



PENNSYLVANIA RAILROAD BUILDING,  
World's Columbian Exposition. Located near 64th Street entrance, Jackson Park.  
(NORTH FRONT.)

CATALOGUE OF THE EXHIBIT  
OF THE  
PENNSYLVANIA RAILROAD COMPANY  
AT THE  
WORLD'S COLUMBIAN EXPOSITION  
UNDER THE DIRECTION OF  
THEO. N. ELY, CHIEF OF MOTIVE POWER.  
J. ELFRETH WATKINS, SPECIAL AGENT, IN CHARGE OF EXHIBIT.  
CHICAGO, 1893.

RECEIVED  
JAN 2 1903  
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PAID  
JAN 2 1903

## PURPOSE OF THE PENNSYLVANIA RAILROAD EXHIBIT.

It is the purpose of this Exhibit, not only to perpetuate the early history of the Pennsylvania Railroad Company, and of the lines merged into or associated in interest with it, but also to place permanently upon record the results that have attended the efforts of the management to introduce those advanced methods in the art of Transportation which have culminated in such a high degree of efficiency, as to entitle THE PENNSYLVANIA to be known as "THE STANDARD RAILROAD OF AMERICA."

The Exhibits relate only to the transportation lines comprising the Pennsylvania Railroad System.

(FACSIMILE.)

# World's Columbian Commission

## EXECUTIVE COMMITTEE ON AWARDS.

BUREAU:  
PACIFIC BUILDING  
622 F ST., WASHINGTON, D. C.

JOHN BOYD THACHER, Chairman, Albany, N. Y.  
W. J. SEWELL, New Jersey. A. T. BRITTON, District Columbia.  
A. B. ANDREWS, North Carolina.  
B. B. SMALLEY, Ex-Officio Member, Burlington, Vt.

Washington, D. C., *Apr 11<sup>th</sup>* 1894.

Dear Sir<sup>d</sup>

I herewith enclose you an official copy of your  
Award<sup>s</sup><sub>^</sub> which, in due time, will be inscribed in the  
Diploma and forwarded to your present address, unless  
otherwise indicated by you.

Yours,

A handwritten signature in cursive script, reading "John Boyd Thacher". The signature is written in dark ink and is positioned above the printed name of the Chairman.

Chairman Executive Committee on Awards.

# WORLD'S COLUMBIAN EXPOSITION.

## OFFICIAL AWARDS

TO THE

# Pennsylvania Railroad Company.

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## GENERAL EXHIBIT.

The very effective way in which the exhibit by statistics, excellent drawings, charts, models and authentic relics shows the historical development and present state of the Pennsylvania Railroad, and for the unique manner in which the illustrative features of the exhibit have been presented as a whole.

Ballasted four-track railroad, including crossings, switches, station, platforms and fences, and a signal tower with a modern electro-pneumatic block signalling and interlocking apparatus.

## LABORATORY.

The exhibit of the materials and printed matter relating to the Pennsylvania Railroad Company's department of chemical and physical tests, whereby the safety of the travelling public is ensured, so far as the use of the best of the various kinds of stores required in operating the road and good materials used in its construction can accomplish it.

The important feature of scientific research which this laboratory develops, and the fixing of the standards of quality for all materials received into stock.

### TRACK INSPECTION CAR.

Excellence of design and construction of the cars used in the inspection of tracks ; the apparatus for recording irregularities in gauge and surface, and measuring and registering the elevation of rail on curves (automatically) is of especial and novel design.

### STANDARD PASSENGER CAR.

A passenger coach of excellent finish, thoroughly comfortable, strongly constructed, and of great practical utility.

### TRUCK FOR TEN-INCH KRUPP GUN; THIRTY-TWO-WHEEL TRUCK FOR SIXTEEN-INCH KRUPP GUN.

A truck especially designed and constructed for conveying the ten-inch Krupp gun, and for a thirty-two wheel truck for conveying the sixteen-inch Krupp gun from the seaboard to the World's Fair, being the heaviest single piece of freight ever transported on railway.

Special mention is made of the design permitting all parts to swing on curves, and the low position of the load.

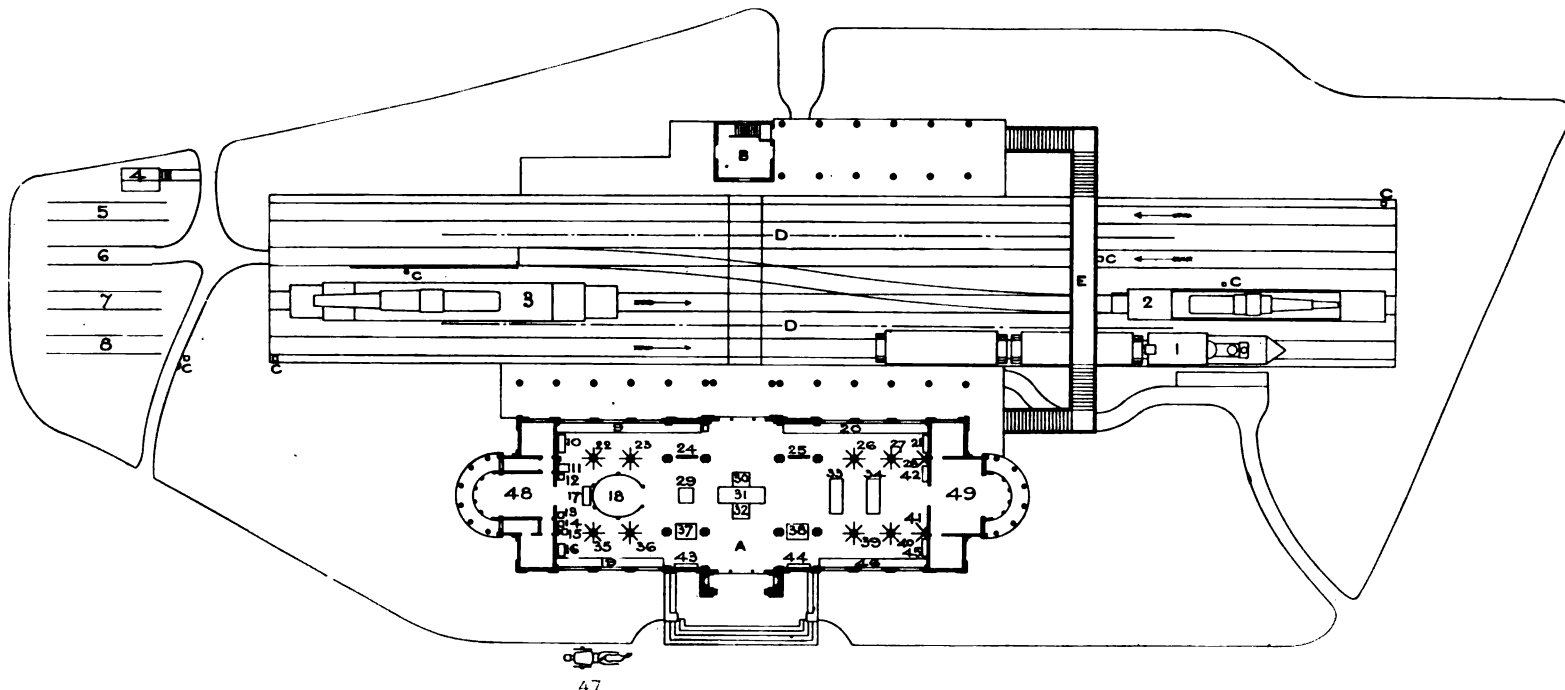
### REFRIGERATOR CAR.

A refrigerator car designed for carrying dairy products exclusively. It has ice tanks at each end of the car, constructed of strong wire. This wire cage is protected in front by an apron of wood, properly insulated. The ice tanks are provided with drip-pans properly trapped. The insulation is effective and provided for by introducing a thick layer of hair felt and having a dead air space. The construction of the car is very good, and the finish throughout is excellent. This type of car has always been found to discharge its loading of dairy products in good, sound condition. It shows excellence of construction and effectiveness for the purpose for which it is designed.

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In addition to above a medal was awarded for the architectural excellence of the building.

EXHIBIT OF THE PENNSYLVANIA RAILROAD COMPANY'S LINES,  
World's Columbian Exposition, 1893.



- A Main Exhibit Building.
- B Signal Tower — Pneumatic Interlocking Switches.
- C C Signals.
- D D Iron Fences.
- E Foot Bridge over Tracks.
- 1 "John Bull" Train.
- 2 Gun Truck, weight 112,300 lbs.
- 3 Gun Truck, weight 175,000 lbs.
- 4 Old Saxby and Farmer Interlocking Switch.
- 5 Old Portage R. R. Track.
- 6 Old Madison and Indianapolis R. R. Track.
- 7 Old Camden and Amboy R. R. Track.
- 8 Old Tracks, Rails, Frogs, Switches, &c.
- 9 Relic Case.
- 10 Relics.
- 11 Lay Figure, Porter.
- 12 Lay Figure, Baggage Master.
- 13 Lay Figure, Brakeman.
- 14 Lay Figure, Conductor.
- 15 Lay Figure, Pilot.
- 16 Old Car Seat.
- 17 Relics.

- 18 Chart of P. R. R. System showing location of Trains at 6 o'clock P. M., October 31, 1892.
- 19 Case of Statistical Models and Products of Altoona Shops.
- 20 Case of Models of Old Rolling Stock Equipment.
- 21 Models of J. M. and I. Engine and Cars.
- 22 Old Passes, Letters, Time Tables, Contracts, &c.
- 23 Old Posters, Passes, Time Tables, &c.
- 24 Chart showing organization of the P. R. R. Co.
- 25 Seals of corporations merged into or united in interest with the P. R. R. Co.
- 26 Photographs of Locomotives constructed by or for the P. R. R. Co.
- 27 Photographs showing R. R. property destroyed by the Johnstown flood.
- 28 Photographs showing typical Industries located on P. R. R. System.
- 29 Globe illustrating Traffic on P. R. R. System.
- 30 Relief Map, Plane No. 1, Old Portage R. R.
- 31 Relief Map, Territory between Altoona and Johnstown.
- 32 Relief Map, Horseshoe Curve.
- 33 Model of Ferry Boat "Washington."
- 34 Model of Tug Boat and Float with Freight Cars, N. Y. Harbor.
- 35 Maps, Old Tickets, Notices, &c.
- 36 Views relating to the Stage Coach and Canal Boat Era. Tickets, Memoirs, &c.
- 37 Model of Philadelphia Terminal.
- 38 Model of New York Terminus.
- 39 Views of Bridges, Tunnels, Stations, &c.
- 40 Views of Typical Industries located on Eastern and Western Systems.
- 41 Views of Bridges, Tunnels, Stations, &c.
- 42 Models of Coal Cars.
- 43 and 44, Tablets (in relief)—Four Centuries of Progress in Transportation. I. 1492-1792.—II. 1792-1832.
- 45 Model of Tunnel under Tracks.
- 46 Engineering Models, Switches and Frogs, &c.
- 47 Standard Hansom Cab.
- 48 Office of Special Agent.
- 49 Bureau of Information, Passenger Department.

*Rev. R. C. Key*  
*Chief of Motion Picture*  
*J. S. Watkins*  
*Special Agent*  
*in charge of Exhibit*

## CONTENTS.

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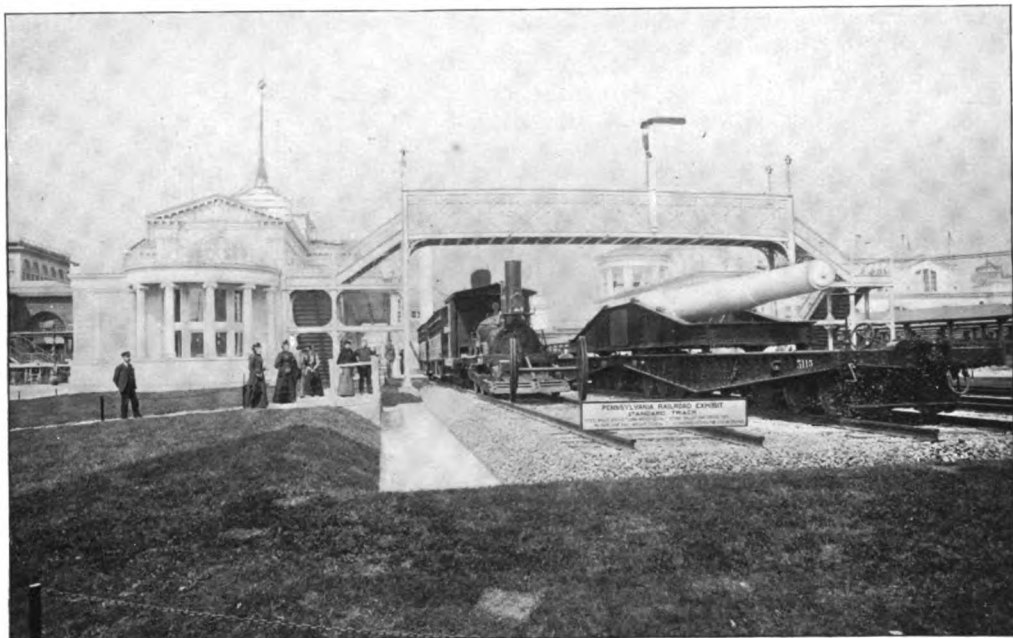
|   | Page |
|---|------|
| PENNSYLVANIA RAILROAD BUILDING.....   | 5    |
| OUTDOOR EXHIBIT .....   | 6    |
| RELICS ON LAWN.....   | 7    |
| IN TRANSPORTATION BUILDING—ROLLING STOCK .....  | 11   |
| DEPARTMENT OF CHEMICAL AND PHYSICAL TESTS.....  | 152  |
| <br>IN PENNSYLVANIA RAILROAD BUILDING :—  |      |
| Panels, Relief Maps, etc.....   | 12   |
| Statistical Models.....   | 15   |
| Models—Wagons .....   | 17   |
| Models—Canal Boats and Locomotives.....   | 17   |
| Models—Passenger and Freight Cars .....   | 19   |
| Models—Floating Equipment and Track.....  | 20   |
| Models—Switches, Frogs and Signals.....   | 22   |
| Models—Canal Structures.....  | 24   |
| Models—Bridges and Monuments .....  | 25   |
| Safety Appliances, Uniforms, Relief Department, R. R. Y. M. C. A. and Electrical<br>Department, Altoona Shops ..... | 25   |
| Relics—Pennsylvania Railroad Division.....  | 27   |
| Relics—Northern Central and Philadelphia and Erie Railroad Division .....   | 53   |
| Relics—United Railroads of New Jersey Division.....   | 58   |
| Relics—Philadelphia, Wilmington and Baltimore Division.....   | 87   |
| Relics—Pennsylvania Lines, Northwest System.....  | 100  |
| Relics—Pennsylvania Lines, Southwest System.....  | 107  |
| Drawings and Photographs—Locomotives .....  | 119  |
| Rolling Stock .....   | 124  |
| Standard Equipment, 1893 .....  | 125  |
| Engineering, Construction and Maintenance :—  |      |
| Bridges.....  | 127  |
| Tunnels and Stations.....   | 129  |
| Track Systems and Signals .....   | 133  |
| Deep Cuts, Fills and Grades.....  | 134  |
| Wharves and Docks .....   | 134  |
| Old Views on the Pennsylvania Railroad Lines.....   | 136  |
| Miscellaneous Views—Pittsburgh Riots.....   | 140  |
| Johnstown Flood.....  | 141  |
| Typical Industries along the Lines of the Pennsylvania Railroad .....   | 144  |



PENNSYLVANIA RAILROAD EXHIBIT.

World's Columbian Exposition.

(WEST END.)



# COLUMBIAN EXHIBIT.

## PENNSYLVANIA RAILROAD BUILDING.

A PASSENGER STATION OF GREEK ARCHITECTURE,  
140 feet long, 40 feet wide.

The panel west of the north entrance contains the following inscription:

### PENNSYLVANIA RAILROAD COMPANY.

Chartered April 13, 1846.

Constructed 248 miles of railroad prior to December 31, 1853.

Purchased 118 miles of railway and 283 miles of canals from Pennsylvania, Aug. 1, 1857.

|                                      |         |
|--------------------------------------|---------|
| Total mileage December 31, 1892..... | 7,980   |
| Total number of locomotives.....     | 3,148   |
| Total number of passenger cars.....  | 3,364   |
| Total number of freight cars.....    | 122,122 |
| Total number of employes.....        | 104,021 |

On the panel east of the north entrance is inscribed:

### PENNSYLVANIA RAILROAD COMPANY.

#### Mileage January 1, 1893.

| State of                  | Miles.  |
|---------------------------|---------|
| New York .....            | 106.11  |
| New Jersey .....          | 780.79  |
| Pennsylvania .....        | 3128.14 |
| Delaware .....            | 237.55  |
| Maryland .....            | 447.47  |
| District of Columbia..... | 8.16    |
| Virginia .....            | 103.27  |
| West Virginia.....        | 70.00   |
| Ohio .....                | 1341.01 |
| Indiana .....             | 1077.28 |
| Illinois .....            | 231.14  |
| Michigan .....            | 445.92  |
| Kentucky .....            | 2.91    |
| Total mileage.....        | 7979.75 |

Besides the flag staff on the dome, staffs are erected on the buildings, from which fourteen banners (containing the coats of arms of the States in which the Pennsylvania Railroad Company's lines are located) fly upon gala occasions.

In the main hall, 100 feet long and 40 feet wide, is displayed a collection of relief maps, models, and graphic illustrations pertaining to the history of the origin and development of the Pennsylvania Railroad Company and the lines merged into or united in interest with it.

## OUTDOOR EXHIBIT.

### STANDARD FOUR-TRACK RAILROAD

Laid with standard rails, 100 feet in length, weighing 100 pounds per yard, standard frogs, switches, stone ballast and ditches, signals and over-head foot bridge. The rails, which weigh 3333 pounds each, are the heaviest ever laid in America.

### SIGNAL AND SWITCHING

Equipped with standard electric pneumatic interlocking signalling and switching apparatus, Westinghouse system.

### THE ORIGINAL LOCOMOTIVE "JOHN BULL," AND TRAIN. 1831-1893.

Locomotive No. 1, Camden and Amboy Railroad Company, with pilot, tender, etc., complete. The oldest complete locomotive in America; ordered of George and Robert Stephenson, December, 1830, completed May, 1831, shipped from Liverpool 14th July, 1831; first put in service November 12, 1831.

This locomotive left New York City under steam April 17, 1893. It hauled the "John Bull" train 912 miles without assistance to Chicago, arriving April 22, 1893, and meeting with a continued ovation over the entire route. It is not a model nor a reproduction, but the original engine which went into regular service, 1831. It was exhibited at the Centennial Exposition of 1876 and again at the Chicago Exposition of Railway Appliances in 1893. Since that time it has been on exhibition in the U. S. National Museum, Smithsonian Institution, Washington City.

Pair of original driving wheels of the locomotive "John Bull." 1831. Locust spokes and felloes, iron hub and original double tire. The flanged tire has been removed.

Two Camden and Amboy passenger coaches (type of 1836). One of these cars is the original car the body of which was used as a chicken coop at South Amboy, N. J., for many years.

### TWO STEEL GUN CARS WITH CONNECTING BRIDGES.

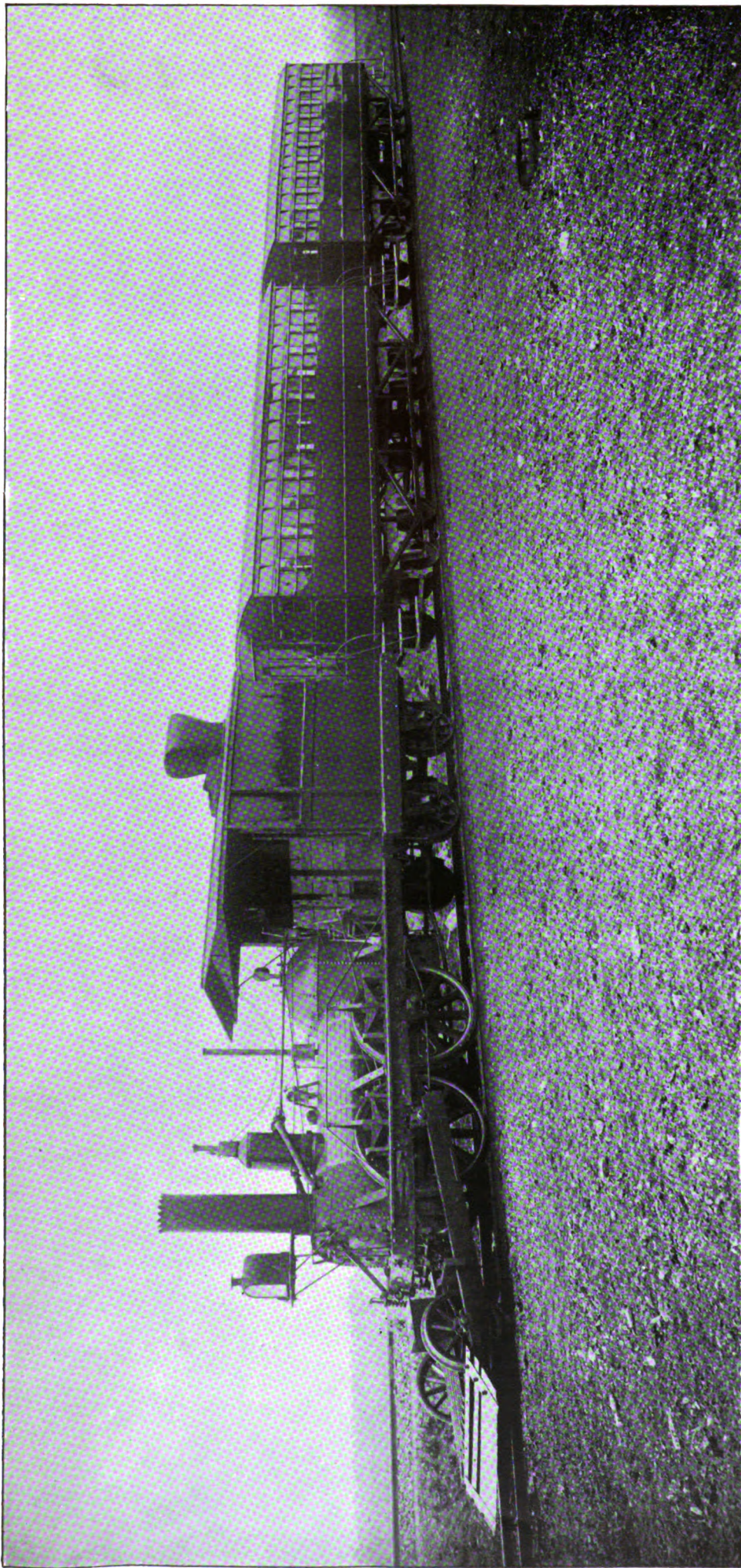
By which the huge 16½ and 10-inch Krupp guns were conveyed from Baltimore to the Chicago Exposition, April, 1893.

The large Gun Car is built entirely of boiler steel. It consists of a major bridge, two minor bridges and four eight-wheel cars. The gun rests in the major bridge on two supports, designed to closely fit its perimeter. In addition to these two supports, to avoid any vibration while in transport, the muzzle is secured by wedge-shaped oak blocks, set in cast iron shoes and drawn up to the muzzle by means of right and left-hand screws. The major bridge is 50 feet from center to center of supports, and rests directly on the side bearings, and the minor bridges are supported by their respective center-plates.

The cars have been designed so as to combine strength with flexibility, and are equipped with Janney Couplers and Draft Rigging especially constructed for strength.

The journals are 4½x9 inches; the wheels are 37½ inches in diameter, with wrought iron centers and steel tires.





### PENNSYLVANIA RAILROAD COMPANY.

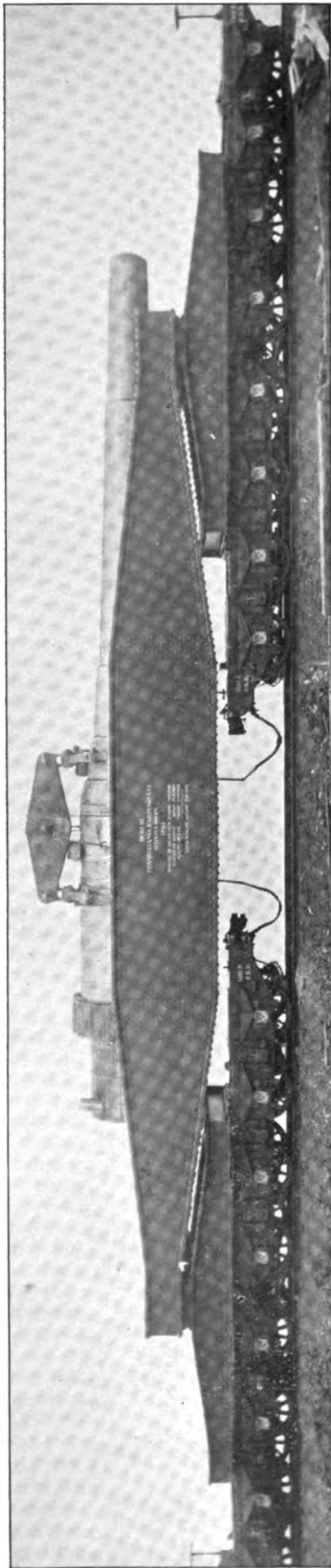
#### THE ORIGINAL LOCOMOTIVE "JOHN BULL" AND TRAIN, 1831.

On Exhibition on Tracks South of Pennsylvania Railroad Building, World's Columbian Exposition. Part of the Historical Collection for which Medal was awarded.

Locomotive No. 1. Built by Stephenson & Company, 1830-31, for the Camden and Amboy Railroad Company. The oldest complete locomotive in America; shipped from Liverpool, July 14, 1831; first put in service Nov. 12, 1831, at Bordentown, New Jersey, where the Railroad Monument now stands.

This locomotive left New York City under steam April 17, 1883. It hauled the "John Bull" train 912 miles without assistance, to Chicago, arriving April 22, 1883, meeting with a continued ovation over the entire route. It is not a model or reproduction, but the original engine which went into regular service 1831. It was exhibited at the Centennial Exposition of 1876 and again at the Chicago Exposition of Railway Appliances in 1883. It was then taken to the U. S. National Museum, Washington, where it remained until it was run to Chicago in April, 1883. There it was one of the great attractions at the World's Fair, carrying over fifty thousand passengers over the exhibition tracks in the Terminal Station yard. The locomotive left Chicago again under steam December 5, 1883, coming east over the Pennsylvania Lines, via the Southwest System, to Pittsburgh and through Altoona, Harrisburg and Baltimore to Washington, arriving there December 13, 1883. Having made its last trip under steam, it has been returned to the U. S. National Museum, to remain there permanently. Two Camden and Amboy passenger coaches (type of 1836.) One of these cars is the original car, the body of which was used as a chicken coop at South Amboy, N. J., for many years.



