen manufactory is located about half a mile from the town. Iron ore is found in the immediate vicinity. Population, 559. A stage runs tri-weekly to Concord, Franklin county, distance thirty-two miles.

MIFFLIN, one hundred and fifty-four miles.—County seat of Juniata county. Juniata county was separated from Mifflin by act of March 2d, 1831. It is mountainous, but contains a number of beautiful and fertile valleys, the principal of which is the Tuscarora valley, composed of undulating hills of slate and limestone. The county is well watered by numerous streams, and the air is peculiarly pure. Iron ore is found in all parts of the county.

The first settlements were made in this county about 1749, by Scotch-Irish from the Cumberland valley. These settlers built a fort in Tuscarora valley and cleared some land there. Seven years afterwards this fort was attacked and burned by the Indians, during the absence of one of the settlers named Grey, and every person in it either killed or captured. Among the last were Grey's wife and daughter, three years old. Grey died not long afterward, leaving a will, by which he devised one-half his farm to his wife and the other half to his daughter, should they return from captivity. Mrs. Grey did return, after an absence of about a year, and obtained possession of the property willed her. Seven years after, in 1764, a treaty was made with the Indians, by the terms of which they were to surrender all their prisoners. Mrs. Grey went to Philadelphia in the hope of finding her daughter among the captives brought there to be recognized and claimed by their friends. Her child was not there, but, acting upon a suggestion, she claimed another, who was unrecognized, and thus got possession of the other half of her husband's property. The girl thus adopted subsequently married a clergyman, who sold the property acquired through his wife. After a lapse of years the children of James Grey, heirs of John Grey's sister, got hold of some information leading them to doubt the identity of the returned captive, and brought a suit to recover the property. The case thus started assumed a series of multifiform and complicated phases during the fifty years it was pending; but finally it was decided, in 1834, against the identity of the adopted child. The case, known among lawyers as the "Grey Property Case," is reported in 10 Sergeant and Rawle, page 182. One of the witnesses in the case was George Woods, who was captured with Mrs. Grey and her child. Mr. Woods was given, in the allotment of prisoners made by the French commander at Fort Du Quesne, to an Indian named John Hutson, who entered into an agreement to ransom his captive on the payment to him of ten pounds of tobacco annually. This ransom Woods paid regularly, after his return to his home in Bedford, Pennsylvania,—Hutson visiting him annually to obtain it. But in an attack made by the Indians on what was called the "Bedford Scouts," of which military organization Woods' son was lieutenant, the latter

recognized among the assailants Hutson's son, who had accompanied his father to collect the ransom. After that the Indians never came for their tobacco. Woods was a land-surveyor, and laid out the city of Pittsburgh,—Wood street being named after him.

Numerous Indian massacres occurred in the Tuscarora valley, and it was not until near the commencement of the Revolutionary war that the settlers were freed from the incursions of the savages. In this county occurred the "Grasshopper war," between the Tuscarora and the Delaware Indians. These tribes had villages opposite each other, on the Juniata, and one day the children got into a dispute about some grasshoppers. The women of the tribes took sides with the children, and the men were naturally drawn into the quarrel. A war ensued, which was bloody and relentless,—many lives being sacrificed on both sides. After the Revolution settlers spread over the county; but not until the construction of the Pennsylvania canal did improvements assume any considerable importance. This, and the railroad which followed it, stimulated agriculture and manufactures, and developed the mineral wealth to the condition of prosperity they at present enjoy. Population of the county, 17,390. Value of agricultural productions, \$1,097,659. Number of manufacturing establishments, 204; hands employed, 395; wages paid, \$38,569; capital invested, \$374,550; materials used, \$437,798; value of products, \$678,345. Mifflin occupies an elevated site on the left bank of the Juniata, the railroad being on the right, with which it is connected by a bridge over the river. It was laid out in 1791 by John Harris. The country around is picturesque, and the views in the vicinity extended and beautiful. The town contains the usual county buildings, three churches, two banks, two public halls, and three good hotels. It has a flourishing trade with the adjacent country. Iron ore is shipped in considerable quantities. Population, 857. Population of Patterson, on the railroad, 659. Stages run daily from Mifflin to Selinsgrove, distance thirty-six miles; and daily to Academia, distance twelve miles.

LEWISTOWN, one hundred and sixty-six miles.—Seat of justice of Mifflin county. Mifflin county was formed from Cumberland and Northumberland, by act of September 19th, 1789. The county is irregular in shape, extending from south-east to north-west a distance of thirty-nine miles, with a

breadth of about fifteen. Mountain ranges pass through it, parallel with its length, forming numerous fertile and beautiful valleys of slate and limestone land. These are highly improved and cultivated. The Kishicoquillas valley,—so named after an Indian chief who had his cabin near where Lewistown now stands, when the first white settlement was made there,—is celebrated for its beauty and productiveness, and for a century has been the home of a refined and cultivated people. Kishicoquillas was a Shawnee chief friendly to the whites, whose influence did much toward preserving the peace which, previous to Braddock's defeat, existed between the settlers in the interior of Pennsylvania and the Indians, and was much esteemed by the officers of the province. When the French missionaries sought to secure the alliance of the savages against the English, and to a great extent succeeded,—having bought the friendship of Jacobs, another Shawnee chief, at Lewistown,—they made overtures to Kishicoquillas, but he rejected them, declaring that "no earthly consideration could induce him to lift the tomahawk against the sons of Onas."* Jacobs was so named by one of the early settlers at Lewistown, from his resemblance to an honest Dutchman who lived in the Cumberland valley.

As early as 1755 Scotch-Irish settlers had crossed the mountains from the Cumberland valley and made their homes in this county. About the same time a fort, called Fort Granville, was built on the Juniata, about a mile above Lewistown. In 1756, after Braddock's defeat had emboldened the Indians, an attack was made upon this fort by a party of savages and some French. The garrison consisted of twenty-four men, commanded by Lieutenant Armstrong,—brother of the general of that name,—who made a gallant defense, but was finally overpowered, the fort burnt, the commander and several of his men killed, and the others, to the number of twenty-two, with three women and some children, taken prisoners. These were conveyed to Kittanning, where one of the soldiers, named Turner, was cruelly sacrificed to gratify the vengeance of the savages. He was tied to a stake and heated gun-barrels run through his body. While yet alive, after three hours of torture, he was scalped, and an Indian boy then held up,

* This was the name given by the Indians to William Penn.

who cleft his head with a hatchet. Many of the prisoners taken at Fort Granville were never heard of afterwards, and it is supposed they met with a fate similar to Turner's.

It was not until after the treaty of Fort Stanwix,* in 1768, that this region was considered safe for the whites. Then the county filled up rapidly, and the prosperity of peace supplemented the horrors of savage warfare.

The best-known Indian who ever lived within the limits of Pennsylvania had his home, at the time the whites entered the region, in the Kishicoquillas valley, not many miles above Lewistown, at what is still known as Logan's Springs. This was Logan, the Mingo chief, whose name is perpetuated in many localities, and whose renown figures in history and romance. He was the son of Shikellimy, a Cayuga chief, who dwelt at Fort Augusta, where Sunbury now stands, about 1742, and was there converted to Christianity by the Moravian missionaries. His son was baptized by these missionaries, and named by his father after James Logan, secretary of the province of Pennsylvania. Mingo was the name given by the Delaware Indians to the Iroquois, or Six Nations, and the Cayugas being one of them, the title of Mingo was conferred upon Logan. The following account of Logan is taken from numerous authorities, and commences with a letter written in 1842, by Hon. R. P. McClay, then a member of the senate of Pennsylvania, to Hon. George Darsie, a senator from Allegheny county:

"Allow me to correct a few inaccuracies in the anecdote of Logan, the Mingo chief, to which you called my attention. The person surprised at the spring, now called the Big Spring, was William Brown, the first actual settler in Kishicoquillas valley, and one of the associate judges of Mifflin county from its organization till his death, at the age of ninety-one or two. I will give you the anecdote as I heard it related by Judge Brown himself, while on a visit to my brother, who then owned and occupied the Big Spring farm.

* This treaty was made through the influence of Sir William Johnson, and by it the Six Nations conveyed to the proprietaries of Pennsylvania all the land within a boundary extending from the New York line, on the Susquehanna, past Towanda and Pine creek, up the west branch, over to Kittanning, and thence down the Ohio to the west line of the State. At a treaty held at Fort Stanwix, in October, 1785, the commissioners of the State purchased all the remaining land within the limits of its charter.

"The first time I ever saw that spring," said the old gentleman, "my brother, James Reed, and myself had wandered out of the valley in search of land, and finding it very good, we were looking about for springs. About a mile from this we started a bear, and separated to get a shot at him. I was traveling along, looking about on the rising ground for the bear, when I came suddenly upon the spring; and being dry, and more rejoiced to see so fine a spring than to have killed a dozen bears, I set my rifle against a bush and rushed down the bank and laid down to drink. Upon putting my head down, I saw reflected in the water, on the opposite side, the shadow of a tall Indian. I sprang to my rifle, when the Indian gave a yell, whether for peace or war I was not just then sufficiently master of my faculties to determine; but upon my seizing my rifle and facing him, he knocked up the pan of his gun, threw out the priming, and extended his open palm toward me in token of friendship. After putting down our guns, we again met at the spring and shook hands. This was Logan, the best specimen of humanity I ever met with, either white or red. He could speak a little English, and told me there was another white hunter a little way down the stream, and offered to guide me to his camp. There I first met your father. We remained together in the valley a week, looking for springs and selecting lands, and laid the foundation of a friendship which never has had the slightest interruption.

"We visited Logan at his camp at Logan's Spring, and your father and he shot at a mark at a dollar a shot. Logan lost four or five rounds and acknowledged himself beaten. When we were about to leave him he went into his hut and brought as many deerskins as he had lost dollars, and handed them to Mr. Maclay, who refused to take them, alleging that we had been his guests, and did not come to rob him; that the shooting had been only a trial of skill, and the bet merely nominal. Logan drew himself up with great dignity and said, "Me bet to make you shoot your best; me gentleman, and me take your dollar if me beat." So he was obliged to take the skins or affront our friend, whose nice sense of honor would not permit him to receive even a horn of powder in return.

"The next year," said the old gentleman, "I brought my wife up and camped under a big walnut tree on the bank of Tea creek,

until I had built a cabin near where the mill now stands,* and have lived in the valley ever since. Poor Logan' (and the big tears coursed each other down his cheeks) 'soon after went into the Allegheny, and I never saw him again.' "

A daughter of Judge Brown, who lived in the valley some thirty years ago, confirmed the incidents repeated above, and related the following, in addition:

"Logan supported his family by killing deer, dressing the skins, and selling them to the whites. He had sold quite a parcel to a tailor, who dealt extensively in buckskin breeches, receiving his pay in wheat. When this was taken to the mill it was found so worthless that the miller refused to grind it. Logan attempted in vain to obtain redress from the tailor. Failing in this he took the matter before his friend Brown, then a magistrate, who heard the case and awarded a decision in favor of the chief. A writ was given to Logan to hand to the constable, with the assurance that that would bring the money for the skins. But the untutored Indian could not comprehend by what magic this little paper would force the tailor, against his will, to pay the debt. The magistrate took down his own commission, with the arms of the king upon it, and explained to him the principles and operations of civil law. Logan listened attentively and exclaimed, 'Law good! Make rogues pay.' "

When another and a younger daughter of Judge Brown was just beginning to walk, her mother happened to express her regret that she could not get a pair of shoes to give more firmness to her little step. Logan stood by and said nothing. He soon after asked Mrs. Brown to let the little girl go up and spend the day at his cabin. The heart of the mother was alarmed at the proposition; but she knew the delicacy of an Indian's feelings,—and she knew Logan, too,—and with secret reluctance, but apparent cheerfulness, she complied with his request. The hours of the day wore very slowly away; it was nearly night, and her little one had not returned. But just as the sun was going down the trusty chief was seen coming down the path with his charge; and in a moment more the little one trotted into her mother's arms, proudly exhibiting a beautiful pair of moccasins on her little feet,—the product of Logan's skill.

Logan left Kishicoquillas valley in 1771, because of the number of whites who had settled in it, and the consequent scarcity of game. He no longer could obtain subsistence for himself and family with his rifle, and determined to remove to a country where white settlers were few and game plenty. He located on the Ohio river, at the mouth of Yellow creek, about thirty miles above Wheeling, and was there joined by his relatives and some Cayugas from Fort Augusta, who recognized him as their chief, and over whom, and other Indians in the vicinity, he obtained a remarkable influence. A village was built by his followers, and here Heckewelder, the Indian missionary, met and conversed with him in 1772. At a later period, subsequent to the massacre of his family, Heckewelder says he was reported to be melancholy, and in some measure delirious, declaring at times that he would kill himself. The massacre of his family—an event which probably caused more discussion and comment than any other in the history of the Ohio Indians—occurred at the commencement of what is known as the Shawnee war, in 1773. While Logan was absent with most of the men of his tribe, hunting, a party of armed scouts, led by one Daniel Greathouse, without provocation, attacked the Indians in the village, murdered twelve of them, men, women, and children, and wounded six or eight more. Logan returned to find the mangled bodies of the slain and wounded, and his cabins in smoking ruins. The heart of the man was broken, and if it called for revenge can the call be wondered at? He buried his dead, cared for the wounded, and then gathering around him the men of his tribe, joined the Shawnees in the war they were commencing on the whites. His revenge was terrible. How many victims were sacrificed to it no earthly record shows. But the nobler instincts of the man at times exhibited themselves, as the following well-authenticated incident will show:

While engaged in this war, he, with two of his men, came upon a newly-cleared field, where three men were at work. One of these he killed with his unerring rifle, and the other two took to flight. The oldest was soon overtaken and captured, but the other, a young Virginian, named Robinson, was more fleet. Logan threw down his gun and pursued him. Robinson might have escaped, but, turning his head to see where his

* Now known as Reedsville, in Mifflin county.

pursuer was, his foot caught in a root and he fell with such force as to become insensible. When he recovered consciousness, he found himself bound and Logan seated beside him. Taking his prisoner with him, Logan rejoined the others, and the party set out for the nearest Indian village. Robinson reports that during the march Logan seldom spoke, seeming melancholy; but as they neared the village he raised the "scalp hallo," and the Indians, old and young, of both sexes, came trooping out to meet them. The prisoners were compelled to "run the gauntlet;" but while preparations were being made for the ordeal, Logan directed Robinson, in English, how to act. By following these directions, he reached the council-house with few injuries. Not so fared his companion. Being ignorant of the proceeding, he suffered terribly, and would probably have been killed had not Robinson seized him by the hand and pulled him into the council-house. The next day a council was held to dispose of the prisoners. The old man was, after brief consideration, adopted into the tribe; but the majority were determined to make Robinson a victim of their vengeance. Logan opposed this decision, and spoke for an hour against sacrificing the prisoner. Robinson describes this speech as wonderfully eloquent. In voice, in gesture, in fluency, he said it surpassed anything he had ever listened to, and as he had heard Patrick Henry, this was high praise. But the efforts of Logan were in vain, and the council decided to burn the prisoner at the stake. Preparations were soon made,—the prisoner bound, and the wood piled for the sacrifice. While this was being done Logan stood apart from the throng, with his arms folded and a look of stern displeasure on his face. When the fire was about to be kindled he suddenly strode into the circle,—the savages making way for him,—cut the fastenings of the prisoner, and led him, without a word, into his wigwam. The Indians did not attempt to interfere, but as soon as their surprise had abated, mutterings arose among them, and symptoms of a tumult showed themselves. To these Logan paid no attention, and in a few hours all was quiet again. Robinson remained with the chief about a year, and when the treaty at Fort Pitt was made, was released and returned to his home in Virginia.

The rigor with which the war was prosecuted by the whites, under Lord Dunmore,

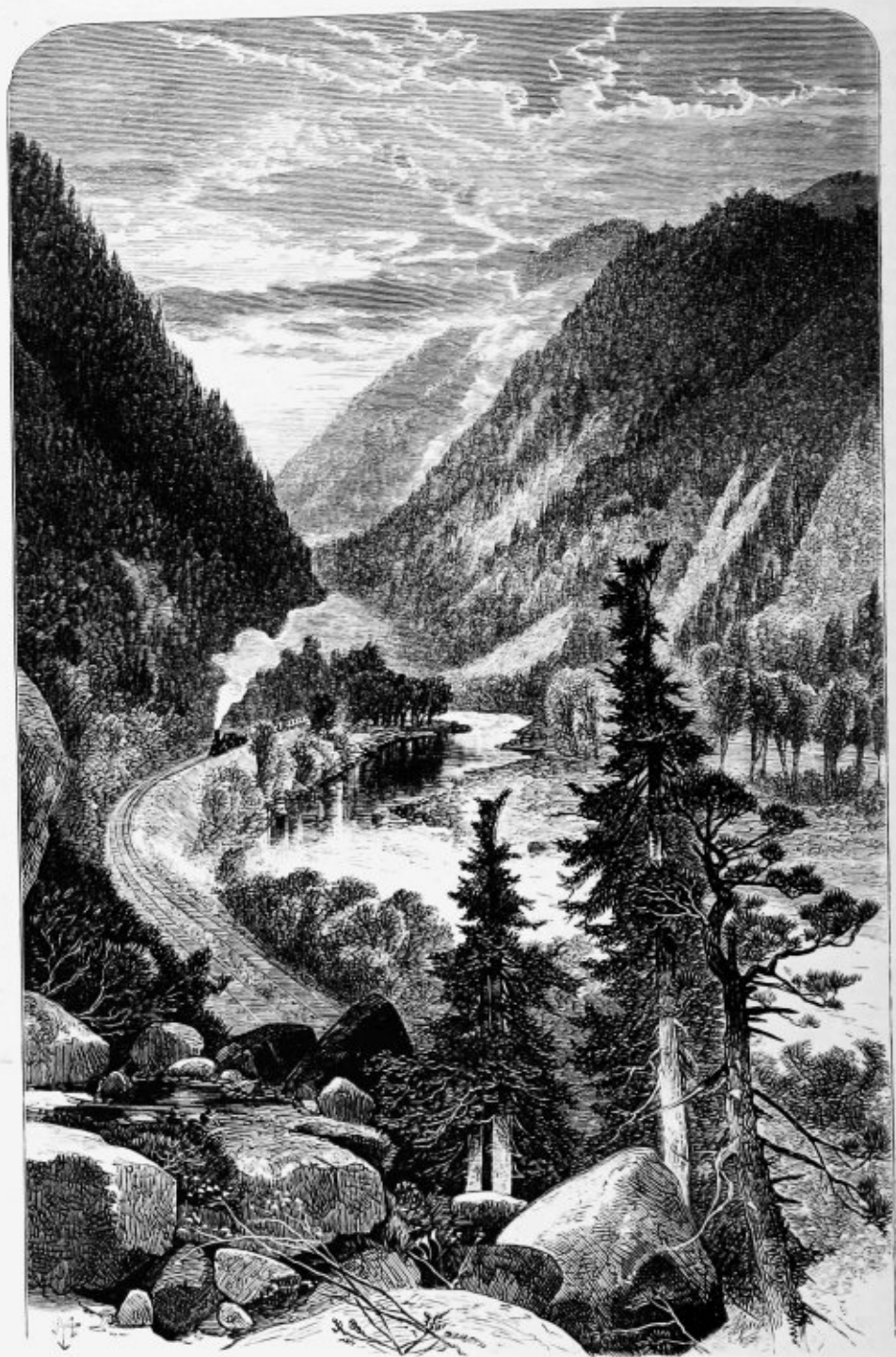
governor of Virginia, brought the Indians to terms, and they made overtures of peace. To secure this, Lord Dunmore appointed a council, on the Sciota, in 1774, and invited all the hostile chiefs to be present, Logan among the number. He refused to attend the council, but sent by the messenger the following speech, preserved in Jefferson's "Notes on Virginia":

"I appeal to any white man to say if ever he entered Logan's cabin hungry and he gave him not meat? If ever he came cold and naked and he clothed him not? During the course of the last long and bloody war Logan remained idle in his cabin, an advocate of peace. Such was my love for the whites, that my countrymen pointed as they passed, and said, 'Logan is the friend of the white man!' I had even thought to have lived with you, but for the injuries of one man, Colonel Cresap,* the last spring, who, in cold blood and unprovoked, murdered all the relations of Logan, not even sparing my women and children. There runs not a drop of my blood in the veins of any living creature. This called on me for revenge. I have sought it: I have killed many. I have fully glutted my vengeance. For my country I rejoice at the beams of peace. But do not harbor a thought that mine is the joy of fear. Logan never felt fear. He will not turn on his heel to save his life. Who is there to mourn for Logan? Not one."

The authenticity of this speech has been questioned; but the weight of testimony goes to show that it was delivered very nearly as preserved by Jefferson. Possibly it may have been interpolated; but as a whole, and as a specimen of Logan's eloquence, it is undoubtedly genuine.

Some time after this war Logan, who had married a Shawnee woman, removed to near Detroit. A habit of intemperance—that curse of the red man—grew upon him, and he became quarrelsome, frequently giving way to ungovernable fits of passion. He realized his degradation, and to a missionary spoke feelingly of the curse which had come upon him,—declaring that he felt as if he was on the brink of eternal fire. In one of

* As has already been stated, Logan's kindred were murdered by a party under the lead of Daniel Greathouse. He was in error in charging it upon Captain (not colonel) Cresap, who was a brave and able border leader, and deprecated the cruel murder as much as any man could. Captain Cresap lived at Oldtown, Maryland, and performed very valuable service in defending the western border against the savages. He died while in the Revolutionary army.



LEWISTOWN NARROWS.

his frenzies he struck his wife down, in the presence of her tribe. Fearing he had killed her, and knowing the Indian law of retributive justice, he fled from the camp. While on his flight he met, according to tradition, his wife's nephew and some other Indians, and thinking that this relative was about to avenge the murder, he prepared to defend himself, declaring he would kill all who opposed him. The nephew, in self-defense, shot him dead as he was dismounting from his horse.

Thus ended the life of a man who, savage though he was, possessed some of the noblest traits of humanity, and who, unquestionably, was endowed with natural abilities of the highest order. His Indian name was Tah-gah-jute, signifying "short dress." Rev. Dr. McClure, a missionary, describes him as standing "several inches over six feet high; straight as an arrow; lithe, athletic, and symmetrical in figure; firm, resolute, and commanding in features." While his adventures and achievements are surpassed by many Indian heroes, yet a singular attraction has always clung to his history and his name, and the latter is perpetuated by the white men in counties, villages, townships, streams, and many other connections. The traveler over the Pennsylvania Railroad, as he enters the excellent hotel of the company at Altoona, will see—conspicuously painted upon the wall of the great dining-room—a picture representing, in all the gorgeousness of savage dress, Logan, the Mingo chief.

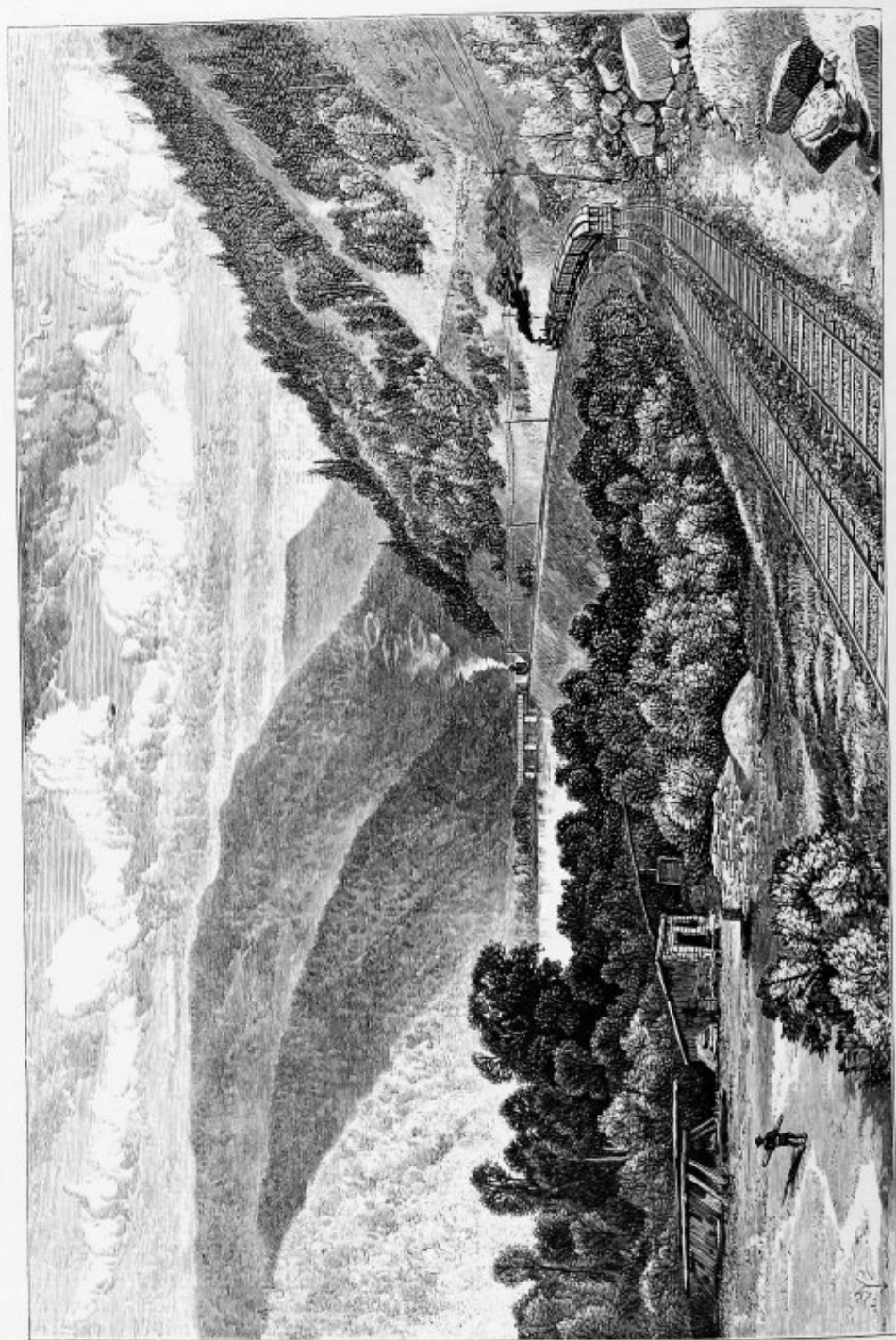
In the neighborhood of Lewistown there are several curious caves. Alexander's, in Kishicoquillas valley, abounds in fine stalactites and stalagmites, and is a natural ice-house, preserving in the midst of summer the ice formed in winter. Hanewall's, near McVeytown, is of vast dimensions, and contains calcareous concretions,—crude saltpetre has been taken from it. Bevins' is on the summit of a limestone ridge. An Indian mound, near the town, containing bones, arrow-heads, etc., was destroyed by the construction of the canal. There is said to be in the vicinity a mineral spring possessing most of the medicinal qualities of the Bedford water, particularly in bilious complaints. The county abounds in iron ore of fine quality, large quantities of which are mined for home and distant consumption. Population of Mifflin county, 17,508. Value of agricultural productions, \$1,544,981. Num-

ber of manufacturing establishments, 194; hands employed, 693; wages paid, \$220,859; capital invested, \$1,058,054; materials used, \$1,057,371; value of products, \$1,616,985. Iron-ore mines, 11; hands employed, 218; wages paid, \$73,335; capital invested, \$97,200; tons mined, 35,350; value, \$122,900.

Lewistown occupies a beautiful position on the left bank of the Juniata. It is well built—many of the private residences being handsome structures, displaying taste in design and ornamentation. The town is the most populous on the river, and commands a large trade. It was laid out in 1790, and incorporated in 1795. Some stirring events have occurred in its history—notable among them being the dispute between Mifflin and Huntingdon counties as to the western line of division between them, and a riot in 1791, growing out of a difference of opinion as to the propriety of the action of a brigade-inspector in refusing to issue commissions to two militia colonels. Both of these disturbances were fortunately terminated without bloodshed, but for a time they created much excitement.

Immediately east of the town, between it and Mifflin, the railroad passes through the Lewistown Narrows, formed by the Black Log mountain on the south, and the Shade mountain on the north. These were formerly known as the Long Narrows, and previous to the construction of the railroad, there was but one house in them for a distance of ten miles. The mountains rise abruptly from the river to the height, in many places, of more than a thousand feet, and their sides are covered generally with a dense forest growth, giving an appearance of deep gloom to the gorge. Here and there the chain is partly broken, or its sides indented by ravines, and the rocks stand out in naked grandeur; but as a rule, the walls of nature are intact, and the foliage covers all. The water flows peacefully through the channel it has carved, reflecting in its bosom the shadows of the giants it conquered in forming a passage. The scene is awe-inspiring; and the most impassive traveler cannot gaze upon it for the first time without being impressed with the grandeur of nature as here exhibited.

Lewistown contains two furnaces, two tanneries, boiler-works, three flour-mills, two carriage factories, and many minor industries. It has six churches, an academy, several fine hotels, three banks, and extensive county



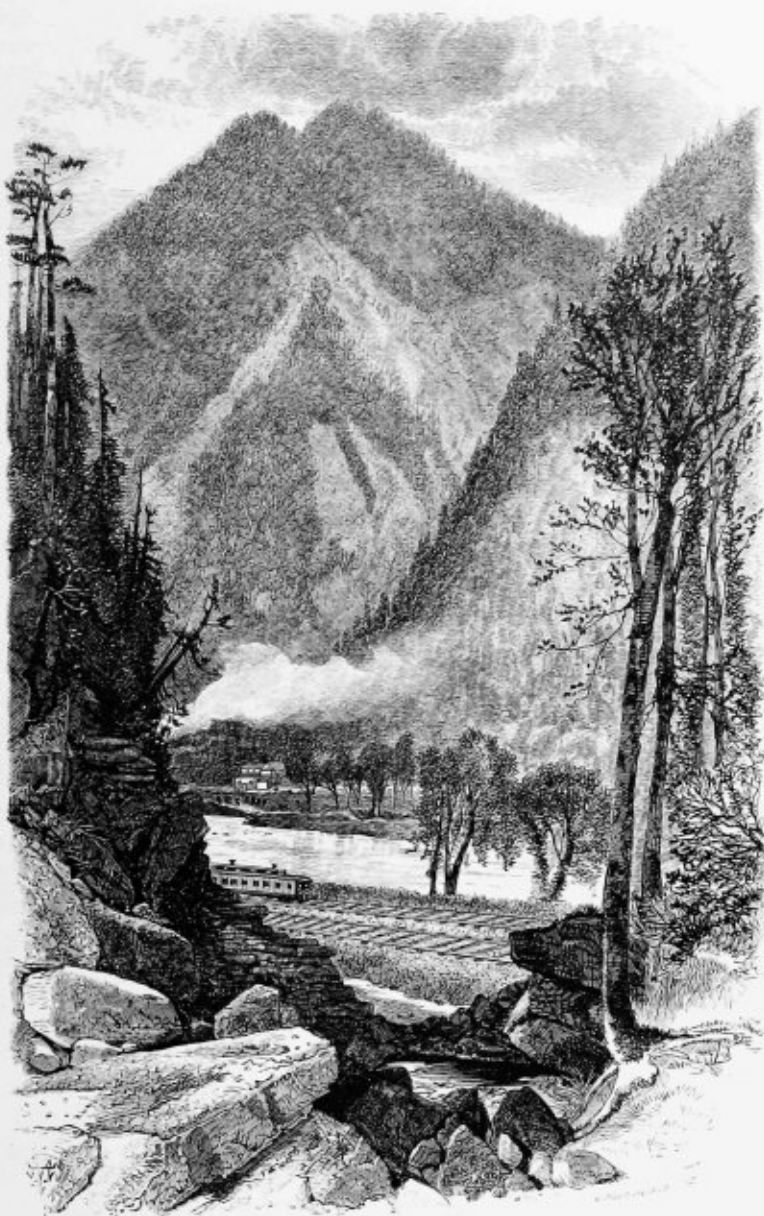
JACK'S NARROWS, FROM MAPLETON.

buildings. Iron ore is extensively mined in the vicinity, and sand is quarried for the manufacture of glass. Population, 2737. (Junction of Sunbury and Lewistown Railroad, running to Selinsgrove, on the Northern Central Railway; and of the Mifflin and Centre County Railroad, to Milroy, in Mifflin county.)

ANDERSON'S, one hundred and seventy-one and one-half miles. — Iron mines are worked near this station, — the shipment of ore from them amounting to about one thousand tons annually.

MCVEYTOWN, one hundred and seventy-eight miles, is a flourishing borough a short distance from the railroad. It is surrounded by a picturesque and well-cultivated country. The town contains two flour-mills, two steam saw-mills, two tanneries, a foundry and machine-shop. Merchandising is carried on actively, and various business enterprises are in operation in addition to those specified. Iron mines, employing about three hundred men, are worked in the vicinity. Sand, for the manufacture of glass, is quarried and prepared, employing forty men, — the shipment amounting to some seven thousand tons per annum. It contains four churches, one bank, a public hall, and three hotels. Population, 685.

NEWTON HAMILTON, one hundred and



IN JACK'S NARROWS.

eighty-eight miles. — Near this place the Juniata Valley Camp-Meeting Association grounds are located, belonging to the Methodists. They are beautifully situated, and the annual religious gatherings upon them congregate large numbers of people. The river, just above this station, makes a horse-shoe bend, across which the road is cut,



AT MILL CREEK.

crossing the river, at the west side of the bend, on a bridge seventy feet above the water and at a considerable elevation above the canal and aqueduct. There are two hotels here. Population, 350.

MOUNT UNION, one hundred and ninety-one miles, is the first station in Huntingdon county, and is at the entrance into Jack's Narrows, made by the river forcing its way through Jack's mountain. This gorge is wild and rugged in its appearance, the sides being almost destitute of vegetation, exposing immense masses of gray and sombre rock. The mountain receives its name from

a weird, mysterious hunter and Indian-slayer, who made his haunts in the valley previous to the Revolutionary war. The narrows were called, in early colonial records, "Jack Anderson's Narrows," from the fact that in them an Indian trader, named John Anderson, and his two servants, were murdered by the savages. Mount Union has an active business. Among its industries are an iron furnace, two steam-tanneries, two flour-mills, and other minor manufactories. The vicinity is rich in iron ore, which is mined for home consumption and also shipped to Pittsburg. It contains three

churches, a public hall, a bank, and two good hotels. The scenery here is peculiarly grand and beautiful, attracting many visitors during the summer months. Population, 535. (Junction of East Broad Top Railroad to the semi-bituminous coal fields.) Stages run daily from this station to Burnt Cabins, Fulton county, distance twenty-eight miles; also, tri-weekly, to Three Springs, distance seventeen miles.

MAPLETON, one hundred and ninety-four miles.—Sand, for the manufacture of glass, is quarried here. The borough contains three churches and two hotels. Population, 389. Stages run semi-weekly from this station to Wells' Tannery, distance thirty miles.

MILL CREEK, one hundred and ninety-seven and one-half miles.—Three sand quarries are worked near this station, employing about fifty men, and large quantities of the sand are shipped to Pittsburg and other glass-manufacturing points in the West. South of Mill Creek is a singular topographical formation, called Trough Creek valley, formed by Sideling hill and Terrace mountain, which unite at the side of the river in a ridge of sufficient elevation to turn the course of the streams to the south. After flowing several miles, the waters are again returned to the north, by uniting with the Raystown branch, which empties into the main Juniata a short distance above this station. The village contains three churches and a hotel. Stages run from here to Cassville tri-weekly, distance fourteen miles; also, to Allenville tri-weekly, distance twelve miles.

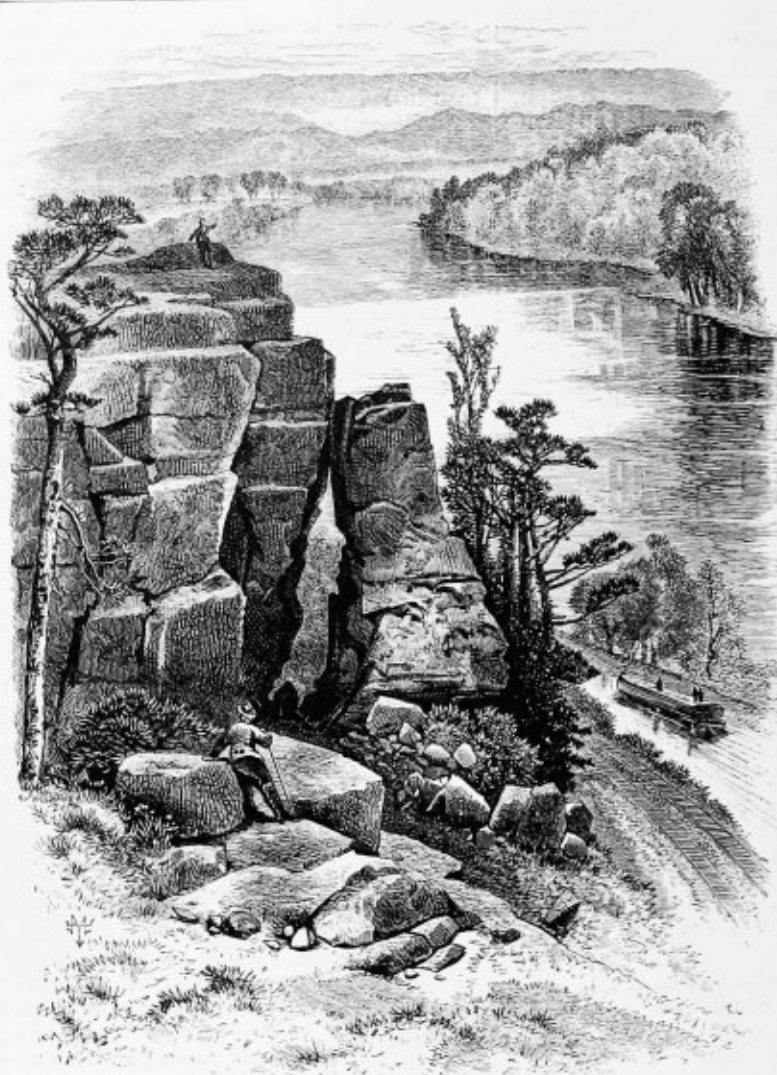
HUNTINGDON, two hundred and two and one-half miles.—Seat of justice of Huntingdon county. This county was established by act of 20th September, 1787, out of part of Bedford. It lies entirely within the great central mountain chains of Pennsylvania, and contains within its limits the Tuscarora, Shade, Black Log, Jack's, Sideling hill, Terrace, Allegripus, Tussey's, Brush, and some minor ranges. Among the latter is Broad Top, which extends into the counties of Bedford and Fulton on the south, and is noted for its semi-bituminous coal, now extensively mined. Between these mountains and ridges are a corresponding number of valleys—some of them of limestone formation, and all of them fertile and picturesque. The streams are numerous, and in cutting their channels have carved the face of nature into shapes as striking as they are beautiful.

It may safely be said that nowhere in the State is the scenery more attractive, in its variety of ruggedness and picturesqueness, than in Huntingdon county.

In mineral wealth the county has but few rivals. Its deposits of iron ore are rich and abundant—its coal supply is inexhaustible and convenient—its sand, for the manufacture of glass, covers a wide territory; and altogether it presents advantages for manufacturing of a superior order. The facilities for the manufacture of iron have long been utilized, and their development grows with the demands of the country.

The first settlements in the territory embraced in Huntingdon county were made in Aughwick valley, near the present northern line of Fulton county, about 1749. These settlements were by pioneers from the Cumberland valley, and being in the region claimed by the Indians, they were destroyed, to satisfy the aborigines, by the proprietary government, in 1750. The cabins built were burned, and the name of Burnt Cabins still perpetuates the scene of destruction. But the settlers, though driven out for a time, returned to the land of their choice, and in 1756 Fort Shirley was built in Aughwick valley, as one of a line of frontier posts. The defeat of Braddock caused many depredations to be committed by the Indians on the settlers in the Juniata valley, and this fort then became one of considerable importance. It was here that Colonel Armstrong concentrated his forces for his successful expedition against the Indians at Kittanning; and here lived George Croghan, a celebrated agent of the proprietaries in their intercourse with the Indians. The settlement is still known by its aboriginal name of Aughwick.

Space will not permit a recapitulation of the many dark and bloody scenes which marked the efforts of the early pioneers to build up homes in the valleys of Huntingdon county. Those pioneers were a hardy and venturesome race, and no obstacles which savage hostility could place in their way were sufficient to turn them from their determination to make the wilderness blossom and the waste places glad. Many of the beautiful scenes which the traveler now gazes upon with delight, have been crimsoned with the blood of murdered men, women, and children; and many humble and happy homes were reduced to the ashes of desolation. But the settlers would



ROCKS NEAR HUNTINGDON.

not be dismayed, and in time, conquering the savages, they realized the full fruition of their hopes.

At what time the white settlers first came to where the town of Huntingdon now stands cannot be accurately determined, but the site of the town was surveyed by John Lukens, surveyor-general of the colony, in 1756, for a claimant named Crawford, and was then called "George Croghan's Improvement." It was a well-known spot, at a very early period, to Indian traders and

pioneers, and had been an important point to the savages from time immemorial. It was known then, and for years afterward, as "Standing Stone," from the fact that a stone column, described by John Harris as being fourteen feet high and six inches square, stood on the flat, below the present town, where Stone creek enters the Juniata river. This flat was an Indian corn-field at the time the first white men visited it. How long the stone had stood there, or who first erected it, Indian tradition failed to tell. It was covered with rude hieroglyphics, and was probably a record of the tribe who lived near it and seemed to consider it sacred. It is asserted by some authorities that the name "Oneida," one of the great Six Nations, signifies in their language

standing stone, and if this is correct it is possible that the column at Huntingdon contained, in its rude carvings, more of aboriginal history than the most careful research has yet been able to discover. All traces of this stone are now gone, and it is believed that the Indians carried it off with them when they left the valley for the West, at the instigation of the French, about 1755. Another stone was erected upon the same spot, probably after the white settlers had arrived, because on it were cut the names of

many white men,—among them that of John Lukens and his brother Charles,—and dates varying from 1768 to 1770. This stone was afterwards removed and set up in the town, where it stood for many years, until it was broken by a drunken vandal. A part of it was built in the foundation-wall of a house, and another part is now in the possession of the Historical Society of Pennsylvania.

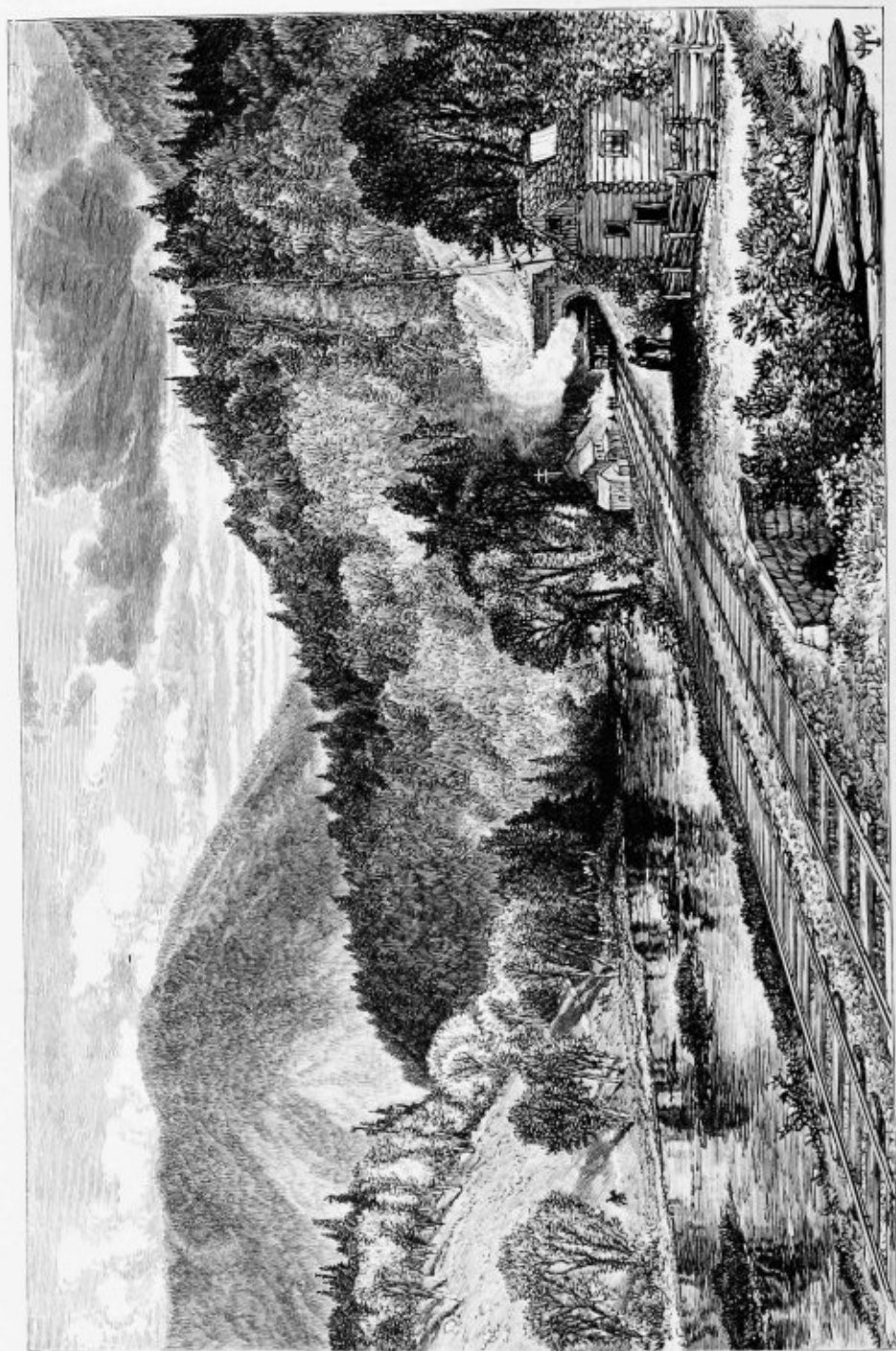
A stockade fort, called Standing Stone, was erected on the present site of the town in 1762, but was abandoned in the following year, when the settlers fled to Carlisle for safety. In 1770 they returned, with many others. About 1775 the fort was rebuilt on an enlarged plan, embracing ten acres of ground. It was an important post, and for a long time the place of refuge, in periods of danger, for all the settlers near the base of the Allegheny mountains. No attempt was ever made by the Indians to take it.

When the Revolutionary war commenced, this portion of Bedford county furnished three companies to the patriot army. This was a large number, when it is considered that it lay upon the extreme frontier, and was exposed to constant savage incursions. Added to this was the deplorable fact that many of its inhabitants were tories,—not only sympathizing with the cause of King George, but actually aiding that cause, so far as they could, by open deeds of violence. At one time a company of these tories was formed to march to Kittanning, join the Indians there, and return with them to destroy the loyal settlers. When this company arrived at their destination, the Indians mistook them for enemies, fired upon and killed many of them. The remainder precipitately fled. A few returned to their homes, where they met with the reception they deserved; but most of them departed for other regions, sending for their families to join them. Their names are now scarcely known in the county.

After the Revolutionary war the county improved rapidly. The manufacture of iron became a prominent industry, and many furnaces were erected. It is said the first furnace built in Western Pennsylvania was erected within the present limits of this county. It was called Bedford Furnace, and stood near Fort Shirley, in the Aughwick valley. The site is now occupied by the town of Orbisonia. At a later period the construction of the Pennsylvania canal

greatly stimulated the trade of the county, and from that time its growth in wealth and population has been steady. A large portion of the county was severed from it in the formation of Blair county, in 1846. Population, 31,251. Value of agricultural productions, \$1,968,703. Number of manufacturing establishments, 324; hands employed, 1359; wages paid, \$353,507; capital invested, \$2,087,052; materials used, \$1,520,506; value of products, \$2,319,152. Bituminous coal mines, 7; hands employed, 334; wages paid, \$175,014; capital invested, \$251,775; tons mined, 163,693; value, \$241,953. Iron-ore mines, 16; hands employed, 107; wages paid, \$33,617; capital invested, \$61,550; tons mined, 25,822; value, \$63,965.

The town of Huntingdon is built upon the left bank of the river and occupies an elevated position. The scenery around it is strikingly beautiful, and has frequently called forth tributes of admiration. In every direction hills and valleys open a perspective which the gaze loves to rest upon. The buildings generally are of brick,—many of the private residences indicating, by their surroundings, the refinement and cultivation of the inhabitants. About 1777 the town was laid out by Rev. Dr. William Smith, provost of the University of Pennsylvania, who had purchased the land principally embraced within its limits. He named it in honor of Selina, countess of Huntingdon, who had been a munificent donor to the funds of the University. When the county was erected, the same name was given to it. In 1796 it was incorporated as a borough. It contains manufactories of cars, boots and shoes, and brooms; two grist-mills, two manufactories of carriages, and a number of other industries. Merchandising is extensively carried on. There are in the town nine churches, an academy, and three select schools, a large public hall, two banks, several fine hotels, and extensive county buildings. Five miles north of the town are the "Warm Springs," where there are accommodations for about one hundred guests. The waters of these springs are said to be beneficial in cutaneous diseases. About four miles distant, on the Hollidaysburg turnpike, are the "pulpit rocks," so called from their peculiar formation. They are isolated columns of sandstone, carved by the action of the elements into various shapes. Population, 3034. (Junction of Huntingdon and



SPRUCE CREEK TUNNEL.

Broad Top Railroad, running south to Mount Dallas, distance forty-five miles, where it unites with the Bedford and Bridgeport Railroad to Bedford Springs, eight miles further, and to Cumberland, Maryland, distance forty-five miles.)

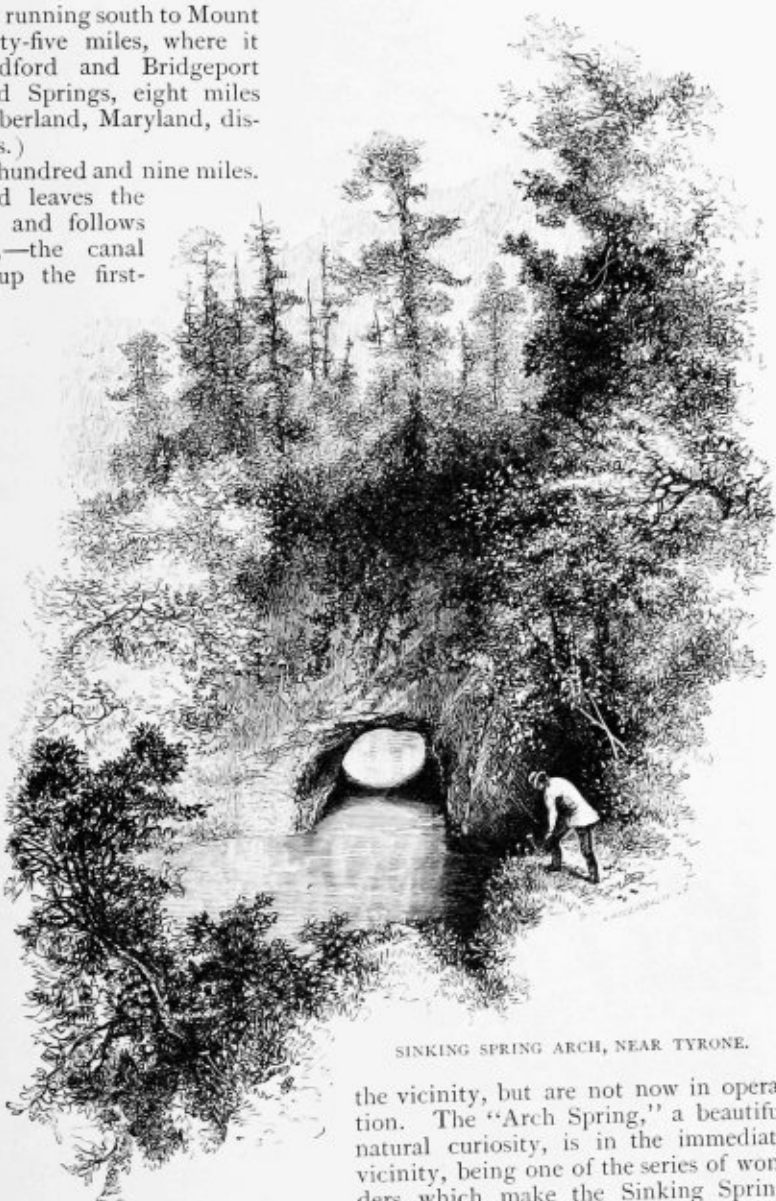
PETERSBURG, two hundred and nine miles.—Here the railroad leaves the Frankstown Branch and follows the Little Juniata,—the canal being constructed up the first-named stream. There is a forge at this station and another in the vicinity. The town contains three churches and two hotels. Population, 381. Stages run from Petersburg to Williamsburg, distance fifteen miles, and to McAlevy's Fort, distance fourteen miles.

BARRE, two hundred and thirteen miles.

SPRUCE CREEK, two hundred and fifteen miles.—A short tunnel is here cut through a spur of the mountain—the approaches to which, particularly from the east, are very picturesque. A machine-shop and foundry, grist-mill, saw-mill, and other enterprises, are located here. In the vicinity are several furnaces, and iron ore abounds, which is extensively mined for local consumption. The village contains two churches and a large hotel. Population, about 100. A stage runs daily to and from Centerline.

UNION FURNACE, two hundred and seventeen miles.

BIRMINGHAM, two hundred and twenty miles.—Iron ore is mined near this station. The Keystone zinc and lead mines are in



SINKING SPRING ARCH, NEAR TYRONE.

the vicinity, but are not now in operation. The "Arch Spring," a beautiful natural curiosity, is in the immediate vicinity, being one of the series of wonders which make the Sinking Spring valley so remarkable. There are three churches in the village and a seminary for young ladies. Population, 263.

TYRONE, two hundred and twenty-three miles, is the first station in Blair county. It is a creation of the Pennsylvania Railroad, and commenced its career as a town in 1849. Its growth was rapid, owing to its advantageous location at the mouth of Little Bald Eagle creek, which made it the



SINKING SPRING CAVE, NEAR TYRONE.

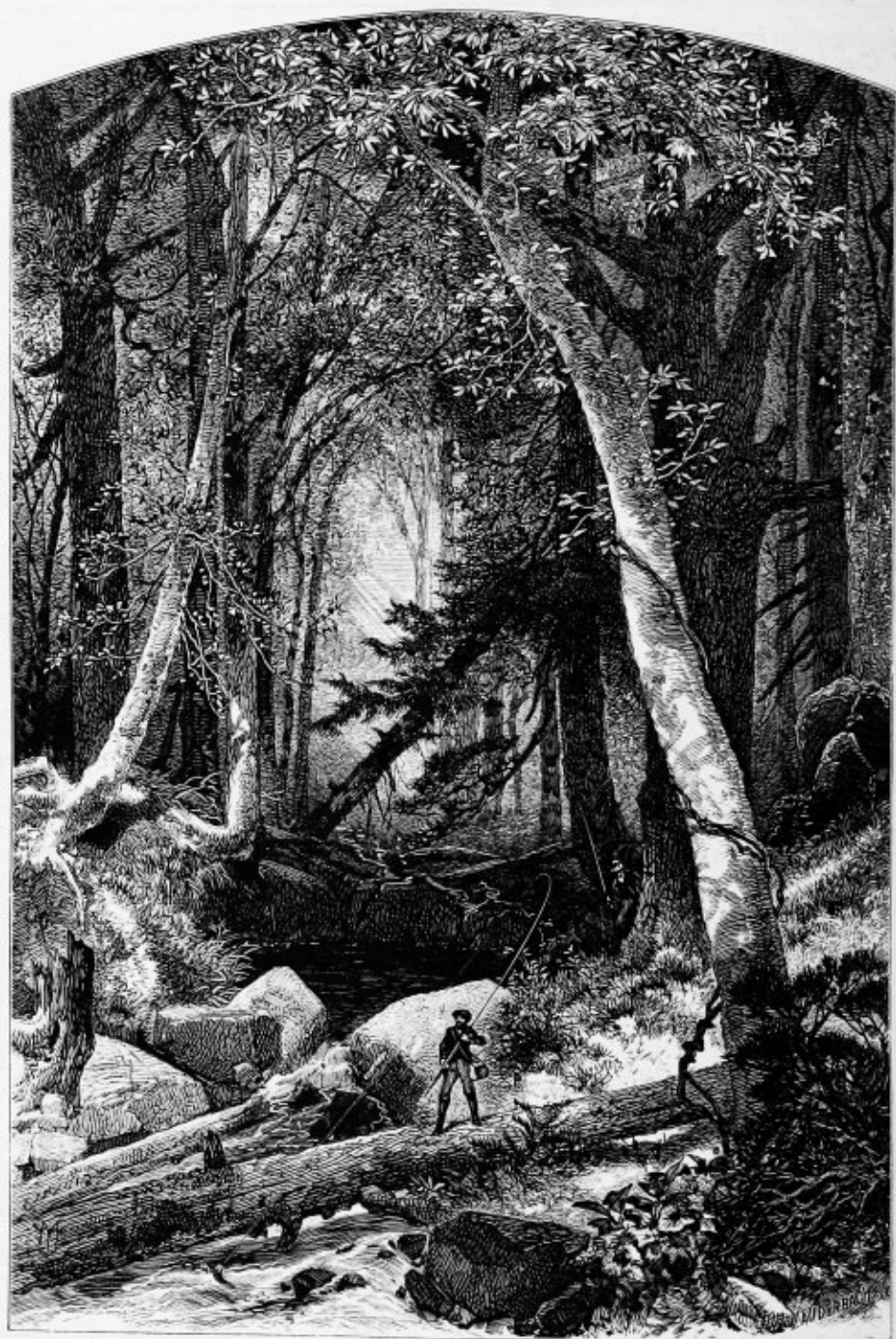
shipping-point for a large portion of the trade of Clearfield and Centre counties. This growth was still further stimulated by the construction of the Bald Eagle Valley and the Tyrone and Clearfield Railroads; and now the station is one of the most important between Pittsburg and Philadelphia. The town was named after the Tyrone Iron Works, located about one mile east of it.

Previous to and during the Revolutionary war, Captain Logan, (not the Mingo chief,) a noted Indian, had his cabin at a large spring now within the limits of Tyrone. He had been a chief of a band of warriors—probably Delawares—on the Susquehanna, and in an engagement with a hostile tribe unfortunately had an eye shot out by an arrow. This disfigurement was considered by the Indians a disgrace, and he was deposed from his chieftainship. He then came with his family to the Juniata valley. His friendship for the whites was sincere, and he rendered them many and important services. After the Revolution he was deprived of his lands, where Tyrone now stands, by some white men, who purchased them in due form,—a proceeding the Indian, in his ignorance, had omitted. He removed to the Indian town of Chinklacamoose, (where Clearfield now stands,) and died there, one of the very last representatives of his race in the Juniata valley.

Some three miles east of Tyrone is a valley which, for beauty of scenery, historic interest, and natural curiosities, deserves to take rank among the most interesting places in the United States. This is Sinking valley, formed by a rugged chain of mountains on the east, called Canoe ridge, and by Bald Eagle mountain on the west. It is extensive and fertile, containing many highly-improved farms, mills, iron works, and an intelligent population.

This valley was settled as early as 1760; but two years previous to that time the existence of lead in it was known to the French, who then held the western portion of Pennsylvania, and were probably piloted into it by Indians, who knew of the mineral existing there. The settlers were acquainted with these galena deposits in 1763; and the proprietary family—with that prudence which induced them to preserve as private property the portions of the province promising to be most valuable—reserved this valley as a manor, and it was surveyed for them by George Woods, of Bedford, pre-

vious to the Revolutionary war. This reservation was made by the Penns because of its presumed mineral wealth; and they had reason for their belief in the fact that, when the first white settlers went there, they found the remains of an irregular trench, extending fully six miles, which, it was presumed, had been opened by the French in search of something richer, even, than lead. But whatever other metals may have been found by these early miners, it was lead that brought the valley prominently into historic notice. This was first done by Major-General Armstrong, who addressed a letter, dated February 23d, 1778, to President Wharton, of Pennsylvania, calling attention to the fact that a supply of lead might be procured here for the Revolutionary army. The mines were then being worked, on a small scale, by private individuals. General Armstrong's suggestion was promptly acted upon by the Council of Pennsylvania, and Gen. Daniel Roberdeau, then a member of Congress, was authorized and directed to take a sufficient force of men to put the mines in successful and extensive operation. He proceeded to the performance of these duties without delay; and a number of his letters to the council, relating to the mines, are preserved in the colonial records. A fort, named in honor of the general, was built; skilled miners were engaged, supplies procured, and work went vigorously on. The ore from the mines was smelted and run into crude masses, which were taken down the Juniata and Susquehanna rivers in boats, to Middletown, where it was refined and prepared for use. How much was procured cannot be ascertained, but certainly considerable quantities, judging from requisitions and other references to the subject in the records. The mines were worked by the Government until the fall of 1779, when they were turned over to private individuals,—the authorities having, in the meantime, been relieved of all apprehensions as to a sufficiency of lead for the army by large receipts from abroad, facilitated by the alliance with France. During the year and a half of operations carried on in Sinking valley by the Government, a garrison was regularly maintained at the fort, which was mounted with two pieces of artillery. The miners who took the works from the Government soon abandoned them, and they have never been successfully operated since. At different times they have been



FOREST SCENE, ALLEGHENIES.

started, and in 1852 a company was formed in New York, called the "Sinking Valley Lead Mining Company," which promised great things; but in a short time its bubble of prosperity burst, and the hopes of its stockholders vanished into air.

In the early part of the present century, the belief was general among settlers in and near the valley that silver in large quantities had been secreted there. How or where this silver was procured was not so clear, or why it should be buried in the valley could not very satisfactorily be explained; but the belief was strong enough to cause many searches and much labor. Trenches and holes were dug in all directions, and not more zealously was Kidd's treasure sought along the Atlantic coast than was this in the historic valley. One man, at least, is credited by early chronicles with having found a quantity of silver bullion sufficient to make him wealthy. There was some ground for the belief in the existence of silver here, because lead ore is rarely, if ever, free from traces of the more precious metal; but why the lead should be taken away and the silver buried is a rather puzzling question.

The great natural curiosity of this valley is Sinking creek, from which it takes its name. This creek emerges from the Arch Spring, and then proceeds to lose itself, again and again, as it flows onward. Some of the pits through which the creek is visible are several hundreds of feet in depth. Many of these openings are seen along the sunken stream, which at length appears upon the surface for a short distance. It then enters a large cave, through which it flows in a channel about twenty feet wide for a distance of more than three hundred yards, when the cave widens, the creek turns, and is plunged into a cavern where the waters are whirled and churned with terrific force. Sticks and large pieces of timber are immediately carried out of sight, but where they go has never been ascertained,—no outlet for the waters having been discovered.

A stream flowing through the town of Tyrone has characteristics somewhat similar to this Sinking creek—disappearing and again reappearing as it flows onward. Doubtless these singularities are owing to some peculiar geological formation, as they are again repeated in Fishing creek, Centre county, some forty miles north-east of Tyrone.

A few miles from the Arch Spring is

a narrow pass, in Tussey's mountain, which, for the distance of a mile, is cut, like a western cañon, through huge rocks rising almost perpendicularly on both sides of it to a considerable height. The early settlers named the pass Water Street, and by this title it is often mentioned in the records of colonial times.

These, and many other curiosities that might be enumerated, added to the historical interest of the region, cannot but make it interesting to the patriot and the admirer of nature's wonders. In addition to the attractions of the valley, giant mountains are all around, and from some of their summits the views are limited only by the power of vision.

Among the industries carried on at Tyrone are two forges, a steam-tannery, and three planing-mills. The business of merchandising is extensive. The town contains eight churches, two banks, two public halls, and several good hotels. Population, 1840. A semi-weekly stage runs between this station and Janesville, distance twenty-five miles. (Junction of Tyrone and Clearfield Railroad, running through the bituminous coal-fields and lumber regions of Clearfield and Centre counties to Curwensville, distance forty-seven miles; of the Bald Eagle Valley Railroad, running to the city of Lock Haven, distance fifty-five miles, where connection is made with the Philadelphia and Erie Railroad; and of the Lewisburg, Centre and Spruce Creek Railroad,—now in course of construction,—running to Lewisburg, also on the Philadelphia and Erie Railroad.)

TIPTON, two hundred and twenty-six miles, contains three churches, and a population of about 300.

FOSTORIA, two hundred and twenty-nine miles, contains two churches, and a population of about 250.

BELL'S MILLS, two hundred and thirty miles.—The Bell's Gap (narrow-gauge) Railroad intersects at this station. This road runs to an extensive and valuable coal-field in the Allegheny mountains, and is carried through some rugged scenery by engineering skill of the most daring kind, at a grade of one hundred and seventy feet to the mile. Hematite, carboniferous, and fossil iron ores are found in the vicinity. A furnace, a forge, two steam and three water power saw-mills, a flour-mill, a tannery, a foundry, and two woolen factories are located here. The settlement contains



ALTOONA.

five churches and an academy. Population dependent on station, about 2400.

ALTOONA, two hundred and thirty-seven miles.—A city in Blair county, and the location of the principal workshops of the Pennsylvania Railroad Company, is the creation of that enterprise,—owing not only its existence but its remarkable growth and prosperity to the business the road has concentrated here. Its name is derived from *alto*, meaning high or elevated, and its position at the base of the main Alleghenies, eleven hundred and sixty-eight feet above tide-water, justifies the title. The site of the city was selected in 1849, by the officers of the railroad company, as the most advantageous location for their principal shops. At that time the Logan, or Tuckahoe, valley, extend-

ing from Tyrone to Altoona, was little more than a wilderness. A few farms only had been cleared, and these were by no means valuable in an agricultural sense. The mineral wealth of the region was undeveloped, and manufactories were comparatively unknown. When the decision of the company as to the location of their shops was arrived at, the ground now occupied by the city was owned by three farmers, and the centre one of these farms was fixed upon for the buildings. This was purchased for the sum of ten thousand dollars, and fifteen acres donated by the purchaser to the company. The town plot was laid out upon it, and improvements at once commenced. As soon as it became publicly known that the railroad company was about to build its shops here,

the owners of the adjoining farms commenced to lay out and sell lots. Differences and difficulties arose between the proprietors of the embryo city, and, as a consequence, the streets were not made regular or straight,—unsightly offsets and sharp turns being the result now of the want of harmony then. The central portion of the town was named Altoona at the time of its foundation, while the eastern portion was called Greensburg, and the western extension Loudensville. These distinctive names were continued until 1867, when the city charter was obtained, and all were merged in one municipality and title.

