

NEW PENNSYLVANIA STATION IS OPENED

Train Service Begins Sept. 8 in Largest Building in World Ever Built at One Time.

ITS TUNNEL CONNECTIONS

Structure is of Roman Doric Style of Architecture, and is Really a Monumental Bridge Over Tracks.

The largest building in the world ever built at one time, the Pennsylvania Railroad Station in New York, has just been completed and declared officially open. It has also been announced in an official pamphlet distributed by the railroad company that train service will be inaugurated on Sept. 8.

"The New York Improvement and Tunnel Extension of the Pennsylvania Railroad" is the title of the official booklet just issued by the company. It contains some twenty-three photographs illustrating both the interior and exterior of the station at Seventh Avenue and Thirty-third Street, as well as views of the tunnels, the interior of one of the tubes, and a picture of the "Pennsylvania Type" electric locomotive.

The company's pamphlet contains the first official history of the work which has been published. This history is inscribed on two tablets, which have been placed on the sides of the main entrance of the station on Seventh Avenue. The tablet on the left, as one enters the station, bears the following inscription:

PENNSYLVANIA TUNNEL AND TERMINAL RAILROAD COMPANY.

The franchise from the City of New York authorizing the construction, maintenance, and operation of the tunnel extension and station of the Pennsylvania Railroad system was granted Oct. 9, 1866, by the

BOARD OF RAPID TRANSIT RAILROAD COMMISSIONERS.

Alexander E. Orr, Chairman.
John Griffin,
Morris K. Jessup,
Charles Stewart Smith,
Edward M. Grout,
Woodbury Langdon,
John H. Stanton,
Mayor Seth Low.

The construction of the tunnel extension was begun June 10, 1903. The two tunnels under the East River were built by shields driven from each side of the respective rivers, and union was completed by the junction of the last tube on the following dates: East River tunnels, March 18, 1906; North River tunnels, Oct. 9, 1906.

These were the first tunnels for standard railroad trains constructed under these rivers.

The construction of the New York station building was begun May 1, 1904, and trains were first operated from it on regular schedule Sept. 8, 1910.

The principal contractors were: North River tunnels—O'Rourke's Contracting Construction Company; East River tunnels—S. Pearson & Son, Incorporated.

Construction—East River is New York station—United Engineering and Contracting Company; Engineers, steel structure and machinery—Westinghouse, Church, Kerr & Co.

Excavation—New York Contracting Company; Erection—George A. Fuller Company; Bridge Mill tunnel—William Bradley Meadows Division—McMullin & McDevitt—H. S. Kerbaush; Henry Steers, Incorporated.

Sheds—yard and approaches—Duggan, Pratt, and Terminal Improvement Company; Navigation Company and Arthur McMullen.

Erected by the Board of Directors of the Pennsylvania Railroad Company on the 8th day of September, 1910.

Engraved on the other tablet is the following: This tablet is erected by the Board of Directors of the Pennsylvania Railroad Company to commemorate the extension of its Railroad Station into New York City by the completion and opening on the eighth day of September, A. D. 1910, of the tunnels and Station, and to record the names of the Directors and Officers who shared the responsibility of authorizing and constructing the undertaking.

The tunnels and Station were planned and constructed under the executive direction and supervision of Alexander Johnston Cassatt, President, and Samuel Rea, Vice President, of the Company, incorporated in 1902 in the States of New York and New Jersey, and later merged with the Pennsylvania Tunnel and Terminal Railroad Company.

General Counsel, George V. Massey.

BOARD OF ENGINEERS AND CHIEF ENGINEERS.

Chairman, General Charles W. Raymond; Assistant, Lindenthal, resigned December 10, 1912.
Chief Engineer, North River Division, Charles M. Jacobs.
Chief Engineer, East River Division, Alfred Noble.
Chief Engineer, Electric Traction and Station Construction, George Gibbs.
Chief Engineer, Meadows Division, William H. Brown, retired March 1, 1908, succeeded as Chief Engineer by Alexander C. Shant.
Architects, New York Station, McKim, Mead & White.