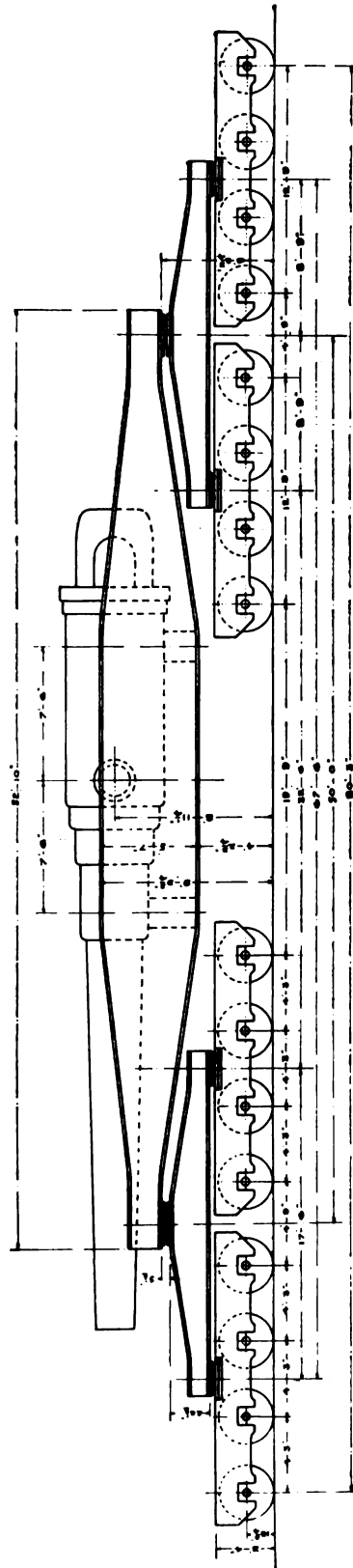


PENNSYLVANIA RAILROAD COMPANY.  
GUN CAR THAT TRANSPORTED THE 16 1-2 INCH KRUPP GUN FROM BALTIMORE.

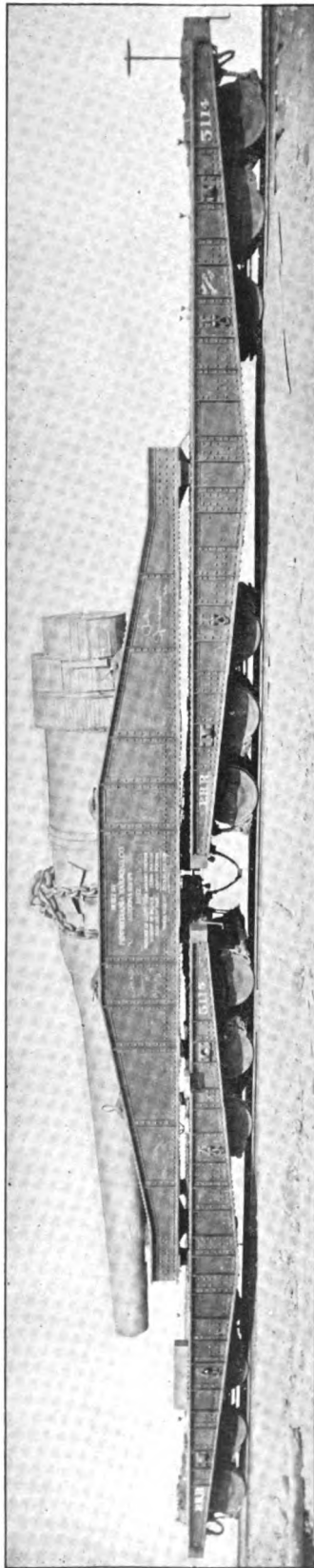
On Exhibition South of Pennsylvania Railroad Building. Medal Awarded.

The largest single piece of freight ever transported on a railroad on the Western Continent. The car is built entirely of boiler steel. It consists of a major bridge, two minor bridges and four eight-wheel cars. The gun rests on the major bridge on two supports, designed to closely fit its perimeter. The major bridge is fifty feet from centre to centre of supports, and rests directly on the side bearings, and the minor bridges are supported by their respective centre plates. The journals are 4 1/2 x 9 inches, and the wheels are 37 1/2 inches in diameter, with wrought iron centres and steel tires. The load on cars is thoroughly equalized by 32 elliptic springs, of 36 inch span, each spring having 18 leaves, 3 1/2 inches wide and 3/4 inch thick. The extreme length of car is 88 feet; extreme width is 9 feet 10 inches; extreme height to top of bridge 9 feet 9 1/2 inches.

|                               |              |
|-------------------------------|--------------|
| Weight of Gun.....            | 285,000 lbs. |
| Weight of Car (complete)..... | 175,000 lbs. |
| Total.....                    | 460,000 lbs. |



PENNSYLVANIA RAILROAD COMPANY.  
DIAGRAM OF THE GUN CAR THAT TRANSPORTED 16 1-2 INCH KRUPP GUN TO WORLD'S COLUMBIAN EXPOSITION.

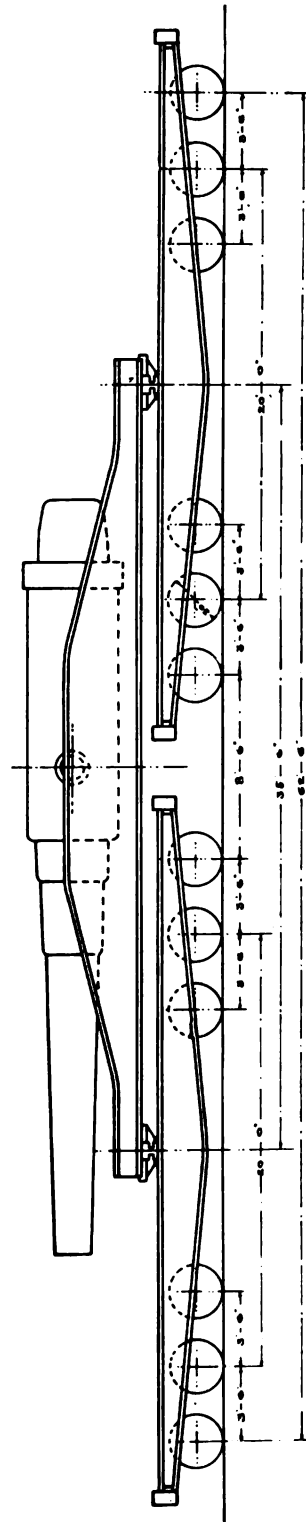


PENNSYLVANIA RAILROAD COMPANY.

**GUN CAR THAT TRANSPORTED 10-INCH KRUPP GUN FROM BALTIMORE TO THE WORLD'S COLUMBIAN EXPOSITION.**

**On Exhibition South of Pennsylvania Railroad Building.**

|                               |                     |
|-------------------------------|---------------------|
| Weight of Gun.....            | 140,000 lbs.        |
| Weight of Car (complete)..... | 113,000 lbs.        |
| <b>Total.....</b>             | <b>253,000 lbs.</b> |



PENNSYLVANIA RAILROAD COMPANY.

Diagram of the Gun Car that transported 10-inch Krupp Gun to World's Columbian Exposition.

Each car has a 14-inch Westinghouse air-brake cylinder, with brake on all wheels, and National Hollow Brake Beams with Christie Brake heads and shoes.

The load on cars is thoroughly equalized by 32 elliptic springs of 36-inch span, each spring having 18 leaves,  $3\frac{1}{2}$  inches wide and  $\frac{3}{8}$  inch thick.

The extreme length of car is 88 feet; extreme width is 9 feet 10 inches; extreme height to top of bridge 9 feet  $9\frac{1}{4}$  inches.

The smaller gun car has 24 wheels; extreme length is 71 feet; extreme width is 8 feet; extreme height to top of bridge 7 feet  $6\frac{1}{4}$  inches.

#### WEIGHTS.

|                                      |              |                        |              |
|--------------------------------------|--------------|------------------------|--------------|
| 16 $\frac{1}{2}$ -inch Gun . . . . . | 285,000 lbs. | 10-inch Gun . . . . .  | 140,000 lbs. |
| Car complete . . . . .               | 175,000 "    | Car complete . . . . . | 113,300 "    |
| Total . . . . .                      | 460,000 lbs. | Total . . . . .        | 253,300 lbs. |

Models of guns are mounted upon the cars.

### RELICS ON LAWN EAST OF R. R. BUILDING.

#### SAXBY AND FARMER INTERLOCKING SWITCH APPARATUS. 1874-90.

(980)

The first efficient interlocking switch apparatus in use on the Western Continent. Erected by the Pennsylvania Railroad Company near Newark, New Jersey, 1874.

#### PHILADELPHIA AND COLUMBIA RAILROAD.

(777)

Two Stone Blocks with iron pins from Belmont Plane. Laid in 1832. Contributed by Wm. J. Latta.

(776)

Rail Chair from Belmont Plane. Laid in 1832. Contributed by Wm. J. Latta.

(774)

Two Rail Chairs from Belmont Plane. Laid in 1832. Contributed by Wm. J. Latta.

(916)

Old Cast Iron Switch laid near Witmer. Contributed by Thos. Gucker.

(928)

Old Cast Frog laid near Witmer. Contributed by Thos. Gucker.

(929)

Old No. 6 Cast Frog. Contributed by Thos. Gucker.

(920)

Section of old "T" Rail with Chair and Keys. Contributed by Thos. Gucker.

(904)

Section of old Base Rail. Contributed by Thos. Gucker.

## OLD PORTAGE RAILROAD.

(982)

Section of original track, 30 feet long, showing old methods of Stone Block construction on the Old Portage Railroad, 1833.

(806)

Chain Stop for attaching cars to cables on inclined plane. 1845.  
Contributed by M. A. Quartz.

(393)

"T" Rail and chairs laid on stone blocks. 1833. Contributed by J. Kennedy.

(772)

Rail laid in 1833. Contributed by W. N. Bannard.

(807)

Two pieces of Rail with chairs, keys and spikes. 1833.  
Contributed by M. A. Quartz.

(333)

Cast Iron Frog with chair at each end to receive "T" rails. Cast in one piece.

## CAMDEN AND AMBOY RAILROAD

(981)

Section of original track, 33 feet long, showing old methods of Stone Block construction by the Camden and Amboy Railroad Company, 1831.  
Contributed by R. P. Snowden.

(35)

Wooden Switch Lever, commonly called "a gate" by employees. 1835-1860.  
Contributed by R. P. Snowden.

(34)

Wooden Switch Lever with target signal and cross. 1845-1870.  
Contributed by R. P. Snowden.

(24)

Freight Car Wheel with split hub keyed to the axle. Cast in this manner to avoid breaking by contraction while cooling. Cast about 1840.  
Contributed by P. S. Bogart.

(26)

Pair of Cast Iron Wheels on axle in use under passenger equipment. 1846.  
Contributed by Isaac Van Houten.

(21)

Four wooden "Safety Car Wheels" with iron hubs and tires—axles removed. In use under passenger equipment. 1852.

(594)

Wooden Switch Lever.  
Contributed by I. H. Wainwright.

(15)

Pair of wooden "Safety Car Wheels" with iron hubs and tires, mounted on axle. In use under passenger equipment. 1848.  
Contributed by Isaac Van Houten.

## NEW JERSEY RAILROAD AND TRANSPORTATION COMPANY

(597 and 598)

Two old Locomotive Parallel Rods. 1865. Contributed by H. S. Hayward.



PHILADELPHIA AND TRENTON RAILROAD.

- (574)  
Old Joint Block complete. Contributed by D. R. Mehaffey.
- (576)  
Two sections old One-Sided Rail. Contributed by D. R. Mehaffey.
- (577)  
Joint Sample Track. Contributed by D. R. Mehaffey.
- (580)  
Old Lochiel Joint used in 1866. Contributed by D. R. Mehaffey.
- (591)  
Old Joint Plain Splice with Chair.
- (602)  
Block Joint with Rail.
- (604)  
Section of old Rail.

BALD EAGLE VALLEY RAILROAD.

- (603)  
Section of old Rail. Contributed by R. L. O'Donnell.

PHILADELPHIA, WILMINGTON AND BALTIMORE RAILROAD.

- (974)  
Old Strap Rail. 1837. Contributed by H. F. Kenney.

MADISON AND INDIANAPOLIS RAILROAD.

- (983)  
Section of original track, 24 feet long, showing old methods of Strap Rail construction on the Madison and Indianapolis Railroad, 1839.

- (11)  
Section of Track. Standard adopted by State of Indiana on Madison Plane in 1838. An oak mud sill 10x10 inches was laid longitudinally. Sleepers of cedar 6 inches thick, 8 inches wide, were pinned with locust pins to the mud sills. Center tie was mortised 1¼ inches into sill and held in place with oak wedge. On these ties chairs were placed. held to place with spikes.  
Contributed by R. J. Elvin.

- (12)  
Section of Rack Work for Cog Wheel. Track laid on Madison Plane. Each section was 1 foot 6 inches long and contained 10 knuckles, into which the cog wheel in the locomotive was made to fit. This rack was spiked to oak planks 3 inches thick which were joined to the cedar ties with locust pins. Locomotives with cogs to fit this rack were built, "The Brough" and "The Bright," afterwards called the "Indiana."  
Contributed by R. J. Elvin.

(14)

"State Rail," 45 lbs. per yard, rolled in England. Laid on the 9th mile of Madison and Indianapolis Railroad, 1838. Remained in track until 1881. Although punched for splice bars in England, no splice bars were used until it was punched with machine run by hydraulic pressure, 1870, without taking rail out of track.

Contributed by R. J. Elvin.

#### LITTLE MIAMI RAILROAD.

(390)

Cast Frog used with strap rail. 1837.

Contributed by C. E. Lindsay.

(69)

Chair for Iron Rail. 1846.

Contributed by C. E. Lindsay.

#### MODELS ON LAWN EAST OF R. R. BUILDING.

##### OLD PORTAGE RAILROAD.

(2143)

Model (full size) Wire Cable, Shieve, and Original Chain Stop, used on Inclined Planes, Portage Railroad.

(2144)

Model (full size) Wire Cable, Shieve, and Hemp Stop, used on Inclined Planes Portage Railroad.

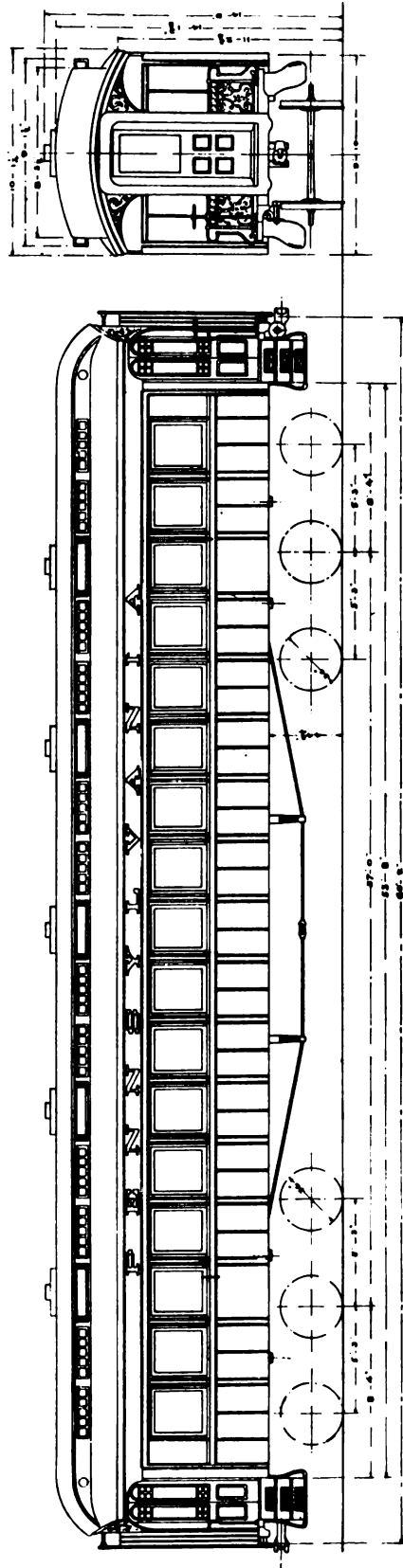
#### STANDARD HANSOM CAB.

##### ON DRIVEWAY EAST OF NORTH ENTRANCE.

(2132)

Pennsylvania Railroad Standard Hansom Cab and Harness made at the Pennsylvania Railroad Shops, Philadelphia, for station service, to which is attached an exhibition figure of a horse modelled to represent the type of horses used for cab service by the Company.

# PENNSYLVANIA RAILROAD COMPANY.



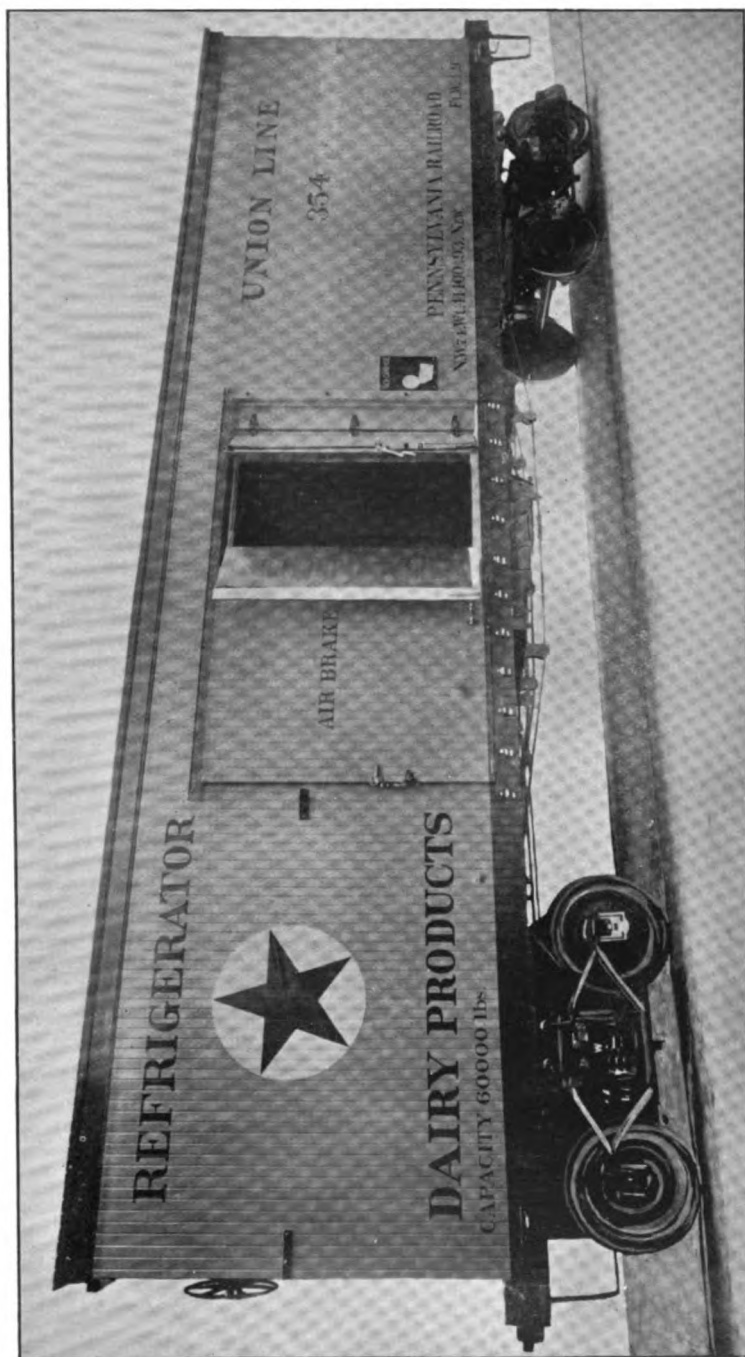
STANDARD CLASS "PH" PASSENGER CAR. Diagram.

On Exhibition in Transportation Building Medal Awarded.

Constructed at Altoona Shops; heated by the Pennsylvania System by steam from the locomotive; lighted by the Frost System of Dry Car-buretors; equipped with the Westinghouse Triple Air Brake; platforms equipped with vestibules.

Running gear consists of two trucks of six wheels each, 36 inches in diameter, made at the Company's Shops at Altoona, of metal cast according to the P. R. R. standard formulae, and springs manufactured under P. R. R. specifications.

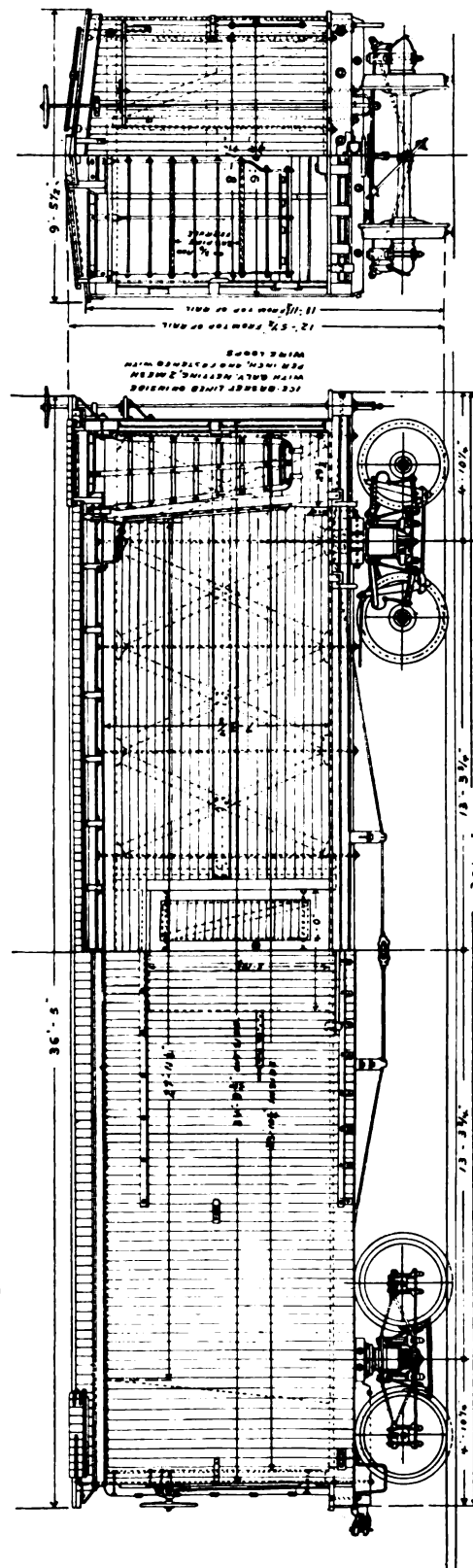
Dimensions :—Length, 60 feet 7 inches over all; interior, 53 feet 5 inches long, 9 feet 10 inches wide, 9 feet 5 inches high.



# STANDARD REFRIGERATOR CAR.

On Exhibition in Transportation Building. Medal Awarded.

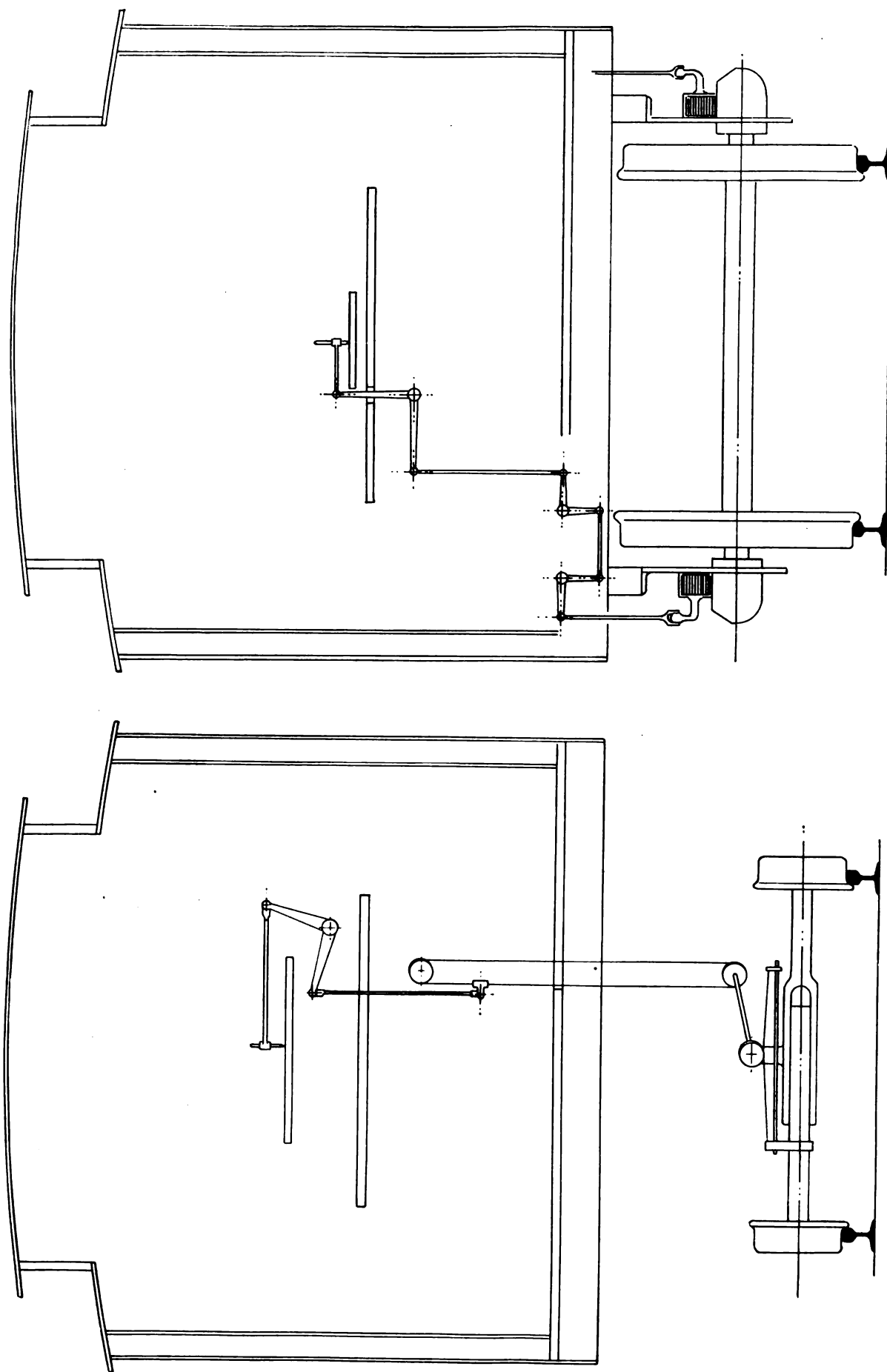
For transporting dairy products. Union Line, Standard of 1892.  
By the refrigerating and other appliances with which this car is equipped, a uniform temperature is maintained in the hottest weather, low enough to insure the preservation of butter, cheese, eggs, dressed poultry, etc., during transportation from western producing districts, direct to the Atlantic seaboard and other markets.  
The first refrigerator cars ever built in America were built by the Union Line in 1865.



|                                       |   |                 |            |
|---------------------------------------|---|-----------------|------------|
| FLOOR AREA. (TOTAL) 275 SQR. FT.      | CAPACITY OF ICE IN CAR - - - - 8000 LBS. (180 CUB. FT.) | WEIGHT OF CAR   | 40000 LBS. |
| CUBICAL CONTENT. ( " ) 19937 CUB. FT. | Nº OF BASKETS PER CAR - - - - 4.                        | WEIGHT OF TRUCK | 8700 LBS.  |

STANDARD DAIRY PRODUCT CAR. Cy. diagram.

PENNSYLVANIA RAILROAD COMPANY.



P. R. R. TRACK INDICATOR CAR.  
Diagram Showing Method of Obtaining Record of Variation in Gauge of Track.

P. R. R. TRACK INDICATOR CAR.  
Diagram Showing Method of Obtaining Record of Surface of Track.

## IN TRANSPORTATION BUILDING.

### STANDARD PASSENGER COACH. 1892.

Class "Ph.," constructed at Altoona Shops, heated by the Pennsylvania Railroad System by steam from the locomotive; lighted by the Frost System of Dry Carburetors; equipped with the Westinghouse Triple Air Brake. Platforms are equipped with vestibules.