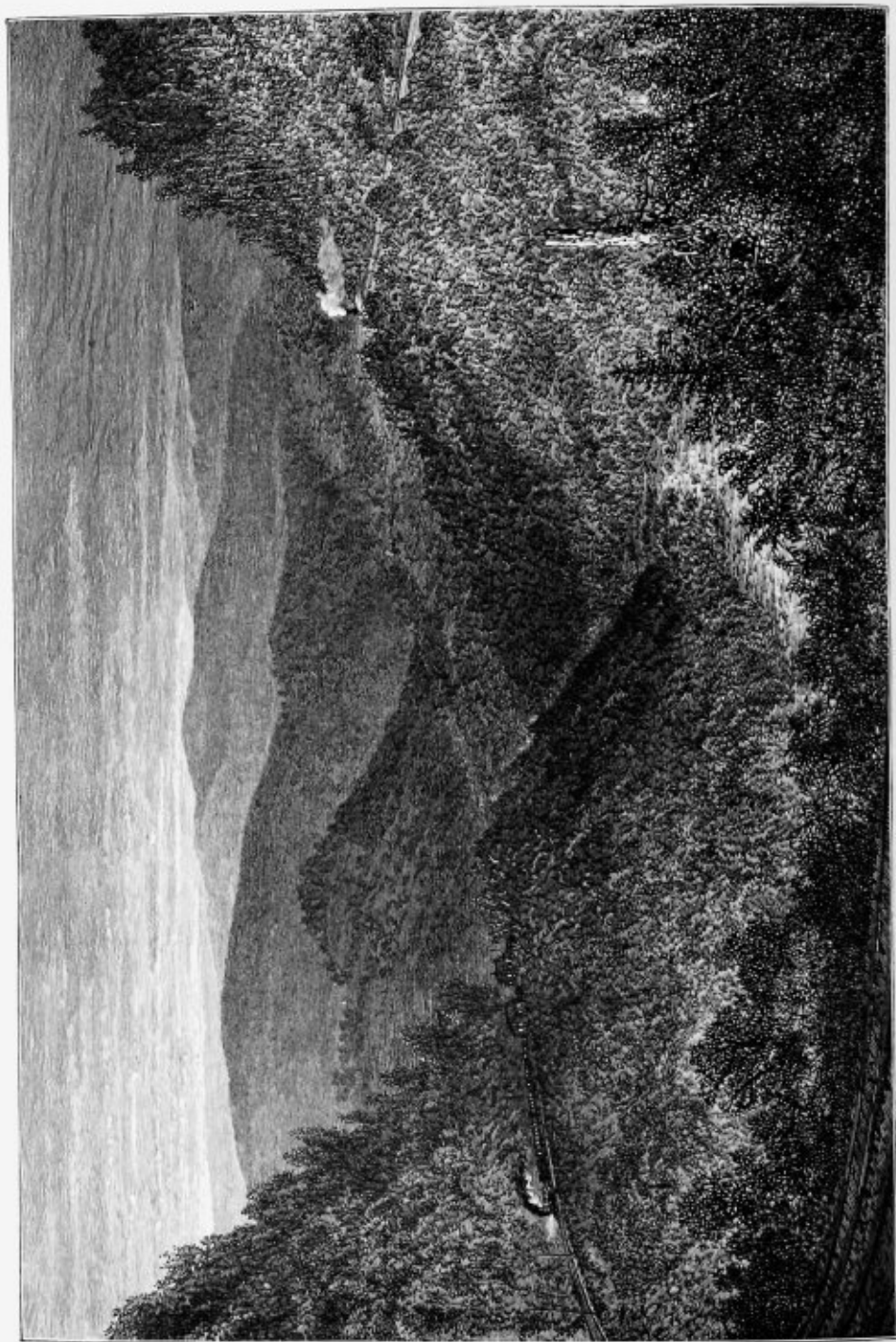
When the railroad company commenced its improvements here, the old Portage Road, with its inclined plane, was used to unite the eastern and western divisions, and the cars ran to the "Mountain House," near Hollidaysburg, where connection was made with the State road over the mountain. The recollection of those times is vivid in the minds of many who were then connected with, or traveled over, the line. The crowd and bustle attendant upon the arrival of every train—the change to the cars which stood ready for the mountain passage—the immense locomotives provided by the State to draw the trains to the foot of "Plane 10"—the anxious pause there while the clanking of chains indicated to the passengers that their car was being attached to the wire rope which was to draw it up the steep ascent—the halt at the top of the plane while this attachment was severed, and horses or a locomotive hitched on to draw it to the next ascent—the repetition of all this until the summit was reached, and the descent by the same process was commenced and continued, until, at the foot of "Plane 4," the train was made up again and went on its way to Pittsburg—can never be forgotten by those who participated in the passage; and if, as not unfrequently happened, a tedious delay had to be endured on the mountain, caused by derangements of machinery, by accidents, or by the storms which, in winter, often howled through the wilderness—the remembrance will be all the more vivid. This means of crossing the mountain was used until 1854, when the great tunnel was finished, and the trains then continued on from Altoona without interruption. The well-known Mountain House was sold and removed to Cresson, where it was set up again and became a

principal building at that popular summer resort.

Even Rome, if history is to be credited, was at one time an unattractive place, and it is no aspersion upon Altoona to say that, when it first became a town, it was not the most lovely place of residence on the continent. Swamps, marshes, and ponds composed a large portion of its surface, and its streets abounded in mud of the most tenacious kind. For years after the railroad shops were put in operation, it was found difficult to keep workmen here. Aside from the liberal wages paid, the place had no attractions. Churches, schools, places of amusement, and the hundred other conveniences essential to humanity, all had to be built up. But progress was the watchword. Individuals became inspired by the energy of the company, and the natural consequence was that Altoona assumed an aspect of comfort and thrift in a period of time that would do credit to the wonderful cities of the West.

On the 6th of February, 1854, Altoona was incorporated as a borough, and about the same time the "Logan House," one of the finest hotels in the United States, was opened by the railroad company to accommodate the immense travel over its line. This house has become the model for many similar institutions in all parts of the country. The year preceding this, churches were erected and a bank established. In 1855 a newspaper was published, and on the 15th of December, 1859, gas and water were introduced. Thus progressing, the town threw off its uncomfortable aspect of newness, and became in reality a city.

The Pennsylvania Railroad Company has, from the first, displayed a commendable spirit of liberality toward this city of its creation. Its management has been unremitting in endeavors to make the workmen comfortable and contented, knowing that the best skilled labor can only in this way be secured and held. It maintains a school for children, which is kept open at all times. It purchased the first steam fire-engine for the town. It took the initiative in introducing a supply of water, and it largely contributed to the establishment of the mechanics' library and reading-room,—some of its officers making liberal donations of books, and the company furnishing, free of charge, a handsomely-appointed room for the use of the association.



VIEW FROM HORSESHOE CURVE, EARLY MORNING.

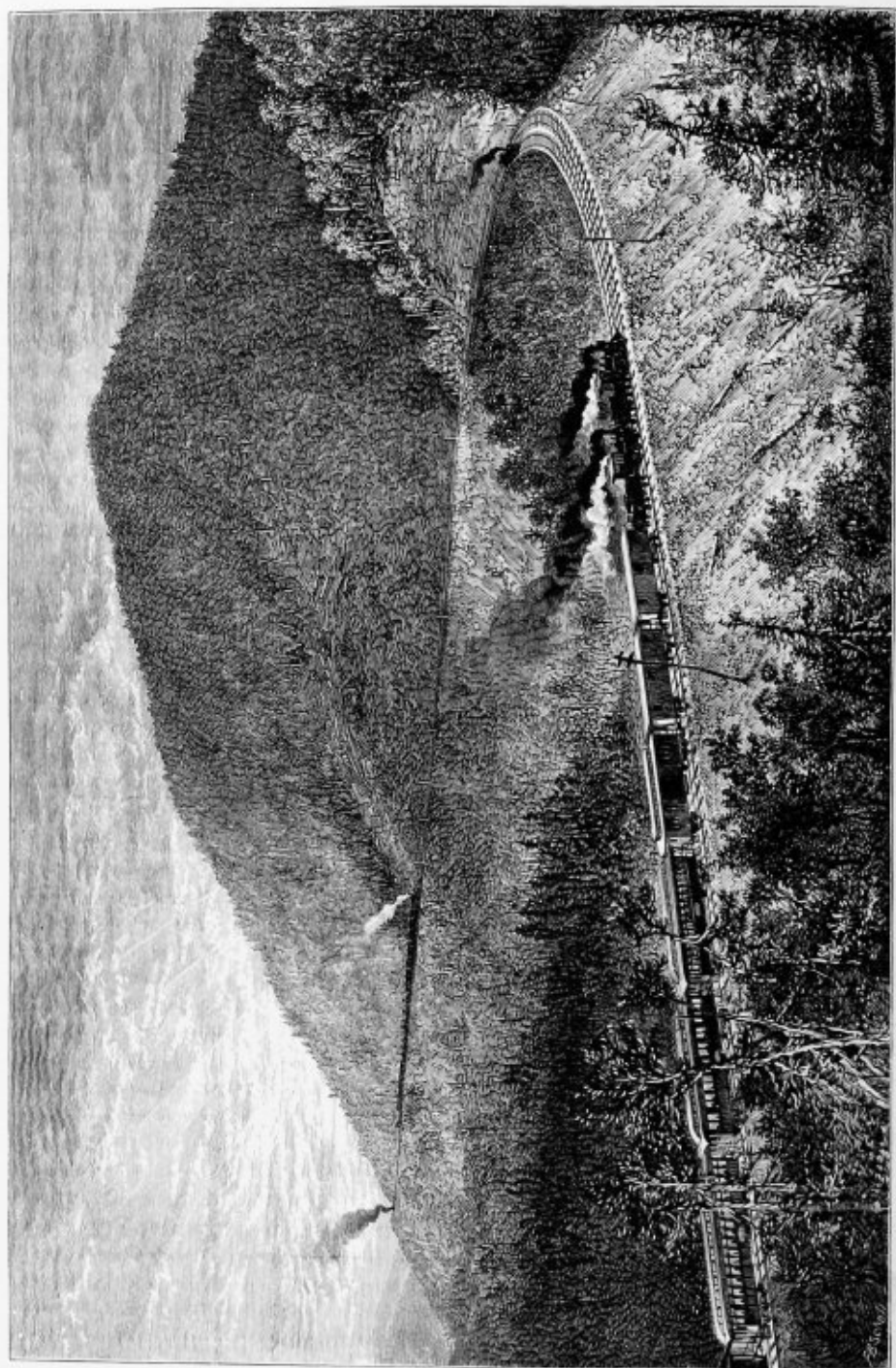
Immediately in front of the Logan House is an open station, built entirely of iron, elaborately ornamented, and paved with slate flagging, under which all passenger trains over the road stop. From the veranda of the hotel a view is had of this entire station, and probably at no other place in America can such an immense amount of railroad travel and traffic be seen. At almost every hour of the day and night trains are arriving and departing, carrying passengers from all parts of the country, and thousands of tons of freight go rushing by to the marts of trade and commerce. The clang of the engine-bell never ceases; and, to the man unfamiliar with the science of railroading, inextricable confusion would seem to exist. But so far from this being the case, the most perfect system prevails, and the immense business of the road is transacted with precision and regularity.

The scenery in the vicinity partakes of the ruggedness of the mountains, and in some instances approaches to grandeur. From "Prospect Hill," on the south, and "Gospel Hill," on the north, within the corporate limits, varied panoramas of city and country, mountain and valley, are presented; while from a spur of the Alleghenies, about six miles distant, called "Wapnonoc," one of the most extended views in Pennsylvania, embracing the entire valley of the Juniata, is obtained.

One hundred and twenty-two acres of ground are occupied, for business purposes, in the city of Altoona, by the Pennsylvania Railroad Company. On this are erected, in addition to the "Logan House," the passenger station, freight warehouse, offices of the general superintendent, the superintendent of motive power, the superintendent of transportation, with their appurtenances, and the following buildings:—Three engine-houses, iron and brass foundry, machine-shops, boiler-shop, paint-shops, blacksmith-shops, coaling-platform, freight-car works, passenger-car shop, planing-mill, tin and cabinet shop, upholstery-shop, storehouses, fire-engine house, lumber-drier, and other structures, having an aggregate frontage of fully two miles. These buildings are of brick, substantially constructed on the most approved plans, and the tools and machinery used in them are the best that can be procured. As a consequence, the work produced is of the highest standard, and is turned out at the minimum of cost.

Altoona is surrounded by iron manufacturing establishments and other productive industries. The town itself contains, in addition to the company's shops, the car-works of the Altoona Manufacturing Company, two planing-mills, and two flour-mills. It has eleven churches, an opera-house, three commodious hotels, (exclusive of the Logan House,) and four banking institutions. Its public-school buildings are large, accommodating about eighteen hundred pupils, and it has several private schools. Two daily and three weekly papers are published. Population, 10,610. (Junction of Hollidaysburg, Morrison's Cove, Newry, Williamsburg, and Springfield Branch Railroads.)

KITTANNING POINT, two hundred and forty-two miles.—On leaving Altoona the traveler will observe, by the steady movement of the train, that it is feeling the power of the locomotive; and he need scarcely be told that the strength of the iron-horse is drawing it up a grade of over ninety feet to the mile. But the progress is smooth and wonderfully regular,—not a jar or a jolt is felt—not a rattle of loose machinery is heard. The valley beside him appears to be sinking, and the perspective widens, while to the front new mountains spring, as if by magic, into view. The gorge continues to deepen as the train ascends, until the tops of the tallest trees are far below, and the few cottages visible seem lost in an impenetrable chasm. At Kittanning Point the road is carried around a curve which is a wonder of engineering skill. The valley it has followed for six miles here separates into two chasms, neither of which can be made available for further progress. Another opening into the giant barriers must be gained, and engineering science proved equal to the task of reaching it. By a grand horseshoe-shaped curve, the sides of which are parallel with each other,—giving trains traveling the same way the appearance of moving in entirely different directions,—the road crosses both ravines on a high embankment, cuts away the point of the mountain dividing them, sweeps around the stupendous western wall, and leads away to a more tractable pass. The little dancing rivulet seen in the valley, as the train rolls across it, is the stream from which Altoona derives its supply of water. Reaching the new pass, the road continues its steady ascent through the very



HORSESHOE CURVE, LOOKING WEST.

heart of the great dividing range of a continent. At Allegrippus—a station possessing an Indian name often repeated in the surrounding country, where the bold scenery has called forth the enthusiasm and taxed the skill of many artists—the majesty of the mountains seems to culminate. Gazing to the east, range after range rises into view, until at last they fade away in the azure of the horizon. No limit but the power of vision bounds the prospect. Isolated farms and fields are seen, looking as if they had wandered away from civilization and been lost in the wilderness. Gradually, now, the valleys seem to rise, and as gradually the mountains sink, until the whole assumes the appearance of a rugged plane, where industry has found a place for furnaces, mills, and mines, and over which many homes are dotted. A shrill scream bursts from the engine, and in a moment more the darkness of the great tunnel enshrouds all. The victory has been gained, —the barrier is overcome,—and the iron-horse is dashing over the summit, more than two thousand feet above the tide-line of the Atlantic. The little rivulet, which the light at the western end of the tunnel shows beside the road, is an infantile tributary of the Conemaugh. It is dancing on to the Ohio, and will find its outlet, through the Mississippi, in the Gulf of Mexico; while the one left behind, at the other end, will dash on, with many a miniature cataract, into the Juniata, through that into the Susquehanna, and will reach its destination in the Chesapeake bay. Kittanning Point is so named from the great Indian path or trail, between Kittanning and the valley of the Delaware, which crossed the mountain through this gorge. Coal is extensively mined near this station, two branch railroads, each two miles in length, running up the ravines to the mines. Population, about 150.

BENNINGTON FURNACE, two hundred and forty-seven miles.—A furnace is in operation here, employing fifty hands. Seven coal-mines are worked, producing one hundred thousand tons annually for shipment, and giving employment to two hundred and fifty men. Coke-burning is also extensively carried on. The settlement contains two churches, and a population of about 600.

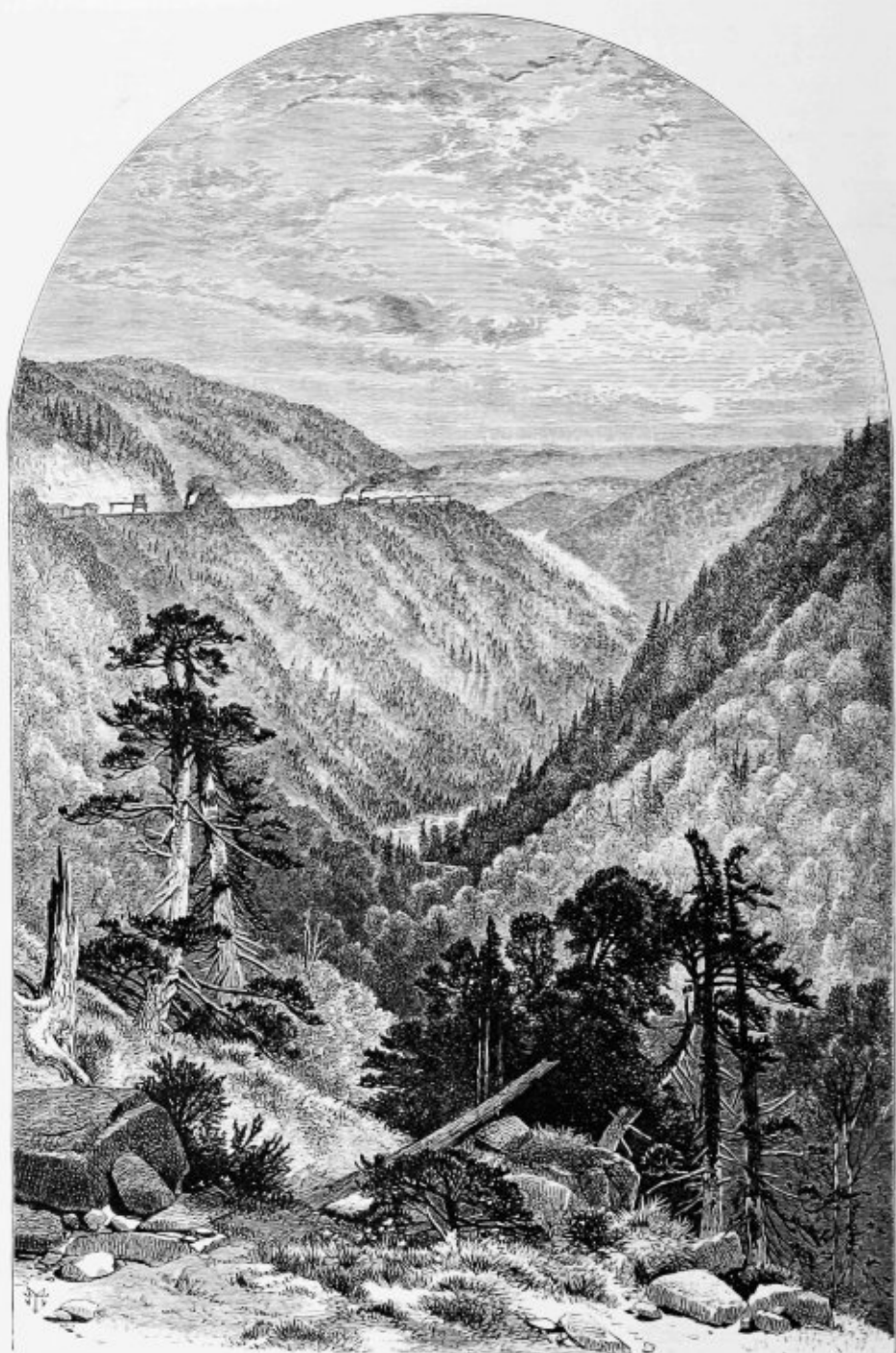
TUNNEL, two hundred and forty-eight miles.—This great work is three thousand six hundred and twelve feet in length, and

the height of the earth above it is two hundred and ten feet. It is securely arched throughout. The highest point on the Pennsylvania Railroad is at its western end, where the elevation above tide-water is twenty-one hundred and sixty-one feet.

GALLITZIN, two hundred and forty-eight and one-half miles.—First station in Cambria county. Cambria was formed by act of March 26th, 1804, out of parts of Somerset and Huntingdon. The county occupies one of the most elevated positions in the State, and lies on the western declivity of the Allegheny mountains. Its surface is rugged and broken, and the soil cold, adapted for grazing and the growing of oats, rye, and potatoes. The west branch of the Susquehanna river rises in this county, and, breaking through the Allegheny mountains in Clearfield, flows into the Atlantic ocean. Tributary to this are Clearfield and Chest creek, which also have their sources in Cambria. These streams furnish facilities for rafting out the lumber growing along them, and have contributed much to the wealth of the county. All the other streams rising in its limits flow into the western rivers. Coal and iron ore underlie a large portion of its surface, and are extensively mined.

Near the north line of the county there is said to be an ancient fortification,—probably an outwork of the mound-builders of the Mississippi valley. The embankments are represented to have been, some forty years ago, four or five feet high and overgrown with large trees. There were open clearings, similar to prairies, not far from these fortifications, which probably gave the name to the adjoining county of Clearfield.

The first settlements were made in Cambria about 1789. Previous to that time it was an unbroken wilderness,—none of the pioneers who had pushed their way up the Juniata valley having ventured into the wilds of the Alleghenies. The settlers who came in at the time named located where the town of Loretto now stands, and some of their descendants still live there. They were principally Irish, and, with the courage peculiar to that race, unflinchingly encountered the hardships and dangers of the unpromising region,—subduing the wilderness as well as its hostile inhabitants, and making for themselves and their posterity comfortable and enduring homes. Some six years afterwards a colony of Welsh settled in the vicinity of Ebensburg. They first laid out a town,



SCENE AT ALLEGRIPPUS.



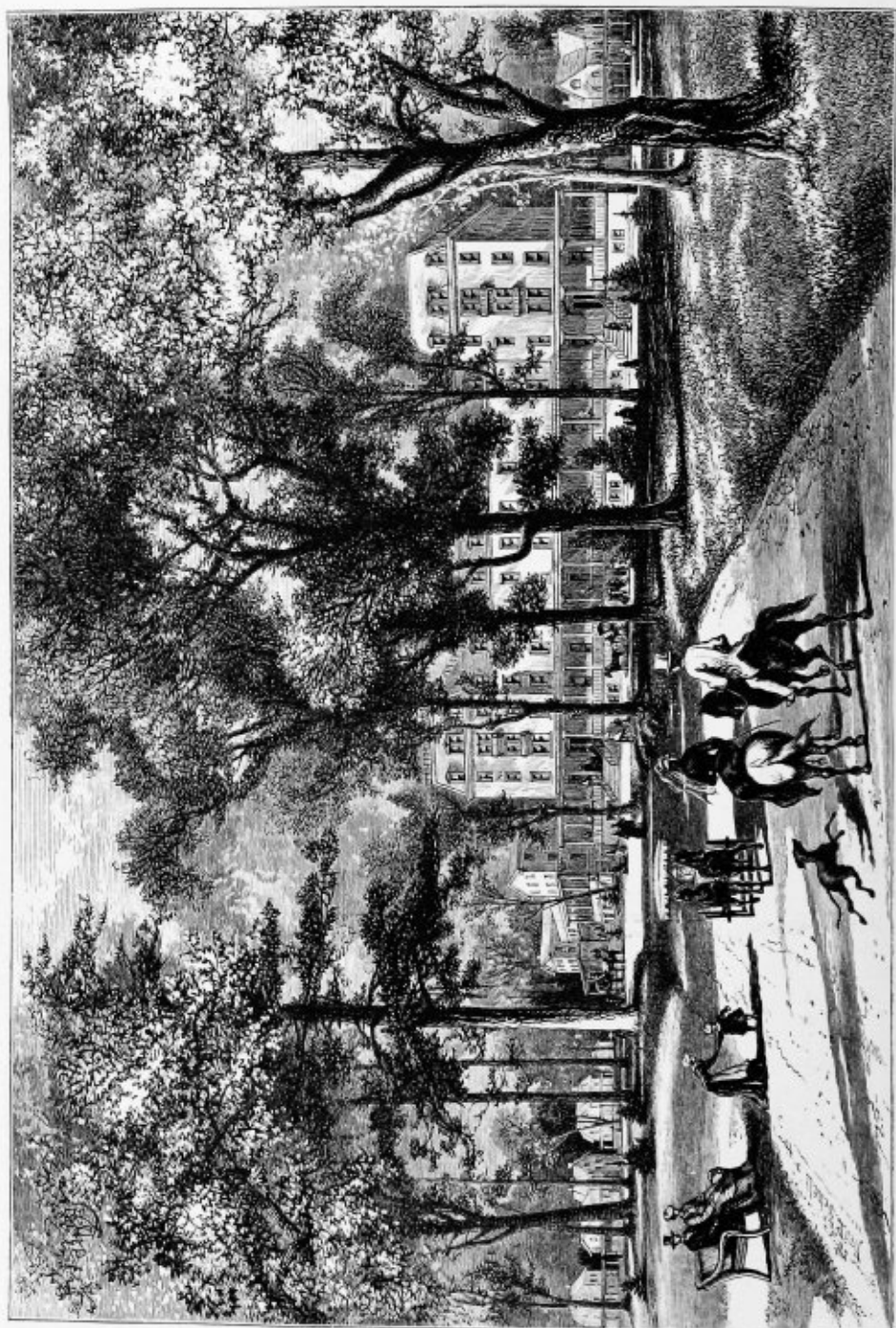
LORETTO.

which they called Beulah, about two miles south-west of Ebensburg, and this was at first designed to be the county seat; but the neighboring settlement of Ebensburg having been designated as such by an act of the legislature of 1805, Beulah was abandoned by its inhabitants and fell into ruin. It is now almost overgrown by forest trees,—broken chimneys and rotting logs, with here and there a fruit tree struggling to maintain the evidence of civilization in the encroaching wilderness, are all that is left to mark the industry of those who built it three-quarters of a century ago.

The construction of the public works by the State gave a wonderful impetus to the business of Cambria county, and developed a race of men who, for intellectual and business energy, were marvels in their day. Millions of dollars were expended in building and maintaining the railroads over the mountain, and fortunes were rapidly accumulated. But the Allegheny is now completely conquered, and the tide of travel and trade is carried over it with as much facility as it passes through the valleys on either side,—no pause being made to pay tribute to the barrier that once was so terrible. Population, 36,569. Value of agricultural productions, \$1,140,417. Number

of manufacturing establishments, 373; hands employed, 3,464; wages paid, \$1,501,208; capital invested, \$2,377,072; materials used, \$6,201,631; value of products, \$8,641,813. Bituminous coal-mines, 3; hands employed, 527; wages paid, \$287,887; capital invested, \$161,500; tons mined, 244,298; value, \$307,057. Iron-ore mines, 1; hands employed, 521; wages paid, \$340,762; capital invested, \$250,000; tons mined, 104,598; value, \$367,623.

The town of Gallitzin is named after Prince Gallitzin, who settled in this county, at Loretto, in 1789. He was born in Munster, Germany; his father, Prince Gallitzin, ranking among the highest nobility of Russia, and his mother being the daughter of Field-Marshal de Schmeltan, an officer under Frederick the Great, of Prussia. The subject of this notice held a commission in the Russian army from his birth. Europe, in the early part of his life, was desolated by war, (the French revolution having burst like a volcano upon that continent,) and as it afforded no facilities for travel,—considered necessary to the education of young men of family,—it was determined that he should visit America. He landed in Baltimore in 1782. His mind, soon after, was impressed with the obligations of religion,



CRESSON.

and he renounced forever his brilliant prospects, pursued a course of ecclesiastical studies under Bishop Carroll, and entered the Catholic priesthood. In the year 1789 he directed his course to the Allegheny mountains, and took up his residence in the settlement of Loretto. Here, after incredible labor and hardship, he founded a prosperous colony, established schools, churches, and religious houses, and created an influential centre for the religion he so much loved. His princely fortune was expended on his colony, and he labored with a zeal and industry that knew neither abatement nor rest. He wrote several religious works, and his "Defense of Catholic Principles" gained celebrity in Europe and America. After a pastoral career of forty-two years he died at his post, on the 6th of May, 1840, and he sleeps the sleep of the righteous in the midst of the religious colony he founded and created.

Coal is extensively mined near this station,—the production amounting to about two hundred thousand tons annually. The settlement contains two churches and a hotel. Population about 1000.

CRESSON, two hundred and fifty-two miles.—This is a very popular summer resort, presenting accommodations and attractions of a superior order. The buildings are extensive, well constructed, and provided with every accessory of comfort, and the grounds are spacious and highly ornamented. Owing to the altitude of the place—some two thousand feet above the ocean level—constant breezes are felt in the warmest days of midsummer. Springs of medicinal waters burst from the mountain in the immediate vicinity, and pleasant drives lead away through the almost unbroken forests of hemlock, beech, and maple, with their dense undergrowth of rhododendron. Dr. R. M. S. Jackson, a gentleman well known throughout the country for his scholastic and scientific attainments, first called public attention to the healing and invigorating properties of this mountain atmosphere, and spent years of labor and a wealth of energy in building up here "a grand sanitarium, where the mentally and physically diseased dwellers in those moral excrescences on the body politic—great cities—could come and be cured by the action of God's pure air and water." He died at the hospital on Lookout mountain, Tennessee, while in the service of the United States as a surgeon,

near the close of the late rebellion; but his dream was then realized, and the place he founded still flourishes. About one hundred thousand tons of coal are mined near here for shipment. Two lines of stages run daily between Cresson and Loretto, distance five miles. (Junction of Ebensburg and Cresson Railroad, running to Ebensburg, county seat of Cambria county, distance eleven miles.)

LILLY'S, two hundred and fifty-five miles.

SONMAN, two hundred and fifty-eight miles.—Large deposits of coal exist here, and mining is actively carried on,—the production for shipment averaging seventy-five thousand tons per annum. Two steam saw-mills are near this station. Population about 300.

PORTAGE, two hundred and fifty-nine miles.—Lumbering, in its various branches, is the principal business here. Coal is mined extensively. The settlement contains several churches and a population of about 300.

WILMORE, two hundred and sixty-two miles, contains a grist-mill, several steam and water power saw-mills, and does an extensive business in merchandising and the manufacturing trades. The station is an outlet for a large portion of Cambria county. There are four churches and several hotels in the town. Population, 393.

SUMMERHILL, two hundred and sixty-four miles.—The business here is principally lumbering. A grist-mill is in operation, and merchandising is actively carried on. Coal of good quality exists here. Population about 200.

SOUTH FORK, two hundred and sixty-six miles.—Coal is mined here to the amount of fifty thousand tons annually. Population about 200.

VIADUCT, two hundred and sixty-eight miles.

MINERAL POINT, two hundred and sixty-nine miles.—About three thousand tons of fire-clay are mined at and shipped from this station. Coal exists in the vicinity. Population about 120. Near this station the railroad crosses the Conemaugh by a stone viaduct of eighty feet span. The scenery of the western slope now begins to lose its tameness, and numerous beautiful vistas are opened on both sides of the road.

CONEMAUGH, two hundred and seventy-three miles.—This station may properly be considered as at the base of the western slope of the Allegheny mountain. It is here that all trains are inspected before they



JOHNSTOWN.

commence the passage of the barrier from the west, and after they have overcome it from the east they undergo a similar examination. Large repair shops of the company are located here, and in the various duties centred at this station a number of railroad employes are engaged. Conemaugh was an important point on the old main line of State works. The town may now be considered a suburb of Johnstown,—the most prominent industries of the place—an iron furnace and the mining of coal—being carried on by the Cambria Iron Company. Population, 2336; Franklin, an adjoining borough, 426; East Conemaugh, 381.

JOHNSTOWN, two hundred and seventy-six miles, is an important and improving borough, occupying a beautiful situation at the junction of Stony creek and the Conemaugh river. It is completely surrounded by mountains and hills that, from the manner in which they are broken and carved by streams flowing through them, present scenes of unsurpassed picturesqueness. From some of these hills extended views, combining nature's beauties and the wonders of industry, can be obtained.

Johnstown was settled about 1791, by a German named Joseph Johns, from whom the place derives its name. It occupies the site of an Indian town, called Kickenapawling, and when the white men settled here was the head of the primitive navigation on the Conemaugh. All the trade to the West was transported from this place on arks or flat-boats, which floated down the Conemaugh and into the Allegheny river, then called the Ohio. On the eastern side of the mountain the Juniata furnished the highway,

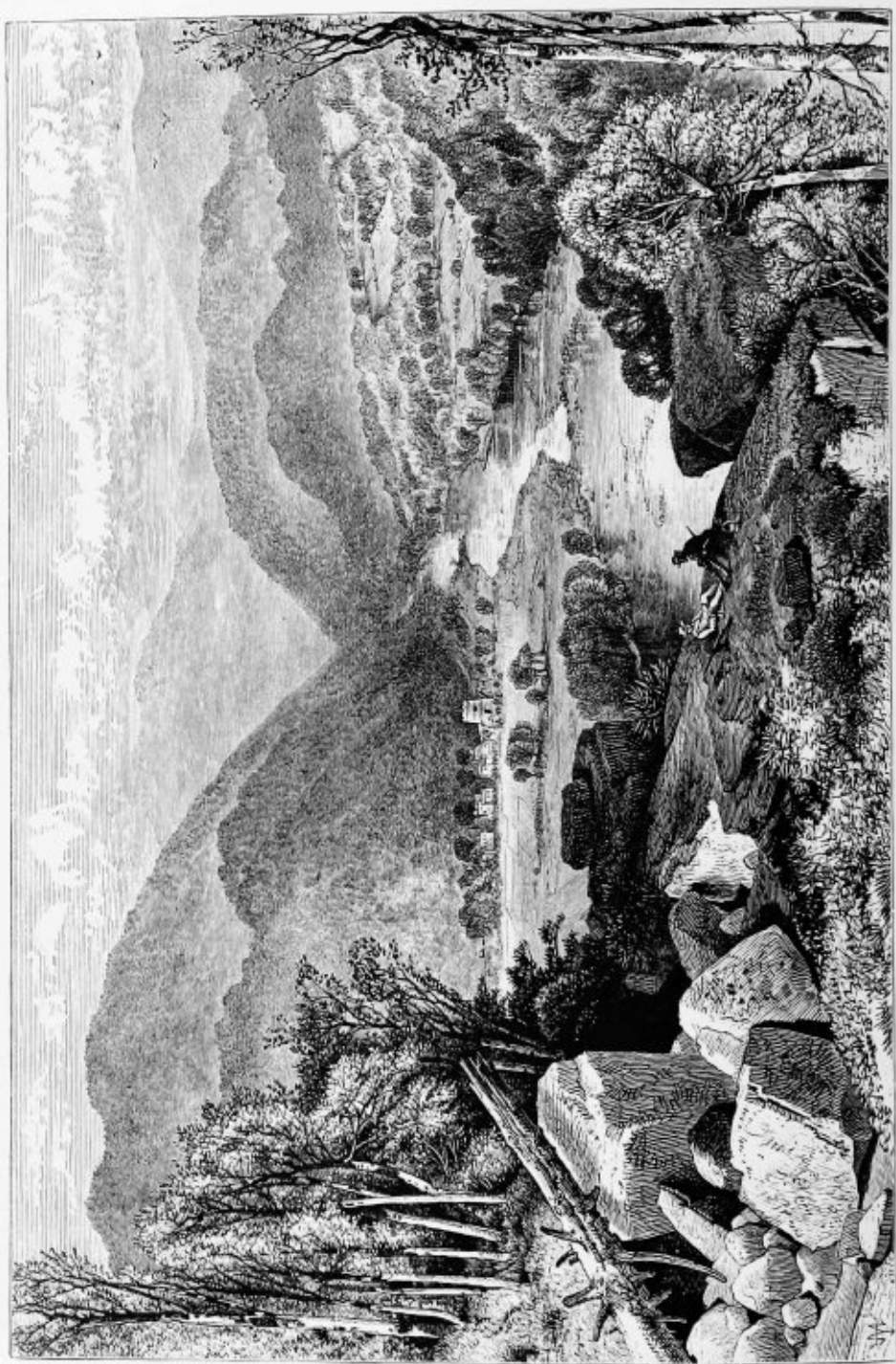


CONEMAUGH VIADUCT.

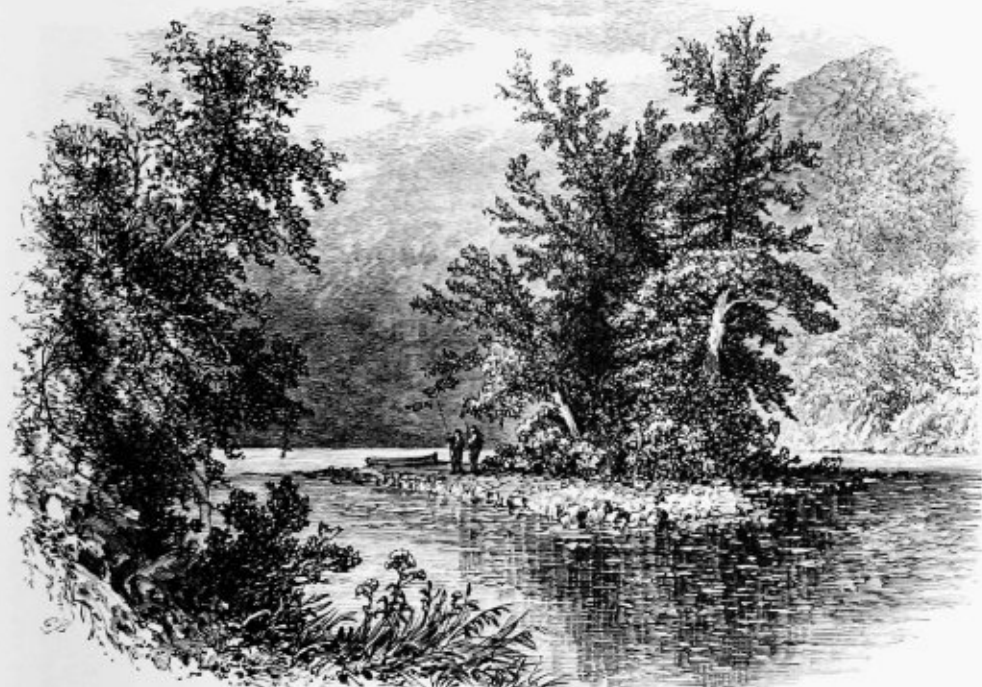
and these two streams were united by a portage over the Allegheny,—at first consisting of the Kittanning trail, then of the old Frankstown road, then of a turnpike, and at last of a railroad. The labor, the energy, the skill, and the capital expended in facilitating transportation between the Juniata and the Conemaugh would be interesting subjects for detailed investigation.

The country around Johnstown is wonderfully rich in minerals,—coal, iron, fire-clay, and cement being found in abundance. The development of these resources has caused the rapid growth of the town, and the erection of the largest iron works in America. These are the property of the Cambria Iron

Company, engaged principally in the manufacture of steel and iron rails. Its works cover a large area and are constructed in the best manner. In addition to the operations of this company in Johnstown, it has extensive coal and iron mines in Cambria and the adjoining counties, and employs altogether over four thousand men. Among the other industries of the place are steam-tanneries, woolen-mills, fire-brick works, and shoox factories. Merchandising and the mechanical trades are in a flourishing condition. The town contains four national and private banks, a number of handsome church edifices, a public library, good private and public schools, an opera-house, a



NEAR BOLIVAR, ON THE CONEMAUGH.



SANG HOLLOW, ON THE CONEMAUGH.

large public hall, and a number of good hotels. It is lighted with gas, and supplied with water by works erected for the purpose. Population, 6028. Stage lines run daily to Somerset, distance twenty-eight miles; also, to Berlin, tri-weekly, distance thirty miles.

SHERIDAN, two hundred and seventy-eight miles.—The manufacture of fire-brick is extensively carried on here by the Cambria Iron Company.

SANG HOLLOW, two hundred and eighty miles.—Immediately surrounding this station the scenery is picturesque and beautiful. Added to the grandeur of the mountains is the dense vegetation of the river valley, giving almost a tropical luxuriance to the view.

CONEMAUGH FURNACE, two hundred and eighty-three miles.—First station in Westmoreland county. The old furnace, with its surroundings, falling into decay and covered with the foliage which nature lavishly furnishes to cover the tracks of time, makes a picture pleasing to artistic taste.

NINEVEH, two hundred and eighty-five miles.—Near this station there is a deposit of bog-iron ore, covering thirty acres, and

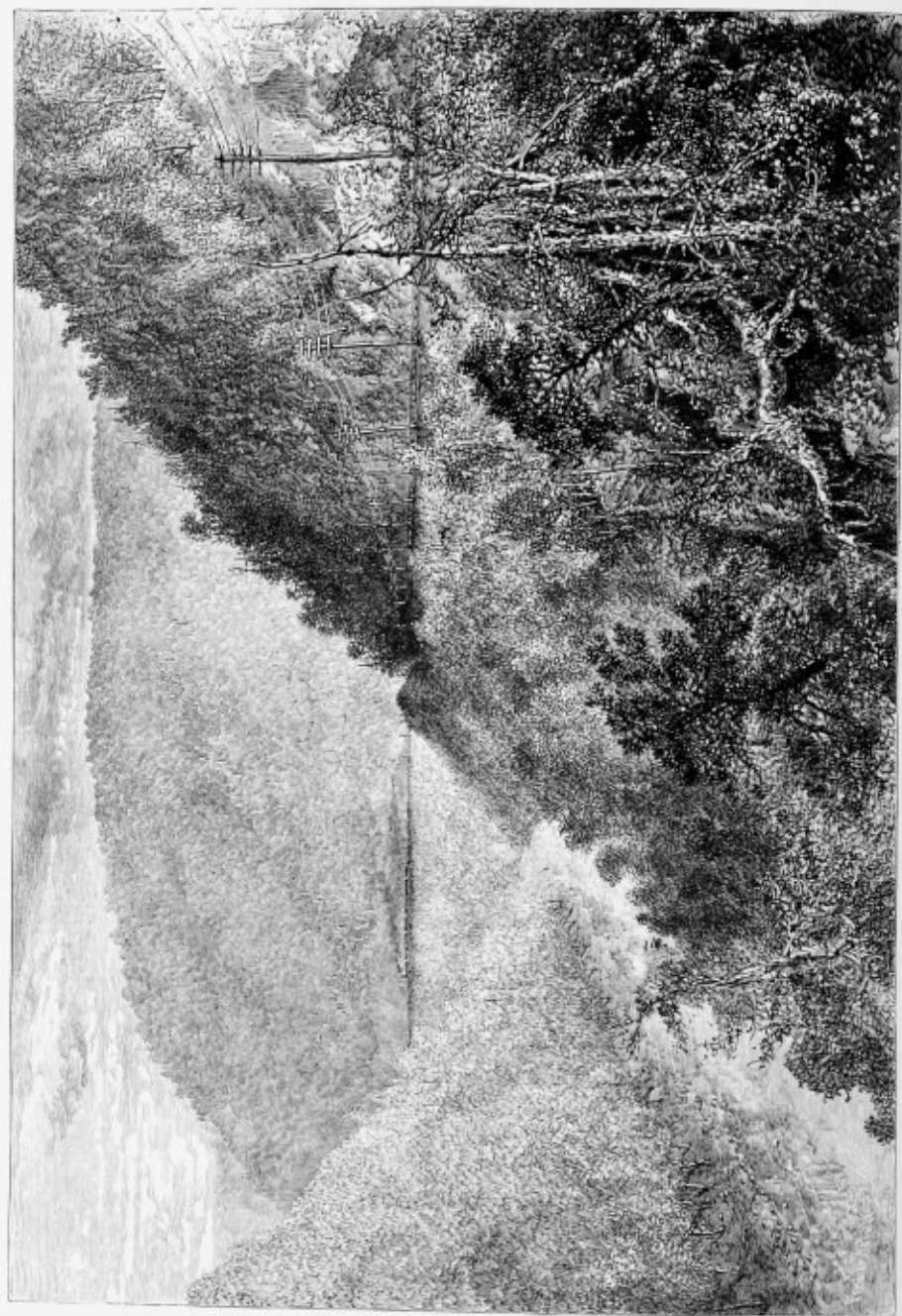
supposed to be at least thirty feet deep. Coal is worked in the vicinity for local use. The town contains two planing-mills, a grist-mill, two saw-mills, two churches, a public hall, and a hotel. Population about 200.

FLORENCE, two hundred and eighty-nine miles, is in the midst of a picturesque country, rich in minerals, and moderately fertile. It has been entirely built up by the railroad. Population, 333.

HOUSTON's, two hundred and ninety-one miles.

LOCKPORT, two hundred and ninety-four miles.—Works are in operation here for the manufacture of fire-brick and gas-retorts, employing about fifty hands. Coal is mined in the vicinity for home consumption. At this point the western division of the Pennsylvania canal crossed the Conemaugh on a beautiful cut-stone aqueduct, plainly seen from the railroad, standing as a monument to the enterprise of the past—the canal itself being abandoned. Population about 150.

BOLIVAR, two hundred and ninety-five miles.—The business of this station is the manufacture of fire-brick, about one hundred



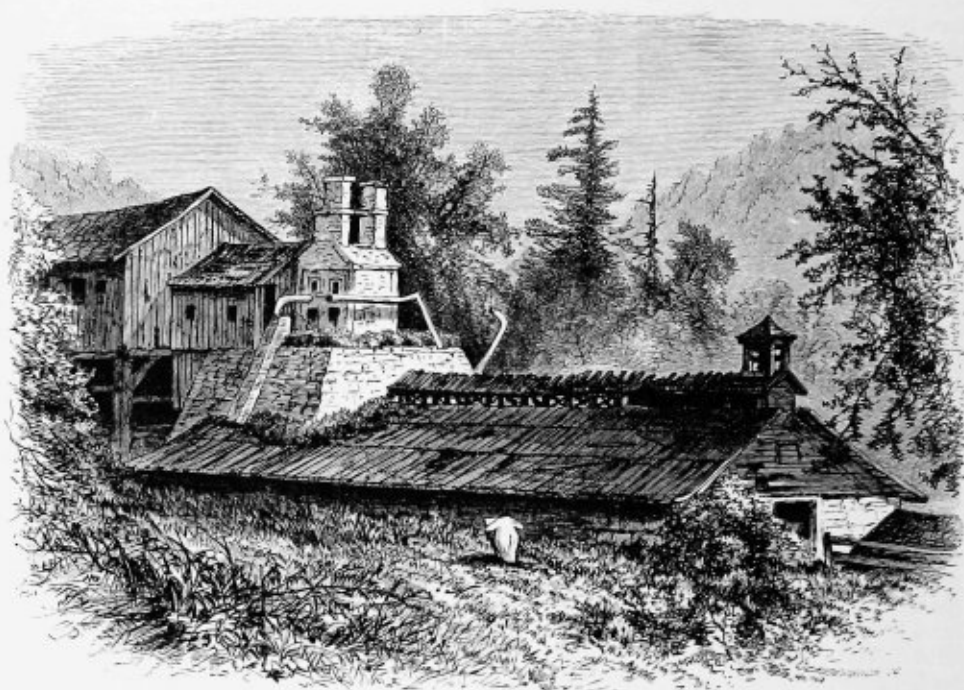
IN THE PACK-SADDLE, ON THE CONEMAUGH.

men being engaged in the work. Twenty thousand tons of clay are worked up here annually, and some two thousand tons shipped. Coal exists in unlimited quantity and of excellent quality. The town contains several churches, a public hall, two hotels, and a population of 298. Immediately after leaving this station the road enters the celebrated "Pack-saddle" Narrows of the Conemaugh. The scenery here is unsurpassed. Winding through the mountain ranges, with the sparkling river below and the wooded heights above, the gaze takes in picture after picture of nature's beauty. In the autumn, when the leaves have taken on the bright tints which, like the song of the swan, presage their death, the whole landscape is a panorama of gorgeous loveliness.

BLAIRSVILLE INTERSECTION, three hundred miles.—At this point the railroad emerges from the mountain ranges of Pennsylvania, which it entered at Rockville, where the great bridge carries it across the Susquehanna river, and through which it has run for a distance of one hundred and ninety miles. The country around this station is beautiful and well cultivated. Fire-clay and iron ore exist, but have not yet been brought into use. Two miles from the intersection, on the Western Pennsylvania Railroad, are the Isabella Coke Works, employing two hundred men. These works are on the banks of the Conemaugh, and, when their long lines of fire are seen through the shades of night, present a beautiful appearance. Population about 200. (Junction of Western Pennsylvania Railroad, running to Allegheny City. This road is virtually a stem of the Pennsylvania Railroad, and furnishes a third track, with its attendant facilities, from its terminus at Pittsburg, along the Allegheny and Conemaugh rivers. A branch from Blairsville runs to Indiana, the county seat of Indiana county, distance nineteen miles.)

HILLSIDE, three hundred and four miles.—A rural station, surrounded by a rich agricultural region, underlaid with coal. Near this station, in Chestnut ridge, is the "Great Bear Cave," a natural curiosity which attracts many visitors. Some of its peculiarities and wonders are thus described by one of a party of excursionists who penetrated its devious ways and mysterious chambers:—"Leaving the cars at Hillside, we set out on foot for the cave. After a brisk walk of about a quarter of an hour along a country road which penetrated the foot-hills of the

ridge, we struck out into a cow-path. This led us rather tortuously up the side of the mountain, over primitive boulders heaped together in the strangest confusion, across little mountain trout-streams, rippling over moss-covered rocks, and trickling in diminutive cataracts into gorges where the sun never penetrates. We finally reached the summit of one of the lower hills. In front of us towered a high peak of the ridge. Winding around the base of this, for the distance of fifty rods, our guide suddenly stopped in the midst of a huge pile of rocks and informed the party that we were at the mouth of the cave. Rocks to the right of us, rocks to the left of us; in front of us a solid wall of rock one hundred feet high, and below us—over the tops of the highest trees—we could see the valley of the Conemaugh away to the north and west. Just where we stood it seemed as if centuries ago some mighty convulsion had torn away a portion of the mountain and hurled the rocks in unutterable confusion at its base, where time had covered them with moss and beautified them with shrubs and wild flowers." Entering the cave through a fissure in the loose rocks, the exploring party proceeded on their way. Narrow passages in the rocks were threaded; low openings crept through; immense chambers, studded with stalactites and inhabited by bats, explored; and fathomless chasms crossed, where the sound of running water was heard far down in the darkness. Some of the large rooms visited were named "The Snake Chamber," "The Altar Room," and "The Senate Chamber," because of peculiarities they presented; and a clear, running stream of only a few inches in depth and a dozen feet wide was forded, the water of which was found to be cold and palatable, "with a strong odor of cinnamon." These explorations were continued for five hours, the party having traveled in that time, according to the twine they had used to guide them in the labyrinth, (and from the many windings and passage-ways it is not considered safe to penetrate any considerable distance without the use of this means of finding the outlet again,) nineteen hundred yards—something over a mile. "Perhaps the most remarkable feature about the cave," says the writer, "is the varied and diversified aspect of the different chambers and passage-ways, and the fact that the explorer is not confined to any particular route, but after entering for a distance of one hundred



OLD FURNACE ON THE CONEMAUGH.

yards is permitted to strike off at almost any point of the compass. You will find the routes invariably different in the nature of the openings, and that all the passages communicate with each other. There is a story told of a young girl becoming lost in it many years ago. She had been stolen from her home by a strolling band of gypsies, who had encamped in the neighborhood of the cave, and had visited it several times in company with them. She effected her escape from the gypsies by taking refuge in the cave. Penetrating to a great distance, and being unable to return, she perished of starvation. Her bones were found years afterwards."

MILLWOOD, three hundred and six miles.

DERRY, three hundred and eight miles.—Coal is mined near this station, and coke burned for shipment. Agricultural products are abundant and varied. The village contains four hotels. Population about 300.

ST. CLAIR, three hundred and ten miles.—A station for the accommodation of an agricultural population, at which there are several stores, shops, and minor manufactories. Coal is mined in the vicinity. Population about 125.

LATROBE, three hundred and thirteen miles, is built upon Loyalhanna creek, a tributary of the Kiskiminetas* river, in the midst of a fertile and highly cultivated valley. The town was laid out about 1851 by Mr. Oliver W. Barnes, a civil engineer, and improved rapidly. Recently the large deposits of coal in the surrounding country have commanded much attention, and heavy purchases have been made for development. Several coal and coke companies are now in operation—some of them on an extensive scale. The town contains car-works, a planing-mill, grist-mill, three banks, two public halls, seven churches, and good hotels. Near the station are St. Vincent's College, for males, and St. Xavier's Academy, for females. Population, 1127. A daily stage runs between Latrobe and Ligonier, distance ten miles.

BEATTY'S, three hundred and fifteen miles.—Near this station are a woolen factory, a brewery, three grist-mills, and several coal-mines. The surrounding country is

* The Kiskiminetas is a continuation of the Conemaugh—the name being changed at the confluence of the Loyalhanna.

highly productive. A select school and several churches are in the immediate vicinity. Population dependent on station, about 1600.

CARNEY's, three hundred and seventeen miles.

GEORGE's, three hundred and nineteen miles.

GREENSBURG, three hundred and twenty-three miles, is the seat of justice of Westmoreland county. This county was separated from Bedford by act of 26th February, 1773, and then embraced all of Western Pennsylvania. The soil is generally very fertile and highly cultivated, —some of the valleys being equal to any in the State. Almost the entire surface of the county is underlaid with bituminous coal of the finest quality, and some of the most extensive and profitable mining operations in the Union are located in its limits. These advantages naturally tend to concentrate wealth, and the county may safely be ranked among the richest in Pennsylvania. Westmoreland is beyond the mountain ranges which cover so large a portion of the State, —Chestnut ridge being the only one of any continuous prominence that intersects it. The waters of the Youghiogheny, the Kiskiminetas, the Loyalhanna, Big and Little Sewickley, Jacob's creek, Turtle creek, and other smaller streams, contribute to its fertility and beauty.

Previous to 1758 Westmoreland was a wilderness, known only to an occasional white trader and frontiersman. Access to the forks of the Ohio, where Pittsburg now stands, was by way of the Juniata and the Kiskiminetas, or by Braddock's road from Virginia, and thence down the Monongahela. The first opening through the wilderness of Westmoreland county was cut by General Forbes' army, in 1758, when the successful expedition was made against Fort Du Quesne. This expedition was mainly fitted out at Lancaster, and moved by way of the Cumberland valley to Bedford. While the principal army was delayed there, waiting for supplies, Colonel Bouquet pushed forward with two thousand five hundred men, cutting a road as he progressed, and



OLD SAW-MILL ON THE CONEMAUGH.

arriving at the Loyalhanna in September. Here he remained some time, and in October was attacked by the French and Indians, whom he repulsed. A second attack upon him was equally unsuccessful. The defensive works erected by him were afterwards strengthened and made a depot of supplies. This was named Fort Ligonier, and remained one of the chain of fortifications, extending from the Cumberland valley to the Ohio, until after the Revolutionary war. The town of Ligonier is built at the site of the fort.

Colonel Washington joined the forces at Ligonier in October, and was sent forward with a detachment to cut the road still further,—to throw up entrenchments where necessary for the protection of supply posts, and generally to operate as an advance of Forbes' army. His letters represent the force under him as "encountering every hardship that an advanced season, want of clothing, and a small stock of provisions" could expose them to. The main army reached Ligonier late in the same month, and, acting on information furnished by Washington, pushed on to Fort

Du Quesne, which they found abandoned by the French and Indians. The post was garrisoned by Forbes' men and named Fort Pitt, in honor of the prime minister of Great Britain.

The opening of this military road induced many pioneers to enter the country, and, under the protection of the military posts, they enjoyed, for five years, quiet and security. But in 1763 savage warfare again burst upon the region. In that year the great Pontiac, chief of the Ottawas and the prophet of the north-western tribes,—a man of remarkable influence and ability,—conceived the idea of annihilating all the English posts, from the lakes to the Ohio, in one day, by a treacherous and simultaneous attack. The war-belt was dispatched to all the surrounding tribes, the details of the plan were arranged, and the wily prophet appealed to the superstition of the savages by revealing a dream, in which the Great Spirit had said to him, "Drive them from the land! drive them from it! and when you are in distress I will help you." This attack, which had for its object the absolute extermination of the white settlers, as well as the destruction of the military posts, was promptly made, and for a time promised to be successful. Out of one hundred and twenty English traders among the Indians all were murdered but three. The frontier settlements were overrun with scalping parties, marking their tracks with blood and fire. The forts of Presque Isle, Le Boeuf, Venango, St. Joseph's, and Michilimackinac were taken and their garrisons slaughtered. Those of Bedford, Ligonier, Detroit, and Pitt were saved with great difficulty. Fort Pitt being considered too strong to be carried by assault, the savages attacked Fort Ligonier,—the intention being to capture it, cut off supplies and reinforcements from the east, and thus reduce the important frontier post on the Ohio. Lieutenant Blaine, the commander at Fort Ligonier, with his brave little garrison, gallantly repulsed the savage attack, and held the post until relief arrived from Bedford. Colonel Bouquet,* with two

regiments of regulars, sent to the rescue of Fort Pitt, reached Ligonier near the close of July. This brave officer—whose services on the colonial frontier were of the utmost value, being always characterized by prudence, tact, and indomitable energy—immediately pushed forward to the relief of Fort Pitt, leaving his wagons at Fort Ligonier. The savages, hearing of his advance, moved into the wilderness to waylay his command. At Bushy run they placed themselves in ambush for the advancing army, and here ensued one of the most desperate battles ever fought in Western Pennsylvania. For two days the Indians, in great force, well armed, and screened by the dense woods, harassed and assaulted the weary regulars of Bouquet. On every side the savages appeared in overwhelming numbers. When driven from one position they rallied in another, and it seemed as if the fate of Braddock was in store for the English. But their commander was a different man from the unfortunate general who sacrificed himself and his soldiers in the same wilderness some years before. He knew the character of his assailants, and he understood their mode of warfare. Arranging his command so as to draw the Indians into close quarters by simulating a retreat, the savages were defeated and driven from the field. Their loss was estimated at sixty men, among whom were some of their principal chiefs. The English loss was fifty killed and sixty wounded. Colonel Bouquet arrived at Fort Pitt four days after the engagement without further serious molestation from the enemy. Indian incursions and depredations continued to be made in South-western Pennsylvania until after the Revolution, but no general attack was waged by the savages after the Shawnee war in 1773.

The territory now embraced in the counties of Westmoreland, Washington, Fayette, Greene, and Allegheny, being claimed by both Virginia and Pennsylvania, grants of land were made by authority of both,—those from the proprietaries of Pennsylvania being dated only after the treaty of

* Henry Bouquet was born at Rolle, canton of Berne, Switzerland, in 1719. At the age of seventeen he entered the military service as a cadet in a Swiss regiment. From that he took service under the king of Sardinia, where he distinguished himself as lieutenant and adjutant. In 1748 he entered the service of the Dutch Republic, under the celebrated Prince of Orange, with the rank of lieutenant-colonel of the regiment of Swiss Guards. In 1754, on the breaking out of the war between England and France, he, at the solicitation of General Sir Joseph Yorke, accepted a commission in the corps of Royal Americans, which "was com-

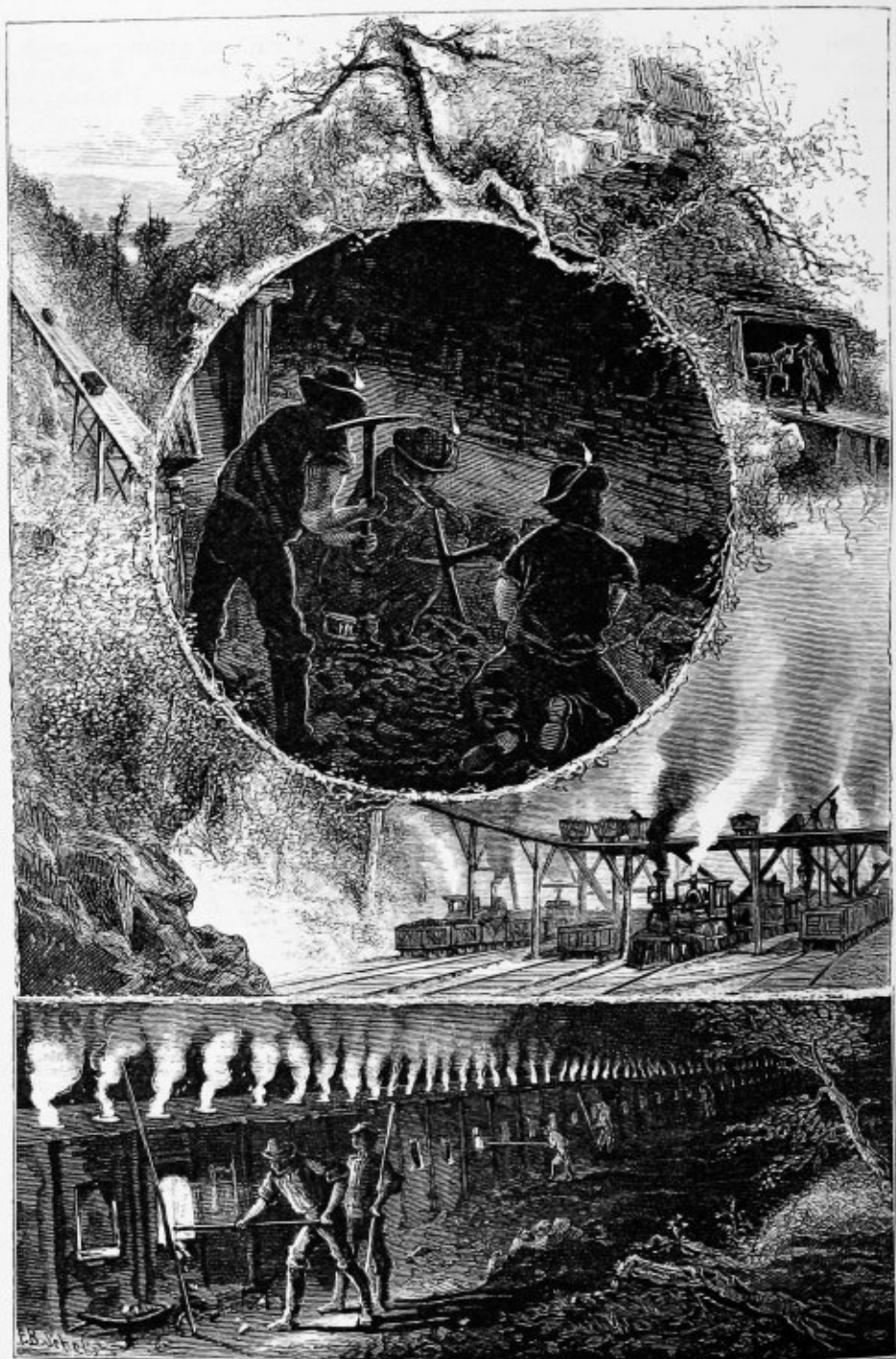
posed of three battalions, and the officers of which were to be Americans or foreigners, but in all cases men of experience and ability." In this corps he was given the rank of colonel. His services in Pennsylvania have repeatedly been referred to in the course of this work, and no soldier of the time stood higher in the estimation of the people of this colony and of Virginia. After peace was concluded he was promoted to brigadier-general and given command of all the British troops in the southern colonies. He died at Pensacola, Florida, in 1767. General Bouquet is described as a man of majestic stature, excellent abilities, and great learning.

Fort Stanwix, in 1768, had given them the Indian title to the soil west of the Alleghenies. Under these grants many settlers entered the country. Some came at an earlier period without any authority and built their cabins on the sites that suited them. When the authorities of Pennsylvania endeavored to remove these "squatters"—threatening the penalty of death, under a law passed for the purpose, to those who should settle upon unpurchased Indian lands—they found the pioneers unwilling to give up their homes. They could not see the offense they had committed by putting up cabins and clearing land for the shelter and support of their families, although the title to the soil was claimed by a tribe of Indians living hundreds of miles away. They remained, therefore, despite the warnings and threats, and they increased and multiplied. The treaty of Fort Stanwix obliterated the Indian claim, and the extension of Mason and Dixon's line in 1779 ended that of Virginia. The settlers were secured in the possession of their homes, and the origin of their claims was soon forgotten.

A large proportion of the settlers in Westmoreland county was of Scotch-Irish origin, and of more than ordinary intelligence and energy. They gave early attention to the subjects of education and religion, and churches and schools sprung up almost as soon as the cabins of the pioneers. Some of their ministers were men of great learning and eloquence, and these qualifications made them the more competent to discharge their duties among the intelligent people who surrounded them. These ministers endured all the hardships and privations of the new country, laboring with their hands as well as with their brains. One of them, a doctor of divinity, thus describes his early experiences:—"When I came to this country, (in 1788,) the cabin in which I was to live was raised, but there was no roof to it, nor any chimney or floor. We had neither bedstead, nor table, nor stool, nor chair, nor bucket. We placed two boxes, one on the other, which served us for a table, and two kegs served us for seats, and having committed ourselves to God, in family worship, we spread a bed on the floor and slept soundly till morning. Sometimes, indeed, we had no bread for weeks together, but we had plenty of pumpkins and potatoes, and all the necessaries of life; as for luxuries, we were not much concerned about them."

Among the earliest settlements made in the county was one about three miles north of Greensburg, known as Hanna's town. In 1773, when the county was created, this town consisted of about thirty habitations, most of them aspiring to the dignity of houses, being two stories in height and built of hewed logs. This was named as the place where the courts of the new county were to be held, and it was here that justice was first dispensed, according to legal forms, west of the Allegheny mountains. Arthur St. Clair,* afterward major-general in the Revolutionary army, was the first prothonotary and clerk of the courts, and the initial term opened in April, 1773. On the 16th of May, 1775, the inhabitants of Westmoreland assembled in public meeting here, and passed resolutions denouncing the British ministry as wicked, the parliament as corrupt, and pronouncing the acts against the colony of Massachusetts bay as "a system of tyranny and oppression," declaring that they "were ready to oppose them with their

* Gen. Arthur St. Clair was born in Edinburgh, Scotland, and accompanied the fleet of Admiral Boscawen to America in 1755. He was a lieutenant in the British army under General Wolfe. When the French war closed, he was assigned to the command of Fort Ligonier, and received a grant of one thousand acres of land in that vicinity, which he fancifully chose to locate in a circle. Here he settled, after having resigned his commission, and was appointed to several civil offices under the government of Pennsylvania. At the commencement of the Revolution he espoused the American cause, and in January, 1776, was appointed to the command of a battalion of Pennsylvania militia. He was engaged in the expedition to Canada, participated in the battle at Trenton, and, it is claimed, suggested the attack on the British at Princeton, which proved so fortunate. In August, 1776, he was appointed a brigadier, and in February, 1777, a major general. He was the commanding officer at Ticonderoga, when invested by the British, and evacuated it, July 6th, 1777, carrying away a considerable part of the public stores. For his conduct here charges of cowardice, treachery, and incapacity were preferred against him, but he was honorably acquitted by a court of inquiry. He afterward joined the army under General Greene, in the south, and at the close of the war returned to his home in Pennsylvania. In 1783 he was a member of the executive council of Pennsylvania. In 1785 he was elected to Congress, and in 1787 was chosen president of that body. In October of the same year he was appointed governor of the territory of the United States north-west of the Ohio, which office he held until 1803. In 1790 he was the candidate of the Federal party for governor of Pennsylvania, but was defeated by General Mifflin. In 1791 he commanded an army against the Miami Indians, and was defeated on the 4th of November, with a loss of more than six hundred men. For this failure—a very important one at the time—he was much censured by the public, but a committee of inquiry of the National House of Representatives acquitted him from all blame. He resigned his commission as major-general in 1792. He became reduced in his old age to poverty, and applied to Congress for relief. His claims on the sympathy of his country were listened to with indifference, and admitted with reluctance. After a long suspense, he was granted a pension of sixty dollars per month. He died August 31st, 1818, in his eighty-fourth year, and his remains repose in the Presbyterian churchyard, at Greensburg, beneath a monument erected by the Masonic fraternity in 1832. On the south side of this monument is inscribed—"The earthly remains of Major-General Arthur St. Clair are deposited beneath this humble monument, which is erected to supply the place of a nobler one, due from his country." He died August 31st, 1818, in the eighty-fourth year of his age." On the north side—"This stone is erected over the remains of their departed brother by members of the Masonic society."



COAL-MINING AND COKE-BURNING.

lives and fortunes." This town was attacked by the savages on the 13th of July, 1782, a number of its inhabitants murdered, many others carried off captive, and the place entirely burned. Those of the citizens who escaped took refuge in a fort, which the savages feared to attack. The town was never rebuilt. The lots which composed it were sold or abandoned, and became merged in the adjoining farms. Years of cultivation have obliterated all traces of the early settlement which promised so well—nothing remaining but its melancholy history. The prisoners taken at the burning of Hanna's town were conveyed to Canada, and there surrendered to the British. Here one of them, a young lady, was wooed and married by a British officer. The others were, after the peace of 1783, delivered up and returned to their friends.

After the Revolutionary war Westmoreland increased steadily in population and wealth, but her progress was not rapid. It required the construction of railroads to develop her immense latent resources, and since these have been built her onward march has been wonderful. Her coal deposits have attracted capital from a distance, and her lands to-day are probably worth more per acre than those of any other county in the State. In every portion mines are being developed and miles of coke-ovens erected. Other industries are growing with similar rapidity, and it is fair to presume that the present decade will surpass, in the development of her wealth, any fifty years of her previous history. Population, 58,719. Value of agricultural productions, \$4,176,690. Number of manufacturing establishments, 390; hands employed, 1146; wages paid, \$275,058; capital invested, \$1,614,225; materials used, \$1,649,660; value of products, \$2,592,487. Bituminous coal-mines, 19; hands employed, 1559; wages paid, \$779,690; capital invested, \$2,209,350; tons produced, 755,460; value, \$1,127,490.

Greensburg, named after General Greene, of the Revolutionary army, is built upon a hill, in the midst of a rich and beautiful limestone country. The court-house and other prominent buildings occupy the summit of this hill, along which the main street is carried. It was laid out soon after the burning of Hanna's town, and incorporated in 1779. For many years its progress was slow, as it possessed no manufacturing

facilities, and the local trade was not sufficient to stimulate it. Since the completion of the railroad it has improved rapidly. Its population has long been noted for intelligence and refinement, and some of its citizens have deservedly ranked among the most prominent men of the Commonwealth. The town contains seven churches, two banks, fine schools, an opera-house, two public halls, several good hotels, and some minor manufactories. Considerable merchandising is done with the surrounding country. Coal and coke works exist in the immediate vicinity. Population, 1642. A daily stage line runs to Salem, distance eight miles. (Junction of South West Pennsylvania Railroad, running to Connellsville, distance twenty-four miles, where connection is made with the Pittsburgh, Baltimore and Washington Railroad.)