BOARD OF DIRECTORS OF THE PENNSYLVANIA RAILROAD COMPANY.

Alexander Johnston Cassatt, President, died December 28, 1906.
Richard M. Prentiss, Vice President, died September 20, 1905.
William L. Eskins, died November 7, 1903.
Amos L. Little, died December 16, 1906.
Alexander M. Fox, died October 6, 1907.
John F. Green, Vice President, retired March 24, 1909.
W. Farrier Sherbidge,
Herbert A. Grison,
William H. Barnes,
George Wood,
Stuart Patterson,
Etingham B. Morris,
Thomas DeWitt Cuyler,
Lincoln Godfrey,
Theophilus Ellis,
Henry C. Frick,
Charles E. Ingersoll,
Ferdinand Roberts, Jr.,
W. W. Atterbury, Fifth Vice President,
Henry Taintor, Fourth Vice President,
John B. Thayer, Third Vice President,
Samuel Rea, Second Vice President,
Charles E. Fugate, First Vice President,
James McGee, President.

Covers Eight Acres.

According to the company's official statement, "The Pennsylvania Station covers more territory than any other building ever constructed at one time in the history of the world. The Vatican, the Tuilleries, the St. Petersburg Winter Palace, are larger buildings, but they have been centuries in their construction. The Pennsylvania Station is unique, covering as it does eight acres of ground with exterior walls extending approximately one-half of a mile, all of which having been erected in less than six years' time.

Built after the Roman Doric style of

architecture, the New York station of the Pennsylvania Railroad covers the entire area bounded by Seventh and Eighth Avenues, and Thirty-first and Thirty-third Streets. The depth of the property on both streets is 100 feet 11 1/2 inches, and the length of the building is 788 feet 1 1/2 inches, thus allowing for extra-wide sidewalks on both side streets and avenues. The walls extend 40 feet 4 inches from Thirty-first Street to Thirty-third Street. The Seventh Avenue facade signifying the main entrance.

"While the facades of the station were designed to suggest the imposing character of the ancient Roman temples and baths, the impression intended to be made upon the layman's eye is that the station, in full view of the exterior of the general waiting room with its large semi-circular windows, is the only one of the leading railway stations of the world.

In designing the exterior of the building, Messrs. McKim, Mead & White, the architects, were at pains to embody two ideas. To express in so far as was practicable, with the unusual condition of tracks below the street surface and in spite of the absence of the conventional train shed, not only the exterior design of a great railway station in the generally accepted form, but also to give to the building the character of a monumental gateway and entrance to a great metropolis.

Uniqueness Among Stations. "Apart from these two ideas, the plan of the station was designed to give the structure its real character as a monumental bridge over the tracks with entrances to greatest number of lines of circulation on the streets on the main axis and on all four sides. In this respect the building is unique among the railway stations of the world, affording the maximum of entrance and exit facilities.

The Seventh Avenue facade is composed principally of a Roman Doric colonnade, double at the carriage entrances at the street ends and at the main front entrance for pedestrians in the center; each of the columns is 4 feet 6 inches in diameter and 25 feet high.

This Seventh Avenue facade was conceived especially to symbolize in most imposing fashion a monumental gateway. It may be compared, with due allowance for its more massive proportions, to the Brandenburg Gate in Berlin, through which passes so much of the traffic of that city. The central entrance on Seventh Avenue leads to the main waiting room through an arcade 220 feet long and 45 feet wide, flanked on both sides by shops. At the further end of the arcade are the restaurants, lunch room, and cafe, and beyond are the general waiting room and concourse, the latter being on the first level below the street.