Dimensions:—Length, 60 feet 7 inches over all; interior, 53 feet 5 inches long, 8 feet 10 inches wide, 9 feet 5 inches high.

Running gear consists of two trucks of 6 wheels each, 36 inches in diameter, made at the Company's shops at Altoona of metal cast according to the P. R. R. standard formulae, and springs manufactured under P. R. R. specifications.

To insure uniformity in strength of metals and in quality of supplies, all castings, forgings and other materials used in locomotive and car building, all lubricants, disinfectants, etc., are frequently and carefully tested according to the most advanced scientific methods.

See exhibit of the Department of Tests.

### STANDARD REFRIGERATOR CAR.

For transporting dairy products. Union Line, Standard of 1892.

Constructed at Fort Wayne Shops. By the refrigerating and other appliances with which this car is equipped, a uniform temperature is maintained in the hottest weather low enough to insure the preservation of butter, cheese, eggs, dressed poultry, etc., during transportation from Western producing districts direct to the Atlantic seaboard and other markets.

The first refrigerator cars ever used were built by the Union Line in 1865.

### STANDARD TRACK INSPECTION CAR.

Used by officers of the road during the annual inspection of track and property. The car is placed in front of the locomotive, which moves over the tracks at a slow rate of speed. The seats are arranged as in an amphitheater, so that a full view of the track and road-bed may be obtained by every occupant. Special forms of blanks are used by the committees of officers who examine and report upon the condition of the details of track.

### TRACK INDICATOR CAR.

For testing tracks and recording the condition of the alignment, gauge, surface, joints, elevations of curves, etc.

By automatic machinery a record of the condition of each mile of track is made upon a paper diagram. By comparing these diagrams from time to time the changes in the condition can be absolutely determined.

### EXHIBIT OF THE DEPARTMENT OF PHYSICAL AND CHEMICAL TESTS.

In cases in special booth, located aisle N, Post No. 4. (See catalogue forward, p. 152.)

# IN PENNSYLVANIA RAILROAD BUILDING.

## PANELS, RELIEF MAPS, CHARTS AND SEALS.

### "FOUR CENTURIES OF PROGRESS."

(2001)

Two panels in relief, six feet wide and four feet high, one on either side of Main Entrance.

#### I. Primitive methods of transportation from 1492 to 1792.

The arrival of Columbus in his Caravel, shown in the background, finds the "Red Man" in possession of the soil. The squaw is seen carrying her papoose, and the brave is returning from the hunt laden with game. The Indian Traveau and Canoe are also shown.

The white man introduces the floating raft, the boat poled against the tide, the rope ferry and the sailboat.

The settlers' wagon-train, the best means of conveyance in 1792, is seen in the foreground. On the wagons are the spinning-wheel, agricultural instruments, etc. Horses, cattle, sheep and hogs for stocking the great West accompany the train.

#### II. Progress in the art of transportation from 1792 to 1892.

The Conestoga wagon, the stage coach, and canal-boat are introduced late in the last and early in the present century. The original "John Bull" train (1831) is standing at the primitive open drawbridge to let the steamboat "Phoenix" (1808) pass through.

In the foreground, six decades later, a freight train laden with grain, bound to the Atlantic seaboard, and the Pennsylvania Limited Express conveying passengers to the great World's Fair are shown. The modern double deck ferry-boat, the tug-boat, and the Pennsylvania Railroad standard floating equipment are shown on the right; also the civil engineer looking through his transit, supervising the construction and maintenance of a great railway.

Modelled by L. Amateis.

### "CROSSING THE ALLEGHANIES." 1832-1892.

(2002)

In the center of the building under the dome.

I. Relief map four feet wide by twelve feet long, showing the territory between Altoona, Hollidaysburg and Johnstown, Pa., on which is located the Old Portage Railroad in use 1832-1852; the New Portage Railroad, constructed to avoid inclined planes, in 1853; the Pennsylvania Railroad Main Line, 1852-1892.

Scale: Horizontal, 1 in. = 1200 feet; Vertical, 1 in. = 400 feet.

Modelled by E. E. Howell.

**II. Relief Model of Horse Shoe Curve. 1892.**

On the Main Line of the Pennsylvania Railroad, near the summit of the mountain, the New York and Chicago Limited Express, with two locomotives attached, is shown westward bound. The forty-car grain train that ran from Chicago to Philadelphia in 1892, without changing locomotives, is descending the mountain. The grade of the Horse-shoe Curve is  $95\frac{1}{2}$  feet to the mile. The end of the track on the western side of the model is 71 feet above that on the eastern. The distance across the ravine is 1130 feet.

Scale: Horizontal and vertical, 1 in. =  $33\frac{1}{3}$  feet. Modelled by V. Mindeleff.

**III. Relief Model of Plane No. 1, Old Portage Railroad.** At the foot of the western slope of the mountain, 4 13-100 miles east of Johnstown, the tunnel at the head of the plane is the first railroad tunnel constructed in America. A sectional freight boat is shown in the opposite side of the Conemaugh River, also New Bridge "Number Six," built on the site of the old structure destroyed by the Johnstown Flood, May 31, 1889. Horizontal and vertical scales: 1 in. =  $33\frac{1}{3}$  feet. Modelled by V. Mindeleff.

**RELIEF MAPS OF TERMINI. 1893.**

Relief Map, Jersey City terminus, showing stations in New York and ferries. (2034)

Relief Map, Philadelphia, showing all stations. Both modelled by V. Mindeleff. (2035)

**MADISON AND INDIANAPOLIS RAILROAD CO.**

(2022)

Madison Plane (relief model) completed in 1838, at which time emigrants were carried over the Portage R. R., and from Johnstown to Pittsburgh by canal, thence, via the Ohio river to Madison, and over this plane and railroad to the interior of the States of Indiana, etc. Work commenced in 1836. Modelled by V. Mindeleff.

**TRAFFIC ON THE PENNSYLVANIA RAILROAD SYSTEM.**

(2016)

Perspective map thirty-six feet long, showing position of each train in motion on the Pennsylvania System at 6 P. M., Eastern time, Columbus Day, October 21st, 1892. Freight trains are indicated by blue and passenger trains by gold colored locomotives.

**CHART IN KEYSTONE FRAME.**

(2063)

Showing the organization by which the Pennsylvania Railroad Company's interests are managed, and the relations of officers to the stockholders and to each other.

**IMPRESSIONS OF SEALS OF 218 CORPORATIONS IN KEYSTONE FRAMES. (2062)**

Merged into or united in interest with the Pennsylvania Railroad Company and consolidated into one great system. Showing development of corporate interests. 1840-1892.

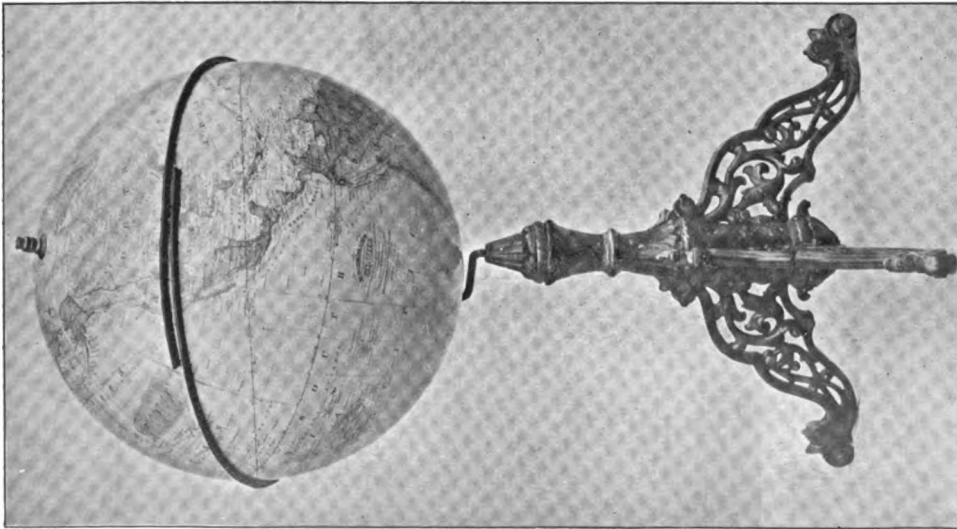
**MAPS SHOWING EXTENSION OF THE PENNSYLVANIA R. R. COMPANY'S  
LINES, EASTERN AND WESTERN, FOR THE HALF  
CENTURY 1840-1890.**

(2219-2234)

The series consists of sixteen maps showing the transportation lines comprising the Pennsylvania Railroad system in 1840, 1850, 1860, 1870, 1875, 1880, 1885, and 1890.

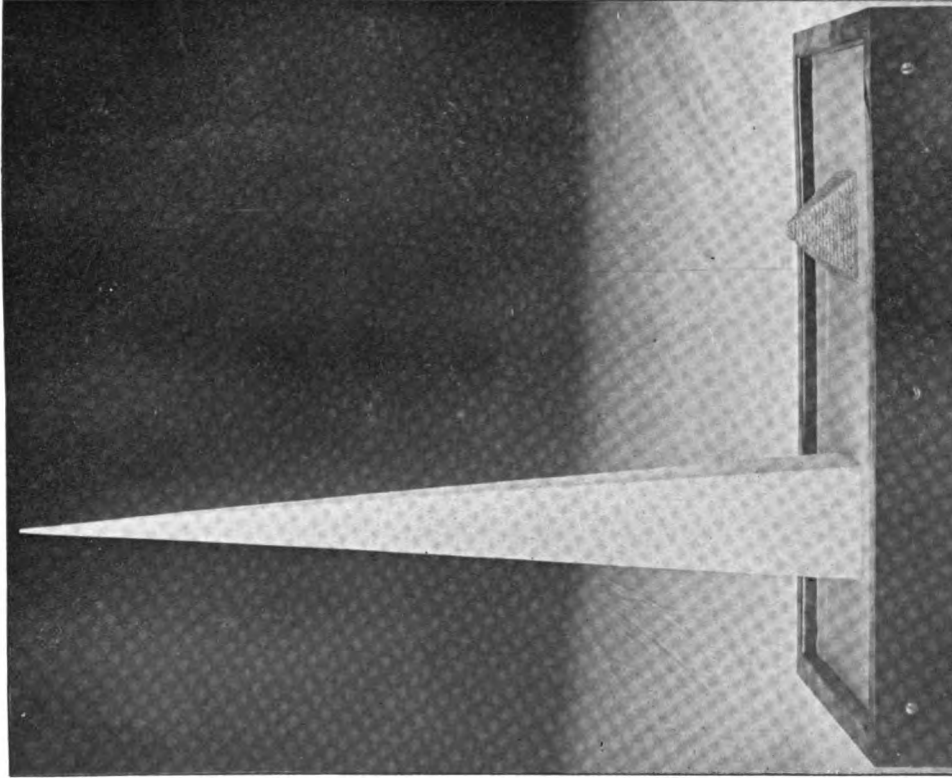


- HISTORICAL CHART PENNSYLVANIA R. R. DIVISION.** (2147)  
Showing the corporate history of the lines merged into the Pennsylvania Railroad Division of the Pennsylvania Railroad Company. 1809-1893.
- HISTORICAL CHART, U. R. R., NEW JERSEY DIVISION.** (2148)  
Showing the corporate history of the lines merged into the United Railroads of New Jersey Division, of the Pennsylvania Railroad Company and leased lines. 1790 to 1893.
- HISTORICAL CHART PENNSYLVANIA LINES, NORTHWEST SYSTEM.** (2149)  
Showing the corporate history of the lines leased and operated by the Pennsylvania Company. 1836 to 1893.
- HISTORICAL CHART PENNSYLVANIA LINES, SOUTHWEST SYSTEM.** (2150)  
Showing corporate history of the Pittsburgh, Cincinnati, Chicago and St. Louis Railway Company, and its leased, operated and affiliated lines. 1832 to 1893.
- MAP, DEVELOPMENT OF PENNSYLVANIA LINES, N. W. SYSTEM.** (2151)  
Map showing the construction of the Northwest System by decades.
- MAP, DEVELOPMENT OF PENNSYLVANIA LINES, S. W. SYSTEM.** (2152)  
Map showing the construction of the Southwest System by decades.
- MAPS OF THE PENNSYLVANIA CANAL CO.**
- (2201)  
Map of the Canal System of the State of Pennsylvania originally in operation previous to 1865.
- (2203)  
Map of the Canal System of the State of Pennsylvania. showing the 283 miles of canals sold by the State to the Pennsylvania Railroad Company, 1857.
- (2204)  
Map showing the 360 miles of canal in the State of Pennsylvania operated by the Pennsylvania Railroad Company, 1870.
- (2205)  
Map showing 313 miles of canal in the State of Pennsylvania operated by the Pennsylvania Railroad Company, 1880.
- (2206)  
Map showing the 193 miles of canals in the State of Pennsylvania operated by the Pennsylvania Railroad Company, 1890.
- (2202)  
Map of Pennsylvania, showing the Canals in operation 1892. The 197 miles of canals operated by the Pennsylvania Railroad Company are indicated by red lines.



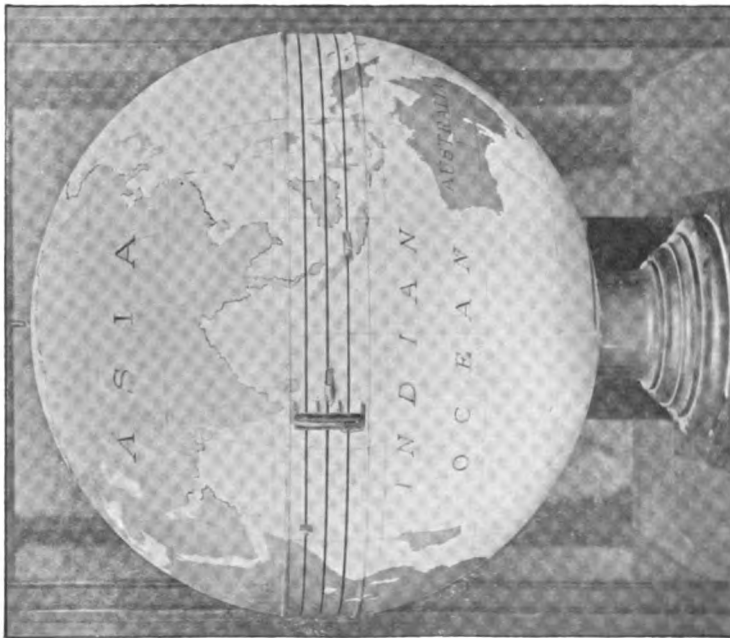
GLOBE ENCIRCLED BY PENNSYLVANIA RAILROAD TRACKS.

See Page 15, No. 2105.



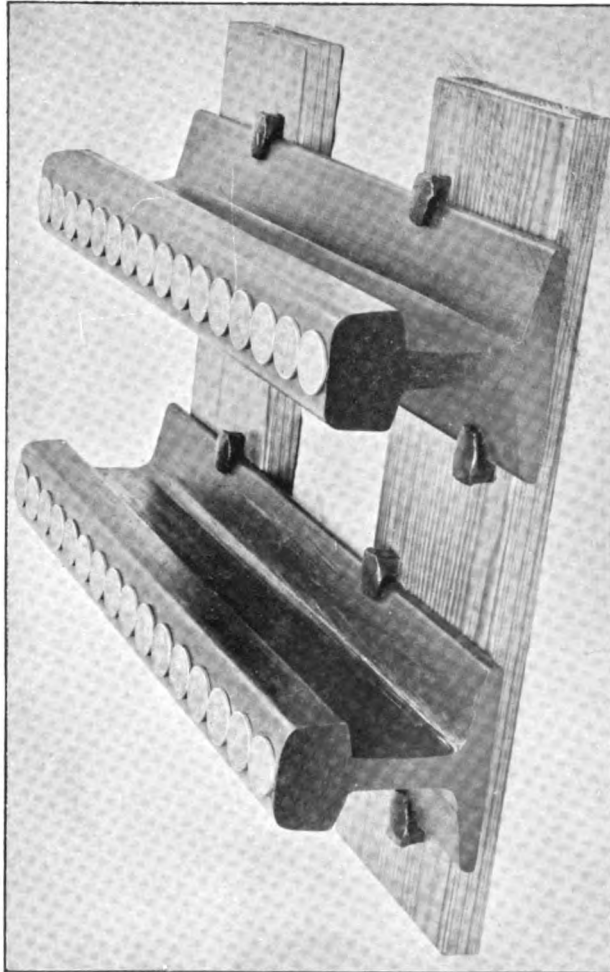
PYRAMID REPRESENTING PENNSYLVANIA RAILROAD STONE BALLAST AND  
PYRAMID OF CHEOPS.

See Page 15, No. 2139.



GLOBE ILLUSTRATING TRAFFIC ON PENNSYLVANIA RAILROAD.

See Page 15, No. 2136.



MODEL ILLUSTRATING CAPITAL INVESTED IN PENNSYLVANIA RAILROAD.

See Page 15, No. 2137.

## STATISTICAL MODELS.

ILLUSTRATING THE IMMENSITY OF THE PENNSYLVANIA RAILROAD COMPANY'S  
BUSINESS.

### LARGE GLOBE, ILLUSTRATING TRAFFIC ON THE PENNSYLVANIA RAILROAD SYSTEM.

(2136)

The locomotive mileage and passenger and freight movement is equivalent to:

One ton hauled around the world (25,000 miles) in 63 seconds.

One passenger conveyed around the world in  $7\frac{3}{4}$  minutes.

The locomotive mileage on the Pennsylvania System is 107,000,000 of miles per year,  
so that one locomotive may be said to travel around the globe every two hours.

Figures of a small locomotive, a passenger and a miniature car, supposed to contain  
one ton, are made, by mechanical movement, to pass around the equatorial line of the  
globe in the time noted above.

(2137)

### MODEL TO ILLUSTRATE THE CAPITAL INVESTED IN THE PENNSYLVANIA RAILROAD CO. AND THE COMPANIES MERGED INTO OR ASSO- CIATED IN INTEREST THEREWITH.

Models of two rails on which silver dollars are placed in line.

The total amount invested is.....\$750,000,000

Deduct 10% for properties owned and not used for railroad purposes.. 75,000,000

---

Leaves the total capital invested in railway property.....\$675,000,000

It would require two lines of silver dollars laid with peripheries touching (as shown  
in the model) along the entire length of the 7980 miles of railroad comprising the lines of  
the Pennsylvania Railroad System to aggregate this amount.

(2105)

### SMALL GLOBE.

Model to illustrate the fact that if each rail in the 14,278 miles of track comprised in  
the Pennsylvania Railroad System were welded end to end in one long rail it would  
reach around the globe and overlap from New York to a point out in the Pacific Ocean,  
within 1400 miles of Honolulu, Hawaii.

(2139)

### MODEL OF THE PYRAMIDS.

To illustrate the amount of stone ballast in tracks.

The tall pyramid represents the amount of broken stone ballast in the tracks of the  
Pennsylvania Railroad System, and while occupying an equal area is 14 times as high  
as the Pyramid of Cheops, the base of which is 250 yards square and 150 yards high.

Scale of both models 1 = 3000.

(2140)

**MODEL OF COAL MINE.**

This Model illustrates the fact that the consumption of coal upon the Pennsylvania Railroad Company's lines is ten tons per minute.

A miniature mine car, supposed to contain  $2\frac{1}{2}$  tons, by mechanical movement is made to emerge from the mouth of a coal mine every 15 seconds.

(2141)

**MODEL OF WATER RESERVOIR.**

This model illustrates the consumption of water by locomotives, etc., on the Pennsylvania Railroad Company's lines, which is over one million gallons per hour. It requires the entire contents of a 25-million gallon reservoir each day to supply the demand.

(2142)

**MODEL OF OIL WELL.**

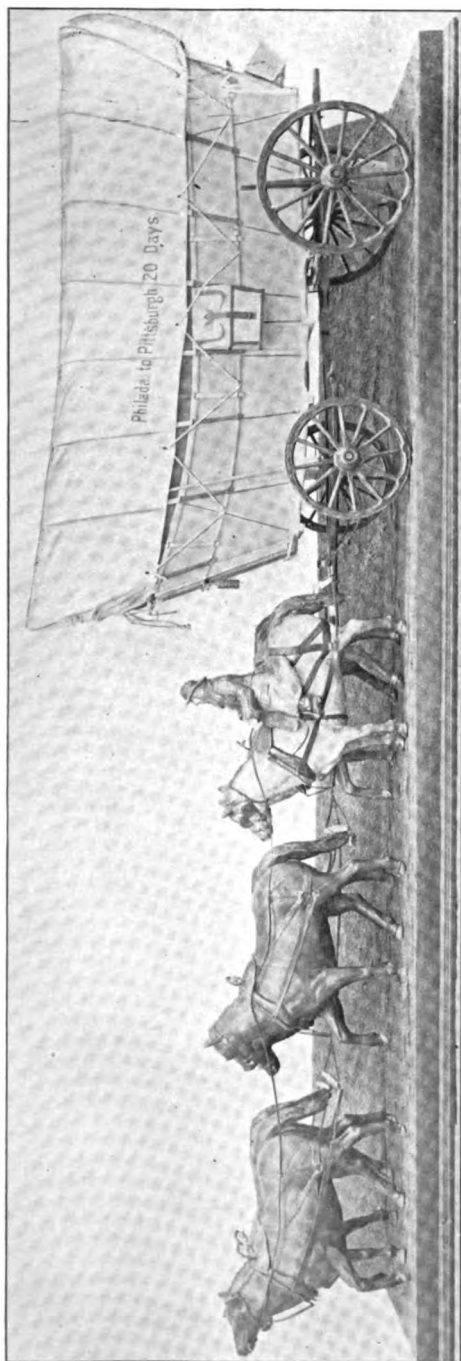
This Model illustrates the fact that it requires the product of an oil well producing 375 barrels per day to supply the petroleum consumed by the Pennsylvania Railroad Company's lines.

(2146)

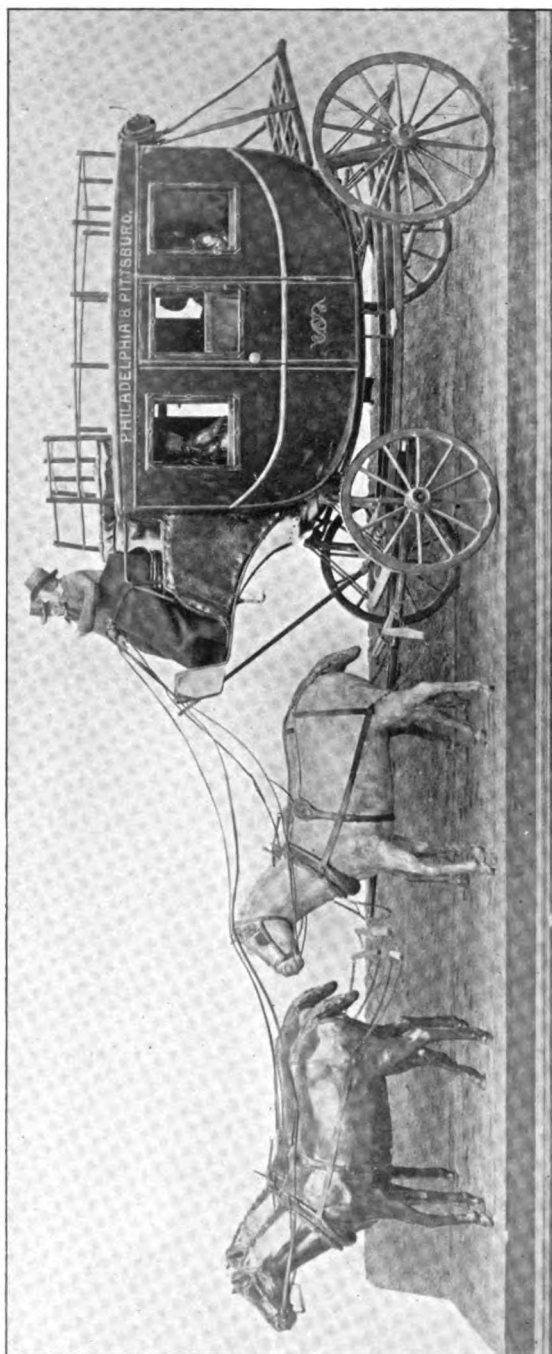
Model to illustrate wages paid to employes 1857-1892.

To pay wages for the year named, it required a block of silver of the size shown to be coined each hour (day and night) into silver dollars, weighing  $412\frac{1}{2}$  grains.

| YEAR. | SIZE OF BLOCKS.               | ANNUAL PAYMENT. | NUMBER OF EMPLOYEES. |
|-------|-------------------------------|-----------------|----------------------|
| 1857  | 8x8— $\frac{9}{16}$ inch high | \$1,692.508     | 3,469                |
| 1865  | 8x8— $2\frac{3}{4}$ " "       | 8,614.976       | 17,149               |
| 1870  | 8x8— $5\frac{1}{2}$ " "       | 17,284.105      | 33,249               |
| 1875  | 8x8— $8\frac{7}{8}$ " "       | 23,901.294      | 46,512               |
| 1880  | 8x8— $9\frac{1}{2}$ " "       | 27,860.369      | 53,303               |
| 1885  | 8x8— $12\frac{9}{16}$ " "     | 36,525.347      | 66,430               |
| 1892. | 8x8— $19\frac{3}{4}$ " "      | 57,520.340      | 104,021              |



CONESTOGA WAGON.  
See Page 17, No. 2003.



STAGE COACH.  
See Page 17, No. 2004.

## MODELS.

(GENERALLY ONE-TENTH FULL SIZE).

### WAGONS AND COACHES.

"BEFORE THE RAILWAY ERA."

#### CONESTOGA WAGON. (2003)

Type of conveyance used to transport emigrants and merchandise from the east across the Alleghenies to the Ohio and Mississippi Valleys previous to the introduction of the railway.

#### STAGE COACH. (2004)

Vehicle in use between Philadelphia and Pittsburgh about 1825.

### CANAL BOATS AND APPLIANCES

USED ON OLD PORTAGE PLANES.

#### CANAL PASSENGER PACKET BOAT. (2005)

Type used on the Pennsylvania Canal. 1835.

#### OLD PORTAGE RAILROAD. (2006)

Machinery of Plane No. 7, on small scale. 1835.

#### SECTIONAL FREIGHT BOAT IN THREE PARTS. (2008)

First introduced on the Old Portage Railroad by John Dougherty, 1839, afterwards improved and patented, 1843.

#### THREE BOAT CARS. (2009)

Each used to convey one section (about thirty feet long) of sectional canal boat over the "Portage." The freight boats used on this canal were sometimes made in three and sometimes in four sections. These cars were hauled up the planes by cables propelled by stationary engines; along the levels by horses or locomotives. In later years these trucks were used to transport boats through from Philadelphia to Johnstown, en route for Pittsburgh and Ohio River Ports. 1850.

#### PRIMITIVE TRUCK. (2131)

Used under boat cars at a very early day.

#### SAFETY CAR OR "BUCK." (2007)

Old Portage Railroad. This was the safety appliance used to prevent the cars from running down a plane, in case the hoisting rope should break. In ascending and descending, the "buck" always ran below the train, and was so constructed that in case of accident, the wheels of the nearest car ran up on the sled-like runners, forcing them against the rails and causing enough friction to stop the train. 1835-1850.