RADEBAUGH'S, three hundred and twenty-five miles.

GRAPEVILLE, three hundred and twenty-six miles.

PENN, three hundred and twenty-eight miles.—The business of this station is principally mining and shipping coal. Here the first works are reached which, since the completion of the railroad, have mainly supplied the eastern towns and cities with the material for the manufacture of illuminating gas, and the extent to which this business has, in less than a score of years, grown, can hardly be realized. All the country surrounding this station is underlaid with the finest quality of bituminous coal, and the deposit extends west and south to the valleys of the Monongahela and Allegheny rivers. Mining is done by shafting, the coal being lifted to the surface by steam-power, and immediately loaded into cars for shipment. Branch roads are constructed by the large companies to the points where their shafts are opened, and these branches are extended from year to year as the coal is exhausted. The shipment from Penn by two companies amounts to more than three hundred thousand tons annually, employing six hundred men. The borough contains two churches, a hall for the use of secret societies, several hotels, and a number of stores, shops, etc. Population, 820.

MANOR, three hundred and thirty miles.—This station is so named from the fact that it is located upon one of those large tracts of

land, called manors, reserved by the Penns as private property, and marked out as such while they still retained proprietorship of Pennsylvania.

The royal charter vested in William Penn and his heirs absolute ownership of the soil of Pennsylvania, and from the date of the charter to July 4th, 1776, all titles had to be derived from the Penn family. Some forty-four manors had, previous to the Declaration of Independence, been selected and surveyed as properties reserved by the Penns exclusively, and by such survey were excepted from the regulations governing the sale and settlement of other portions of the colony. Lands included in these manors were disposed of privately by the agents of the proprietaries, and were made available for settlement, in some instances, by the location of towns, military posts, etc., most of those in the eastern portion being thus disposed of before the colony declared itself independent of proprietary or British control. William Penn, by his will, left to each of his children ten thousand acres of land in Pennsylvania, and at various times members of the family had portions of land assigned them. These were known as "the private estates," and as such are referred to in early acts of the State legislature.

On the 27th of November, 1779, a law was enacted providing that, in consideration of the sum of one hundred and thirty thousand pounds sterling, to be paid to the heirs of William Penn out of the treasury of the State, all proprietary rights should be vested in the Commonwealth, saving and excepting all the "private estates, lands, and hereditaments of any of the said proprietaries, whereof they are now possessed, or to which they are now entitled, in their private several right or capacity, by devise, purchase, or descent; and likewise all the lands called and known by the name of the proprietary tenths or manors, which were duly surveyed or returned into the land office on or before the fourth day of July, in the year of our Lord one thousand seven hundred and seventy-six, together with the quit or other rents and arrearages of rents reserved out of the said proprietary tenths or manors, or any part or parts thereof which have been sold." These fair and liberal provisions confirmed to Penn's heirs immense and valuable properties, which from time to time were sold, until now it

is questionable whether any portion of it remains in their possession.*

The country around Manor station is rich and highly cultivated, large shipments of grain and live-stock being made from here eastward. Coal is extensively mined in the vicinity. The village is not incorporated, and contains a population of about 300.

SHAFTON, three hundred and thirty-one miles.

IRWIN, three hundred and thirty-two miles.—This station is the centre of immense coal operations. Three companies,—the Penn Gas, the Westmoreland, and the Shafton,—whose works are within a radius of ten miles, employ not less than a thousand men

*The manors and lands confirmed to the heirs of Penn by the act of November 27th, 1779, were, according to the records of the land office, the following. (Maps of thirty-seven of these are preserved among the Penn papers now in possession of the Historical Society of Pennsylvania.)

MANORS.

Name.	Acres.	County.
Springettsburg.....	1,840	Philadelphia.
Springfield.....	4,010	Philadelphia.
Gilbert's.....	4,095	Philadelphia(now Montgomery).
Calowhill.....	5,000	Chester.
Amorland of Bilton..	2,850	Chester.
Letitia Aubrey's.....	5,000	Chester.
William Penn.....	5,000	Chester.
Faggs.....	7,175	Chester.
Springton.....	10,000	Chester.
Highland.....	7,750	Bucks.
Richland.....	16,749	Bucks.
Pennsbury.....	8,431	Bucks.
Perkissay or Perkaise	11,462	Bucks.
Wallenpaupack.....	12,150	Bucks (now Wayne)
Ruscomb.....	10,000	Berks.
Tulpehocken.....	7,510	Berks.
Antolthoug.....	5 w'ts of R. Penn	Lancaster.
Conestoga.....	16,000	Lancaster.
Charles Fell's.....	10,000	Lancaster.
Freame's.....	10,000	Lancaster (now Schuylkill).
Hempfield.....	2,816	Lancaster.
Little Swatara.....	5,000	Lancaster (now Schuylkill).
Souther.....	7,557	Cumberland.
Maske.....	(15,000)	York (now Adams).
Yorktown.....	421	York.
Springettsburg.....	64,520	York.
Lechawaxin.....	80,000	Northampton (now Pike)
Stoke.....	9,800	Northumberland.
Sunbury.....	20,000	Northumberland.
Amsterdam and Rotterdam.....	2,770	Northumberland.
Pomfret.....	4,766	Northumberland.
Muncy.....	1,802	Northumberland (now Lycoming).
Dundee.....	3,520	Northumberland (now Bradford).
St. David's.....	3,092	Northumberland.
Penn Grove.....	4,545	Northumberland.
Kittanning.....	3,960	Westmoreland (now Armstrong).
Denmark.....	4,861	Westmoreland.
Penn's Lodge.....	5,568	Westmoreland.
Pittsburg.....	5,766	Westmoreland (now Allegheny).
Cherry Hill.....	1,202	Westmoreland (now Indiana).
Chest.....	1,123	Westmoreland (now Cambria).
Nottingham.....	1,035	Westmoreland (now Washington).
Bedford Fort.....	2,810	Bedford.
Sinking Valley.....	9,056	Bedford (now Blair).
	421,015	

and ship annually more than a million tons of coal. The land overlying the coal-beds here is fertile and well cultivated, and numerous villages have sprung up in the vicinity to accommodate the mining population. Irwin contains four churches, a large public school-house, a private banking-house, two public halls, and several hotels. Population, 833.

LARIMER, three hundred and thirty-three miles.—Coal-mining is the principal business here, and coke-works are in operation. The village contains a flour-mill, several stores, and two hotels. Population about 250.

CARPENTER, three hundred and thirty-five miles.

STEWART'S, three hundred and thirty-seven miles.

WALL'S, three hundred and thirty-nine miles, is the limit for the local accommodation trains from Pittsburg, eighteen of these passing daily between that city and this station.

TURTLE CREEK, three hundred and forty-one miles.—This station is the first reached

in Allegheny county. Coal-mines are in operation here, employing some six hundred men. The settlement contains three churches, a public hall, two hotels, and a population of about 2000.

BRINTON, three hundred and forty-two miles.—Coal-mines are worked in the neighborhood, employing about seventy-five men. There is no town, the population in the vicinity of the station amounting to some 250. Twenty-four accommodation trains run between this station and Pittsburg daily. (Junction of branch road connecting with the Pittsburg, Baltimore and Washington Railroad, and also with the Pittsburg, Virginia and Charleston Railroad.)

McKINNEY'S, three hundred and forty-three miles.

BRADDOCK'S, three hundred and forty-four miles.—This station is so named from its location on the spot where General Braddock was so signally defeated by the combined French and Indians, on the 9th of July, 1755. No event in colonial history was more disastrous in its consequences, both to those engaged in it and to the settlers on the frontiers of Pennsylvania and Virginia, and none has been the subject of more historical comment, than this defeat. The expedition was fitted out, under command of Major-General Edward Braddock, to move against Fort Du Quesne. It consisted of two regiments of British regulars—the Forty-fourth and Forty-eighth—and about a thousand provincial troops, principally Virginians, who rendezvoused at Fort Cumberland, where Cumberland, Maryland, now stands, and marched from there on the 8th of June. The expedition was well equipped, carried with it both heavy and light artillery, a large supply of ammunition and provisions, and entered upon the campaign confident of victory. Dr. Franklin, then postmaster-general of the provinces, by his individual exertions and by pledging his private means to pay for them, had induced the farmers of Lancaster, Cumberland, and York counties, in Pennsylvania, to furnish the trains and pack-horses necessary to transport the *impedimenta* of the army. Cutting its way through a hitherto unbroken wilderness, the expedition progressed slowly, and in thirty days found its advance within ten miles of its objective point.

Braddock was repeatedly cautioned as to the danger which threatened him from the

LANDS.

Name.	Acres.	County.
Safe Harbor.....	2,222	Wayne.
Damascus.....	4,390	Northumberland.
.....	2,770	Wayne (formerly Northumberland).
William Penn, Jr.....	5,214	Wayne.
The Meadows.....	3,032	Wayne (formerly Northumberland).
The Mill-Seat.....	999	Wayne (formerly Northumberland).
Duck's Harbor.....	510	Wayne (formerly Northumberland).
Fox Harbor.....	1,649	Wayne (formerly Northumberland).
Beaver Harbor.....	665½	Near line of Carbon and Luzerne.
Cowpasture.....	3,603	Schuylkill.
Pleasant Garden.....	20,948	Wayne.
Sandy Run.....	1,280	Wayne.
Terrapin Harbor.....	839½	Near line of Luzerne and Carbon.
Brewer's Den.....	312	Wayne.
Shohocking.....	520	Wayne.
Elk Forest.....	11,526	Wayne.
.....	12,200	Berks.
.....	549	Berks and Lancaster.
.....	1,272	Dauphin.
The Indian Landing.....	1,866	Susquehanna.
Crooked Dale.....	1,026	Susquehanna.
Job's Discovery.....	1,615	Lycoming.
.....	2,571	Huntingdon.
Highland.....	763	Huntingdon.
.....	2,473½	Huntingdon.
.....	1,407	Blair.
.....	466	Huntingdon.
Lake Paupunaumung	215	Monroe.
Vineyard.....	2,000	Sixty miles from Philadelphia.
Manors.....	88,997	
	421,015	
Total.....	510,012	

The names of many of these manors and tracts are perpetuated in existing townships, towns, and settlements. In the tables perches are omitted.

treacherous character of Indian warfare, and warned to be on the alert for an ambushed enemy. Colonel George Croghan, Indian agent of the province of Pennsylvania, volunteered to accompany him with a hundred scouts and beat the woods in his advance for the foe. But Braddock declined the offer. He was "naturally haughty, imperious, and self-complacent, disdaining to receive counsel from his subordinates, and, what was less excusable in a general, despising his enemy."

On the day of the battle the advance brigade of Braddock's army crossed the Monongahela river at the point directly opposite the railroad station. At that time the river was shallow and easily fordable, the present volume of water being caused by a dam of the Monongahela Navigation. General Washington, who accompanied this expedition and acted at the time as aide-camp to the commanding general, was often heard to say "that the most beautiful spectacle he had ever beheld was the display of the British troops on this eventful morning. Every man was neatly dressed in full uniform; the soldiers were arrayed in columns and marched in exact order; the sun gleamed from their burnished arms; the river flowed tranquilly on their right, and the deep forest overshadowed them with solemn grandeur on their left. Officers and men were equally inspirited with cheering hopes and confident anticipations." No sooner had the advance of this splendid column crossed the river and ascended the low range of hills along which the railroad is constructed, than they were attacked by an unseen foe. They became panic-stricken, and fell back in the wildest disorder upon those who were hastening to their assistance. All soon became a scene of inextricable confusion. Braddock and his officers did everything in their power to rally the terror-stricken soldiers, but all in vain. One after another these brave leaders fell, until forty of them were either killed or wounded. Braddock himself—who would not order a retreat or permit his men to seek cover—received a shot through his right arm, the ball entering his lungs, and was carried from the field. He had behaved with the greatest bravery, having five horses killed under him. All the superior officers being then dead or disabled, Washington rallied the remnant of the army and retired with them to the position occupied by Colonel Dunbar, who com-

manded the reserve brigade, and was some distance in the rear at the time of the engagement. The conduct of the British regulars was commented on at the time in the bitterest terms by Washington. In a letter, quoted by Sparks, he says:—"The dastardly behavior of the regular troops exposed those who were inclined to do their duty to almost certain death; and at length, in spite of every effort to the contrary, they broke and ran like sheep before hounds, leaving the artillery, ammunition, provisions, baggage, and, in short, everything, a prey to the enemy." Washington, although ill and weak at the time, conducted himself with great bravery. A British officer, who was wounded in the engagement, writing to his friends at home, says:—"Mr. Washington had two horses shot under him, and his clothes shot through in several places, behaving the whole time with the greatest courage and resolution." Colonel Dunbar, deeming it impossible to continue the expedition in its then demoralized condition, burned his superfluous provisions, stores, and ammunition, buried some of his heavy cannon, and returned to Fort Cumberland. In addition to the loss of officers already stated, the British killed and wounded in the engagement was stated by Colonel Dunbar at seven hundred.

Braddock was carried by his retreating soldiers for four days, when he died from his wounds, and was buried in the centre of the road his advancing army had cut. To prevent the discovery of his grave, and to save the body from dishonor at the hands of the savages, soldiers, horses, and wagons passed over it. The location of this grave was well marked on the surrounding trees, and some fifty years ago a party of laborers engaged in repairing the old road disinterred some bones, with sundry military trappings, which were known by old settlers to be those of the unfortunate general.

The assertion has repeatedly been made, and supported by witnesses, that Braddock was shot by one of his own men. Tom Fausett, who is described as having been a man of gigantic frame and half-civilized propensities, who spent most of his life as a hermit among the mountains of Fayette county, living upon the game he killed, did not hesitate to avow that he shot Braddock in the engagement, declaring that he did so to save what was left of the army. During the fight Braddock issued an order that the

men should not protect themselves behind trees. Joseph Fausett took such a position, when Braddock, seeing him, rode up and struck him down with his sword. Tom Fausett saw this, and shot the general. Such was the account current when actors in the drama yet lived, and it is plausible enough to be true.

The French and Indians in this engagement were commanded first by Captain Beaujeau, who planned the expedition to meet Braddock, and who was killed early in the fight, and after his death by Captain Dumas. Captain Lignery also participated in it, together with four lieutenants, six ensigns, and two cadets. Dumas afterward became the commander of Fort Du Quesne. The force engaged against the British and American was two hundred and fifty French and Canadians, and about six hundred Indians.

During the "Whisky Insurrection" the malcontents, to the number of seven thousand, assembled, where this station now stands, under arms and marched to Pittsburgh. This demonstration was made to show their strength and overawe the authorities. No act of violence was perpetrated, and the force quietly dispersed.

Near this station the Bessemer Steel Company have erected a very extensive establishment named, in honor of the late president of the Pennsylvania Railroad, the "Edgar Thomson Steel Works."

COPELAND, three hundred and forty-four miles.

HAWKINS', three hundred and forty-five miles.

SWISSVALE, three hundred and forty-six miles.—The extensive works of the Allegheny Car and Transportation Company are located here.

WILKINSBURG, three hundred and forty-seven miles.—This station is immediately outside the corporate limits of the city of Pittsburgh. It is in the midst of a rich agricultural region, where market-gardening is an extensive industry. Coal-mines are worked in the vicinity, employing near three hundred men, and shipping about four hundred thousand tons annually. The adjacent country improves rapidly,—many handsome residences being erected each year by citizens of Pittsburgh. The settlement is unincorporated, and contains a population of about 1100. Twenty-eight local accommodation trains run between this station and Pittsburgh daily.

HOMEWOOD, three hundred and forty-eight miles.

LIBERTY, three hundred and forty-nine miles.—The wonderful growth of Pittsburgh, within the last few years, has absorbed this station, as well as many more of its suburbs. This is the location of the extensive stock-yards and car-shops of the Pennsylvania Railroad Company. Many handsome suburban residences are in the vicinity, and the growing city is rapidly converting the beautiful open country into compactly-built squares of houses. The Pennsylvania Female College and the Shakespeare Gardens—a summer resort—are located here. (Further details of its history and industries will be embraced in the sketch of the metropolis of Western Pennsylvania.)

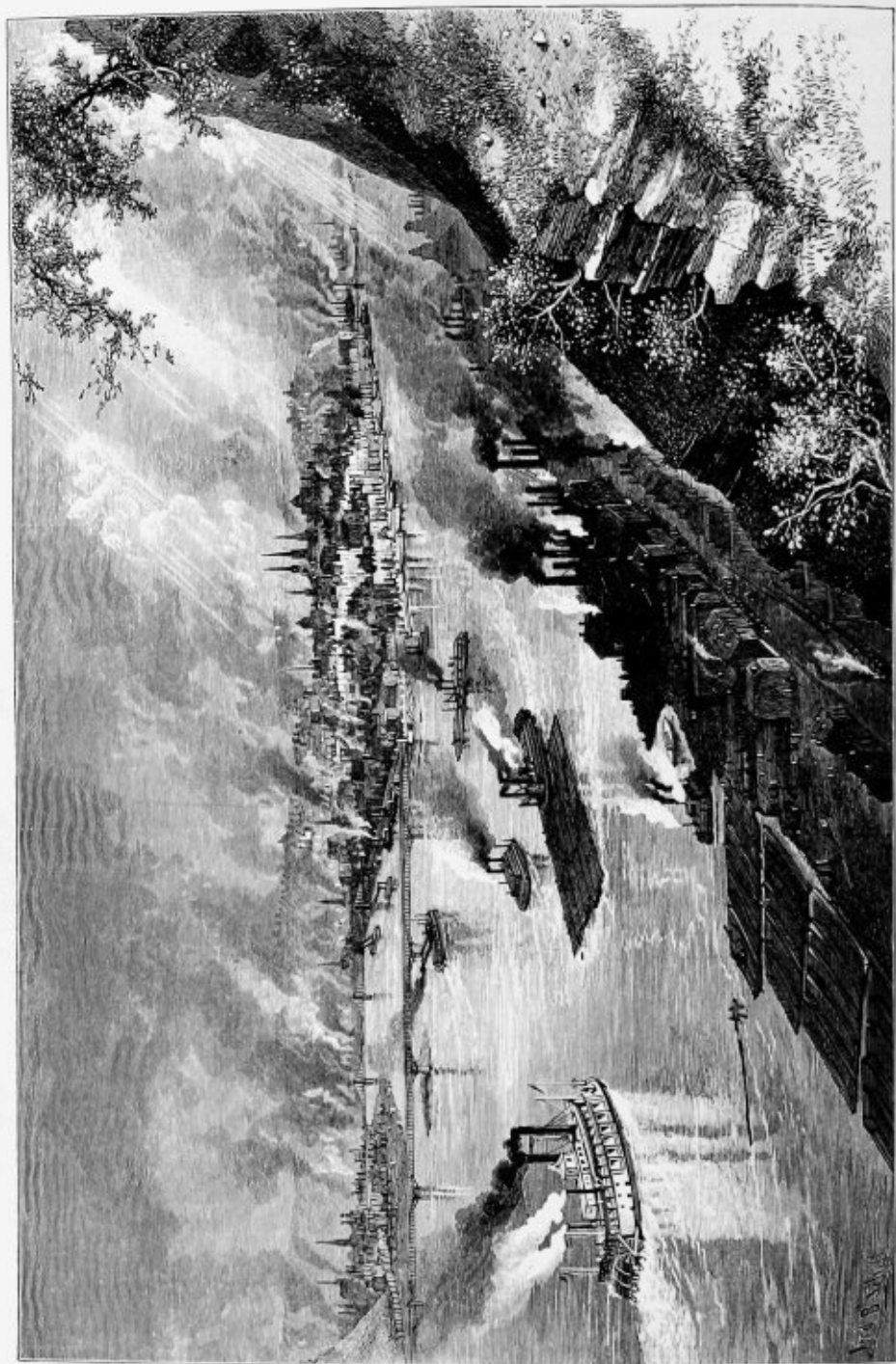
SHADYSIDE, three hundred and fifty miles.

MILLVALE, three hundred and fifty-one miles.

LAWRENCEVILLE, three hundred and fifty-two miles.

PITTSBURG, three hundred and fifty-four miles.—Seat of justice of Allegheny county and western terminus of the Pennsylvania Railroad. Allegheny county was formed out of part of Westmoreland, by act of September 24th, 1788, and in 1789 a small addition was made to it from Washington. The surface of the county is undulating, and near the Monongahela and Allegheny rivers hilly,—many of the elevations being precipitous and of considerable altitude. In the bottoms, formed by the numerous streams which intersect it, the soil is fertile, and some good farming land exists on the hills. The county is peculiarly healthy—its elevated position permitting excellent drainage—and many portions of it are picturesque, affording natural vistas as beautiful as they are striking. But great as are the commercial and agricultural advantages enjoyed by the county, they are entirely surpassed by its mineral wealth. "The richest gifts of nature," says an historical writer, "seem to have been bestowed by Providence upon this region; and the art of man has been most diligent in advancing the works of nature and developing her latent sources of wealth."

The French are unquestionably entitled to the credit of having first explored the valley of the Mississippi and its tributaries, from the lakes to the Gulf of Mexico. Pushing westward from the St. Lawrence, their military leaders and missionaries became



PITTSBURG—VIEW FROM COAL HILL.

familiar with the great lakes and the Indians who resided upon or visited their shores. Securing the confidence of these aborigines, they undertook, with their assistance, the most stupendous journeys into the unknown wilderness, establishing, at many places, military stations and missionary posts which still preserve the names then given them. Fathers Joliet and Marquette explored the upper portion of the Mississippi and its northern tributaries as early as 1670. La Salle, a Canadian, accompanied by Father Hennepin, commenced a tour of exploration southward from Lake Erie in 1679. These explorations were continued until the mouths of the Mississippi were reached, and a chain of fortifications erected extending from Quebec to New Orleans. In 1730 they had visited and, it is asserted, erected a post of some kind where Pittsburg now stands.

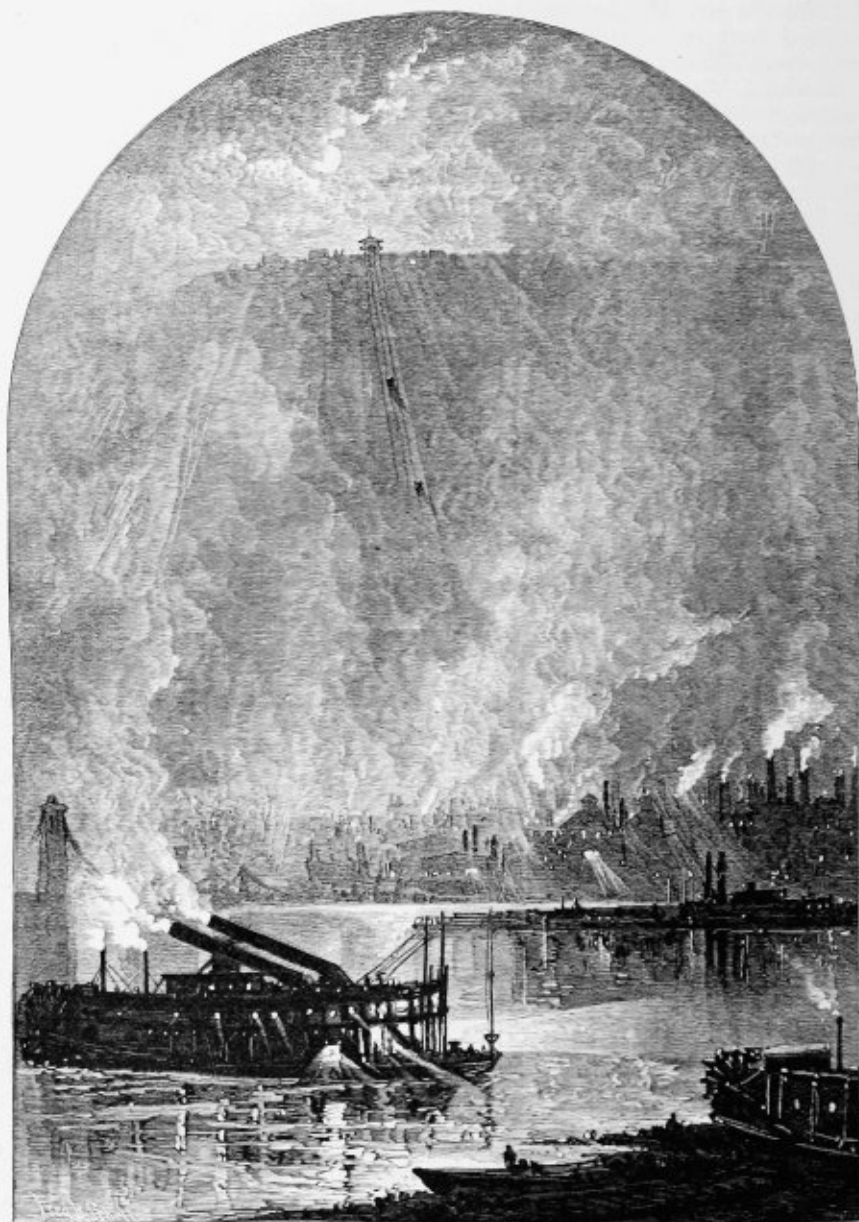
According to the most reliable historical accounts, the first effort at planting an English settlement in this region was made in 1748. In that year Thomas Lee, one of his majesty's council in Virginia, formed the design of effecting a settlement in the wild lands west of the Allegheny mountains, through the agency of an association of gentlemen. This association was called the "Ohio Company," and consisted of Thomas Lee, Lawrence and Augustine Washington, (brothers of General Washington,) a Mr. Hanbury, of London, and nine others. The king granted to the company five hundred thousand acres of land, on the condition that two hundred thousand acres should be immediately selected, and should be held, for ten years, free from any quit-rent or tax to the king, on condition that one hundred families be seated upon them within seven years at the company's expense, a fort built, and a garrison maintained sufficient to protect the settlement. Under this authority the company commenced operations. In 1750, Christopher Gist—an intelligent and brave pioneer—was sent out to explore the country and make a report. Mr. Gist appears to have spent nearly two years in traveling over the region, visiting in that time Western Pennsylvania, Western Virginia, and portions of what are now the States of Ohio, Kentucky, Tennessee, and North Carolina. His journal was, thirty years ago, in possession of a gentleman in Virginia. In July, 1752, he, on the part of the company, and three commissioners

representing the province of Virginia, concluded a treaty with the Indians, at Logstown, (fourteen miles below where Pittsburg now stands,) by which the latter agreed not to molest the settlements of the company south-east of the Ohio, but refused to recognize any English title to the lands. At this council two old chiefs, through an interpreter, asked Mr. Gist "where the Indians' land lay?—for the French claimed all the land on one side of the Ohio* river, and the English on the other." The question was one which it would have puzzled the wariest diplomat to answer.

Soon after this treaty, Mr. Gist built a cabin in what is now Fayette county, and induced eleven families to settle around him. Efforts were made to settle the lands of the company with German emigrants, but the intolerant system of English episcopacy which then prevailed in Virginia, extorting church-rates from dissenters, was repulsive to the Germans, and they preferred the toleration guaranteed under the government of Penn. The company appears to have erected a storehouse at the mouth of Redstone creek, in Fayette county, and probably had a small establishment at the forks of the Ohio; but the disturbed state of the frontier prevented them from bringing any large amount of goods west of the Alleghenies. The French war entirely ended their operations, and in 1770 the company was merged in a more extensive one, in which Dr. Franklin and others were interested. The Revolution destroyed this enterprise also, and with it ended all private schemes for the colonization of the region.

The efforts made by the "Ohio Company" to secure the lands granted and plant colonists upon them, contributed materially toward imparting an accurate knowledge of the country around the forks of the Ohio to the English settlers in the east and in the mother country. Gist's explorations have already been referred to, and in 1753 another was made by a man whose name can never be forgotten. During the summer of that year accounts were received that a

* The names of the three rivers at Pittsburg are undoubtedly Indian, but their meaning is variously given. That of the *Ohio*—pronounced O-hee-o, in the Seneca language—means "fair water," or "fair to look upon," and was translated by the French into "La Belle Riviere," signifying "the beautiful river." *Allegheny*, in the language of the Delawares, had the same signification, and by the early explorers this river and the Ohio were considered the same. *Monongahela* is said to be a combination of Indian terms, meaning, according to some, "falling-in banks" and, according to others, "a river without islands."



MOUNT WASHINGTON BY MOONLIGHT, PITTSBURG.

French force had arrived at Presque Isle, on their way to the Ohio, and in October, George Washington, then but twenty-one years of age, was sent as a messenger on the part of the company, to proceed to the French commandant, wherever he might be

found, and demand information as to the object of the expedition. On the 23d of that month he arrived at Mr. Gist's residence, and was from there accompanied by the pioneer as a guide. He found the French commandant at Fort Le Bœuf, on

French creek, about one hundred and fifty miles north of the present site of Pittsburg. From this officer he received a very unsatisfactory answer, which he, without delay, reported to Governor Dinwiddie, of Virginia. It is necessary to remember that the whole valley of the Monongahela, including the country around the forks of the Ohio, was at this time and for many years after claimed as being in Virginia,—Pennsylvania not then having pushed her settlements or her jurisdiction west of the Alleghenies.

Governor Dinwiddie at once took steps to repel this French encroachment, and a regiment was raised, under command of Colonel Fry, of which Washington was appointed lieutenant-colonel, for the purpose of resisting this advance and erecting a fortification at the forks of the Ohio. A small party was sent forward to commence the fort at the junction of the Allegheny and Monongahela rivers, and was engaged at the work when, on the 17th of April, 1754, a motley host of more than a thousand French and Indians, with sixty bateaux, three hundred canoes, and eighteen pieces of cannon, all under command of Monsieur Contrecoeur, arrived upon the spot and ordered them to desist. Ensign Ward, with his forty-one Virginians, could make no resistance to such a force, and, after brief negotiations, he surrendered the post, being permitted by the French commander to march away with all his men and materials. The seizure of this fort was the first overt act of hostility in a war which raged, in Europe and America, for seven years. The French commander at once proceeded to erect Fort Du Quesne, while the Americans, under Washington, (Colonel Fry not yet having joined the troops at Fort Cumberland,) set out on a campaign against them. This campaign demonstrated fully Washington's military genius and capacity; and although it terminated, three months afterwards, in his capitulation at Fort Necessity, it left him without a stain, and secured him the confidence and admiration of his countrymen.

Fort Du Quesne remained in possession of the French but four years, and was then given up, with all the country around it, to English authority. During those years of war it was the source of many miseries to the settlers in Pennsylvania. Indian bands were furnished with arms and ammunition by the French authorities there, and encouraged

to make those raids upon the frontiers which desolated many homes and marked many hearths with blood. Its walls were frequently illumined by the immolating fires of the savages, and its echoes often awakened by the agonized screams of tortured prisoners, mingled with the yells of the fiends who danced around them. But French tact and Indian cruelty were alike fruitless to stem the tide of progress, and when General Forbes' army arrived there, on the 25th of November, 1758, they found it partially burned, and its former occupants gone, never to return.

An incident connected with Forbes' expedition is worthy of detail here. When the army was at Raystown, (where Bedford now stands,) Major Grant, of the British regulars, was sent forward with eight hundred men as an advance. Anxious to distinguish himself, he pushed on with his command, arriving in sight of Fort Du Quesne on the 13th of September. Here he encamped on the hill, now within the heart of the city of Pittsburg, on which the court-house stands, still known by his name, and made a reconnaissance of the enemies' works and position. Next morning he "detached Major Lewis, of Colonel Washington's regiment of Virginians, with a baggage guard, two miles into his rear, and sent an engineer with a covering party, within full view of the fort, to take a plan of the works. In the meantime he ordered the *reveille* to be beaten in different places. This parade drew out the enemy in great force, and an obstinate engagement ensued." The English were defeated with a loss of two hundred and seventy-three killed and forty-two wounded. Major Grant and Major Lewis were taken prisoners and sent to Montreal. Of the eight Virginia officers five were killed, one wounded, and one captured. Major Grant, after his exchange, returned to this place and erected a redoubt, upon which was a tablet inscribed with his name, and bearing evidence to the fact that he had then attained the rank of colonel.

The works abandoned and burnt by the French were repaired and reconstructed. Two hundred men of Washington's regiment were left to garrison the place,—the scarcity of provisions rendering it impossible to provide for a larger force. General Forbes returned to Philadelphia, where he soon afterwards died. In the summer of



VIEW AT FIFTH AVENUE AND SIXTH STREET, PITTSBURG.

1759 General Stanwix arrived and commenced the erection of a new fortification, the plan for which was made by an engineer named Rutz. This new fort was an elaborate affair, costing the British Government, according to Judge Brackenridge, £60,000; and while its position, commanded on all sides by high hills, would in this age be deemed a strange military selection, yet at the time of its erection it was declared formidable enough to "secure to the latest posterity the British empire on the Ohio."

Nothing of marked interest occurred at Fort Pitt after its erection until Pontiac's

war, in 1763; when it and other military posts in the north-west were attacked by the savages. Its garrison, reinforced by some Indian traders, held out gallantly until relief arrived under Colonel Bouquet. An account of this expedition has already been given in the sketch of Westmoreland county. In October, 1772, orders were received by the commanding officer of the fort, from General Gage, then commander-in-chief of the British forces in North America, to abandon the post. In carrying out this order the commander sold the pickets, stones, bricks, timber, and iron in

the walls and buildings for fifty pounds, New York currency. A corporal and three men were left to take care of the boats and bateaux intended to keep up the communication with the north-western country. The fort was not destroyed, though abandoned as a military post by the British Government. In the following year it was reoccupied and repaired by Dr. John Connolly, under orders from Lord Dunmore, governor of Virginia.

In 1774 the claim which Virginia had set up to the south-western portion of Pennsylvania threatened the most serious consequences, and actually produced grave complications. It would be useless and uninteresting now to discuss the merit of this Virginia claim, which had at best but a flimsy basis, but the events resulting from it cannot be passed over. When Connolly, (who, by the way, was a native of Pennsylvania, and became an active tory during the Revolution, removing to Canada on the conclusion of the war,) acting under orders from Lord Dunmore, took possession of the fort, he changed the name to that of Fort Dunmore, and issued a proclamation calling the militia together there on the 25th of January. For so doing, Arthur St. Clair, a magistrate of Westmoreland county, issued a warrant and had him arrested and committed to jail at Hanna's town, then the seat of justice for all this portion of the province of Pennsylvania. Connolly entered bail for his appearance, and was released. He then went to Staunton and was sworn in as a justice of the peace of Augusta county, Virginia, in which county, it was claimed, the country around Pittsburg was embraced. In March he returned to Fort Pitt, with both civil and military authority, to put the laws of Virginia in force. Early in April the court assembled at Hanna's town, and soon after it met Connolly appeared there with about one hundred and fifty armed men, placed sentinels at the door of the court-house, with orders not to admit the magistrates except by his direction, declaring that they had no authority to hold a court. He added, that, to prevent confusion, the magistrates might act as a court in all matters submitted to them by the acquiescence of the people until he should receive instructions to the contrary. The magistrates replied that their authority was derived from Pennsylvania,—that it had been regularly exercised, and would continue so to be.

Connolly appears to have withdrawn his forces, and the court business proceeded. Three days afterward several of the magistrates were arrested at Pittsburg for their course, and, on refusing to give bail, were sent off, under guard, to Staunton, Virginia. One of these magistrates procured an interview with Lord Dunmore, and the result was that they were permitted to return home. This controversy, with its attendant embarrassments, continued for more than five years, and in that time occupied the attention of the British ministry and of the Continental Congress. The settlers in the disputed country generally sympathized with the claim of Pennsylvania, but the partisans of Virginia carried measures with a high hand, frequently breaking open the jail at Hanna's town to release their friends who had been committed under the laws of Pennsylvania. Finally, on the 31st of August, 1779, commissioners, chosen by both States, met at Baltimore and concluded the following agreement:

"We (the commissioners) do hereby mutually, in behalf of our respective States, ratify and confirm the following agreement, viz.:—To extend Mason and Dixon's line due west five degrees of longitude (to be computed from the river Delaware) for the southern boundary of Pennsylvania, and that a meridian, drawn from the western extremity thereof to the northern limit of said State, be the western boundary of said State forever."

This agreement was confirmed and ratified by the Legislature of Virginia on the 23d of June, 1780, and by the General Assembly of Pennsylvania on the 23d of September of the same year. Under it commissioners located and marked the lines as they at present stand, that duty being completed in the summer of 1784.

During the Revolutionary war the post of Pittsburg was commanded by Captain Neville, who took possession of the fort, with a company of one hundred men, by order of the Legislature of Virginia, and who was succeeded, by continental authority, by General Hand, Colonel Brodhead, and General Irvine. The duty of these commanders was to guard the frontiers against the savages who were leagued with the British, and preserve order among the lawless frontiersmen, who had but little respect for legal authority of any kind. These commanders were vigilant, and discharged the

duties intrusted to them in an efficient and satisfactory manner. The remote situation of the post relieved it from any prominent participation in the great events of the war.

The Penn family were, as is well known, adherents of the crown in its struggle with the revolted colonies, and immediately after the treaty of Paris, by which the independence of the latter was acknowledged, turned their attention to realizing what they could out of the lands held by them in Pennsylvania. Among these lands was the manor of Pittsburg, consisting of five thousand seven hundred and sixty-six acres, surveyed in 1769, embracing the point between the rivers and extending south of the Monongahela. In the spring of 1784 arrangements were made by the agent of the Penns to lay out this manor in town lots. Previous to this, however, in 1764, Col. John Campbell had laid out that part of the city lying between Water and Second streets, and Ferry and Market streets, being four squares. This was recognized by the agent, and the plan of the lots not changed by subsequent survey. Mr. George Woods, a surveyor, of Bedford, was employed to do this, being assisted in the work by Mr. Thomas Vickroy, also of Bedford. These gentlemen performed their work acceptably, and many of the lots were at once sold, both to speculators and actual settlers. At that time there were no buildings here outside of the fort, except a few huts on the bank of the Monongahela. Arthur Lee, a diplomatist during the Revolution, visited Pittsburg in 1784, and in his journal made the following notice of the place:—"Pittsburg is inhabited almost entirely by Scots and Irish, who live in paltry log-houses, and are as dirty as in the north of Ireland, or even in Scotland. There is a great deal of small trade carried on; the goods being brought, at the vast expense of forty-five shillings per hundred weight, from Philadelphia and Baltimore. They take, in the shops, money, wheat, flour, and skins. * * * The place, I believe, will never be very considerable." But the small trade grew, the settlers developed with it, and Mr. Lee's prediction was soon proved unsound. In 1786, John Scull and Joseph Hall commenced the publication of the *Pittsburg Gazette*, a newspaper which still lives, and the same year a post was established between this place and Bedford, extending from there to New York, and Richmond, Virginia. The amount

received for postage, at Pittsburg, for the year ending October 1st, 1790, was \$110.99. The number of houses in the city in 1786 was estimated by Judge Brackenridge at one hundred. A public academy was established here, by act of the legislature, in 1787, and the same year the First Presbyterian Church was incorporated.

Among the industries developed here by the necessities of trade was the distilling of whisky. This article had become a staple of commerce with the Indians, as well as with the trappers and hunters on the frontier. To show how indispensable it was, in a business way, it is only necessary to quote from a letter of an agent to his principals in Pittsburg, in which he says:—"I am greatly in want of three barrels of whisky and a barrel of rum. For want of them, my neighbor gets all the skins and furs." The difficulty of transportation was very great, and the products of the soil—then almost all the people had to dispose of—could not be carried any distance. At the rate of sixpence per pound, the price charged, it would have cost about twenty dollars to transport a barrel of flour to the eastern markets. Naturally the surplus grain raised was utilized in the most available manner, and this proved to be distillation. The production of whisky, therefore, became an extensive business in all this portion of Pennsylvania.

When the Revolutionary war had terminated, the financial exigencies of the Government were extremely pressing, and every effort had to be made to raise money to pay its debts and meet its current expenses. Taxation was the only mode by which this could be done, as the country had no foreign trade upon which a tariff could be imposed. As a revenue measure, therefore, Congress, at its session of 1791, imposed a tax of from nine to twenty-five cents per gallon, according to strength, on spirits distilled from grain. This tax was deemed a peculiar oppression by many people in the southwestern portion of Pennsylvania, and was resisted by them. From denunciation they proceeded to open outrage, subjecting the excise officers to indignity and harsh treatment, and in some instances burning their houses and other buildings. The tide of disaffection spread until resistance to the Government by force of arms was threatened, and the malcontents mustered by thousands, fully armed, ready to carry their threats into

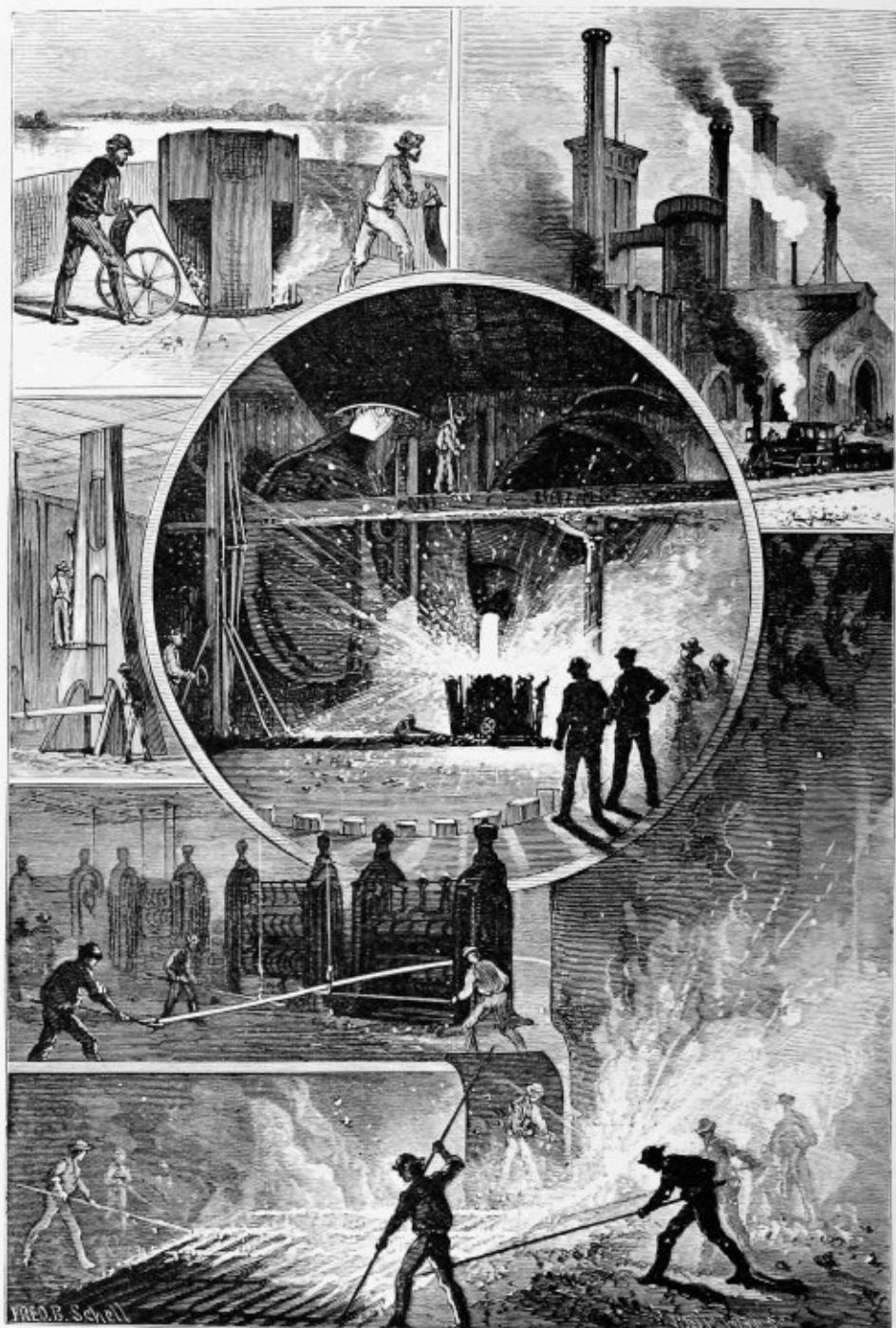
execution. The State of Pennsylvania, either through want of will or power, failed to put an end to these outrages, and, in 1794, the General Government was compelled to take them in hand. President Washington called into service fifteen thousand men from the States of Pennsylvania, New Jersey, Maryland, and Virginia, to suppress this insurrection. These troops were placed under command of General Lee, then governor of Virginia—the Pennsylvanians being commanded in person by Governor Mifflin. When the leaders of the disaffected saw these preparations, they adopted a prudent course and submitted to the law. A few of them were arrested, tried, and convicted, but executive clemency saved them from severe punishment. Unfortunate as this outbreak against governmental authority was, it yet resulted advantageously to the country around Pittsburg,—for many of the young men who came here with the forces sent to suppress it were so impressed with the fertility and advantages of the region that they returned as permanent settlers.

For a number of years after Western Pennsylvania was settled, the Indians in the North-west had given much trouble by their persistent, and often well-planned, hostilities. The feeling between the races was particularly bitter, and it would be difficult at this day to decide which excelled in acts of aggression and outrage. Expeditions into the Indian country were made by troops under McIntosh, in 1778; Brodhead, in 1780; Crawford, in 1782; Harmer, in 1789; and St. Clair, in 1791. That of the latter was so signally defeated on the 4th of November as to inspire the Indians with renewed courage, and their hostilities became more relentless than ever. It was necessary, therefore, for the General Government to take action promptly and decidedly, or surrender the north-western territory to the aborigines. General Wayne was selected to command a new expedition, and he rendezvoused his army at Legionville, in the autumn of 1792. Here he disciplined his command thoroughly, and in the spring of the following year marched into the enemy's country. The result of that campaign is well known. Wayne retrieved all the errors of his predecessors, and on the 24th of August, 1793, concluded the treaty of Greenville with the Indians, which virtually put an end to hostilities. From that period the

settlement of the country was but little impeded by acts of savage barbarity.

The suppression of Indian hostilities, the consequent extension of the white settlements, and the growing commerce of the new republic, opened a trade in the West which tended materially to increase the wealth and importance of Pittsburg. Enterprising merchants in the East saw the advantage of its situation, and invested their capital in the new field of commercial operations. Among these was Louis Anastasius Tarascon, a Frenchman, who had established himself in Philadelphia. Ascertaining the facilities for direct foreign trade afforded by the Ohio and Mississippi rivers, he established a house at Pittsburg and commenced the building of vessels. In 1801 his firm launched the schooner "Amity," of one hundred and twenty tons, and the ship "Pittsburg," of two hundred and fifty tons, the former of which, loaded with flour, proceeded to St. Thomas, in the West Indies, and the latter, with a similar cargo, to Philadelphia. These vessels were afterward engaged in foreign trade. In 1802 the same firm built the brig "Manino," of two hundred and fifty tons, and in the two following years the "Louisiana," of three hundred tons, and the "Western Trader," of four hundred tons. In 1797, when affairs with France assumed a threatening aspect, the Government ordered the building of two armed vessels at Pittsburg. These were named the "President Adams" and the "Senator Ross," and were launched in 1798 and 1799 respectively. In 1796 Louis Philippe, afterwards king of France, spent some time in Pittsburg, with two other exiled princes of the house of Orleans. The three proceeded from this place to New Orleans in a skiff.

It is impossible to enter into details as to the commencement and growth of the various manufactures which have given Pittsburg such prominence among the cities of America. A distillery was started here about 1784, and during the same year the heirs of Penn sold the privilege of mining coal in the hill forming the south bank of the Monongahela, in lots extending as far as the centre of the hill, at thirty pounds each. This tract had been purchased by their agent for ten thousand dollars, and attached to the manor of Pittsburg. It was not originally included in the property reserved. In 1790 the first furnace for the manufacture



IRON AND STEEL MANUFACTURE.

of iron in Western Pennsylvania went into operation. It was built by Turnbull & Maurice, and stood on Jacob's creek, about fifteen miles from its junction with the Youghiogheny. A steam-engine was in operation here as early as 1794, but for what purpose used is unknown. In 1795 a small establishment for the manufacture of window-glass was started. In 1796 General O'Hara commenced the shipment of salt from the Onondaga works, in New York, to this place, by way of the lakes and the Allegheny river, and succeeded in building up an important trade, which continued until the Kanawha salt came into competition, about 1810, and finally the works on the Kiskiminetas and Allegheny rivers made this region a source of supply for the Ohio and Mississippi valleys. A manufactory of green glassware went into operation in 1797, not without expense to its originators, for General O'Hara, one of its principal owners, left a memorandum, dated in that year, stating:—"To-day we made the first bottle, at the cost of \$30,000." In 1804 a foundry for casting hollow ware was started, and the succeeding year a steam flouring-mill contributed to the importance of the place. A rolling-mill, the earliest here of which there is any record, was erected in 1812, and in 1814 a cannon foundry was built, from which have grown the Fort Pitt Works, celebrated throughout the world.

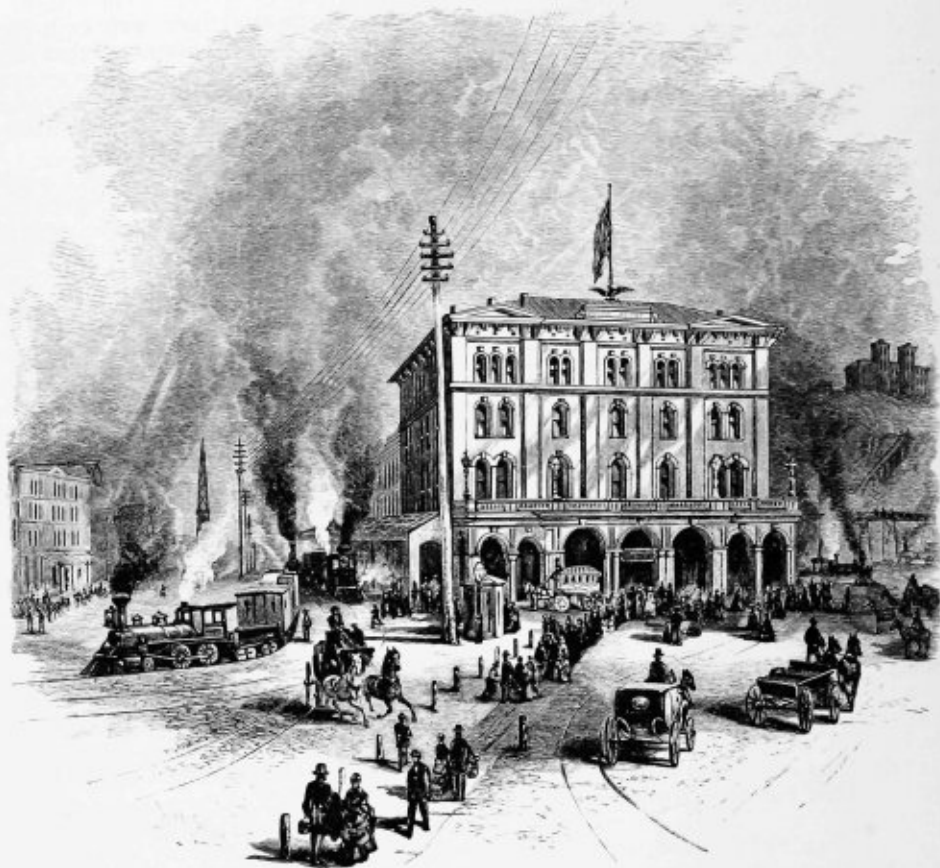
The first decade of the nineteenth century was marked by no striking event in the history of Pittsburgh. It was incorporated as a borough in 1804, and intercourse with the surrounding country, facilitated by improvements, became more intimate. In 1805 stages commenced running regularly between this place and Chambersburg, connecting it with the cities of the East, and in the following year the turnpike road over the mountains was begun. A city charter was granted to Pittsburgh in 1816. In 1811 a new era opened by the building here of the first steamboat on the western waters. This was called the "New Orleans," and was built under the superintendence of Mr. Roosevelt, for Messrs. Fulton & Livingston, who had launched, four years previously, the "Clermont," on the Hudson. The "New Orleans" was one hundred and thirty-eight feet keel and about four hundred tons burden. She was launched in March, and made the landing at Natchez in December, where she took on board freight and passengers for New

Orleans. Seven more boats were built here during the following six years, and then they had become so established in public estimation that their increase was rapid. In 1840 eighty-nine steamboats were owned, wholly or in part, in this city.

Pittsburg was now embarked in the full tide of progress, and since that time she has never lacked prosperity or been wanting in energy. Steam navigation made her the centre of an immense trade, and the products of her manufactories were soon found in every portion of the Mississippi valley. The completion of the western division of the Pennsylvania canal, in 1829,—the improvement of the navigation of the Monongahela by slackwater in 1844, and that of the Youghiogheny in 1850, still further extended her prosperity. On the 10th of April, 1845, a great conflagration occurred, laying a large portion of the city in ruins, and destroying property to the amount of nine millions of dollars; but in a few years all traces of the calamity were obliterated, and she rose from her ashes improved in every respect. The era of railroads found her humming with manufactories and teeming with trade, and their iron nerves increased her vitality. Less than a century has elapsed since she sprang into life, and yet, as a mart of industry, she now takes rank among the first in the world.

The rapid growth of manufactories caused a number of isolated villages to spring up along the Allegheny and Monongahela rivers, and these soon developed into places of considerable importance. From time to time those on the Monongahela and the east bank of the Allegheny have been absorbed by Pittsburg, and now constitute one corporation; while Allegheny City, on the west bank of the river of that name, continues to preserve a separate municipal existence, having grown to a magnitude which ranks it as the twenty-third city in population in the United States. In all essentials of business Allegheny City is a part of Pittsburg, with which it is connected by three magnificent bridges, making the principal streets of the two corporations continuous, and completely blending their travel and traffic.

Reference has already been made to the picturesque character of the scenery surrounding the metropolis of Western Pennsylvania. These natural beauties have been enhanced by public and private improvements, and if they are marred by the smoke



UNION DEPOT, PITTSBURG.

which rises from a thousand manufacturing industries, their attractiveness is by no means obliterated or destroyed. No more healthful city can be found in America; and in some of the essentials of comfort it has no rival. Gas is cheaper, better, and more abundant here than anywhere else, and the supply of pure water is without stint. This supply is secured from the Allegheny river, and is pumped by steam-power into an immense reservoir three hundred and ninety-one feet above the level of the Ohio.

Provision has been made, in the most liberal manner, for the care and relief of suffering humanity, and the institutions established for these purposes rank among the best in the land. The Western Pennsylvania Hospital, under State patronage, is designed for the reception of the insane and afflicted, as well as the sick, helpless, and

infirm. The insane department of this hospital is eight miles from the city, at Dixmont. Among other similar institutions the following deserve special attention, because of their broad field of charity and the excellence of their management:—Pennsylvania Reform School, for the reformation and moral education of vicious children of both sexes; Home for the Friendless; Widows' Home Association; Home for Destitute Men; Home for Destitute Women; the Sheltering Arms; Ladies' Relief Society; the Pittsburg Free Dispensary; Pittsburg Infirmary; House of Industry, for poor and friendless girls; Homœopathic Hospital; Mercy Hospital; Marine Hospital, and City Hospital.

The reformatory institutions embrace the Western State Penitentiary,—a massive structure, located in Allegheny City,—conducted

on the solitary-confinement principle, and the Allegheny County Workhouse and Inebriate Asylum.

The public edifices of Pittsburg are numerous and imposing, conspicuous among which are the Court-house, City Hall, Custom-house, and United States Arsenal. From the court-house an extended view of the city can be had.

There are a number of cemeteries in the immediate vicinity of Pittsburg, one of which, on the banks of the Allegheny river, two miles above the centre of the city, is peculiarly beautiful, naturally and artificially. It contains one hundred and ten acres.

The educational facilities of the city are superior. In addition to a complete common-school system, conducted in a liberal and comprehensive manner, it has the Western University, the Methodist Female College, the Pennsylvania Female College, the Western Theological Seminary, and the United Presbyterian College, all well patronized and in flourishing condition. It contains several large public halls, an opera-house, and two good theatres. The business of the city employs a banking capital of \$12,200,000, distributed among sixteen banks; and it has, in addition, forty safe-deposit companies, with an aggregate capital of \$5,000,000. Allegheny City has

fourteen banking institutions, with a capital of \$1,500,000.

Population of Pittsburg, 86,076; of Allegheny City, 53,180; of Pittsburg and Allegheny City combined, 139,256; native, 90,126; foreign, 43,130; German, 16,368; Irish, 17,153; colored, 3,177. Population of Allegheny county, 262,204. Value of agricultural productions, \$4,433,043. Number of manufacturing establishments, 1844; hands employed, 34,228; wages paid, \$18,493,124; capital invested, \$54,303,474; materials used, \$52,165,657; value of products, \$88,789,414. Number of coal-mining establishments, 68; hands employed, 6099; wages paid, \$3,516,668; capital invested, \$6,294,350; tons mined, 2,637,269; value, \$4,934,286. Capital invested in iron manufactures, \$26,962,686; hands employed, 15,541; wages paid, \$8,102,683; products, \$36,328,711; consumption of metal annually, 600,000 tons. Capital invested in glass manufactories, \$4,000,000; hands employed, 3733; wages paid, \$2,251,187; materials used, \$1,175,869; products, \$5,162,362. The annual shipment of coal by river from Pittsburg is about 2,100,000 tons; by rail, 1,500,000 tons; consumed at home, 1,500,000 tons,—making an aggregate of 5,100,000 tons from mines worked in Allegheny and adjoining counties.

NEW JERSEY DIVISION.—BRANCHES.

PERTH AMBOY AND WOODBRIDGE BRANCH.

RAHWAY.—Terminus of branch road.

JUNCTION, one and one-half miles.—Point of intersection with main line.

AVENEL, three miles.

EDGAR'S, four miles.

WOODBRIDGE, five miles, is a flourishing town in Middlesex county, near Long Island Sound. The manufacture of fire-brick, drain-pipe, and tile is extensively carried on, giving employment to about four hundred and fifty hands, while eleven hundred more are engaged in the mining of clay, nearly four hundred thousand tons of which are shipped annually. Other industries are also in successful operation. The town contains excellent public and private schools, a seminary for young ladies, five churches, a savings bank, several halls, and a good hotel. Population, 3717.

SPA SPRING, six miles.

PERTH AMBOY, eight miles, is a city and port of entry in Middlesex county, at the head of Raritan bay, and at the confluence of the Raritan river with the Arthur Kill, or Staten Island Sound. It lies fourteen miles from the sea, at Sandy Hook, and twenty-five miles by the Sound from New York. The port is one of the best on the continent; is easily approached from the sea by a broad estuary, having generally twelve feet of water, and in the main channel from twenty-four to twenty-six feet. This advantageous site for a town was early noticed by the agents of the East Jersey proprietaries: in the language of Deputy Governor Lawrie, in 1684, "there being no such place in all England for conveniency and pleasant situation." The place was known to the aborigines as "*Ambo*"—the Point, and was greatly resorted to by them on account of its fish and oysters, the latter of which are yet abundant. The relics of Indian festivities are still visible in the large quantities of oyster shells which mingle

with and enrich portions of the soil. The name of Perth was given to it in honor of James, Earl of Perth, one of the twenty-four proprietaries, and it was called by that name in their instructions until 1698, when, for the first time, in the instructions of the deputy governor, Basse, the name of "Perth Amboy" is used. The town was originally laid out into one hundred and fifty lots, by Samuel Gawen, one of the proprietaries and surveyor-general, as early as 1683. In the following year Gaven Lawrie, a proprietary and deputy governor, added large tracts for out-lots. The town plot was designed to contain fifteen hundred acres, and lots were sold at twenty pounds, with the condition that the purchasers should each build a house thirty feet long by eighteen feet wide. Lawrie contracted at this time for the erection of several houses for the proprietaries, and one, sixty feet long and eighteen feet wide, for the governor. He was directed to make the town the seat of government and the chief mart of the province, and to incorporate the inhabitants, by charter, with the necessary privileges and jurisdiction of a city.

It was a favorite spot with the East Jersey proprietaries, who used many efforts to render it the site of a large city; but it was overshadowed by New York, and their exertions were in vain. After the surrender of the proprietary government to the crown, the general assembly and the supreme court of the province assembled at this place and Burlington alternately.

As already stated, the city was incorporated under the proprietary and royal governments. On the 21st of December, 1784, a charter was granted by the assembly, embracing the provisions of the prior ones, and defining its boundaries. In 1870 the present charter was obtained.

The land upon which the city is built is of alluvial formation, consisting of clay, sand, loam, and gravel, in which, at various depths, are found organic remains. It is

elevated above the tide some forty or fifty feet, and is undulating in its surface. From its agreeable position, vicinity to the ocean, and sea-water baths, Perth Amboy is a pleasant residence during the summer months, and is much visited for recreation by the citizens of New York. The hotel accommodations are good and extensive. It contains manufactories of pottery, paper, corks, and fire-brick, employing in the aggregate fully three hundred men, and the oyster business constitutes an active trade. Schools are abundant, including a seminary for young ladies, and the town contains seven churches, two public halls, and two banking institutions. During 1872 fifteen vessels entered the port from foreign countries, and five cleared from it. The vessels engaged in the coastwise trade and fisheries at the port numbered, in the same year, seventy-seven. The number of vessels enrolled and licensed at the port on the 30th of June, 1872, was seventy-six. Population, 2861.

MILLSTONE AND NEW BRUNSWICK AND MERCER AND SOMERSET BRANCHES.

NEW BRUNSWICK.—Terminus of road.

JUNCTION, two miles.

VOORHEES, three miles.

CLYDE, four miles.

MIDDLEBUSH, five miles.

EAST MILLSTONE, eight miles, is a village on the Delaware and Raritan canal, where connection is made with the Mercer and Somerset Railroad. It contains several hotels, two public schools, four churches, two public halls, and is a place of considerable business. Population about 1000.

WEST MILLSTONE, nine miles.

HILLSBORO, eleven miles.

HARLINGEN, fourteen miles.—A manufactory of rubber goods is near this station, and several mills are located in the vicinity. The surrounding country is highly improved. The village contains good schools, a church, a public hall, two hotels, and a population of about 150.

BLAWENBURG, seventeen miles.

SROUTSBURG, nineteen miles.

HOPEWELL, twenty-one miles.—This vil-



WASHINGTON'S HEADQUARTERS AT ROCKY HILL.

lage contains a female seminary, a public hall, and two hotels. A steam saw-mill, employing fifteen men, is in operation here. Population, 416.

MARSHALL, twenty-four miles.

PENNINGTON, twenty-six miles, is a beautiful place, noted for its institutions of learning, which include the New Jersey Conference Seminary and two academies, with an aggregate attendance of about two hundred and fifty pupils. There are three churches, a public hall, and two good hotels here. Population about 800. A daily stage runs to and from Trenton, distance eight miles.

WOOLSEY, twenty-eight miles.

BURROUGHS', thirty miles.

SOMERSET JUNCTION, thirty-one miles.—Point of intersection with Belvidere Delaware Railroad.

ROCKY HILL BRANCH.

MONMOUTH JUNCTION.—Point of intersection with main line.

KINGSTON, five miles.—This village extends into three different counties, and is surrounded by a well-cultivated country. It contains a sash factory, steam saw-mills, and several other minor industries. A lock on the Delaware and Raritan canal here is worked by steam-power. Population about 300.

ROCKY HILL, seven miles, is on the Millstone river, along which the Delaware and

Raritan canal is constructed, and is about three miles north-east of Princeton. After the surrender of Cornwallis, at Yorktown, Virginia, and the return of the American army to the vicinity of the Hudson, in 1783, Washington was summoned before the Continental Congress, then sitting in Princeton, to advise as to the future of the nation. Sparks, in his "Life of Washington," says:—"A house was provided for him at Rocky Hill, three or four miles from Princeton, where he resided, holding conferences from time to time with committees and members of Congress, and giving counsel on such subjects as were referred to his consideration." Negotiations for peace were then going on, and it was while Washington resided here that he wrote his farewell address to the army. The house in which he lived is still standing.

Rocky Hill is the terminus of the branch road, and contains two flour-mills, a plaster-mill, a woolen-mill, a saw-mill, a manufactory of rubber goods, and a number of stores and shops. The land adjacent is productive, and formerly a copper mine was worked in the vicinity. The village has three churches, a hotel, and a population of about 500.

MONMOUTH JUNCTION AND JAMESBURG BRANCH.

MONMOUTH JUNCTION.—Point of intersection with main line.

DAYTON, two miles.

JAMESBURG, six miles.—(See Camden and Amboy Railroad for description.)

PRINCETON BRANCH.

Extending from Princeton Junction to Princeton, a distance of three miles. (See main line for description.)

BELVIDERE DELAWARE RAILROAD.

TRENTON.—Point of intersection with main line.

COAL PORT, one mile.

WARREN STREET, two miles.

ASYLUM, four miles.

GREENSBURG, six miles.

SCUDDER'S FALLS, seven miles.

SOMERSET JUNCTION, eight miles.—Junction of Mercer and Somerset Railroad.

WASHINGTON'S CROSSING, nine miles, is the point at which Washington, with his army, crossed the Delaware on Christmas night, 1776, to attack the Hessians in Trenton. It was then known as McKonkey's Ferry—its present name being given it in commemoration of the event stated. Opposite this station is the village of Taylorsville, in Pennsylvania, the two places being connected by a bridge over the Delaware.

TITUSVILLE, eleven miles.

MOORE'S, thirteen miles.

LAMBERTVILLE, sixteen miles,—the largest town in Hunterdon county,—is built on the Delaware river, immediately opposite New Hope, Pennsylvania, with which it is connected by a covered bridge. It possesses excellent water-power, and superior iron ore is found in the vicinity. These and other advantages give it facilities as a site for manufactories, of which it has a number, among them being one of India rubber goods, one of locomotives, two of railroad cars, a machine-shop, flouring-mills, saw-mills, rope and twine factories, paper-mills, and others, employing together about five hundred hands. There are in the town two public halls, five churches, several good hotels, a bank, and other public institutions. The business of the place is active and flourishing. Population, 3842. A daily stage runs to and from Doylestown, Pennsylvania. Number of manufacturing establishments, 614; capital invested, \$2,136,681; hands employed, 2273; wages paid, \$677,657; materials used, \$3,025,765; value of products, \$4,754,685.* (Junction of Flemington Railroad, which runs via Mount Airy, Barber's, Ringoes, and Copper Hill to Flemington, twenty-eight miles, the county seat of Hunterdon county.) FLEMINGTON is a place of some trade, and the discovery of copper-ore in its vicinity has been the cause of considerable speculation. It contains many fine buildings, among them being four churches, a public hall, a bank, a large academy, and the county buildings. Population, 1412. A daily stage runs to White House, distance ten miles. (Junction with South Branch Railroad, which connects with the New Jersey Central at Somerville.)

STOCKTON, twenty miles.

BULL'S ISLAND, twenty-three miles.—A covered bridge crosses the Delaware here, connecting with Lumberville, Bucks county,

*Includes Hunterdon county.

Pennsylvania. Valuable stone quarries exist near this place, on both sides of the river, and the scenery in the vicinity is charmingly picturesque.

POINT PLEASANT, twenty-five miles.—Two flour and two saw mills are located here, and an active general business is transacted. The village contains several hotels, a church, good schools, and a population of about 300. A daily stage runs to and from Doylestown, distance nine miles.

TUMBLE, twenty-six miles.

FRENCHTOWN, thirty-two miles, is a borough in Hunterdon county. It has several churches, a national bank, and a grist and saw mill. Population, 912.

MILFORD, thirty-five miles, has an active lumber trade, and contains some fine buildings. A bridge crosses the river here. Nearly opposite to Milford, on the Pennsylvania side of the river, are "High Falls creek" and the "Ringing Rocks," objects of considerable interest to those who admire nature's beauties and wonders. Ascending the bed of the creek, which can be done by pedestrians in summer when the water is low, numerous rocks are encountered, of no particular character and shape, and varying in size from a hazel-nut to a hay-stack, which are tumbled around in the wildest disorder. At the distance of about a mile from the river, "High Falls," from which the creek derives its name, are reached. Here the stream makes a fall of thirty feet or more, and then loses itself among the great boulders. Above and below the falls there are stretches of almost level rock, which terminate in abrupt descents making numerous small cascades. About a fourth of a mile from the High Fall, at a right angle with the stream, are the "Ringing Rocks." They are upon elevated ground, and cover probably two acres in extent. They consist of fragments of stone of a dark reddish color, piled promiscuously over the entire surface,—not a tree or shrub appearing among them. They vary considerably in size, some of them being quite large. When struck with a hammer or stone, they give forth clear, ringing notes, the pitch of which seems to be governed by the size and shape of the rock. Some resemble church bells, while others remind one of a blacksmith's anvil.