The main body of the building approximates in height the Bourse of Paris, reaching 70 feet above the street level. With entrances through the two corners of the station on Seventh Avenue there are carriage drives, each about 60 feet wide, or almost twice the width of a standard New York City street, flanked by double columns and pediments. The narrowest opening between the columns is practically equal in width to the arched driveways in the Louvre, through which the omnibuses of Paris pass.

The central features of the facades of the Thirty-first and Thirty-third Street sides for a distance of about 250 feet are formed by a colonnade opening into the carriage driveways below. Over the central porticos of these colonnades are ornamental clocks and eagles, similar to those in the Seventh Avenue front.

One of the distinctive features of this building is the waiting room, which extends from Thirty-first to Thirty-third Street, its walls parallel to Seventh and Eighth Avenues, for a distance of 314 feet 4 inches. The height of this room is 130 feet and its width 108 feet 8 inches. The walls of the waiting room above the main body of the building consist on each side three semi-circular windows of a radius of 25 feet 4 inches, and 94 feet 8 inches wide at the base. There is also a window of like size at each end of the waiting room.

The dignified design of the interior of the waiting room, while fully adapted to modern ideas, was suggested by the great halls and basilicas of Rome, such as the baths of Caracalla, Titus, and Diocletian and the basilica of Constantine, which are perhaps the greatest examples of the history of large roofed-in areas treated in a monumental manner.

Waiting Room Largest in World.

The main waiting room on the concourse level is the largest in the world. Within its walls are located the ticket offices, baggage checking windows, and telephone and telegraph offices, so conveniently arranged that a passenger may proceed from one to the other with a minimum amount of exertion and without retracing his steps. Adjoining the general waiting room on the west side are waiting rooms, each 28 by 104 feet, for men and women. These open into retiring rooms. Indicative of the enormous growth in the population of the territory in and about New York City are figures contained in the company's pamphlet, which show that the railroads on the west bank of the Hudson River opposite New York City carried in 1880, nearly 50,000,000 people. In 1904 they carried over 12,000,000, in 1906 more than 94,000,000, and in 1908 about 100,000,000.

In 1800 the population gathered within a circle of nineteen miles radius, with City Hall, Manhattan, as the center, was 128,468; in 1900 it was 1,012,135, and five years later it was 1,404,658, an increase in ten years of 28 per cent. In 1913 it is estimated that the population of this territory will approximate 6,000,000 people, and in 1920 8,000,000.

These striking figures, and what they mean in transportation needs, in addition to the serious problem of providing "corrosion" freight facilities, were considered when the Pennsylvania Railroad was contemplating entering New York City. It was evident that one of the greatest transportation problems in history was rapidly evolving, and it was only by quick action that the railroad could prepare to cope with it.

HIT BY FLYING HORSESHOE.

Thrown 50 Feet by Engine Horse, It Knocks Girl Unconscious.

While watching fire engines going to a fire in St. Mark's Zion African Methodist Episcopal Church in Monmouth Street, near Seventh, Jersey City, yesterday Miss Willie Sanders, seated at a window on the second floor of her home, 663 Newark Avenue, was struck over the right eye with a horseshoe hurled from the hoof of a horse drawing Engine 7. The shoe flew a distance of over fifty feet.

Miss Sanders was unconscious when taken to the City Hospital, where she was found to have received a deep gash over the eye. She has the horseshoe, and says she will sue the city for damages. The fire, which did \$5,000 damage, started in a frame extension in the rear and spread rapidly to the church. A service was being conducted at the time by a visiting clergyman, the Rev. E. E. Hanes, the pastor being on vacation. The worshippers had plenty of time to get to the street and there was no alarm for the fire. A third alarm was sent in when the flames reached the church, but the firemen confined the blaze to the extension. Burning how caused much excitement. Several women were drenched and two or three were struck so violently by water that they lost their hair. Eleven-year-old John Burns of 246 Brunswick Street, while watching the fire from the top of a six-foot fence, fell and broke his left leg. He was removed to St. Francis Hospital.