## LOCOMOTIVES.

## JOHN STEVENS' LOCOMOTIVE.

(2014)

Locomotive built by John Stevens at Hoboken, N. J., 1825. The original, of which this is a model, was exhibited to a Committee of the Pennsylvania Society for Internal Improvement, while the question of constructing a railway from Philadelphia to Columbia was under consideration. This is the first steam locomotive in America, of which there is reliable record, which carried people on a track. 1825-1826-1827.

## STOCKTON AND DARLINGTON LOCOMOTIVE "NO. 1."

(2067)

This model was brought to America from England by Wm. Strickland, 1826, for the information of the Pennsylvania Society of Internal Improvement. Loaned by the Franklin Institute of Philadelphia.

## THE LOCOMOTIVE "JOHN BULL"

(2015)

As originally constructed for Camden and Amboy Railroad Co. The Model is made from the original drawings from Stephenson's Shops, which accompanied the engine from England, as attested by Isaac Dripps, who put the original engine together upon its arrival in America. This Locomotive made the first movement by steam with a train of cars in the State of New Jersey, Nov. 12, 1831.

## LOCOMOTIVE "HERALD."

(2066)

In service on Baltimore and Susquehanna Railroad, between Baltimore and York. 1831.

## LOCOMOTIVE "LANCASTER."

(2018)

Constructed by Matthias Baldwin, Philadelphia, for Philadelphia and Columbia Railroad. This locomotive, the first in regular service on the Pennsylvania State Road, was one of the three of similar construction built by Baldwin for traffic between Philadelphia and Columbia. 1834.

## LOCOMOTIVE "GEORGE WASHINGTON."

(2019)

First locomotive to climb a heavy grade. This locomotive was built by William Norris and Sons, of Philadelphia, to demonstrate the fact that the Belmont Inclined Plane, in the suburbs of Philadelphia, could be dispensed with. 1835.

## RACK RAIL LOCOMOTIVE WITH COG GEARING.

(2023)

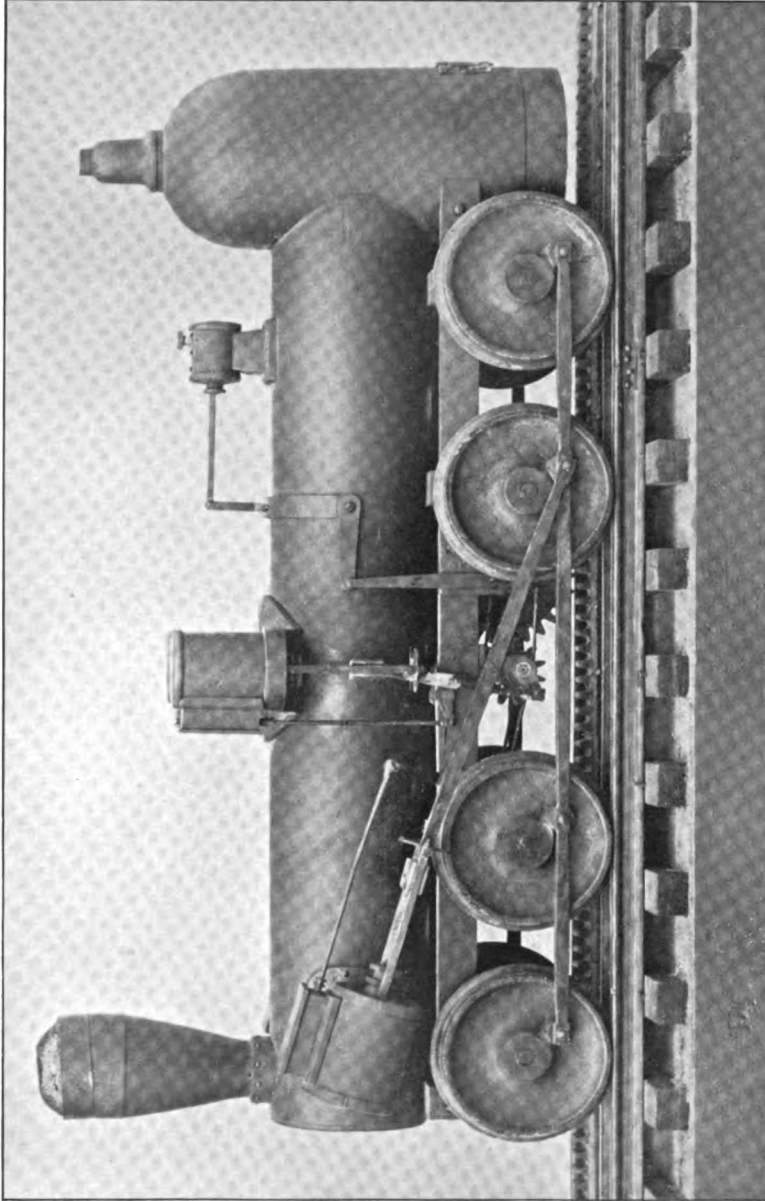
Constructed for Madison and Indianapolis Railroad Co., to run upon Madison Plane. 1848.

## LOCOMOTIVE "JOHN STEVENS."

(2026)

No. 28, Camden and Amboy Railroad Co., with seven foot driving wheels. Several locomotives of this type were afterwards constructed with eight foot driving wheels, and were called "monsters" by the employees.





RACK RAIL LOCOMOTIVE.  
See Page 18, No. 2023.

## PASSENGER AND FREIGHT CARS.

## CAMDEN AND AMBOY RAILROAD CO.

(2017)

Two Passenger Cars of the stage body pattern. These cars, when attached to the Locomotive "John Bull," comprised the first steam train in the State of New Jersey. Nov. 12, 1831.

## PHILADELPHIA AND COLUMBIA RAILROAD.

(2011)

Two Stage Body Cars. These cars were originally constructed to be drawn by horses, and were afterwards modified for steam traffic. These cars and the locomotive "Lancaster," comprised the first steam train that ran on the Pennsylvania State Railroad. 1834.

## PHILADELPHIA AND COLUMBIA RAILROAD.

(2012)

Passenger Car "Victory." This was one of the first passenger cars built with trucks (or bogies) and ran for some time between the business part of the city of Philadelphia and the ferry over the Schuylkill river, used before the railroad bridge was constructed near Belmont Place. 1834.

## OLD PORTAGE RAILROAD.

(2021)

Passenger Car, with shingled gable roof, two longitudinal seats with backs against sides of car. 1834.

## OLD PORTAGE RAILROAD.

(2020)

Passenger Car, with flat roof, two longitudinal seats with backs against sides of car. 1835.

## OLD PORTAGE RAILROAD.

(2065)

Freight Car used on Leech's Line. 1836.

## NEW JERSEY RAILROAD AND TRANSPORTATION CO.

(2064)

Passenger Car with four wheels. In service between Rahway and Newark, N. J. 1842.

## JEFFERSONVILLE, MADISON AND INDIANAPOLIS RAILROAD CO. (2024-2025)

Passenger Car. 1848. Baggage Car. 1848.

## CAMDEN AND AMBOY RAILROAD CO.

(2027)

Passenger Car with doors on the middle of the side; heated by wood stoves. 1850.

## CAMDEN AND AMBOY RAILROAD.

(2068)

Baggage Car. The baggage was placed in crates with wheels and conveyed across ferries without removing it from them. 1849.

## PENNSYLVANIA RAILROAD CO.

(2028)

Emigrant Car fitted up for ambulance purposes by Mr. Frank Thomson during the war of 1861-65.

## PENNSYLVANIA RAILROAD COMPANY.

(2133)

Pennsylvania Railroad Company, Model 1-8 full size. Gondola Coal Car No. 28924. Westmoreland Coal Company, Standard of 1875. Loaned by Westmoreland Coal Co.

(2134)

Pennsylvania Railroad Company, Model 1-12 full size. Gondola Car No. 1200, Westmoreland Coal Co., Standard of 1892. Loaned by Westmoreland Coal Company.

## SAFETY TUNNEL AT STATIONS.

(2145)

Model of Standard Safety Tunnel under tracks at stations for passengers to pass through, avoiding danger of crossing tracks at grade. The model is a representation of a tunnel, connecting the passenger platforms of the Pennsylvania Railroad Columbian Exhibit Building.

## FLOATING EQUIPMENT.

## DELAWARE AND RARITAN CANAL.

(2029)

Screw Tug Boat "R. F. Stockton," afterwards the "New Jersey." The first steam vessel with iron hull or screw propeller to cross the Atlantic. 1839. Designed by Ericsson for the D. and R. Canal. When altered in 1841 it was the first screw boat in the world that had the screw in the deadwood and before the rudder.

"A." Model of original double propellers moving in opposite directions, designed by Ericsson.

"B." Model of propeller and shafting as designed and altered by the engineers of the Canal Co.

"C." Model of hull of Tugboat "New Jersey."

## FERRY BOAT WASHINGTON. 1892.

(2030b)

New York harbor, with double decks. This model is complete in every detail of hull, decks, joiner work and furnishings. It is arranged to be lighted with electric lights in the interior.

## TUG BOAT AND FLOAT.

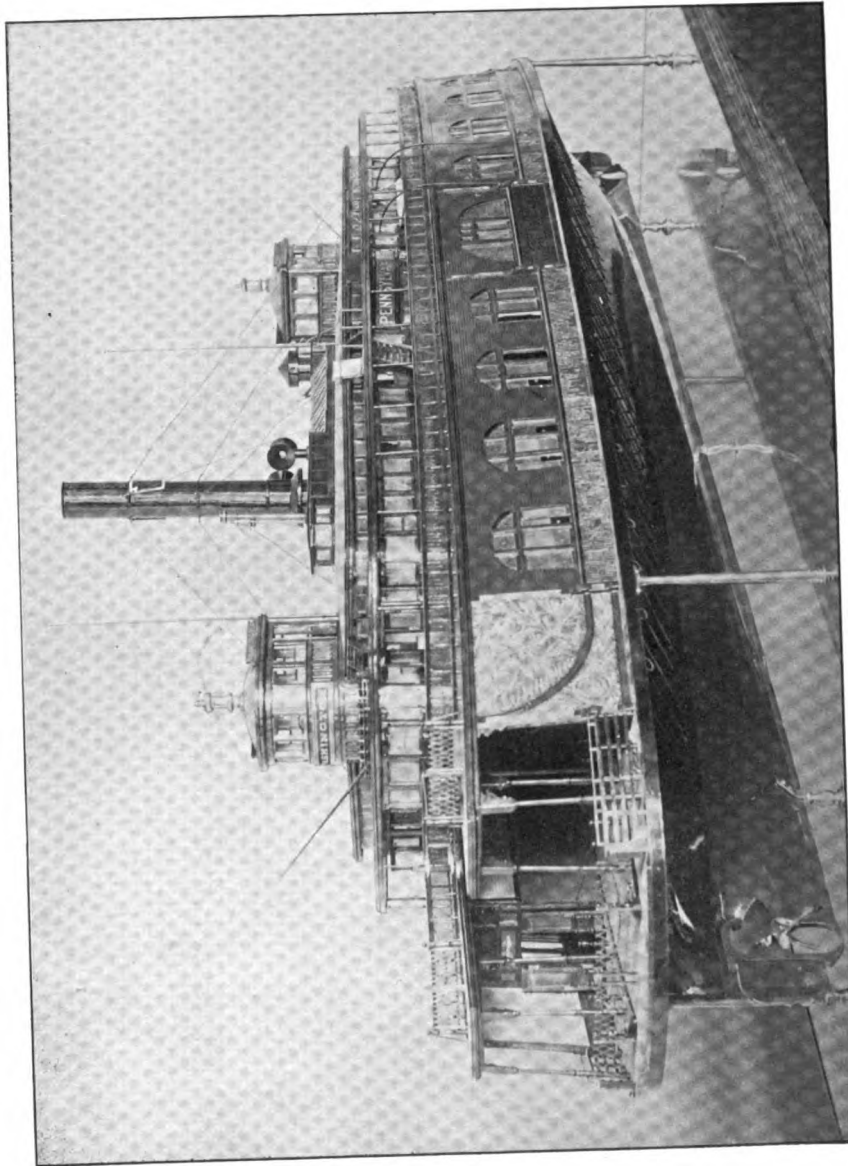
(2030a)

With freight cars, showing method of handling freight cars in the harbors of New York and Philadelphia. 1892.

## STEAM LIGHTER "DISPATCH," AND BARGE.

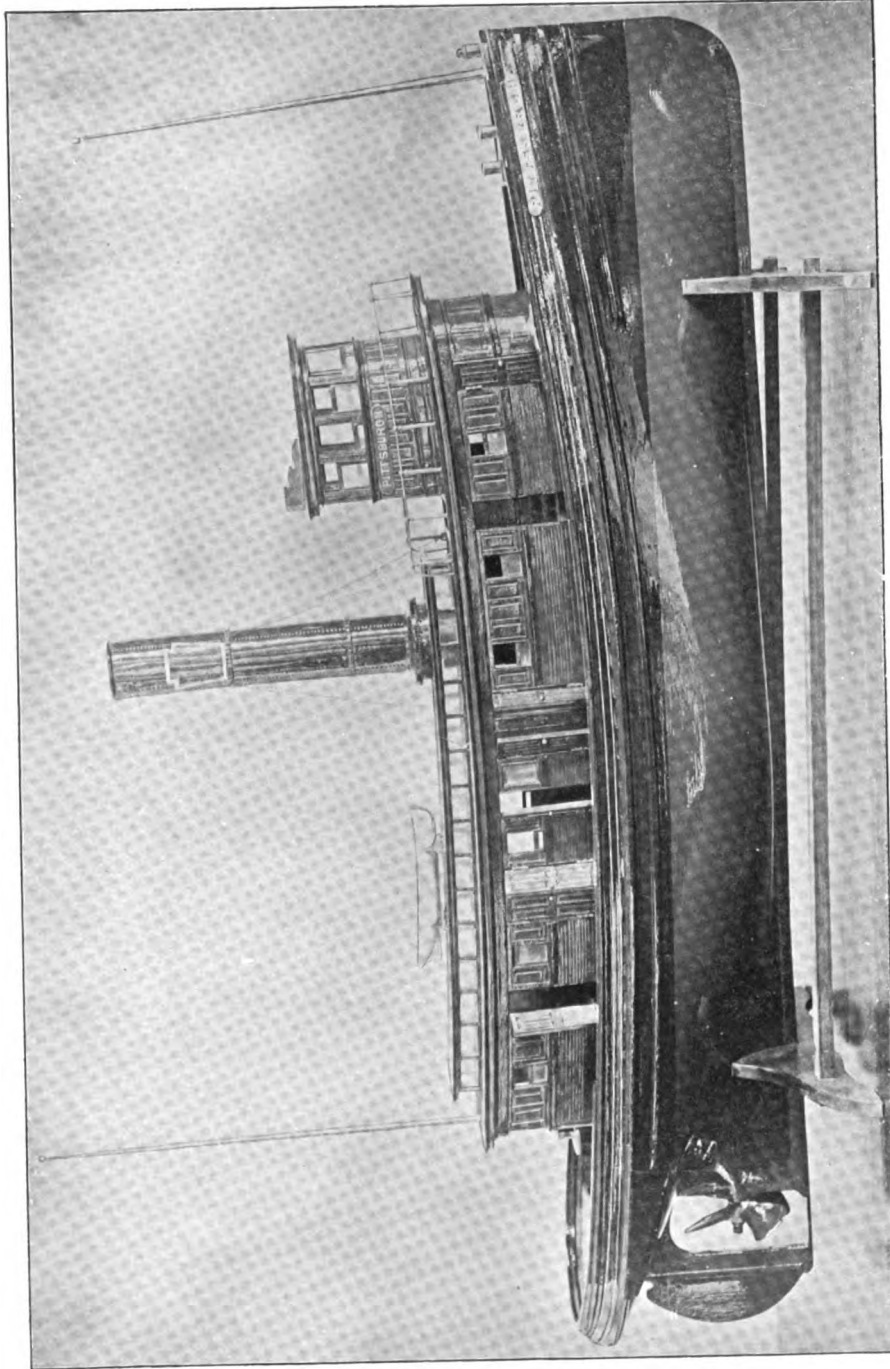
(2135 a and b)

In use in New York Harbor, 1892.

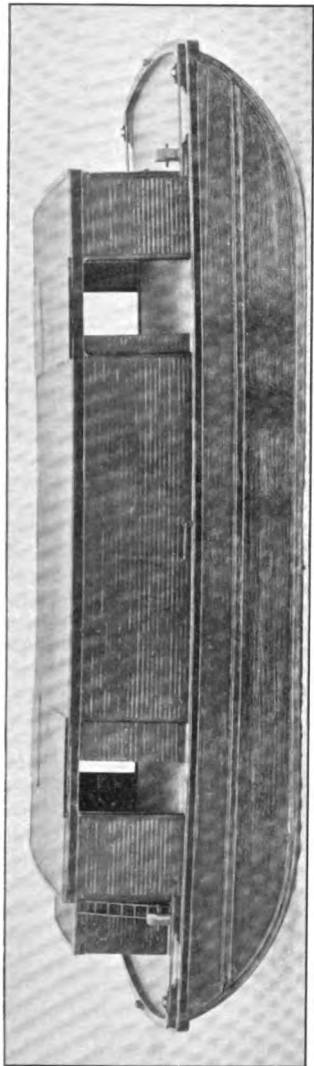


FERRY BOAT "WASHINGTON."

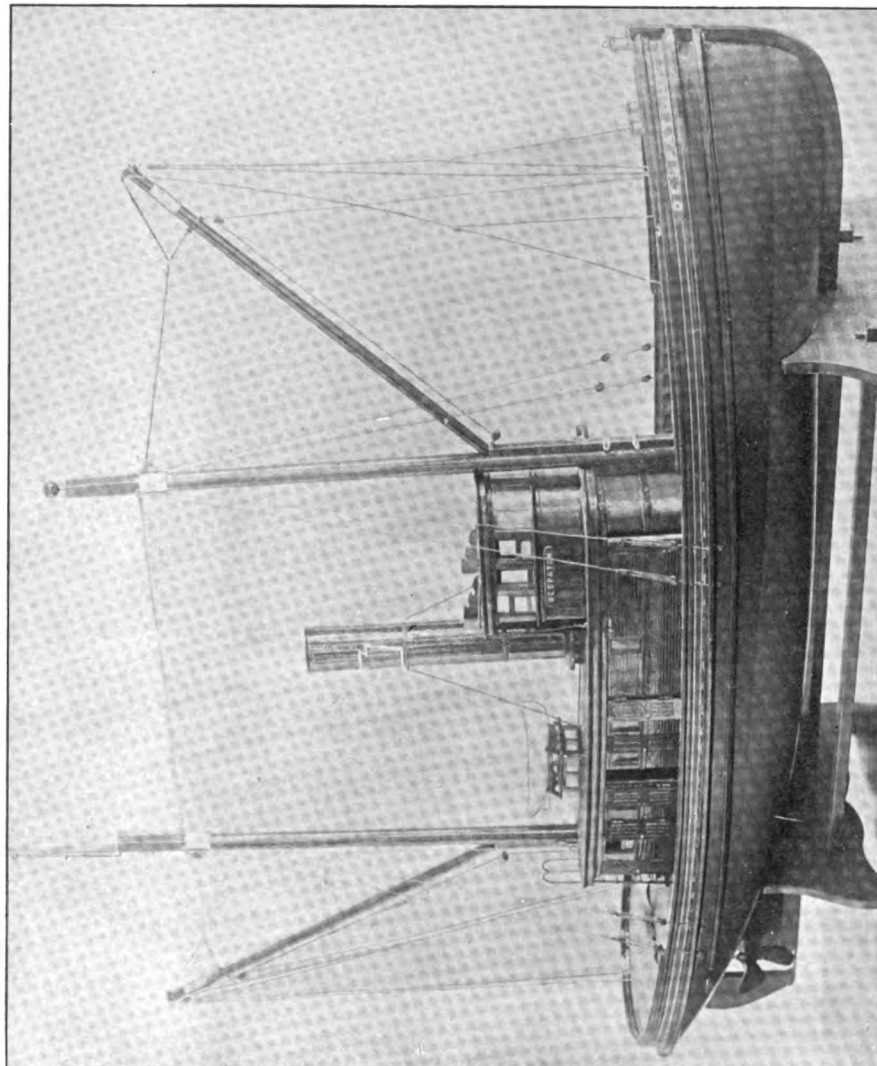
See Page 20, No. 2030 b.



TUG BOAT "PITTSBURGH."  
See Page 20, No. 2030.



BARGE.



STEAM LIGHTER DESPATCH.  
See Page 20, No. 2135a and b.

## MODELS OF TRACK.

GENERALLY ONE-TENTH FULL SIZE.

## CAMDEN AND AMBOY RAILROAD CO.

(2056)

First Railroad Track in the State of New Jersey, laid near Bordentown, where Railroad Monument now stands. 36-lb. Stevens rail was laid on stone blocks. The joints consisted of short iron "tongues" riveted to the stem of the rail. Laid 1831.

## NEW JERSEY RAILROAD AND TRANSPORTATION CO.

(2049)

English Fish Belly Rail, supported by chairs on wooden ties. Laid 1832.

## OLD PORTAGE RAILROAD.

(2051)

Standard Track. English T Rail without base, laid in chairs on stone blocks. Rail was held in place by iron wedges. 1833.

## PHILADELPHIA AND COLUMBIA RAILROAD.

(2059)

Track laid on Belmont Plane. Rail was laid on stone blocks, stone cross ties, and locust ties, as shown. 1833.

(2058)

Stone Stringer Track laid west of Belmont Plane. The strap rail was fastened by spikes to wooden plugs driven into holes in the stone. 1833.

## CAMDEN AND AMBOY RAILROAD CO.

(2050)

Standard Track. Stevens 40-lb. rail laid on stone blocks and held to gauge by iron tie rods. Locust blocks were placed between the stone and base of rail. 1833.

(2060)

Strap Rail Track. First system adopted on Trenton Branch. The mud sills were laid in a trench filled with broken stone, the wooden stringer being held to gauge by wooden cross ties. Laid 1837.

(2055)

Experimental Track. 7-inch rail laid on ties. Joints consisted of inside iron splice plate and outside wooden block. The highest rail ever rolled in America. Laid 1849.

## WEST JERSEY RAILROAD COMPANY.

(2053)

Ring Joint. Slot was cut in the stem of the rail and wedges driven between the ring and rail to stiffen the joint. Laid 1850.

## MOUNTAIN DIVISION.

(2054)

73-1b. Pear-shaped Rail with stem and planed away under head to receive square cornered splice plate. 1857.

JEFFERSONVILLE, MADISON AND INDIANAPOLIS RAILROAD CO.

(2057)

Pear-shaped Rail laid on wooden ties, with a pair of splice bars. 1852.

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SWITCHES AND FROGS.

PENNSYLVANIA RAILROAD CO. (2043)

Stub Switch with ball counterweight. Type in use for many years.

UNITED RAILROADS OF NEW JERSEY. (2044)

"Gate" Switch, in use on the New Jersey lines before the lease to the Pennsylvania Railroad Company.

PENNSYLVANIA RAILROAD CO. (2045)

Wharton Switch (model). Main track is not broken when switch is shifted. In use since 1875.

PENNSYLVANIA RAILROAD CO. (2046)

Stiff Rail Frog (model).

PENNSYLVANIA RAILROAD CO. (2047)

Shifting Frog (model). Type patented by Joseph Wood, of Red Bank, N. J.

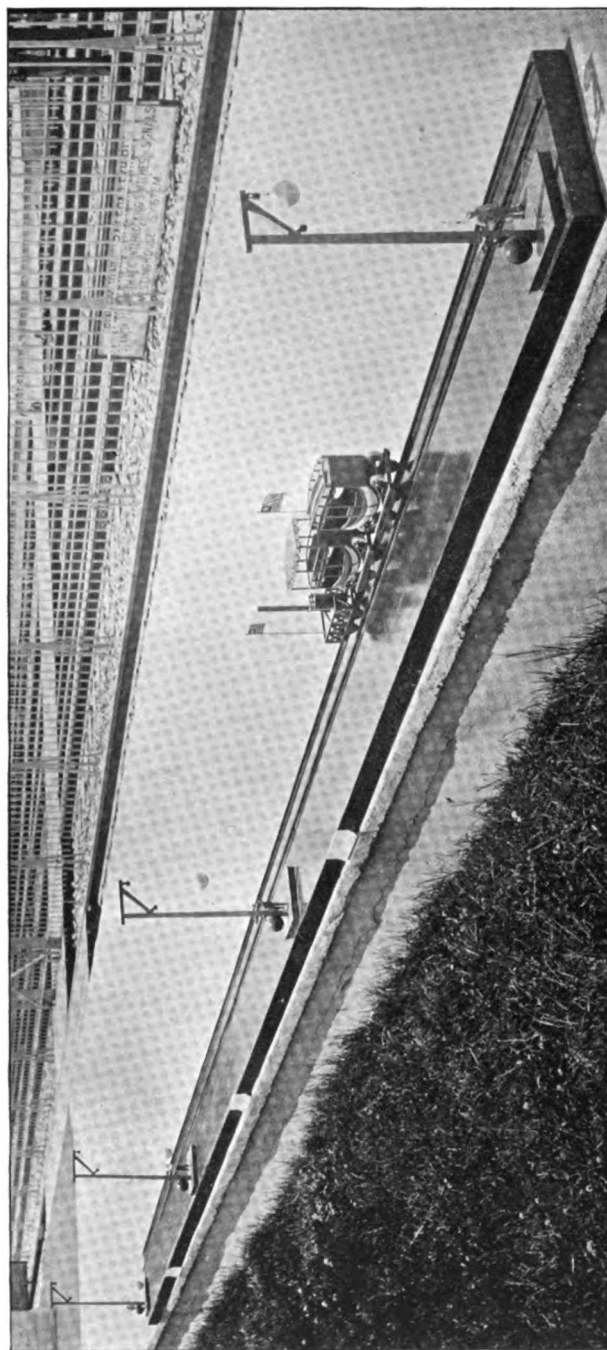
CAMDEN AND AMBOY RAILROAD. (2048)

Staple iron used as a makeshift for a frog. After the train left the siding the staple was removed from the track.

PENNSYLVANIA RAILROAD SYSTEM.

Improvement in track. Models showing increase in weight of rail from 40 to 100 pounds per yard. Rail cross-sections, splices and fastenings.





OLD BLOCK SIGNAL SYSTEM.

See Page 23, No. 206.

## MODELS OF SIGNALS.

SERIES ILLUSTRATING EVOLUTION OF THE BLOCK SYSTEM AND INTERLOCKING DEVICES. 1831-1891.

## NEW CASTLE AND FRENCHTOWN RAILROAD.

(206)

Model showing method of signalling on the New Castle and Frenchtown Railroad. This was the first use of the block system in America. 1833.

(2129)

Map of the New Castle and Frenchtown Railroad. Chartered 1827; construction commenced August 1830; opened for traffic February 1832. The map shows the location of signals shown in model No. 2061.

## PHILADELPHIA AND COLUMBIA RAILROAD.

(2102)

Model about  $\frac{1}{4}$  full size.

Ball Signal, blue and white, carried in front of the locomotive to indicate that it was the last train east or west bound for the day. 1840-50.

(2103)

Model about  $\frac{1}{4}$  full size.

Flag Signal carried in front of locomotive to indicate that it was the last train east or west bound for the day. 1850-60.

## BELVIDERE DELAWARE RAILROAD.

(2106)

Model about  $\frac{1}{4}$  full size.

Balloon Train Order Signal used at telegraph offices from 1864 to 1873. In the normal position the balloon is down showing red.

(2111)

Model 1-10 full size.