Iron-ore is mined in the vicinity of Milford, and the town contains several hotels, churches, and a public hall. This locality

is frequented by visitors in summer, for whom good accommodations are provided. Population about 600. A daily stage runs from here to Clinton, New Jersey, distance fifteen miles.

HOLLAND, thirty-eight miles.

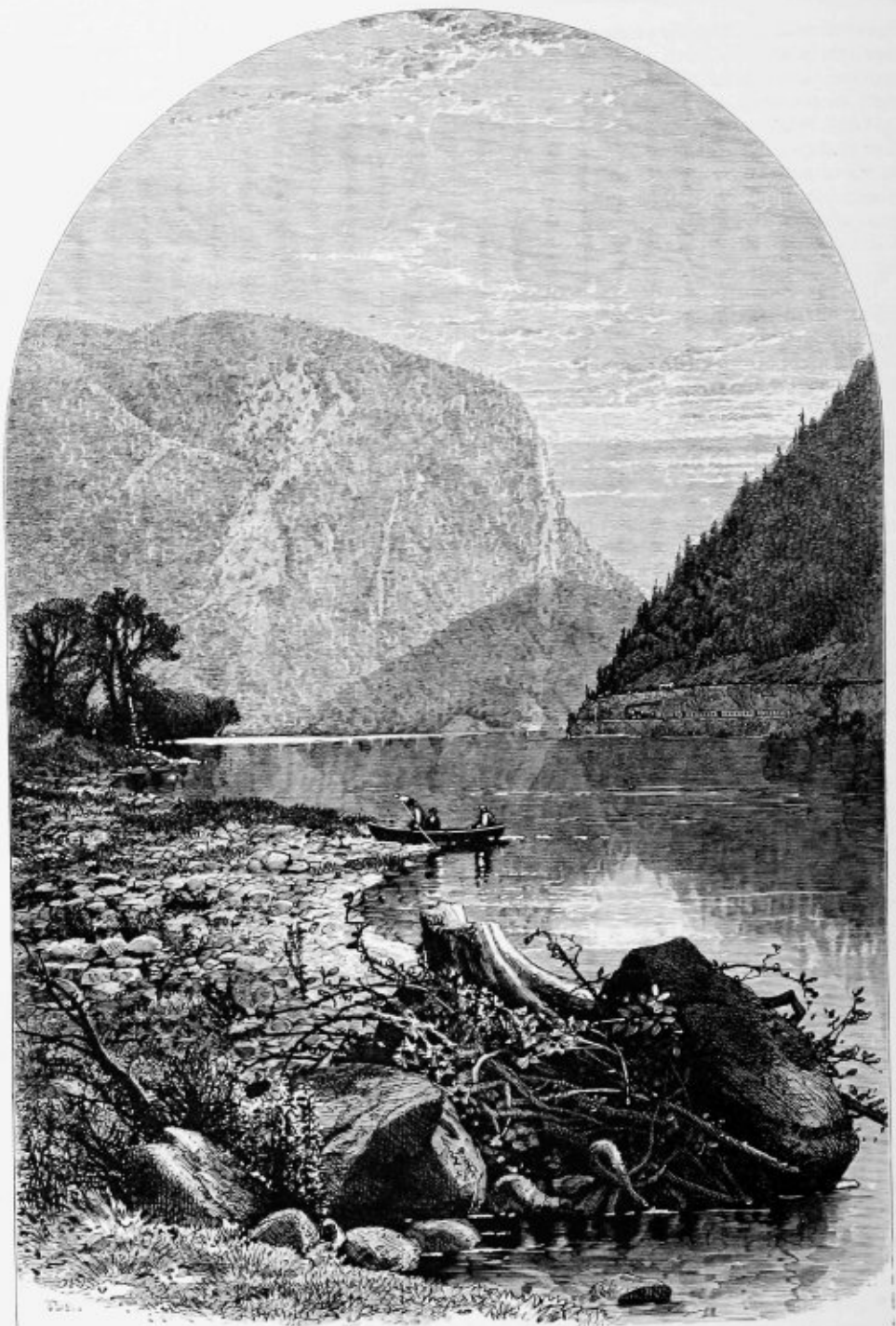
RIEGELSVILLE, forty-two miles.—This station accommodates the villages of Riegelsville, on the Pennsylvania side of the Delaware, and Finesville, on the New Jersey side. The Durham Iron Works are near Riegelsville, and employ about two hundred hands. There is an edge-tool manufactory at Finesville. The two villages contain a population of about 500. Stage lines run daily from Riegelsville to Doylestown, and tri-weekly to Quakertown.

CARPENTERVILLE, forty-six miles.—Iron-ore mines are worked near this station, shipping about twelve hundred tons annually.

LEHIGH JUNCTION, fifty miles.

PHILLIPSBURG, fifty-one miles, is in Warren county, New Jersey, directly opposite the city of Easton, at the mouth of the Lehigh valley,—one of the richest and most highly-developed mineral regions of the Keystone State. It is a place of large business, both manufacturing and shipping, and improves rapidly. Its principal manufactures are those of iron and iron products, for which it has great facilities owing to its proximity to the ores and furnaces on the Lehigh and in Northern New Jersey, and to the immense anthracite coal deposits of Pennsylvania. It is built upon high ground, and from certain points within its limits extended and beautiful views are presented. Two substantial bridges connect it with Easton, and so closely are its interests blended with those of its Pennsylvania neighbor that the two may almost be considered as one community.

Phillipsburg is an old town,—older, even, than Easton,—although it is only within the last thirty years that it has shown any considerable degree of enterprise and improvement. The site it occupies was that of an Indian town, called Chinkte-wunk, which is shown upon a map made by Von der Donk, a Dutch engineer, in 1654. Its name appears to have been given in honor of an Indian chief, named Philip, a friend of the great Tedyuscung who figures so prominently in the early colonial history of Pennsylvania. The opening of the Morris canal, in 1832, infused some life into it, but not enough to lift it out of the stagnation of a straggling



DELAWARE WATER GAP.

village. The building of the New Jersey Central Railroad, which was completed in 1852, contributed much to its prosperity, and the construction of the Belvidere Delaware Railroad, in 1854, placed it on the high road to prominence. About 1850 a number of important manufactories were established, and from that time its progress has been rapid and steady. The town contains several fine churches, a large academy and other institutions of learning, some good hotels, and two banks. Population, 5932. (Terminus of New Jersey Central Railroad, Morris and Essex Railroad, Lehigh and Susquehanna Railroad, and Lehigh Valley Railroad. Also, western terminus of the Morris and Essex canal.)

HARMONY, fifty-four miles.

MARTIN'S CREEK, fifty-eight miles.

HUTCHINSON'S, sixty miles.

ROXBURG, sixty-one miles.

BELVIDERE, sixty-five miles, is the county seat of Warren county, and is built on both sides of Pequest creek, at its junction with the Delaware river. This creek has a fall of nearly fifty feet in the last mile of its course, and, being a large stream, furnishes excellent water-power. This power is utilized for the driving of grist and saw mills, a cotton factory, and other industries. The town has a growing trade and bears many evidences of prosperity. It is well supplied with churches, has a large academy, good hotels, a bank, and two public halls. Many of its edifices are handsome structures of brick or stone. Iron-ore is extensively mined in the neighborhood. The celebrated Schooley's Mountain Springs, a popular resort in summer, is but nineteen miles from this place. Fifteen miles north of it is a small mountain lake, perhaps two miles in circumference, at an elevation of near fourteen hundred feet above the Delaware river. It is very deep and teems with fish. It seems to lie almost on the summit of the mountain, and from its immediate vicinity is obtained a magnificent view of the river and the surrounding country for many miles. Belvidere was incorporated in 1845. Population, 1883. Number of manufacturing establishments, 358; capital invested, \$3,191,023; hands employed, 2787; wages paid, \$1,047,585; materials used, \$3,811,489; products, \$5,996,965.* A stage runs semi-weekly be-

tween Belvidere and Danville, distance twelve miles.

MANUNKA CHUNK, sixty-eight miles.— Junction with Delaware, Lackawanna and Western Railroad, by which the Delaware Water Gap is reached—distance ten miles. The Delaware Water Gap may be classed among the most picturesque and sublime scenery to be found in America. Here the river has forced its way through the great Blue Ridge chain of mountains, and in so doing has carved the face of nature into wonderful shapes and forms. It is compressed, for a distance of about two miles, into a narrow gorge, scarcely allowing space for a roadway. The mountains rise precipitately from the clear, deep water to a height varying from a thousand to twelve hundred feet, and are covered by a primitive forest growth, which softens their hard outlines and subdues their ruggedness. The streams seeking outlets into the Delaware are broken into numerous cascades and cataracts, some of which are known as "Caldeno Falls," "Lover's Leap," "Marshall's Falls," and "Bushkill Falls," each one having its peculiar beauties. "The Hunter's Spring" and "Cold-Air Cave" are also interesting resorts; and many other attractions might be named—secluded dells and extended prospects—well worth seeking out, particularly in summer, when the pure mountain air and the cooling shade are so welcome to the dwellers in cities.

A settlement was made here about 1800, when a small log-house was built near where the "Kittatiny House" now stands. Twenty years afterward the first visitors summered at the Gap, and in 1832 it was regularly opened as a place of resort. The accommodations now provided for visitors are extensive and excellent.

It is possible that the first white settlements made in Pennsylvania were on the Minnisink flats of the Delaware, immediately above the Water Gap. To this point the Dutch penetrated, and here they established themselves, when they held New Amsterdam (now New York), previous to the English acquisition of the same in 1664. Their settlements extended for forty miles along the river. They had a good road, connecting with the Hudson, called the Mine road; and they were certainly engaged in working mines of some kind, but what they were or where they were, is not now known. They had no knowledge of the

* Includes Warren county.

lower Delaware, and did not appear to know how or where the river reached the ocean, when Penn arrived in 1682. All their trade and communication was with the settlements on the Hudson river.

The Monseys, or Wolf tribe of Indians, one of the grand divisions of the Leni Lenape, had their council-fire near the Water Gap, and a tradition of theirs is, that ages ago, the waters of the Delaware were here dammed by the mountains, covering the country north of them with a great lake. In time the channel was cut through and the lake drained; hence the local name of "Minnisink," signifying, in the language of the Leni Lenape, "the waters are gone." The theory upon which this legend is based is sustained by facts given in Rogers' "Geology of Pennsylvania," and by a statement in Mr. Brodhead's work on the Water Gap, that the conical hills, near the mouth of Bushkill creek, are masses of sand and pebbles from base to apex, with an occasional rounded boulder, showing the action of water in their formation. This portion of Pennsylvania and New Jersey is extremely interesting to the admirer of nature, as well as to the student of her mysteries. The entire valley of the river above Trenton is one of peculiar attractiveness, and probably no railroad of equal length in the United States passes through more exquisite scenery than the Belvidere Delaware.

BUSTLETON BRANCH.

HOLMESBURG JUNCTION.—Point of connection with main line.

HOLMESBURG, one-half mile, is a rural village within the corporate limits of Philadelphia. It numbers among its industries print-works, a cotton factory, and shovel-works, employing together some three hundred hands. The adjacent country is naturally beautiful and fertile, and is highly improved. The village contains five churches, a public hall, a seminary, a large public school, and two hotels. Population about 1500.

ROWLAND'S, one and one-half miles.

ASHTON'S, two miles.

BLUE GRASS, three miles.

BUSTLETON, four miles, is the terminus of the branch, and is also within the limits of Philadelphia. It contains print-works, an edge-tool factory, and other industries,

and has four churches, a grammar-school, a public hall, and two hotels. This portion of rural Philadelphia is dotted over with handsome country seats. Population about 500. A stage line runs daily each way between this station and Smithfield and Frankford.

CAMDEN AND AMBOY RAILROAD.

SOUTH AMBOY, thirty miles by water from New York,—in Middlesex county, New Jersey, on the south side of Raritan bay at the mouth of Raritan river,—is the eastern terminus of the Camden and Amboy Railroad, where connection is made with steamboats for that metropolis, and by ferry with Perth Amboy, connecting there with the Perth Amboy and Woodbridge Branch. The "Camden and Amboy" was the first steam route completed between Philadelphia and New York, and for many years was a favorite with travelers. The steamboat ride through Staten Island Sound and New York bay is very pleasant, bringing into view most of the attractions surrounding the commercial metropolis, and renders this a favorite route for excursion parties from Philadelphia and other places in Pennsylvania and New Jersey. Since the completion of the railroad line via Trenton, Elizabeth, New Brunswick, Newark, and Jersey City, the through travel to New York has, however, been almost monopolized by that route.

South Amboy is a place of considerable importance, containing manufactories of pottery, extensive railroad shops, and shipping large amounts of excellent clay, found in the vicinity, to different parts of the United States. The shipments of anthracite and bituminous coal from this port amount to more than a million tons a year. Population, 4225.

OLD BRIDGE, thirty-eight miles.—Several manufacturing industries are located here, among them being a very extensive drug-mill. Population about 400. A daily stage runs from here to South River.

SPOTTSWOOD, forty miles.—Manufacturing industries are in active operation at this station, and include snuff, tobacco, and cigar factories, drug, flouring, hominy, and saw mills, employing in the aggregate near one hundred hands. The village contains three churches, two good hotels, a public hall, and a population of about 800.

JAMESBURG, forty-four miles, is in Middlesex county, at the junction of the Camden and Amboy with the Freehold and Jamesburg Agricultural Railroad, and the branch road to Monmouth Junction on the main line. It is a place of considerable business activity, containing manufacturing industries which employ near seven hundred hands, and has a national bank, an academy, and a good hotel. The State Reform School for boys, incorporated in 1865, is located here. The object of this school is to "bring wayward

and criminal youth under care, discipline, education, and religious training;" and up to the present time more than three hundred juvenile offenders have been committed to it. The school now contains about one hundred and fifty boys. A similar school for girls is located at Trenton. Adjoining the school buildings, on the right, is an old frame farm-house, well preserved, which was built during the French war of 1754-6, and used at that time for the detention of French prisoners. Population about 1000.

PROSPECT PLAINS, forty-six miles.—The country adjacent to this station, as well as generally along the line of railroad, is fertile and well cultivated, producing the cereals and small fruits in great abundance. Some minor manufactories are located here, and the village contains two churches, good schools, hotels, and a population of about 300.

CRANBURY, forty-eight miles, in Middlesex county, is a thriving town, containing an academy, two churches, several hotels, and various manufacturing industries. Population about 2000. Stage lines run daily between Cranbury and New Brunswick, and Cranbury and Plainsboro.

HIGHTSTOWN, fifty-one miles, on the headwaters of Millstone river, in Mercer county, contains two academies, six churches,



OLD HOUSE AT JAMESBURG.

two banks, four hotels, two public halls, and a number of shops and stores. Accommodation trains run twice each way per day between this point and New York. Population, 1347. (Eastern terminus of Pemberton and Hightstown Railroad.)

WINDSOR, fifty-five miles.—Population about 225.

NEWTOWN, fifty-eight miles.—Population about 200.

YARDVILLE, sixty-one miles.—Among the industries in operation here are a manufactory of cotton yarns, and flour and saw mills. The town contains two churches, private and public schools, two hotels, and a population of about 800.

BORDENTOWN, sixty-four miles,—a city in Burlington county,—is built on the Delaware river, at the mouth of Crosswicks creek, six miles south of Trenton. It is the terminus of the Delaware and Raritan canal. The railroad passes under the principal streets by means of a viaduct. The business of the city is active and increases rapidly. It is noted for its institutions of learning,—particularly those for females,—among which are a college and several seminaries. Steamboats connect it with Philadelphia in the summer months, and it is a popular place of resort and temporary residence for the citizens of the metropolis of Pennsylvania, who find excellent

accommodations in its hotels and private houses of entertainment.

The town was founded by Joseph Borden, an early settler here, and has borne his name for more than a century. It was incorporated as a borough, December 9th, 1825, and as a city, April 3d, 1867. It is one of the most beautiful towns on the Delaware, and is alike remarkable for its salubrity, cleanliness, and the neatness of its dwellings. Built on a plane sixty-five feet above the surface of the river, from which there is a descent upon three sides, its streets are dry, and, lined by umbrageous trees, furnish agreeable promenades during the summer season. From the brow of the hill there is a delightful view of the majestic river. The beauty of this scene is greatest in the autumn, when the thousand varied and brilliant tints of the forest trees are contrasted with the deep azure of the sky and the limpid blue of the mirror-like waters. The attractions of the scene determined Joseph Bonaparte, Count de Survilliers, in his choice of a residence in this country; and this distinguished exile—who had occupied two thrones, and had pretensions, based on popular suffrage, to a third—dwelt here many years in philosophical retirement. He had in the vicinity about fifteen hundred acres of land, part of which possessed natural beauty, and this his taste and wealth enabled him to embellish. At the expense of some hundred thousand dollars, he converted a wild and impoverished tract into a park of surpassing beauty, blending the charms of woodland and plantation scenery with a delightful water prospect. The present buildings, plain but commodious, are the site of the offices of his original and more splendid mansion, which was destroyed by fire, together with some rare pictures from the pencils of the first masters, whose merit made them invaluable. With characteristic liberality, the Count opened his grounds to the public, but he was ungratefully repaid by the defacement of his ornamental structures and the mutilation of his statues.

Joseph Bonaparte, sometime king of Naples and Sicily, afterwards of Spain, and later known as Count de Survilliers, was born at Ajaccio, January 7th, 1768, and was the eldest son of Carlo Bonaparte. He was educated at the college of Autun, France, and at Pisa University. In 1813, while king of Spain, he was obliged, by the success

of the allied armies, for the third time to leave his throne. More than once he offered to resign his crown, but was induced by Napoleon, his younger brother, to remain. After the battle of Vittoria, (June, 1813,) where he narrowly escaped being taken prisoner by the English, he returned to France. In January, 1814, when the emperor set off for the army, he appointed Joseph head of the council of regency and lieutenant-general of the empire. Subsequent to the events of 1814, he retired to his estate at Prangin, near Lake Leman, where he remained until the emperor's return from Elba, in 1815, when he rejoined him. After Waterloo, and the emperor's second abdication, Joseph retired to the United States, and, having traveled through several States, he purchased his estate at Bordentown, under the title of "Count de Survilliers." Here he lived in a state of affluence, affording employment to many of the laboring population, and hospitality to the French emigrants who resorted to America. His wife remained in Europe with her two daughters, residing at Brussels and afterwards at Florence, but subsequently the daughters joined their father at Bordentown. When the French revolution of 1830 became known in the United States, Joseph wrote a long address to the House of Deputies, in which he put forth the claims of his nephew, the late emperor. The letter, however, was not read to the chamber. He went himself to England soon after, and at last repaired to Italy, where he died at Florence, in July, 1844. Among the French exiles who clung around the ex-king while he resided at Bordentown, was Prince Murat, who seems to have been as improvident as he was dissipated, and more than once Joseph Bonaparte paid his debts to save his reputation. Murat, in conversation with some boon companions, once said:—"My father was born a peasant and became a prince, while I was born a prince and will become a peasant." Fortune and Napoleon III. procrastinated, if they did not prevent, the fulfillment of the prediction.

Among the more prominent industries of Bordentown are a forge, a foundry, a sash-factory, saw and flour mills, a ship-yard, and a carriage factory. An extensive business is done in dry goods, groceries, and lumber. It contains seven churches, an opera-house, two public halls, a bank, and four good hotels. Population, 6041. Stages run daily from

Bordentown to Allentown, Crosswicks, New Egypt, and Paintsville. (Junction of Bordentown branch road to Trenton.)

WHITE HILL, sixty-five miles.—Located at this station are a steam-forge, car-wheel works, and boiler works, employing together one hundred and seventy-five hands. The town contains a church, a public hall, two hotels, and a population of about 800.

KINKORA, sixty-seven miles.—During the winter season considerable quantities of ice are gathered near this station, large numbers of men being engaged in the business. The making of brick is also a prominent industry. (Junction of Kinkora Branch to New Lisbon, where connection is made with the Pembrton and New York Railroad.)

FLORENCE, sixty-nine miles, is a favorite resort for excursionists in the summer, who can reach it by steamboats on the Delaware, as well as by railroad. About twenty years ago efforts were made to popularize this place by the erection of a large hotel and other improvements, and for a time the name of "Florence Heights" was very common in Philadelphia, being woven into comedy and presented on the stage; but it has not succeeded in dwarfing its neighbors by rapid growth. Like other places on the Delaware, it presents many attractions for summer residence or sojourn. A large iron foundry and a water-cure establishment are located here, and the settlement contains two hotels, two churches, and a population of about 600.

STEVENS', seventy-two miles.

BURLINGTON, seventy-four miles, is a city and port of entry on the Delaware river, which is here about one mile in width. It is beautifully laid out, with wide, straight streets, well shaded and lighted with gas. The houses are generally built of brick, and many of them are handsome structures. Particularly can this be said of those on the Delaware front, where ornamental grounds and an extended river view make them very attractive. The city is well supplied with water, elevated by means of hydraulic machinery. There are six churches, representing all the prominent religious denominations; and among its educational institutions may be enumerated Burlington College, founded in 1846 by the Episcopalians, and St. Mary's Hall, a boarding-school for girls, both under the supervision of the bishop of the diocese, who resides here. The public schools of the city are among the best of their kind. Con-

tiguous to the city are a number of fine country seats, occupied principally as summer residences by Philadelphians. Steamboats run regularly and frequently to and from Burlington in summer. There are several fine hotels in the city, as well as two banks, a public library, and three halls. The manufacturing industries include iron works, stove works, carriage factory, packing-box factory, and shoe factory, employing an aggregate of more than seven hundred hands.

The first settlements were made here in 1677. In that year the ship "Kent" arrived at New Castle with two hundred and thirty passengers, mostly Friends of good estate. Not being well accommodated in that locality, they proceeded on up the river to Chygoe's Island, (now Burlington,) so called after an Indian sachem of the Mandas tribe, who lived here. The town plot was purchased from the Indians, and named New Beverly. During the following year the ship "Shield," from Hull, visited the settlement with colonists, and it is recorded that when this vessel was passing the high land on which Philadelphia was afterwards built, some of the passengers were led to exclaim, "What a fine place for a town!" The settlement progressed rapidly—as many as three hundred and sixty colonists arriving here in one year from England. A considerable trade was carried on by means of sloops, and when Philadelphia was colonized, the settlers at Burlington and vicinity were ready to sell the colonists supplies. During the Revolutionary war it was for a time occupied by the British and Hessians as an outpost,—Count Donop, the commander-in-chief of the Hessians, having his headquarters at Mount Holly, about seven miles distant, during part of 1776 and 1777.

In 1677 Burlington was laid out as a town, and in 1693 was incorporated by the proprietary government. In 1784 it was chartered as a city. Population, 5817. Number of manufacturing establishments, 339; capital invested, \$2,277,075; hands employed, 3283; wages paid, \$1,249,405; materials used, \$2,896,937; value of products, \$4,884,438.* (Junction of Burlington Branch to Mount Holly.) A tri-weekly stage runs between Burlington and Jobstown.

EDGEWATER, seventy-six miles.—Like

* Includes Burlington county.

other towns on the Delaware, this is a delightful place in summer, and congregates a large number of visitors. In its accommodations and surroundings it embraces many attractions.

BEVERLY, seventy-seven miles, is pleasantly located on the Delaware river, and contains many handsome residences. It has been built since 1848, and already rivals some of its older neighbors in population and importance. It was incorporated as a city in 1857. An extensive rope-walk and a stocking factory are located here, and the city contains several churches, a large hotel, two extensive boarding-houses, a preparatory school, excellent public schools, and two halls. Population, 1418.

PERKINS', seventy-eight miles.

DELANCO, seventy-nine miles, on the Rancocas river, near the Delaware, is a place of growing importance, and a favorite summer residence and resort. Population about 500.

RIVERSIDE, seventy-nine and one-half miles, is a pleasant village near the junction of the Rancocas and Delaware rivers.

CAMBRIDGE, eighty and one-half miles.

TAYLOR'S, eighty-one miles.

RIVERTON, eighty-three miles.—Several large boarding-houses are located here and are well patronized,—the locality meriting and enjoying a high degree of popularity as a retreat during the summer months. The village contains one church, private and public schools, and a population of about 225.

PALMYRA, eighty-four miles.

MORRIS', eighty-five miles.

FISH HOUSE, eighty-seven miles, is a noted place of resort for disciples of Isaac Walton, who sometimes mingle politics with their piscatorial avocations, and devise schemes of government while enticing the finny tribe from their element. Two brick manufactories are in operation here, employing near one hundred men. Population about 200.

BEIDEMAN'S, eighty-eight miles.

CAMDEN, ninety-one miles,—the county seat of Camden county,—is immediately opposite Philadelphia. It is built upon an extended plain and is regularly planned. The buildings are principally of brick,—many of them handsome structures,—and the general appearance of the city is neat and pleasant. Quite a large trade centres here from all parts of Middle and West Jersey, and its manufactories are extensive. Among them may be mentioned those of

iron products and machinery, glass, drugs, flour, lumber, and steel pens,—the last being the largest establishment of the kind in the United States. Large and powerful ferry-boats connect Camden with Philadelphia, and these carry a constant stream of passengers between the two cities. The travel through Camden is immense, and as a thoroughfare it would probably take rank only second to Jersey City. Its schools, churches, public institutions, and hotels are numerous and complete, and in every respect the city presents evidences of prosperity.

The first settlements were made on the site of the city about 1685, previous to which time the land embraced within its limits had been taken up, in several parcels, by different owners. During the Revolutionary war, and particularly while the British had possession of Philadelphia, it, and the settlements adjacent, suffered much from raids of the enemy and from marauding bands of Tories. In 1831 it was chartered as a city, and when the county of Gloucester was divided, in 1844, it gave its name to the new member of the Commonwealth. Since then its growth in population and wealth has been rapid. Population, 20,045. Number of manufacturing establishments, 329; capital invested, \$3,507,295; hands employed, 3836; wages paid, \$1,470,517; materials used, \$5,702,246; value of products, \$8,330,013.* (Junction with West Jersey Railroad.)

(ATLANTIC CITY, a popular and rapidly-improving summer resort on the sea-side, is situated sixty miles east of Camden, with which it is connected by the Camden and Atlantic Railroad.)

FREEHOLD AND JAMESBURG AGRICULTURAL RAILROAD.

JAMESBURG.—Terminus and point of junction with Camden and Amboy Railroad. (See last-named road for description.)

HOFFMAN'S, three miles.

TRACEY'S, five miles.

ENGLISHTOWN, seven miles.

MANALAPAN, eight miles.

BATTLE GROUND, nine miles.

FREEHOLD, eleven miles, is the county seat of Monmouth county. It contains several churches, an academy, two newspapers, and two banks, and is a flourishing place.

* Includes Camden county.

It was near here that the battle of Monmouth was fought, between the Americans and British, on the 28th of June, 1778. At this battle, history records that Washington accused General Lee of treachery, or "ill-timed prudence," in rather strong language; and his presumed attitude at the time of accosting Lee is perpetuated in his equestrian statue at Washington City. Another incident connected with the battle has also become historic. In the beginning of the contest Molly Pitcher was carrying water from a spring to her husband, employed in assisting to load and fire a cannon, when he was killed before her eyes. An officer came along and ordered the gun to be put out of the way, but Molly took her husband's post and faithfully performed its duties. Congress, as a reward, voted her half-pay for life. Population, 4231. Number of manufacturing establishments, 302; capital invested, \$1,735,225; hands employed, 2192; wages paid, \$463,160; materials used, \$1,580,685; value of products, \$2,605,176.*

HOWELL, fourteen miles.

FAIRFIELD, fifteen miles.

FARMINGDALE, nineteen miles.—(Junction with New Jersey Southern Railroad, by which connection is made to Long Branch.)

ALLAIRE, twenty-two miles.

ALLENWOOD, twenty-four miles.

SQUAN, twenty-seven miles, is a central point on the coast, containing four churches, two hotels, and a population—largely composed of sea-faring people—of about 800. Stages run from Squan to Point Pleasant, Ocean Beach, Ocean Grove, Asbury Park, and the summer boarding-houses on the north side of Squan river. POINT PLEASANT, three miles distant, on the south side of Manasquan river, is one of the oldest watering-places on the Jersey coast, and contains several large boarding-houses. In approaching this place the tourist finds himself among the pines, and in the midst of scenes that cannot but interest him by their peculiarity. These pine woods extend all along this portion of the coast, and were, during the Revolutionary war, the haunts of outlaws, who sallied from them to commit all kinds of outrages on the settlers in the adjacent country. So dangerous did they become that the Government offered large rewards for their capture, and they were finally hunted down and exterminated. OCEAN

BEACH is a new sea-side resort, about three miles from the railroad, on the south side of Shark river. It occupies a beautiful position at the mouth of this river, which is famous for its fish and oysters, and has an ocean frontage of a mile. It is designed principally as a resort for families, and the association owning it is empowered to make its own police regulations—an authority it has exercised so as to perpetuate the peace and order of the place. It was laid out in 1872, and now contains about one hundred cottages. OCEAN GROVE is at present about five miles from the railroad, but in a short time will, with other places on the coast, have a line extending to it. It is widely and favorably known, and has had a remarkably successful career since its establishment. A few years ago some ministers and members of the Methodist Episcopal Church in Pennsylvania, New Jersey, and New York, conceived the design of establishing, by the sea-side, a camp-ground and a summer retreat for Christian families. They secured a tract of land six miles from Long Branch, dedicated it to religious purposes, and commenced its improvement, under the title of the "Ocean Grove Camp-Ground, of Monmouth county, New Jersey." The association is authorized to make its own laws, and these have been framed so as to secure, for all time, the purposes in view when the retreat was originated. No intoxicating drinks are permitted on the ground. Boating, bathing, and driving are strictly prohibited on the Sabbath. All behavior unbecoming the repose of such a place is rigidly suppressed. These regulations, and the natural advantages of the location, make it a pleasant and quiet resort, where families can remain free from intrusion and annoyance, and where all the beneficial effects of sea air and sea bathing can be enjoyed. Many cottages have already been erected, and the number increases rapidly. The style of these cottages, being limited only by the means and taste of the builder, varies from the cheapest to the most ornate, but all are homelike and cosy. In August of every year a camp-meeting, continuing two weeks, is held on grounds reserved for the purpose, and attracts an immense concourse of visitors. Ample provision is made for the accommodation of these, and tents are rented during the camp-meeting, or longer, if desired, at very reasonable rates. ASBURY PARK, adjoining Ocean Grove, is established

* Includes county.

on the same general principles, and exhibits a like degree of progress and popularity.

SEA GIRT, twenty-eight miles,—the present terminus of the Freehold and Jamesburg Agricultural Railroad,—is directly on the Atlantic ocean, between Manasquan and Wreck Pond inlets, eleven miles south of Long Branch. It embraces a large tract of fertile land, which is being laid out in parks, boulevards, and wide avenues, and must eventually become a beautiful summer city.

LONG BRANCH, forty-one miles, is so generally known as a sea-side resort that a general description of its present condition would be superfluous. The ground forming a principal part of the present city was owned, previous to the Revolutionary war, by Colonel White, a British officer and a resident of New York, who had a small house here, used as a summer residence. After the commencement of the war, the place was confiscated and passed into other hands. The first record of summer visitors at Long Branch is in 1778, when a Philadelphia gentleman engaged boarding, with an old woman in charge of the Colonel White house, for himself and family, on the condition that he furnish his own bedding. This he did, and supplied the meat for their table also,—fish only being procurable from the landlady. In 1790 the property, consisting of one hundred acres, was sold for seven hundred dollars, and two thousand dollars being expended on it in improvements, it was regularly opened as a public watering-place. The visitors here in August, 1793,—most of whom were from Philadelphia,—witnessed, from the shore, the battle between the English frigate "Boston" and the French frigate "Ambuscade." After an engagement of two hours Captain Courteney, of the "Boston," fell, as did also Lieutenant Butler, of the marines, but the ship was saved.

Among the traditions connected with the place is the following:—At an early period a tribe of Indians had a fishing settlement here and claimed the ownership of the soil. A party of whites, from Rhode Island, proposed to purchase it from them, but the Indians were unwilling to sell. After some negotiations, the whites induced the aborigines to submit the question to a wrestling match, and the champion of Rhode Island, John Slocum, vanquished the redskin, and thus won the right to as much land as one man could walk around in a day. The

land thus acquired included a tract of considerable extent, which remained in possession of the Slocum family until a comparatively recent period.

The name of Long Branch is derived from a branch of the Shrewsbury river, running parallel with the coast, and applies strictly to the original village, situate about a mile and a half from the ocean, where, in 1812, a liberty-pole was erected which is still standing. The first name by which the locality was known to the white people was Land's End, and this appears to have been a translation of its Indian title.

The change in the appearance and character of the place since 1790 is certainly very great. Then it was difficult of access, completely secluded, and as quiet as the most retiring health-seeker could desire. Now it concentrates, in summer, a greater number of visitors than can be found at any other sea-side resort in the United States. The hotels are immense in size and magnificent in their appointments, and the cottages occupied by persons of distinction are numerous. The drives are diversified and attractive,—that fronting the ocean affording excellent facilities for the display of equipages, which, from their number and style, form one of the features of the place. Near Long Branch are the Highlands of Never-sink,—the most elevated land on the New Jersey coast,—upon which are the twin light-houses pointing out to mariners the entrance into New York bay. At Oceanport, three miles distant, is the race-course owned by the Monmouth Park Association,—one of the most popular tracks in America. It is a full mile in length, with wide sweeping turns and a homestretch of a quarter of a mile, affording a fine field for the display of the celebrated horses which congregate here at the annual meetings.

The distinguishing peculiarities of Long Branch as a summer resort are gaiety, animation, and dash, and in these respects it has few rivals. It can be reached by the Pennsylvania Railroad from New York or from Philadelphia in a few hours, and the trip from either point is interesting and pleasant. Permanent population about 5000.

BORDENTOWN AND TRENTON BRANCH.

LAMBERTON, four and one-half miles.
PRISON STATION, five miles.

TRENTON, six miles.—(Point of intersection with main line.)

COLUMBUS, KINKORA AND SPRINGFIELD BRANCH.

COLUMBUS, four miles.—Among the industries here are a carriage factory and a fruit-canning establishment. The town contains a seminary, several churches, a public hall, two hotels, and a population of about 800.

JOBSTOWN, seven miles.—Iron-ore is mined and shipped from this station, and farming is extensively carried on in the adjacent country. The village contains a church, a hotel, and a population of about 125.

JULIUSTOWN, nine miles.

LEWISTOWN, eleven miles.—(Point of intersection with Pemberton and Hightstown Branch.)

NEW LISBON, fourteen miles.—Terminus of branch and junction with Pemberton and New York Railroad. The station is surrounded by a good agricultural country, and in the vicinity are some extensive cranberry bogs. Mills of various kinds are in operation, and the business of the place is active. The Burlington county almshouse is located here. A stage, in summer, runs daily to Brown's Mills, distance three miles.

BURLINGTON AND MOUNT HOLLY BRANCH.

BURLINGTON.—Point of junction with Camden and Amboy Railroad.

MOUNT HOLLY JUNCTION, one-half mile.

DEACON'S TURNOUT, three and one-half miles.

IRICK'S, four miles.

WOODLANE, six miles.

MOUNT HOLLY, seven and one-half miles.

—Junction with Camden and Burlington County Branch and with Medford Branch. (See Camden and Burlington County Branch for description.)

CAMDEN AND BURLINGTON COUNTIES AND PEMBERTON AND HIGHTSTOWN RAILROADS.

CAMDEN.—Western terminus of road. (See Camden and Amboy Railroad for description.)

DUDLEY, three miles.

WELLWOOD, four miles.

MERCHANTVILLE, five miles, is a pleasant and flourishing village, principally occupied as a place of residence by merchants and other business men of Philadelphia and vicinity. Some of the dwellings are magnificent, and display a high order of taste in their ornamentation and surroundings. It contains several churches, a large public hall, excellent schools, and a good hotel. Population, 245.

MAPLE SHADE, seven miles.—A daily stage runs between this station and Camden.

WILSON'S, eight miles.

WEST MOORESTOWN, nine and one-half miles.

EAST MOORESTOWN, ten miles,—a village of some importance in Burlington county and the centre of considerable local trade,—is located in the midst of a rich and highly-improved country. It contains several churches, public and private schools, and hotels. The principal industries of the place are fruit-preserving establishments, a foundry, and coach factories. Population about 1900.

HARTFORD, thirteen miles.

MASONVILLE, fourteen miles.—In the vicinity of this station there are two flour-mills, a phosphorus factory, an iron foundry, and several other industries. The surrounding country is well cultivated. A daily stage runs between this station and Rancocas,—a summer resort,—distance two miles.

HAINESPORT, seventeen miles.

MOUNT HOLLY, eighteen miles,—the seat of justice of Burlington county,—is on the north branch of Rancocas river. It is pleasantly located in a highly-improved agricultural region: is noted for its refined society, and contains several churches, a boarding-school, mills, and factories, the principal of which is a spool-cotton factory. It has, also, a public hall and two large hotels. The name is derived from an eminence near the town, rising about two hundred feet above the level of the sea,—an elevation of some importance in a country so level as this portion of New Jersey,—which is frequently used by scientific men as a point of observation. Mount Holly is an old town, and its name is interwoven in the records of many stirring events of Revolutionary history. Population, 4017. (Junction and northern terminus of branch road to Medford.)

SMITHVILLE, twenty-one miles.—A wood-working machinery manufactory here employs

some two hundred men and boys. Population about 300.

EWANSVILLE, twenty-two miles.—(Junction and northern terminus of Vincentown and Ewansville Branch.)

BIRMINGHAM, twenty-three miles.—Twenty thousand tons of marl are annually shipped from this station. A foundry and a flour-mill are in operation here.

PEMBERTON JUNCTION, twenty-four miles.—(Point of connection with Pemberton and New York Railroad, which runs through the villages of New Lisbon and Hanover to Whiting's, distance eighteen miles, where connection is made with the New Jersey Southern Railroad to Long Branch. Connects, also, at Whiting's, with the Tuckerton Railroad, running via Bamber, Waretown Junction, Barnegat, Manahawkin, and West Creek, to Tuckerton, near Little Egg Harbor, on the Atlantic coast, distance thirty miles. By this connection some of the most noted fishing and gunning regions of the Jersey coast are reached, and extensive cranberry meadows are traversed. **TUCKERTON** is a place of historical interest and considerable coastwise trade. It was first settled in 1669 by Long Islanders, but in 1765 one Reuben Tucker, of New York, purchased here a large tract of land, and in 1786 the village was given its present name. In those days Tuckerton had a custom-house and direct trade with the West Indies. During the Revolution many British prizes were brought into Tuckerton, and at one time upwards of thirty armed American vessels rendezvoused here. An expedition having been fitted out by the British, at New York, to destroy the place, General Washington sent Count Pulaski and his Legion to defend it. The privateers, being apprised of the approach of the British, escaped, but Pulaski arrived too late to prevent the destruction of several houses and many prize vessels by the foe. One of his picket guards of thirty men was captured and all were put to death. The British then retreated, but lost one of their vessels, the "Zebra," which grounded in going out of the harbor, and was set on fire to keep her from falling into the hands of the Americans. **BEACH HAVEN**, near Little Egg Harbor inlet, opposite Tuckerton and distant six miles from it, is a new summer resort, which is rapidly growing in popularity and importance. Its location on Long Beach, with the Atlantic on one side, and the inlet, twenty miles

long, on the other, is very desirable, affording, as it does, unsurpassed facilities for boating, sailing, bathing, fishing, and gunning,—the inlet being full of the choicest fish, and covered, in season, with aquatic game. **OCEAN CITY**, a sea-side resort about being established, is located on the beach dividing Egg Harbor bay from the ocean, four miles from Tuckerton. The location possesses many advantages and most of the attractions found on this part of the coast.)

PEMBERTON, twenty-five miles, is a village of local importance in Burlington county, and has considerable trade. It is built on the Rancocas river, which affords good water-power. The appearance of the town is neat and attractive. It contains three churches, two mills, excellent public and private schools, and two good hotels. The surrounding country is fertile and highly improved, and large quantities of cranberries are shipped from this station. The shipment of marl is also an important branch of trade. Pemberton was settled about 1758, and then called New Mills. In 1826 it was incorporated by its present name in honor of James Pemberton. Population, 797. (Southern terminus of Pemberton and Hightstown Railroad.)

SHREVE'S, two miles.

LEWISTOWN, three miles.

WRIGHTSTOWN, six miles.—Stages run daily from this station to Paintville and to Bordentown.

COOKSTOWN, eight miles.

NEW EGYPT, eleven miles.—Several grist and saw mills are located here, and considerable local business is transacted. The village contains two churches, two select schools, two hotels, a public hall, and a population of about 1000. A stage line runs from this station to Bordentown, and also one to Cassville.

HORNERSTOWN, thirteen miles.—The shipments of marl from this station aggregate some twelve thousand tons per annum. There are two churches and a hotel here, and a population of about 150.

CREAM RIDGE, fifteen miles.

DAVIS', sixteen miles.

IMLAYSTOWN, eighteen miles.—A daily stage runs between this station and Allentown, distance three miles.

SHARON, twenty-one miles.

HIGHTSTOWN, twenty-five miles.—(Eastern terminus of road, and point of connection with Camden and Amboy Railroad.)

MEDFORD BRANCH.

MOUNT HOLLY.—Terminus and junction.

LUMBERTON, two miles, is at the head of navigation on the south branch of the Rancocas. It contains a church, two hotels, and a public hall. A shoe factory, a basket factory, and several mills are located here, and considerable quantities of marl are shipped from the station. Population about 500.

BROWN'S, three miles.

REEVES', five miles.

WILKINS', six miles.

MEDFORD, seven miles,—the terminus of the branch,—is a village in Burlington county. It has a glass factory in operation, employing about one hundred hands, and is well supplied with churches, schools, halls, and hotels. Cranberries are largely cultivated in the vicinity. Population, including township, 2189.

VINCENTOWN BRANCH.

EWANSVILLE.—Terminus and junction.

VINCENTOWN, three miles, is a flourishing village on the south branch of the Rancocas river. It contains several productive industries, the most prominent of which is the digging and shipping of marl. This natural and valuable product of middle and southern New Jersey exists in immense quantities. It is a marine deposit, formed by the decomposition of crustacea in beds of sand and vegetable matter, where it has reposed for countless ages, undergoing changes which have resulted in the creation of one of the most valuable fertilizers known. When the surface is removed from a deposit of marl, the formation is found with little moisture in it, uniform in appearance, of a dark green and slaty hue. The spade cuts it as readily as a knife passes through a cheese. The lumps or masses, as thrown out, cling together till they become dry, and then disintegrate and crumble, till a heap that has stood for a few weeks, and especially one that has been exposed through a winter, is as fine and mellow as an ash heap. A net ton of this substance, as excavated in the region traversed by the railroad, contains, by analysis, seventy-five pounds of potash and seventy pounds of phosphoric acid. The village of Vincentown contains three churches, two select schools, a bank, a public hall, and two hotels. Population about 1200.

WEST JERSEY RAILROAD.*

CAMDEN.—Northern terminus. (See Camden and Amboy Railroad for description.)

GLOUCESTER, four miles.—A city on the Delaware river, in Camden county, noted for its extensive and varied manufactories. It is also a place of popular resort in summer for Philadelphians, who reach it by ferry-boats plying constantly between the two points. Its site was probably the first occupied by Europeans on the Delaware river,—a Dutch settlement and fort, called Nassau, having been established here as early as 1624. This settlement was entirely obliterated before Penn's arrival at Philadelphia. Population, 3682.

WESTVILLE, five miles.

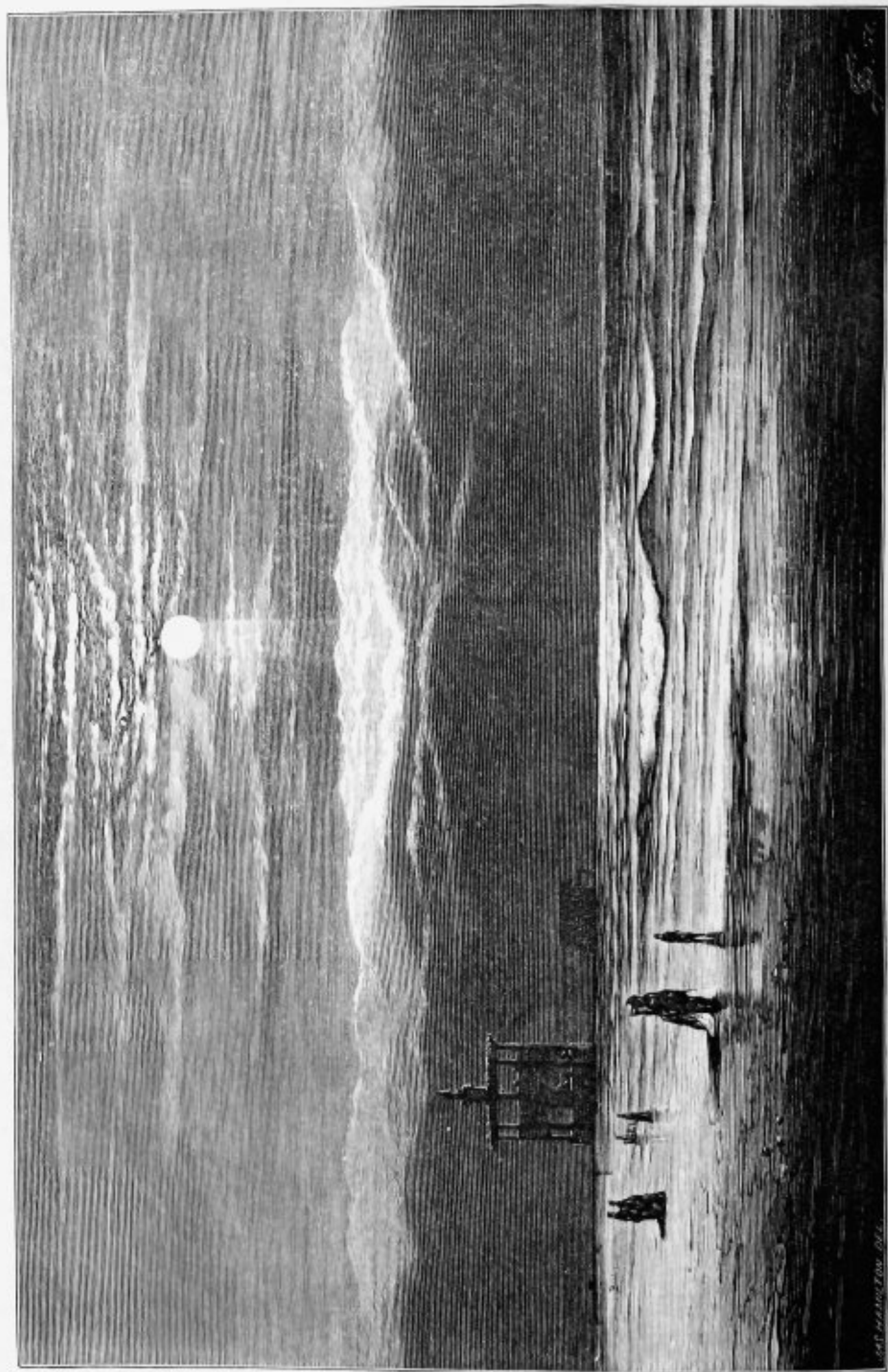
WOODBURY, eight miles, the seat of justice of Gloucester county, is a very old and pleasant town, built on Woodbury creek, which is navigable for small boats and affords a cheap channel of communication with the Philadelphia markets. The surrounding country is highly improved and very productive. The town contains numerous churches, an academy, several hotels, and all the necessary public buildings. Population, 1965. Number of manufacturing establishments, 166; capital invested, \$1,386,310; hands employed, 1255; wages paid, \$436,616; materials used, \$1,002,491; value of products, \$1,798,168.† (Junction of branch road to Swedesboro.)

WENONAH, eleven miles, is situated on the highest land in New Jersey, south of Camden. It contains a large, first-class hotel, which is crowded during the summer season with visitors, and many elegant private residences. The town is noted for its delightful air and pure water, and the resident population increases rapidly.

PITMAN, sixteen miles.—A grove of over two hundred acres here is devoted to camping purposes. There are two hundred cottages neatly arranged along shady avenues, and the grand pavilion seats nearly five thousand persons. Multitudes resort

* The West Jersey Railroad, as originally built and opened for business in 1861, extended from Camden to Bridgeton. Subsequently the Millville and Glassboro Railroad was constructed, and the Cape May and Millville Railroad was completed in 1863. These roads were leased by the West Jersey, and constitute the through line between Camden and Cape May. The Salem and Swedesboro branches, completed in 1863, were also leased by the same company, which now operates the entire system under one management. By the lease of the United Railroads of New Jersey the Pennsylvania Railroad Company acquired control of this system of roads, but has not assumed direct management of their operations.

† Includes county.



MOONLIGHT ON THE BEACH AT CAPE MAY.

here during the camping season to engage in religious exercises, and enjoy, for a time, life in the woods.

BARNSBORO, thirteen miles.

GLASSBORO, eighteen miles, in Gloucester county, is noted for its manufactories of glass, such as bottles, window glass, etc. The surrounding country is fertile and well cultivated, and the town possesses an active and increasing trade. It contains a number of public edifices, such as churches, halls, and schools. The town was settled about 1770. (Junction of branch road to Bridgeton.)

CLAYTON, twenty-one miles, is a pleasant and growing village, containing, among other industries, extensive glass-works.

FRANKLINVILLE, twenty-four miles.

IONA, twenty-five miles.

MALAGA, twenty-eight miles.

NEWFIELD, thirty miles.

NORTH VINELAND, thirty-one miles.

VINELAND, thirty-four miles, is a place of considerable celebrity, in Cumberland county, having been settled in 1861, and grown into a town of importance in the short time that has since elapsed. It was originated by a gentleman who purchased a large tract of wild land, surveyed it into small tracts, opened roads, and advertised it very extensively. His enterprise brought settlers, and, with a rapidity rivaling some Western cities, the wilderness was made to blossom and the waste places became glad. The settlement is largely engaged in the cultivation of small fruits, for which the soil and climate are well adapted. There are a number of churches, public buildings, and manufactories, and much care is bestowed upon education—the facilities for which are excellent. It has some good houses for the accommodation of strangers—all conducted on temperance principles. Population about 10,500. (Intersection of Vineland Railroad, which runs west via Bridgeton to Delaware bay, and east via Landisville, Cedar Lake, and Chewville to Winslow, where it intersects the Camden and Atlantic Railroad and forms a connection, at Atco, with the New Jersey Southern Railroad.)

SOUTH VINELAND, thirty-seven miles.

MILLVILLE, forty miles, is in Cumberland county, at the head of navigation of Maurice river, which empties into Delaware bay. This river derives its name from the fact that, in colonial times, the ship "Prince Maurice" was burnt upon it by the savages.

Millville is an important industrial point, having manufactories of glass, cotton fabrics, iron, etc., as well as all the institutions and requisites of an enterprising and intelligent community. Population, 6101.

MANUMUSKIN, forty-six miles.

BELLEPLAIN, fifty-three miles.

WOODBINE, fifty-six miles.

MOUNT PLEASANT, fifty-nine miles.

SEAVILLE, sixty-two miles.

SWAIN'S, sixty-six miles.

CAPE MAY COURT HOUSE, sixty-nine miles, the seat of justice of Cape May county, is an ancient settlement, and possesses the usual county buildings, as well as churches, schools, and hotels. Population of county, 7922. Number of manufacturing establishments, 27; capital invested, \$88,550; hands employed, 122; wages paid, \$29,830; materials used, \$147,012; products, \$128,640.*

RIO GRANDE, seventy-five miles.

BENNETT'S, seventy-eight miles.

CAPE MAY, eighty-one miles, is a popular and in some respects the most attractive seaside resort in America. More than half a century ago Cape May was visited by persons in search of health and recreation. It was not, however, until the popularization of steam navigation that it began to develop into the proportions it now presents. Watson, in his "Annals," describing a visit there in 1822, says, it "is a village of about twenty houses, and the streets are very clean and grassy." Within the last quarter of a century its growth has been steady, and it rises now into the grandeur of a city, with beautiful avenues lighted with gas, and commodious hotels and cottages, rivaling the finest metropolitan edifices in magnificence and comfort. It is built upon the extreme point of the cape from which it takes its name, so called after Cornelius Jacobus Mèy, a navigator in the service of the Dutch West India Company, who visited Delaware bay in 1623. The territory embraced in Cape May county was purchased from the Indians in 1630, by a Dutch colony,—the deed for the purchase being still preserved among the archives of the State of New York, at Albany. This cape forms the eastern shore of Delaware bay, and has the wide Atlantic on its east and south. The bathing-ground is the finest and safest, probably, in the United States,—the waves of the mighty ocean rolling in

* Includes county.

over a wide, shelving shore of smooth sand, and breaking into ripples that chase each other far up the beach. Here, during the season, thousands of bathers, of all ages and both sexes, sport in the waters, while white sails and puffing steamers go gliding by, in plain sight of the beach, to all parts of the world. The sands of the shore, packed into solidity by the ever-recurring tides, form a beautiful drive extending for miles, and pleasure-carriages may be seen rolling along it, so close to the water that the foam of the waves flecks their wheels. The drives to Cold Spring and Diamond Beach, where those bright pebbles, known as "Cape May diamonds," are found, are also popular. Cape May light-house stands within the limits of the city, and away across the waters its twin light, at Cape Henlopen, in Delaware, may be seen,—the two marking the entrance into Delaware bay and river. The improvement of Cape May is very rapid, and city lots now readily command prices that twenty years ago would have been considered fabulous. Every season many handsome private cottages are erected. The hotels are numerous,—some of them being immense structures, complete and elegant in all their appointments. Every taste can be gratified, and all classes of visitors find satisfactory accommodations. The facility with which Cape May is now reached has made it a popular resort for excursionists, who go by thousands for a "day by the sea and a dip in the surf," and a commodious building for their accommodation has been erected by the West Jersey Railroad Company. Regattas, concerts, and balls mingle their delights with the natural attractions of the place, and, during the season, life here is a continuous round of enjoyment and pleasure. The time consumed by the trip between Philadelphia and this "city by the sea" is less than three hours, and the accommodations afforded for the journey are equal to those provided on the best American railroads. Permanent population, 1248.

BRIDGETON BRANCH.

GLASSBORO.—Point of junction with West Jersey Railroad.

UNION, two miles.

HARDING, four miles.

MONROE, six miles.

ELMER, eight miles.

PALATINE, eleven miles.

HUSTED, thirteen miles.

FINLEY, sixteen miles.

BRIDGETON, twenty miles, is a city, port of entry, and the seat of justice of Cumberland county. It is situated on both sides of Cohansey creek, a navigable stream, twenty miles from its entrance into Delaware bay; is handsomely built, and has an active coast-wise as well as inland trade. Some of its streets present quite an animated appearance, lined as they are with attractive stores and shops, and thronged with people. It contains manufactories of iron products, machinery, glassware, and woolen goods, and has a large number of churches, two academies, a public library, five hotels, and other public institutions. Bridgeton was first settled in 1754, and derives its name from the bridge erected here, at an early date, over the river. It was but a small village at the commencement of the Revolution, but it contributed a company of soldiers to the patriot army, and one of its citizens, Dr. Jonathan Elmer, sat in the Continental Congress. A privateer schooner, called the "Governor Livingston," was built here in 1780, and made one successful cruise, but on her second voyage was captured near the capes of the Delaware by a British frigate. Bridgeton is connected with Philadelphia by a regular steamboat line. Population, 6830. Number of manufacturing establishments, 295; capital invested, \$2,573,800; hands employed, 4184; wages paid, \$1,357,766; materials used, \$3,716,878; value of products, \$6,314,577.*

SALEM BRANCH.

ELMER.—Point of junction with Bridgeton Branch.

NEWKIRK, four miles.

DARETOWN, five miles.

PAULDING, six miles.

YORKETOWN, seven miles.—A daily stage runs from this station to Woodstown, three miles distant, which is a pleasant and thriving village of about 1500 inhabitants.

OAKLAND, ten miles.

ALLOWAY, twelve miles.

MIDDLETOWN, thirteen miles.

ACTON, fourteen miles.

SALEM, seventeen miles.—A city and seat of justice of Salem county, is a very old place, having been settled about 1676 by a

* Includes county.

colony of English Quakers, who came out soon after the purchase of West Jersey by Edward Byllinge, for whom William Penn subsequently was trustee, and the settlement of whose estate probably gave the founder of Pennsylvania the first idea of interesting himself in the western world. This colony entered Salem creek, and gave it and the town they founded the name by which they are still known. Previous to this, however, the Swedes had settled in the same locality, and built a fort there which they called Elsinboro. As early as 1682 Salem was made a port of entry, and considerable trade was carried on between it and New York,—the exports of Salem consisting “principally of deer-skins, peltry, cedar posts and shingles.” The town contains many relics of the olden time, and is a very attractive and interesting place. It has a handsome court-house, several manufactories of glassware, a number of fine churches, excellent schools, good hotels, and other public and industrial institutions. The country around it is fertile and well improved, and the city is noted for its excellent society. A daily line of steamboats runs to and from Philadelphia. Population, 4555. Number of manufacturing establishments, 289; capi-

tal invested, \$1,359,377; hands employed, 1056; wages paid, \$293,629; materials used, \$1,563,365; value of products, \$2,277,791.*

SWEDESBORO BRANCH.

WOODBURY.—Point of junction with West Jersey Railroad.

TATEM'S, two miles.

PARKVILLE, two and one-half miles.

OGDEN'S, three and one-half miles.

BERKLEY, four miles.

CLARKSBORO, five miles.

MICKLETON, six miles.

WOLFERT'S, seven miles.

TOMLIN'S, eight miles.

ASBURY, nine miles.

RULON'S ROAD, ten miles.

SWEDESBORO, eleven miles,—terminus of branch,—is an old town at the head of sloop navigation on Raccoon creek. It contains a large woolen mill, several churches and schools, and is a place of resort for summer visitors. A daily stage runs to Woodstown, distance seven miles.

* Includes county.

PENNSYLVANIA RAILROAD.—BRANCHES.

EAST BRANDYWINE AND WAYNESBURG BRANCH.

Leased by Pennsylvania Railroad Company, 1861.

DOWNINGTOWN.—Point of intersection with main line. (See page 88.)

SHELMIRE'S, one mile.

DOWLIN'S FORGE, three miles.

DORLAN'S MILL, four miles.

BROOKLYN, six miles.

CORNOG'S, eight miles.

SPRINGTON FORGE, nine miles.

GLEN MOORE, ten miles, is a village in the midst of a productive agricultural region. A forge is located here, and considerable local trade is transacted. Iron-ore abounds in the vicinity. The village contains two churches, a public hall, and a hotel. Population about 150. A semi-weekly stage runs between this station and West Chester.

BARNESTON, twelve miles.—Near this station are a furnace, a foundry, and several grist and saw mills. The adjacent country is fertile, and dairy and market-garden products are regularly shipped. Iron-ore exists, and was mined here as early as 1730. There are three churches in the vicinity.

CUPOLA, fourteen miles.—Two grist-mills, two saw-mills, and an iron foundry are located here. Agriculture is the principal business of the neighborhood. There are three churches in the village, which has a population of about 50.

DAMPMAN'S, fifteen miles.

WAYNESBURG JUNCTION, sixteen miles.—(Junction with Wilmington and Reading Railroad.)

BUCHANAN, seventeen miles.

WAYNESBURG, eighteen miles,—a village in Chester county, in a fertile and beautiful agricultural region,—is the terminus of the railroad. It contains two churches, a public hall, a national bank, and two hotels. Iron-ore mines are worked, employing seventy-five men. Population about 550. A daily stage runs from this station to New Holland, and a tri-weekly line to White Horse.

PENNSYLVANIA AND DELAWARE BRANCH.

Leased by Pennsylvania Railroad Company, 1873.

POMEROY, forty-two miles.—Point of junction with main line. The road runs south-east via the stations of Stotsville, Newlin, Gum Tree, Rockeby, Doe Run, Pusey, Chatham, Baker's, Avondale, (where connection is made with the Philadelphia and Baltimore Central Railroad,) New Garden, Landenberg, (where connection is made with the Wilmington and Western Railroad,) Thompson, Newark, Griffith's, (where connection is made with the Philadelphia, Wilmington and Baltimore Railroad,) Cooches, Glasgow, Porter, (where connection is made with the Delaware Railroad,) Corbit, and Reybold, to Delaware City, on the Delaware river, opposite Fort Delaware,—distance, thirty-eight miles. Delaware City is a borough in New Castle county, Delaware. The Chesapeake and Delaware canal has its eastern terminus here. The town contains several churches, a bank, and an academy. Up to this point the navigation of the river is never obstructed by ice, and the channel is always open for the largest vessels. Population, 1059.

YORK BRANCH.

Purchased by Pennsylvania Railroad Company, 1871.

COLUMBIA.—Point of intersection with main line. (See page 102.) Columbia and Wrightsville are connected by a bridge owned by the Pennsylvania Railroad Company.

WRIGHTSVILLE, one mile, is in York county, and occupies a beautiful situation on the right bank of the Susquehanna river, immediately opposite Columbia. It commands views of the most magnificent scenery, and its location is particularly salubrious and pleasant. When first settled, and for many years afterward, it was known as Wright's Ferry, and by that name became

familiar to the people of the United States at the commencement of their national history. It was seriously and earnestly proposed to make it the location of the capital of the country, and Mr. Parton, in his "Life of Jefferson," gives an interesting account of the proceedings of Congress on this subject, while sitting in New York, in 1789 and 1790. Condensing his language, he says:—"A ring loomed up dimly upon the imaginations of members, supposed to have been formed 'out of doors,' in order to fix the capital at Wright's Ferry, on the Susquehanna. The members from New England and New York agreed in preferring it, as the point nearest the centre of population, wealth, and convenience; and for many days it seemed to have a better chance than any of the other places proposed—Harrisburg, Baltimore, New York, Germantown, Philadelphia. But Wright's Ferry lost its chance through the opposition of the southern members, and the ring rumor was the ass' jaw-bone which they used to kill the project. The members from New England and New York denied the offensive charge, and contended that Wright had fixed his ferry at the point which would be 'the centre of population for ages to come.' With regard to the country west of the Ohio,—'an unmeasurable wilderness,'—Fisher Ames was of the opinion (and it was everybody's opinion) that it was perfectly romantic to allow it any weight in the decision at all. 'When it will be settled, or how it will be possible to govern it,' said he, 'is past calculation.' Southern gentlemen, on the other hand, denied the centrality of Wright, and maintained that the shores of the noble Potomac presented the genuine centre to the nation's choice. And so the debate went on day after day. The Susquehanna men triumphed in the House; but the Senate sent back the bill with 'Susquehanna' stricken out and 'Germantown' inserted. The House would not accept the amendment, and the session ended before the place had been agreed upon. The subject being resumed in the spring of 1790, it was again productive of heat and recrimination; again the South was outvoted and the Potomac rejected by a small majority. Baffled in the House, southern men renewed their efforts over Mr. Jefferson's wine and hickory-nuts in Maiden lane. It was agreed at length that for the next ten years the seat of government should be Philadelphia, and, finally, near Georgetown."

It is asserted that Pennsylvania failed to secure the location of the national capital within her borders through the supineness or indifference of some of her own representatives, and this is probably true, as the impression was at the time very general that geographically she had the strongest claim. General Washington favored the location at Wright's Ferry because of its beauty, security, and other natural advantages; but, though President at the time, his influence was not sufficient to carry the measure. However the result was obtained which fixed the capital where it now is, (and Mr. Parton says it was by "log-rolling"—an American political term which, interpreted, means "you help me and I'll help you,") Wright's Ferry profited little by the notoriety it had gained, and remained an insignificant village until 1834, when it was incorporated as a borough with its present name.

The family of Wrights who established the ferry here, and after whom the town is named, came to the region in 1728, and became prominent and influential citizens in the early days of the settlement. Reference has been made to them in the sketch of Columbia, and descendants of these pioneers still reside in the neighborhood.

Wrightsville is the outlet for an extensive and productive region, and has an active trade. It contains three saw-mills, a planing-mill, an iron furnace, and three cigar manufactories, employing together about one hundred and fifty men. Lime-burning is extensively carried on—some seven thousand tons being produced annually. There are in the town three churches, eight common schools, a national bank, a public hall, and two hotels. Population, 1544.

EWING, three miles.

STONER'S, five miles.

HELLAM, seven miles.

CAMPBELL'S, eight miles.

TURNPIKE, nine miles.

HIESTAND, ten miles.

YORK, fourteen miles.—Seat of justice of York county. This county was formed by act of the provincial legislature, of August 9th, 1749, and was the first created west of the Susquehanna river. The surface of the county is undulating, and in some portions hilly, although it cannot be termed mountainous. A few broken chains form its boundaries or penetrate its territory, but no

regular range extends through its limits. Many of the valleys are rich and highly cultivated, and it would be difficult to find anywhere more beautiful agricultural scenes than they present. The county is finely watered,—the Susquehanna river flowing for more than fifty miles along the north-eastern boundary, and the Conewago and Codorus creeks, both large streams, with their numerous branches, draining every portion of it.

York county is particularly rich in iron-ore,—many varieties being found, and large quantities shipped to distant furnaces. An excellent quality of slate is quarried in what is known as the Peach Bottom region, near the Susquehanna, and quarries of building stone furnish material used in all the surrounding counties. Copper and gold have been found, but not in quantities sufficient to pay for working.

The territory comprised in this and some of the adjacent counties was first acquired by purchase from the Indians, in 1696. This purchase was made by Governor Dongan, of New York, on account of William Penn. In 1700 the grant then made was confirmed to Penn by Widagh and Addugyjunkquagh, kings or sachems of the Susquehanna Indians, but it only conveyed "the Susquehanna river and lands next adjoining the same." This vague description satisfied neither Penn nor the Conestoga Indians, who claimed an ownership of these lands, and in 1736, with the approbation of the grand council at Onondaga, the Six Nations conveyed to the proprietaries of Pennsylvania all the lands as far up as the Kittatinny mountains, and west of the Susquehanna "as far as the setting sun."

Previous to this purchase, however, difficulties had arisen between the proprietaries and those of Maryland as to the ownership of this territory. Maryland sought to extend her boundary northward, and to do this encouraged a desperate set of traders and settlers to enter upon these lands. The authorities of Pennsylvania, always recognizing the aboriginal title, would not permit settlements to be made without the consent of the Indians, and in 1722 this was freely given by the Conestoga and other tribes, who viewed the encroachments of the Marylanders with anything but favor. Under that permission Governor Keith had the manor of Springettsburg surveyed, embracing the territory where York now stands, in June of that year. Settlements were

made within the limits of this manor soon after its survey, and in 1768 it was resurveyed. This manor, like others of a similar character, was excepted from the general confiscation of the proprietary property at the time of the Revolution.

The disputed boundary between Pennsylvania and Maryland, like that in the west between Pennsylvania and Virginia, led to many feuds and bitter personal strife. Claiming the right to the soil under separate sovereignties, laws were set at defiance by settlers, and outrages were of frequent occurrence. The authorities of Pennsylvania were moderate, but firm in the maintenance of their rights; and it is a singular fact—clearly demonstrating the justice of their claims—that in the end they were able to hold all they demanded,—the pretense of sovereignty set up by Maryland and Virginia on the south, and Connecticut on the north, being ultimately annulled by competent tribunals.

For near a century the history of York county varies but little from that of its neighbors. Its early settlers encountered many of the hardships and dangers attendant upon the establishment of homes in a wilderness; but they persevered and conquered. As a rule they were not subjected to Indian hostilities,—the Kittatinny mountain seldom being crossed by the savages, and the Scotch-Irish settlements in the Cumberland valley standing as a protecting barrier between them and danger. The energy of the English, who were the earliest settlers,—the thrift of the Germans, who followed them in great numbers,—and the varied enterprise of the Scotch-Irish, who planted their homes, their churches, and their schools in the slate regions of Peach Bottom,—caused the county to develop rapidly in material wealth as well as in mental growth; and when the Revolutionary war came, it found here a community animated with patriotism and ready to dare all for liberty. It is claimed that the "first company that marched from Pennsylvania to the field of war was a company of riflemen from the town of York." They left that place on the 1st of July, 1775; many others followed, and no county was more numerous or more ably represented in the patriot army. At least four of its citizens rose to the rank of brigadier-general in the service; several of lower grade were distinguished in military annals, and many

others achieved a high degree of fame in civil life.

Within the last thirty years York county has grown rapidly in population and wealth, and now justly ranks among the first counties in the Commonwealth. Numerous thriving towns are scattered throughout its limits, and a degree of enterprise is everywhere visible, which cannot fail to still further develop its great resources and add to its importance. The Northern Central Railroad traversing the entire length of the county; the tide-water canal running along its border for fifty miles, and several local railroads reaching its fruitful valleys, rich ore-banks, and growing towns, are business arteries carrying vitality into every portion of it. Population, 76,134. Value of agricultural productions, \$6,443,180. Number of manufacturing establishments, 1111; hands employed, 4027; wages paid, \$934,938; capital invested, \$3,251,400; materials used, \$4,629,981; value of products, \$7,028,934. Iron-ore mines, 11; hands employed, 272; wages paid, \$102,207; capital invested, \$100,000; tons mined, 50,962; value, \$186,530. Slate quarries, 7; hands employed, 145; wages paid, 185,800; capital invested, \$256,000; value of products, \$123,100. Stone quarries, 8; hands employed, 37; wages paid, \$10,705; capital invested, \$8300; value of products, \$117,075.

The borough of York is built on Codorus creek, in the Springettsburg manor of the Penns, near the centre of the county. It was laid out, by order of the Penns, in 1741, on a tract of land on both sides of the creek, and in plan was copied after Philadelphia. At that time there was not a house within the limits of the town, although portions of the county had then been settled for many years. "The proprietors gave 'tickets' to each person who wished to take up a lot. These tickets were transferable; the owner of them might sell them, assign them, or do what he pleased with them. It gave the right to build to obtain a patent—for the lots were granted upon particular conditions strenuously enforced. One of the usual conditions was 'that the applicant build upon the lot, at his own proper cost, one substantial dwelling-house, of the dimensions of sixteen feet square at least, with a good chimney of brick or stone, within the space of one year from the time of his entry for the same.' A perpetual rent of seven shillings sterling per lot was to be paid to the proprietors."

Under these restrictions building proceeded slowly, and in ten years only fifty lots were improved. In some instances improvements were commenced, but want of funds rendered their completion impossible, and the lots were forfeited. A historian writes:—"The early settling of York town was one continual scene of disturbance and contention; there were warring rights and clashing interests. It often happened that different men wanted the same lot; and when the lot was granted to one the others were watchful to bring about a forfeiture. The loss of lots by not fulfilling conditions was for a long time a serious evil, concerning which clamors were loud." But time and litigation settled these disputes, and the town improved more rapidly. In 1787 it was incorporated as a borough, and previous to that it had become a place of some note.

Like most of the early towns in colonial Pennsylvania it had its regular fairs, copied after those of old England, and in its infancy it had a "negro plot," which culminated, in 1803, in a conspiracy to burn the place. A large number of negro slaves was at that period held here, and these conceived the idea that the shortest road to liberty was by the destruction of the property of their owners. The plot was discovered by a negro woman being seen to throw a pan of coals at noonday in her master's barn. She confessed that it was a concerted plan to fire the whole town "at 12 o'clock;" but, fortunately for the people, she had mistaken midday for midnight. What punishment was meted out to the conspirators history does not record.

Congress retired to this place from Philadelphia at the time of the battle of Brandywine, in September, 1777, which led to the occupancy of that city by the British, and remained here for nine months. Their sessions were held in the old court-house, which stood in the public square and was demolished in 1841. Hon. Philip Livingstone, a member from New York, and one of the signers of the Declaration of Independence, died here on the 11th of June, 1778, and was buried in the cemetery of the German Reformed Church. A curious incident marked the assembling of the Continental Congress here. When the first Episcopal church was built, in 1774, Queen Charlotte, of England, presented it with a bell, but by some means it got into the cupola of the court-house

instead of the church steeple, and served to call together the rebel Congress.

A company was incorporated for supplying the town with water, in 1806. In 1833 the Codorus was made navigable by a series of slack-water pools and locks to the Susquehanna. In 1838 the railroad was completed to Baltimore, and in 1839 the railroad to Columbia was finished, connecting there with the State railroad to Philadelphia. York contains a large number of manufacturing industries, among which are the Empire Car Works, the York Car Works, the Pennsylvania Agricultural Works, and the Variety Iron Works, employing in the aggregate five hundred and fifty men. Several flour and paper mills are located in the immediate vicinity. Merchandising is extensively carried on with all portions of the county,—the borough being the centre of an extensive and growing trade. Tobacco is cultivated in York county and yields a handsome return to the farmers. The town contains fourteen churches, representing all Christian denominations, thirty-one public and four private schools, a public hall, five banks, a number of good hotels, and the usual public buildings, constructed in a substantial manner. Population, 11,003. (Junction with Northern Central Railway.) Stage lines run from York tri-weekly to Peach Bottom, distance thirty miles; tri-weekly to Dillsburg, distance twenty miles; and semi-weekly to Berlin, distance thirteen miles.

MIFFLIN AND CENTRE COUNTY BRANCH.

Leased by Pennsylvania Railroad Company, 1865.

LEWISTOWN.—Point of junction with main line. (See page 120 for description.)

LOGAN, four miles.—The Logan Iron and Steel Works and the Standard Steel Works are located here, employing together four hundred men. Population about 1000.

YEAGERTOWN, five miles.

MANN'S, six miles.—This station is at the celebrated axe factory of the same name, which employs one hundred and fifty men.

REEDSVILLE, seven miles.—A small woolen mill is located here, and some trade is carried on with the surrounding country, which is well cultivated. The village contains two churches, a seminary, and two hotels. Population of township, 1250. A daily stage

runs to and from Belleville, distance eight miles.

HONEY CREEK, ten miles.

NAGNEY, eleven miles.

MILROY, thirteen miles, the terminus of the road, is an active village in Mifflin county. It contains a woolen factory, saw-mills, and other branches of industry. Fossil iron-ore is mined near the station and shipped in large quantities, and lime-burning is carried on—about forty tons of the latter being sent daily to Lewistown. The village contains three churches, two public halls, a graded school, and two hotels. Population about 600. A daily stage line runs to Bellefonte, distance twenty-one miles.

BEDFORD AND BRIDGEPORT RAIL- ROAD.

Leased by Pennsylvania Railroad Company, 1872.

HUNTINGDON.—Intersection of Huntingdon and Broad Top Railroad, which is the connecting link, forty-five miles in length, between the main line and the Bedford and Bridgeport Railroad, commencing at Mount Dallas. (For description of Huntingdon, see page 129.)

MOUNT DALLAS.—This is the station for Everett, a flourishing borough in Bedford county, containing, among other industries, a steam-tannery, an iron foundry, and coach factory. Mercantile business is extensively carried on,—a large and productive area of country being tributary to the place. Fossil and hematite iron-ores are mined in the vicinity, about one hundred men being employed, and the shipment amounting to thirty thousand tons annually. The borough of Everett—until recently known by the historic name of Bloody Run—contains four churches, a bank, an excellent system of common schools, and three hotels. Population, 557. A daily stage runs to Chambersburg, distance forty-eight miles.

ASHCOM, two miles.*

LUTZVILLE, three miles.

HARTLEY, four miles.

JAMESON, six miles.

BEDFORD, eight miles.—Seat of justice of Bedford county. This county was formed out of part of Cumberland, on the 9th of March, 1771, by the colonial legislature, and was the ninth established in the province.

* The distances on this road are from Mount Dallas.



BEDFORD SPRINGS.

At the time of its formation it embraced the entire south-western portion of the colony. The county is mountainous and hilly,—the ranges of Sideling hill, Ray's hill, Clear ridge, Tussey's, Dunning's, and Will's mountains passing through it, and the main Allegheny forming its western boundary. In the midst of these mountains are fertile valleys

of limestone and red shale lands, highly improved and peculiarly beautiful. The principal streams are the Raystown branch of the Juniata, Dunning's creek, and Will's creek. Iron-ore of the finest quality abounds in all portions of the county, and in the vicinity of the town of Bedford hematite and fossil ores are extensively mined for

shipment. Semi-bituminous coal exists in the south-eastern corner, in what is known as the Broad Top region, and is worked to a considerable extent,—railroad improvements to facilitate this industry having been built in the last score of years.

The first settlement made where Bedford now stands was at an early period—probably before 1750—by an adventurous pioneer named Ray, and was known by the name of Raystown. The marks of this settlement were almost obliterated when the region first became familiar to the whites, and the fate of those who made it is lost in oblivion. In 1755 a road was cut through this region of country from Fort Loudon to a point on Braddock's road, in what is now Somerset county. This was done to facilitate the defense of the frontier, and several military posts were established upon it, one being located at or near the point subsequently occupied by Fort Bedford. This fort was commenced in 1757 by the advance troops of General Forbes' expedition against Fort Du Quesne, the location being suggested by Colonel Armstrong. On the 16th of August, 1758, Major Shippen, who was attached to the staff of Colonel Bouquet, writes from the camp at Raystown:—"We have a good stockade fort here, with several convenient and large storehouses. Our camps are all secured with a good breastwork and a small ditch on the outside." Forbes' army concentrated here late in the summer of that year, and moved from the place soon afterward on the memorable expedition which resulted in the extinction of French dominion on the Ohio. Colonel Washington, of Virginia, joined the army here. A garrison of two hundred men was left at the fort, which, at the time, was named Bedford, in honor of the Duke of Bedford, the settlement around it being known as Raystown for several years later. The name of Bedford is of Saxon origin, and means "town on the ford." The town of that name in England was granted by William Rufus, the son and successor of William the Conqueror, to Payne de Beauchamp, one of the Norman invaders, and from him sprung the family who transferred the title to this town in the midst of the mountains of America. General Forbes, in one of his letters, speaks of Fort Bedford as being "the first in Penn's settlement on the west side of the Allegheny mountains." The town naturally took the title of the fort, and the old name of Rays-

town is only perpetuated in the river which flows by it. Bedford was the only fort between the Ohio and the Delaware regularly garrisoned by British troops, and this they occupied from the time of Forbes' expedition until 1770,—a period of twelve years,—during which it was considered a military post of some importance.

Many incidents are preserved by historians of this early military post and frontier settlement. Savage massacres occurred all around it, and sanguinary events of border life mark pages of its annals. The American Indian-fighters were not always willing to submit to the regulations of the government or the orders of British officers, and, consequently, often came in collision with the troops of the mother country. One of the most daring of these border warriors was Colonel James Smith, who, previous to the Revolution, occupied a conspicuous leadership in Bedford and Franklin counties. Having the Indians to fight from necessity as well as choice, he and his partisans were not satisfied that traders, licensed and protected by the English authorities, should supply the savages with arms and ammunition; and, when their remonstrances were unheeded, they resorted to force to prevent the murderous trade. One of his attacks upon a company of traders gave the name to Bloody Run, a place near Bedford, where the English account stated "the rivulet was dyed with blood and ran into the settlement below, carrying with it the stain of crime upon its surface."

For this and other similar acts Smith and his men—known as "Black boys," from the fact that they generally disguised themselves as Indians when on the "war-path"—were hunted down by the British regulars, and many of them arrested and confined in Forts Loudon and Bedford. Smith himself was not captured, and determined to release those of his companions who were. He succeeded at Fort Loudon by capturing more of the British than they held Americans, and then exchanging two for one until all his men were released. The guns retained by the British were secured by capturing the commander of the fort and holding him until they were given up. At Fort Bedford he adopted a different and more daring plan to secure the liberty of the imprisoned Americans. He tells the story himself, in the following words:—

"I collected eighteen of my old 'Black

boys' that I had seen tried in the old Indian war. I did not desire a large party, lest they should be too much alarmed at Bedford, and accordingly be prepared for us. We marched along the public road in daylight, and made no secret of our design; we told those whom we met that we were going to take Fort Bedford, which appeared to them a very unlikely story. Before this I made it known to one William Thompson, a man whom I could trust, and who lived there; him I employed as a spy, and sent him along on horseback before, with orders to meet me at a certain place near Bedford one hour before day. The next day, a little before sunset, we encamped near the crossings of the Juniata, about fourteen miles from Bedford, and erected tents, as though we intended staying all night; and not a man in my company knew to the contrary, save myself. Knowing that they would hear this in Bedford, and wishing it to be the case, I thought to surprise them by stealing a march.

"As the moon rose about eleven o'clock, I ordered my boys to march, and we went on at the rate of five miles an hour, until we met Thompson at the place appointed. He told us that the commanding officer had frequently heard of us by travelers, and had ordered thirty men upon guard. He said they knew our number, and only made game of the notion of eighteen men coming to rescue the prisoners; but they did not expect us until toward the middle of the day. I asked him if the gate was open. He said it was then shut, but he expected they would open it as usual at daylight, as they apprehended no danger. I then moved my men privately up under the banks of the Juniata, where we lay concealed, about one hundred yards from the fort gate. I had ordered the men to keep a profound silence until we got into it. I then sent off Thompson again to spy. At daylight he returned and told us that the gate was open, and three sentinels were standing upon the wall; that the guards were taking a morning dram, and the arms standing together in one place. I then concluded to rush into the fort, and told Thompson to run before me to the arms. We ran with all our might, and as it was a misty morning, the sentinels scarcely saw us until we were within the gate and took possession of the arms. Just as we were entering, two of them discharged their guns, though I do not believe they aimed at us.

We then raised a shout which surprised the town, though some of them were well pleased with the news. We compelled a blacksmith to take the irons off the prisoners, and then we left the place. This, I believe, was the first British fort in America that was taken by what they call American rebels."

The adventure related took place in 1769, and it is asserted that one of Smith's men captured at the time the flag of the fort and carried it away with him. A few years ago it was said to be in the possession of some of his descendants, living near Bedford.

There is still standing in the town a log house—to which have been built two additions, one of brick the other of stone, the whole now being used as a hotel—erected as quarters for the British officers in the fort, and as such occupied by them. It was for many years known as "The King's House." The position it occupies is the highest in the old part of the town, and immediately in front of it is a small square, called the "diamond," probably marking a part of the area occupied by the fort itself, which is described by historians as having been remarkably regular in form.

Bedford was laid out by order of the governor and council, in 1766, by John Lukens, surveyor-general, and incorporated as a borough March 13th, 1795. When the county was formed, Arthur St. Clair, who resided in the portion of the county afterwards embraced in Westmoreland, was, with other gentlemen, named as a commission, who were authorized to purchase, in trust, a piece of land in the town and erect thereon a court-house and jail. The first court was held in the county on the 16th of April, 1771,—St. Clair holding at that time the offices of prothonotary, register, and recorder. In 1783 the court sitting here fixed the rates to be charged by tavern-keepers in the county—the price of a bowl of rum, to contain half a pint, to be one shilling; of a half a pint of whisky or cider to be six pence, and of each meal to be one shilling. These rates were to be publicly displayed in every house of entertainment.

Two companies were raised in the county for the American army at the commencement of the Revolution, and marched to Boston. Patriotism was a marked attribute of its people during the long struggle; and although the settlement was far removed from the scenes of strife, and had to repel constant inroads of the savages, yet its citizens

were zealous in support of the cause of independence, voluntarily enduring hardships and privations and shedding their blood on many fields of strife, until the surrender of Cornwallis, at Yorktown, gave the much-prized boon of liberty to the country.

On the 18th of October, 1794, the Pennsylvania troops, called out by President Washington to suppress the whisky insurrection in the western part of the State, concentrated here, under Governor Mifflin, and went into camp. These were subsequently joined by the troops from New Jersey and Delaware, and made an army of about seven thousand men, encamped immediately around the town of Bedford. On the 19th of October President Washington and Governor Lee, of Virginia, commander-in-chief of the expedition, arrived from Cumberland, Maryland, where the troops from Virginia and Maryland were concentrated. The President was received with a salute of fifteen guns; but otherwise there was no display on his arrival,—he having come quietly, with an escort of only four dragoons. On the 20th he addressed a communication to Governor Lee, complimenting the army on its excellent condition, and conveying to them his estimate of the high duty they were called out to perform. This communication was embodied in a general order issued by Governor Lee, on the 21st, directing the expedition to move. On the 22d the army marched from Bedford toward Pittsburg, and the same day the President left for the seat of government, at Philadelphia. During Washington's stay at Bedford he occupied, according to tradition, a stone house, still standing, on the main street, near the centre of the town.

For thirty years of the present century Bedford continued to be an important place in Pennsylvania. Located almost in the centre of the principal route of communication between the Susquehanna and Ohio rivers, it was known to all travelers east or west, and many of the most distinguished men in America made it a stopping-place in their journeys. The palmy days of stage-coaches congregated here a degree and kind of enterprise unknown in the present age. Its citizens were noted for their refinement and intelligence. Such men as Thomas Smith and John Todd, both judges of the Supreme Court of Pennsylvania and distinguished in the national government; George Woods, the surveyor who laid out the city

of Pittsburg; Robert J. Walker, secretary of the treasury of the United States; and others of approximate distinction made it their homes, or were "native and to the manor born." A later generation, of almost equal note, followed them, and it is safe to say that no interior town in the State has occupied a more conspicuous place in its annals.

The construction of railroads, diverting the tide of travel to other regions, was a serious blow to Bedford. As a consequence, the town languished for many years, assuming that venerable appearance which, however respectable, is so decidedly un-American. A few years ago enterprise pushed the iron tracks to and through it, and simultaneously the wonderful deposits of iron-ore, which abound in almost every portion of the county, began to attract attention. Large investments were made by capitalists from a distance, and enterprise in this direction bids fair soon to elevate both the town and county to their former position of prominence.

Bedford is situated in the midst of a fertile limestone valley, hemmed in on all sides by mountains, through which the streams cut their way in deep, romantic gorges, creating many scenes of wild and picturesque beauty. Most of the buildings are of brick, and some of them display considerable taste in their architecture and surroundings. The town contains five churches, some of them quite handsome; a large, well-arranged school building; a public hall, a bank, the usual county buildings, and extensive hotel accommodations. Considerable trade is carried on with the surrounding country, and the business of the place is flourishing. Population, 1247.* Stage lines run daily to Hollidaysburg, Blair county, distance thirty miles, and to Stoystown, Somerset county, distance thirty-eight miles. Population of county, 29,635. Value of agricultural productions, \$1,765,574. Number of manufacturing establishments, 369; hands employed, 943; wages paid, \$182,020; capital invested, \$1,372,515; materials used, \$1,113,090; value of products, \$1,587,024.

* Since 1870 the corporate limits of the borough have been extended, making the present population fully two thousand. No iron mines were then in operation, but at present this business is extensively carried on,—one mine near the town employing one hundred hands and shipping forty thousand tons of ore annually. Other mines are about going into operation, and this industry promises to become important. About ten miles east of Bedford the Cambria Iron Company have made extensive improvements, and are shipping large quantities of ore to their works in Johnstown.

Number of bituminous coal mines, 6; hands employed, 252; wages paid, \$94,010; capital invested, \$103,600; tons mined, 115,200.

BEDFORD SPRINGS.—One mile south of Bedford are the celebrated mineral springs. They have been known to the public since the commencement of the present century; and while they may not have achieved the popularity of other resorts more easy of access, yet, as resting-places for exhausted humanity, and as nature's panacea for the "ills that flesh is heir to," they rank second to none in America, or, probably, in the world. Located in the midst of charming scenery, where the air is as pure as the waters are limpid, everything around and connected with them—the deep shade, the murmuring streams, the rich verdure, the secluded walks, the smooth drives—seem to echo the refrain—"If there is peace in the world, it is here."

Various legends exist of the discovery of these medicinal fountains. Some of these go back to the times when the Indians dwelt in the region, and tell how the Great Spirit blessed the waters for the benefit of a favored tribe. A more authentic one relates that, in 1794, an eccentric individual, named Nicholas Schouffler, who was a monomaniac on the subject of gold discoveries, and spent all his time searching for the precious metal along the eastern spurs of the Alleghenies and the streams flowing through them, at length got upon Shover's run,—the creek which runs by the springs,—and followed it up until he came to a marsh thickly covered with underbrush. Here he found what he conceived to be the realization of all his hopes. The stones in portions of this marsh were thickly coated with a yellow incrustation which, to Schouffler's eyes, shone like pure gold. This was only the deposit left by the mineral waters; but the discoverer knew it not, and built a rude furnace in which he sought to secure the treasure by melting the rocks and evaporating the water. It is needless to say that his labor was lost, and that he, like many other seekers for fortune, was doomed to sad disappointment. But Schouffler's developments proved there was something extraordinary in this marsh, and attention was directed to it. In 1803 Dr. Anderson purchased the land upon which it was, and by analyzing the waters satisfied himself of their medicinal character.

The first account given of the beneficial use of the water states that, "in the year

1804, a mechanic of Bedford, when fishing for trout in the stream, near the principal fountain, was attracted by the beauty and singularity of the waters flowing from the bank, and drank freely of them. They proved purgative and sudorific. He had suffered many years from rheumatic pains and formidable ulcers on the legs. On the ensuing night he was more free from pain and slept more tranquilly than usual; and this unexpected relief induced him to drink daily of the waters, and to bathe his limbs in the fountain. In a few weeks he was entirely cured. The happy effect which they had on this patient led others, laboring under various chronic diseases, to the springs. In the summer of 1805, many valetudinarians came in carriages and encamped in the valley, to seek from the munificent hand of nature their lost health." Such being the effects of the water, and the demand for it increasing, the people of Bedford, according to one historian, joined together to trace the fountain to its source. This was found, as it now appears, bursting from the rock in the side of the mountain.

This spring has a regular flow, unaffected by drought or rain, of sixteen and a half gallons a minute. Its uniform temperature is about fifty-seven degrees. To the novice the water has an unpleasant taste, but use soon makes it palatable. The waters are classified as purgative chalybeate, and in their properties resemble the springs of Franzensbad, in Bohemia, and several other celebrated spas of Europe, where the mineral mud bath is used with great advantage in cases of paralysis, rheumatism, and gout. Professor Walton, in his able work on "The Mineral Springs of the United States and Canada," classifies but seven springs under the head of "purgative waters." Of these, three are in Kentucky, one in Oregon, one in Michigan, one in Vermont, and only the Bedford Springs in the Middle States. Chemical analysis of the water gives the following result:—One quart, being evaporated, gave thirty-one grains of residuum. This contained—

Sulphate of magnesia,	20	grs.
Sulphate of lime,	3	¾ "
Muriate of soda,	2	½ "
Muriate of lime,	¾	"
Carbonate of iron,	1	¼ "
Carbonate of lime,	2	"
Loss,	¾	"
Total,	31	"

The same quantity of water contained eighteen and a half cubic inches of carbonic acid gas. A medical writer, commenting upon this analysis, says:—"Taken in moderate quantities, it must be one of the finest aperient or deobstruent medicines in the whole *materia medica*. As a deobstruent, it must also have a powerful diuretic effect; hence its utility in obstructions, and especially in liver complaint and debility of the system."

Another medical writer, in an article contributed to the "Medical Examiner," says:—"The sensible action of the water of the mineral spring is on the kidneys, producing very prompt and profuse diuresis; on the skin, giving rise to very free perspiration; and on the bowels, causing gentle catharsis. It will thus be evident that all the emunctories are stimulated to increased activity; the discharges are copious, and yet, not only is no debility induced, but there is an actual increase of vital force in proportion to this activity. I have myself twice gone to Bedford so prostrated as scarcely to endure the fatigue of the journey, and wholly disqualified for all exertion, and have in both instances returned, at the end of a fortnight or three weeks, restored to my wonted power of labor; and have witnessed similar results in the cases of friends and patients."

Not only is this great fountain of health provided by nature here for the relief of suffering mankind, but others abound in the same little valley, as if the Creator had sought to concentrate in one spot a multitude of blessings. "Within a very small area are to be found one spring of pure slate water, another impregnated with hydrosulphuric acid, and a very copious spring of mountain limestone water." This diversity of water is accounted for by Professor Rodgers from the geological character of the valley, lying on the "dislocated side of a synclinal trough or basin in the strata, which are here steeply uptilted," and the red sandstone, the slate, and the fossiliferous limestone all brought to the surface.

A mile and a half north-east of Bedford is a chalybeate spring, which has, during the last ten years, come prominently into notice, although its existence was known for a long time. It is in the midst of a deposit of bog iron-ore, where portions of the skeleton of a mammoth were dug up while opening the spring. Handsome im-

provements have been made here, including a fine hotel.

Nature has been lavish in her bestowal of bounties upon this watering-place, and its surroundings are full of interest, both natural and historical. If it has not been improved to its capacity by art, it fortunately has not been marred—for the native rocks, the giant trees, the wooded hills, and the dancing rivulets are still as God made them. Standing by the fountains of health as they gush from mother earth, only so much of the blue sky is visible as two mountains, five hundred feet high, whose bases come nearly together and whose sides slope off at an angle of about fifty degrees, leave exposed; and from the tops of these elevations, reached by smoothly-graded, meandering paths, landscapes of beauty are presented that the whole State can hardly rival.

The hotel accommodations at the Springs are sufficient for six hundred guests, while those of the entire town and vicinity have a capacity of about two thousand. Access to the place can now be had by railroad from all parts of the country. (From Bedford the Dunning's Creek Branch Railroad extends, via Chalybeate Spring, Yount's, Hughes', Cessna, and Sill's, to Holderbaum, a distance of twelve miles, through an iron-ore region of great extent and richness.)

WOLFSBURG, eleven miles.—Twenty thousand tons of iron-ore are annually shipped from this station.

NAPIER, thirteen miles.—Schellsburg, an old and well-known town on the turnpike road, at the base of the main Allegheny mountain, is near this station.

MANN'S CHOICE, sixteen miles.—Sulphur springs exist at this station, and accommodations are provided for visitors.

SULPHUR SPRINGS, eighteen miles.

BUFFALO MILLS, twenty-one miles.

BARD, twenty-three miles.

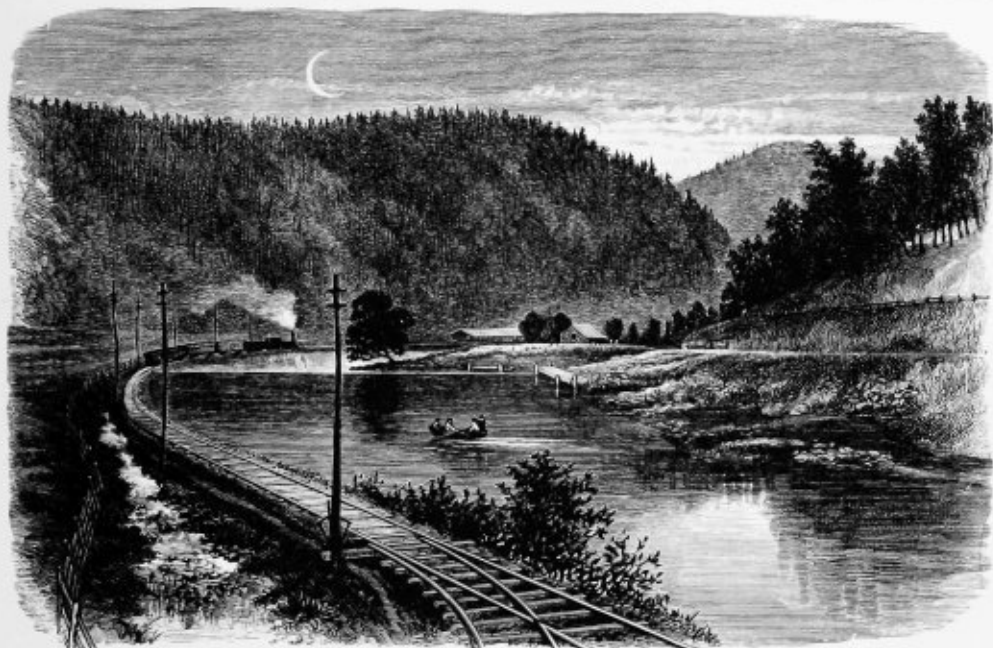
FOSSILVILLE, twenty-seven miles.

WILL'S CREEK, thirty miles.

BRIDGEPORT, thirty-one miles.—Junction with Pittsburg, Washington and Baltimore Railroad.

COOK'S MILLS, thirty-six miles.

STATE LINE, thirty-nine miles.—Terminus of Bedford and Bridgeport Railroad and junction with Cumberland and Pennsylvania Railroad, running to Cumberland, distant six miles, where connection is made with the Baltimore and Ohio Railroad. Cumberland is a city in Allegheny county,



MUNCY MOUNTAIN, NEAR BELLEFONTE.

Maryland. It is the centre of the Maryland coal trade and the terminus of the Chesapeake and Ohio canal. Being at the eastern base of the Allegheny mountains and on the Potomac river, it is surrounded with magnificent scenery, some of the finest of which is seen in the valley of Will's Creek, on the line of the Bedford and Bridgeport Railroad. Population, 8056.

BALD EAGLE VALLEY BRANCH.

Leased by Pennsylvania Railroad Company, 1864.

TYRONE.—Point of junction with main line. (See page 133.)

VAIL, three miles.—Intersection with Tyrone and Clearfield Railroad.

BALD EAGLE, five miles.—Iron-ore is mined for shipment near this station. A daily stage runs from here to Warrior's Mark, distance four miles.

HANNAH, eleven miles.—First station in Centre county.

MATILDA, fourteen miles.

MARTHA, seventeen miles.—Iron-ore and coal exist in the vicinity. A saw-mill and a grist-mill are located here.

JULIAN, twenty-one miles.—Charcoal for use in iron manufacture is burned here.

Fossil iron-ore is found in the neighborhood.

UNIONVILLE, twenty-six miles.—A seminary is in flourishing operation at this station, and an active local business is transacted.

MILESBURG, thirty-one miles, is an important borough in Centre county. Among its industries are a rolling-mill, iron furnaces, a forge, and wire-mill, employing near five hundred men. The Snow-Shoe Railroad, running to the coal-mines of the same name, intersects near here and carries annually about eighty thousand tons of coal. This road reaches a high elevation in the mountains, and passes through some remarkably bold scenery. A good hotel, frequented by summer tourists, is at the village of Snow-Shoe. Milesburg contains several hotels and four churches. Population, 600. A branch road, two miles in length, runs from this station to Bellefonte.

BELLEFONTE, thirty-three miles.—County seat of Centre county. This county was organized by act of 13th February, 1800, and is so named from the fact that it is in the geographical centre of the State. It is composed of a series of rugged mountain ranges and luxuriant limestone valleys, traversing the county from south-west to north-east. The mountains in the county

are Tussey's, Path Valley, Brush, Nittany, Bald Eagle, and the great Allegheny. The valleys are Penn's, Brush, Nittany, and Bald Eagle, through the latter of which the railroad is constructed. The principal streams are Penn's creek, Bald Eagle creek, Fishing creek, Beach creek, and Moshannon creek, (which forms the boundary between this and Clearfield county,) and many other smaller streams. Like Blair county, which joins it on the south, Centre has a number of magnificent springs gushing out of the limestone strata at the base of the great Allegheny, and fed by the accumulated waters of that giant, from one of which Bellefonte takes its name. The county is rich in iron-ore, and the manufacture of iron has long been a prominent industry. Bituminous coal abounds in the northern portion of the county, and is extensively mined. The valleys are well cultivated, and the general thrift of the German farmers, who compose a large portion of the population, is everywhere observable. Lumbering is extensively carried on in the pine forests of the Alleghenies, but the supply is rapidly disappearing before the axes of the woodmen.

The first settlement in Centre county was made soon after the treaty of Fort Stanwix, in 1768, by Colonel James Miles, of Philadelphia, at the place where Milesburg now stands. Here was situated an Indian village, and at it lived a warrior named Bald Eagle, who had his wigwam between two large white-oak trees, which remained standing until some forty years ago. It was from this warrior that the mountain, the valley, and the creek took their name, and not from the noble American bird, as is generally supposed. Previous to the Revolution, the settlements in Centre were embraced in the townships of Bald Eagle and Potter, in Northumberland, and its early history is merged in the annals of that county.

The early settlers, who were generally pioneers from the Susquehanna valley, had the usual troubles with the savages, and a block-house was erected a short distance below Milesburg, on Bald Eagle creek, for their protection, which was garrisoned for a short time by colonial troops in 1777. James Potter, a brigadier-general in the Revolutionary army, settled in Penn's valley soon after the treaty of 1768. He built a stockade fort near what is locally known as Logan's Gap,—traces of which fort could be seen as

late as 1840. At the commencement of the Revolution, Potter, with other settlers, was driven from the region by the hostile savages, but returned when peace was concluded and resumed the occupancy of his lands, some of which remained in possession of his descendants until a recent date. General Potter served with Washington during the war, and participated in the battles of Brandywine, Germantown, Morristown, and the terrible winter at Valley Forge. Subsequently he occupied a prominent position in the history of Northern Pennsylvania, and Potter county was named in his honor.

"The history of Centre county since the Revolution is that of a peaceable, industrious population, augmenting its numbers and wealth: it is the history of villages built, of farms and mines opened, of manufactories established, of academies and churches founded, of roads and canals constructed. Such a history records not details but happy results." Population, 34,418. Value of agricultural productions, \$2,052,317. Number of manufacturing establishments, 362; hands employed, 1451; wages paid, \$462,486; capital invested, \$1,830,346; materials used, \$1,876,951; value of products, \$3,047,674. Bituminous coal-mines, 7; hands employed, 302; wages paid, \$145,978; capital invested, \$626,100; tons mined, 184,456. Bellefonte is situated on elevated ground, near Spring creek, in the midst of a limestone valley abounding in agricultural and mineral wealth. It is surrounded by magnificent scenery, and is celebrated for its pure atmosphere, its crystal waters, and the refinement of its inhabitants. Many of its edifices, public and private, are handsome structures, evidencing the taste of those who built and occupy them. As has already been stated, the town takes its name from a splendid spring, which not only supplies it with water, but furnishes the power to force it through the hydrants. Bellefonte was laid out about 1795, and when the county was formed the proprietors gave half the lots for public purposes. It was incorporated as a borough in 1814. Among the distinguished men who, in former times, resided here, may be mentioned Andrew Gregg, who served sixteen years in the National House of Representatives and six in the Senate of the United States; Charles Huston and Thomas Burnside, judges of the Supreme Court of Pennsylvania, and Philip Benner, one of the pioneers of the iron

industry of the State, and the first man to transport iron from the Juniata valley to Pittsburg and the West. The town contains an extensive iron furnace, a rolling-mill, an axe factory, and a machine-shop, employing together about three hundred and fifty men. A large business in merchandising is transacted. The State Agricultural College is located near, and it has also a flourishing academy, an excellent system of graded common schools, eight churches, one national and three private banks, two public halls, fine hotels, and the usual county buildings. Population, 2655. Stage lines run daily to Milroy, distance twenty-five miles; also, daily to Pine Grove, distance seventeen miles.

CURTIN, thirty-four miles.—Two large iron establishments are in operation here, employing four hundred men. Grist and saw mills also exist. Iron-ore, to the extent of five thousand tons annually, is mined. The country around is fertile and well cultivated. Population about 400.

MOUNT EAGLE, thirty-seven miles.

HOWARD, forty miles.—An iron furnace and rolling-mill are located here, employing about one hundred and twenty-five hands. The surrounding country abounds in iron-ore and is rich in agricultural productions. Population, 298. A tri-weekly stage runs to Millheim, distance twenty miles.

EAGLEVILLE, forty-four miles.—Lumbering is the principal business at this station, some three hundred men being employed. Farming is extensively prosecuted in the surrounding country. The town contains two churches, good schools, and two hotels. Population, 550.

BEECH CREEK, forty-six miles.—First station in Clinton county. Two steam saw-mills here employ seventy-five men. Population at station about 400. A daily stage runs to the town of Beech Creek.

MILL HALL, fifty-one miles.—An axe factory and a cement mill here employ about one hundred men. Other manufacturing industries are in operation. Population about 450. A daily stage runs to Bellefonte, distance twenty-two miles, and a tri-weekly line to Logansville, distance ten miles.

FLEMINGTON, fifty-three miles.

LOCK HAVEN, fifty-four miles.—Terminus of road. (See Philadelphia and Erie Railroad for description.)

TYRONE AND CLEARFIELD BRANCH.

Leased by Pennsylvania Railroad Company, 1867.

TYRONE.—Point of intersection with main line.

VANCOVOC, seven miles.

GARDNER, eight miles.

MOUNT PLEASANT, eleven miles.

SUMMIT, thirteen miles.

SANDY RIDGE, fifteen miles.—The manufacture of fire-brick is extensively carried on here, some sixty men being employed in the business. Population about 300.

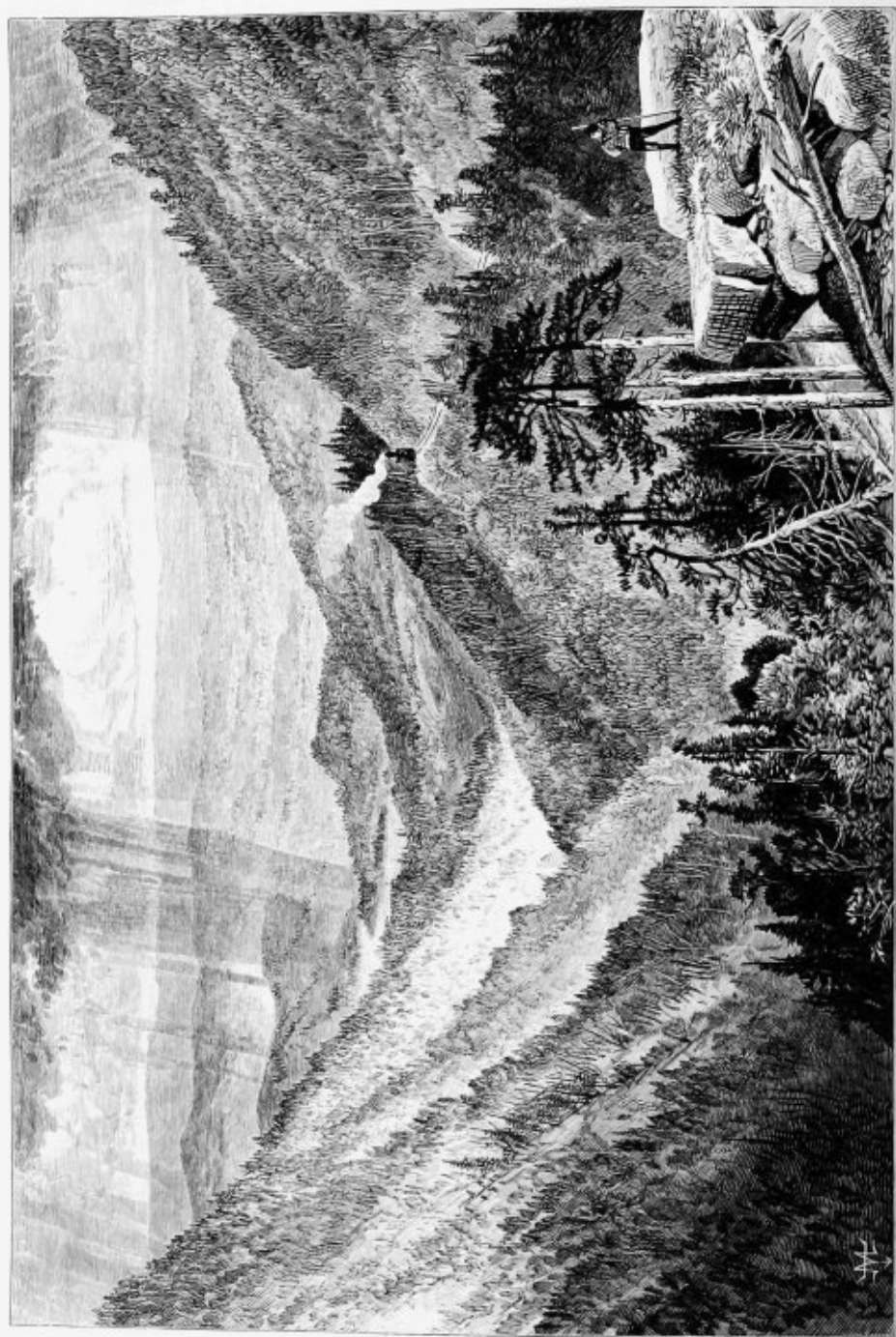
POWELTON, sixteen miles.

OSCEOLA, twenty miles,—a thriving town in Clearfield county,—is the centre of a large coal and lumber business. The town is of recent growth, having been built up within the last score of years. It contains a very extensive and complete saw-mill, a shingle-mill, a spoke-shop, and a planing-mill, employing altogether about one hundred and twenty-five men, and in addition has a number of minor industries. A large merchandising trade is carried on. In the immediate vicinity there are nine collieries in operation, employing over a thousand men and shipping five hundred thousand tons of bituminous coal annually. Additions are made to the number of these collieries each year. Contiguous to the town there are nine saw-mills, with a capacity of two hundred and thirty thousand feet of lumber per day, employing over four hundred men. Osceola contains three churches, a public hall, a bank, good schools, and two hotels. Population, 813. (Junction of Moshannon Branch Railroad, running to Houtzdale, distance six miles.)

DUNBAR, twenty-one miles.

STEINER'S, twenty-three miles.

PHILIPSBURG, twenty-four miles, is in Centre county, and was founded in 1796, by Henry Phillips, of England, the eldest of three brothers who successively resided here in charge of a large estate, and from whom the town takes its name. Emigrants were brought from abroad to colonize the place, and a screw factory, (said to be the first in the United States,) a forge, and nail factory established. These industries were too remote from the centres of trade to prove profitable, and in time were abandoned. The business of lumbering followed, and the dense pine forests covering the surrounding country have proved a source of prosperity to the present time. To this business has been added, since the construction



EMIGH'S GAP, TYRONE AND CLEARFIELD RAILROAD.

of the railroad, coal-mining, and there are in operation in the vicinity three coal-mines, employing about one hundred and fifty men and shipping annually two hundred thousand tons. The town contains two planing-mills, an extensive steam-tannery, a steam flour-mill, a foundry and machine-shop, and a number of other industries. It has five churches, two public halls, a public library, two banks, good schools, and several hotels. Extensive deposits of fire-clay exist in the vicinity. Population, 1086. (Junction of branch road to Morrisdale, distance four miles.)

BLUE BALL, twenty-seven miles.

WALLACETON, twenty-nine miles.—A steam saw-mill is in operation here, and considerable lumbering is done in the vicinity. The village contains a public hall, and a population of about 160.

BIGLER, thirty-two miles.—Squared timber is manufactured here, and there is one church at the station.

WOODLAND, thirty-four miles.

BARRETT, thirty-seven miles.

LEONARD, thirty-eight miles.

CLEARFIELD, forty-one miles.—Seat of justice of Clearfield county. This county was created by act of 26th March, 1804, but was not fully organized until January 29th, 1822. It is situated on the north-western slope of the Alleghenies, and its surface is mountainous, although no distinct ranges exist within its limits. The mountains are broken into irregular spurs, deeply indented by such streams as the West Branch of the Susquehanna, Clearfield creek, Mashannon creek, Bennett's branch, and several minor tributaries of the Allegheny river. The soil is not fertile, although some of the alluvial bottoms yield good returns to the agriculturist. Minerals abound in all sections,—almost the entire surface of the county being underlaid with bituminous coal, and iron-ore and fire-clay are found in many portions of it. Lumbering has been and continues to be the principal source of the wealth of its inhabitants,—the county being probably the best pine-timbered region in Pennsylvania. Coal is extensively mined in the south-eastern end of the county, and this industry grows in importance from year to year. Manufactories of fire-brick are also in operation, and a superior quality of sand, for the manufacture of glass, is quarried in various localities.

The county was not settled until about the commencement of the present century,

and has, therefore, but a limited history. Population, 25,741. Value of agricultural productions, \$1,880,767. Number of manufacturing establishments, 245; hands employed, 726; wages paid, \$182,405; capital invested, \$1,298,857; materials used, \$609,792; value of products, \$1,109,405. Number of bituminous coal mines, 11; hands employed, 279; wages paid, \$147,903; capital invested, \$369,800; tons mined, 181,237; value, \$248,151.

Clearfield is situated on the West Branch of the Susquehanna, and may justly be ranked among the most pleasant towns in Pennsylvania. Many of its buildings are elegant, and the general appearance of the place is attractive and flourishing. It was laid out about 1806, on lands owned by Abraham Witmer, an enterprising citizen of Lancaster county, who donated one lot for a court-house, one for a jail, and three for an academy, and contributed three thousand dollars toward the erection of the public buildings. It occupies the site of an old Indian town, called Chinklacamoose, one of the last residences of the aborigines in Pennsylvania. Clearfield has an active trade. It contains a foundry, a steam-tannery, an extensive manufactory of cabinet-ware, a planing-mill, two saw-mills, and a manufactory of fire-brick. It has five churches, an academy, good public schools, three banks, a public hall, the usual county buildings, and several excellent hotels. Population, 1361. A daily stage line runs to Clarion, and a tri-weekly line to Penfield.

HOLLIDAYSBURG AND MORRISON'S COVE BRANCH.

(Built by Pennsylvania Railroad Company, 1871.)

ALTOONA.—Point of intersection with main line. (See page 138.)

ELDORADO, three miles.

CANAN'S, four miles.

Y SWITCHES, seven miles.—At this point a branch road diverges to Duncansville and Newry, distance three miles. DUNCANSVILLE is the site of a rolling-mill, a nail factory, and a tannery, employing together about one hundred men, and lime-burning gives employment to some twenty more. It has four churches and two hotels. Population about 800. NEWRY is an agricultural station, at which there are three churches, a public hall, and a hotel. Population about 450.

HOLLIDAYSBURG, eight miles.—Seat of justice of Blair county, which was formed by act of February 20th, 1846, out of Bedford and Huntingdon counties, and named in honor of Captain John Blair, son of Captain Blair, one of the early settlers, who commanded the expedition after the Tories in 1778, mentioned in the sketch of Huntingdon county. The county is mountainous, having the Allegheny for its western and Tussey's mountain for its eastern boundary, and being intersected by other ranges, the most prominent of which is Dunning's. Some of its valleys are remarkably fertile: notably is this the case with Morrison's Cove, which is one of the most beautiful and productive in Pennsylvania. The county is well watered by the numerous streams rising in the Allegheny mountains, and contains several springs of such magnitude as to be natural curiosities. Iron-ore is very abundant and of excellent quality, and iron manufacture is extensively carried on. Bituminous coal is mined in the western portion of the county. Near Hollidaysburg is a mountain which is said to be a solid limestone formation. The early history of Blair county is embraced in that of its parent counties of Huntingdon and Bedford. Population, 38,051. Value of agricultural productions, \$1,405,706. Number of manufacturing establishments, 440; hands employed, 3624; wages paid, \$1,485,591; capital invested, \$4,145,430; materials used, \$3,704,301; value of products, \$6,428,366. Bituminous coal mines, 6; hands employed, 191; wages paid, \$81,500; capital invested, \$150,100; tons mined, 161,850; value, \$197,220. Iron-ore mines, 3; hands employed, 223; wages paid, \$98,551; capital invested, \$190,000; tons mined, 36,591.

Hollidaysburg is delightfully situated on the Juniata river, near the base of the main Allegheny mountain. The elevated portions of it command views of mountain scenery of peculiar beauty,—the distance being sufficient to tone the rugged outlines and soften the tints into a mellowness which increases the attraction. A rich and highly-improved limestone country surrounds the town. Iron-ore is very abundant in the region and of excellent quality, and the adjacent mountains furnish an inexhaustible supply of bituminous coal. These advantages, added to others it enjoys, have made it the centre of a large iron manufacture.

Hollidaysburg is of recent growth. In 1830 it contained only seventy-two inhabitants and was but an isolated village in the county of Huntingdon. At that period the State was constructing the main line of public works, and the junction of the Juniata division of the canal with the Portage Railroad was made here. This was the magic which changed the place from insignificance to prominence. In 1834 the line of public works was completed, and Hollidaysburg at once started on a career of prosperity. Its population grew into thousands, and manufactories sprung up to increase its progress. Although the canal and Portage Railroad have both passed away, being superseded by other improvements, the town has been able to maintain its prominence as a centre of business, and now justly ranks among the most important in Middle Pennsylvania.

The town was named after Adam Holliday, who settled here, with other pioneers, about 1775. These settlers had to encounter savage hostility in its worst form, and during the first years of their stay were in constant war with the aborigines. But they were not the kind of men to yield to opposition, nor did they shrink from a little bloodshed when that was necessary, and they retained the homes they established, handing them down through generations of descendants, many of whom are still living near the scenes of their ancestors' trials and triumphs.

The most prominent industries of the place are the works of the Blair Iron and Coal Company, those of the Hollidaysburg Iron and Nail Company, the Juniata Iron Works and Nail Factory, and two foundries and machine-shops, employing together about five hundred men. There are also tanneries, manufactories of soap, agricultural implements, and carriages, and many minor industries. Merchandising is a prominent business. Iron-ore banks are worked in the vicinity for home consumption, employing one hundred and fifty men. The town contains seven churches, two public halls, (one of which will seat two thousand persons,) a female seminary, excellent common schools, two large hotels, and the usual county buildings. Population, 2952. Population of Gaysport, immediately adjacent, 799. Stages run daily to and from Williamsburg, distance thirteen miles.

WILLIAMSBURG JUNCTION, eight miles.—

Point of intersection of branch road to Williamsburg.

LOOP, ten miles.

RESERVOIR, eleven miles.

KLADDER'S, thirteen miles.

RIDDLE'S, fourteen miles.

McKEE'S, fifteen miles.—An iron furnace is in operation here and ore mines are worked, shipping ten thousand tons annually. These industries give employment to seventy-five men. Population about 250. A daily stage runs from this station to Bedford.

RODMAN, seventeen miles.—Iron furnaces and a forge are located here, employing about one hundred and fifty men. Iron-ore mines are extensively worked—two hundred men being employed in them, and other industries are in successful operation.

ROARING SPRING, eighteen miles.—This station takes its name from a remarkable spring which bursts forth in great volume. Among the industries here are a paper-mill and a grist-mill. Considerable mercantile trade is transacted with the surrounding country, which is fertile and highly cultivated. Several churches are located here and a good hotel. Population about 250. A branch road runs from this place to the Orchill iron-ore mines, distance three miles. A daily stage runs to New Enterprise, in Bedford county, distance fourteen miles.

ERB'S, nineteen miles.

PECK'S, twenty miles.

MARTINSBURG JUNCTION, twenty-one miles.

MARTINSBURG, twenty-two miles.—This is an old and beautifully located borough in Morrison's Cove, one of the most extensive and fertile limestone valleys in Pennsylvania. It contains an iron foundry, a planing-mill, and various other mechanical industries. An extensive mercantile trade is transacted. About one hundred men are employed in mining iron-ore, and the annual shipment amounts to some six thousand tons. The town has several churches, a collegiate institute, graded common schools, a bank, three public halls, and a good hotel. Population, 536. A daily stage line runs to Woodbury, distance seven miles; also, a daily line to Cove station, on the Huntingdon and Broad Top Railroad, distance seven miles.

BASSLER'S, twenty-three miles.

MATTHEW'S SUMMIT, twenty-five miles.

HENRIETTA, twenty-eight miles.—Iron-ore is extensively mined in the vicinity, the business giving employment to about five

hundred men. The surrounding country is well cultivated. Population about 350.

WILLIAMSBURG BRANCH.

Built by Pennsylvania Railroad Company, 1873.

WILLIAMSBURG JUNCTION.—Intersection with Hollidaysburg and Morrison's Cove Railroad.

FRANKSTOWN, three miles.—This was an important point on the turnpike, previous to the construction of canals and railroads in Pennsylvania. It took its name from an Indian chief, called Old Frank, who resided here at the time the first white settlements were made in the region, and was the recognized head of the aborigines. The first trail over the Alleghenies was called the Frankstown road, and passed from this settlement, by way of Blair's Gap, to the Conemaugh, being the same route on which the Portage Railroad was subsequently built. After Hollidaysburg started on its course of prosperity, Frankstown lost most of its trade and prestige. It contains some manufacturing industries. Population of township, 1553.

REESE'S, five miles.

FLOWING SPRING, eight miles.—This station takes its name from a spring which ebbs and flows every twelve hours, and is an established local curiosity.

FRANKLIN FORGE, twelve miles.—(Junction of Springfield Branch Railroad, running via Wertz, Royer, and Morrell to iron-ore mines, distance nine miles.)

WILLIAMSBURG, fourteen miles, is an old and prosperous borough, and for near half a century has enjoyed considerable local trade and reputation. It was laid out in 1794, by a German, named Jacob Ake, who let the lots on ground-rent, thereby paving the way for much dissatisfaction and contention among its later inhabitants. A spring here is of sufficient volume to drive several mills, a furnace, a forge, and, in addition, supplies the town with water. In the immediate vicinity is some peculiar and attractive scenery bordering on the Juniata river. Williamsburg has an active business with the adjacent country, which is fertile and productive. The Pennsylvania canal, now owned by the Pennsylvania Railroad Company, terminates here. Population, 821.

EBENSBURG BRANCH.

Leased by Pennsylvania Railroad Company, 1862.

CRESSON.—Point of intersection with main line. (See page 147.)

LUCKETT'S CROSSING, two miles.

MUNSTER, four miles.—There are two hotels, patronized by summer boarders, at this station.

NOELL'S, five miles.

KAYLOR'S, seven miles.

BRADLEY'S, eight miles.

EBENSBURG, eleven miles,—the county seat of Cambria county,—was settled in 1796 by a colony from Wales. Of these the Rev. Reese Lloyd appears to have been the first to build within the present limits of the town, and gave it its name in commemoration of his son Eben, who died about the time of settlement. For many years it retained the characteristics of its founders, and a historian, writing about 1840, says:—"The ancient tongue of Cambria strikes the ear of the traveler from nearly every one he meets, and the services of three of the churches are conducted in that language." The site of Ebensburg is on the western slope of the Allegheny mountains, near two thousand feet above the tide-line of the Atlantic, and the sun sinks to rest below the level of the observer standing in the main street. From its elevated position it enjoys a peculiarly pure and healthful atmosphere—always cool and pleasant in summer, and frost is sometimes seen every month in the year. It is a favorite resort in summer, and excellent accommodations exist for about four hundred visitors. The town contains a foundry, the works of the Ebensburg Mining and Manufacturing Company, several tanneries, two banks, six churches, a normal and good public schools, five excellent hotels, and the usual county buildings. Coal is mined in the vicinity for home consumption, and iron-ore exists in the adjacent hills. Population, 1240. A daily stage line runs to Cherry Tree, distance twenty miles.

INDIANA BRANCH.

Owned by Pennsylvania Railroad Company.

BLAIRSVILLE INTERSECTION.—Point of junction with main line.

BLAIRSVILLE, three miles.—(See Western Pennsylvania Railroad for description.)

SMITH'S, five miles.

BLACK LICK, seven miles.—Three fire-brick establishments, two steam saw-mills, and two grist-mills are located here, employing together one hundred and seventy-five men. Bituminous coal, fire-clay, and iron-ore are mined in the vicinity for shipment. Population at station about 500.

ROUGH'S, nine miles.

HOMER, thirteen miles.—The manufacture of lumber is the principal business here, and a steam saw-mill and two grist-mills are in operation. Considerable trade is done with the adjacent country. Coal, iron-ore, and fire-clay are found in the vicinity. The town contains four churches and a population of about 700.

PHILLIP'S MILLS, fourteen miles.

TWO LICKS, fifteen miles.

REED'S, seventeen miles.

INDIANA, nineteen miles.—Seat of justice of Indiana county. This county was formed by act of March 12th, 1803. It is situated in the second tier of counties west of the Allegheny mountains. Its surface is undulating, but not rugged—the two minor spurs of the Alleghenies, Laurel hill and Chestnut ridge, passing through it. The Conemaugh—assuming the name of Kiskiminetas after its junction with the Loyalhanna—forms the southern boundary of the county. Black Lick creek, Yellow creek, Two Lick creek, Crooked creek, Plum creek, and branches of Mahoning creek, are the other principal streams within its limits. Much of the soil is fertile and well cultivated, and coal, iron, and salt are found in the valley of the Conemaugh and on its tributary streams.

The first settlements were made in Indiana county about the year 1769. These settlements were induced by explorations made in 1766-7, when the explorers were struck with the fact that a large area of territory, where Indiana now stands, was clear of timber and clothed with luxuriant grass, presenting an appearance similar to our western prairies. This natural peculiarity relieved them of the hard labor of "clearing," and they were not slow to profit by it. Similar miniature prairies existed in the counties of Somerset and Clearfield. The early settlers experienced peculiar hardships, from the remote and almost inaccessible position they occupied. Roads were entirely unknown, and no mill for grinding grain existed nearer than Franklin county,

in the Cumberland valley. To this region tedious and dangerous journeys were made with pack-horses, on which was carried the corn to be ground into flour. The savages were generally hostile, and wild animals, particularly wolves, abounded in great numbers. Life, with such surroundings, could not have been all sunshine; but the settlers, with a courage and determination incomprehensible to the present age, stuck to their settlements, and, after years of trials, peace and prosperity came to them.

In 1773 the first mill was built in the county. The same year the "Shawnee war" commenced, and the settlers were compelled, with a few exceptions, to flee for safety. A writer states that the Indians had then several towns in this region, and "at their leisure—and they contrived to have a good deal—they stole the white men's horses, and showed symptoms of no doubtful character as to their feelings towards their new neighbors." During the continuance of the Revolutionary war but little is known of this section and its settlers; but after Wayne's treaty, in 1795, the Indian troubles ended, and the number of settlers rapidly increased. The majority of them were Irish and German,—the former predominating in numbers. "That the inhabitants are religiously and morally disposed," says a historian, "may be inferred from the fact that in 1830 there was a church in the county for every six hundred and fifty souls."

The discovery of salt on the Conemaugh, and the construction of the Pennsylvania canal, gave great impetus to the prosperity of the county. The advantages gained then have never since been lost, and every portion of it evidences the energy and thrift of its people. Population, 36,138. Value of agricultural productions, \$2,640,875. Number of manufacturing establishments, 473; hands employed, 1086; wages paid, \$199,321; capital invested, \$918,220; materials used, \$822,498; value of products, \$1,393,408. Bituminous coal mines, 23; hands employed, 108; wages paid, \$25,510; capital invested, \$132,900; tons mined, 38,082.

The town of Indiana was laid out in 1805, on a tract of two hundred and fifty acres of land, granted for the purpose by George Clymer, one of the signers of the Declaration of Independence. It is pleasantly situated and neatly built, most of the edifices being of brick or stone. Among its manufacturing industries are one of straw-boards,

a foundry, and a planing-mill. It contains ten churches, a State normal school, good public schools, two banks, a public hall, a number of hotels, and the usual county buildings. Coal is mined in the neighborhood for home use. Population, 1606. A daily stage line runs to Punxsutawney, distance twenty-six miles; a tri-weekly line to Elderton, distance twelve miles; and a semi-weekly line to Cherry Tree, distance twenty-four miles.

WESTERN PENNSYLVANIA RAILROAD.

Leased by Pennsylvania Railroad Company, 1865.

BLAIRSVILLE INTERSECTION.—Point of junction with main line.

BLAIRSVILLE is an important town in Indiana county, the centre of an active trade, which it has enjoyed for many years, through several changes in the transporting business of Pennsylvania. It rose into prominence about 1828, when the western division of the canal was completed to this place. The carrying trade and the increased travel which the public works attracted were here obliged to resort to the turnpike for transit over the mountains, and as a point of transshipment the town assumed an important position. Large warehouses and hotels were built, the town grew rapidly, and swarmed with speculators, contractors, and forwarding agents. This forced prosperity lasted but a few years, and when the entire line of improvements was finished, in 1834, the place relapsed to its normal condition. But there was too much energy among its people to permit stagnation, and new enterprises were started which maintained its position. At a later period the construction of railroads gave it quite an impetus, and more recently the development of coal-mines and the burning of coke have greatly stimulated its prosperity.

Blairsville is beautifully situated on the Conemaugh, immediately below the mouth of Black Lick creek, in the midst of a productive agricultural region. It was laid out about 1819, and named in honor of John Blair, Esq.,—the same who gave the name to Blair county, and who was at the time president of the Hollidaysburg and Pittsburg Turnpike Company. This company erected a bridge over the Conemaugh here, on the Wernwag plan, of a single arch, two hundred

and ninety-five feet span. The structure was a novelty in bridge building at the time, and attracted much attention; but it has recently been blown down and destroyed. Two miles east of the town, on the railroad, are the Isabella Coke Works, consisting of two hundred ovens, and employing as many men. These works extend along the Conemaugh, and at night present a strikingly grand appearance. Among other industries of the place are a planing-mill, a foundry, two tanneries, and two grist-mills. Coal is mined for shipment in the vicinity. The town contains a female seminary and academy, six churches, two banks, a public hall, and several good hotels. Population, 1054. (Junction of Indiana Branch Railroad.)

SNYDER, five miles.

LIVERMORE, eight miles.

TUNNEL, ten miles.—At this station the Conemaugh makes an abrupt curve around the end of a high hill. It was found impracticable to construct the canal around this bend, and instead the hill was tunneled a distance of one thousand feet. The traveler on the railroad, which passes through a tunnel in the same hill, can plainly see this great work, substantially arched with cut stone and emerging at its western end on a splendid aqueduct over the river, all now abandoned and useless,—the interstices of the stone affording sustenance to tufts of grass and creeping vines,—an enduring monument to the liberality of the State of Pennsylvania.

KELLY's, twelve miles.—Fire-brick and salt works are in operation here, employing thirty-five men.

WHITE's, fifteen miles.

SALTSBURG, seventeen miles, on the Conemaugh, at the point where the railroad crosses that river by a magnificent bridge, takes its name from the numerous salt wells in the vicinity. Settlements were made here as early as 1800, and in 1813 an enterprising citizen, named William Johnson, commenced boring for salt, which he struck at the depth of four hundred and fifty feet, thus creating a new industry for the country. The scenery is strikingly grand, and the views up and down the river, from the car windows as they cross the bridge, cannot be surpassed in Pennsylvania. The town contains a coach factory and other minor industries. Coal-mines are in operation, shipping about fifty thousand tons annually. It has a literary institute, six churches, a public hall, a bank, and two good hotels. Population, 659.

FAIRBANKS', eighteen miles.

HELENA, nineteen miles.

SALINA, twenty-one miles.

NORTH-WEST, twenty-two miles.

ROARING RUN, twenty-four miles.

APOLLO, twenty-seven miles, is a flourishing borough in Armstrong county, at which are located a rolling-mill for the manufacture of sheet iron, employing one hundred and fifty men, fire-brick works, a planing-mill, and other industries. It contains five churches, a savings bank, a public hall, graded common schools, and two hotels. Population, 764.

Armstrong county was established by act of March 12th, 1800, out of parts of Lycoming, Westmoreland, and Allegheny, and named in honor of General John Armstrong, who commanded the expedition against the Indians at Kittanning, in 1756. The Allegheny river traverses the entire length of the county, and the Kiskiminetas forms its south-western boundary. The other principal streams draining its surface are Red Bank, Mahoning, and Crooked creeks, which afford excellent water-power. Most of the county was originally covered with heavy and valuable forests of timber, and lumbering has long been an important and valuable industry. In iron and coal deposits Armstrong is particularly rich, and salt and oil are found in various localities within its limits. A large portion of the early settlers of the county were of German descent, who came into it from Eastern Pennsylvania about the commencement of the present century.

Kittanning, the county seat, is located on the site of the historic Indian town of the same name, and occupies a beautiful situation on the left bank of the Allegheny river, forty-four miles above Pittsburg. It was laid out in 1804, and incorporated in 1821.

Population of county, 43,382. Value of agricultural productions, \$2,299,674. Number of manufacturing establishments, 276; hands employed, 1806; wages paid, \$732,544; capital invested, \$3,265,233; materials used, \$2,901,551; value of products, \$4,337,357. Bituminous coal mines, 11; hands employed, 312; wages paid, \$165,300; capital invested, \$159,400; tons mined, 186,465; value, \$213,862. Iron-ore mines, 4; hands employed, 380; wages paid, \$173,046; capital invested, \$110,000; tons mined, 59,857; value, \$196,271. Petroleum wells, 187; hands employed, 384; wages paid, \$157,425;

capital invested, \$1,-149,630; gallons secured, 12,543,080; value, \$1,496,245.

TOWNSEND, twenty-nine miles.

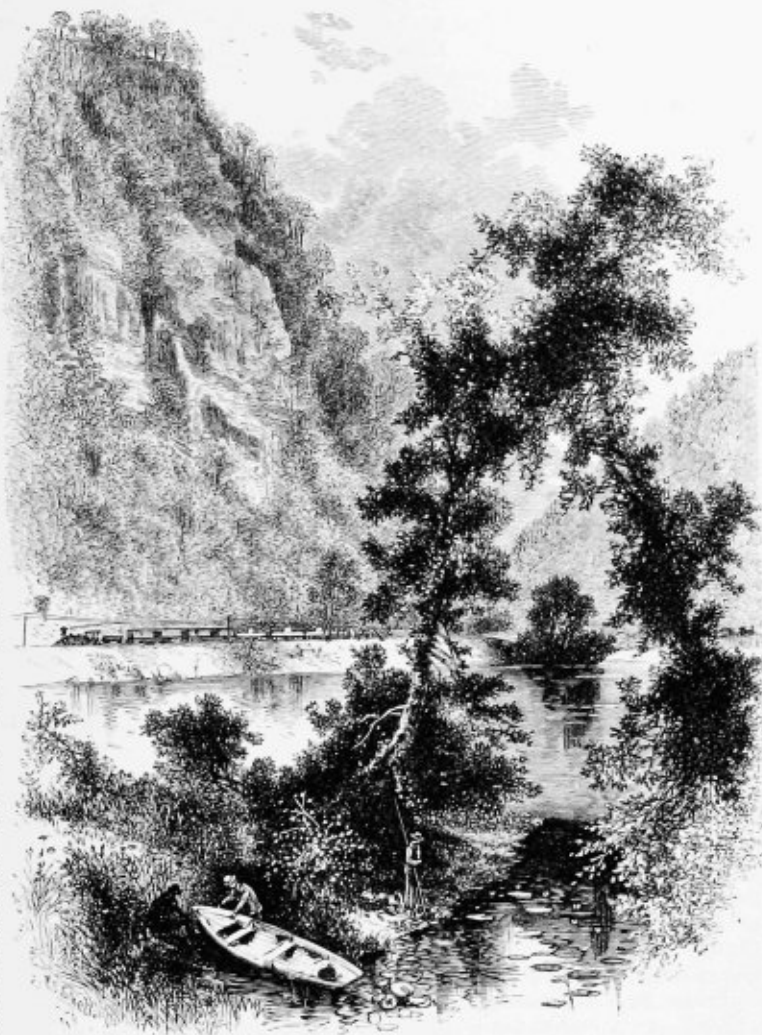
GRINDER'S, thirty-one miles.

LEECHBURG, thirty-two miles.—A rolling-mill for the manufacture of sheet iron and block tin is in operation here, employing two hundred men, and other manufacturing industries are carried on. The rolling-mill is run with natural gas as fuel. This gas is procured from a well bored on the opposite side of the river, and is conveyed by pipes to the fires it feeds. The supply is ample,—no other fuel being used in any part of the works,—and thus far shows no sign of exhaustion. Several coal-mines are worked in the vicinity. Leechburg was laid out by a gentleman named Leech, at the time the Pennsylvania canal was constructed, and the building of canal-boats was actively carried on here for many years. This industry has now been supplanted by others. The town contains an academy, five churches, a bank, and two hotels. Population, 368.

HILL'S MILLS, thirty-five miles.

ALLEGHENY JUNCTION, thirty-seven miles.—Junction with Allegheny Valley Railroad. The Western Pennsylvania Railroad here crosses the Allegheny river on a splendid iron bridge. An oil refinery is located at this station. Population about 100.

FREEPORT, thirty-eight miles, is on the right bank of the Allegheny river, near the mouth of Buffalo creek. It is in the



THE ALLEGHENY RIVER AT FREEPORT.

midst of some splendid scenery, partaking of the peculiarities of the Allegheny,—the “beautiful river” of the early French explorers. This stream is remarkable in many respects. By means of French creek and Le Boeuf lake, and Conewago creek and Chataqua lake, on the north-west, it almost touches Lake Erie; on the north-east it stretches out its long arms towards the Genesee river, in New York, and the North Branch of the Susquehanna; on the east, along its tributary, the Kiskiminetas or Conemaugh, it is chained by an iron tie over the Allegheny mountains to the sources of the Juniata; while on the south it pours

its waters through the Ohio and Mississippi into the Gulf of Mexico. For the greater part of its course it flows, not through a broad valley, like most other rivers, but in a great ravine, from one hundred to four hundred feet below the level of the adjacent country. The scenery is, in some places, wild and rugged, but more generally is picturesque and beautiful. The hills, though steep, are clothed with a dense forest, presenting the appearance of vast verdant walls, washed at their base by the limpid waters, alternately purling over ripples or sleeping in deep intervening pools. There are no rocks, strictly speaking, in the channel. Mineral wealth is scattered along its banks in great profusion. Coal and iron abound; salt is found at the depth of about six hundred feet; and that wonder of the age, petroleum, seems to have its inexhaustible reservoirs near it. These advantages have attracted to it capital and enterprise; and now, for many miles, its shores echo the sound of machinery and its waters reflect the fires of numberless manufactories, while its bosom and its banks bear the products of this industry to distant markets.