Safety Switch Target and Movable Frog Rail. Formerly used on the Belvidere Delaware Railroad, now the Belvidere Division of the Pennsylvania Railroad, 1865-75.

## PENNSYLVANIA RAILROAD COMPANY'S WESTERN LINES.

(2075)

Model 1-10 full size.

Banner Train Order Signal, showing white, red and green; also used as a block signal since 1865.

(2073)

Model 1-10 full size.

Railroad Crossing Target used on Eastern Divisions of Pennsylvania Lines since 1867.

(2076)

Model 1-10 full size.

Gate Signal for Railroad Crossings, used on Western Divisions of Pennsylvania Lines since 1870.

## PENNSYLVANIA LINES.

(2077)

Model 1-10 full size.

Train Order Signal. Slats revolve and show either red or white. Also used as Block Signal. Used on Eastern Divisions, Pittsburgh, Fort Wayne and Chicago Railroad. 1880-1887.

(2074)

Model 1-10 full size.

Lap Siding for passing trains promptly on single track railroad. Switches are thrown by operator in a tower. The signals are of the standard semaphore pattern 1892. The Detector Bar prevents the switch from being thrown under the train.

(2130)

Photographs explanatory of model 2074.

- (1) Lap Siding I.—Freight Trains waiting for Passenger Train to pass.
- (2) Lap Siding II.—All trains in motion at brief intervals after passenger train has passed.

## MODELS OF CANAL STRUCTURES.

## PENNSYLVANIA CANAL.

(2069)

Model of River Dam in present use on the Pennsylvania Canal 1893. Wooden cribbing is filled in with stone. Scale  $\frac{1}{2}$  inch per foot.

(2070)

Model of Lift Lock. Single Chamber in present use on the Pennsylvania Canal 1893; wooden cribs filled with stone, incased with double course of planking.

Dimensions:—17 feet wide in the clear, 90 feet long in the clear.

Scale  $\frac{1}{4}$  inch per foot.

(2071)

Model of Aqueduct in general use on the Pennsylvania Canal 1893. Clear span between pier supports, 30 feet; consists of wooden stringers and knee braces. Width of Canal Water Way 34 feet, depth 6 feet. Bottom and side timbers of the aqueduct are kept submerged for their preservation by plank casing on the outside.

Scale  $\frac{1}{4}$  inch per foot.

(2072)

Model of Waste Way Gates in present use on the Pennsylvania Canal. 1893.

Scale  $\frac{1}{2}$  inch per foot.

## MODELS OF BRIDGES.

### THE RAILROAD BRIDGE OVER THE SCHUYLKILL RIVER NEAR BELMONT, PHILADELPHIA. (2013)

The first railroad bridge built in the State of Pennsylvania, and when complete, the longest railroad bridge in the world. The original bridge consisted of seven timber spans, being 984 feet over all. When the Belmont Plane was abandoned, it was sold to the Philadelphia and Reading Railroad Co. Its site now forms part of the main line of that company. Before this bridge was constructed a ferry was used to transport passengers and freight across the Schuylkill to the foot of Belmont Plane. 1832.

## SPECIAL MACHINERY.

### BROWN HOISTING AND CONVEYING CO.'S MACHINERY. (2033)

By which a vessel of 3000 tons burden is loaded in four hours, and by which same vessel is unloaded at a P. R. R. dock in about eleven hours, at Ashtabula, Cleveland, Toledo, and Erie.

## MONUMENTS.

### CAMDEN AND AMBOY RAILROAD CO. (2031)

Monument erected at Bordentown, N. J., in 1891, to commemorate the first movement by steam in the State of New Jersey. 1831.

### PHILADELPHIA, WILMINGTON AND BALTIMORE RAILROAD CO. (2032)

Monument erected to commemorate the completion of the Gray's Ferry Bridge, Philadelphia. 1838.

## SAFETY APPLIANCES, PRECAUTIONS AND UNIFORMS.

(2111)

Standard Color Blind Test. Dr. Wm. Thomson's System.

### THE UNIFORM DEPARTMENT.

(2038 to 2042)

Lay figures of trainmen in uniform. (1) conductor, (2) brakeman, (3) train baggage-master, (4) station baggage porter, (5) pilot of floating equipment, New York Harbor, equipped with Pennsylvania Railroad Co. Standard Train Signals and Lanterns. Also, all marks and buttons worn by uniformed employees.

## VOLUNTARY RELIEF DEPARTMENT.

(2113)

Series of Standard blanks and pamphlets. Monthly Statement of benefits paid.  
Statistics of Department 1886 to 1893.

## RAILROAD Y. M. C. A.

(2112)

Complete series of Publications of society 1889-1893.

PRODUCTS OF ELECTRICAL DEPARTMENT,  
ALTOONA SHOPS.

(2123)

Telegraph Block Instrument.

(2126)

Telegraph Combination Instrument.

(2128)

Telegraph Block Signal Switch.

(2116)

Telegraph Key.

(2120)

Telegraph Sounder.

(2115)

Telegraph Repeating Sounder.

(2110)

Telegraph Cut Out.

(2124)

Telegraph Relay.

(2125)

Telegraph Box Relay.

(2122)

Telegraph Pony Relay.

(2117)

Two Point Switch.

(2118)

Telegraph Double Throw Switch.

(2127)

Six Line Switch Board.

(2114)

Telegraph Line Protector.

(2121)

Telegraph Fire Proof Line Protector.

## RELICS IN FRAMES.

### TRANSPORTATION A CENTURY AGO.

(313)

Poster advertising "NEW LINE INDUSTRY" by stages and sail boats from Paules-Hook, (Jersey City) to Philadelphia. 1792.

Contributed by Mrs. Amanda Vail.

(400)

Newspaper clipping, POST CHASE AND UNION LINE ROUTE "To Philadelphia in 1819."

Contributed by L. H. Anderson.

(398)

Printed Poster, PEOPLE'S LINE TO PHILADELPHIA. October, 1832.

Contributed by L. H. Anderson.

### ORIGIN OF THE PENNSYLVANIA RAILROAD COMPANY.

#### RELICS OF JOHN STEVENS.

(886)

Pamphlet published by John Stevens, addressed to the members of the Legislature of the State of Pennsylvania, urging the construction of a railroad from Philadelphia to Pittsburgh. 1818.

Contributed by Mrs. Edwin A. Stevens, Hoboken, N. J.

(887)

"Further Hints" on the expediency of a railroad from Philadelphia to Pittsburgh. Published by John Stevens. 1819.

Contributed by Mrs. Edwin A. Stevens, Hoboken, N. J.

(888)

Extract from the Journal of the Senate of the State of Pennsylvania, referring to a report on "a petition from John Stevens on the subject of Railways." March 23, 1819.

Contributed by Mrs. Edwin A. Stevens, Hoboken, N. J.

(889 a and b)

Printed Circular Letter advocating the construction of a railroad "To Pittsburgh and thence into the heart of the extensive and fertile State of Ohio, and also to the Great Western Lakes."

Published by John Stevens. 1823.

Contributed by Mrs. Edwin A. Stevens, Hoboken, N. J.

(890)

Pamphlet concerning the Pennsylvania Society for the Promotion of Internal Improvement, forwarded by Gerald Ralston, Secretary, to John Stevens. 1825.  
Property of J. E. Watkins.

(375)

Autograph of John Stevens to a promissory note for five dollars. 1830.  
Property of J. E. Watkins.

## PENNSYLVANIA STATE CANALS AND RAILROADS.

(653 a)

Notice to Contractors, soliciting bids for the construction of the Philadelphia and Columbia Railroad.  
Issued by W. B. Mitchell, Superintendent. March 23, 1833.

(653 b)

Specification of the manner of laying the double track of railway from Columbia to its intersection with the West Chester Railroad.  
Issued by E. F. Gray, Engineer. 1832.

(619)

Original copy of first issue of the Philadelphia Public Ledger, containing advertisements of lines to Pittsburgh, Wheeling and the West.  
Published March 25, 1836.  
Contributed by James Cullen.

(441)

Advertisements of Railroad Lines, from the Philadelphia Public Ledger. 1845.  
Contributed by G. F. Irwin.

## OLD PORTAGE RAILROAD.

(486)

Circular, "Improvement in Transportation," describing sectional iron boats, by John Dougherty of Hollidaysburg, Pennsylvania. 1839.  
Contributed by M. Whitney.

(411)

Printed Copy of Report of F. F. Gray, Engineer, addressed to the President and Directors of the West Philadelphia Railroad Co., concerning a bridge over the Schuylkill river at Philadelphia. March 18, 1837.  
Contributed by J. H. Stadelman.

(1043)

Pamphlet account of the Portage Railroad over the Alleghany Mountains.  
Contributed by G. W. Stratton.

## WESTERN TRANSPORTATION LINE.

(723)

(D. Leech & Co.) Printed Poster, "Through in 4½ days from Philadelphia to Pittsburgh, via Philadelphia and Columbia Railroad, Canal packet and Portage Railroad." Signed, John Cameron, Agent. May 21st, 1835.  
Obtained through M. Riebenack.

## UNITED STATES MAIL, PERSEVERANCE LINE.

(710)

Passenger Way Bill from Philadelphia to Pittsburgh, containing names of passengers and receipts for fare by agent. March 29th, 1838.  
Contributed by Theo. G. Calder.

## MAIL PILOT LINE.

(709)

Passenger Way Bill from Philadelphia to Wheeling, containing names of passengers and receipts for fare by agent. June 10th, 1837.  
Contributed by Theo. G. Calder.

(444)

Card poster advertising transportation lines. Containing woodcuts of canal boats and of four-wheeled stage passenger car. 1835.  
Contributed by G. F. Irwin.

(442)

Receipts for fare given by agents of transportation lines to passengers. 1838.  
This was the method in vogue before printed tickets were used.  
Contributed by G. F. Irwin.

(310 a)

Schedule of time and regulations for towing packet boats between Pittsburgh and Johnstown. Issued by D. Leech & Co. 1840.  
Contributed by James Reed.

(264)

Printed list of old time stage routes between Pittsburgh and Philadelphia, Pittsburgh and Washington City, Pittsburgh and Erie, Pittsburgh and New Orleans.  
Contributed by Robert Pitcairn.

## EASTERN AND WESTERN TRANSPORTATION LINE.

(443)

Card Poster. 1835.  
This poster contains illustrations of the building at Columbia, Pennsylvania, where Thomas A. Scott, afterwards president of the Pennsylvania Railroad Co., first began his service with the company as a clerk.  
Contributed by G. F. Irwin.



## D. LEECH &amp; CO.'S PACKAGE EXPRESS.

(284)

Way Bill, issued May 5th, 1847.  
Contributed by George Bingham.

(120)

Poster, advertising routes between Philadelphia, Pittsburgh, Louisville and Western Cities, by canal packets, Philadelphia and Columbia Railroad and Portage Railroad. 1837.

(722)

Poster, advertising routes between Philadelphia, Pittsburgh, Louisville and Western Cities, by canal packets, Philadelphia and Columbia Railroad and Old Portage Railroad, issued April, 1837.  
Contributed by Theo. G. Calder.

## UNITED STATES MAIL LINE.

(711)

Way Bill, Pittsburgh to Philadelphia, June 13th, 1839.  
Contributed by Theo. G. Calder.

(755)

Manifest of Loading, forwarded from Penningtonville, Pa, (now Atglen) by Cooper and Haslam. 1836.  
Contributed by Saml. Whitsom.

(630)

Lithograph of Dougherty's System of Sectional Iron Canal Boats on Old Portage Railroad. 1839.  
Contributed by Isaac Brown.

(648)

Canal Packet Ticket, Columbia to Hollidaysburg, on the packet "John Blair," Leech & Co.'s line, Pennsylvania Canal. 1833.  
Contributed by Major S. S. Barr.

## THE PERSEVERANCE LINE.

(649)

Receipt for \$11.00 fare. Philadelphia to Hollidaysburg. February 9th, 1829.  
Contributed by Major S. S. Barr.

## PIONEER AND EXPRESS PACKET LINE.

(719)

Advertisement, Philadelphia to Hollidaysburg, June 1st, 1849.  
Contributed by Theo. G. Calder.

## PIONEER BOAT COMPANY.

(720)

Bill due for tickets sold from Sept. 1st to 15th. Certified by Lewis L. Houpt, Sept., 1850.

Contributed by Theo. G. Calder.

## EAGLE LINE.

(624)

Ticket Blank from Lewistown to Philadelphia. 1840.

Contributed by T. H. McDivitt, Harrisburg.

## PENNSYLVANIA CANAL.

(86)

Regulations and Rates of Toll established by the Canal Commissioners of Pennsylvania, August 1st, 1833.

Contributed by Ashbel Welch.

(310)

Rates of Toll for Freight and Passengers to be charged on Canals and Railroads, signed by William Foster, Jr., Joshua Hartshorne and James Burns, Canal Commissioners. To go into effect February 20th, 1846.

Contributed by James Reed.

(539)

Two Blank Eagle Line Tickets from Lewistown to Philadelphia. 1840.

Contributed by Edw. L. Caum.

## GOOD INTENT FAST LINES.

(712)

Way Bill from Chambersburg to Pittsburgh, containing names of passengers and receipts for fare by agents. March 27, 1841.

Contributed by Theo. G. Calder.

## HARRISBURG AND DAUPHIN STAGE LINE.

(713)

Passenger Way Bill from Harrisburg to Dauphin and returning, containing names of passengers, etc. April 9th, 1851.

Contributed by Theo. G. Calder.

## GOOD INTENT MAIL LINE.

(718)

Receipts for passage from Chambersburg to Pittsburgh. 1841.

Contributed by Theo. G. Calder.

## HARRISBURG AND DAUPHIN STAGE LINE.

(714)

Passenger Way Bill from Harrisburg to Dauphin and return. January 1st, 1852.  
Contributed by Theo. G. Calder.

## CANAL PACKET LINE.

(944)

Ticket on canal packet boat "Buckeye State."  
Contributed by Mrs. Harry Parke.

(943)

Photograph of Capt. Henry Trubey, Master of canal packet boat "Buckeye State."  
1849.  
Contributed by Mrs. Harry Parke.

## HARRISBURG AND GETTYSBURG STAGE LINE.

(715)

Passenger Way Bill from Harrisburg to Gettysburg and returning, containing  
names of passengers, etc. Sept. 25, 1854.  
Contributed by Theo. G. Calder.

## PENNSYLVANIA RAILROAD COMPANY.

(88)

Pamphlet Report of Charles L. Schlatter, principal engineer to the Pennsylvania  
Canal Commissioners, relative to the continuous railroad from Harrisburg to Pitts-  
burgh. January 15th, 1841.  
Contributed by Ashbel Welch.

(89)

Report of Joint Special Committee of Councils of Philadelphia to consider the  
petitions, etc., relative to the Pennsylvania Railroad Co. July 2nd, 1846.  
Contributed by Ashbel Welch.

(90)

Pamphlet address "Committee of Seven," citizens of Philadelphia, urging the con-  
struction of an all rail line, Philadelphia to Pittsburgh, without canals or inclined  
planes. 1846.  
Contributed by Ashbel Welch.

(91)

First Annual Report of the Directors to the Stockholders. October 30th, 1847.  
Contributed by Ashbel Welch.

(92)

Pamphlet.—First Annual Report of J. Edgar Thomson, Chief Engineer. June 12th,  
1848.  
Contributed by Ashbel Welch.

(252)

Printed Passenger and Freight Schedule of Trains between Dillersville, Harrisburg and Lewistown, with written date, and unsigned by any official In force September 1st, 1849.

Contributed by James Reed.

(255)

Time Table Number 1, Eastern Division. Signed by H. Haupt, General Superintendent. In effect, January 1st, 1852.

Contributed by Robert Pitcairn.

(310 k)

Time Table Number 2, Eastern Division. Issued by H. J. Lombaert, Assistant Superintendent, March 15th, 1852.

Contributed by James Reed.

(488)

Time Table Number 8, Eastern Division. Issued December 1st, 1852.

Contributed by W. N. Bannard.

(465 b)

Time Table Number 10, Eastern Division. Issued May 16, 1853. Signed by H. J. Lombaert, Superintendent Transportation.

Contributed by D. T. McCabe.

(542)

Passenger and Freight Schedule from Dillersville to Veyton. January, 1850.

Contributed by Jas. H. Craig.

(631)

Schedule No. 7, signed, H. J. Lombaert, Sup't Transportation. Sept. 27th, 1852.

Contributed by Jas. Cullen, Spruce Creek.

(673)

Schedule B of trains between Dillersville and Altoona. In effect May 29th, 1854.

Contributed by Jas. Powell.

(674)

Schedule No. 2 of trains between Dillersville and Altoona. In effect March 26th, 1855.

Contributed by Jas. Cullen.

(310 d)

Time Table Number 1, Western Division. Issued by H. Haupt, General Superintendent, August 25th, 1851.

Contributed by James Reed.

(310 g)

Time Table Number 2, Western Division. Issued by H. Haupt, General Superintendent, September 22nd, 1851.

Contributed by James Reed.

(310 h)

Time Table Number 3, Western Division. Issued by H. Haupt, General Superintendent, December 10th, 1851.

Contributed by James Reed.

(310 i)

Time Table Number 5, Western Division. Issued by H. J. Lombaert, Assistant Superintendent, March 31st, 1852.

Contributed by James Reed.

(310 j)

Time Table Number 10, Western Division. Issued by H. J. Lombaert, Superintendent Transportation, December 1st, 1852.

Contributed by James Reed.

(465 a)

Time Table Number 14, Western Division. Issued May 16, 1853. Signed H. J. Lombaert, Superintendent Transportation.

Contributed by D. T. McCabe.

(310 c)

Time Table Number 15, Western Division. Issued by H. J. Lombaert, Superintendent Transportation, July 17, 1853.

Contributed by James Reed.

(320)

Schedule Number 16, Western Division, signed by H. J. Lombaert, Superintendent. Issued November 30th, 1853.

Contributed by John Kennedy.

(310 f)

Poster.—Notice that excursion tickets will be sold from all stations on the Pennsylvania Railroad and Allegheny Portage Railroad to Harrisburg, during State Agricultural Fair at Harrisburg. Issued by H. Haupt, General Superintendent, October 21st, 1851.

Contributed by James Reed.

(310 e)

Poster.—“OUR LINE.” “TRUE BLUE.” “Opposed to all Monopolies.” Issued by David Miller & Co., advertising that proprietors (David Miller & Co.), the subscribers, “have placed on the State road an entire new line of passenger cars called ‘Our Line,’ for Lancaster, Columbia, York and Harrisburg.” Dated April 23d, 1851.

Contributed by James Reed.

(310 b)

Printed Poster, announcing “Great Reduction of Fare.” Signed by Thomas Moore, Agent. May 24th, 1852.

Contributed by James Reed.

(262)

Card Poster, printed in red and blue, advertising Pennsylvania Central Railroad and Connections for New York, Philadelphia, Baltimore and Washington, and all Western Railroads. Signed, Thomas A. Scott, General Superintendent, Altoona, Pennsylvania; L. L. Haupt, General Ticket Agent, Philadelphia, Pennsylvania; W. H. Holmes, General Western Agent, Chicago, Illinois. Issued 1858.

Contributed by R. W. Gelger.

(185)

Red Time Table Poster. Arrangement of trains on Pennsylvania Central Railroad, signed by Enoch Lewis, General Superintendent, Altoona, Pennsylvania, April, 1860.

Contributed by W. F. Brunner.

(281)

Guide Book and Map, published by R. and P. G. Collins. This was the first guide book of the Pennsylvania Railroad. 1855.

Contributed by F. M. Myers.

(770)

Schedule from Dillersville to Veyton. In effect on and after Jan. 1st, 1850.

Contributed by Chas. E. Pugh.

(769)

General Order No. 50 of the Pennsylvania Railroad, dated September 10th, 1850.

Contributed by R. L. O'Donnel.

(766)

Book of Rules and Regulations. 1857.

Contributed by E. B. Westfall.

(781)

Maintenance of Way Time Book. 1860.

Contributed by Fred. Ehrenfeld.

(764)

Book of Rules and Regulations. 1855.

Contributed by E. B. Westfall.

(762 a)

Schedule 10½, Harrisburg to Altoona. In effect February 20th, 1860.

Contributed by Robert Neilson.

(265)

Receipt for 35 cents for one seat from Perryville to Millerstown, G. D. Thomas, Agent. This system was in vogue before printed tickets were used. Issued August 17th, 1853.

Contributed by C. T. Wilson.

(405 d)

Annual Pass, issued to Thomas L. Wallace, Agent, from Philadelphia to Harrisburg. Written and signed by Thomas A. Scott, Vice-President, 1860.

Contributed by Thomas L. Wallace.

(440)

Autograph Letter from James Buchanan, afterwards President of the United States, to Colonel Samuel C. Stambaugh, returning pass, signed by J. Edgar Thomson, President P. R. R. Co. Issued October, 1852.

Contributed by G. F. Irwin.

(405 c)

Trip Pass in name of Mrs. T. L. Wallace, wife of employee, from Philadelphia to Harrisburg and return. Signed by G. C. Franciscus, Superintendent Philadelphia Division. 1865.

Contributed by Thomas L. Wallace.

(360)

Maintenance of Way Trip Pass issued by Thomas Seabrook to Ashbel Welch and daughters, Harrisburg to Pittsburgh. March 26th, 1855.

(434 a and b)

Conductor's Check for "Buck Rabbit Train," used by A. F. Hambright, Conductor, while running between Columbia and Philadelphia.

Contributed by G. F. Irwin.

(408)

Trip Pass signed by Theodore I. Helzmann, Chief Engineer. 1865.

Contributed by Peter Attig.

(410)

Trip Pass, signed by Samuel A. Black, Superintendent Middle Division. Issued July 5th, 1871.

Contributed by William Boce.

(433)

Centennial Excursion Ticket, Lancaster to Philadelphia. Issued during the Exposition, 1876.

Contributed by G. F. Irwin.

(298)

Schedule Number 1, Western Division. Issued May 10th, 1856.

Contributed by John Kennedy.

(362)

Time Table Number 4, Western Division, signed by Thomas A. Scott, General Superintendent. Issued July 5th, 1858.

Contributed by John Kennedy.

(412 b)

Schedule between Pittsburgh and Turtle Creek. Signed by Joseph D. Potts, Superintendent Western Division, July 4th, 1859.

Contributed by Joseph Parkes.

(306)

Indiana Branch Schedule Number 12, issued April 16th, 1860.  
Contributed by James Reed.

(412 a)

Time Table Number 7, Western Division, signed by Thomas A. Scott, General Superintendent. Issued April 11th, 1859.  
Contributed by Joseph Parkes.

(412 c)

Schedule Number 2½, Western Division. Issued October 20th, 1862.  
Contributed by Joseph Parkes.

(678)

Schedule No. 1 of trains between Dillersville and Altoona. In effect January 9th, 1856.  
Contributed by James Cullen.

(677)

Schedule No. 2½, of trains between Dillersville and Altoona. In effect May 26th, 1856.  
Contributed by James Cullen.

(364)

Time List, Sub-Division No. 19, Henry Wolfe, Foreman.  
Contributed by John Kennedy.

(676)

Schedule No. 3 of trains between Dillersville and Altoona. In effect Oct. 6th, 1856.  
Contributed by James Cullen.

(675)

Schedule No. 4 of trains between Dillersville and Altoona. In effect Dec. 15th, 1856.  
Contributed by James Cullen.

(538)

Annual Report and Statement of Mileage and Expenses of Engines. 1857.  
Contributed by Edward Caum, Harrisburg.

(681)

Schedule No. 3 of trains between Dillersville and Altoona. In effect January 1st, 1857.  
Contributed by James Cullen.

(682)

Schedule No. 1 of trains between Dillersville and Altoona. In effect Jan. 12th, 1857.  
Contributed by James Cullen.



(680)

Schedule No. 4 of trains between Dillersville and Altoona. In effect June 22nd, 1857.

Contributed by James Cullen.

(679)

Schedule No. 5 of trains between Dillersville and Altoona. In effect Nov. 9th, 1857. Contributed by James Cullen.

(633)

Schedule No. 4, Altoona to Pittsburgh. Signed Enoch Lewis, General Sup't. 1862. Contributed by James Cullen, Spruce Creek.

(632)

Schedule No. 2½, signed Enoch Lewis, Gen'l Sup't., Harrisburg to Altoona. July 27th, 1863.

Contributed by James Cullen.

(302)

Philadelphia, Broad Street Station Time Table Number 128, showing arrival and departure of 505 passenger trains daily, the largest train movement from one station in America. June 25th, 1892.

Contributed by W. J. Latta.

(897)

Philadelphia, Broad Street Station Time Table No. 130, showing arrival and departure of Sunday Passenger trains. November 20th, 1892.

(360—33-35)

First Forms of Vouchers printed for Motive Power, conducting Transportation, Maintenance of Way and Construction Departments, and Bill Head used by Engineer Department. Standards of 1854.

(360—33 and 33 a)

First Forms of Check Roll and Pay Roll printed for Maintenance of Way Department. Standard of 1854.

(423)

Two pages from Freight Book, Tyrone Station. 1850-1852.

Contributed by F. Guyer.

(427 a)

Freight Bill—Wallowers Line—Port Treverton, January 2nd, 1859.

Contributed by H. J. Eckbert.

(422)

Form for daily report to superintendent, of cars shipped at each station. In use 1853.

Contributed by F. Guyer.

(420)

Written Shipping Notice, Pittsburgh to Tyrone, dated October 1st, 1857.  
Contributed by F. Guyer.

(438)

Manifest for freight carried between Philadelphia and Lancaster. 1857.  
Contributed by G. F. Irwin.

(409)

Freight Bill, Tyrone Station, January 19th, 1857.  
Contributed by John A. Lytle.

(421)

Form Number 14, for clearance of cars. Used in 1859.  
Contributed by F. Guyer.

(427 b)

Freight Bill, Pennsylvania Railroad Co., Millerstown Station. October 28th, 1852.  
Contributed by H. J. Eckbert.

(94)

Order issued by D. Cramer, Dispatcher at Conemaugh, to G. F. Irwin, Engineer of  
"Clay," June 10th, 1857.  
Contributed by G. F. Irwin.

(318)

Letter signed by Enoch Lewis, General Superintendent. Addressed to T. B. Gibson,  
Altoona, Pennsylvania. September 15, 1862.  
Contributed by John Kennedy.

(418)

Blank Form for reporting missing articles at each station. 1864.  
Contributed by F. Guyer.

(414)

Letter, recommending Joseph Parkes for employment, signed by John P. Laird,  
Superintendent M. P. & M. Dated Pittsburgh, Pennsylvania, March 11th, 1865.  
Contributed by Joseph Parkes.

(419)

Letters to and signed by R. Pitcalrn, Superintendent of Transportation, concern-  
ing freight business. 1864.  
Contributed by F. Guyer.

(360—37)

Freight Tariff and Summer Rates for 1854. Signed by H. H. Houston, General  
Freight Agent, and H. J. Lombaert, Superintendent. Issued April 1st, 1854.

(360—36)

Bill of Lading for five barrels hardware. Issued at office of George C. Franciscus, Freight Agent, Pittsburgh, December 1st, 1854.

Contributed by Wilson Brown.

(417)

Two Printed Forms of Agreement concerning shipment of live stock from Tyrone Station. 1855 and 1864.

Contributed by F. Guyer.

(319)

Two Conductor's Bonds, executed by Samuel Adams and his sureties, January 15, 1853 and November 20, 1855.

Contributed by John Kennedy.

(316)

Report of Fires occurring adjacent to the Company's property. 1867.

Contributed by John Kennedy.

(314)

Accident Report addressed to William A. Stokes, Solicitor, concerning injury to John Craft. August 22, 1856.

Contributed by John Kennedy.

(404 c)

Portsmouth & Lancaster Railroad Co. Copy of Pennsylvania Telegraph, containing an account of the election of Directors and of James Buchanan's election as President of the Company. August 6th, 1834.

Contributed by Thomas L. Wallace.

(315)

Papers in suit brought against the Company on account of accidents. 1857.

Contributed by John Kennedy.

(426)

Tyrone and Clearfield Railroad Co. Certificates for share of stock, issued to Jacob W. Jones, February 5th, 1858.

Contributed by E. J. Pruner.

(445)

Card Manifest for freight moved between Harrisburg and White Hall. 1867.

Contributed by J. N. Marshal.

(425 a)

Written Order on E. J. Pruner & Co., to pay to Brady, Maun & Lingle, \$250.00, and charge same to Tyrone & Clearfield R. R. Co. Signed by James T. Hall, President. May 5th, 1857.

Contributed by E. J. Pruner.

(425 b)

Written Order on James T. Leonard, to pay to Daniel Pruner, \$1600.00. Signed by James T. Hall, President. June 2nd, 1857.  
Contributed by E. J. Pruner.

(407)

Bellefonte & Snow Shoe Railroad. Old Pass, in name of A. Crissman. Signed by R. H. Downing, President. 1886.  
Contributed by G. H. Crissman.

(490)

Special Ticket, issued during the Centennial from Germantown Junction to Centennial Station. 1876.  
Contributed by R. Buggy.

(517)

Way Ticket No. 191, from Columbia to Tyrone. 1850.  
Contributed by W. B. Moore.

(537)

Trip Pass issued to William Knight, from Harrisburg to Thompsontown and return. Signed L. D. Young. Oct. 21st, 1865.  
Contributed by Edw. L. Caum.

(727)

Ticket from Wilkinsburg to Turtle Creek, signed Valentine, Agent. Aug. 18th, 1859.  
Contributed by John Kennedy.

(794)

Poster.—Rules and Regulations Pennsylvania Railroad. Tickets, Baggage, Transportation. 1853. Signed Herman J. Lombaert, Supt.  
Contributed by John McCormick.

(793)

Poster.—An Act to prevent frauds upon travelers. 1872.  
Contributed by John McCormick.

(872)

Passenger and Freight Schedule from Dillersville to Schaffers. April 1st, 1850.  
Contributed by Charles E. Pugh.

(846)

Annual Passes for 1857, '61, '66 and '70, issued by J. Edgar Thomson, President, Enoch Lewis and Edward H. Williams.  
Contributed by James K. Lewis.

(871)

Blank Receipts for fare paid to Conductor. 1860.  
Contributed by Charles E. Pugh.

(849)

Blank Trip Pass. T. & T. & B. E. Valley Branches.  
Contributed by James Lewis.

(885)

Pass issued to J. B. Stewart, Pittsburgh to Philadelphia. February 17th, 1864.  
Contributed by J. B. Stewart.

(404 b)

Map of the Pennsylvania Central and Phila. & Erie Railroads, from guide book. 1864.  
Contributed by Thos. L. Wallace.

(404 c)

Printed List of Officers, from guide book. 1864.  
Contributed by Thos. L. Wallace.

(703)

Official Envelope used during the war of the rebellion, with cannon and U. S. flag on upper left hand corner, and seal of the Pennsylvania Railroad Company on the back.  
Contributed by Wm. Halloway.

(404 a)

Railroad Guide and Time Tables of through trains. 1864.  
Contributed by Thos. L. Wallace.

(704)

Advertisement of Woodruff's Coach Cars, between Philadelphia, Pittsburgh, Fort Wayne and Chicago. 1863.

(728)

Book of Rules and Regulations for the government of the Transportation Department. May 1st, 1851.  
Contributed by John Kennedy.

(654)

Drawing, containing autograph, title, and signature of Robert Stephenson. Presented by the Boston and Lowell Railroad Co. to the Pennsylvania Railroad Co., Nov. 24th, 1868.  
Contributed by Jas. R. Smith.

(618)

Book of Rules for the government of the Transportation Department. 1857.  
Contributed by James Cullen.

(363)

Book of Rules, issued over written signature of Samuel J. Hill. November 9th, 1857.  
Contributed by John Kennedy.

(617)

Book of Rules and Regulations for government Transportation Department. 1851.  
Contributed by James Cullen.

(530 a)

General Notice concerning modifications in the new organization of the Accounting Department. February 1st, 1872.  
Contributed by J. D. Greene.

(531 b)

Revised Organization for conducting the business of the company, providing for a General Passenger Agent, who shall have charge of the arrangements for the passenger traffic and the rates of transportation over the lines owned or operated by the Pennsylvania Railroad Company. Signed Samuel G. Lewis. April 1st, 1872.  
Contributed by J. D. Greene.

(532 c)

Printed Circular to ticket agents, conductors, gate keepers and ferry masters. Signed Henry W. Gwinner. April 27th, 1872.  
Contributed by J. D. Greene.

(533 d)

General Notice No. 1, reorganization accounting department. April 1st, 1872.  
Contributed by J. D. Greene.

(534 e)

Circular Number 3. Monthly report by auditor of remittances to treasurer, of money derived from freight and passengers. Signed H. W. Gwinner. May 1st, 1872.  
Contributed by J. D. Greene.

(535 f)

General Notice of the appointment of L. P. Farmer as Assistant General Passenger Agent. Signed D. M. Boyd, Jr. July 15th, 1872.  
Contributed by J. D. Greene.

(536 g)

Circular Number 2, of appointment of A. J. Gillingham, Special Agent. Signed Henry W. Gwinner. May 1st, 1872.  
Contributed by J. D. Greene.

(698)

Circular to Banks concerning signatures to vouchers and pay roll cheques. 1872.  
Contributed by J. D. Greene.

(697)

Circular Letter to Assistant Auditor concerning commission on Internal Revenue Stamps, from John Lloyd, Cashier First National Bank, Altoona. March 25th, 1869.  
Contributed by J. D. Greene.

(699)

Pay Check—Form used to pay employees. 1866. Phila. and Erie R. R.  
Contributed by J. D. Greene.

(700)

Pay Check.—Marine National Bank, Erie. Form used to pay employees. 1893.  
Contributed by J. D. Greene.

(528 a)

General Order Number 3, appointing John Reilly Assistant Superintendent of the Pennsylvania Railroad. February 7th, 1866. Signed Edward H. Williams.  
Contributed by J. D. Greene.

(524 b)

General Order stating that Edward H. Williams having tendered his resignation, A. J. Cassatt is appointed General Superintendent of the Pennsylvania Railroad, to take effect April 1st, 1870.  
Contributed by J. D. Greene.

(525 c)

General Order Number 1, appointing Isaac Dripps, Superintendent of Motive Power and Machinery; Theodore J. Helzmann, Engineer of Maintenance of Way; John Reilly, Superintendent of Transportation. To take effect April 1st, 1870.  
Contributed by J. D. Greene.

(526 d)

Special Order, stating that on and after January 1st, 1870, the maintenance of way, Middle Division, will be in charge of William H. Brown, resident engineer, vice Robert Nelson, transferred. Signed, John A. Wilson, Chief Engineer.  
Contributed by J. D. Greene.

(522 e)

General Order appointing John M. Wilson Engineer of Bridges and Buildings instead of Principal Assistant Engineer. Signed, W. Hasell Wilson. January 3d, 1873.  
Contributed by J. D. Greene.

(523 f)

General Order Number 1, appointing William H. Brown Chief Engineer of Maintenance of Way. Signed, Frank Thomson. August 1st, 1874.  
Contributed by J. D. Greene.

(529 g)

General Order Number 10, concerning the lease of the Sunbury and Lewistown Railroad to the Pennsylvania Railroad Company. Possession given December 1st, 1871.  
Contributed by J. D. Greene.

(527 h)

Notice that the Railroad Company will cease to operate the Sunbury and Lewistown Railroad, January 1st, 1875.  
Contributed by J. D. Greene.

J. Blulson

Pittsburg Oct 14<sup>th</sup>/96

Mail train west last night while a short distance west of Bolover had a Rifle Ball shot through Mail apartment in Mail Car in such a way that if Mail agent had been standing arranging letters he would ~~have~~ undoubtedly have been killed one of our engineers had a stone thrown at Engine at same place a couple of weeks ago. Some steps must be taken to detect the persons engaged in these outrages.

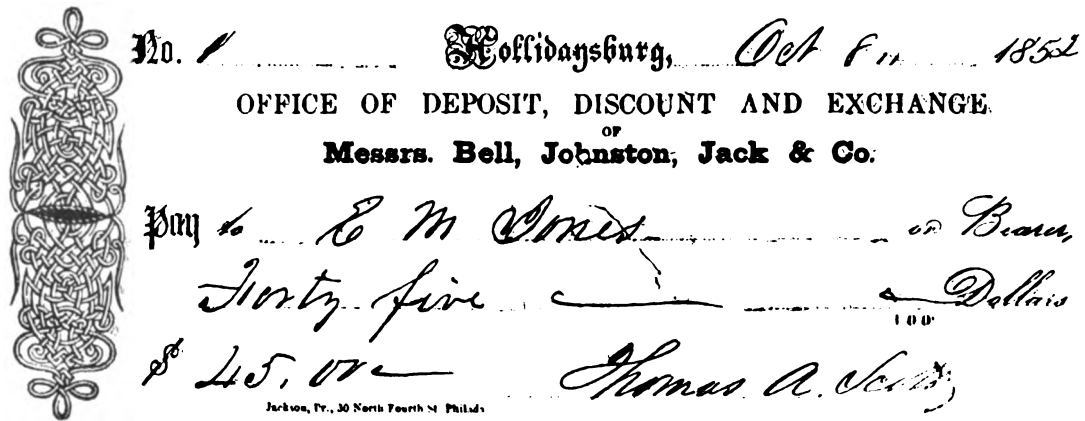
4 H P. M.

Joe.

J. A. Scott



(No. 385 a. Page 45).



(No. 385 b. Page 45).

*Messrs Bell Johnston Jack & Co*  
*Pay to E M Jones*  
*One hundred Dollars*  
*\$ 100.00*  
*Thomas A. Scott*  
*Oct 8<sup>th</sup> 1852*

(263)

Circular issued by Board of Directors, signed Joseph Lesley, Secretary, announcing the death of John Edgar Thomson, first President of the Company, May 27th, 1874. Issued May 29th, 1874.

Contributed by R. J. Elvin.

(415)

Circular Letter issued by Andrew Carnegie, Superintendent of the Pittsburgh Division, upon severing his connection with the Pennsylvania Railroad Co. March 28, 1865.

Contributed by Joseph Parkes.

(317)

Telegram from Pittsburgh, signed by Thomas A. Scott, addressed to T. B. Gibson, stating that a rifle ball had been shot through the mail apartment car on "Mall train West last night." October 14, 1856.

Contributed by John Kennedy.

(385 a)

Draft Number 1, dated October 8th, 1852, on Bell, Johnson, Jack & Co., Hollidaysburg, Pennsylvania, for \$45, signed by Thomas A. Scott. The first draft signed by Colonel Scott after assuming duties of agent for the Pennsylvania Railroad Co. at Hollidaysburg. 1852.

Contributed by E. M. Jones, to whose order draft is drawn.

(385 b)

Written Order for \$100 on Bell, Johnson, Jack & Co., Hollidaysburg. In handwriting of Thomas A. Scott. October 8th, 1852.

Contributed by E. M. Jones, to whom order is drawn.

(696)

List of Pennsylvania Railroad and Western Union Offices between Philadelphia and Pittsburgh. 1872.

Contributed by J. D. Greene.

(695)

Notice to Operators.—On and after June 1st, 1871, the present paid business system will be abandoned. Signed, W. McCormick, Manager Altoona Telegraph Office. May 25th, 1871.

Contributed by J. D. Greene.

(694)

Notice.—Morrison's Cove Telegraph Line, open for business. Signed, W. M. McCormick, Manager Altoona Telegraph Office. Jan. 8th, 1872.

Contributed by J. D. Greene.

(693)

The Hollidaysburg Branch opened to McKees. Signed, A. J. Cassatt, General Manager. May 1, 1871.

Contributed by J. D. Greene.

(705)

Notice of the establishment of Passenger and Second-Class Agencies, issued by A. J. Cassatt.  
Contributed by J. D. Greene.

(692)

Notice No. 127.—Newry Branch will be closed for business, January 15, 1873.  
Notice No. 145.—Newry Branch is again open for business. Signed, A. J. Cassatt, General Manager. Feb. 14, 1873.  
Contributed by J. D. Greene.

(266)

Notice of appointment of C. T. Wilson, Depot Master, Altoona, 1864. Signed by R. Pitcairn.  
Contributed by C. T. Wilson.

(439)

Picture of H. J. Lombaert, General Superintendent. 1863.  
Contributed by H. J. Irwin.

(641)

Lithographic portrait of 38 officers of the Pennsylvania Railroad. 1867.  
Contributed by A. Elliott.

(952)

Two blank receipts for merchandise received at Lockport Station. 1854.  
Contributed by J. M. Reed.

(955)

Pennsylvania Railroad Guide. 1855.  
Contributed by C. B. Seely.

(875)

Time table for special train with the remains of President Garfield, September 24, 1881.  
Contributed by R. H. Marshall.

(893)

17 passes issued to C. C. Hackett, 1869, '70, '72, '73, '74, '75, '76, '77, '78.  
Contributed by C. C. Hackett.

(902)

Notice to Agents and Conductors, Pennsylvania Railroad. February 12, 1864.  
Signed by S. S. Haupt, G. S. A.  
Contributed by M. Riebenack.

(907)

Invitation to Geo. C. Franciscus to join in and attend an extended trip over main roads. September, 1893.  
Contributed by A. O. Baker.

(912)

Eight passes issued to J. G. Stewart, 1871, '73, and '74. Signed Robt. Pitcairn.

(948)

Eight old passes issued to J. A. Watson.  
Contributed by J. A. Watson.

(950)

Manifests. Philadelphia to Pittsburgh. 1852.  
Contributed by J. M. Reed.

(951)

Form No. 1. Agent's Monthly Report, Lockport Station. 1861.  
Contributed by J. M. Reed.

(954)

Form No. 7. Station Agents' Report to Treasurer. 1860.  
Contributed by J. M. Reed.

(960)

Extra Schedule, Bellefonte to Harrisburg. 1864.  
Contributed by John Weaver.

(1075)

Schedule and rates of fare Philadelphia to Chicago. November 20, 1865.  
Contributed by M. Riebenack.

(1044)

Schedule No. 2½. Altoona to Pittsburgh. September 21, 1863.  
Contributed by G. W. Stratten.

(1045)

Two passes issued to J. Branham, Pittsburgh to Altoona, and 100 to 63. Signed A. Carnegie.  
Contributed by G. W. Stratten.

(1046)

Performance Sheet. January, 1869.  
Contributed by G. W. Stratten.

## RELICS IN CASES.

### OLD PORTAGE RAILROAD.

(57)

Locomotive Steam Gauge actuated with spiral spring similar to that used in the spring balance. 1845-1855.

Contributed by George W. Stratten.

(37)

Bell Frame of the "Portage," a locomotive with two driving wheels, purchased from the State of Pennsylvania by Cambria Iron Co., at the sale of the railroad and canals by the State. 1857.

Contributed by the Cambria Iron Co.

(36)

Whistle of the "Portage," a ten ton locomotive with two driving wheels, purchased from the State of Pennsylvania by the Cambria Iron Co., at the sale of the railroad and canals by the State. 1857.

Contributed by the Cambria Iron Co.

(10)

Dial Steam Gauge from boiler of stationary hoisting engine at inclined plane.

Contributed by J. B. Bowman.

(807)

Two pieces of Rail with chairs, keys and spikes. 1833.

Contributed by M. A. Quartz.

(784)

Three Chair Spikes from track laid in 1833.

Contributed by George Benton.

(780)

Eight Rail Keys from track laid in 1833.

Contributed by George Benton.

(773)

Old Rail Chair from track laid in 1833.

Contributed by B. F. Custer.

(771)

Two Rail Chairs from track laid in 1833.

Contributed by W. N. Bannard.

(917)

Six Old Portage Rail Chairs.

Contributed by S. D. Parke.

(961)

Old Clock used in State shops, Portage Railroad at Hollidaysburg. 1833-35.

Contributed by W. S. Douglas.

## OLD PENNSYLVANIA CANAL.

(778)

Old Shleve from Canal Slip. Hollidaysburg, Pa. 1840.  
Contributed by George Benton.

(962)

Old Clock from Canal Packet "Buckeye State." 1834.  
Contributed by Mrs. Harry Truby.

## PHILADELPHIA AND COLUMBIA RAILROAD.

(776)

Rail Chair from Belmont Plane. Laid in 1832.  
Contributed by Wm. J. Latta.

(774)

Two Rail Chairs from Belmont Plane. Laid in 1832.  
Contributed by Wm. J. Latta.

(756)

Whistle used by William Haslam, a driver on the Old State Road when cars were  
run by horses. 1832.  
Contributed by Samuel Whitsom.

(779)

Car Coupling Pin. 1840.  
Contributed by George Benton.

(918)

Old Rail Chair for Wooden Key.  
Contributed by Thos. Gucker.

(919)

4-Spike Cast Chair for "T" Rail.  
Contributed by Thos. Gucker.

(921)

Nine Old Rail Chair Spikes.  
Contributed by Thos. Gucker.

(922)

Six Old Rail Chair Keys.  
Contributed by Thos. Gucker.

(923)

Old 4-Spike Wrought Chair for "T" Rails.  
Contributed by Thos. Gucker.

(924)

Old 4-Spike Wrought Chair for "T" Rail.  
Contributed by Thos. Gucker.

(925)

Old 4-Spike Cast Chair for "T" Rail.  
Contributed by Thos. Gucker.

(926)

Old Rail Chair with Division to prevent Rail creeping.  
Contributed by Thos. Gucker.

(927)

Three Old Rail Chairs.  
Contributed by Thos. Gucker.

(930)

Piece of Old "T" Rail from Old State Road.  
Contributed by Thos. Gucker.

(963)

Coal Car Draft Hook from old State cars.  
Contributed by R. S. O'Donnell.

(966)

Six Rail Chairs from old stone block road.  
Contributed by Thos. Gucker.

(967)

15 Chair Spikes from stone block road.  
Contributed by Thos. Gucker.

(970)

Old 3-link Car Coupling from old State car.  
Contributed by Thos. Gucker.

(972)

Old Chair Key from State road.  
Contributed by Thos. Gucker.

(973)

Old Rail Chair for Wooden Key from old stone block road.  
Contributed by Thos. Gucker.

(932)

Old Sheet Iron Signal used by track foremen. 1856.  
Contributed by Thos. Gucker.

## PENNSYLVANIA RAILROAD CO.

(435)

Ticket punch used by A. F. Hambright, conductor between Philadelphia and Columbia. 1849.

Contributed by G. F. Irwin.

(436 a, b)

Freight Car Key and Baggage Check used on the P. R. R. about 1850.

Contributed by G. F. Irwin.

(323)

Conductor's Ticket Punch carried by Samuel Adams, conductor on the Western Division. 1853.

Contributed by J. Kennedy.

(322)

Conductor's Badge worn by Samuel Adams, passenger conductor on the Western Division between Pittsburgh and Johnstown. 1853.

Contributed by J. Kennedy.

(321)

Conductor's Tariff Book, used on the Western Division by Samuel Adams. 1853.

Contributed by J. Kennedy.

(386)

Guide Book and Extensive Map published by T. K. & P. G. Collins. This was the first guide book published of the Pennsylvania Railroad. 1855.

Contributed by W. C. King.

(291)

Mounted Map from Collins' Guide Book of the Pennsylvania Railroad. 1855.

Contributed by J. D. Bowman.

(96)

Daguerreotype of locomotive "Chestnut Ridge," Number 87, taken in 1857.

Contributed by G. F. Irwin.

(95)

Daguerreotype of C. F. Irwin, engineer, and James McLane, fireman, taken 1857.

Contributed by G. F. Irwin.

(638)

Brass Coal Check for 20 bushels used at Harrisburg by engine Lehigh No. 167. 1857.

Contributed by Geo. W. Taylor.

(9)

American Anti-Incrustator experimented with on locomotives. 1855-1860.

Contributed by J. B. Bowman.



(541)

Piece of Telegraph Wire from first line erected by Pennsylvania Railroad Co., near Mifflin, Pennsylvania.

Contributed by James H. Craig.

(437)

Daguerreotype of Samuel Jones, known as "Grumby Sam." The first colored employe of the Pennsylvania Railroad.

Contributed by G. F. Irwin.

(406)

Two Brass Wood Checks, used at Tyrone Station by Engines 84 and 206.

Contributed by D. D. Wood.

(1074)

Model of Sectional Canal Boat "Hunter."

Contributed by M. Ringle.

(432)

Brass Hand-lamp used by Wm. Herrington in 1853.

Contributed by J. Kennedy.

(601)

Old section of Rail and Block Joint.

Contributed by E. S. Cliver.

(965-968)

Two 4-Spike Cast Iron Chairs for "T" Rail.

Contributed by Thos. Gucker.

(969)

Old 3-Spike Wrought Chair for "T" Rail.

Contributed by Thos. Gucker.

(971)

One 3-Link Car Coupling.

Contributed by Thos. Gucker.

(38)

Hand Lantern used by trainmen, etc. First form in use. 1834.

Contributed by E. S. Ford.

(23)

Old Bell used at Burlington Wharf to announce the arrival and departure of the Company's steamboats connecting with railroad trains. 1835-1870.

Contributed by R. D. Keen.

## RELICS IN FRAMES.

### NORTHERN CENTRAL AND PHILADELPHIA AND ERIE DIVISION.

#### BALTIMORE AND SUSQUEHANNA RAILROAD CO.

(643)

Photograph of the Corner Stone of the Baltimore and Susquehanna Railroad, laid August 8th, 1829. This stone now forms a part of the wall of General Agent's office, corner of Centre and Calvert Streets, Baltimore, Md.

Contributed by George C. Wilkins.

(557)

Letter from Peter Cooper, New York, to George Winchester, Baltimore, Md., relating to the construction of the Baltimore and Susquehanna Railroad. Nov. 24th, 1829.

Contributed by George C. Wilkins.

(558)

Letter from Peter Cooper, New York, to George Winchester, Baltimore, urging the construction of the Baltimore and Susquehanna Railroad. Sept. 23d, 1829.

Contributed by George C. Wilkins.

(555)

Letter from Benjamin C. Howard, Grand Master of Masons, State of Maryland, accepting the invitation to participate in laying of Corner Stone of the Baltimore and Susquehanna Railroad. Aug. 8th, 1829.

Contributed by George C. Wilkins.

(612)

Free Ticket issued to Governor Findlay, to join in a trip on the Railroad. Sept. 21st, 1831.

Contributed by George C. Wilkins.

(610)

Invitation issued to officers of the Baltimore and Susquehanna Railroad Co., to attend the celebration of the completion of the State Capitol and the Raleigh and Gaston Railroad. May 1st, 1840.

Contributed by George C. Wilkins.

#### CUMBERLAND VALLEY RAILROAD.

(608)

Invitation issued to Isaac Trimble to attend the opening of First Division of Cumberland Valley Railroad. Signed, W. Milnor Roberts, Chief Engineer, Aug. 19th, 1837.

Contributed by George C. Wilkins.

(609)

Invitation issued to Chas. Howard to attend the opening of the Cumberland Valley Railroad from Harrisburg to Chambersburg. Signed, W. Milnor Roberts, Chief Engineer. Nov. 16th, 1837.

Contributed by George C. Wilkins.

NORTHERN CENTRAL RAILWAY CO.

(403)

Bingham's Transportation Line. Four Bills Lading, shipment of merchandise from Baltimore to Pittsburgh. 1845.  
Contributed by L. Cole.

(554)

Poster.—"New Arrangement Phoenix Line." Philadelphia to York, Pa., via Columbia. Color of the cars, "TRUE BLUE." April 10th, 1845.  
Contributed by George C. Wilkins.

(637)

List of charges for transportation and toll and motive power between Columbus, Wrightsville and Baltimore, and statements of salaries paid to officers and employees. March 1st, 1846.  
Contributed by George C. Wilkins.

(457)

Red and black Poster giving notice of trains for Baltimore and Washington city. May, 1850.  
Contributed by D. T. McCabe.

(403 e)

Bingham's Transportation Line. Six Bills Lading, shipment of merchandise, Baltimore to Pittsburgh. 1845.  
Contributed by L. Cole.

(360—39 a)

Form of cash remittance used by passenger conductors on the Canandaigua and Elmira Railroad. 1853.

(360—39 b)

Form of conductor's report of cars in the train and other trains met or overtaken, in use on the Canandaigua and Elmira Railroad. 1853.

(360—39 c)

Form of cash receipts used by passenger conductors on Canandaigua and Elmira Railroad. 1853.

BALTIMORE AND SUSQUEHANNA RAILROAD.

(559)

Blank African Ticket and guarantee "that the person of color mentioned below is free, or is the slave of the party designated and he has the permission of the said owner or owners to travel in the cars." 1861.  
Contributed by George C. Wilkins.

(611)

Nine stubs of tickets sold at Baltimore for points on the Pennsylvania Central Railroad. September, 1851.

Contributed by George C. Wilkins.

(640)

Free ticket issued to Henry Jacobs, signed Lewis Willey. June 10th, 1853.

Contributed by Wm. C. Fite.

(607)

Copy of instructions and time table Baltimore and Susquehanna, issued May 13th, 1854.

Contributed by George C. Wilkins.

#### NORTHERN CENTRAL RAILROAD.

(405 b)

Employes' Pass. 1864. Signed, J. N. Du Barry.

Contributed by Thos. L. Wallace.

(405 g)

Trip Pass. Harrisburg to Sunbury, Williamsport and Elmira. Signed, J. N. Du Barry, Gen. Sup't. 1863.

Contributed by Thos. L. Wallace.

#### PHILADELPHIA AND ERIE RAILROAD CO.

(405 a)

Annual Pass, issued to "Bearer with letter," from General Superintendent Northern Central Railroad. Signed, Joseph D. Potts, General Manager. 1864.

(278)

Time Table Number 1, North and West Branch Railway, signed Frank Thomson, General Manager; Robert Neilson, General Superintendent; F. Sheppard, Superintendent. Issued September 14th, 1882.

Contributed by W. Dewitt.

(762 j)

Schedule No. 14. Sunbury to Erie, in effect April 28th, 1867.

Contributed by Robert Neilson.

(762 k)

Schedule No. 18. Sunbury to Erie, in effect May 10th, 1868.

Contributed by Robert Neilson.

(762 l)

Schedule No. 21½. Sunbury to Erie, in effect July 26th, 1869.

Contributed by Robert Neilson.

(762 m)

Schedule No. 25. Sunbury to Erie, in effect May 29th, 1870.  
Contributed by Robert Nellson.

(762 b)

Schedule No. 20. Sunbury to Lock Haven, in effect April 23d, 1860.  
Contributed by Robert Nellson.

(762 d)

Schedule No. 4½. Sunbury to Sinnemahoning, in effect December 8th, 1862.  
Contributed by Robert Nellson.

(762 c)

Schedule No. 1. Sunbury to Lock Haven, in effect Monday, March 24, 1862.  
Contributed by Robert Nellson.

(762 e)

Schedule No. 7. Sunbury to Driftwood, in effect April 20th, 1863.  
Contributed by Robert Nellson.