Freeport was laid out about 1800, and progressed but slowly in population and improvement until the construction of the Pennsylvania canal. This caused a rapid development of the resources of the surrounding country, and made the town an important one. It contains steam saw-mills, a planing-mill, a distillery, and does an extensive lumber business. It has nine churches, a public hall, two banks, and four hotels. Population, 1640. (Junction of Butler Branch Railroad.)

SLIGO, forty-one miles.

KARNS', forty-two miles.

NATRONA, forty-three miles, is in Allegheny county. The works of the Pennsylvania Salt Manufacturing Company are located here and employ all the labor of the place, amounting in the aggregate to seven hundred men. The village contains three churches and a population of about 1000.

TARENTUM, forty-five miles.—A glass factory, employing fifty men, is located here, and other industries are prosecuted. The borough contains five churches, an academy, a bank, and two hotels. Population, 944.

PETERSON'S, forty-six miles.

HITES', forty-seven miles.—At this station an iron furnace and an oil refinery are located, and the mining of coal and iron-

ore is extensively carried on in the vicinity. Population about 300.

KENNEDY, forty-eight miles.

COLON, forty-nine miles.

SPRINGDALE, fifty miles.—Some minor manufacturing is done here, and coal-mines are open in the vicinity. Population about 250.

COLFAX, fifty-one miles.

LINCOLN, fifty-two miles.

HARMERSVILLE, fifty-four miles.

MONTROSE, fifty-seven miles.

CLAREMONT, fifty-eight miles.—The Allegheny county workhouse and almshouse are located here.

ROSS', fifty-nine miles.

GUYSUTA, sixty miles.

SHARPSBURG, sixty-one miles.—This is an important borough in Allegheny county and is the centre of a large business. Among its manufactories are iron-works, glass-works, boiler-works, planing-mills, saw-mills, and brick-making, employing in the aggregate about four hundred men. It contains seven churches, an academy, two banks, a public hall, and several hotels. Population, 2176.

ETNA, sixty-two miles.—A rolling-mill and blast furnace here employ together six hundred men. Population, 1447.

PINE CREEK, sixty-three miles.

BENNETT, sixty-four miles.

HERR'S, sixty-five miles.

ALLEGHENY CITY, sixty-seven miles.—This city, the terminus of the road, is the third in population in Pennsylvania. It lies immediately opposite Pittsburg, on the west bank of the Allegheny river, over which several elegant bridges are erected, completely connecting the two municipalities. The business of the two cities is so intimately blended that a separate classification would be impossible, and hence the statistics relating to Allegheny City are embraced in the sketch of Pittsburg. (See page 163.) Allegheny City was laid out in 1789, and the original plan was an exact square of one hundred lots, each lot being sixty feet by two hundred and forty. This area has been increased by extending the city, as its growth required, over contiguous territory, and by the annexation of neighboring towns and villages, until it now includes most of the densely-settled portion of the county west of the river. The city contains a beautiful public park and many imposing edifices, public and private. Population, 53,180.



PROSPECT PARK, ALLEGHENY CITY.

BUTLER BRANCH.

Built by Pennsylvania Railroad Company, 1871.

FREEPORT.—Point of intersection with Western Pennsylvania Railroad. (See Western Pennsylvania Railroad for description.)

BUFFALO, one mile.

MONROE, five miles.

SARVER'S, eight miles.—Two steam grist-mills are located here and coal-mines are worked. Population about 100.

SAXONBURG, eleven miles.—The industries at this place include a planing-mill, a brewery, a manufactory of agricultural implements, and a variety of mechanical trades. Coal and iron-ore exist in the vicinity. The town contains four churches, three public halls, and several hotels. Pop-

ulation about 300. A daily stage runs to Saxon City, distance two and a half miles.

DELANO, twelve miles.—A well-improved agricultural country surrounds this station, and coal is mined in the vicinity for local use. A daily stage runs from here to Saxon City, distance three miles.

DILKS', fourteen miles.

GREAT BELT, fifteen miles.

HERMAN, sixteen miles.

BRINKER'S, seventeen miles.

BUTLER, twenty-one miles.—Seat of justice of Butler county. This county was established by act of March 12th, 1800, and named in honor of General Richard Butler, of the Revolutionary army, who fell in St. Clair's defeat. Its surface is rolling,

and near the larger streams the hills are high, but there is little waste land; and it has been said that scarcely any body of two hundred acres can be pointed out in the county that would not make a productive farm. In agricultural advantages the county can justly claim a prominent rank, and portions of it are well adapted for grazing purposes. Iron-ore of different kinds is found in abundance, and coal underlies almost the entire surface. Salt is obtained in some localities by boring to a depth of from three hundred to five hundred feet. The principal streams are the Conoquenessing and Slippery Rock creeks.

In the townships of Parker, Fairview, Oakland, and Concord, forming the northern portion of the county, petroleum has recently been found in immense quantities, the first "strike" being made in 1871, and the most productive wells now in the State are located here. The "oil-belt," as it is called, is on or near the Conoquenessing, about eight miles from the county seat. Naturally, the development of this wonderful source of wealth has, to a great extent, changed the business of the region,—adding immensely to the value of lands,—causing the establishment of various enterprises and industries, and bringing into existence new towns with a rapidity that rivals the palmy days of Venango. A peculiar feature attendant upon the discovery of oil in Butler county is the great flow of gas that almost invariably follows the borings. In several instances this gas escapes with great force, and, when ignited, sends a column of flame many feet high, illuminating the surrounding country with a most brilliant light. The flow of gas from one well is used for lighting several villages in the neighborhood.

Butler county was first settled in 1796, principally by emigrants from other portions of Pennsylvania. These settlers encountered many hardships, and were subjected to litigation and annoyance through a system of defective titles created by "land-jobbers," who speculated on the ignorance and honesty of the pioneers. Some of the lands of the county were granted, in lots varying from two hundred to five hundred acres, to soldiers of the Revolution as gratuities, and these, being generally sold by those who received them, stimulated the influx of settlers. Population of county,

36,510. Value of agricultural productions, \$3,125,482. Number of manufacturing establishments, 387; hands employed, 808; wages paid, \$97,474; capital invested, \$671,189; materials used, \$885,836; value of products, \$1,330,032. Bituminous coal mines, 46; hands employed, 149; wages paid, \$57,307; capital invested, \$78,575; tons mined, 63,118; value, \$114,110. Petroleum well, 1; hands employed, 2; wages paid, \$1800; capital invested, \$6000; gallons secured, 54,000; value, \$5200.

The town of Butler is built upon an eminence rising above Conoquenessing creek, which flows around it in the form of a horse-shoe. From the town a wide expanse of highly-cultivated land is seen, and the views are lovely in their rural beauty and varied outline. It was laid out about the time the county was established, and incorporated as a borough in 1817. It contains a woolen mill, two foundries, a machine-shop, and other industries. Merchandising is very extensively carried on. Coal is mined in the vicinity for local use. It has a public hall, an opera-house, four banks, nine churches, a literary institute for both sexes, an excellent system of graded common schools, and several good hotels, besides imposing county buildings. A statue of General Butler surmounts the dome of the court-house. Population, 1935. A stage line runs tri-weekly to Kittanning.

SOUTH-WEST PENNSYLVANIA BRANCH.

Leased by Pennsylvania Railroad Company, 1873.

GREENSBURG.—Point of intersection with main line. (See page 155.)

HUFF'S, three miles.

FOSTERVILLE, four miles.

YOUNGWOOD, six miles.

PAINTERSVILLE, eight miles.

HUNKER'S, nine miles.

BETHANY, twelve miles.

TARR'S, thirteen miles.—A daily stage runs from this station to Mount Pleasant, distance three miles.

STONERSVILLE, fifteen miles.

HAWKEYE, sixteen miles.

SCOTSDALE, seventeen miles.—Very extensive coke-works are in operation here,*

* The burning of coke is in operation at nearly every station on the line of this road, and at night the long lines of fire are seen in all directions. This industry, as yet in its infancy, promises to become one of the most important in Pennsylvania.

as are also a rolling-mill, an iron furnace, a planing-mill, and several coal-mines. This town was laid out on the 1st of May, 1873, and in one month contained a population of 300.

EVERSON, eighteen miles.—Intersection of Mount Pleasant and Broadford Railroad and first station in Fayette county. This county was created by act of September 26th, 1783, out of part of Westmoreland, and named in honor of General Lafayette. The eastern portion of the county is mountainous and rugged, interspersed with fertile valleys and abounding in scenery of a wildly picturesque character. The Monongahela river, flowing in a tortuous channel, forms its western boundary, and the Youghiogheny breaks through the mountain ranges, intersecting the county from the south-east to the north-west. Iron-ore and coal are abundant, and many other sources of wealth exist and are utilized by the enterprise of its citizens. The first settlements were made in the limits of Fayette county, under the auspices of the Ohio Company, (referred to in the sketch of Pittsburg,) as early as 1752, but it was not until about 1770 that any considerable number of settlers located within its limits. Population of county, 43,284. Value of agricultural productions, \$2,779,685. Number of manufacturing establishments, 402; hands employed, 2003; wages paid, \$700,692; capital invested, \$2,509,875; value of products, \$3,527,404. Bituminous coal mines, 22; hands employed, 477; wages paid, \$267,321; capital invested, \$669,764; tons mined, 453,580; value, \$831,533. UNIONTOWN, the county seat, is a beautiful and thriving borough of 2503 inhabitants. It was laid out about 1767 by Henry Beeson, a Quaker, from Berkeley county, Virginia, and became a place of considerable importance on the completion of the National road, which was for some years the principal route of communication between the East and West. It is situated in a beautiful valley, near the foot of the last range of the Alleghenies, on Redstone creek, and contains many handsome buildings, public and private. The entire region of country adjacent to the town is underlaid with bituminous coal of the finest quality, and contains, also, rich deposits of iron-ore and limestone. Uniontown is lighted with gas, has superior educational facilities, contains ten churches, four banks, public halls, woolen, flouring, planing, and hydraulic-

cement mills, and many other manufacturing industries.

PENNSVILLE, twenty miles.

CONNELLVILLE, twenty-five miles, is an important and flourishing town in Fayette county. It is built on the Youghiogheny river, at the place where, according to tradition, Braddock crossed that stream when on his memorable expedition. The town took its name from Zachariah Connell, who laid it out about 1790, and it was incorporated as a borough in 1806. Near this place was the residence of Colonel William Crawford, who emigrated from Virginia in 1768, and settled here with his family. He had been a captain in Forbes' expedition against Fort Du Quesne, in 1758, and probably then became impressed with the beauty and fertility of this region. "He was the intimate friend of General Washington, who was frequently an inmate of his humble dwelling during his visits to this region. Colonel Crawford was one of the bravest men on the frontier, and often took the lead in parties against the Indians across the Ohio. At the commencement of the Revolution he raised a regiment by his own exertions, and held the commission of colonel in the Continental army. In 1782 he accepted, with great reluctance, the command of an expedition against the Wyandotte and Moravian Indian towns on the Muskingum. On this expedition, at the age of fifty, he was taken prisoner and put to death by the most excruciating tortures." Crawford county, in Pennsylvania, was named in his honor.

The principal industries of Connellsville are the repair-shops of the Pittsburg, Washington and Baltimore Railroad Company, and coke-works, employing in the aggregate about five hundred men. It has also several tanneries, three planing-mills, grist-mills, and fire-brick works. The town contains eight churches, three public halls, two banks, good common schools, and several comfortable hotels. In the surrounding country there are some popular places of resort for summer visitors. Population, 1292. Opposite Connellsville, on the south side of the Youghiogheny, is the flourishing borough of NEW HAVEN, containing a population of 333, where the National Locomotive Works are located, and various other industries are in operation. The South-west Pennsylvania Railroad crosses the river here and is being extended to Uniontown.

PHILADELPHIA AND ERIE RAILROAD.

SUNBURY is the seat of justice of Northumberland county, which was created by act of Assembly, passed March 21st, 1772, out of parts of the counties of Berks and Bedford. The county is bordered by the Susquehanna river, on the west, for a distance of forty miles, and the North Branch of that stream intersects it for ten miles. Warrior's, Chillisquaque, Shamokin, Mahanoy, and Mahantongo creeks are the other principal streams within its boundaries. There are some rich limestone valleys in the county, and the river bottoms are very fertile. The Mahanoy and Shamokin anthracite coal-basins extend into the county and are extensively mined, principally for the Baltimore and Western markets. Iron-ore of good quality exists, and is worked to a considerable extent. Lead-ore has been found, but is not now utilized. The county contains some of the most picturesque scenery in Pennsylvania,—the passage of the rivers and creeks through the closely-locked mountain ranges carving out many striking vistas.

Northumberland embraced the entire north-western portion of Pennsylvania from the time of its formation until near the close of the century, and consequently its name figures prominently in Colonial and Revolutionary records. The valley of the Susquehanna was the hunting-ground of the various tributary tribes, within the limits of Pennsylvania, to the Confederacy of the Six Nations, assigned them by their haughty masters, and the seat of their viceroyalty was at a town called Shamokin, which stood where Sunbury now stands. Here Shikellimus, a Cayuga chief, who had been sent by the Six Nations to preside over their Indian vassals, had his residence during the middle of the eighteenth century, and here his son, Logan, "the Mingo chief," was born. This town was frequently visited by the early Moravian missionaries, and the writings of Count Zinzendorf and that remarkable zealot, the Rev. David Brainerd, often mention its name and detail interesting incidents

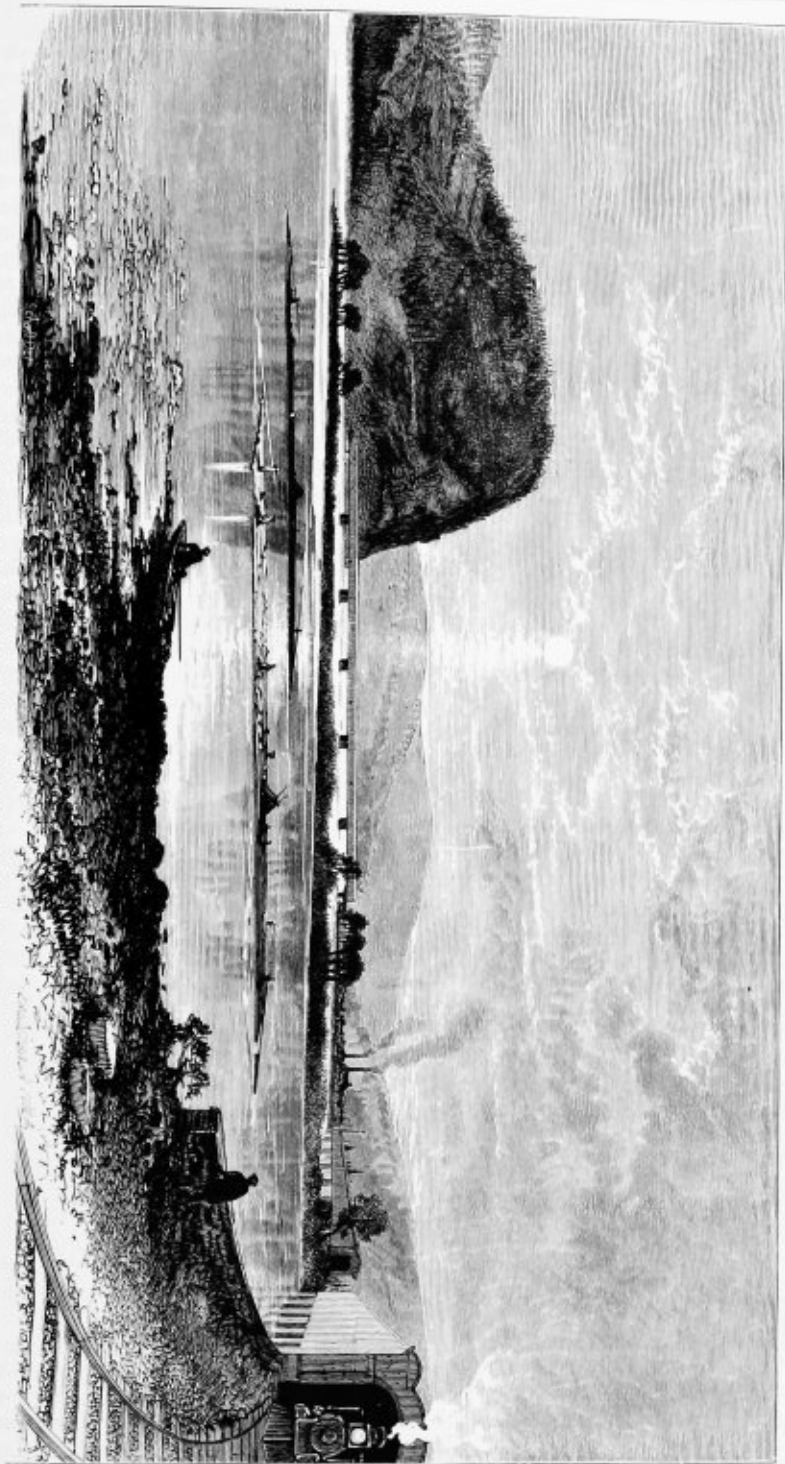
of their religious labors here. A Moravian mission was established here in 1747.

After the defeat of Braddock, in 1755, "the whole wilderness, from Juniata to Shamokin, was filled with parties of hostile Indians, murdering, scalping, and burning. These alarms broke up the mission at Shamokin, and the brethren fled to Bethlehem." There were rumors that the French intended to build a fort at Shamokin, but instead the Indians, who had allied themselves with the victors near Fort Du Quesne, abandoned the village and removed further up the Susquehanna or to the Ohio. The provincial government, in April, 1756, erected Fort Augusta here, and for near a quarter of a century it continued to be one of the most important military posts in Pennsylvania. Many councils between the representatives of the colony and the aborigines were held and treaties made here, and the chronicles of the fort would, in themselves, be sufficient to form an interesting volume.

A period of peace followed the cession of territory made at Fort Stanwix, in 1768, and many settlers came into the county from the Kittatinny valley and other eastern settlements. But the outbreak of the Revolution soon spread a war-cloud over the region, and the people of Northumberland were prompt to answer the call of their country. A committee of safety for Northumberland county was formed on the 8th of February, 1776, and steps were at once taken to form two battalions for active service. These battalions consisted of six companies, of forty men each; and it appears from the records that a portion, at least, of these organizations marched to Boston to join the American army concentrating there. Indian hostilities and the action of the "Yankee intruders," as they were called, in the Wyoming valley, gave the settlers much trouble; but they were a brave and hardy race, and fully competent to protect their homes from enemies of all kinds. A constant warfare, approximating what is modernly known as

"guerilla fighting," was waged between the Connecticut settlers in the Wyoming valley and the Pennsylvanians on the Lehigh and Susquehanna, and the settlers of Northumberland took an active part in it. This continued until the Revolutionary struggle absorbed the attention and enlisted the services of both parties. The memorable massacre in July, 1778, changed the feelings of the Pennsylvanians into the strongest sympathy for the suffering intruders, as they deemed them; and ultimately, after the controversy between the two States had been decided by Congress in favor of Pennsylvania, and more bloodshed had resulted from attempts made to dispossess the Connecticut settlers, the difficulties were amicably and satisfactorily adjusted by compensating the Pennsylvania claimants, and leaving the

JUNCTION OF WEST AND NORTH BRANCHES OF THE SUSQUEHANNA.



"Yankees" in peaceful possession of their homes.

After the Revolutionary war had brought both peace and liberty, the valley of the Susquehanna rapidly filled with settlers, and it soon became necessary to divide the county, by the creation of others, to accommodate the increasing and extending population. The industry, enterprise, and intelligence of the people found abundant room for development in this rich and romantic region, and an epoch of prosperity commenced which has continued without interruption down to the present time. Population of Northumberland county, 41,444. Value of agricultural products, \$2,347,216. Number of manufacturing establishments, 424; hands employed, 1941; wages paid, \$731,792; capital invested, \$2,348,186; materials used, \$2,744,803; value of products, \$4,207,855. Number of anthracite coal mines, 27; hands employed, 3839; wages paid, \$1,652,953; capital invested, \$2,193,000; tons mined, 1,001,200; value, \$2,448,500. Iron-ore mines, 1; hands employed, 10; wages paid, \$2000; capital invested, \$1000; tons mined, 1000; value, \$4200. Stone quarries, 7; hands employed, 27; wages paid, \$6300; capital invested, \$37,000; value of products, \$11,571.

Sunbury—the eastern terminus of the Philadelphia and Erie Railroad and the point of junction with the Northern Central Railway, the two lines being under the control of the Pennsylvania Railroad Company, and forming an unbroken route between Lake Erie and Baltimore—is situated on a plain bordering the left bank of the Susquehanna river, immediately below the junction of the West and North Branches, and above the mouth of Shamokin creek. The surrounding scenery is strikingly grand,—high, precipitous bluffs rising above the plain and overlooking the magnificent river, which is here a mile wide. It was laid out by John Lukens, surveyor-general of the province of Pennsylvania, about the time the county was established, and incorporated as a borough on the 24th of March, 1797. The streets are wide and straight, and the general aspect of the place is one of neatness and thrift. The salubrity of the atmosphere, the purity of the water, the fertility of the adjacent country, and the beauty of the surrounding scenery, all combine to render Sunbury one of the most delightful towns in Penn-

sylvania, while the large railroad traffic concentrated here gives it a high degree of prosperity and promise.

Previous to the general introduction of railroads in Pennsylvania, and as a result of the strong pressure in favor of the improvement of national water-routes and the construction of canals, the navigation of the Susquehanna river attracted much attention. The impression was very general, during the second decade of the present century, that the stream could be rendered navigable from the Chesapeake bay to the junction of the two branches at Northumberland, and the experiment of navigating it by steamboats was more than once successfully made. On the 20th of March, 1826, the "Susquehanna and Baltimore," the first of these vessels, arrived at Sunbury from Baltimore. Her arrival was duly chronicled in the newspapers of the place, and it was predicted that her success would be followed by other experiments of a similar kind. The boat proceeded up the North Branch to Danville, and appears to have encountered no serious difficulty in stemming the rapids of the river. But other improvements diverted attention from the natural water-route, and no improvement of the channel being made, the hopes of those who desired to see it a highway of commerce perished, never to be revived.

Among the more prominent industries of Sunbury are the repair-shops of the Northern Central Railway, the shops of the Philadelphia and Erie Railroad, three steam saw-mills, two foundries, two planing-mills, a car-wheel foundry, a grist-mill, and an oil-mill, employing in the aggregate about seven hundred men. A large mercantile trade is carried on, and the amount of anthracite coal shipped at this point, by railroad and canal, is in the neighborhood of six hundred thousand tons annually,—the mines being some twenty miles distant, in what is known as the "Shamokin coal region." During late years considerable attention has been given to grape culture, and there are now five vineyards in the immediate vicinity, one of which yielded, in 1872, ten tons of fine Concord grapes and manufactured a thousand gallons of wine. The town contains seven churches—representing as many denominations, an academy, a seminary for young ladies, several private schools, eight primary schools, and one high school, two banks, an opera-house, several

large and good hotels, and the usual county buildings. Population, 3131. (Junction of Danville, Hazleton and Wilkesbarre Railroad, and of Shamokin Branch of the Northern Central Railway.)

NORTHUMBERLAND, two miles, is situated opposite to Sunbury, at the point formed by the confluence of the North and West Branches of the Susquehanna. Its situation, for picturesqueness, is unsurpassed in the State. Near it rises a precipitous bluff, overhanging the river, from which a view is had of great extent, embracing the river valleys, the severed mountains, and the many improvements clustered in the vicinity. Several extensive bridges span the rivers here, and add to the attractiveness of the scene. The town was laid out in 1775 by Reuben Haines, a brewer, from Philadelphia, and in its infancy was looked upon as a place of great promise. Predictions were often made, in the early part of the present century, of its future commercial importance, based, no doubt, upon its situation at the junction of the two branches of the Susquehanna; but these channels have not proved sufficient to verify the prophecies, and canal and railroad improvements have served to divert trade to competing localities.

Northumberland is noted in American scientific history as the place of residence of Dr. Joseph Priestley, who is conceded to be the discoverer of oxygen gas, and a principal founder of the modern school of chemistry. Dr. Priestley was born at Fieldhead, a small village six miles from Leeds, England, on the 13th of March, 1733. He was the son of Jonas Priestley, a maker and dresser of woolen cloth, and was the eldest of six children. From his autobiography, preserved in his own handwriting, it appears that shortly after entering his teens he was sent to live with an aunt, who, being a lady of large means, sent him to the best schools to be educated. At one of these, when between the ages of thirteen and fifteen, he acquired a knowledge of Latin and Greek. Shortly afterwards he supplemented this knowledge by obtaining a thorough acquaintance with the French, Italian, and German tongues. To these acquirements, in his early manhood, he added a thorough training in Syriac, Hebrew, and Chaldee, as well as in stenographic writing. In the year 1752 he went to Devonshire, where he pursued his scientific studies, and ultimately entered the ministry. In his collegiate

career he was noted for his heterodox views on subjects of religion and politics, as well as for his learning and love for scientific researches. In his autobiography Dr. Priestley speaks of an impediment in his speech, which he considers an advantage rather than a drawback. His first congregation was a small one at Needham, where he received thirty pounds sterling a year for his services, and was obliged to eke out his living by teaching school and lecturing. Later he went to preach at Nantwich, where he had a large school under his charge, and for the first time he made money, all of which was devoted to the purchase of chemical and electrical apparatus. While there he published an English grammar. Next he was located at Warrington, where he was made tutor of divinity, and shortly thereafter married a daughter of Isaac Wilkinson, a Welsh iron-founder, of whom he speaks in the highest terms, saying that it was by her devotion and care he was enabled to give his time and energy to the pursuit of his profession. To show the extraordinary genius of the man, it is only necessary to say that during his stay at Warrington Priestley delivered courses of lectures on languages, theory of language, oratory, anatomy, and the history of England. During this period he made occasional visits to London, and on one of these made the acquaintance of Dr. Benjamin Franklin, who, together with Canton, the electrician, took considerable interest in his philosophical pursuits,—the former, indeed, encouraging Priestley in his idea of writing a book on the history of the discoveries in electricity. Papers and books necessary for this work were furnished by Franklin, and Priestley made numerous experiments to illustrate the theories involved. The book was completed within a year, notwithstanding all the numerous cares and engagements of the author. Upon its publication the University of Edinburgh conferred upon him the degree of LL. D. He afterwards spent some time at Leeds, where he attracted attention by the publication of some theological tracts. While residing there, the accidental fact of his living next to a brewery drew his attention to making experiments with the fixed air produced by fermentation. After his removal to another house he was obliged to make, in a machine of his own construction, the fixed air necessary for his experiments. Here he discovered carbonic-acid gas, and his first papers

on the subject, embraced under the head of pneumatic chemistry, were published in 1772. A year later he received the Copley medal for a meritorious discourse, and was also invited to accompany Captain Cook on his second voyage to the South Sea. After a six years' residence at Leeds, Dr. Priestley went to live with the Earl of Shelburne, as librarian and literary companion. His salary was £250, with a house to live in. There he remained for seven years, visiting the continent during the spring of 1774, and making many valuable friends. While at the Earl of Shelburne's he made his great discovery of oxygen gas, August 1st, 1774, by heating the red-hot oxide of mercury and collecting the gases given out of it. From the Earl of Shelburne's Dr. Priestley went to Birmingham, where, after a residence of several years, his opposition to the established church and advocacy of the cause of the French revolution, raised so bitter a feeling against him that an infuriated mob burned down his church, house, and laboratory,—for which he was subsequently compensated,—and compelled the distinguished chemist to flee from the city on horseback. He next is found at Hackney, publishing there a complete edition of his works. While in that city, at the solicitation of his sons, he determined to leave England and settle in America, and his scientific and other friends raised a large sum of money to enable him to make a proper start in the new world. Arriving in this country he was immediately tendered the chair of chemistry in the University of Pennsylvania, which he declined, on the ground that he had no desire for city life but only wished a home in the country. This he soon afterwards secured, settling at Northumberland, in 1794, which, at that time, was the seat of a small English colony. Here he resided, in a house still standing, until 1804, when he died, at the age of seventy-one years, and was buried in the cemetery of the town, which is situated on a small eminence overlooking the junction of the two branches of the Susquehanna, and a simple monument, appropriately inscribed, erected over his grave. A friend, writing during Dr. Priestley's life in Northumberland, says:—"In integrity and true disinterestedness, and in the performance of every social duty, no one could surpass him. His temper was easy and cheerful. His affections were kind and his disposition friendly. Such was the gentleness and sweetness of his

manners in social intercourse that many who had entertained the strongest prejudices against him on account of his opinions were converted into warm friends on a personal acquaintance. In his intellectual form were combined quickness, activity, and acuteness—the unfailing characteristics of genius."

On the 1st of August, 1874, the "Centennial of Chemistry" was celebrated in Northumberland, by an assemblage of many of the most distinguished scientists of America, and during their session the invaluable labors and discoveries of Dr. Priestley were commemorated in such a way as to bring the place of his residence and burial prominently to the attention of the public.

In addition to its many attractions, Northumberland has a flourishing and growing business. It contains a nail-mill, a steam saw and planing mill, and a car manufactory. It has several churches, good private and public schools, a bank, and four hotels. Population, 1788. A daily stage runs to New Berlin, distance nine miles. (Junction of Lackawanna and Bloomsburg Railroad.)

MONTANDON, nine miles.—(Junction of Lewisburg, Centre and Spruce Creek Railroad.)

MILTON, thirteen miles, is a flourishing town, and has long held a prominent position in the Susquehanna valley for its enterprise. It was founded, toward the close of the last century, by Andrew Straub, a German, and most of the early settlers were of the same nationality. The country surrounding the town is fertile and highly cultivated. The most prominent industries of the place are a car-factory, a rolling-mill, a saw-mill, and two planing-mills, employing in the aggregate about six hundred men. A large mercantile trade is transacted. The town contains six churches, excellent public schools, a public hall, two banks, and three good hotels. Population, 1909. (Junction of Catawissa Railroad.)

KEMMERER, fifteen miles.

WATSONTOWN, seventeen miles, is one of the early settlements of the valley. Not far from the town, on Warrior's run, was situated Freeland's Fort, which was captured by the British and Indians, who came down the valley of the Susquehanna, in 1778. A number of the settlers were killed by this party of invaders, and all the men in the fort carried to Canada as prisoners, some of them not returning to their families for many years. Watontown is an active business

place, containing several saw-mills, a planing-mill, a match-stick factory, shoe-factory, tannery, and car-works, employing in the aggregate about six hundred hands. It has seven churches, a public hall, good schools, a bank, and three hotels. Population, 1181. A daily stage runs to Comly, distant seven miles.

DEWART, nineteen miles.—A distillery and a manufactory of brooms are located here, and the surrounding country is productive. There are several churches, an academy, and two hotels in the village.

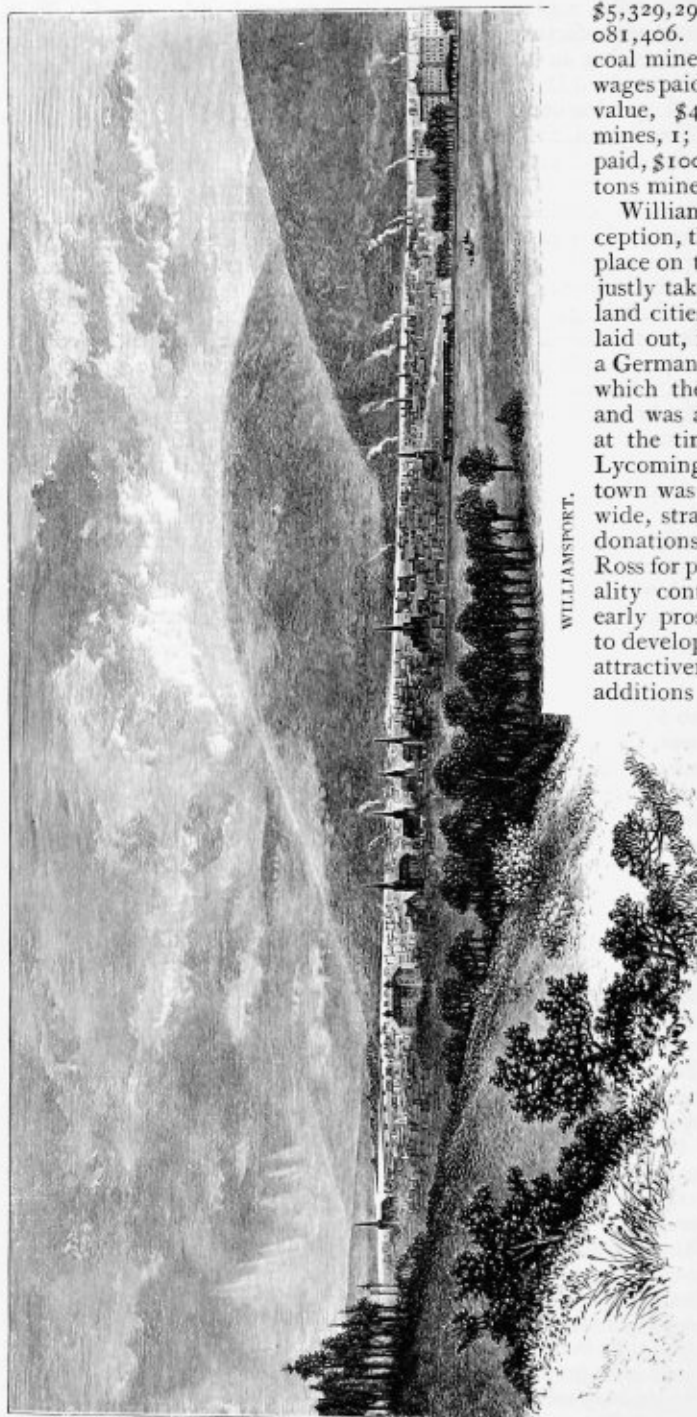
MONTGOMERY, twenty-four miles.—First station in Lycoming county. A planing-mill and sash-factory and a machine-shop, employing together seventy-five hands, are the most important manufacturing industries. The town contains a church, a seminary, a public hall, and a hotel. Population about 500.

MUNCY, twenty-eight miles.—The town of Muncy is on the opposite side of the river from the station, and was originally settled by Quakers from the vicinity of Philadelphia. It was named by them Pennsborough, and by that name was incorporated in 1826, but the title was, the succeeding year, changed to Muncy. Here, during the Revolutionary war, Captain John Brady had a fort, known as Fort Muncy, and he and his sons displayed in the vicinity some of that remarkable fighting ability which has made the name famous in early American annals. The most important industries of the place are saw-mills, a foundry and fork factory, and a planing-mill, employing in the aggregate some three hundred men. The town contains five churches, a public hall, a national bank, a seminary, good graded public schools, and two hotels. Population, 1040. Semi-weekly stages run to Hills Grove and also to Benton.

WILLIAMSPORT, forty miles.—Seat of justice of Lycoming county. This county was created out of part of Northumberland, by act of April 13th, 1795. It is watered by the West Branch of the Susquehanna river, and by Pine, Lycoming, Loyalsock, Muncy, Nippenose, and White Deer creeks, and many smaller streams. A large portion of the county is mountainous; but the valleys of the Susquehanna, and some of its tributary streams, are particularly rich and productive. Bituminous coal and iron-ore exist in large quantities and are extensively mined. The mountainous portions of the county

were formerly covered with a dense growth of pine timber, the cutting and marketing of which has, for a third of a century, formed a principal industry, and contributed materially to the wealth of its enterprising citizens.

The early settlers in this region—as was the case generally throughout the Susquehanna valley—were principally Scotch-Irish, and the distinguishing peculiarities of that people—courage, enterprise, and determination—have marked the history of the region. The influx of settlers, after the treaty of Fort Stanwix, gave the proprietary government some trouble because of the desire evinced by the authorities to prevent encroachment upon the Indian lands. It being a question whether the stream mentioned in the treaty by the Indian title of *Tiudaghton* was Lycoming creek or Pine creek, the proprietaries had prohibited any surveys being made north of Lycoming creek. A set of hardy pioneers, notwithstanding the prohibition of the authorities, settled upon the disputed territory between the two streams, and soon formed a considerable population. Being outside of the law's jurisdiction, they had to provide for their own government, and this they did by annually electing a tribunal of three of their number, whom they called *fair-play men*, who were to decide all controversies and settle disputed boundaries. From their decision there was no appeal. The judgment was enforced by the whole community, who started up *en masse* at the mandate of the court, and execution and eviction were sudden and irresistible. Their decrees were, however, just; and when the settlements were recognized by law, they were received in evidence and confirmed by judgments of courts. An old Irish settler in the region being asked, in later years, by a chief-justice of Pennsylvania, what the provisions of the "fair-play" code were, answered: "All I can say about it is, that since your honor's courts have come among us *fair play* has entirely ceased and law has taken its place." Lycoming having been a part of Northumberland county during the eventful period of the Revolutionary war, its history is embraced in the annals of that county. Population, 47,626. Value of agricultural productions, \$1,966,770. Number of manufacturing establishments, 608; hands employed, 4106; wages paid, \$1,408,321; capital invested, \$7,875,938; materials used,



\$5,329,296; value of products, \$9,081,406. Number of bituminous coal mines, 1; hands employed, 30; wages paid, \$2200; tons mined, 2000; value, \$4000. Number of iron-mines, 1; hands employed, 4; wages paid, \$1000; capital invested, \$1000; tons mined, 800; value, \$2000.

Williamsport is, with a single exception, the most important business place on the Susquehanna river, and justly takes rank among the first inland cities of Pennsylvania. It was laid out, in 1795, by Michael Ross, a German, who owned the land upon which the original town was built, and was adopted as the county seat at the time of the organization of Lycoming county. The plan of the town was well designed, embracing wide, straight streets, and generous donations of land were made by Mr. Ross for public purposes. This liberality contributed materially to its early prosperity, and has caused it to develop into a city of unsurpassed attractiveness. From time to time additions have been made to the

original plan, until the space surveyed by Mr. Ross forms but a small portion of the present area of the city. A spirit of enterprise has, from its foundation, characterized it, and stagnation has never been permitted to find a resting-place within its limits. For many years Williamsport has had more than a State reputation, and the wonderful progress made within the last decade leaves no room for doubt as to its future. Every requisite of city comfort and convenience has been introduced. An abundant supply of the purest and best water is brought from mountain springs; gas is liberally used for public and private purposes; many of its principal streets are paved

with wood, affording delightful drives; street railways are in operation; and to these may be added well-stocked markets, superior facilities for intercourse with the surrounding country, and lovely scenery, all combining to make it a delightful place of residence or sojourn.

The principal business of the city is lumbering, and this is carried on to an extent calculated to surprise any person not familiar with that important industry. About twenty-five years ago this business was practically established at Williamsport by the construction of the first boom on the Susquehanna river, and its growth since then has been marvelous. Fifty steam-mills are now in operation, sawing and preparing lumber, in different ways, for distant markets, and the annual shipment averages not less than two hundred millions of feet. During the ten years ending with 1872, the boom company handled eight million three hundred and twelve thousand logs, aggregating one thousand six hundred and forty-two millions of feet.

Among other prominent industries may be enumerated an axe factory, several foundries, a furniture factory, a boiler factory, paint-works, and a manufactory of match-sticks, which turns out one hundred and seventy-two thousand eight hundred sticks per minute, ten million three hundred and sixty-eight thousand per hour, or one hundred and three million six hundred and eighty thousand per day. Opposite Williamsport, on the south side of the river, are large iron-works. The mercantile trade is very extensive, and is conducted with much enterprise. The city contains twenty-nine churches, a seminary, a commercial college, a superior system of public schools, an academy of music, an opera-house, six public halls, twelve national, savings, and private banks, and six excellent hotels, one of which will compare favorably, in all its appointments, with any in the country. Within the city limits is Herdic Park,—a magnificent race-course and exhibition ground,—embracing thirty-five acres, on which are erected suitable buildings of superior construction. In connection with the park are hatching-houses and trout-ponds, where at least half a million of the "speckled beauties" may at any time be seen in all stages of development. Population, 16,030. A semi-weekly stage runs to Dushore, distant fifty-seven miles. (Junction of Northern

Central Railway, Elmira Division,—running north, via Elmira, Havana and Watkins' Glens and Seneca Lake, to Canandaigua, where connection is made for Niagara Falls and all other points on the lakes and in Canada.)

NEWBERRY, forty-two miles.—(Within the corporate limits of Williamsport.)

LINDEN, forty-five miles.

SUSQUEHANNA, forty-six miles.

JERSEY SHORE, fifty-two miles, is an active and flourishing town, noted for its picturesque situation. It was founded, about the year 1800, by Jeremiah and Reuben Manning, two brothers from New Jersey, who, with others from the same State, had settled in the vicinity. The title given to the embryo town by its founders was Waynesburg, but the settlement having long been known by the name of "The Jersey Shore," habit was too strong for the new title, and ultimately it was forgotten. When the town was incorporated in 1826, it was by its present name. Not far from this town, on the road to Lock Haven, one of those ancient circular fortifications of earth, so often found in the Mississippi valley, was plainly visible some forty years ago. Near it were extensive burying-grounds, from which bones and rude trinkets were sometimes disinterred. This work, like others of a similar kind in Pennsylvania, was undoubtedly erected by a race of people different from the Indians who inhabited the country when the first white settlers entered it. The country surrounding the town is well cultivated, and the business of the place is flourishing. It contains seven churches, good schools, a town hall, a bank, and two hotels. Population, 1394.

BARD'S, fifty-five miles.—First station in Clinton county.

PINE, fifty-seven miles.—The principal businesses here are lumbering and farming. There are two churches, two schools, and a hotel at the village.

WAYNE, sixty miles.—Near this station is the McIlhattan Camp-ground, belonging to the West Branch Camp-meeting Association. It is a beautiful, secluded spot, hemmed in by surrounding mountains which are covered by the primeval forest growth, while the pure and cool waters burst from the rocks in fountains as sparkling as that which gladdened the children of Israel in the wilderness. The village contains a church, a public hall, schools, a steam saw-mill, and a hotel.



BELOW RENOVO.

LOCK HAVEN, sixty-four miles.—Seat of justice of Clinton county. This county was established by act of June 21st, 1839, out of parts of Lycoming and Centre. The surface of the county is broken by various mountain ranges and furrowed by many streams, giving an aspect of ruggedness, not destitute of beauty, to many portions of it. Among the mountains and hills are some extremely rich and lovely valleys, which are well cultivated and improved. Bituminous coal, iron-ore, and fire-clay, are found in various portions of the county. Lumbering has, for a quarter of a century, been the most important business of its people, and large fortunes have been accumulated by persons engaged in it.

During colonial and Revolutionary times this county formed a part of Northumberland, and its history is embraced in that of the mother county of the Susquehanna valley. Its pioneer settlers, being hardy and venturesome men, who pushed their way to the

outskirts of the white settlements immediately after the treaty of Fort Stanwix, encountered many hardships and dangers. Their adventures, often marked by heroic daring, form an interesting portion of Pennsylvania's early annals, but, being mere personal details, cannot be recounted here. Since the formation of the county it has had an uninterrupted career of prosperity. Population, 23,211. Value of agricultural productions, \$1,015,876. Number of manufacturing establishments, 241; hands employed, 1532; wages paid, \$628,744; capital invested, \$978,005; materials used, \$2,153,087; value of products, \$3,646,526.

Lock Haven is beautifully situated on the right bank of the Susquehanna, about two miles above the confluence of Bald Eagle creek. It was laid out in 1834 by Jeremiah Church, an eccentric and energetic gentleman, who had purchased the land upon which it is located the preceding year, and

was mainly instrumental in securing the formation of the county. The name originated from the fact that it is situated between two locks on the Pennsylvania canal. From its foundation the town prospered, and soon rose into importance as a business centre. The scenery around it is very beautiful, embracing wide river valleys and rugged mountains, and the broad expanse of clear water in its front, caused by the canal-dam in the river, adds a charm of which the gaze never wearies. Many of its public and private edifices are handsome structures, and in neatness, comfort, and healthfulness the city is unsurpassed. Lumbering is the most prominent industry of the place, two booms being located here, and six saw and six planing and shingle mills in operation, giving employment to a large number of men. A heavy capital is engaged in the business, and probably one hundred millions of feet are controlled in Lock Haven annually. Among the other important industries are three foundries and machine-shops, a boiler manufactory, two tanneries, and a manufactory of boots and shoes, employing in the aggregate about two hundred hands. Mercantile business is extensively carried on. The city contains eight churches, an opera-house, a public hall, excellent public schools, two national banks, and three first-class hotels. Population, 6986. A daily stage runs to and from Nittany valley. (Junction of Bald Eagle Valley Railroad.)

QUEEN'S RUN, sixty-nine miles.

FARRANDSVILLE, seventy miles.—This town, like some others in the United States, is a monument of misdirected enterprise. It had its origin, says a chronicler, in the speculative fever of 1830-36, and was started in the winter of 1831-2 by William P. Farrand, a gentleman from Philadelphia, acting as agent for a company of Boston capitalists. The object was to open the bituminous coal-beds at this point, with a view to the extensive shipment of the products, and to carry on the manufacture of iron, lumber, etc. Great energy in prosecuting the work was displayed. A small steamboat was built for towing the coal on the river; a nail-mill, a cupola furnace, saw-mills, car-shops, and other improvements were made; houses were erected, mines opened, and everything flourished while the owners expended seven hundred thousand dollars. But by the time this was done it was discovered that the business would not pay, and the "Lycoming

Coal Company," as the enterprise was called, ceased operations and the promising village commenced to decay. The principal business of the place now consists of lumbering and the manufacture of fire-brick, in which fifty hands are employed. Coal is mined to a limited extent, and about ten thousand tons of fire-brick are shipped annually. The village contains several churches, schools, and a hotel.

GRAHAM'S, seventy-one miles.

FERNEY, seventy-five miles.

GLEN UNION, seventy-eight miles.—Some lumbering is done here, and the village contains two churches and four public schools.

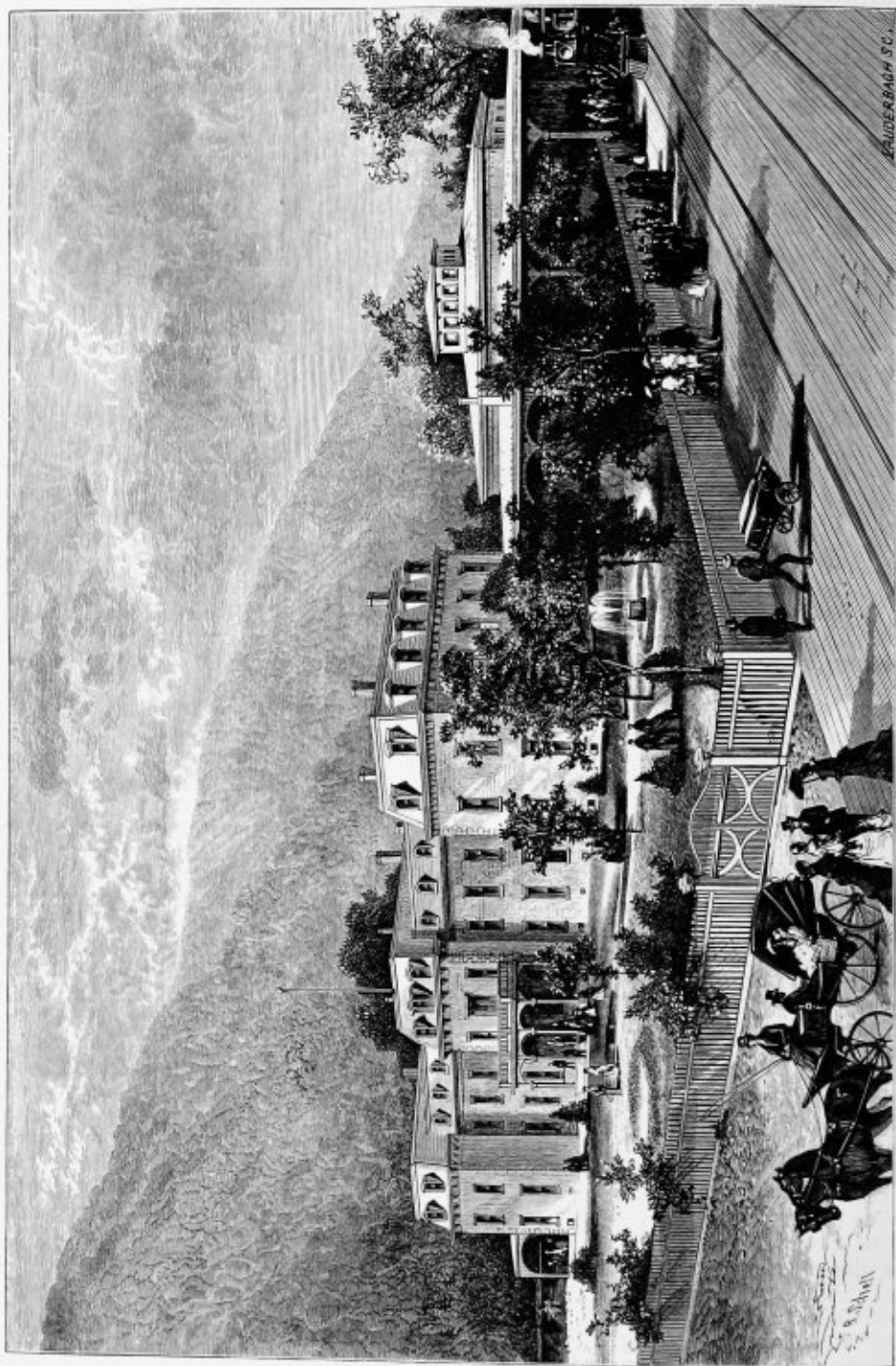
WHETHAM, eighty miles.

RITCHIE, eighty-three miles.

HYNER, eighty-six miles.—Three saw-mills are located here. The village has one church, a public hall, and a public school. The scenery in the vicinity of this station is grand, and the mountain forests and streams offer great attractions to sportsmen.

NORTH POINT, eighty-nine miles.—An extensive lumbering business is done here,—two saw-mills being in operation, with a capacity of ten millions of feet per annum, and employing about one hundred men. The village has two churches, and a good hotel much frequented by hunters and fishermen.

RENOVO, ninety-two miles, is a beautifully situated and flourishing borough, owing its origin and growth to the Philadelphia and Erie Railroad, the mechanical operations of which are centred here, congregating a large amount of that peculiar enterprise and ability which is invariably associated with American railroads. It is built in an oval-shaped valley, about a mile and a half in length, formed by a division of the mountains, and through which the river flows in a smooth and transparent current. The mountain on the south side of the valley rises abruptly to the height of more than a thousand feet, while that on the north is of nearly equal altitude, both being densely wooded to their summits with pine and hemlock, giving them a softness and sombreness of outline peculiar to these perennial forests. The valley was first settled in 1825, by a solitary pioneer from Jersey Shore, who ascended the river with his family, in a canoe, established a home in its solitudes, and remained in possession of the farm he cleared until 1865, when the



RENOVO HOTEL.

PAULERBAD SC.

Philadelphia and Erie Land Company purchased it and the adjoining tracts, and laid out the present town. This company donated fifty acres to the railroad company for their shops and ten acres for a hotel, and improvements being rapidly made by the road, as well as by private enterprise, the town grew apace, being incorporated as a borough in 1866. A large, well-constructed, and excellently-conducted hotel, named after the town, has served, with the many other attractions of the place, to draw here each year a number of summer visitors; and as a resort for health or pleasure few places in Pennsylvania offer greater inducements. The shops of the railroad company, which are substantial structures of brick, well arranged and stocked with the most complete machinery, have an aggregate frontage of near sixteen hundred feet, and employ about seven hundred men. In addition to these buildings there are a number of others devoted to railroad business, all of which will compare, in completeness of detail and architectural design, with any similar edifices in the United States. The town is abundantly supplied with water from a clear mountain stream in the vicinity. It contains three churches, eleven public schools, a public hall, a bank, and three hotels. Population, 1940.

WESTPORT, ninety-eight miles, is the centre of an extensive lumber business,—a saw and a shingle mill being in operation. The village contains a church, a public hall, and four hotels. A semi-weekly stage runs to Oleona, distance thirty miles.

COOK'S RUN, one hundred and two miles.

KEATING, one hundred and five miles, is at the junction of the West Branch and the Sinnemahoning. The railroad here leaves the Susquehanna, which it has followed from Harrisburg, a distance of one hundred and sixty miles, and continues along the Sinnemahoning. A large private school is located here, and there is a comfortable hotel at the station.

WISTAR, one hundred and seven miles.—Iron-ore and bituminous coal are mined near this station. There are in the village two churches and a town hall.

ROUND ISLAND, one hundred and ten miles.—The country surrounding this station is rich in coal, iron-ore, and fire-clay, and lumbering is prosecuted to a considerable extent. Near it is a picturesque waterfall, of a height of twenty-four feet, and the

scenery in the region is very beautiful. There is a good hotel in the village.

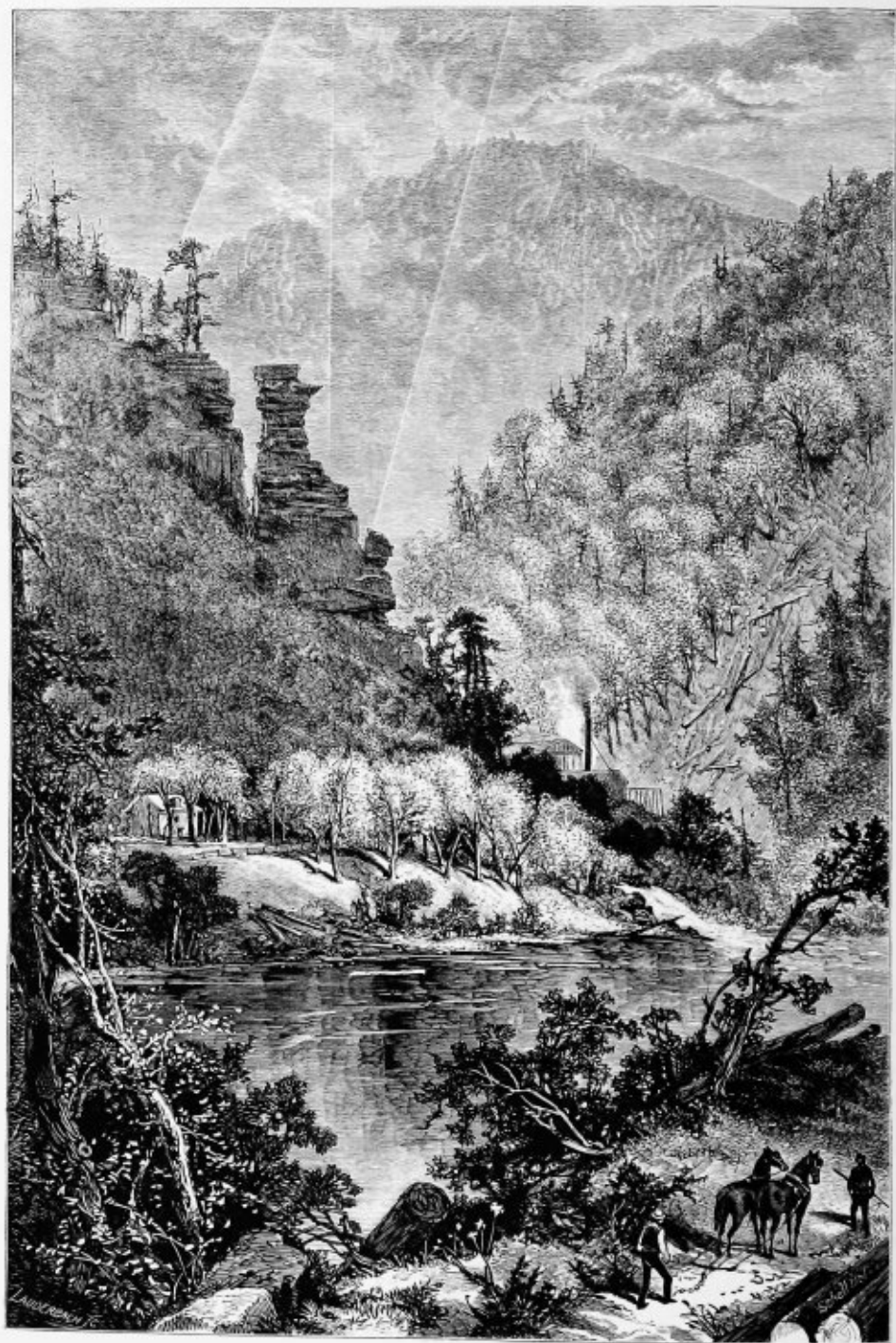
GROVE, one hundred and fourteen miles.

SINNEMAHONING, one hundred and seventeen miles.—First station in Cameron county. There are a machine-shop, a saw-mill, a town hall, a select school, and two good hotels in the village. A semi-weekly stage runs to Coudersport, distance forty miles.

DRIFTWOOD, one hundred and twenty miles.—(Junction of Bennett's Branch Extension of Allegheny Valley Railroad. This road extends from the point of intersection through the counties of Elk, Clearfield, Jefferson, and Clarion to the Allegheny river, where it connects with the Allegheny Valley Railroad. It is familiarly known as the "Low-grade Railroad," as it overcomes the barrier between the waters of the Atlantic coast and those of the Mississippi valley at a maximum gradient of only forty-eight feet to the mile,—and that for a very short distance,—while every other road between the east and west has gradients approximating to one hundred feet to the mile. This extension was originated by the Pennsylvania Railroad Company, and built by their aid, for the purpose of facilitating freight traffic between the east and west. In the report of the board of directors of that company for the year 1869, they say:—"This line is designed chiefly for the transportation of freight at a slow speed, with a view so to cheapen its cost as to compete with the water lines leading to New York." The intention is to extend this line to the Mississippi river, across the table lands of Ohio, Indiana, and Illinois, and thus "afford a medium of transportation at all seasons of the year as cheap and more expeditious than via the lakes and Erie canal." On the line of this road are deposits of bituminous coal of remarkable purity and richness, lying in seams from six to fourteen feet thick, and an abundance of iron-ore also exists. Portions of the country through which it passes are heavily timbered. The road is remarkably well constructed, and was opened for traffic in the spring of 1874.) Driftwood contains two churches, one public and two select schools, and four hotels.

HUNTLEY, one hundred and twenty-four miles.

STERLING, one hundred and twenty-nine miles.—Several steam saw-mills, a planing-mill, a grist-mill, and a shingle-mill are in operation here; also, a steam-tannery,



PULPIT ROCKS, NEAR ROUND ISLAND.

employing seventy-five men. Coal is mined to a considerable extent, and iron-ore is found in the adjacent country. The village contains two churches and two public halls.

CAMERON, one hundred and thirty-three miles.—This is the centre of a large lumber and coal business. About sixty thousand tons of coal are mined and shipped annually, giving employment to one hundred and twenty-five men, and one hundred more are employed in the lumbering operations. The village contains a church, a public hall, and two hotels.

EMPORIUM, one hundred and thirty-nine miles.—Seat of justice of Cameron county. This county was established by act of March 29th, 1860, out of parts of Clinton, Elk, McKean, and Potter, and named in honor of General Simon Cameron. It lies on the elevated plateau dividing the waters of the Susquehanna river from those of the Allegheny, and, like all of that region, is densely wooded with valuable timber. Bituminous coal is extensively mined in several portions of the county, and valuable iron-ore deposits exist. The principal business of the county is mining and lumbering. Population, 4273. Value of agricultural productions, \$302,418. Number of manufacturing establishments, 44; hands employed, 325; wages paid, \$127,090; capital invested, \$420,645; materials used, \$541,951; value of products, \$896,810.

Emporium, now a flourishing place, has grown to its present importance entirely within the past twelve years. Previous to that time the site it occupies contained but two or three dwellings, and the occupants of these, as well as all the settlers in the adjacent country, were compelled to transport their supplies from points below in canoes, up the Sinnemahoning. When the county of Cameron was created, in 1860, the seat of justice was fixed here, and the same year General De Crano purchased the land from various owners and laid out the town. In 1861 he sold his interest to the Philadelphia and Erie Land Company, who donated the grounds for the court-house and jail. The first court was held in January of that year. The same company also gave a lot to each of the several religious denominations, and upon these four churches have been erected.

The Philadelphia and Erie Railroad was completed to this point in 1864, and since that time the growth of the place has been

rapid. In the winter of 1872 the Buffalo, New York and Philadelphia Railroad was finished, having its southern terminus at Emporium, where it connects with the Philadelphia and Erie, thus forming a direct through line between Buffalo and the cities on the Atlantic seaboard, and affording an excellent outlet for the valuable coal deposits of Cameron and other counties through which it runs in Pennsylvania. Emporium was incorporated as a borough on the 13th of October, 1864, and now contains many handsome buildings. It is the centre of a large lumber business, and does an active mercantile trade. The town contains good schools, a steam-tannery, grist and saw mills, sash and door manufactory, and other industries, a public hall, and excellent hotels. Population, 898.

WEST CREEK, one hundred and forty miles.—Lumbering and lumber manufacture are the principal industries at this station.

HOWARD'S, one hundred and forty-four miles.

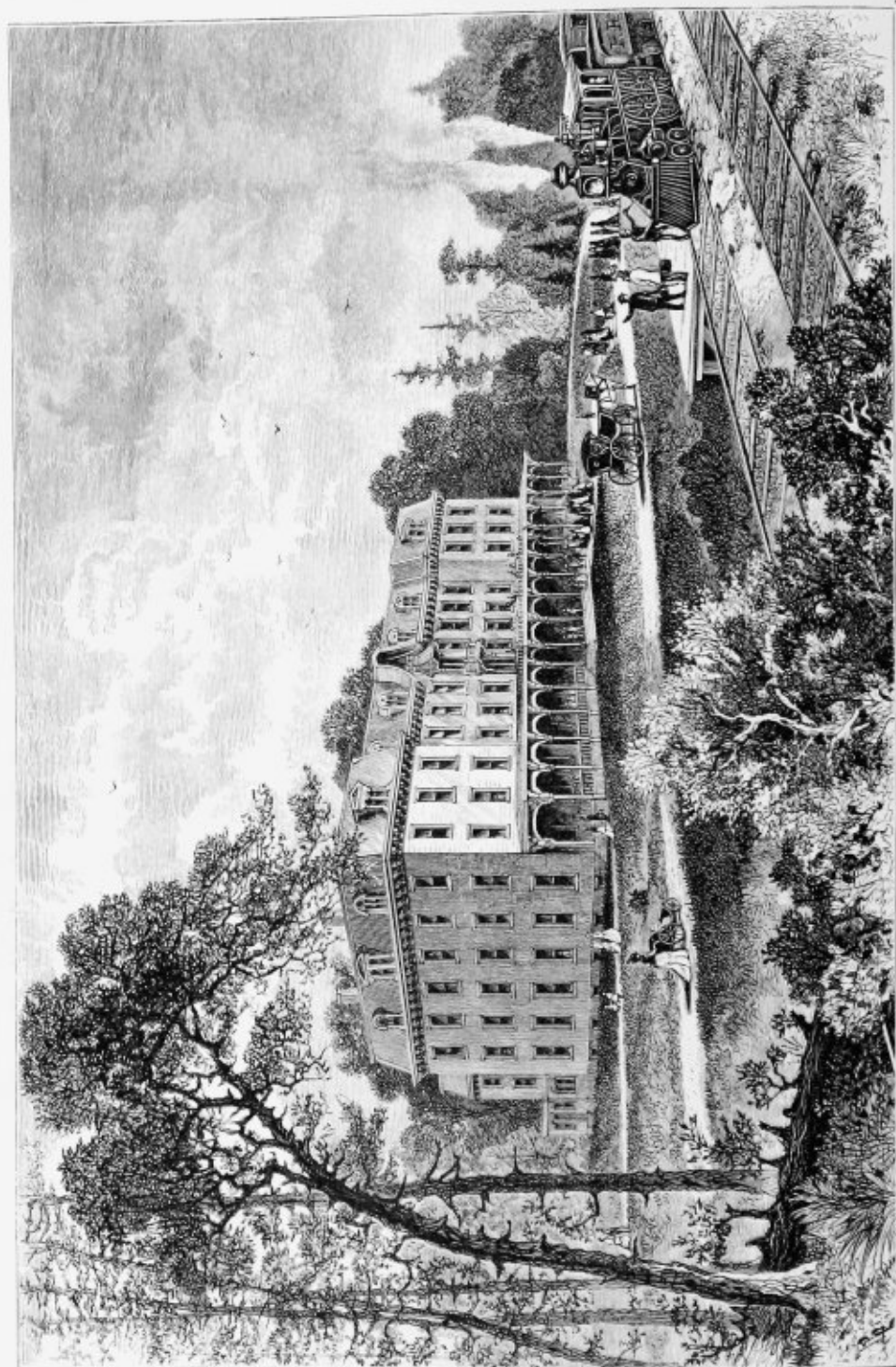
BEECHWOOD, one hundred and forty-eight miles.—Coal and iron-ore are found in the vicinity of this station, and considerable lumbering is done.

RATHBUN, one hundred and fifty miles.—First station in Elk county.

HEMLOCK, one hundred and fifty-three miles.

BENZINGER, one hundred and fifty-five miles.

ST. MARY'S, one hundred and fifty-nine miles, is a flourishing borough in Elk county, near the summit dividing the waters of the east and west. It was settled about 1840, by a German Catholic colony under the patronage of the St. Benedictine Society, and was, up to the building of the railroad, exclusively of one nationality and religion. The opening of that improvement introduced new elements in the population and added materially to its prosperity; but the preponderance of German Catholics is still maintained, and as a centre of catholicism it occupies a prominent rank. The town contains an imposing monastery, with which is connected St. Gregory's College, a nunnery, and an academy, enjoying a high reputation, in charge of the Benedictine sisters. The surrounding country is well cultivated, and is underlaid with bituminous coal, which is mined and shipped to the extent of about one hundred thousand tons annually, employing two hundred men. Lumbering is



THOMSON HOUSE, KANE.

extensively prosecuted in the vicinity, and these industries sustain an active mercantile trade. Among the prominent industries of the place are two foundries and machine-shops, three grist-mills, a planing-mill, two furniture factories, six breweries, and two wagon-making shops. The town contains three churches, good public schools, five public halls, a bank, and some six or seven hotels. Population, 1084. A tri-weekly stage runs from St. Mary's to Brookville, distance forty miles.

DAGUSCAHONDA, one hundred and sixty-five miles.—Lumbering and coal-mining are carried on in this locality, the shipment of coal amounting to about one hundred and fifty tons per day, employing seventy men, while sixty are engaged in the lumber mills. (Junction of Daguscahonda Railroad, running south to Earley, distance six miles.)

SHAWMUT, one hundred and sixty-eight miles.

RIDGWAY, one hundred and sixty-nine miles.—Seat of justice of Elk county. This county was created by act of April 18th, 1843, out of parts of Clearfield and McKean. It occupies an elevated position on the dividing ridge between the Atlantic coast and the Mississippi valley,—the waters of the county draining into both the Susquehanna and Allegheny rivers. The soil generally is susceptible of cultivation, but is not rich; and the surface of the county is densely overgrown with hemlock timber, which, in late years, has been extensively utilized in tanning leather and for lumber. This forest growth will undoubtedly prove a great source of wealth to Elk and the adjacent counties in the near future, as the rapid consumption and consequent exhaustion of pine timber must bring it into demand for many purposes. The county took its name from a mountain in its southern portion, which had received the title because of the number of elks roaming in the region at the commencement of the present century. These noble animals, as well as beavers, were found near the head-waters of Bennett's Branch, as late as 1830, and the last of them seen in Pennsylvania were here. The first settlements were made in the territory embraced in the county about 1820. In 1842 a German Catholic colony was established on a tract of thirty-five thousand acres of land, purchased from the United States Land Company, and increased rapidly for some years. Population, 8488. Value of agri-

cultural productions, \$407,047. Number of manufacturing establishments, 81; hands employed, 661; wages paid, \$217,388; capital invested, \$1,070,000; materials used, \$921,679; value of products, \$1,524,392. Number of bituminous coal mines, 2; hands employed, 142; wages paid, \$78,920; capital invested, \$366,000; tons mined, 78,779; value, \$136,068.

Ridgway is situated on the head-waters of the Clarion river, and was settled about 1840 by lumbermen, principally from New York and New England. It took its name from Jacob Ridgway, a merchant in Philadelphia, who owned immense tracts of land in the region, and was selected as the seat of justice of the county at the time of its formation. Among the principal industries of the place are two tanneries, employing a large number of men, and some lumbering operations. Considerable mercantile trade is transacted. The town contains four churches, two public halls, a bank, a high and public schools, three hotels, and the usual county buildings. Population, 800. A daily stage runs to Brookville, Jefferson county, distance forty miles.

WHISTLETOWN, one hundred and seventy-three miles.

WILMARTH, one hundred and seventy-eight miles.—There are two saw-mills, a shingle-mill, and a nail-keg manufactory here. Coal-mines of a capacity of one hundred tons per day are near the station. The village contains a public hall and two hotels.

WILCOX, one hundred and eighty-four miles.—The largest tannery in the United States is located at this station, employing one hundred and fifty men. An equal number are engaged in the lumber business. The town contains two churches, a public hall, a graded public school, and a good hotel. The mercantile trade is active. Population about 1000.

DAHOGA, one hundred and eighty-seven miles.

SERGEANT, one hundred and eighty-nine miles.—First station in McKean county. This county was established by act of March 26th, 1804, but was not organized for judicial purposes until March 27th, 1824. It was named in honor of Thomas McKean, formerly chief-justice and governor of Pennsylvania. The county occupies a broad table-land, bordering on the State of New York, in which rise the head-waters of the Susquehanna and Allegheny rivers. Dense

forests of pine, hemlock, birch, maple, and other hard woods, cover the surface, while the soil is moist, being well adapted for grazing, and yielding good crops when brought under cultivation. The climate is particularly healthy and the water remarkably pure. Coal of good quality underlies a large portion of the county, and an abundance of iron-ore is found. Population, 8825. Value of agricultural productions, \$434,900. Number of manufacturing establishments, 36; hands employed, 227; wages paid, \$80,850; capital invested, \$288,100; materials used, \$195,366; value of products, \$358,984. Bituminous coal mine, 1; hands employed, 60; wages paid, \$36,000; capital invested, \$40,000; tons mined, 21,953; value, \$54,882.

KANE, one hundred and ninety-three miles.—This settlement was established about the time of the completion of the Philadelphia and Erie Railroad, on a large tract of land owned by the family of Judge Kane, of Philadelphia. The country surrounding it on all sides is covered with a luxuriant growth of hemlock timber, and abounds in limpid streams and springs. These wide-extending forests are the homes of deer and all varieties of forest game found in northern Pennsylvania, while the waters are stocked with mountain trout, rendering the region highly attractive to sportsmen. To meet the requirements of these, and to entertain the many visitors seeking here a pleasant and salubrious resort in summer, an elegant hotel, named the "Thomson House," after the late president of the Pennsylvania Railroad Company, has been erected, capable of accommodating four hundred guests. This edifice is located in the midst of a park of one thousand acres, at an elevation of more than two thousand feet above ocean level, and in consequence enjoys an atmosphere of unrivaled purity,—cooled by the breezes from the great northern lakes, and perfumed by the healthful aroma that exhales from the resinous forests around it. Smooth, dry roads lead through these forests, affording delightful drives. The hotel building is well designed, having large, elegantly-furnished public and private apartments, wide piazzas commanding extended views, and is abundantly supplied throughout with spring water, elevated to a reservoir on the roof. The town of Kane contains four churches, two public halls, and several hotels, in addition to that described. A large lumbering

business is transacted in the vicinity,—six steam saw-mills being in operation, employing some two hundred men. The machine-shops of the railroad company, located here, employ about one hundred. Population about 2000. A line of stages runs from this station to Smethport, the county seat, distance twenty-five miles.

WETMORE, one hundred and ninety-eight miles.—A steam saw-mill is in operation at this station, employing twenty men.

LUDLOW, two hundred and two miles.

ROYSTONE, two hundred and six miles.—First station in Warren county. Three steam saw-mills, employing together one hundred and fifty men, are running at this station.

SHEFFIELD, two hundred and nine miles.—Tanneries and lumbering operations of various kinds, at and in the vicinity of this station, employ an aggregate of near six hundred men. The village contains several churches, a public hall, and four hotels. About seven miles from Sheffield, in the midst of the forest, some trout-ponds are located, which are frequented by summer visitors.

TIONA, two hundred and twelve miles.

CLARENDON, two hundred and fifteen miles.

STONEHAM, two hundred and seventeen miles.

WARREN, two hundred and twenty-two miles, is the seat of justice of Warren county. This county was created by act of March 12th, 1800, out of part of Lycoming, and named in honor of General Warren, who fell in the battle of Bunker Hill. The territory embraced within its boundaries contained, at the time of its formation, but two hundred and thirty inhabitants. This limited population not being sufficient to support a separate organization, the county was, in 1805, attached to Venango for judicial purposes, and was not fully organized, with separate jurisdiction, until the 16th of March, 1819, when the seat of justice was permanently fixed at Warren. Owing principally to troubles about land titles, growing out of the transactions of the Holland Land Company,*—an organization owning or

* During the Revolutionary war a loan of several millions of dollars was obtained by the colonial government from individuals in Holland. After the war this debt was liquidated, in part, at least, by the transfer to the holders of the loan of vast tracts of land in the northern part of Pennsylvania and the western portion of New York, and thus was created the Holland Land Company, in the direct management of which many distinguished gentlemen, both native and foreign, were at different times engaged. The transactions of the company were conducted with fairness,—the difficulties originating where their lands lay being more the result of conflicting claims than any fault of the company or its agents.



WARREN.

claiming most of the land within its limits,—and other causes, the increase of population was slow, and in 1820 it contained less than two thousand inhabitants. Since 1830 its growth has been more than usually rapid, and its progress has increased with every decade, until at present it may justly be ranked among the most progressive counties in the Commonwealth.

The surface of Warren county is undulating, approaching to ruggedness along the larger streams intersecting it. Most of its territory is susceptible of cultivation, and portions are quite fertile and highly improved. The Allegheny river—which flows through the county for fifty miles, the Conewango river, the Brokenstraw, Tionesta and Tidioute creeks, with their numerous tributaries, water it abundantly, furnishing excellent power for manufactories, as well

as outlets for an immense and profitable lumbering business. The southern portion of Warren county lies within the great oil-field of Pennsylvania, and successful borings were made in it soon after the discoveries in Venango. Since then extensive oil operations have been carried on, adding largely to its wealth and population. Coal is also found, and is mined to a limited extent for local use. The business of tanning leather is a very important industry; and in late years the manufacture of cheese, on an extensive scale, has been added to the industries of the county. Population, 23,897. Value of agricultural productions, \$1,534,757. Number of manufacturing establishments, 450; hands employed, 1773; wages paid, \$491,805; capital invested, \$2,549,510; materials used, \$1,532,438; value of products, \$3,224,768. Bituminous coal mine, 1; hands employed, 2; wages paid, \$200; capital invested, \$3000; tons mined, 200; value,

\$1000. Number of petroleum wells, 181; hands employed, 370; wages paid, \$217,693; capital invested, \$1,470,730; gallons produced, 14,356,372; value, \$1,423,935.

The town of Warren occupies a beautiful situation on the Allegheny river, at the junction of the Conewango. It was laid out, about the time of the formation of the county, by Gen. William Irvin and Andrew Ellicott, commissioners appointed for the purpose by the State. At first it increased in population slowly, owing to various causes, and in 1840 contained only seven hundred and thirty-seven inhabitants. Notwithstanding its limited population, it was, in 1832, incorporated as a borough. For the first forty years of its existence the population of the town, as well as of the county, was almost exclusively engaged in the lumbering business. "Old and young," says a historian, writing about 1840, "from the gray-haired pioneer of sixty down to the boy of twelve years, are interested in the departure of the rafts with the spring tides, and compose the crews to navigate them. There is not, probably, a boy of twelve years old living on any stream in Warren county who has not made his voyage to Cincinnati, perhaps to Orleans." Naturally, a business conducted on the scale of magnitude which marked the lumbering enterprises of this county forty years ago, would develop peculiar energy and talent, and some of the lumbermen of that period possessed these attributes to a remarkable degree. But, while fortunes often were accumulated, reverses sometimes came, and memorable among these was the failure of the Lumbermen's Bank, of Warren, about 1839, causing great financial distress throughout the region bordering on the Allegheny river.

The country adjacent to this river in the vicinity of Warren, and north of it into the State of New York, was, at the time the white settlers first penetrated the region, owned and occupied by the Seneca Indians, and when the treaty of Fort Stanwix was concluded, Cornplanter, a chief of that tribe, had a small reservation made to himself out of the immense region ceded to Pennsylvania. This reservation was located on the river, twelve miles above Warren, and subsequently was confirmed to him by the State. Here he spent the concluding years of his long life, maintaining a marked friendship for the Americans, notwithstanding, in his youth, he had been their unrelenting foe, fighting

against them at the defeat of Braddock, at the massacres in Wyoming valley, and in various campaigns on the northern frontier, during the French and Revolutionary wars. He died at the age of one hundred and five years, as near as could be computed from events in his life, and was buried on his reservation. He claimed to be the son of a white man, named O'Bail, but was a thorough Indian in all his habits, and was known among his tribe by the name of *Ga-nio-di-euh*—"Handsome Lake." The name of *Cornplanter* was assumed, or bestowed upon him, after his settlement on the reservation, where he had a village, called *Jennesedaga*. Some of the descendants of his tribe still live in the vicinity of the reservation, and are often seen in the streets of Warren.

During the last score of years this town has grown and improved wonderfully. The construction of railroads, the discovery of petroleum, the rapid settlement and improvement of the adjacent country, all contributed to its prosperity; and these causes have been supplemented and assisted by a marked degree of enterprise on the part of its citizens. It now ranks among the first inland towns of western Pennsylvania, and presents many attractions to the tourist, besides being a delightful place of residence. Some of its buildings, public and private, are tasteful in design and beautiful in their surroundings. The comforts and conveniences of the age are all utilized in its economy, and in various respects it merits commendation as a pleasant, prosperous, and attractive borough. Among its prominent industries may be enumerated iron-works, planing-mills, and a sash factory. Lumbering is still extensively carried on by its citizens. It contains eight churches, three public halls, good schools, three banks, several hotels, and the usual county buildings. The new Asylum for the Insane, now being erected on a scale of unsurpassed magnitude and excellence by the State of Pennsylvania, is located in its immediate vicinity. Population, 2014. A tri-weekly stage runs to Steamburg, New York. (Junction of Dunkirk, Warren and Pittsburgh Railroad, running north to Dunkirk, on Lake Erie, distance fifty-four miles.)

IRVINGTON, two hundred and twenty-eight miles, is a place of considerable local importance, not only enjoying a present of prosperity and promise, but a history which extends back to the period of the first

settlement in the region. It is built upon a tract of land taken up by Gen. William Irvine, of Revolutionary fame, or his son, Gen. Callender Irvine, and the latter erected a cabin where the village now stands in 1795. At this cabin Cornplanter was frequently a guest,—a strong affection existing between the chief and the general. It is recorded that on one occasion, when Cornplanter had reason to believe the Monsey Indians intended, for an alleged slight, to murder the general, he sent one of his chosen braves to remain at the cabin as a guard for his friend's safety. With a delicacy showing the nobleness of the old chief, his messenger of safety came as a guest only, and not until long after the anticipated danger was past did General Irvine know the true object of the visit. The present town was laid out about 1840, by Dr. William A. Irvine, son of the last-named general, who made extensive improvements here before the railroad was built. It contains a woolen-mill, grist-mill, planing-mill, saw-mill, and stave-mill, two churches, and four hotels. Population about 350. (Junction of Oil Creek and Allegheny River Railroad, running south through the oil regions, and connecting with the Allegheny Valley Railroad to Pittsburg.)

YOUNGSVILLE, two hundred and thirty miles,—situated on Brokenstraw creek, in a good agricultural region,—contains manufactories of pumps and water-pipe, a planing-mill, a hoop manufactory, a tannery, two churches, two public halls, public schools, three hotels, and does considerable business in lumbering. Population, 462. A daily stage runs to Sugar Grove, distance nine miles.

PITTSFIELD, two hundred and thirty-four miles, contains a saw and planing mill, a stave-mill, and lime-burning is carried on. It has one church, one hotel, and a population of about 250. A stage runs to Grant station, distance sixteen miles.

GARLAND, two hundred and thirty-eight miles.—Among the industries here are two saw-mills, a planing-mill, a barrel factory, and two stone-quarries,—employing in the aggregate near a hundred men. The New York Company's pipe-line terminates here, and cars are loaded at this station with oil in bulk for eastern and western shipment. The village contains three churches, two public halls, one hotel, a public school, and a population of about 400.

SPRING CREEK, two hundred and forty-four miles.

COLUMBUS, two hundred and forty-nine miles.

CORRY, two hundred and fifty-one miles,—a city on Oil creek and the first station in Erie county,—owes its origin to the development of petroleum production in Venango county. The site it occupies was, in 1861, a wild, uncultivated wilderness,—its silence unbroken, except by the construction of the Philadelphia and Erie Railroad. In 1860 the Atlantic and Great Western Railway was built to this point; and at its crossing with the Philadelphia and Erie Railroad the first house in Corry was erected during the following year. In 1862 the Oil Creek Railroad was completed from Corry to Titusville; and then the fame of the oil regions had spread so generally over the country that the rush of visitors, speculators, and settlers rapidly built up the town. The growth at first seemed ephemeral; but far-seeing men discovered at once the value of the location as a manufacturing point, and the buzz of the saw, the shriek of the steam-whistle, the sound of the hammer, and the hum of machinery soon announced the nucleus of a busy manufacturing town.

In its early existence Corry was a fair representative of the excitement and prosperity attending the "oil fever," which brought wealth and poverty as its attendants,—making millionaires out of unambitious land-owners and energetic speculators, and reducing thousands to poverty who were crazed by the dazzling hope of rapidly-acquired riches. The place was full of the din of traffic, and the spaces contiguous to the railroad stations were covered with barrels and tanks. Now the glory and shame of oil is gone, and excitement has been superseded by healthy business—giving its fair returns for the energy and capital invested.

While the bursting of the petroleum bubble stranded completely many hopes and expectations, reducing towns and cities which had sprung up almost as rapidly as Jonah's gourd to a condition of ruin and decay, Corry proved a complete exception to the rule, and instead of relapsing or stagnating, grew with steady vigor in prosperity and wealth. The position it occupies is peculiarly advantageous. Situated at an elevation of near fifteen hundred feet above the ocean level, and more than eight hundred above Lake Erie, it is particularly healthy. The country adjacent is reasonably productive; coal and iron are easily accessible; timber is abundant, and

railroads connect it with all important business centres, east, west, north, and south. Such advantages could not but be appreciated by an energetic and intelligent people, and the result is seen in a city which, in all the essentials of comfort, stability, and prosperity, is an honor to Pennsylvania. Among its most prominent industries are very extensive oil-works, manufactories of wooden-ware, steam-engines, agricultural implements, furniture, boring-machines, brushes, sashes and blinds, fork and spade handles, and other articles; iron-works; steam saw and flour mills; extensive cooper-shops, shingle-mills, breweries, tanneries, railroad shops, and many other industries,—making it a hive of industry. It contains nine churches—representing all the prominent religious denominations, superior public and private educational facilities, three banks, seven hotels, an academy of music, six public halls, and a fine city hall. Population, 6809. (Junction and point of intersection of Buffalo, Corry and Pittsburg Railroad, of Atlantic and Great Western Railroad, and of Oil Creek and Allegheny River Railroad.)

LOVELL'S, two hundred and fifty-four miles.

CONCORD, two hundred and fifty-six miles. —A stove factory, a shingle factory, and other mechanical industries are in operation at this station. The village has one church, a hotel, and a population of about 200.

UNION, two hundred and sixty-one miles, is a flourishing borough, on the waters of French creek, containing manufactories of oil-barrels, wooden pumps, and furniture, employing about three hundred men, and several other industries. It is surrounded by a good grazing country. The town contains six churches, an opera-house, two public halls, three banking institutions, graded public schools, and three hotels. Population, 1500. A daily stage runs to and from Wattsburg, distance eight miles. (Junction of Union and Titusville Railroad, running south to Titusville, in the oil regions.)

LE BŒUF, two hundred and sixty-five miles.

WATERFORD, two hundred and sixty-nine miles, is a pleasant and flourishing borough on Le Bœuf lake and creek, the names of which were bestowed upon them by the French explorers because of the immense herds of buffalo found in the vicinity. It is an old settlement, antedating the coming of the English race to this region, and owing its origin to the French, who,

about 1750, erected here a fort, called by them Le Bœuf. This was the intermediate of three military posts,—the first being at Erie, and the third, called Venango, at the mouth of French creek, where the city of Franklin now stands. These fortifications were intended to guard the route of communication from the lake to the Allegheny river. It was to Fort Le Bœuf that Major Washington was sent by Governor Dinwiddie, of Virginia, in 1753, on a mission to ascertain from its commander, Monsieur de St. Pierre, the intentions of the French as to their occupancy of the country adjacent to the head-waters of the Ohio river, and to protest against such encroachments on what was claimed as a portion of the territory of Virginia. This fort, with the other military posts of the French, passed into the possession of the English in 1760, and three years later was taken by the Indians in Pontiac's war,—all its inmates, except one, then falling victims to savage ferocity and vengeance.

The present town was laid out in 1794, by Andrew Ellicott, about two years after the Americans had first settled upon the site. At that time the State of Pennsylvania maintained a small garrison here for the protection of the surveyors engaged in surveying the lands in the north-west, and thirty years ago a part of the block-house occupied by this garrison was still standing. The name of the town was changed from Le Bœuf to Waterford in 1795. It was an active locality during the time that salt was carried across the French portage from Presque Isle, and floated down French creek and the Allegheny and Ohio rivers, to supply the wants of the settlers in the Ohio valley; but when the salt-wells on the Kiskiminetas were discovered this trade ceased, and the town suffered in consequence. The construction of the railroad gave it a new impetus, and since then it has steadily prospered. Among the manufacturing industries carried on are one of boots and shoes, and one of firkins and tubs. Some lumbering is done, and the dairy business is important,—the adjacent country being well adapted for grazing cattle. The town contains four churches, four public halls, one bank, an academy, and three hotels. Population, 790.

HIMROD'S, two hundred and seventy-one miles.

JACKSON'S, two hundred and seventy-five miles.—Immediately after passing this station the summit is crossed which divides

the waters of the Ohio from those flowing into Lake Erie. This dividing summit is here not more than eight miles from the lake.

LANGDON'S, two hundred and seventy-nine miles.

BELLE VALLEY, two hundred and eighty-one miles.

WAGNER'S, two hundred and eighty-three miles.

OUTER DEPOT, two hundred and eighty-five miles.—(Junction with Lake Shore and Michigan Southern Railroad.)

ERIE, two hundred and eighty-eight miles.—Seat of justice of Erie county. This county was created out of part of Allegheny, by act of March 12th, 1800, but was not fully organized until the 2d of April, 1803, previous to which time all the north-western corner of Pennsylvania, embracing the inchoate counties of Crawford, Erie, Mercer, Venango, and Warren, formed but one county for judicial purposes. As population increased these organizations were clothed with full power, and in time each had its separate courts and officers. The surface of Erie county is intersected by a low ridge, which divides the short tributaries of the lake from those of the Allegheny river. This ridge runs nearly parallel with the lake shore, and is distant eight to ten miles from it. All the streams heading on the southern slope of the ridge find their outlet, through the Mississippi, in the Gulf of Mexico, after flowing a distance of near two thousand five hundred miles, and this natural drainage is the more remarkable when the fact is considered that the surface of Lake Erie is about seventy-five feet lower than the Ohio river at Pittsburgh. The soil of the southern slope is peculiarly adapted to grazing, both in Pennsylvania and New York, while the northern, or lake slope, is very productive in wheat. Owing to their rapid descent, the streams emptying into the lake afford an abundance of excellent water-power.

But little is known of this region of country prior to 1750. The southern shore of the lake, at the time Europeans first entered its waters, was occupied by a powerful and warlike tribe of Indians, called Eries or Irrironnons, and from them its name is derived. Between this tribe and the Five Nations, who occupied the country to the east and south, and whose confederacy was one of the most wonderful things in known Indian history, a bitter and unrelent-

ing hostility existed, and about the years 1653 to 1657 the Eries were utterly exterminated by their antagonists, who had learned the use of fire-arms from the Dutch, at New Amsterdam, and brought them into use against their less fortunate enemies. The French penetrated Lake Superior, and entered the valley of the Mississippi, near a hundred years before they landed on the southern shore of Lake Erie. This was owing to the hostility of the Five Nations, who controlled that shore, which they had incurred by their alliance with the Indians on Lake Huron. But the indomitable energy of French traders, and the zeal of Jesuit missionaries, could not leave the vast regions now embraced in western New York and Pennsylvania a *terra incognita*, and about the commencement of the eighteenth century their records show that some of their explorers had visited the region where the city of Erie now stands. The treaty of Utrecht, in 1713, confirmed Louisiana to France, and the interpretation put upon that treaty by the French was that, as the mouth of a river governed its sources, and as no boundaries of the territory were defined, they had a just claim to the entire region drained by the Mississippi. The English, through their colonial authorities here, as well as by the home government, protested against this sweeping claim, but the French persisted in it. To substantiate it their emissaries intrigued with the Indians as only French diplomats could, displaying a tact and persistence irresistible to the savages, and the result was that most of the north-western aborigines sided with them. Following this, they commenced the erection of a chain of fortifications to extend from Lake Erie to the Gulf of Mexico. The first of this chain was located at Erie, and was called *Fort de la Presqu'île*.* It was built, probably, in 1749, although the precise date cannot be fixed; and with its foundation the first European settlement was planted on the southern shore of Lake Erie. After it, Fort Le Bœuf and Fort Venango were erected, and in 1754 Fort Du Quesne was built. Six years later, and subsequent to the bloody scenes of strife which give old Fort Du Quesne such historical prominence, French dominion in the northern

* *Presqu'île* is the French for peninsula. At that period the island, as it now exists, was not separated from the main land. The fort stood on an eminence overlooking the lake, within the present incorporated limits of the city.

portion of the continent surrendered to the English, and these forts were all abandoned or given up.

The English garrisoned the fort at Presqu'isle (which appears still to have retained its French name) and continued in undisputed possession until the 4th of June, 1763, when the garrison was taken by stratagem and massacred by the savages, under the instigation and direction of Pontiac, the great Indian prophet of the North-west. Entrance to the fort was gained by the Indians, said to number about one hundred and fifty warriors, under a pretext of wanting to sell furs. Each warrior carried a pack of these upon his back, and no arms were visible upon them. But no sooner were they within the enclosure than, at a preconcerted signal, their skins were cast aside and the work of death commenced. The entire garrison was destroyed, excepting one soldier, who escaped, and a woman, who was taken prisoner and afterward surrendered. Of the posts garrisoned by the English in the North and West, nine were surprised in a similar manner, and their garrisons fell easy preys to savage vengeance and cruelty. The forts at Niagara, Pittsburg, Ligonier, and Bedford were invested by the Indians, but held out until succor came from the East. Most of the forts were re-garrisoned during the following year, and treaties were made with some of the hostile Indian tribes, but there was no peace throughout the North-west until after Wayne's expedition and treaty in 1795.

The sanguinary struggles of the Revolution did not reach this portion of Pennsylvania, and, consequently, the years which were so eventful in the history of other portions of the State were, in this locality, unmarked by incidents worthy of record. The treaty of Fort Stanwix gave the State the right to all the land within its chartered limits, and this treaty with the Six Nations was confirmed by the Delawares and Wyandots, at Fort McIntosh, they being the immediate claimants of the territory around Lake Erie. The boundary between the States of New York and Pennsylvania was run and marked, in 1785-6 and 7, by commissioners, of whom the astronomer, David Rittenhouse, and after him Andrew Ellicott, were the principal representatives of Pennsylvania. Gen. William Irvine, who had given much attention to the lands acquired by Pennsylvania, perceived, at an early day, that the

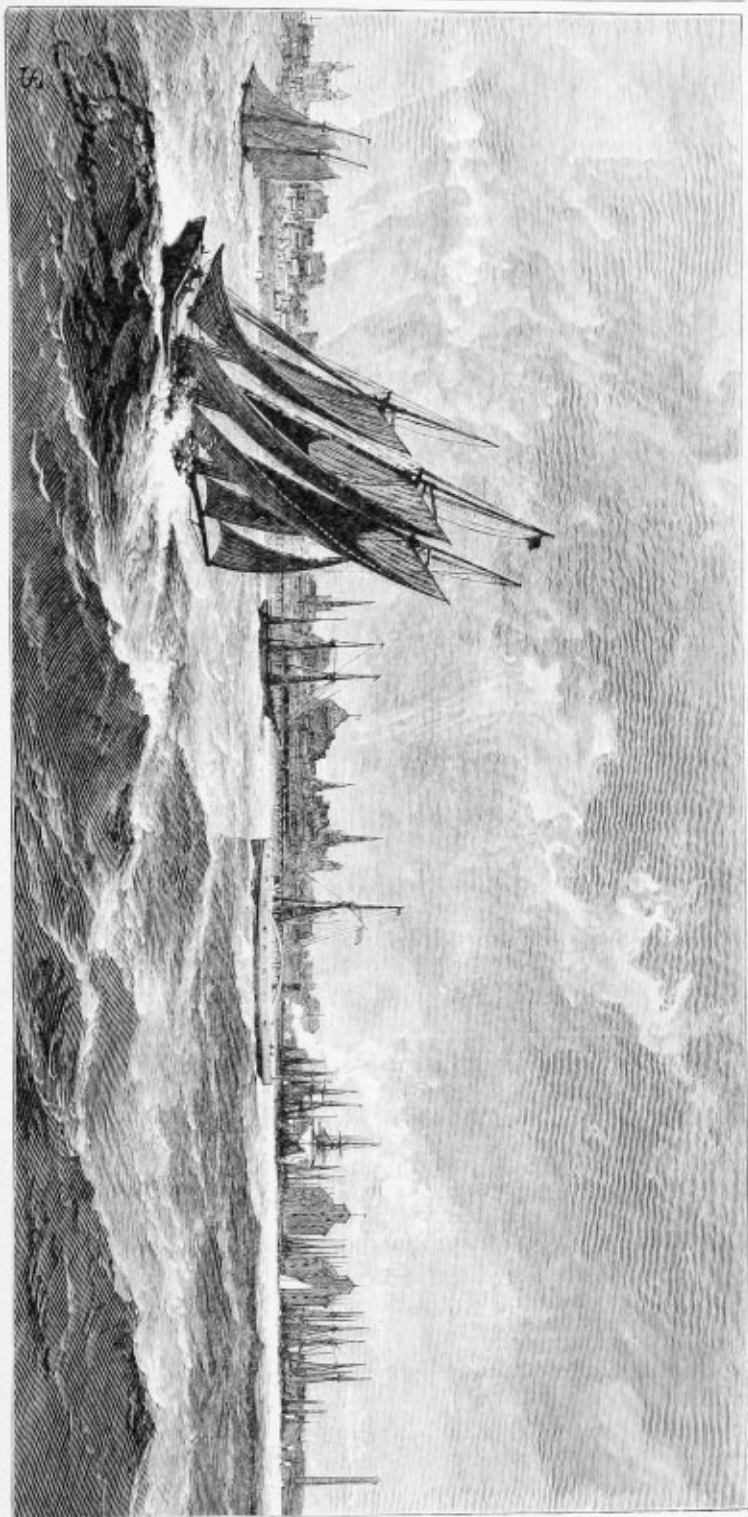
northern boundary would so strike Lake Erie as to leave that State but four or five miles of coast, and without a harbor. At his suggestion and through his assistance, the portion of Erie county since known as the "triangle" was secured by purchase from the United States and the aboriginal proprietors. The treaty made with the Six Nations, on the 9th of January, 1789, covering the grant of this land, declares:—"The signing chiefs do acknowledge the right of soil and jurisdiction to and over that tract of country bounded on the south by the north line of Pennsylvania, on the east by the west boundary of New York, agreeable to the cession of that State and Massachusetts to the United States; and on the north by the margin of Lake Erie, including Presqu'isle and all the bays and harbors along the margin of said Lake Erie from the west boundary of Pennsylvania to where the west boundary of New York may intersect the south margin of the said Lake Erie, to be vested in the said State of Pennsylvania, agreeable to an act of Congress dated 6th June, 1788." On the 30th of March, 1792, the governor of the State purchased the tract so defined from the United States, paying therefor \$151,640.25 in Continental money, and it was formally deeded to Pennsylvania. The area of the triangle is 202,187 acres.

Soon after this formal cession the region was opened to settlement. Defective laws led to confusion in titles, and for some years the pioneers had to contend with these difficulties, as well as with Indian hostility, as many of the aborigines were loth to see their hunting-grounds brought under the subjection of the whites. Prominent among the Indians who sought to restrict the white settlements to the eastern side of the Allegheny and Ohio rivers was Brant, or *Red Jacket*, the great Mohawk chief, and the plans he laid to carry out his designs, in which he hoped (not without reason, if contemporaneous history is to be credited) for the assistance of the British authorities in Canada, afford an interesting chapter in our early annals. But Wayne's success put an end to Brant's schemes, and the wave of civilization rolled steadily westward.

The first settlers of the county were principally from New York State and New England. Some, however, came from the southern portions of Pennsylvania; but the preponderance of the first was so great that

for many years the county presented more of the peculiarities of the State of New York than of that in which it is situated. Population increased but slowly, except in the town of Erie, for the first twenty years of its existence, and it was only after the introduction of canals and railroads that its resources showed a fair development. The commerce of the lakes, previous to the opening of these outlets to the more densely inhabited regions, was not sufficient to stimulate its growth, and nature's barrier severed it from the beautiful river which, at an early day, was the stimulating artery of western Pennsylvania. The third quarter of the century has, however, made amends for the tardiness of the first half, and now Erie county takes a prominent rank among her sisters of the great Keystone Commonwealth. Population, 65,973. Value of agricultural productions, \$4,720,295. Number of manufacturing establishments, 928; hands employed, 4664; wages paid, \$1,927,184; capital invested, \$5,717,993; materials used, \$5,646,425; value of products, \$9,697,987.

ERIE.



The town of Erie was laid out in 1795, by Gen. William Irvine and Andrew Ellicott, under authority of the State. Previous to this the position had been only a military post, and when the survey was made a guard was necessary to protect those employed in it. General Wayne established a small garrison here in 1794, when on his memorable expedition against the north-western savages, and on his return, in December, 1796, was taken sick and died in a log cabin which stood inside the military enclosure. At his own request he was buried at the foot of the flag-staff of the post, and here his remains reposed until 1809, when they were transferred by his son to the churchyard near the family home in Chester county. In 1805 the town was incorporated as a borough, although at that time it contained less than a hundred houses. During the years in which the settlers in the Ohio valley depended upon northern New York for their supply of salt, an active trade was carried on through here and over the old French portage to the Allegheny river and Pittsburg. The same route was used, during the late war with Great Britain, for carrying supplies to the garrison and squadron on the lake, and one of the most important events of that struggle is inseparably connected with the city of Erie. This was Perry's splendid victory over the British squadron, which virtually destroyed the power of that nation on the upper lakes. The natural advantages presented by the harbor of Erie marked it as the most suitable point for the creation of a navy to protect American interests and honor on the great northern inland waters, and here Captain Perry came, on the 27th of February, 1813, to urge forward the work which had already been commenced. In the early part of the following August he had his little fleet of nine vessels, carrying fifty-four guns, ready for sea, and on the 9th of September he met and attacked the British squadron of six vessels, carrying sixty-three guns, at Put-in-Bay, near the head of the lake. The British ships carried the heaviest guns, and in the engagement did considerable damage to some of Perry's ships before he could bring his armament to bear; but he sought close quarters, and, after an engagement of several hours, gained a complete victory, capturing every vessel of the enemy. At the time he achieved this victory Perry was but twenty-six years old, and he died at the age of thirty-four, having in his brief

career justly gained a position among the first of American heroes.

After the war Erie relapsed into a condition of inactivity, and not even the introduction of steam navigation on the lake—which occurred in 1818, when the "Walk-in-the-Water," the first steamboat to plow its surface, was built and launched at Black Rock—was sufficient to stimulate it into progress. In 1830 the population of the borough was only fourteen hundred. The agitation of the internal improvement system in Pennsylvania about this period started the slumbering city on the road to prosperity, lots advanced in price rapidly, and speculation for some years ran wild. Many dreams of fortune were, of course, unrealized; but the town grew, and has steadily continued to grow, in population and importance. The opening of the canal connecting Lake Erie with the Ohio river, and the building of the railroad uniting the West with New York, contributed materially to its progress. The advantageous position it enjoys has made it a centre of lake commerce, and there can be no doubt as to the future of greatness before it.

One of the bitterest contests between a people and a corporation ever seen in America was waged here soon after the opening of the Lake Shore Railroad, and continued for three years. The citizens of Erie objected to the construction of a line of road in their immediate vicinity which ignored their town and harbor, and whirled travel and traffic through Pennsylvania to rival ports in other States. Their opposition evinced itself in open acts of hostility, by which the railroad was time and again destroyed or interrupted; but about 1855 the difficulty was adjusted, and from that time order and peace have reigned. The city has since then grown to a position which enables it to compete successfully with all rivals, and no railroad in its vicinity can now afford to ignore it.

It would be difficult to find a more delightful place in summer than this city on the margin of the great lake whose name it bears. The cool breezes are wafted from the colder north, and, rippling over the wide expanse of clear water, give an atmosphere to the city as refreshing as it is healthful. The residents thoroughly appreciate their lovely climate and scenery in the hot months, and Massasaugie Point—the "head," at the south side of Erie bay, where the Massasaugie tribe of Indians had

their council-fire—is a scene of constant resort for all kinds of societies and associations. The scenery at the point is wild and romantic,—the bluffs and flats being covered with a growth of pine, hemlock, cedar, oak, cottonwood, and poplar, while plants, shrubs, and flowers abound in every nook. Many improvements have been made by art to supplement the charms and attractions of nature.

The commerce of the port increases rapidly, and bids fair soon to rank among the first on the great lakes. During 1872 one hundred and fourteen foreign and two thousand two hundred and seventy-eight coastwise vessels entered and cleared. These vessels represented a tonnage of one million two hundred and seventy-seven thousand seven hundred and four tons. The registered tonnage of the port for that year was twenty-seven thousand seven hundred and fifteen tons. This tonnage is being added to rapidly, and now some of the finest steam-propellers on the lake run to and from this harbor, which is generally conceded to be the best on the lake. The only United States steamer on the lakes—the “Michigan”—makes her station and winter quarters at Erie.

Since the completion of the various lines of railroad penetrating the coal, iron, and petroleum regions of Pennsylvania, the increase of manufactories at Erie has been marked. The principal establishments are those for the manufacture of iron and iron products, cars, organs, and boots and shoes, which employ fully fifteen hundred men. Many other branches of industry are also successfully prosecuted.

The city contains a large number of elegant private residences, and among its public edifices are seventeen churches, representing all Christian denominations; an excellent academy, an opera-house, an academy of music, five public halls, several private and a superior system of public schools. It has ten banking institutions, two hospitals, an orphan asylum, six cemeteries, two public libraries, a number of superior hotels, and, in short, possesses all the requisites of metropolitan life and enjoyment. Population, 19,646. A tri-weekly stage line runs from Erie to Edinboro, distance twenty-six miles.

LEWISBURG, CENTRE AND SPRUCE CREEK BRANCH.

MONTANDON.—Point of intersection with Philadelphia and Erie Railroad.

LEWISBURG, one and one-half miles.—Seat of justice of Union county. This county was established by act of March 22d, 1813. It lies within the Appalachian ranges of mountains, and consists of a series of limestone valleys of great fertility and beauty. Iron-ore is found in different localities, and it is claimed that deposits of lead also exist. The early settlers of the county were principally Germans, and their descendants yet compose the larger portion of its citizens. Population, 15,565. Value of agricultural productions, \$1,195,362. Number of manufacturing establishments, 106; hands employed, 664; wages paid, \$203,007; capital invested, \$754,463; materials used, \$673,171; value of products, \$1,288,692. Lewisburg is beautifully situated on the west bank of the Susquehanna river, and is connected with Montandon by a handsome and substantial bridge. The town was laid out by a German, named Louis Derr, who had an Indian trading-post here about the end of the last century, and was at first known by the name of “Derr’s town.” A monument to the memory of Col. John Kelly, one of the heroes of the Revolutionary war, and a citizen of the county, was erected here in 1835. Much of the trade of Buffalo and Penn’s valleys—two rich agricultural regions—finds an outlet at Lewisburg and contributes materially to its prosperity. The town contains a boat-building yard and saw-mill combined, a planing-mill, a manufactory of agricultural implements, employing together about two hundred men, and a number of minor manufacturing industries. It has seven churches, a Baptist university and seminary, two national banks, a public hall, three good hotels, and the usual county buildings. Population, 3121. A stage runs twice daily between Lewisburg and Milton, distance four miles.

BIEHL, five miles.

VICKSBURG, seven miles.

MIFFLINBURG, eleven miles, is a prosperous and pleasant borough in Buffalo valley. It contains several manufactories of carriages, a planing-mill, foundry, two steam-tanneries, and a steam grist-mill. There are four churches, good public schools, a public hall, two banks, and two hotels in the town. Population, 911. A stage runs daily to Centre Hall, distance thirty-four miles.

MILLMONT, sixteen miles.

LAURELTON, nineteen miles, terminus of road.

DANVILLE AND HAZLETON BRANCH.

SUNBURY.—Terminus of road. (See page 224 for description.)

PHILADELPHIA AND ERIE JUNCTION, one mile.—Point of intersection with Philadelphia and Erie Railroad.

KLINE'S GROVE, four miles.

WOLVERTON, six miles.

KIPP'S RUN, nine miles.

DANVILLE, twelve miles.—This is one of the great centres of iron production and manufacture in Pennsylvania,—the furnaces, rolling-mills, and foundries here giving employment, when in full operation, to more than two thousand men. Iron-ore of good quality and in inexhaustible quantities exists in Montour's ridge,—a mountain in the immediate vicinity of the town, which skirts the river for a distance of more than twenty miles. Limestone is also found in this mountain, while anthracite coal is mined in close proximity, and brought to the manufactories both by railroad and canal. It is the seat of justice of Montour county, which was separated from Columbia by act of May 3d, 1850. The county is generally mountainous and rugged, but contains some fertile and highly-improved valleys, and abounds in magnificent scenery. Danville was settled toward the close of the last century, by several families from Philadelphia, and in its infancy encountered some of the dangers and trials of savage animosity and cruelty. It grew slowly for some years, and in 1806 is described in Scott's geography as "a small post-town on the east branch of the Susquehanna, at the mouth of Mahoning creek." It began to increase rapidly about 1828, when a railroad was commenced, to run from this place to Pottsville, in which enterprise Stephen Girard was interested. A part of the road was made near Pottsville, but the death of Girard and others interested in the work destroyed the vitality of the project, and it was abandoned. Some ten years later extensive furnaces were erected here, and when anthracite coal was successfully introduced as a fuel for iron-

making, in 1841, these iron interests developed apace, soon elevating the town into the prominent rank it has since maintained among the industrial centres of the State. It occupies a beautiful position, and contains many fine residences. A State Asylum for the Insane is located here, and the town contains two national banks, a fine opera-house, seventeen churches, and three good hotels. Population, 8,436. Daily stage lines run from this station to Elysburg and Washingtonville.

ROARING CREEK, seventeen miles.

CATAWISSA, twenty-one miles, is a romantically-located borough in Columbia county, on the left bank of the Susquehanna river, at the mouth of Catawissa creek. There are few places in the State more renowned for grandeur of scenery, and there are not many towns within the limits of the Commonwealth whose names are more familiarly linked with schemes of improvement that failed to realize the dreams of their originators. It was laid out in 1787 by William Hughes, a Quaker from Berks county, and for some years members of that society controlled it. These, however, were superseded by settlers of German descent, one of whom erected an iron-furnace near the town as early as 1816. The principal business of the place now is merchandising and railroading. A paper-mill is in operation, and the adjacent country produces average crops of grain and vegetables, which find a ready market in the coal-mining regions of Ashland and Shamokin. The town contains six churches, a public hall, a deposit bank, and two good hotels. Population, 1614.

MAINVILLE, twenty-seven miles.

MIFFLIN X ROADS, thirty miles.

SCOTCH VALLEY, thirty-five miles.

MOUNTAIN GROVE, thirty-seven miles.

ROCK GLEN, thirty-nine miles.

GOWEN, forty miles.

TOMHICKEN, forty-five miles.—Terminus of road and point of connection with Wilkesbarre Railroad, which runs to Hazleton, where a junction is formed with the Lehigh Valley Railroad.

ORGANIZATION

OF THE

Pennsylvania Railroad Company,

1875.

General Office, No. 233 South Fourth Street, Philadelphia.

BOARD OF DIRECTORS:

THOMAS A. SCOTT,
JOSIAH BACON,
WISTAR MORRIS,
JOHN M. KENNEDY,
JOHN SCOTT,

ALEXANDER J. DERBYSHIRE,
SAMUEL M. FELTON,
ALEXANDER BIDDLE,
N. PARKER SHORTRIDGE,
HENRY M. PHILLIPS,
WILLIAM ANSPACH,

G. MORRISON COATES,
ALEXANDER M. FOX,
GEORGE B. ROBERTS,
EDMUND SMITH,
A. J. CASSATT.

GENERAL OFFICERS:

THOMAS A. SCOTT, President.

GEORGE B. ROBERTS, First Vice-President.
EDMUND SMITH, Second Vice-President.
A. J. CASSATT, Third Vice-President.
FRANK THOMSON, General Manager.
STRICKLAND KNEASS, Assistant to the President.
JOHN P. GREEN, Assistant to the President.
J. N. DU BARRY, Assistant to the President.
JOSEPH LESLEY, Secretary.
FLOYD H. WHITE, Assistant Secretary.
BAYARD BUTLER, Treasurer.
JOHN D. TAYLOR, Assistant Treasurer.
BENJAMIN F. CRAWFORD, Cashier.
W. J. HOWARD, General Solicitor.
GEORGE W. I. BALL, Assistant to General Solicitor.
S. B. KINGSTON, General Freight Agent.

D. M. BOYD, Jr., General Passenger Agent.
L. P. FARMER, Assistant General Passenger Agent.
CHARLES R. CLEMENT, General Baggage Agent.
ROBERT W. DOWNING, Controller.
HENRY W. GWINNER, Auditor Passenger Receipts.
MAX RIEBENACK, Ass't Auditor Passenger Receipts.
GEORGE M. TAYLOR, Auditor Freight Receipts.
JEFFERSON JUSTICE, Ass't Auditor Freight Receipts.
THOMAS R. DAVIS, Auditor Disbursements.
RICHARD J. HUGHES, Ass't Auditor Disbursements.
W. HASELL WILSON, Consulting Engineer.
ENOCH LEWIS, Purchasing Agent.
JOSEPH M. WILSON, Engineer Bridges and Buildings.
WILLIAM H. BROWN, Engineer Maintenance of Way.
I. J. WISTAR, General Superintendent of Canals.

ORGANIZATION OF DIVISIONS.

OFFICERS OF NEW JERSEY DIVISION:

F. WOLCOTT JACKSON, General Supt., Jersey City, N. J.
THEO. N. ELY, Superintendent Motive-Power, Altoona, Pa.
C. S. GAUNTT, Supt. Transportation, Trenton, N. J.
CHAS. E. PUGH, General Agent, Philadelphia, Pa.

WALTER FREEMAN, Gen'l Freight Agent, Philadelphia, Pa.
H. J. FILLMAN, General Ticket Agent, Philadelphia, Pa.
GEO. W. BARKER, Supt. New York Div., Jersey City, N. J.
I. S. BUCKELEW, Supt. Amboy Division, Camden, N. J.

J. A. ANDERSON, Superintendent Belvidere Division, Lambertville, N. J.

OFFICERS OF PENNSYLVANIA DIVISION:

G. CLINTON GARDNER, Gen'l Superintendent, Altoona, Pa.
THEO. N. ELY, Superintendent Motive-Power, Altoona, Pa.
JOHN REILLY, Superintendent Transportation, Altoona, Pa.
CHAS. E. PUGH, General Agent, Philadelphia, Pa.
ALEX. W. NUTT, General Freight Agent, Philadelphia, Pa.
THEO. A. STECHER, Gen'l Ticket Agent, Philadelphia, Pa.

WM. F. LOCKARD, Supt. Philadelphia Div., Philadelphia, Pa.
JAMES MCCREA, Supt. Middle Division, Harrisburg, Pa.
ROBT. PITCAIRN, Supt. Pittsburg Division, Pittsburg, Pa.
J. McC. CREIGHTON, Supt. West. Pa. Div., Blairsville, Pa.
S. S. BLAIR, Superintendent Tyrone Division, Tyrone, Pa.
P. F. SMITH, Supt. Lewistown Division, Lewistown, Pa.

SUTHERLAND M. PREVOST, Superintendent Bedford Division, Bedford, Pa.

OFFICERS OF PHILADELPHIA AND ERIE DIVISION:

WM. A. BALDWIN, General Supt., Williamsport, Pa.
HOWARD FRY, Supt. Motive-Power, Williamsport, Pa.
DEACON C. HOUGH, Gen'l Freight Agent, Williamsport, Pa.
E. S. HARRAR, General Ticket Agent, Williamsport, Pa.

THOS. GUCKER, Supt. Eastern Division, Williamsport, Pa.
E. B. WESTFALL, Supt. D., H. and W. R. R., Sunbury, Pa.
EDMUND L. TYLER, Supt. Middle Division, Renovo, Pa.
J. W. REYNOLDS, Supt. Western Division, Erie, Pa.

MILEAGE OF ROADS OWNED AND OPERATED BY THE PENNSYLVANIA RAILROAD COMPANY.

PENNSYLVANIA SYSTEM.

Philadelphia Division.

	Miles.	Miles.
Philadelphia to Harrisburg,	105.3	
Delaware Extension,	9.8	
Downingtown to Waynesburg,	18.0	
Pomeroy to Delaware City,	38.7	
Dillerville Intersection to Columbia Branch Intersection,	29.5	
	<hr/>	201.3

Middle Division.

Harrisburg to Altoona,	131.6
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Pittsburg Division.

Altoona to Pittsburg,	116.7
Altoona to Henrietta,	27.6
Y Switches to Newry,	3.0
Williamsburg Junction to Williamsburg,	13.5
Springfield Junction to Mines,	8.9
Roaring Springs to Ore Hill,	3.0
Martinsburg Junction to Martinsburg,	0.7
Cresson to Ebensburg,	11.0
Greensburg to Connellsville,	24.3
	<hr/>
	208.7

Frederick Division.

Columbia to York,	13.5	
York to Hanover,	18.0	
Hanover to State Line,	9.5	
State Line to Frederick,	28.0	
	<hr/>	69.0

Lewistown Division.

Lewistown Junction to Milroy,	5
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Bedford Division.

Mount Dallas to State Line,	38.7	
Dunning's Creek Junction to Holderbaum,	10.5	
	<hr/>	49.2

Tyrone Division.

Tyrone to Lock Haven,	54.3
Milesburg to Bellefonte,	2.5
Tyrone Intersection to Curwinsville,	44.0
Osceola Junction to Houtzdale,	6.0
Dunbar Junction to Collieries,	1.9
Philipsburg to Morrisdale,	3.7
	<hr/>
	112.4

West Pennsylvania Division.

Blairsville to Allegheny City,	63.5
Blairsville Intersection to Indiana,	19.0
Butler Branch Intersection to Butler,	21.0
	— 103.5

Total Pennsylvania Railroad Division, 888.2

NEW JERSEY SYSTEM.

New York Division.

	Miles.	Miles.
New York to West Philadelphia,	90.0	
Harsimus Junction to Harsimus Cove,	1.5	
Rahway to Perth Amboy,	7.9	
New Brunswick to East Millstone,	8.3	
Monmouth Junction to Rocky Hill,	6.5	
Princeton Junction to Princeton,	3.0	
Holmesburg Junction to Bustleton,	4.2	
	<hr/>	121.4

Belvidere Division.

Trenton to Manunka Chunk,	67.9
Somerset Junction to East Millstone,	22.6
Lambertville to Flemington,	12.0
	— 102.5

Amboy Division.

New York to Philadelphia, via boat and South Amboy,	92.2
Jamesburg to Monmouth Junction,	5.5
Bordentown to Trenton,	6.1
Kinkora to New Lisbon,	14.2
Florence to Foundry,	2.2
Burlington to Mount Holly,	7.5
Philadelphia to Hightstown, via Pemberton,	50.8
Mount Holly to Medford,	6.5
Ewansville to Vincentown,	2.8
	<hr/> 187.8

Total United Railroads of New Jersey Division, 411.7

PHILADELPHIA AND ERIE RAILROAD SYSTEM.

Eastern Division.

	Miles.	Miles.
Sunbury to Renovo,	92.4	
Montandon to Laurenton,	18.6	
	<hr/>	111.0

Middle Division.

Renovo to Kane,	100.7
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Western Division.

Kane to Erie,	94.5
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Danville, Hazleton and Wilkesbarre Division.

Sunbury to Tomhicken,	45.2
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Total Philadelphia and Erie Railroad Division, 351.4

SUMMARY.

	Miles.
Pennsylvania Railroad Division,	888.2
United Railroads of New Jersey Division,	411.7
Philadelphia and Erie Railroad Division,	351.4
Total,	<u>1,651.3</u>

MILEAGE OF ROADS CONTROLLED BY
PENNSYLVANIA RAILROAD COMPANY.

WEST JERSEY RAILROAD.		Miles.
Philadelphia to Cape May,		82.2
Woodbury to Swedesboro,		10.8
Glassboro to Bridgeton,		19.6
Elmer to Salem,		16.6
Total miles,		129.2

CUMBERLAND VALLEY RAILROAD.		Miles.
Harrisburg to Martinsburg,		94.0
Dillsburg Junction to Dillsburg,		7.7
South Pennsylvania Junction to Richmond,		19.1
Mercersburg Junction to Mercersburg,		2.3
Richmond to Ore Mines,		1.9
Total miles,		125.0

PITTSBURG, VIRGINIA AND CHARLESTON RAILROAD.		Miles.
Pittsburg to Monongahela City,		31.0
Total miles,		31.0

ALLEGHENY VALLEY RAILROAD.		Miles.
Pittsburg to Oil City,		132.0
Verona Junction to Coal Works,		7.0
Red Bank to Driftwood,		109.7
Sligo Junction to Sligo,		10.2
Total miles,		258.9

OIL CREEK AND ALLEGHENY RIVER RAILROAD.		Miles.
Oil City to Irvineton,		50.2
Oil City to Corry,		45.6
Titusville to Union,		25.2
Total miles,		121.0

BUFFALO, CORRY AND PITTSBURG RAILROAD.		Miles.
Corry to Brocton,		42.2
Total miles,		42.2

NORTHERN CENTRAL RAILWAY.		Miles.
Baltimore to Sunbury,		138.0
Williamsport to Canandaigua,		147.0
Relay to West Maryland Junction,		8.5
Sunbury to Mount Carmel,		26.3
Total miles,		319.8

BALTIMORE AND POTOMAC RAILROAD.		Miles.
Baltimore to Washington,		42.6
Bowie to Pope's Creek,		48.7
Total miles,		91.3

ALEXANDRIA AND FREDERICKSBURG RAILROAD.		Miles.
Washington to Alexandria,		7.1
Alexandria to Quantico,		27.3
Total miles,		34.4

RICHMOND AND DANVILLE RAILROAD.		Miles.
Richmond to Greensboro,		188.9
Greensboro to Goldsboro,		129.7
Greensboro to Charlotte,		93.3
Greensboro to Salem,		28.5
Manchester to Rockett's Wharf,		1.3
Total miles,		441.7

ATLANTA AND RICHMOND AIR-LINE RAILROAD.		Miles.
Charlotte to Atlanta,		266.0
Total miles,		266.0

MILEAGE OF RAILROADS WEST OF PITTS-
BURG, CONTROLLED BY THE "PENN-
SYLVANIA COMPANY."

PITTSBURG, FORT WAYNE AND CHICAGO RAILWAY.		Miles.
Pittsburg to Chicago,		468.3
Total miles,		468.3

CLEVELAND AND PITTSBURG RAILROAD.		Miles.
Rochester to Cleveland,		124.0
Yellow Creek to Bellaire,		43.3
Bayard to New Philadelphia,		32.3
Total miles,		199.6

NEW CASTLE AND BEAVER VALLEY RAILROAD.		Miles.
Homewood to New Castle,		14.9
Total miles,		14.9

ERIE AND PITTSBURG RAILROAD.		Miles.
New Castle to Girard,		82.5
Total miles,		82.5

LAWRENCE RAILROAD.		Miles.
Lawrence Junction to Youngstown,		17.4
Total miles,		17.4

ASHTABULA, YOUNGSTOWN AND PITTSBURG RAILROAD.		Miles.
Youngstown to Lake Erie Harbor,		63.5
Total miles,		63.5

MANSFIELD, COLDWATER AND LAKE MICHIGAN RAILROAD.		Miles.
Toledo Junction to Fostoria,		49.7
Monteith Junction to Allegan,		11.5
Total miles,		61.2

TOLEDO, TIFFIN AND EASTERN RAILROAD.		Miles.
Tiffin to Toledo,		42.4
Total miles,		42.4

CLEVELAND, MT. VERNON AND COLUMBUS RAILROAD.		Miles.
Hudson to Columbus,		145.0
Clinton to Massillon,		12.5
Total miles,		157.5

JEFFERSONVILLE, MADISON AND INDIANAPOLIS RAILROAD.		Miles.
Indianapolis to Louisville,		110.0
Columbus to Cambridge City,		65.0
Columbus to Madison,		45.0
Jeffersonville to New Albany,		6.0
Total miles,		226.0

INDIANAPOLIS AND VINCENNES RAILROAD.		Miles.
Indianapolis to Vincennes,		117.0
Total miles,		117.0

INDIANAPOLIS AND ST. LOUIS RAILROAD.*		Miles.
Indianapolis to Terre Haute,		71.7
Terre Haute to St. Louis,		189.3
Alton Junction to Alton,		4.1
Total miles,		265.1

Total miles of railway controlled by the "Pennsylvania Company,"	1,715.4
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* With the lease of the Pittsburg, Fort Wayne and Chicago Railway there was conveyed a contract with the Indianapolis and St. Louis Railroad, by which the Pennsylvania Railroad Company acquired one-half interest in this line.

MILEAGE OF RAILROADS WEST OF PITTSBURG, CONTROLLED BY THE PITTSBURG, CINCINNATI AND ST. LOUIS RAILWAY COMPANY.

PITTSBURG, CINCINNATI AND ST. LOUIS RAILWAY.

	Miles.
Pittsburg to Columbus,	193.0
Cadiz Junction to Cadiz,	8.1
Total miles,	201.1

CHARTIERS RAILWAY.

Mansfield to Washington,	22.8
Total miles,	22.8

CINCINNATI AND MUSKINGUM VALLEY RAILWAY.

Dresden Junction to Morrow,	148.4
Total miles,	148.4

LITTLE MIAMI RAILROAD.

Columbus to Cincinnati,	119.4
Xenia to Springfield,	19.3
Xenia to Richmond,	57.4
Total miles,	196.1

COLUMBUS, CHICAGO AND INDIANA CENTRAL RAILWAY.

Columbus to Indianapolis,	187.7
Richmond to Anoka,	102.7
Bradford Junction to Chicago,	230.9
Logansport to State Line,	61.0
Total miles,	582.3

Total miles of railway controlled by the Pittsburg, Cincinnati and St. Louis Railway Company,	1,150.7
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ST. LOUIS, VANDALIA, TERRE HAUTE AND INDIANAPOLIS RAILROAD.

	Miles.
Indianapolis to St. Louis,	238.0
Total miles,	238.0

RECAPITULATION.

	Miles.
Pennsylvania Railroad and branches,	1,651.3
West Jersey Railroad,	129.2
Cumberland Valley Railroad,	125.0
Pittsburg, Virginia and Charleston Railroad,	31.0
Allegheny Valley Railroad,	258.9
Oil Creek and Allegheny River Railroad,	121.0
Buffalo, Cory and Pittsburg Railroad,	42.2
Northern Central Railway,	319.8
Baltimore and Potomac Railroad,	91.3
Alexandria and Fredericksburg Railroad,	34.4
Richmond and Danville Railroad,	441.7
Atlanta and Richmond Air-Line Railroad,	266.0
Pennsylvania Company,	1,715.4
Pittsburg, Cincinnati and St. Louis Railway,	1,150.7
St. Louis, Vandalia, Terre Haute and Indianapolis Railroad,	238.0
Total miles of railroad owned, operated, or controlled by the Pennsylvania Railroad Company,	6,615.9

BRIDGES.

The Newport and Cincinnati bridge, crossing the Ohio river at Cincinnati, and furnishing railway connection between the roads north and south of that river converging at Cincinnati, and also giving a common road connection between the cities which give it its name.

The Jeffersonville and Louisville bridge and the track (one mile long) connecting the bridge (five thousand two hundred and ninety-four feet long) with the Louisville and Nashville Railroad station at Louisville.

CANALS.

PENNSYLVANIA CANAL.

	Miles.
Columbia to Wilkesbarre,	151
Clark's Ferry to Petersburg,	95
Northumberland to Flemington,	68
Clark's Ferry to Millersburg,	13
Slack-water,	11
Total miles,	338

NEW JERSEY CANAL.

Bordentown to New Brunswick,	44
Navigable feeder,	23
	67
Aggregate miles of canals,	405

REVISED GENERAL ACCOUNT OF THE PENNSYLVANIA RAILROAD COMPANY.

Presented by a committee of stockholders, at a special meeting of the stockholders, held in Philadelphia, October 2d, 1874.

DR.	
To capital stock, full paid,	\$67,056,750 00
To capital stock, part paid,	1,087,725 00
Total amount of capital paid in,	\$68,144,475 00
To first mortgage bonds, due 1880,	\$4,970,000 00
To second mortgage bonds, due 1875,	4,865,840 00
To general mortgage bonds, due 1910,	19,558,760 00
To consolidated mortgage bonds, due 1905,	8,245,000 00
To lien of the State upon the public works between Philadelphia and Pittsburg, bearing five per cent. interest, payable in annual installments of \$460,000, applicable first to the interest and the remainder to principal, the original amount of which was \$7,500,000,	5,401,675 41
To mortgages and ground-rents at six per cent. remaining on real estate purchased,	104,509 32
	43,145,784 73
To bills payable,	\$2,470,963 90
To acceptances given to other companies,	2,140,833 34
	4,611,797 24
To accounts payable, including freight and passenger balances due to other roads, pay-rolls and vouchers for December, 1873, paid in January, 1874; also, dividends unpaid and dividend scrip outstanding,	11,658,791 12
To balance to credit of profit and loss,	50,810,930 08
	<u>\$178,371,778 17</u>

CR.	
By road bed and track and bridges, \$45,164,223 00	
By real estate and buildings,	27,865,240 00
By machinery and tools,	1,270,420 00
By rolling stock,	20,098,600 80
	\$94,398,483 80
By amount of bonds of railroads and other corporations, \$22,045,575 00	
By amount of capital stock of railroads and other corporations,	27,665,512 00
Total value of bonds and stock belonging to the company,	49,711,087 00
By amount of fuel and material on hand for repairs to locomotives, cars, and maintenance of way for the Pennsylvania Railroad, United New Jersey Railroad and Canal, and the Philadelphia and Erie Railroad,	4,945,650 67
By amount of bills and accounts receivable and amount due from other roads, including amount due from the Philadelphia and Erie Railroad Company and from the United New Jersey Railroad and Canal Companies for permanent improvements, as well as for expenditures on the Harsimus Cove property at Jersey City; also, for purchase of anthracite coal properties and advances made to railroad corporations, including purchase of equipment in use on some of these lines,	23,945,107 44
By appraised value of suspense account,	1,000,000 00
By balance in hands of agents,	2,058,862 05
By balance in hands of treasurer,	2,312,587 21
	<u>\$178,371,778 17</u>
The above account shows total assets of the company amounting to	\$178,371,778 17
The bonded debt and all other liabilities other than to stockholders,	59,416,373 09
	<u>\$118,955,405 08</u>
The amount of capital stock issued,	68,144,475 00
Leaving surplus value to credit of profit and loss,	<u>\$50,810,930 08</u>

APPENDIX.

I.—CLASSIFICATION OF LOCOMOTIVE ENGINES.

CLASS A.—Standard passenger engine—seventeen-inch by twenty-four inch cylinders, sixty-six inch drivers.

CLASS B.—Mountain passenger helper—a modification of class A, being in all respects like it, with the exception of the cylinders, which are eighteen inches by twenty-four inches, the drivers, which are sixty inches in diameter, and the boiler, which is larger.

CLASS C.—Used for local and fast freight and for passenger engine. Another modification of class A, differing only in the diameter of the drivers, which are sixty inches, and the boiler, which is larger.

CLASS D.—Standard ten-wheel freight engine—eighteen-inch by twenty-two inch cylinders, and fifty-four inch drivers.

CLASS E.—Mountain ten-wheel freight engine—a modification of class D, differing only in the drivers, which are forty-eight inches in diameter, and the boiler, which is larger.

CLASS F.—Standard six-wheel shifting-engine—fifteen-inch by eighteen-inch cylinders, with forty-four inch drivers.

CLASS G.—Standard light passenger or ballast engine—fifteen-inch by twenty-two inch cylinders, with fifty-five inch drivers.

CLASS H.—Standard six-wheel shifting-engine, with tender—fifteen-inch by twenty-two inch cylinders, with forty-four inch drivers.

The "A," "B," and "C" are first-class eight-wheel passenger locomotives, substantially identical in details, and varying only so far as is necessary to adapt them to their work.

The "D" and "E" are the leading freight engines,—the "D" used on the level and moderately hilly portions of the road, the "E" on the mountains. These engines are ten-wheelers, and differ only in some of their leading dimensions, the details being almost identical.

The "F" and "H" are six-wheeled shifting and distributing engines,—the former with a tank on the boiler, the latter with an eight-wheeled tender.

The "G" is a rather small eight-wheeled engine, used for miscellaneous purposes.

II.—RULES OF THE TRANSPORTATION DEPARTMENT.

GENERAL RULES.—1. The rules and regulations, special orders, and official directions issued from time to time by the transportation department of the Pennsylvania Railroad Company, being designed for the security of the lives of passengers and of property intrusted to the company for transportation as well as for the security of employes engaged therein, and for the proper care and oversight of the property and interests of the company intrusted to this department of the service, every employé is expected, and will be required, to yield a willing and cheerful obedience thereto. When an individual enters or remains in the service of the company, it will be considered as in itself an expression of willingness to do so.

2. Every head of a department should keep himself perfectly conversant with the rules and regulations, supply copies of them to his subordinates, explain them when it may be necessary to do so, see that they are properly understood, enforce obedience to them, and report to the proper officer all violations of them coming under his notice, as well as the action taken upon such violations.

3. Ignorance will not be accepted as an excuse for neglect or omission of duty. If not supplied with the rules and regulations, employes must apply for them to the division superintendent, or to the head of their sub-department. If in doubt in regard to the true meaning of any rule, regulation, order, or

special direction, they must take an early opportunity to obtain a full explanation from the proper source.

4. Employés of the company will not be permitted to absent themselves from the duties of their post, without the consent of the head of the department or sub-department to which they may be attached.

5. Employés of every grade will be considered in the line of promotion, dependent upon the faithful discharge of duty, qualifications, and capacity for assuming increased responsibilities.

6. The regular compensation of employes covers all risk or liability to accident.

7. If an employé is disabled by sickness or any other cause, the right to claim compensation is not recognized. Allowances, when made in such cases, will be as a gratuity, justified by the circumstances of the case and previous good conduct.

8. Disobedience of orders, violation of rules, or neglect of duty, will always be considered a sufficient cause for dismissal from the service of the company; but fines or suspension from duty may be substituted, with the approval of the general superintendent. Fines thus imposed will not be taken as a source of revenue to the company, but will be held in trust, by the general superintendent, for the benefit of those who are faithful in the discharge of duty, and will be used to assist them in defraying expenses arising

from unavoidable accidents or sickness, and for other charitable purposes.

9. Every employé when on duty connected with the trains of the Pennsylvania Railroad Company, while on any division of the road, will be under the authority and conform to the orders of the superintendent of that division.

10. Depot-masters and their assistants, baggage agents, passenger conductors, baggage-masters, and brakemen, when on duty, must be distinguished by suitable badges, conspicuously displayed.

11. All employés intrusted with switch-keys, and keys of passenger or freight cars, are required to give receipts for them to the division superintendent, and are not permitted to let them go out of their possession.

12. Strict propriety of conduct, and the avoidance of profane or indecent language in the presence of passengers, and in the transaction of business with others, and with one another, is required.

13. Smoking in or about the shops, or while on duty at the depots, or on the passenger engines and trains, is prohibited.

14. The use of intoxicating drinks while on duty is prohibited. Persons known to be in the habitual use of them will not be retained in the service.

15. Any employé noticing a disobedience or neglect of rule is required to report it to the proper officer.

16. No employé is allowed to use the credit of the company except those duly authorized by the general manager.

17. Agents in charge of the United States mails, messengers of express companies, sleeping-car conductors and porters, news agents, and individuals in charge of private cars, while with the trains of the Pennsylvania Railroad Company, must consider themselves employés of the Pennsylvania Railroad Company, in all matters connected with the movement and government of the trains, and must conform to the directions of the conductors thereof.

SIGNALS.—18. Conductors, enginemen, firemen, brakemen, station-agents, telegraph-operators, foremen of road repairs, switchmen, road and bridge watchmen, and all other employés having to make signals, are required to provide themselves with them, keep them on hand in good order, and always ready for immediate use.

19. Red signifies danger, and is a signal to stop.

20. Green signifies caution, and is a signal to go slowly.

21. White signifies safety, and is a signal to go on.

22. Green and white is a signal to be used to stop trains at flag stations.

23. Blue is a signal to be used by car inspectors.

24. Flags of the proper color must be used by day and lamps of the proper color must be used at night or in foggy weather. Red flags or red lanterns must never be used as caution signals, they always signify danger—stop.

25. A lantern swung across the track, a flag, hat, or any object waved violently by any person on the track, signifies danger, and is a signal to stop.

26. An exploding cap or torpedo clamped to the top of the rail is an extra danger signal, to be used, in addition to the regular signals, at night, in foggy weather, and in cases of accident or emergency,

when other signals cannot be distinctly seen or relied upon. The explosion of one of these signals is a warning to stop the train immediately, and the explosion of two of these signals is a warning to check the speed of the train immediately, and look out for the regular danger signal.

27. A fusee is an extra caution signal, to be lighted and thrown on the track at frequent intervals, by the flagman of passenger trains at night, whenever the train is not making schedule speed between telegraph stations. A train finding a fusee burning upon the track must come to a full stop, and not proceed until it is burned out.

TRAIN SIGNALS.—28. All trains are designated as regular or extra. Regular trains are those represented on the time table. Extra trains are those not represented on the time table, but running under special orders, and work trains running as per rule No. 109.

29. Each train, or engine without a train, while running after sunset, or during the day in foggy weather, must display the white head-light in front of the engine, and two red lights in the rear of the train or engine, except shifting-engines in yards, which will display two green lights instead of red.

30. Each passenger train while running must have a bell-cord attached to the signal-bell of the engine, passing through or over the entire length, and secured to the rear end of the train.

31. Each passenger train while running must display one green flag at the rear by day, and two green lights, one on each side of the rear car, at night, as markers, to enable operators and enginemen to know that the whole of the train is attached to the engine.

32. Each freight train while running must display two green flags by day and two green lights at night, one on each side of the rear car, as markers, to enable operators and trainmen to know that the whole of the train is attached to the engine.

33. Two green flags by day, and two green lights at night, carried in front of an engine, denote that the engine or train is followed by another engine or train running on the same schedule. The engine or train thus signaled will be entitled to the same schedule rights and privileges as the engine or train carrying the signal.

34. Two white flags by day and two white lights at night, carried in front of an engine, denote that the engine or train is extra. These signals shall always be displayed by all work and extra trains or engines, except when running as a regular train.

35. A blue flag by day and a blue light at night, placed in the drawhead, or on the platform or step of a car, at the end of a train standing on main track or sidings, denotes that car-repairmen are at work underneath the cars. The car or train thus protected shall not be coupled to or moved until the blue signal is removed by the car-repairmen.

ENGINEMEN'S SIGNALS. (*By Whistle.*)—36. One short blast of the whistle is a signal to apply the brakes—stop. (Thus —.)