(762 f)

Schedule No. 9½. In effect January 18th, 1864.  
Contributed by Robert Nellson.

(762 h)

Schedule No. 6. Sunbury to Erie, in effect November 20th, 1865.  
Contributed by Robert Nellson.

(762 i)

Schedule No. 8. Sunbury to Erie, in effect May 21st, 1866.  
Contributed by Robert Nellson.

(762 r)

Schedule for special train for Knights Templar. From Sunbury to Williamsport.  
June 14th, 1870.  
Contributed by Robert Nellson.

#### BALTIMORE AND SUSQUEHANNA RAILROAD.

(906)

Card of invitation to Chas. G. Franciscus, dated October 23, 1852, to opening of  
Hanover Branch Road.  
Contributed by A. O. Baker.

#### NORTHERN CENTRAL RAILROAD.

(898)

Six passes issued to W. W. Scott. 1875-1877.  
Contributed by W. W. Scott.

## RELICS IN CASES.

### N. CENTRAL AND PHILA. & ERIE R. R.

#### PHILADELPHIA AND ERIE RAILROAD.

(600)

Old Ticket Stamp and Type.  
Contributed by F. W. Smith.

(562)

Old Switch Lock.  
Contributed by J. Minsker.

(979)

First Lithograph of details of Track Standards. 1872.  
Contributed by Robert Neilson.

#### NORTHERN CENTRAL RAILWAY.

(1079)

Pay Check in favor of Harry Elder for One Cent.  
Contributed by Harry Elder.

(985)

Strap Rail and Spike in use on the Baltimore and Susquehanna Railroad. 1836.  
Contributed by A. Feldpauche.

# RELICS IN FRAMES.

## UNITED RAILROADS OF NEW JERSEY.

CAMDEN AND AMBOY RAILROAD CO.

(373 a)

Bill rendered the "Camden and South Amboy Railroad and Transportation Company" by Guest, Lewis and Company, containing charge for rolling 122 four-inch rails, 16 feet long, and 67 four-inch rails, 12 feet long, of No. 5 pattern at £8 per ton. These were the first rails rolled with a horizontal flanged base in any part of the world.

This relic marks the beginning of the manufacture of the type of rails in universal use in America.

Bill dated Cardiff, Wales, March 3, 1831.

(373 aa)

Bill rendered the "Camden and South Amboy Railroad Company" by Guest, Lewis and Company "for turning rolls for number 5 pattern, as per agreement £20."

These rolls were used for turning the first (Stevens) rail ever manufactured with horizontal flanged base.

Bill dated Cardiff, Wales, March 3, 1831.

(373 b)

Letter from Guest, Lewis and Company to Francis B. Ogden, Agent in England for the Railroad Company, in which they state, "We are proceeding with our best dispatch with this order, but it is attended with a great deal of trouble, which retards our progress."

This refers to the Stevens rail, the beginning of the manufacture of which was attended with many difficulties. March 14, 1831.

(372)

Receipt from Mate of ship "Eliza Grant," for 692 bars of railroad iron, en route to New York. Liverpool, May, 1831.

(377 a)

Bill of Lading for the shipment from England of the first rail, laid in the world, rolled with a horizontal flanged base. This rail, invented by Robert L. Stevens, which was the first laid on a railroad between Philadelphia and New York, was put in the track near Bordentown, New Jersey, where the Railroad Monument now stands to commemorate the first movement by steam between these cities by the locomotive "John Bull."

The rail was shipped from Liverpool by Francis B. Ogden, Agent in England for the Railroad Co., on the ship "Montezuma," bound for Philadelphia, July 14, 1831.

(382 a)

Letter from Francis B. Ogden to Robert L. Stevens, stating that he will go to Cardiff to inspect (Stevens) rail then being manufactured. March 31, 1831.

Cardiff 3 March 1831  
*The London and South-Western*  
*Rail Road and Transportation Co.* TO GUEST LEWIS & CO.

*The Iron shipped on board the Union, Lewis & Co.*  
*for Liverpool* on your account and risk is:

|                                   | Long W <sup>t</sup> |     |     |     | Short W <sup>t</sup> |     |     |     | t.  | s  | d  |
|-----------------------------------|---------------------|-----|-----|-----|----------------------|-----|-----|-----|-----|----|----|
|                                   | Tons                | Cwt | qrs | lbs | Tons                 | Cwt | qrs | lbs |     |    |    |
| <i>No. 1 428 Bars 3 1/2 x 1/2</i> | 15                  | 10  | 2   | 9   | 16                   | 19  | 2   | 11  | 105 | 19 | 11 |
| <i>No. 2 527 do 3 1/2 x 1/2</i>   | 21                  | 1   | 3   | 1   | 22                   | 11  | 3   | 15  | 135 | 11 | 3  |
| <i>Chandeliers 1 each</i>         | 9                   | 11  | 3   | 18  | 10                   | 5   | 2   | 12  | 82  | 4  | 11 |
| <i>No. 3 172 do 4 1/2 x 1/2</i>   | 4                   | 1   | 6   | 4   | 4                    | 6   | 4   | 8   | 34  | 8  | 3  |
| <i>No. 4 172 do 4 1/2 x 1/2</i>   |                     |     |     |     |                      |     |     |     | 18  | 10 | 7  |
| <i>2 Bars 1 1/2 x 1/2</i>         | 50                  | 10  | 2   | 4   |                      |     |     |     | 376 | 14 | 11 |
| <i>2 Bars</i>                     |                     |     |     |     |                      |     |     |     | 11  | 6  |    |
|                                   |                     |     |     |     |                      |     |     |     | 365 | 8  | 11 |
|                                   |                     |     |     |     |                      |     |     |     | 5   |    |    |
|                                   |                     |     |     |     |                      |     |     |     | 370 | 8  | 11 |



(No. 373 aa. Page 58).

*Cuddeff 3. Nov. 1891*

*The Camden and South Amboy  
Rail Road and Transportation Comp<sup>y</sup>  
To Gust Lewis & Co.*

*For having Rolls for W. S. Patterson as per  
Agreement..... } ..... \$20.00*

Liverpool March 9.<sup>th</sup> 1831

Dear Stevens

Enclosed you have duplicate Bills of Lading Invoices &c of Iron tubes and your Cylinders shipped by the Great Britain. I am writing you by that ship a quantity of the same may have arrived with all the plates &c in bolts &c for that part which is to be sent to New York I have engaged the freight by the Charlemaigne at 9%. There will also be 130 Bars for Philadelphia which I shall doubtless be able to ship in the course of the next week there is at present no vessel up for that place but there are two or three looking for every hour that must return immediately and probably before the present quantity is landed some more will have arrived as I have advice of two other shipments from Cardiff.

I have written to Guest & Co. to have as much of the same ready at Cardiff as can be by the 18<sup>th</sup> of April when I will go down to inspect it. In the mean time I shall hurry the rest of your work as much as I possibly can...

Yours truly,

Geo<sup>d</sup> B. Gurney

(No. 377 a. Page 58).

24 0 2  
 1/20 200  
 1/20 100  
 1/20 100

24 0 2  
 1/20 200  
 1/20 100  
 1/20 100

**Shipped**, in good Order and Condition, by *James M. Ogden*  
 in and upon the good Ship or Vessel called The *Montezuma* - - - - - whereof  
*James West* - - - - - is Master, for this present voyage, now lying  
 in the Port of LIVERPOOL, and bound for *Philadelphia* - - - - - via

589 Barrels Rice weighing *the* 45.104

being marked and numbered as per Margin, and are to be delivered, in the like good Order and Condition,  
 at the aforesaid Port of *Philadelphia*  
 (all and every the dangers and accidents of the Sea and Navigation, of whatsoever Nature or kind, excepted)  
 unto *Edwin A. Stearns Esq.* for the *Canaan & North Annapolis R.R. & Transportation Co.*  
 or to *their Assigns*; he or they paying Freight for the said Goods,

at the rate of ten Shillings per Ton

with Primage and Adueno accounted in Witness whereof, the Master or Purser of the said Ship or  
 Vessel hath affixed to these Bills of Lading, all of this tenor and date; one of which being accomplished,  
 the one to stand void.—Dated in LIVERPOOL, this 1st Day of *May*, 1831

*James West*  
 Master, Montezuma

**Shipped**, in good Order and Condition, by *James A. G. Jones*  
 on and upon the good Ship or Vessel called The *Anthony Michaels* -  
 in the Port of LIVERPOOL, and bound for *Thames* -  
 on *Locomotive Steam Engine as follows*.  
*One Engine Bony boiler & 100 H.P. on deck*  
*Two four large wheels and axle of*  
*Three Axes* } *under deck.*  
*One Live Axle* }  
 being marked and numbered as per Margin, and are to be delivered, in the like good Order and Condition,  
 at the aforesaid Port of *Thames*  
 (all and every the dangers and accidents of the Seas and Navigation, of whatsoever nature or kind, excepted)  
 unto *James A. G. Jones* for the *Commission & Bank of Anthony A. Jones & Son* & Co.  
 or to their Assigns; he or they paying Freight for the said Goods,  
*Nineteen pounds Sterling*  
 4th Primage and Average accustomed. In WITNESS whereof, the Master or Purser of the said Ship or  
 Vessel hath affirmed to *these* Bills of Lading, all of this tenor and date; one of which being accomplished,  
 the rest to stand void.—Done in LIVERPOOL, this *16th* Day of *July* 1857  
 Contents unknown to

*Anthony Michaels*  
 Owner, Ballinacorney, Church Street.

*Freight - 19.00*  
*Trunks 5/11 19.00*  
*£19.19.00*

Liverpool July 16<sup>th</sup> 1831

Dear Mr. Stevens Esq

G. Sir

I am happy in having it in my power at length to forward you the Bile of Lading and Invoice of the Locomotive Engine shipped by the Alleyhaz Captain Michuall which I hope will arrive safe as the Bury b- was too large to go under deck I was compelled to have it stowed in the hold of the long boat where it is well secured and that part of it valued at £500 I have been insured at 20/- p-cent and the residue at 17/8 my agreement for the freight was £15 and to be at the expense of getting it in and out of the ship, this however I have compromised for and nineteen pounds is to be paid delivered to you in Philadelphia

I have written your brother Robert now fully by the New York Packet to sail the day after tomorrow I am your Dear Serv

Richd B Ogden

Lucif. Co. July 16<sup>th</sup> 1831

Dear Sirs

I am happy in having it in my power at last to announce to you the departure of your Locomotive Engine the Enclosed Bill of Lading will show you that it was shipped on board the Allegany which left here yesterday morning and I hope will be in Philadelphia by the time you receive this and can get on there. All your other work is in prospect, that is I am so assured by those from whom it is received, and shall be forwarded as soon as possible. In order to give you a single view of the whole transactions I also enclose you a Statement of all the shipments made together with the monies received from Messrs. Parsons and the Broors and my own accounts up to the present time by which you will see I am something in advance towards which and for payment of things yet to be delivered I shall appropriate the remaining monies in Messrs. Parsons hands leaving to you to distinguish between what was for your own private account and what was for the Company which you will be able to do much better than I possibly can. Indeed there were some things that I could not possibly separate the pertaining for the rails the work from Stephenson.

The price of Iron remains about the same as when you were here and I do not think there would be much difference in any future contract it would make considerable however if you would consent to have the rails of unequal length say from 10 to 14 feet, and it appears to me to be of but little importance that the joint should always be opposite to each other. Vigors has laid down his case in that way. The work remarkably well executed on your pattern like the piece I sent out to you but much lighter and is very much pleased

with it and says it is decidedly the best deal we can

The Viceroy will probably be the first to announce the pleasing news of the settlement of our affairs with France by which we are to receive indemnification to the amount of 15 millions of francs for her obligations. the treaty was signed on the 6<sup>th</sup> of July.

The Opposition here continues to fight hard against Reform it is a bitter pill to them but they must swallow it at last.

Yours truly  
Wm. P. Symonds.

(389)

Statement of expenses of Francis B. Ogden, Liverpool, in account with R. L. Stevens, in payment for rails, arranging insurance, etc., for Railroad Company.

A charge of £784 7s., the price paid Stephenson & Co. for the locomotive "John Bull," shipped on the "Allegheny" to Philadelphia, is made under date of June 27th, 1831.

(376)

Original Bill of Lading for the shipment from England of the first locomotive constructed for this company. This locomotive, afterwards known as the "John Bull," was built by Robert Stephenson & Co., Newcastle-on-Tyne, 1830-31. The bill of lading shows it was shipped from Liverpool by Francis B. Ogden, Agent in England for the Railroad Company, on the ship "Allegheny," bound for Philadelphia. July 14, 1831.

(381 a 1 and 2)

Bill for wagon springs and engine springs furnished by William Hunt & Sons. Brades Steel and Iron Works. April 2nd, 1831.

The following note from the proprietors is on the 3d page:

"April 5th, 1831. They (the springs) are similar to those sent to Mr. Stephenson, we are now occupied in making him 24 for his engine."

(382 d)

Letter from Francis B. Ogden to Edwin A. Stevens, announcing that the locomotive "John Bull" was shipped by the "Allegheny." July 14, 1831.

(382 c)

Letter from Francis B. Ogden to Robert L. Stevens, announcing the departure of the locomotive "John Bull" by the "Allegheny," and that "Vignoles has laid down his road \* \* \* the rail remarkably well executed on your pattern like the piece I sent out to you, but much lighter, and is very much pleased with it and says it is decidedly the best rail in use." July 16, 1831.

(380)

Statement of railroad iron imported into the port of New York, and five way bills. May 7th, 1832 to August 12th, 1833.

(378)

Statement of revenue bonds, paid and unpaid, on railroad iron imported by "The Camden and South Amboy Railroad and Transportation Co.," Custom House, New York City, certified by Samuel Swartwout, Collector. And bills of lading of seven vessels conveying rails from England. 1831-1832.

(378 a)

Bill of Lading of the "Charlemagne," the first vessel that transported Stevens rail to America. Sailing for New York, April, 1831.

(382 b)

Letter from Francis B. Ogden, Agent for the Company in England, to Edwin A. Stevens, announcing shipment of 2006 bars of railway iron, shipped on board the "Eliza Grant," bound for Philadelphia. May 18, 1831.



(377 b)

Statement of Account between Francis B. Ogden, Agent for the Company in England, and Robert L. Stevens. December 31, 1830 to April 18, 1831.

(367)

Invoice of two boat loads of rails shipped from Golds Hill Iron Works, West Bromwich, near Birmingham. April 13th, 1832.

(161)

Written Statement of Account, O. & A. R. R. Co. with Robert L. Stevens, President and Chief Engineer. February 25, 1831 to October 28, 1833.

(368)

Charter Party, ship "Antoens," ship to proceed from London to Cardiff, and thence to Philadelphia. London, July 17th, 1833.

(381 b)

Invoice for 12 engine springs from Brades Iron and Steel Works, near Birmingham. February 28, 1832.

(373 d)

Invoice of Guest, Lewis & Co., for rails, rivets, etc. Cardiff, Wales, April 9, 1831.

(371)

Invoice Golds Hill Iron Works, four boatloads of rails, Birmingham to Liverpool, en route to New York. March 31st, 1832.

(373 c)

Invoice of Guest, Lewis & Co. for rails, splice plates, splice-screw bolts, rivets, etc. Cardiff, Wales, March 28, 1831.

(157 and 164)

Statement, receipts from Steamboat and Railroad Line, New York and Philadelphia, showing fares collected, and receipts for meals on boat and bar, also expenses of maintaining same. June and July, 1836.

(157 a)

Statement, receipts from Steamboat and Railroad Line, New York and Philadelphia, showing fares collected, and receipts for meals on boat and bar, also expenses of maintaining same. July, 1838.

(169 and 169a)

Statement of receipts and disbursements of the tables and bars of steamboats. August and September, 1838.

(168 a and b)

Statement of passengers between Philadelphia and Trenton, and New York and intermediate places. January 30 to November 30, 1839.

(159 a and b)

Statement of Receipts and Disbursements. November, 1844.

(73)

Resolutions favoring the construction of a railway passed at a meeting of citizens held in Mt. Holly, N. J., 1828.

Contributed by Ashbel Welch.

(75)

Pamphlet Report of Directors of C. & A. R. R. and T. Co. 1833.

Contributed by Ashbel Welch.

(76)

Address of Captain Richard Stockton, concerning Delaware and Raritan Canal and Camden and Amboy Railroad Co. 1834.

Contributed by Ashbel Welch.

(79)

Pamphlet Report of Directors of Joint Companies to stockholders on completion of Camden and Amboy Railroad and Delaware and Raritan Canal. 1840.

Contributed by Ashbel Welch.

(78)

Pamphlet Report of the Committee appointed to offer to the State of New Jersey the Delaware and Raritan Canals and Feeder, and the Camden and Amboy Railroad. 1836.

Contributed by Ashbel Welch.

(82)

Report of Burlington Accident. Newspaper clipping from the "American," September 15, 1855.

Contributed by Ashbel Welch.

(77)

Pamphlet Memoir of the Delaware and Raritan Canal and Camden and Amboy Railroad. April 15, 1836.

Contributed by Ashbel Welch.

(80)

Printed remonstrance against monopoly, addressed to Senate and Assembly of New Jersey. February, 1854.

Contributed by Ashbel Welch.

(272 a and b)

Printed copy of Joint Resolutions concerning General William Cook adopted by the Legislature of New Jersey.

Contributed by Eugene Cook.

(399)

Photograph and printed sketch of life of Benjamin Fish published at time of his decease. 1880.

Contributed by L. H. Anderson.

(217)

Statement of Remittance by Benjamin Fish, containing item "Also an old debt from P. Cooper for casting on Baltimore Road," 1847, with autograph signature. "B. Fish." August 27th, 1847.

Contributed by Frank Ellmaker.

(138)

Poster showing summer arrangement of trains, 1845.  
Property of J. E. Watkins.

(276)

Time table in force Monday, June 9th, 1862. Signed by H. W. Deacon, Ticket Agent, Bordentown, New Jersey.  
Contributed by Eugene Wood.

(210 and 360—19 a)

Running Regulations. 1853.  
Contributed by Frank Ellmaker.

(344)

Advertisement of Spring and Summer Arrangement of Trains from Trenton newspaper. April, 1843.  
Contributed by W. H. Davis.

(360—19 b)

Time Table, Number 3, in force December 15th, 1853.

(214)

Printed Instructions to Employees, Running Regulations, etc. Issued 1852 and 1853.

(213)

Printed Rates of Fare between New York, Philadelphia via Camden, Trenton and Jersey City. 1853-54.

(183)

Printed Circular Letter Time Table issued from Superintendent's office, Bordentown, May 2nd, 1853.

(227)

Printed Fog Regulations issued by W. H. Gatzmer, Agent. November 1, 1858.

(207)

Act of Legislature of New Jersey and Resolution of Executive Committee in relation to running trains on Sunday. Adopted April 24, 1854.

(229)

Printed Free List issued by E. Gatzmer, General Ticket Agent, addressed to G. W. Barker. February 1st, 1858.

(225)

Printed instructions from General Ticket Agent to Gate Keepers concerning free and pay tickets. February 1st, 1858.

(224)

Printed instructions from General Ticket Agent to Conductors concerning tickets. February 1st, 1858.

(226 a and b)

Printed instructions concerning passes issued by R. S. Van Rensselaer, Superintendent, Bordentown. August 22, 1857.

(360—4)

Poster Notice. Responsibility limited to \$100 per 100 pounds. Issued June 1st, 1853.

(359—119)

Notice to Freight Agents C. & A. R. R. and Branches. Issued March 1st, 1855.

(360—28)

Way Bill, Trenton Station. 1852.

(359—190)

Flemington Railroad Co. Poster announcing Extra Train "On the occasion of the military parade at Flemington on Thursday, October 8th, 1857."  
Contributed through Wilson Brown, Superintendent.

(359—206)

Printed Poster in gold and colored letters on black enameled paper issued by William H. Gatzmer, Agent. October 1st, 1858.  
Contributed through Wilson Brown, Superintendent.

(304)

Book, Rules and Regulations for management of trains by time table and telegraph. March 31st, 1857.

(184)

Statement of Time, Passengers, Crew, etc., 10 A. M. Line Philadelphia to New York, July, 1854.

(162)

Printed instructions for working the Telegraph. Signed, R. Van Rensselaer. April 16th, 1859.

(348)

Telegram sent over Mount Holly Telegraph Co., Morse Line. Dated September 27th, 1854.

Contributed by R. S. Murphy.

(304)

Book, Rules and Regulations for management of trains by time table and telegraph. 1857.

(274)

Letter from Freight Agent, Pier 1, North River, New York, dated September 7th, 1861, and three freight way bills attached. 1859-1860-1863.

(204)

Passenger Way Bills, Camden and Amboy Way Line, from Trenton to New York.  
July 31 and September 1, 1848.

(245)

Freehold and Jamesburg Agricultural Railroad Co. Printed slips, Rates of Fare,  
C. & A. R. R. Co. and F. & J. A. R. R. September 15th, 1853.

(342)

Four Annual Passes issued by A. J. Wark, 1860, 1861, 1864, 1867.  
Contributed by C. W. Sedam.

NEW JERSEY RAILROAD AND TRANSPORTATION CO.

(345)

Trip Pass issued to R. S. Murphy, New York to Philadelphia, signed by A. W.  
Markley, President pro tem. February 20, 1868.  
Contributed by R. S. Murphy.

(1080)

Special arrangement of trains for the transportation of the remains of President  
Abraham Lincoln over the New Jersey Railroad on Monday, April 24, 1865, under  
instructions from the U. S. War Department.  
Contributed by F. W. Jackson.

(346)

Trip Pass issued to R. S. Murphy, 1868.

(300)

Passes issued to D. H. Baker, 1849, 1871.  
Contributed by D. H. Baker.

CAMDEN AND AMBOY RAILROAD CO.

(105)

Pass issued by General William Cook, Chief Engineer.  
Contributed by Eugene Cook.

(245 b)

Printed slips. Rates of through and way fares, June 26th, 1854.

(729)

Special Ticket No. 4777. Philadelphia to Biddle's Wharf. 1862.  
Contributed by Edw. S. Sapp.

(469)

Two Employee's Passes issued to Wm. H. Vandegrift, between New Brunswick and  
Jersey City, signed F. W. Jackson.  
Contributed by Wm. H. Vandegrift.

## WEST JERSEY RAILROAD CO.

(615)

Cape May Railroad Co. Trip Pass from Camden to Cape Island, with three signatures, issued 1868.

Contributed by John Forker, Bordentown, N. J.

## CAMDEN AND AMBOY RAILROAD AND PHILADELPHIA AND TRENTON RAILROAD.

(754)

Book of Rules and Regulations. 1865.

Contributed by Jas. B. Powell.

(851)

Passes issued in 1865-66-67-69-70 by F. W. Jackson, W. H. Gatzmer, and Vincent L. Bradford.

Contributed by George B. Wilde.

## CAMDEN AND AMBOY RAILROAD CO.

(861)

Passes issued in 1867 and 1868 by Benjamin Fish, R. S. Van Rensselaer, J. Stover, and A. H. Vancleve.

Contributed by Jas. G. Bell.

(852)

Annual Passes issued to George B. Wilde. Signed by W. H. Gatzmer, Pres. 1868-69 and '71.

Contributed by George B. Wilde.

(860)

Four Passes. Signed by R. S. Van Rensselaer, Gen. Supt. 1856-64 and '65.

Contributed by Jas. G. Bell.

(853)

Trip Pass issued by Gen. Wm. Cook. 1865.

Contributed by George B. Wilde.

(854)

Pass issued to George W. Wilde. Signed F. W. Jackson. July 8, 1869.

Contributed by George B. Wilde.

(863)

Passes issued in 1865-66 by General Wm. Cook and Ashbel Welch.

Contributed by George B. Wilde.

(208)

Summer Schedule of Mail and Way Lines. June 20th, 1846.

Contributed by Frank Ellmaker.

(549)

Schedule of Passenger Train. October 17th, 1870.

Contributed by John Forker, Bordentown.

(492)

Written Pass issued to Mrs. Swem and niece. Signed, Benj. Fish. Oct. 6th, 1857.

Contributed by W. Swem.

(189)

Book containing Rules and Train Regulations. Dec., 1865.

Contributed by James White.

## FREEHOLD AND JAMESBURG AGRICULTURAL RAILROAD CO.

(552)

Combined Train and Stage Ticket, Long Branch to Freehold, Freehold to Philadelphia. 1866.

Contributed by I. S. Voorhees.

## UNITED RAILROADS, NEW JERSEY DIVISION.

(623)

General Order No. 16, changing the running of trains from the LEFT to the RIGHT hand track. Oct. 18th, 1874.

Contributed by Jas. Powell.

## CAMDEN AND AMBOY RAILROAD CO.

(543)

Photograph of old track laid on stone blocks west of Jamesburg, New Jersey. 1832.

Contributed by S. L. Roberts.

(201)

Written Statement in account with the Philadelphia and Trenton Railroad Co. 1842.

Contributed by Frank Ellmaker.

(268)

Newspaper clipping, giving a short account of the life and death of General William Cook. April 28th, 1865.

Contributed by Eugene Cook.

(548)

Ticket from Hightstown to Cranbury, sold July 22d, 1876.

Contributed by I. S. Voorhees.

(551)

Blank Ticket from Spotswood to Cranbury. 1858.

Contributed by I. S. Voorhees.

(553)

Blank Pass signed by General Wm. Cook, Engineer. 1864.

Contributed by John Forker.

## NEW JERSEY RAILROAD AND TRANSPORTATION CO.

(550)

Ticket sold to New Brunswick, signed J. A. Gwinner. Aug. 23d, 1853.  
Contributed by I. S. Voorhees.

## CAMDEN AND ATLANTIC RAILROAD CO.

(484)

Printed card showing hand signals to be used in the absence of flags.  
Contributed by Rufus Hill.

## CAMDEN AND AMBOY RAILROAD CO.

(644)

Photograph of "John Bull."  
Contributed by J. A. Anderson.

(111)

Photograph of Benjamin Higgins, the first fireman on the Camden and Amboy Railroad. Began his service in 1831 under Isaac Dripps.  
Contributed by R. Harry Nevius.

(286)

Employees' Time Tables Nos. 75 and 76, issued May and June, 1866.

(286)

Employees' Time Tables Nos. 80, 85, issued June and December, 1867.

## UNITED NEW JERSEY RAILROADS AND CANAL CO.

(271)

Printed instructions to superintendents and agents of the associated companies to reduce expenses. Signed by Joseph P. Bradley, Secretary. February 24th, 1868.

(174)

Regulations for storekeepers and other distributing agents. Signed by Ashbel Welch, General President. 1870.

(173)

Proposals for Railroad Sleepers, white oak, chestnut or cypress. A. H. Vanderve, General Purchasing Agent. Dated 1870.

(206)

Two printed notices by Ashbel Welch, General President, calling attention to the necessity of economy in administration. Dated May 9th, 1870, and May 12th, 1870.

(175 to 182)

Forms of Letter Head used on the Camden and Amboy R. R., Philadelphia and Trenton R. R., and Amboy Division, and United Railroads of New Jersey Division immediately preceding and immediately after the lease to the Pennsylvania Railroad Co.



## DELAWARE AND RARITAN CANAL CO.

(396 m)

Statement of the organization of the engineering department. Signed by Canvass White, Engineer. October 26th, 1830.

Contributed through L. H. Anderson.

(396 l)

Article of agreement signed by R. F. Stockton, President, Lewis S. Coryell, Contractor, witnessed by Canvass White, Chief Engineer. April 2nd, 1832.

Contributed through L. H. Anderson.