37. Two long blasts of the whistle is a signal to throw off the brakes. (Thus — —.)

38. Two short blasts of the whistle when running is an answer to signal of conductor to stop at next station. (Thus --.)

39. Three short blasts of the whistle when standing is a signal that the engine or train will back. (Thus ---.)

40. Three short blasts of the whistle when running is a signal to be given by passenger trains, when carrying signals for a following train, to call the attention of trains they pass to the signals. (Thus ---.)

41. Four long blasts of the whistle is a signal to call in the flagman or signalman. (Thus ----.)

42. Four short blasts of the whistle is the engine-man's call for signals. (Thus ----.)

43. Two long followed by two short blasts of the whistle when running is a signal for approaching a road crossing at grade. (Thus ---.)

44. Five short blasts of the whistle is a signal to the flagman to go back and protect the rear of the train. (Thus -----.)

45. A succession of short blasts of the whistle is an alarm for cattle, and calls the attention of trainmen to danger ahead.

46. A blast of the whistle of five seconds' duration is a signal for approaching stations, railroad crossings, and draw-bridges.

CONDUCTORS' SIGNALS. (*By Bell-cord.*)—47. One tap of the signal-bell, when the engine is standing, is a notice to start.

48. Two taps of the signal-bell, when the engine is standing, is a notice to call in the flagman.

49. Two taps of the signal-bell, when the engine is running, is a notice to stop at once.

50. Three taps of the signal-bell, when the engine is standing, is a notice to back the train.

51. Three taps of the signal-bell, when the engine is running, is a notice to stop at the next station.

SIGNALS BY LAMP.—52. A lamp swung across the track is a signal to stop.

53. A lamp raised and lowered vertically is a signal to move ahead.

54. A lamp swung in a circle is a signal to move back.

GENERAL REGULATIONS GOVERNING THE USE OF SIGNALS.—55. Unnecessary sounding the whistle is positively prohibited, as its excessive use impairs its value as a signal of danger.

56. When shifting in yards and at stations, the engine-bell should be rung, and the whistle must only be used in cases of absolute necessity.

57. The whistle must not be sounded while passing a passenger train, except in cases of emergency or danger.

58. The engine-bell must always be rung before starting an engine or train.

59. When passing or meeting trains on double track or sidings, and passing through tunnels, or through the streets of boroughs and cities, the engine-bell must be rung.

60. The engine-bell must be rung from a point one-quarter of a mile from every road crossing, until the road crossing is passed, and the whistle must be sounded at all road crossings at grade, where whistling-posts are placed.

61. All extra trains must be protected with danger signals when standing, and the whistle should be sounded frequently while in motion.

62. All enginemen will note when trains running on the opposite track are following too closely, and signal them accordingly.

63. When one tap of the signal-bell is heard, while the train is running, enginemen will regard it as a warning that the train has parted, and will immediately look back and ascertain if such is the case. Should the signal be given from some other cause, they will govern themselves as circumstances may require.

64. When two or more engines are coupled in a train carrying signals for a following train, each engine shall carry the signals.

65. When one flag or light is carried in front of an engine it shall be regarded the same as if two were displayed; but enginemen and firemen will be held responsible for the proper display of all signals required by the rules.

66. No train or engine standing on a siding shall display red signals so as to appear as a danger signal to trains running on the main track. When trains turn out, on either single or double track, to allow trains running in the same direction to pass, the red lights must be removed or covered as soon as the track is clear for the following train, but they must be displayed before leaving the siding or crossing back to the opposite track.

67. The combined green and white signal is to be used only to stop trains at the flag stations designated on the time table. When it is necessary to stop a through train at a point that is not a flag station for that train, a red signal must be used.

68. Switch signals will be arranged so as to show white when the switch is set for the main track, and red when set for the siding, crossing, or junction.

69. Trainmen are required to use all signals strictly in accordance with the rules, and they are specially directed to be always on the lookout for the signals carried by other trains.

TRAIN RULES.—70. All trains in either direction, when running on double track, will invariably keep to the right.

71. All trains will be classified on the time table in the order of their preference. A train of an inferior class must, in all cases, keep out of the way of a train of a superior class.

72. When running on single track, all trains in one direction (to be specified on the time table) will have the absolute right of track over trains of the same or inferior class running in the opposite direction. Trains not having right of track will keep entirely out of the way of trains of the same or superior class running in the opposite direction.

73. When two trains of the same class meet on single track, the train not having right of track must take the siding (except when it cannot enter without backing) and be clear of main track before the leaving time of the opposing train.

74. In cases when a passenger train of an inferior class meets a passenger train of a superior class on single track, the train of inferior class must take the siding and clear the time of the opposing train five minutes.

75. In cases when a freight train of an inferior class meets a freight train of a superior class on single track, the train of inferior class must take the siding and clear the time of the opposing train five minutes.

76. In cases when a freight train meets a passenger train on single track, the freight train must take the siding and clear the passenger train ten minutes.

77. A train of an inferior class running ahead of a train of a superior class must keep twenty minutes off the time of the train of superior class following it.

78. Extra trains or engines must keep twenty minutes off the time of passenger trains, and ten minutes off the time of freight trains.

79. A passenger train must not leave a station expecting to meet or to be passed at the next station by a train having the right of track, unless it has full schedule time to make the meeting or passing point.

A freight train must not leave a station expecting to meet or to be passed at the next station by a train having the right of track, unless it can make the meeting or passing point without exceeding its maximum speed, take the siding, and be clear of main track before the time required by rule to clear the opposing or following train.

80. It must be distinctly understood that a train not having right of track must be entirely clear of the main track before the time it is required by rule to clear an opposing train, or a train running in the same direction; if from any cause it should fail to do so, a flagman must be sent out immediately to protect the train, as per rule No. 86.

81. When two or more passenger trains of the same class are running in the same direction, they must keep not less than fifteen minutes apart.

82. A passenger train of an inferior class must not leave a station to follow a passenger train of a superior class until ten minutes after the departure of the passenger train of superior class.

83. A freight train, or extra train or engine, must not leave a station to follow a passenger train until ten minutes after the departure of the passenger train.

84. Freight trains following each other must be kept not less than five minutes apart, except in closing up at stations or passing-places.

85. When a passenger train is delayed at any of its regular stops more than five minutes, the flagman shall go back with danger signals to protect his train, in accordance with rule No. 86; and should a passenger train stop at any unusual point on the road, the flagman shall go back immediately and be governed by the same rule.

When a freight train stops at its regular stopping-places, where the rear of the train can be plainly seen by a following train at a distance of at least one-half mile, the flagman shall go back with danger signals not less than one hundred yards, and as much farther as may be necessary, to insure stopping the following train; but if the rear of his train cannot be plainly seen at a distance of at least one-half mile, or if it stops at any point that is not its regular stopping-place, the flagman must go back not less than six hundred yards,—always bearing in mind that if from

any cause his train should be detained so as to come within twenty minutes of the time of a passenger train following, he must be governed strictly by rule No. 86.

When it is necessary to cross over to the opposite track, or to protect the front of the train from any cause, the same precautions shall be observed by the fireman; but if the fireman is unable to leave the engine, the front brakeman shall be sent in his place.

86. When an accident occurs to a train, or if by any other cause the road is obstructed, the flagman shall immediately go back with danger signals to stop any train or engine which may be following. At a point six hundred yards from the rear of his train he shall place one explosive cap on the rail; he shall then continue to go back at least twelve hundred yards from the rear of his train, and place two explosive caps on the rail three yards apart, when he may return to a point nine hundred yards from the rear of his train, and he must remain there until recalled by the whistle of his engine; but if a passenger train is due he must remain until it arrives. When recalled he will remove the explosive cap nearest to the train, but the two explosive caps must be left on the rail as a caution signal to any following train.

If the accident occur upon single track, or if on double track, and both tracks are obstructed, the fireman shall go forward a like distance, and use the same precautions to protect the train from any train coming in an opposite direction. The conductor as well as the engineman is required to know that the fireman performs this duty, and if from any cause the fireman is unable to go forward promptly, the front brakeman shall be sent in his place.

87. When it becomes necessary for the flagman to go back to protect the rear of his train, the next brakeman shall immediately take the flagman's position on the train, and remain there until relieved by the flagman, and on passenger trains the baggage-master shall take the place of the front brakeman whenever necessary.

Conductors are required to strictly enforce this rule.

88. When a freight train crosses over to the opposite track to allow a passenger train running in the same direction to pass it, and, while waiting, a passenger train in the opposite direction arrives, the freight train may cross back and allow it to pass: provided, the other passenger train is not in sight; and also provided, that a flagman has been sent with danger signals, as per rule No. 86, not less than twelve hundred yards in the direction of the expected train.

89. When it is necessary for a freight train to cross over to the opposite track to allow a passenger train running in the same direction to pass it, and a passenger train running in the opposite direction is due, a flagman must be sent back with danger signals, as per rule No. 86, not less than twelve hundred yards in the direction of the following train, and the freight train will not cross over until one of the passenger trains arrives. Should the following passenger train arrive first, a signalman must be sent forward on the opposite track with danger signals, as per rule No. 86, not less than twelve hundred yards in the direction of the overdue passenger train, before crossing over. Great caution must be used and good judgment is required to prevent detention to either passenger train. The preference should always be given to the passenger train of superior class.

90. If a train should break while in motion, great care is required on the part of trainmen to prevent the detached parts from coming into violent contact. Enginemen must keep the front part of the train in motion until the detached portion is stopped.

91. In case a train parts, the front portion will have the right to go back, regardless of all trains, to recover the lost portion, first sending a signalman, with danger signals, nine hundred yards in advance, and running with great caution, at a speed not exceeding four miles per hour, and on single track, taking all the precautions required by rule to protect itself against opposing trains. The lost portion must not be moved or passed around until the front portion comes back. This rule applies to trains of every class.

92. If an obstruction or accident make it necessary to move an engine or train in the wrong direction on double track, or to cross over to the opposite track to pass around such obstruction, obstructed trains may do so, but the utmost caution must be used. The conductor of the obstructed train, (or, in his absence, the engineman,) before the engine is moved, will send a signalman, with danger signals, not less than one mile in advance, in the direction in which the train is to be backed or moved. The train or engine thus moved must only be backed or run to the next crossing, and while moving, the engineman will frequently sound his whistle, and not exceed a speed of four miles per hour, to enable the signalman to keep the required distance in advance. Freight trains must in all cases clear the time of passenger trains twenty minutes.

93. When a train is run backward, (except when shifting and making up trains in yards,) the conductor must station himself on the top of the rear car, or in a position so conspicuous as to perceive the first sign of danger, and give immediate signal to the engineman.

94. A train becoming delayed and falling back on the time of another train of the same class does not lose its own rights, and will not take the time or assume the rights of another train, without written orders from the division superintendent.

95. A train overtaking another train of the same or superior class will not run around it, except the train ahead is disabled from accident; in this case the train passing the disabled train will assume its rights and report to the division superintendent from the next telegraph office.

The disabled train will assume the rights of the last train passing it, and report to the division superintendent from the next telegraph office.

96. All special orders for the movement of trains must be given in writing, addressed to the conductor and engineman, and signed by the division superintendent. If sent by telegraph, the operator receiving the order must immediately enter it in the order-book and repeat it back. When the division superintendent responds that the order is "O. K.," he will prepare two copies, and deliver one to the conductor and one to the engineman. They must compare their copies with the original order in the book, which they must sign, and must not leave the office until the operator repeats their signatures to the division superintendent, and he replies that the order is correct. Train orders must have written on them "correct,"—the name of the operator, the office, the date, and the time they were made "correct."

Conductors and enginemen must not run on any order that has not been made "correct," (after they have signed for it,) or that has been erased or altered in any way, or that they do not fully understand.

97. All messages respecting the movement of trains, or the condition of track or bridges, must be sent in writing, to avoid the possibility of misconstruction.

98. Trains shall be run uniformly and steadily between stations, and delayed as little as possible for fuel and water, and for the transaction of business at stations.

When approaching stations and sidings, enginemen must observe that the switches are set right, and always look out for signals.

When following other trains on the same schedule, they must keep a sharp lookout for the train immediately preceding them, especially when running around curves and closing in at stations.

99. Trains approaching stations on double track where a passenger train may be standing, receiving or discharging passengers, must be stopped before reaching the passenger train, and not go forward until the passenger train moves on, or signal is given to come on.

100. All trains of the same class must stop at scheduled meeting-places on single track, unless the switches are plainly seen to be right, and the track clear. The point at which trains should stop is the switch used by opposing trains to go in on sidings.

When the expected trains are not found at the meeting-places designated on the time table, trains must approach all sidings prepared to stop until the expected train is met and passed.

101. All trains must approach the end of double track, all junction switches, and drawbridges at reduced speed, and come to a full stop, unless the switches or signals are plainly seen to be right.

102. All trains must come to a full stop at all railroad crossings at grade, unless the signal is given for clear track, when the speed must not exceed six miles per hour.

103. Passenger trains shall be drawn, not pushed, except in case of accident or other emergency. When express or freight cars are run with a passenger train they must be placed next to the engine.

104. No train shall start without a signal from its conductor, and conductors must not give the signal until they know that the train is properly coupled.

105. No engine or train shall carry the signals provided for in rule No. 33, without orders from the division superintendent, train masters, or yard dispatchers.

106. No passenger train shall carry signals for a following train without a written order from the division superintendent.

107. On single track, when an engine or train leaves a station (or any point on the road) to which it has carried signals for a following train, before the following train has arrived there, the engineman must notify all regular trains that he meets, and all extra trains, until he reaches the next telegraph office, when he will report to the division superintendent that he has taken down the signals.

108. No extra train or engine, except work trains, shall be sent over the road without a written order from the division superintendent.

109. Work trains have the right to the road, keeping out of the way of regular trains, as per rules Nos. 78 and 83.

They will always be assigned special limits, and must not use track elsewhere without a written order from the division superintendent. Conductors must report to the division superintendent each morning the track they will use during the day, and must not run beyond the points designated. After returning to headquarters at night, they must report to the division superintendent's office, and not go out on the main track until the regular hour next morning, without a written order from the division superintendent.

110. No person will be permitted to ride on the engine or tender without an order from the general or division superintendent, or superintendent of motive-power, except the engineman, fireman, road foreman of engines, train-masters, assistant engineers, and supervisors in the discharge of their duties on their respective divisions, and conductors, in cases of accident, or running to a meeting-point.

111. Passengers shall not be carried on freight or work trains.

112. All accidents, detention of trains, failure in any way of the engines, or defects in the road or bridges, must be reported to the division superintendent by telegraph from the next station.

113. Conductors of trains must attend to switches used by their engines or trains, and they will be held responsible for the proper adjustment of the switches used by them, except where a regular switchman is stationed.

When there is more than one train to use a switch, conductors must not leave the switch open for following trains, unless the conductor of the following train is at the switch and takes charge of it.

114. Conductors and enginemen are required to compare time daily with the standard office clock.

115. The maximum speed given on the time table for each class of trains must not be exceeded.

116. No train shall be started from or pass a station before the time given for it on the time table.

117. Conductors and enginemen are held equally responsible for the violation of any of the rules governing the safety of their trains, and for taking every precaution for the protection of their trains, even if not provided for by the rules.

118. IN ALL CASES OF DOUBT OR UNCERTAINTY TAKE THE SAFE COURSE AND RUN NO RISK.

RULES TO BE OBSERVED IN USING MIDDLE SIDINGS, OR THIRD TRACK.—119. The middle sidings, or third track, must be used by trains (in either direction) whenever it is necessary to turn out to allow trains of a superior class running in the same direction to pass them.

120. A half-way post will be placed in the centre of each middle siding; trains in either direction may run to the half-way post at a speed not exceeding six miles per hour, but must not run beyond it except under the protection of danger signals.

121. When trains pass the half-way post they must run at a speed not exceeding four miles per hour, to enable the signalman to keep not less than six hundred yards in advance of the train.

122. When two trains meet on a middle siding, the train nearest the switch shall be backed, keeping a flagman not less than six hundred yards in advance; but when there are crossing-switches in the centre on a middle siding, they must be used in all cases when the backing of either train from the siding on to the main track can be avoided.

123. All trains are required to use middle sidings with great care. They must invariably run expecting to meet an opposing train, whether opposing trains are due or not.

RULES GOVERNING THE OPERATION OF THE BLOCK SYSTEM OF SIGNALS.—124. The stationary signal displayed at block stations will be red. White signifies that the block is entirely clear of trains. Green signifies that trains are moving on the block.

125. At block stations, enginemen will be governed absolutely by the block signals. They will approach all block stations so that the engine can be stopped before passing them, unless the signal to proceed is displayed, and in the absence of any signal they must stop and ascertain the cause.

126. When stopped by the red signal, enginemen must not proceed until the proper signal gives them the right to do so.

127. When passenger trains are stopped by the block signal at stations where they receive or discharge passengers, they may run to the platform, and in case the block signal cannot be seen by the engineman, the conductor may give the order to proceed, after receiving the proper signal.

128. When running by block signals, rules Nos. 81, 82, and 83 are annulled.

129. When it is necessary for any engine or train to cross over to the opposite track, between block stations, enginemen must stop and inform the operator at the block station before crossing over.

130. All trains must display markers, as per rule Nos. 31 and 32. Extra passenger trains will be governed by rule No. 31, and all other extra trains by rule No. 32.

131. Operators must report promptly to the next block station in the rear, and to the next block station in advance, the movement of trains passing their stations, but must not report a train until the rear end has passed at least one hundred yards beyond the block station.

132. The red signal must be displayed immediately after the departure of a passenger train, and not raised until it has cleared the main track at or passed the next block station. The red signal must be held up by hand, and never secured when raised.

133. When a freight or extra train or engine enters the block, a red signal must be displayed for at least five minutes, when, if another freight or extra train or engine approaches, and the preceding train has not passed the next block station, they will be allowed to pass under a green signal.

134. Passenger trains must be brought to a full stop by the red signal, if a freight or extra train or engine is on the block, and so notified before they are permitted to pass under the green signal; but in case there is a crossing-switch or siding on the block, which the freight or extra train or engine has had time to reach, they will not be stopped, but allowed to proceed under the green signal.

135. When freight trains get within forty minutes of a passenger train's time, operators will keep them only three minutes apart, and when within thirty minutes of a passenger train's time, only two minutes apart, to enable the freight trains to close in and clear the passenger train, according to rule.

136. When a passenger train overtakes one or more freight trains delayed on the main track, and all trains arrive close together at a block station where there is no crossing, the operator will permit all the trains to pass under a green signal; but will notify the passenger train of the number of freight trains ahead, and exact time the last train passed.

137. If the wires are interrupted when a passenger train is on the block, the red signal must be displayed and all following trains notified and permitted to pass under the green signal. Should the interruption occur when freight trains are on the block, the green signal will be given for following trains of the same class; but passenger trains must be stopped by the red signal, notified of the cause, and permitted to proceed under the green signal.

138. When operators are notified of the intention of an engine or train to cross over to the opposite track, they will direct the next block station in the direction the train or engine is moving to display the green signal for opposite track, thus keeping both tracks covered by a green signal until the train or engine reaches one of the block stations.

139. If no markers are displayed at the rear of a train or engine, the next block station must be notified to stop the train, and the block station in the rear must also be notified that the track is blocked, until information is received from the conductor at the block station in advance that he has all the cars in his train.

140. Operators will be governed by the following telegraph signals:—

"5." Is the track clear?

"No. 1." Track is not clear—hold the train.

"O. K., 35." Track is clear—let train come on.

141. Night signals must be displayed from one hour before sunset until one hour after sunrise; also, during the day in foggy weather.

142. These rules do not relieve trainmen from observing all rules in regard to the protection of their trains.

RULES FOR TRAIN-MASTERS AND ASSISTANTS.—

143. Train-masters and assistant train-masters report to and receive their instructions from the division superintendent.

144. They will take charge of the division, or of such portion of it as may be assigned to them, in the name of the division superintendent, during his absence or sickness, and shall perform such other duties as he may from time to time direct.

145. They must exercise a general supervision over all employes in the passenger and freight service, and are directly responsible for those connected with freight trains, and will see that the rules and regulations are fully understood and observed by them. They may suspend them for violation of rules or neglect of duty.

146. They must report promptly to the division superintendent all failures or neglect on the part of

employes, and anything that may come under their observation that will interfere with the prompt and safe working of the road.

147. They must carry the correct standard time, and compare frequently with trainmen, and particularly observe that they are furnished with all the necessary signals, and use them strictly in accordance with the rules.

148. They must give special attention to the prompt movement of freight trains, and see that there is no unnecessary delay in doing the work at stations or in taking fuel and water.

149. They must attend to the proper distribution of cars for the supply of stations on their divisions, and see that all cars are promptly loaded and unloaded, and forwarded without delay.

150. In case of accident or detention to trains, they must proceed at once to the place, direct the disposition of the wrecking force, and assist in removing the obstruction. They will see that every precaution is taken to insure the safety of approaching trains, and protect all property either in charge of or belonging to the company.

RULES FOR DEPOT-MASTERS.—151. Depot-masters report to and receive their instructions from the division superintendent.

152. They will have charge of the passenger depots at the terminal and other important stations, and of the forces employed at those points. They must attend to the making up and proper arrangement of passenger trains, and see that they leave promptly on time.

153. They must make themselves familiar with the rules and regulations of the passenger service, and with the duty of every employe connected with passenger trains, and shall require the prompt and efficient discharge of that duty at their stations.

154. They must see that the conductors and trainmen are ready for duty at the time required, and that they are provided with all the signals, lamps, and other fixtures necessary for the safety and proper management of their trains.

155. They must preserve order about their stations, and prevent confusion and delay in seating passengers and receiving and delivering baggage.

156. They must keep the depot and its various apartments in proper condition for the comfort and convenience of passengers and for the security of baggage.

157. They must give respectful attention to the wishes of travelers, and give all information requested in a polite and satisfactory manner.

158. They will give special attention to the deportment of the trainmen toward passengers, and will promptly report to the division superintendent any rudeness or incivility that may come under their observation.

RULES FOR PASSENGER-CONDUCTORS.—159. Conductors of passenger trains report to and receive their instructions from the division superintendent.

160. They are responsible for the safety, regularity, and proper care of their trains; for the conduct of

the men employed thereon; for the heating and ventilation of the cars, and for the signals, lamps, tools, &c. intrusted to their care.

161. They must make themselves acquainted with the duties of enginemen, baggage-masters, brakemen, express messengers, mail agents, sleeping-car conductors and porters, and news agents, and enforce the rules and regulations applicable to them upon their trains, and report to the division superintendent all insubordination, neglect of duty, or misconduct.

162. They must report themselves to the depot-master for duty, with their trainmen, signals, lamps, and other fixtures, in readiness to take charge of their trains, at least thirty minutes previous to the schedule time for starting, and as much earlier as they may be required, to assist in the shifting and making up of their trains.

163. They must provide themselves with the time table—to which they are required to conform in running their trains; with a good reliable watch, regulated by the standard clock of the company; and with a full set of signals, and when running will display and use them, in the manner and position required by the rules.

164. They must always compare time with the engineman of their train before starting, and know that he is provided with the time table and a full set of signals.

165. They must know that the cars in their train have been inspected at terminal and other stations required, and that the air-brakes are in proper working order.

166. They must see that passengers are properly seated, and will not allow them to stand on the platforms of the cars, ride in the baggage, express, or mail cars, nor to violate in any way the rules and regulations of the company.

167. They must collect a ticket or fare from each passenger, and make reports of the same in the manner and form prescribed by the auditor. Any passenger refusing to pay fare must be put off the train at the next station, without using unnecessary violence.

168. They must be respectful and considerate in their intercourse with passengers, giving them politely any information desired, and use every endeavor to contribute to their pleasure and comfort, consistent with the rules of the company and the rights of other passengers.

169. They must not permit drunken or disorderly persons to get on their trains; they will maintain good order among the passengers, and not allow those inclined to be unruly to indulge in rudeness or profanity.

170. If compelled by accident, or other cause, to move at an unusually slow rate of speed, or stop their train on the main track, they must take immediate action to secure their own train and trains approaching in either direction against the possibility of collision. They must constantly keep in mind that nothing will justify a collision between trains, and that the prompt use of signals, according to the rules, will prevent it. When they have taken every precaution to insure the safety of their own and approaching trains, they will then send intelligence from the nearest telegraph station to the division superintendent.

RULES FOR PASSENGER BRAKEMEN.—171. Passenger brakemen report to and receive their instructions from the division superintendent. While on the train they are under the direction of the conductor.

172. They are charged with the management of the brakes, the proper display and use of train signals, and the lights, stoves, water and gas fixtures.

173. They will report for duty to the depot-master, at the time appointed, open the doors of the cars, and assist the conductor in the proper disposition of the passengers, and will aid him in all things requisite to the prompt and safe movement of the train and comfort of the passengers.

174. They will be furnished with a full set of train signals, which they must keep in good order and at hand ready for immediate use.

175. They must give special attention to the proper heating and ventilation of the cars, keeping a moderate, uniform temperature, and see that the air does not become impure.

176. At all stopping-places they will announce the name of the station, and the length of the stop, when it exceeds two minutes, and also examine the running-gear of the cars as often as time will permit.

177. They must assist the conductor in preserving order, and will not permit passengers to stand upon the platforms while the train is in motion, nor to violate any of the other rules of the company.

178. They must be respectful to all passengers, and give polite attention to their wishes, but will avoid unnecessary conversation.

179. When it is necessary to pass through sleeping cars, they will do so as quietly as possible, to avoid disturbing the passengers.

180. They are required to stop their trains at stations, and control them when descending heavy grades, without the whistle signal of the engineman.

181. When not engaged in other duties, they will stand at the door of the car, ready to respond to the signal of the engineman; and they must occupy this position whether the train is equipped with air-brakes or not.

182. The post of the rear brakeman (or flagman) is on the last car in the train, which he must not leave while the train is in motion, except to protect the train. He must be provided with and display the signals at the rear of the train, strictly according to rule, and in case of detention or accident must immediately go back, as directed in rules Nos. 85 and 86, without waiting for a signal from the engineman or instructions from the conductor. The front brakeman is charged with the same duty, when, from any cause, the fireman is unable to go forward to protect the front end of the train.

183. In case the train parts on the road, the flagman must immediately apply the brakes and stop the cars, and then send forward the most reliable person he can command, to make danger signals until the front portion of the train comes back, while he protects the rear of the train, according to rule No. 86.

RULES FOR STATION BAGGAGE AGENTS.—184. Station baggage agents report to and receive their instructions from the division superintendent.

185. They will obey all orders issued by the general baggage agent, and make reports in the manner and form directed by him.

186. They must receive from passengers all baggage to be forwarded, and check and mark it plainly; they will deliver it to the baggage-masters of the trains, and take charge of all baggage put off trains at their stations.

187. They must handle all baggage carefully, and be respectful to passengers, giving them politely any information requested.

188. They must not check any baggage without first requiring passengers to exhibit their tickets, in order to avoid errors in route or destination.

189. They must charge for all excess in weight over the amount of personal baggage allowed each passenger, at extra baggage rates. The money received for extra baggage must be paid over to the ticket agent, and reported as required by the general baggage agent.

190. They must not receive a corpse for transportation unless it is securely enclosed in a box, accompanied with a physician's certificate that it is free from contagion, and will require a first class ticket, which they will deliver to the baggage-master of the train.

191. They must keep themselves supplied with the necessary number of checks, and see that they are kept secure from theft or loss; they will promptly return by the first train the checks belonging to other stations.

192. They must forward all claims for lost baggage to the general baggage agent, giving full information concerning it, and obtain an accurate description of the contents and value of the articles lost.

RULES FOR BAGGAGE-MASTERS.—193. Baggage-masters report to and receive their instructions from the division superintendent. While on the train they are under the direction of the conductor.

194. They must obey all orders issued by the general baggage agent, and make reports in the manner and form directed by him.

195. They must report for duty at the time appointed by the depot-masters at terminal stations, and will obey their orders.

196. They are charged with receiving, taking care of, and delivering baggage. They must always be civil to passengers, and be careful not to injure baggage in handling it.

197. They must check every piece of through or way baggage which they receive, and charge for all excess over the amount allowed each passenger, at extra baggage rates. They will not receive a corpse unless it is securely enclosed in a box, accompanied with a physician's certificate that it is free from contagion, and also a first class ticket, which they will hand to the conductor.

198. They must pay over to the ticket agents at terminal stations, at the end of each trip, all money collected for extra baggage, and report the same in the manner and form prescribed by the general baggage agent.

199. They are not allowed to carry packages, money, or other valuables, and are strictly prohibited from receiving any perquisite for the transportation of baggage or any other article, except such as the division superintendent may authorize them to take charge of, at fixed rates, for special care and attention.

200. They are responsible for the safe keeping of the checks allotted to them and for any other company property intrusted to their care, and will give special attention to the prompt delivery of letters addressed to officers or agents.

201. They must not permit any one to ride in the baggage car, except mail and express messengers in discharge of their duties.

202. They must apply the brakes promptly, in accordance with the signal of the engineman, and when necessary will take the place of the front brakeman, as per rule No. 87.

203. They must be particularly careful in the use of lamps and stoves, to avoid accidents from fire.

204. They are not permitted to ride in other cars of the train, but must remain in the baggage car while on duty.

RULES FOR YARD DISPATCHERS.—205. Yard dispatchers report to and receive their instructions from the train-master.

206. They have charge of the yard and sidings at stations where trains are made up, the movement of trains therein, and of the yard force employed at those points.

207. They are responsible for the expeditious and correct dispatch of trains, the prompt movement of all cars loaded or unloaded within the limits of the yard, and the proper position of the switches.

208. They must carry out the orders of the train-master in regard to the distribution of cars and the making up of trains and apportioning them to the motive-power furnished.

209. They must give the necessary directions for shifting and placing cars in proper positions in the trains, and see that they leave promptly on time.

210. They must see that the engines, with their crews and the conductors and trainmen, are ready for duty at the time required, and that both enginemen and conductors have the time table and all the signals, lamps, and other fixtures required by the rules for the safety and proper management of their trains.

211. They must not permit a train to start with an engineman, conductor, or brakeman who is unfit for duty, nor fail to report the fact at once to the train-master.

212. They must see that conductors are furnished with the manifests for cars leaving their stations, and that conductors deliver to them all manifests for cars coming to their stations; they must see that the doors of loaded cars are locked and that the locks have not been tampered with, and will examine the loading of private cars and see that it corresponds with the manifest.

213. They must see that the yard is kept in good order, that cars passing are properly inspected, and that cars requiring repairs are sent to the shop.

214. They must see that the yard clerk keeps a record of the number and date of each car arriving at and departing from their stations, and that daily reports of the same are made in accordance with instructions.

215. They must report to the train-master all disobedience of rules coming under their notice, all cars arriving without proper manifests, and cars or goods arriving in a damaged condition.

RULES FOR FREIGHT CONDUCTORS.—216. Conductors of freight trains report to and receive their instructions from the train-master.

217. They are responsible for the safety, regularity, and proper care of their trains, for the conduct of the men employed thereon, and for the signals, lamps, &c. intrusted to their care.

218. They must make themselves acquainted with the duties of enginemen, firemen, and brakemen, and enforce the rules and regulations applicable to them upon their trains, and report to the train-master all insubordination or neglect of duty or misconduct.

219. They must report themselves to the yard dispatcher for duty, with their trainmen, signals, lamps, and other fixtures, in readiness to take charge of their trains, at least thirty minutes previous to the schedule time for starting, and as much earlier as they may be required, to assist in the shifting and making up of their trains.

220. They must provide themselves with the time table, to which they are required to conform in running their trains; with a good reliable watch, regulated by the standard clock of the company; and with a full set of signals,—and when running will display and use them in the manner and position required by the rules.

221. They must always compare time with the engineman of their train before starting, and know that he is provided with the time table and a full set of signals.

222. They must see that the couplings and brakes of the cars in their train are in good order before starting, and will inspect them as often as the train stops to take water or lays off to pass other trains.

223. They must station the brakemen at their respective posts on the train, and see that they keep their position and use the brakes properly, particularly when descending heavy grades.

224. They must be sure that no cars have become detached from their train and left on the main track, and when the cars are left on a siding they must see that the brakes are put on tightly, to prevent them from being moved and interfere with trains passing on the main track.

225. They must procure a manifest from the station agent or dispatcher for every car with lading attached to their train, which they will deliver to the station agent or dispatcher where the goods or cars are left. Should the goods or cars be delivered at points where the company has no agent, then the manifest must be delivered to the freight agent at the next station.

226. They must attend to the delivery of way freight, according to the manifests furnished them, delaying the train as little as possible in its delivery.

227. They must handle all freight with care, and use every effort to prevent loss or damage. They must not permit any person, not duly authorized, to enter the cars or handle the freight on their train, and will see that the cars are always locked, except when loading or unloading freight.

228. They must carefully check off upon the manifest all articles left at a point where the company has no agent, and attach their signature, and if any goods are damaged or missing, make a note of the same upon the face of the manifest.

229. They must not move cars from an intermediate siding or private switch, without manifests have been furnished them by the agent at the next

station before reaching such intermediate siding or private switch.

230. They must carefully enter upon their cards the number of cars taken from and left at each station, and make such other regular reports as may be required.

231. They must not permit drovers or agents in charge of live-stock to ride on their trains, unless provided with passes or permits from the proper officer.

232. If compelled by accident, or other cause, to move at an unusually slow rate of speed, or stop their train on the main track, they must take immediate action to secure their own train and trains approaching in either direction against the possibility of collision. They must constantly keep in mind that nothing will justify a collision between trains, and that the prompt use of signals, according to the rules, will prevent it. When they have taken every precaution to insure the safety of their own and approaching trains, they will then send intelligence from the nearest telegraph station to the division superintendent.

RULES FOR FREIGHT BRAKEMEN.—233. Freight brakemen report to and receive their instructions from the train-master. While on the train they are under the direction of the conductor.

234. They are charged with the management of the brakes and the proper use and display of train signals.

235. They will report for duty to the yard dispatcher at the time appointed, and will assist the conductor in the shifting and making up of their trains.

236. They will be furnished with a full set of train signals, which they must keep in good order and at hand ready for use.

237. They must assist in loading and unloading freight, and will aid the conductor in inspecting the running-gear of the cars, as often as the train stops for water or lays off to pass other trains.

238. They must not leave their brakes while the train is in motion, nor take any other position on the train than that assigned to them by the conductor.

239. They are required to stop their trains at stations, and control them when descending heavy grades, without the whistle signal of the engineman. The brakes must not be applied so as to slip the wheels, and on heavy grades they should be frequently changed from one car to another, to avoid heating the wheels.

240. The post of the rear brakeman (or flagman) is on the last car in the train, which he must not leave while the train is in motion. He must be provided with and display the signals at the rear of the train, strictly according to rule, and in case of detention or accident, must immediately go back, as directed in rules Nos. 85 and 86, without waiting for a signal from the engineman or instructions from the conductor. The front brakeman is charged with the same duty, when from any cause the fireman is unable to go forward to protect the front end of the train.

241. When an assistant engine is attached to the rear of a train it will be considered as a part of the train, and it is the duty of the flagman to go back and protect it in case of accident or detention.

242. In case the train parts on the road, the flagman must immediately apply the brakes and stop the cars, and then send forward the most reliable person he can command to make danger signals until the front portion of the train comes back, while he protects the rear of the train, according to rule No. 86.

RULES FOR STATION AGENTS.—243. Station agents report to and receive their instructions from the division superintendent. They will obey all orders issued by the general ticket agent, the general freight agent, and the accounting and treasury departments.

244. They are divided into two classes, viz.:—First and second class agents. The first class agents are paid a stated salary, and are required to devote themselves exclusively to the business of the company. The second class agents derive their compensation from commissions which they are allowed to charge on freight in company cars in addition to the regular transportation charges of the company, and are not prohibited from engaging in other business when it does not interfere with the proper discharge of duties to the company.

245. They have charge of the books, papers, buildings, sidings, and grounds of the company, and of the property intrusted to the company in the transaction of business at their respective stations, and will be held responsible for their safe keeping and proper care, and also for the deportment of the employés of the company at their station.

246. They must keep the depot buildings and the grounds connected with them clean and in condition for the accommodation of passengers and the reception of freight, and must preserve order in and about their stations.

247. They are responsible for cars left at their stations, and must see that they have the brakes applied, and that they are not moved by unauthorized persons or shifted in any way to interfere with the safety of trains on the main track.

248. They must see that all cars left at their stations are loaded or unloaded promptly, and forwarded by the first train. They will be held strictly accountable for all delays, and must charge or collect demurrage whenever consignors or consignees delay cars over twenty-four hours, either in loading or unloading.

249. They must keep their accounts and make their reports and remittances in such manner and form and at such times as the auditor and treasurer shall direct.

250. They must keep the general rules and regulations of the company, governing the transportation of passengers and freight, posted in their depots in conspicuous places, where they can be seen and read by the public.

251. They are prohibited from selling tickets or delivering goods on credit,—the terms are invariably cash.

252. They are prohibited from selling tickets to persons who are not in a condition to take care of themselves, or whose conduct might endanger their lives or make them a source of annoyance to others in the train.

253. They are prohibited from receiving freight to be forwarded which is not in condition for safe

transportation and the destination distinctly marked thereon.

254. They must examine each manifest received before delivering the freight, and if errors are found correct them, and report the correction to the agent forwarding and to the auditor.

The manifests of freight received must be correctly entered in the freight-received book, filed in the order in which they are reported to the auditor, and carefully preserved for reference. A bill must be made against consignees before the delivery of freight, and a receipt taken for the delivery of the goods, as well as given the consignees for the payment of the freight charges.

Agents receiving manifests for freight delivered at points where the company has no agent, must see that the conductor has certified on the face of the manifest to its correct delivery.

255. They must make correct entries in the freight-forwarded book of the marks, description, and weight of articles, with the classification and rate of charge. From this original entry the manifest is to be made, one copy of which shall be sent to the auditor by first passenger train, and one copy to the agent who is to receive the freight. Manifests for full car loads will be sent by passenger train to the agent who is to receive the freight, and a card manifest furnished the conductor or dispatcher. Manifests for local freight in less than car loads must accompany the car. All freight manifested to points where the company has no agent must be released and prepaid, and the freight charged thereon at the rates to the next more distant station where there is an agent. The manifest is to be made to the point where the articles are to be left, provided it appears on the freight tariff. All freight not prepaid must be charged to the agent at the point of delivery.

256. They must use all proper means to secure traffic for the road, avoid giving offense, and act at all times with the view of accommodating the public and promoting the best interests of the company.

257. They must promptly report to the division superintendent all deviations from the rules and regulations of the company by employés or others, or anything that comes under their observation that is prejudicial to the company's interests or may interfere with the safe and economical working of the road.

RULES FOR DIVISION OPERATORS.—258. Division operators report to and receive their instructions from the division superintendent.

259. They are responsible for the proper working of the wires, the prompt transmission of messages, and the economical use of supplies.

260. They have charge of the operators on their divisions, and will see that the rules and regulations are understood and observed by them.

261. They have charge of the line repairmen, and will direct them in regard to making the necessary repairs.

262. They will test the wires each morning, and see that they are kept in good working order at all times.

263. They will keep a record of the time made by each employé in their department, and report the same in the manner and form directed.

RULES FOR TELEGRAPH OPERATORS.—264. Telegraph operators report to and receive their instructions from the division operator.

265. They will obey the instructions of the station agent when they do not interfere with their duties as operators.

266. They are required to be constantly on duty during business hours, and will not leave their offices without notifying the division operator.

Day and night operators must not leave their post until relieved by each other, and they will instruct the one going on duty in regard to the position of trains, and any unfinished business; offices will be in charge of the day operator, and where two or more are employed, one must be always on duty.

On Sundays, operators at way stations must be in their offices twenty minutes before trains are due, and remain until the train is reported passing the next telegraph office.

267. They must keep a full set of signals constantly on hand in good order, and use them strictly in accordance with rule.

268. They will observe the rear of all trains passing their offices, and if red lights or markers are not displayed (see rules 29, 31, and 32) report it at once to the division superintendent's office.

269. They will keep a register of all trains passing their office, and the reports from such other offices as the division operator may require.

270. They must give particular attention to the adjustment of their relays when trains are behind time, and be ready to receive train orders; when holding a train for orders, they must signal it in person, and must not depend upon a lamp or flag left standing near the track or used by any other person.

271. When the division superintendent sends a train order, they must immediately enter it in the order book, and repeat it back; when he responds that the order is "O. K.," they will prepare two copies, and deliver one to the conductor and one to the engineman, who will compare their copies with the original order in the book, which they must sign; the operator will then repeat the signatures to the division superintendent, who will reply "correct," which must be endorsed on the order, and no order is good until this "correct" is received.

Train orders must have written on them the name of the operator, the office, the date, and the time they were made "correct," and must not be erased or altered in any manner whatever.

272. When two passenger trains of the same class are running in the same direction, they must display a red signal immediately after the first train passes, and at the expiration of fifteen minutes display a white signal to the following train. Should the following train be of inferior class, or a freight or extra train or engine, they will display the red signal for ten minutes and then display the white.

273. They must not leave their offices while a train is at the station, unless required by business connected with the train.

274. They are required to be courteous in their intercourse with one another, and with all persons transacting business at their offices. Under no circumstances will improper language or profanity be permitted on the line.

275. They are not allowed to take students, or to

leave their offices in charge of other operators, without permission from the division operator.

276. They must not permit persons (whether employees of the company or not) to frequent their offices.

277. They will keep special orders and instructions filed in regular order and ready for immediate reference.

278. They must not receive messages to be transmitted free, unless signed by an officer, agent, or employee, except such messages are answers to those already sent. They must consider all messages strictly confidential, and will not permit them to be read by any persons except those to whom they are addressed, nor to make their contents the subject of conversation or remark.

279. All messages sent and received must be dated, timed, and have written on them the initials of the operator who sent or received them. Messages sent must be preserved for reference, and those received must be delivered promptly.

280. Passes received by telegraph must be written with ink, and have the name of the office, the date, and time at which they were received, the full signature of the officer who signed them and of the operator who received them.

281. Contention for circuit will not be permitted. Should the circuit be interrupted while an operator is writing, he will stop immediately to ascertain the cause. If it be another operator breaking, unless the one who breaks says "21," (this dispatch must have preference over all other business on division wires,) "39," (this dispatch must have preference over all other business on through wires,) or "55," (this dispatch is of great importance,) the operator who is writing will say "8," (close your key, you are breaking others,) and close his key. If the request be not complied with, he will keep his key closed until he can proceed without interruption, and then report the case to the division operator in writing.

282. Should the wires be broken or interrupted at points which the line repairman cannot reach promptly, operators must immediately notify the foreman of road repairs.

283. The telegraph must not be used for the transmission of communications which may be sent by train without detriment to the company's interests.

RULES FOR LINE REPAIRMEN.—284. Line repairmen report to and receive their instructions from the division operator.

285. They must keep the poles in proper position, the wires connected, insulated, and clear of all obstructions, and make all necessary repairs. When assistance is required, they will call upon the foreman of road repairs.

286. They must pass over the road frequently, and closely observe the condition of the line and examine the connections at the offices. They will report each morning the part of the road they will be on during the day.

287. They must always be provided with a full set of tools, and ready to respond immediately to any orders they may receive.

288. They must supply the operators and foremen of road repairs with wire, insulators, etc., and instruct

them in regard to splicing the wire and making other repairs.

289. They will promptly report to the division operator anything that comes under their observation that may interfere with the proper working of the line.

RULES FOR ROAD FOREMEN OF ENGINES.—290. Road foremen of engines report to and receive their instructions from the division superintendent.

291. They will obey all orders of the superintendent of motive-power, and must report to him as he may direct.

292. They are required to ride frequently upon the engines, and give instructions to enginemen and firemen in regard to the proper working and firing of engines, with a view to obtaining the best results in the consumption of fuel and stores.

293. They will give particular attention to the capacity of the engines for generating steam, and observe that the regulation pressure is not exceeded, and that the boilers are washed out as often as may be necessary.

294. They must see that engines are equipped with signals, tools, and every article necessary to their efficient working, and that the injectors, air-pumps, etc., are in good working order.

295. They will advise the division superintendent of the number of cars to be allotted to each class of engines, and report to him when engines of through freight trains are not given cars to their full capacity, or when any engine is overloaded.

296. They will consult and advise frequently with the master mechanic and shop foremen in regard to the daily condition and requirements of the engines running upon their divisions.

297. They will report to the division superintendent the qualifications of enginemen and firemen and any violation of rules or neglect of duty which may come to their knowledge, and keep him advised of all matters relating to the economical and efficient working of the engines and their crews.

RULES FOR ENGINEMEN.—298. Enginemen report to and receive their instructions from the division superintendent. When in the shops they are under the direction of the master mechanic or foreman of shop.

299. They will obey the orders of the road foreman of engines, in regard to the working of their engines and the proper use of fuel, stores, etc.

300. They must obey the orders of the train-master, depot-master, or dispatcher, in regard to shifting and making up trains.

301. They are under the orders of the conductor of the train in regard to starting, stopping, speed, and general management of the train, shifting cars, etc., but they will not obey any order that may endanger the safety of the train or require violation of rules.

302. They must have their engines in good working order, supplied with the necessary stores and tools, fuel and water, and the steam up, ready to attach to the train, at least thirty minutes before the schedule time for starting, and as much earlier as directed by the foreman of shop or dispatcher.

303. They must have in their possession a copy of

the rules and regulations, the time table, and a full set of signals, in good order and ready for immediate use.

304. They will be furnished a watch by the division superintendent, and will be held responsible for its safe keeping. They must regulate it by the standard clock of the company, and compare time with the conductor of the train at the commencement of each trip.

305. They must obey promptly all signals given by station agents, telegraph operators, track-repairmen, watchmen, conductors, or trainmen, even though they may think such signals unnecessary. When in doubt as to the meaning of a signal, they must stop and ascertain the cause, and if a wrong signal is shown they will report the fact to the division superintendent.

306. They must note that the day and night watchmen are at their posts, and report to the division superintendent any neglect of duty they may observe.

307. They must use special care in coupling and shifting cars, to avoid injuring the trainmen, and must always start and stop their trains cautiously, without sudden jerking.

308. They must not permit sticks of wood, burning cotton waste, or hot cinders to be thrown from the engine or tender while in motion, and must use every precaution against fire when passing bridges or buildings.

309. They are not permitted to clean their ash-pans on the main track, unless at points especially designated by the division superintendent.

310. They must not leave their engine during the trip, except in cases of necessity, and must always leave the fireman or some other competent person in charge of it.

311. They will be provided with checks for wood, coal, oil, and tallow, and they will not be furnished with fuel or stores unless a check for the correct amount is given the station or store keeper.

312. They must report the condition of their engines to the master mechanic or foreman of shop at the end of each trip, and will assist, when called upon, in making any repairs that may be necessary.

313. They may be required, when not in active service on the road, to work in the shops, and will then be subject to shop rules.

RULES FOR FIREMEN.—314. Firemen when on the road are under the direction of the engineman. When in the shop, they are under the orders of the master mechanic or foreman of shop.

315. They will obey the orders of the road foreman of engines in regard to the proper use of fuel and manner of firing.

316. They must be with their engines at least thirty minutes before the time of starting, and conform to any directions they may receive from the foreman of shop or dispatcher.

317. They must supply the engine regularly with fuel and water, at the discretion of the engineman, assist in oiling, and use the tender-brake in accordance with his orders and signals.

318. They will assist in keeping a constant lookout upon the track, and must instantly give the engineman notice of any obstruction they may perceive.

319. They must make themselves thoroughly familiar with the train rules, particularly those that

apply to the protection of the train, and must understand the use of the signals, and be prepared to use them promptly, as per rules Nos. 85 and 86.

320. They must take charge of the engine should the engineman at any time be absent, and will not leave it until his return, nor suffer any person not duly authorized to be upon it.

321. They will not attempt to run an engine in the absence of the engineman, without permission from the division superintendent, unless under some emergency they be directed to do so by the conductor or some officer in authority.

322. They must assist in cleaning and polishing their engines after every trip, and in making repairs when required.

323. They may be required, when not in active service on the road, to work in the shops, and will then be subject to shop rules.

RULES FOR MASTER MECHANICS AND FOREMEN OF MACHINE AND CAR SHOPS.—324. Master mechanics and foremen of shops report to and receive their instructions from the superintendent of motive-power. They will obey all orders of the division superintendent, and are responsible to him for the proper discipline and management of the shops.

325. They are responsible for the machinery and tools of the shops under their charge, and must require them to be kept clean and in order.

They must enforce discipline among the workmen, see that they are diligent in the discharge of their duties, and that the operations of the shop are conducted with system and economy.

326. They are responsible for the stores, and must see that they are used with economy, that storekeepers are held strictly accountable for waste or loss, and that the engines and cars are correctly charged with the oil, waste, tallow, and other stores furnished.

327. They are responsible for sending out engines or cars in proper condition for service, and must see that they are supplied with the necessary fixtures and tools, with lamps, signals, and all other things necessary to a complete equipment.

328. They must have the engines and their crews ready for service at the time indicated by the train-master or dispatcher, and will inspect the engines at the end of each trip, make the repairs necessary, and see that they are properly wiped and cleaned.

329. They must advise with the road foreman of engines respecting the performance of engines while on the road, and will co-operate with him in observing the qualifications of enginemen and firemen.

330. They shall not make nor permit changes to be made in the general arrangement or details of engines and cars while under repairs at their shops, without special orders from the superintendent of motive-power.

331. They must see that a daily record is kept of the names of the workmen, the time of service, and rate of pay, and also the time employed and material used on each job of work, and the cost of the same, in accordance with the instructions received and forms furnished them.

332. They will see that all workmen employed at their shops are at their proper places, ready to commence work, at the exact time specified.

333. They will not permit work to be done in the shops at night or on Sundays, unless absolutely necessary, and will prohibit lights in the shops after working hours, except those required by the regular watchmen on duty.

334. They will not allow strangers to visit the shops without a permit, and will observe that they do not converse or interfere with the workmen on duty.

335. They will frequently inspect the watchmen on duty at night, know that they are at their posts at all times, and require the hours to be struck on the shop-bell from 7 P. M. to 6 A. M.

RULES FOR SHOP CLERKS.—336. Shop clerks report to and receive their instructions from the division superintendent.

337. They will obey all orders received from the master mechanic or foreman of shops, but must keep their accounts and make reports in the manner and form directed by the chief clerk of the motive-power department.

338. They must be on duty at the shops not less than ten minutes before the time of commencing work, and will note the time of each workman as he enters.

339. They must record the time made by each workman, specifying how he has been employed, the time spent on each piece of work, and rate of pay.

340. They must ascertain the weight and value of material used on each piece of work, and charge the same to its proper account.

341. They must keep a record of the time made by the enginemen and firemen, their rate of pay, and the number of miles run daily by each engine.

342. They will receive from the storekeepers a report of the oil, waste, and tallow used, and from the station-keepers a report of fuel consumed, which they will record in the manner and form prescribed.

343. They must post upon the bulletin-board in the engine-house the monthly report of the performance of engines, and will see that the orders issued by the division superintendent or superintendent of motive-power are posted conspicuously in the engine-houses and shops.

RULES FOR FOREMEN OF CAR INSPECTORS.—344. Foremen of car inspectors report to and receive their instructions from the division superintendent.

345. They will obey all orders of the superintendent of motive-power, and must report to him as he may direct.

346. They must inspect all cars passing their stations, carefully examining the running-gear and brake fixtures. They will make such repairs as may be required, and send to the shop all those that are not fit for service.

347. They must give special attention to passenger, baggage, mail, and express cars, and permit none to leave their stations that are not in good running order.

348. They will see that cars running in the passenger service are properly washed, and that all the interior fixtures are kept perfectly clean and in good repair.

349. When making repairs to cars standing on main track or sidings, they must protect themselves

by placing a blue flag in the drawhead, or a blue lantern on the platform or step of the car at each end of the train, to prevent the cars from being coupled to or moved by an engine or other cars.

RULES FOR KEEPERS OF WOOD AND COAL STATIONS.—350. Station-keepers, at stations on the road, are under the orders of the supervisor; those at points where shops are located are under the direction of the master mechanic.

351. They have charge of the wood-sheds and coal platforms and the supply of fuel to engines. They must not allow their stock of wood and coal to run short, and will promptly report all failures in the supply.

352. They must saw the wood delivered to them into the lengths required, and arrange it upon the platform in ranks suitable to supply engines as needed.

353. They must keep the cars that supply the engines with coal filled at all times, and dump them into the tanks without delay.

354. They must require a check for the amount of wood or coal delivered to each engine, and will examine the checks to see that they bear the number of the engine and correspond with the amount furnished. All checks must be returned with their reports at the close of each month.

355. They must keep a record of the wood and coal consumed daily by each engine, and report the same monthly in the manner and form directed.

RULES FOR SUPERVISORS.—356. Supervisors report to and receive their instructions from the division superintendent.

357. They are responsible for keeping the track, road-bed, bridges, culverts, telegraph line, and every thing pertaining to the road, in repair.

358. They must pass frequently over their divisions, notice defects in the track, examine bridges minutely, see that culverts and drains are not injured by heavy storms, watch carefully the condition of the road-bed, and see that the proper slopes are preserved; especially note anything that may form an obstruction to the track, and have it removed; examine road crossings, the condition of frogs and switches, cut away trees or bushes that are liable to fall upon or obstruct the view of the track; and shall attend to anything else which may be necessary to secure the safety of the road.

359. They have charge of the repairmen and other laborers employed on their divisions; they will see that they perform their duty, keep a strict account of their time, and report the same in the manner and form prescribed.

360. They must know that every foreman, watchman, and switchman under their charge is fully acquainted with the rules and regulations and the use and object of all signals.

361. They are authorized to discharge any foreman, road, bridge, or switch watchmen, or other employé for neglect of duty; but should they be guilty of negligence whereby accident is caused, they will suspend them from duty and report the case to the division superintendent.

362. They must attend in person to the removal of

slides, snow, or other obstructions, and in cases of accident will repair promptly to the spot, taking whatever force may be necessary, and use every effort to assist in clearing the road.

363. They must compare time with each of their foremen at least once a week, and oftener if possible.

364. They must make monthly reports in the manner and form directed by the division superintendent, and will be responsible for the safe keeping and economical use of all materials furnished them.

365. They must see that a clear space of at least six feet is preserved on either side of the main track, and that nothing is piled on sidings within six feet of the rail, and will keep the grounds about stations and depots in good order.

366. They must keep a general oversight of all work performed on their divisions by contractors or mechanics, and see that the safety of the track is never endangered by them.

367. They must give particular attention to the supply of water, and will promptly report any defects or deficiency to the division superintendent.

368. They will make careful inquiry in regard to every accident that may occur upon the road, and all cases of personal injury, whether to passengers, employes, or others, and report fully thereon in writing to the division superintendent.

369. They must make themselves acquainted with the instructions issued for the government of trains and trainmen, and report to the division superintendent any neglect of duty or violation of rules that comes under their notice.

RULES FOR GENERAL FOREMEN OF MAINTENANCE OF WAY MECHANICS.—370. General foremen of carpenters, masons, and painters report to and receive their instructions from the division superintendent.

371. They have charge of the repairs of bridges and buildings, and will promptly report to the division superintendent any defects that may come under their observation.

372. They will employ such workmen as may be necessary, subject to the approval of the division superintendent, and see that they faithfully perform the duties assigned them.

373. They must make themselves fully acquainted with the use of the signals, see that they are understood by their subordinates, and that the caution and danger signals are used strictly in accordance with rule.

374. They must be careful, in renewing bridges or other structures, to keep the main track always secure and safe for the passage of trains, and under no circumstances obstruct it without displaying danger signals in the proper direction at a distance of at least nine hundred yards.

375. They must co-operate with the supervisor in regard to the distribution of material, and will call upon him whenever they require assistance.

RULES FOR FOREMEN OF ROAD REPAIRS.—376. Foremen of road repairs report to and receive their instructions from the supervisor.

377. They have charge of the repairs on their respective sub-divisions, and will be held responsible

for the condition of the road and the watching necessary to secure its safety at all times.

378. They are required to pass over the whole extent of their division at least once a day to observe particularly the condition of the main track, sidings, road-bed, bridges, culverts, road-crossings, water-courses, etc., and execute such repairs as may be necessary.

379. They will engage in all work personally, and will see that the laborers employed under them faithfully perform their duty.

380. They must keep a record of the time of the men and the material used, and report the same in the manner and form directed by the supervisor.

381. They may discharge or suspend from duty any employé under their charge, but must report the case promptly to the supervisor for his approval. They must not employ more than the regular force allowed without his consent.

382. They will give particular attention to the surface and line of the track, especially at the joints, see that it is spiked properly and kept in true gauge, and that the cross-ties are evenly spaced, lined, and tamped to a uniform bearing.

383. They must remove all defective materials from the track, and at all times maintain it in safe condition for the passage of trains.

384. They must see that the road-bed is kept in perfect order, that cuts are sloped, embankments widened, and the necessary ditches made to afford thorough drainage.

385. They must carefully observe the signals carried by trains, and be sure that all trains running on the same schedule have passed before obstructing the track.

386. They must never obstruct the track in any way whatever without first conspicuously displaying a danger signal at least nine hundred yards in both directions on single track, and nine hundred yards in the direction trains are expected on double track. Special trains or engines may pass over the road at any time without previous notice, and foremen must always be prepared for them. Anything that interferes with the safe passage of trains is an obstruction, and must not be attempted without using the above precaution.

387. They must not run their hand-cars within twenty minutes of the time of any passenger train, nor run in the wrong direction on double track, and always run with great caution, keeping a sharp lookout for work or other extra trains. They will, under no circumstances, allow their hand-car to be used, except they accompany it, nor run it on Sundays, or after dark, without special permission of the division superintendent. Hand-cars or trucks, when not in use, must always be kept locked and secured in such a position that they cannot drift on to the main track.

388. They are permitted to use the track in making repairs to within twenty minutes of the time of passenger trains, and ten minutes of the time of freight trains, but invariably under cover of a danger signal, which must be placed at least nine hundred yards in both directions on single track, and nine hundred yards in the direction trains are expected on double track; and if it cannot be seen by the foreman at the point where he is at work, a man must be placed in charge of it.

389. They must see that watchmen attend to their

duties, by frequently visiting them at night, and promptly discharge them if found negligent.

390. They must keep a close watch at points where obstructions are likely to occur, and carefully examine the slopes of cuts, and remove promptly any rocks, stumps, or masses of earth that are liable to fall or slide.

391. They must take every precaution during heavy rains and storms to prevent accident; all hands should be placed on duty, and every part of the division closely watched.

392. They must not allow old rails, cross-ties, etc., to be scattered along the road, but have them cleaned up promptly and piled. All scrap-iron and other movable track material should be taken to their headquarters.

393. They will remove all combustible material from the vicinity of the track, and not permit rubbish to accumulate near bridges and buildings, and will promptly extinguish any fires that may occur along the line of the road.

394. They will watch the telegraph line, especially after storms, keep the poles in proper position, reset them when necessary, unite the wires when broken, and render any assistance required by the line repairman. They must promptly report to the division superintendent any derangement of the wires.

395. They must see that the water stations are in order, that the supply of water is kept up, and frequently inspect the head of the pipe, and clear it from brush, leaves, etc., when necessary.

396. They are required to assist in removing broken cars left upon the road, and will render prompt assistance in all cases of accident or delay to trains.

RULES FOR ROAD AND BRIDGE WATCHMEN.—397. Watchmen are under the orders of the foreman of road repairs.

398. Road watchmen must pass over the road in advance of each passenger train, and will carefully examine the rails, especially in frosty weather; observe that switches are set for main track, try the locks, and see that everything is right about them; see that cars left on sidings fully clear the main track, and that the doors of loaded cars are locked; also examine buildings and other property of the company, and protect them from theft and fire. Should an obstruction to the track occur, they must at once display danger signals in the direction of the nearest approaching train, as directed in rule No. 86, and immediately send word, if possible, to the foreman of road repairs. Night watchmen must always notify the foreman of road repairs of the trains due which have not passed before they go off duty, and of any other matters that require attention.

399. Bridge watchmen must keep a supply of water upon the bridge at close intervals, and follow every train with a bucket of water, to extinguish any coals that may have fallen from the engine.

400. They must keep the tops of piers and abutments clean, and remove all combustible matter from the vicinity of the bridge.

401. They must examine frequently the timber and iron-work of their bridges, and report promptly to the supervisor any failure or decay.

402. They must prevent all persons except employes from crossing the bridges.

403. They must carefully observe the speed of passing trains, and report to the supervisor any violation of rules.

404. Watchmen will be required, when their time is not wholly occupied with watching, to attend to such other duties as the supervisor or foreman of road repairs may direct.

RULES FOR SWITCH-TENDERS.—405. Switch-tenders on the road are under the orders of the supervisor; those in yards are under the direction of yard dispatchers.

406. They are responsible for the safety of trains

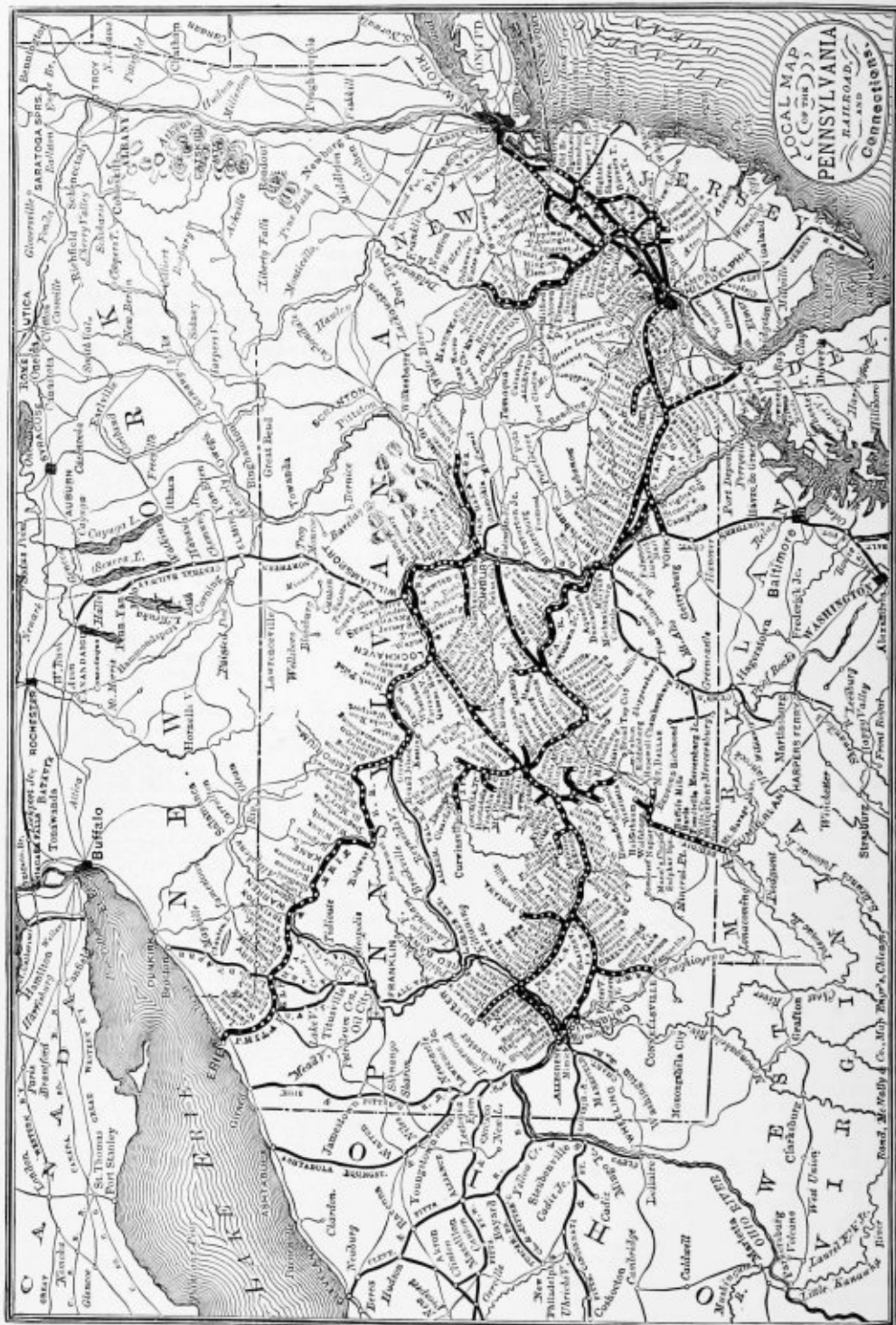
passing the switches under their charge, and the duties, although simple, require the closest attention, as any neglect may cause serious accident.

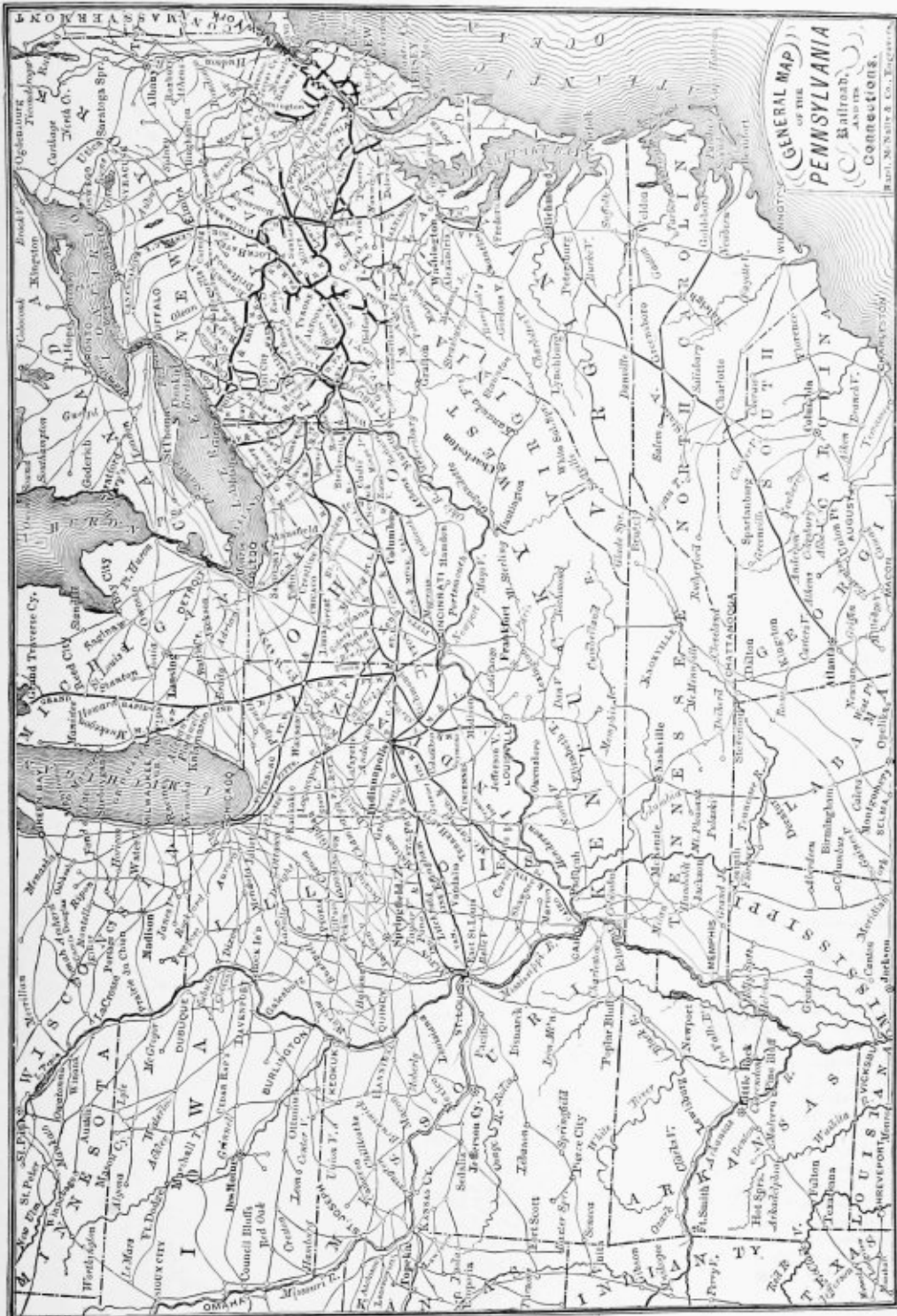
407. They must keep the switches locked right for the main track, except when passing trains to or from the opposite track or siding.

408. They must always be on the watch for approaching trains, and give the safety signal if all is right.

409. They must carefully examine the condition of the switches, keep them clear of snow or other obstruction, and promptly report to the foreman of road repairs any defects.

410. When day and night switchmen are employed, they must not leave their posts until relieved by each other, and the one going off duty must inform the one coming on when trains that are due have not passed.





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