(396 f)

Final estimate for constructing lock No. 1. Signed by E. A. Douglas, Engineer. November 25th, 1834.

Contributed through L. H. Anderson.

(396 f)

Letter from John R. Thomson, Secretary, containing outline of organization, duties of officers and salaries paid. Dated September 12th, 1832.

Contributed through L. H. Anderson.

(396 e)

Report of Committee to burn unissued bonds. Dated April 2nd, 1838.

Contributed through L. H. Anderson.

(396 g)

Report of Committee of joint board D. & R. Canal and C. & A. R. R. Co. for creating a sinking fund to discharge the debt of the two companies. Signed by James Parker, Thomas Biddle, John R. Thomson, James Potter. July 13th, 1844.

Contributed through L. H. Anderson.

(396 k)

Report of Robert L. Stevens, Engineer of the Camden and Amboy Railroad Company, recommending the construction of "an iron boat of about 120 feet in length, propelled by scull wheels, with iron boiler, to be commenced immediately." The report is in the handwriting of Robert L. Stevens, and signed by him January 6th, 1843.

Contributed through L. H. Anderson.

(396 a)

Letter from John R. Thomson, Secretary, containing outline of organization, duties of officers and salaries paid. Dated September 12th, 1832.

Contributed through L. H. Anderson.

(396 d)

Letter written by Commodore R. F. Stockton, President, urging purchase of the stock of Philadelphia and Trenton Railroad Co. by C. and A. Railroad and Delaware and Raritan Canal Companies. 1838.

Contributed through L. H. Anderson.

(396 n)

Letter of resignation of September 10th, 1844, of John R. Thomson, Secretary, and reply thereto by Robert Stockton, President. September 12th, 1844.  
Contributed through L. H. Anderson.

(74)

Report of New Jersey Legislature, 1829, concerning the Delaware and Raritan Canal.

Contributed by Ashbel Welch.

(396 b)

Articles of agreement with Coryell and Murray, contractors, dated July 14th, 1832.  
Contributed through Wilson Brown, Supt.

(200)

Statement of coal mined by the Lehigh Coal and Navigation Company. 1846.

(357)

Bill of Lading, Barge "General Taylor," 1852.  
Contributed by R. S. Murphy.

(356)

Printed Notice, towing orders. 1849.  
Contributed by R. S. Murphy.

(341)

Notice of Exchange Line between New York and Philadelphia. April 20th, 1831.  
Contributed by C. W. Sedam.

(84)

Pamphlet—Standard form—Division of Accounts, Joint Companies. Camden and Amboy Railroad Co.—Delaware and Raritan Canal Co. 1863.  
Contributed by Ashbel Welch.

(340)

Printed Notice issued by J. Edgar Thomson, President, at the time the Pennsylvania Railroad Company assumed control of the United New Jersey Railroad and Canal Companies. November 29th, 1871.  
Contributed by C. W. Sedam.

(339)

Printed List of Directors. 1871.  
Contributed by C. W. Sedam.

(338)

List of Clearances. 1834.  
Contributed by C. W. Sedam.

(351)

Check Roll. December, 1852.  
Contributed by R. S. Murphy.

(396 c)

Receipts of Coryell and Murray for work done on canal. 1833.  
Contributed through L. H. Anderson.

(397)

Certificate of Indebtedness to John Potter for \$5000, issued May 7th, 1864.  
Contributed by L. H. Anderson.

(354)

Printed Notice.—Towing orders. 1854.  
Contributed by R. S. Murphy.

(349)

Printed Rates of Toll. 1848.  
Contributed by R. S. Murphy.

(350)

Printed Rates of Toll. 1856.  
Contributed by R. S. Murphy.

(352)

Printed Notice concerning steam towing and tolls on coal. 1870. Issued by John G. Stevens, Engineer and Superintendent.  
Contributed by R. S. Murphy.

(353)

Printed Notice.—Towing Orders. 1853.  
Contributed by R. S. Murphy.

(355)

Printed Notice.—Towing Orders. 1856.  
Contributed by R. S. Murphy.

(358)

Clearance Manifest. Sept. 16, 1854.  
Contributed by R. S. Murphy.

#### FREEHOLD AND JAMESBURG AGRICULTURAL RAILROAD CO.

(360—23)

Printed Freight Rates, Philadelphia to New York. Signed by Isaac S. Buckelew, Superintendent. May, 1855.  
Contributed by L. H. Anderson.

(180)

Letter written by I. S. Buckelew on F. & J. A. R. R. letter heading from office, Jamesburg, New Jersey. January 10th, 1872.

(395)

Annual Passes issued by I. S. Buckelew, Superintendent. 1874-1875-1876-1877-1878-1879.  
Contributed through L. H. Anderson.

## BELVIDERE DELAWARE AND FLEMINGTON RAILROAD.

(859)

Train Order. March, 1870.  
Contributed by James G. Bell.

(865)

Coal Rates. March 18th, 1867.  
Contributed by George B. Wilde.

## CAMDEN AND AMBOY RAILROAD.

(857)

Rules and Regulations. 1865.  
Contributed by James G. Bell.

(862)

Rules and Regulations. 1865.  
Contributed by George B. Wilde.

(858)

Train Order. October, 1871.  
Contributed by James G. Bell.

(866)

Time Table, instructions governing movements of trains. April 1st, 1867.  
Contributed by George B. Wilde.

## NEW JERSEY RAILROAD AND TRANSPORTATION CO.

(856)

Book of Instructions. 1860.  
Contributed by Thomas Tennent.

(134)

Bridge at New Brunswick, N. J., over the Raritan river. A Camden and Amboy Railroad Co.'s locomotive is shown upon the upper deck. The lower deck was used for foot passengers and carriages. 1866.  
Contributed by John Headden.

(642)

New York and Washington Express Mail Train, hauled by engine No. 30, "A. L. Dennis," passing the Point of Rocks at Jersey City. 1866.  
Contributed by D. H. Baker.

(869)

Written Time Table issued by James L. Smith, Superintendent. 1847.  
Contributed by Joseph Crawford.

(868)

Written Time Table issued by James L. Smith, Superintendent. 1849.  
Contributed by Joseph Crawford.

(891)

Time Tables of trains between New York and Philadelphia; time, 3½ to 4 hours. 1861-2.

Contributed by Joseph Crawford.

CAMDEN AND AMBOY RAILROAD CO.

(867)

Instructions to Trenton and Philadelphia Line, Andrew Quintin, Conductor, issued by W. H. Gatzmer. December 15, 1846.

Contributed by Joseph Crawford.

(850)

Instructions to Conductors and Engineers, issued by F. Wolcott Jackson, Gen. Superintendent. August 31st, 1865.

Contributed by Louis Meyer.

(864)

Time Table, Spring arrangement, issued April 27th, 1868.

Contributed by George B. Wilde.

(205)

Three Way Bills. 1847-1848.

(359—126)

Poster announcing connection with Belvidere-Delaware Railroad Company's trains for Easton via steamer Trenton from Walnut Street Wharf for Tacony. This is without change of cars to Easton.

Contributed through Wilson Brown, Supt.

(620)

Schedule in effect July 21st, 1893.

Contributed by W. S. Sickles.

(659)

Schedule No. 37. In effect December 20th, 1858.

Contributed by Jas. Powell.

CAMDEN AND ATLANTIC RAILROAD CO.

(626)

Schedule of trains between Philadelphia and Atlantic City, signed "J. H. O.," Supt. Monday, September 22d, 1856.

Contributed by M. Gregg, Camden.

WEST JERSEY RAILROAD CO.

(280)

Lot bills for ties, West Jersey Railroad Co. 1855.

Contributed by Frank Ellmaker.

## WEST JERSEY, SALEM, CAPE MAY AND MILLVILLE RAILROAD.

(625)

Schedule No. 5, signed by Jere Van Rensselaer, Superintendent. June 30th, 1864.  
Contributed by M. Gregg.

## BELVIDERE-DELAWARE RAILROAD CO.

(359—13)

Printed Poster announcing arrangement of trains between Bordentown, Camden, Lambertville, Trenton and Philadelphia, and Easton, Belvidere, Trenton and Doylestown, beginning January 1st, 1852.

Contributed through Wilson Brown.

(359—14)

Printed Poster announcing extra train to the commencement at Princeton College, June 25th, 1851.

Contributed through Wilson Brown.

(359—18)

Printed Poster announcing 4th of July excursion. 1851.

Contributed through Wilson Brown.

(359—8)

Printed Poster, "Instructions to passengers and concerning freight at Lambertville Station, March, 1851."

Contributed through Wilson Brown.

(359—19)

Printed notice to contractors, extending time for receiving proposals for work on the Belvidere-Delaware Railroad to April 23d, 1852. Signed by Ashbel Welch, Engineer B. D. R. R.

Contributed through Wilson Brown.

(359—10)

Printed Poster, announcing an Extra Convention Train from Lambertville to Trenton. September 15th, 1852.

Contributed through Wilson Brown.

(359—23)

Printed Poster, announcing arrangements of trains on and after May 1st, 1852.

Contributed through Wilson Brown.

(359—21)

Printed Poster, announcing an extra Convention Train, Lambertville to Trenton. September 2d, 1852.

Contributed through Wilson Brown.

(359—97)

Card Poster, stating that "The Belvidere-Delaware Railroad Company do not allow smoking upon any part of any of their trains." 1853.

Contributed through Wilson Brown.

(359—41)

Printed notice warning persons against walking upon the railroad track. July 21st, 1853.

Contributed through Wilson Brown.

(359—37)

Printed notice forbidding children to enter the car-house, Lambertville. July 21st, 1853.

Contributed through Wilson Brown.

(359—117)

Printed Card Poster in colors. List of stations and rates of fare. 1853.

Contributed through Wilson Brown.

(359—68)

Printed Poster announcing opening of the railroad to Phillipsburg, New Jersey, and the arrangement of trains. July, 1854.

Contributed through Wilson Brown.

(359—72)

Printed Poster announcing 4th of July celebration at Easton, Pennsylvania. 1854.

Contributed through Wilson Brown.

(359—84)

Printed notice that the winter rates of freight will be higher than those charged during the summer. November 14th, 1854.

Contributed through Wilson Brown.

(359—153)

Printed notice of "Ordinary Black Trunk lost, containing wearing apparel of a female. July 26th, 1856."

Contributed through Wilson Brown.

(359—145)

Printed Poster, announcing arrangement of trains, commencing Monday, July 28th, 1856.

Contributed through Wilson Brown.

(359—67)

Printed Poster, announcing arrangement of trains, commencing Friday, September 15th, 1854.

Contributed through Wilson Brown.

(359—109)

Printed Poster, announcing extra train, Lambertville to Belvidere. October 19th, 1855.

Contributed through Wilson Brown.

(359—86)

Printed Poster, announcing that "This road will be open for business on Monday, December 4th, 1854," and arrangement of trains. Two trains each way per day, from Lambertville and Flemington. 1854.

Contributed through Wilson Brown.

(359—149)

Card Poster Notice to passengers for D. L. & W. R. R., Wilkesbarre, Water Gap, Scranton, etc., concerning Omnibus Tickets. August 2d, 1856.

Contributed through Wilson Brown.

(359—153 a)

Printed Poster, announcing arrangements of train in connection with the Camden, Amboy, Philadelphia, Trenton, Flemington, Lehigh Valley, and Delaware, Lackawanna and Western Railroads. 1856.

Contributed through Wilson Brown.

(359—205)

Poster printed in red and blue letters, advertising connections with neighboring roads. October 1st, 1853. Issued by William H. Gatzmer, Agent.

Contributed through Wilson Brown.

(359—175)

Poster "Change of hours." April 27th, 1857.

Contributed through Wilson Brown.

(359—174)

"Arrangement of Passenger Trains, April 27th, 1857."

Contributed through Wilson Brown.

(359—4)

Passenger Way Bill, Trenton to Lambertville. February 6th, 1851.

Contributed through Wilson Brown.

(359—3)

Passenger Way Bill. Morning Line down. February 6th, 1851.

Contributed through Wilson Brown.

(359—3 c)

Bill Head, blank form. 1851.

Contributed through Wilson Brown.

(359—113)

Order to deliver freight. 1855.

Contributed through Wilson Brown.

(359—3 b)

Blank Form of Receipt for Service. 1851.

Contributed through Wilson Brown.



(359—2)

Pamphlet.—Acts of the New Jersey Legislature relating to the Belvidere-Delaware Railroad Co. 1852.

Contributed through Wilson Brown.

(359—9)

Printed instructions to Passengers, forbidding smoking and cautioning them against accident. 1851.

Contributed through Wilson Brown.

(359—3 a)

Freight Way Bill (blank form). 1851.

Contributed through Wilson Brown.

(359—93)

Service Envelope with printed address, "J. G. Stevens, Esq., Resident Engineer, B. D. R. R., Trenton, New Jersey." 1855.

Contributed through Wilson Brown.

(359—57)

Conductor's Cash Ticket Check. 1854.

Contributed through Wilson Brown.

(359—53)

Printed "Safety Regulations" to employes, in which it is stated that "a yellow light by night" signifies "all right." May 10th, 1854.

Contributed through Wilson Brown.

(361—9)

Employes' Time Table with names of stations printed, leaving time, arriving time, and instructions to employes written with pen and ink. In force June 28th, 1834.

Contributed through Wilson Brown.

(361—60)

Employes' Time Table No. 36, in force June 18th, 1860.

Contributed through Wilson Brown.

(361—96)

Employes' Time Table No. 58. Supplement in force August 15th, 1865.

Contributed through Wilson Brown.

(361—126)

Employes' Time Table No. 30, in force May 9th, 1870.

Contributed through Wilson Brown.

(361—134)

Time Table No. 1, to take effect June 3d, 1872. The first time table issued after the lease of the United New Jersey Railroad and Canal Companies to the Pennsylvania Railroad Co. Signed by A. J. Cassatt, General Manager; J. A. Anderson, Superintendent; F. Wolcott Jackson, General Superintendent.

Contributed through Wilson Brown.

(359)

Tickets for passage on passenger and freight trains. 1851, 1854.  
Contributed through Wilson Brown.

(181)

Time Table Poster, through trains to Philadelphia. September 28, 1863.  
Contributed through Wilson Brown.

(81)

Printed Rules, Belvidere-Delaware and Flemington Railroad. 1855.  
Contributed by Ashbel Welch.

(85)

Pamphlet Report on Safety Signals, made at Railroad Convention at New York, by  
the late Ashbel Welch, Chairman. 1866.  
Contributed by Ashbel Welch.

(343)

Book of Rules for movement of trains by telegraphic orders. December 1st, 1872.  
Contributed by W. H. Davis.

(285)

Employees' Train Checks issued to P. S. Bogart, 1855, 1856 and 1860.  
Contributed by P. S. Bogart.

## PHILADELPHIA AND TRENTON RAILROAD CO.

(165)

Written Statement of Account with Camden and Amboy Railroad Company. 1841.  
Contributed by Frank Ellmaker.

(359—93 a)

Conductors' Cash Ticket Check. 1854.  
Contributed through Wilson Brown.

(216)

Printed Rates of Fare between Philadelphia and New York, via Kensington, Tacony,  
Trenton and Jersey City. 1853-1854.  
Contributed by Frank Ellmaker.

(158)

Written Statement of passengers carried between New York and Trenton. September, 1848.  
Contributed by Frank Ellmaker.

(628)

Schedule No. 52, trains between New York and Kensington and Camden. Nov. 1st, 1861.  
Contributed by R. G. Prevost.

(656)

Schedule in effect May 28th, 1860.  
Contributed by James Powell.

(655)

Schedule No. 53. In effect Nov. 18th, 1861.  
Contributed by James Powell.

(664)

Schedule No. 54. In effect Feb. 3d, 1862.  
Contributed by James Powell.

(669)

Schedule No. 57. In effect Oct. 13th, 1862.  
Contributed by James Powell.

(671)

Schedule No. 61. In effect June 15th, 1863.  
Contributed by James Powell.

(661)

Schedule No. 62. In effect Sept. 21st, 1863.  
Contributed by James Powell.

(663)

Schedule No. 64. In effect Jan. 4th, 1864.  
Contributed by James Powell.

(658)

Schedule No. 76. In effect Jan. 1st, 1866.  
Contributed by James Powell.

(668)

Schedule No. 85. In effect Dec. 16th, 1867.  
Contributed by James Powell.

(286)

Employes' Time Tables Nos. 80 and 83, issued June and October, 1867.  
Contributed by Frank Ellmaker.

(670)

Schedule No. 8. In effect May 9th, 1870.  
Contributed by James Powell.

(1047)

Two Bills, Union Transportation Company of 1838 and 1843 for freight from New York.  
Contributed by Wm. J. Latta.

## CAMDEN AND AMBOY RAILROAD.

(275)

Two Old Tickets from Trenton, N. J. to Bordentown, N. J.  
Contributed by Eugene Wood.

(287)

Five passes on the Camden and Amboy Railroad. 1857.  
Contributed by P. A. Stults.

(289)

Blank Pass on the Camden and Amboy Railroad. 1846.  
Contributed by Chas. Wilson.

(903)

Railroad way bill reading New Brunswick to Philadelphia, dated April 14, 1866.  
Contributed by M. Riebenack.

(913)

Blank passes for New Jersey editorial meeting Schooley's Mountain. 1864.  
Contributed by D. W. Van Ness.

(958)

Three passes issued to D. W. Van Ness. 1865.  
Contributed by D. W. Van Ness.

(657)

Schedule No. 13 in effect May 15. 1871.  
Contributed by James Powell.

## UNITED RAILROADS OF NEW JERSEY DIVISION.

(768)

General notice issued immediately after the lease of the United New Jersey Railroad and Canal Companies to the Pennsylvania Railroad Company, announcing the organization and list of officers. 1871.

## WEST JERSEY RAILROAD COMPANY.

(975)

Two passes issued to Edward Clift. 1879-1881.  
Contributed by Edward Clift.

RELICS IN CASES.  
UNITED RAILROADS OF NEW JERSEY.  
CAMDEN AND AMBOY RAILROAD CO.

(43)

Handle of car door, with catch in use on stage body cars. 1831.  
Contributed by P. S. Bogart.

(31)

Stay plate from the locomotive "John Bull." 1833.  
Contributed by Jas. White.

(41)

Two blinder straps from the harness of horses used to draw cars before a sufficient supply of locomotives was obtained by the Company. 1832-1833.  
Contributed by S. L. Roberts.

(42)

"Pole Hook" in use when cars were drawn by horses before a sufficient supply of locomotives was obtained by the Company. 1832-1833.  
Contributed by S. L. Roberts.

(51)

Wooden bench (not upholstered) from a primitive passenger car temporarily used between South Amboy and Old Bridge, New Jersey. 1832.  
Contributed by T. B. Appleget.

(327)

Old copper penny, part of the first money that purchased the first ticket bought by the first pay passenger that rode on a C. & A. R. R. train. 1832. Presented by Colonel John G. Stevens to Charles Wilson. 1872.  
Contributed by Charles Wilson.

(38)

Hand Lantern used by trainmen, etc. First form in use. 1834.  
Contributed by E. S. Ford.

(23)

Old Bell used at Burlington Wharf to announce the arrival and departure of the Company's steamboats connecting with railroad trains. 1835-1870.  
Contributed by R. D. Keen.

(28)

John Brown 56-pound Steel Rail. First type of steel rail imported from England. 1864.  
Contributed by F. J. Potter.

(334)

Template used for laying Fisher and Norris joints. 1868.  
Contributed through Wilson Brown.

(752)

Switch Key No. 1092. 1852.

Contributed by James West.

(753)

Switch Key No. 18. Taken from Benjamin Fish's desk after his death.

Contributed by E. P. Knowels.

(22)

Bell used for forty years at Railroad Arch, Bordentown, New Jersey, to announce arrival and departure of passenger trains. 1833-1873.

Contributed by R. D. Keen.

(52)

Engineer's Level and Tripod used in locating parts of the railroad, by General William Cook, about 1836.

Contributed by F. J. Potter.

(39)

Leather Journal Protectors to prevent oil from escaping from the wheel boxes of cars. 1840.

Contributed by Aaron Robbins.

(40)

Cast Iron Eagle used as an outside adornment on corners of passenger cars. 1848.

Contributed by I. H. Wainwright.

(799)

Painted Panel from old passenger car. 1849.

Contributed by F. G. Wiese.

(798)

Old Lantern used by Captain P. H. Kester, Steamboat "John Stevens." 1850.

Contributed by F. G. Wiese.

(795)

Old Lantern used by Emmanuel Perry, engineer. 1850.

Contributed by Mrs. S. Raiser.

(796)

Torch used by Emmanuel Perry, engineer. 1851.

Contributed by Mrs. S. Raiser.

(797)

Torch used by Emmanuel Perry, engineer. 1851.

Contributed by Mrs. S. Raiser.

(800 and 801)

Two Painted Panels from old passenger car. 1851.

Contributed by Mrs. Kate Wilson.

(802 to 805)

Four Painted Panels from old passenger cars. 1851.

Contributed by Theodore Giuglen.

(195)

Badge worn by passenger brakemen. 1864.  
Contributed by C. E. Prevost.

(56)

Monkey Wrench, among the first types used by locomotive engineers.  
Contributed by James H. Lewis.

(651)

Brass Baggage Check "to Burlington." No. 107.  
Contributed by Geo. P. Ingling, Mt. Holly.

(32)

Wood-burning Stove used in passenger cars. The attachments to this kind of stove were among the first appliances invented to distribute hot air to all parts of a car. 1860-1870.

Contributed by J. H. Neaffle.

(391 and 392)

Two Sections of "Stevens'" 36-pound Rail. The first rails rolled with a horizontal flanged base. The ability to roll bars of this form made the modern standards of American track possible. This type of rail is also in use in many foreign countries. Invented by Robert L. Stevens, 1830.

Contributed by S. C. Young.

(53)

Short Splice Bar with two holes, originally called "joint tongue." The first form of splice used with Stevens rail. The tongue was hot riveted to the stem of the rail. 1831.

Contributed by F. I. Stults.

(29)

Bar of "Stevens" 37-pound Rail with groove in base to receive spike head. 1831.  
Contributed by F. J. Potter.

(46)

Strap Rail from the Delaware and Atlantic Railroad, now known as the Columbus, Kinkora and Springfield Branch. 1832.

Contributed by S. R. Elliott.

(50)

Hand-made Spikes used to attach Stevens rail to stone blocks, ties and stringers. 1831-1832.

Contributed by S. L. Roberts.

(47)

Light Strap Rail laid when cars were moved by horses. Found near Yardville, New Jersey. In use about 1832.

Contributed by James H. Lewis.

(33)

Six Tie Rods to keep rails laid on stone blocks to gauge. 1833.  
Contributed by S. C. Young.

(35)

Wooden Switch Lever, commonly called "a gate," by employees. 1835-1860.  
Contributed by J. H. Lewis.

(45)

Heavy Strap Rail laid on stringers, Trenton and New Brunswick Branch. 1837.  
Contributed by F. I. Stults.

(48)

Wrought Iron Chair with central flanged lips to receive base of rail. 1845.  
Contributed by F. I. Stults.

(27)

"I" Bar 92-pounds Iron Rail, 7 inches high, rolled by the Trenton Iron Co. Success in rolling this rail led to the beginning of the manufacture of iron beams for architectural purposes. Laid 1848.

Contributed by S. C. Young.

(49)

Angle Splice Bar, the first angle bar invented. Used on the 92-pound 7-inch rail. A longer wooden block was attached to the outside of rail to complete the joint. 1848.

Contributed by S. L. Roberts.

(563)

Copper Drift Pin made from bolt taken from hull of steamboat "Naugatuck."  
Contributed by S. L. Roberts.

(564)

Piston Springs, Engine No. 3.  
Contributed by Jas. West.

(570)

Old hand-made Spike.  
Contributed by J. B. Powell.

(571)

Old Camden and Amboy Lamp.  
Contributed by J. B. Powell.

(565)

Stay Bolt from copper boiler of old steamer "Independence."  
Contributed by Benj. S. Watson.

(566)

Section first rail laid on Princeton Branch.  
Contributed by Lewis T. Ford.

(567)

Two Flag Stands from Engine No. 3.  
Contributed by Jas. West.

(568)

Old Gauge Lamp.  
Contributed by Jas. West.



(904)

Framed Way Bill of Passengers, Philadelphia to New York. December 26, 1834.  
Contributed by M. Riebenack.

(914)

Lock from Round Body Passenger Car. 1831.  
Contributed by John Watson.

(931)

Old Whistle from locomotive "John Bull."  
Contributed by Wm. J. Latta.

## NEW JERSEY RAILROAD AND TRANSPORTATION COMPANY.

(978)

Original affidavit as to publishing notice of opening of books of the New Jersey Railroad and Transportation Company. May 1, 1832: framed in wood on which the first strap rails were laid between Newark and Elizabeth, New Jersey.  
Contributed by F. Wolcott Jackson.

(477)

Old Brake Beam from New Jersey Railroad Passenger Car.  
Contributed by D. H. Baker.

(473)

Chair for "T" Rails New Jersey Railroad. 1839.  
Contributed by J. R. Smith.

(475)

Old Spiking Hammer used on New Jersey Railroad.  
Contributed by J. R. Smith.

(935)

"T" Rail laid near Newark, New Jersey in 1835.  
Contributed by Geo. H. Brown.

(472)

Chair for "T" Rail. 1833.  
Contributed by J. R. Smith.

(474)

One Section "T" Rail. 1833.  
Contributed by J. R. Smith.

(471)

Chair for "T" Rail. 1834.  
Contributed by J. R. Smith.

(629)

Framed Photograph of G. W. Barker, Superintendent. 1869.  
Contributed by A. H. McCauley.

## DELAWARE BRIDGE COMPANY.

(572)

Old Desk used on Trenton Bridge. 1811.  
Contributed by J. B. Powell.

## PHILADELPHIA AND TRENTON RAILROAD.

(586)

Old Curved Spike.  
Contributed by D. R. Mehaffey.

(585)

Six Braces to hold stringers in place on mud sills, strap-rail track.  
Contributed by D. R. Mehaffey.

(583)

Old Ring Joint.  
Contributed by D. R. Mehaffey.

(582)

Old Fisher and Norris Joint. 1865.  
Contributed by D. R. Mehaffey.

(581)

Old Angle Splice Joint.  
Contributed by D. R. Mehaffey.

(578)

Old Wrought Iron Chair.  
Contributed by D. R. Mehaffey.

(579)

Section of Strap Rail.  
Contributed by D. R. Mehaffey.

(575)

Section of 7-inch Rail weighing 92 lbs. per yard.  
Contributed by D. R. Mehaffey.

(587)

Old hand-made spikes from stringer track.  
Contributed by D. R. Mehaffey.

(588)

Two old machine-made spikes.  
Contributed by D. R. Mehaffey.

(589)

Old Bolt with Nut Lock, first nut lock used.  
Contributed by D. R. Mehaffey.

(590)

Old "T" Bolt.  
Contributed by D. R. Mehaffey.

(55)

Book containing written annual reports. 1850-1870.  
Contributed by C. E. Prevost.

BELVIDERE-DELAWARE RAILROAD CO.

(335)

Fifteen templets of rails studied by Ashbel Welch, chief engineer, when designing the patterns of steel rails which bear his name. 1868.  
Contributed through Willson Brown.

WEST JERSEY RAILROAD CO.

(785)

Old Passenger Station Signal Lantern. In use for many years at Cape May Court House.  
Contributed by Chas. Williams.

CAMDEN AND BURLINGTON COUNTY RAILROAD COMPANY.

(593)

Old Hand Lamp.  
Contributed by I. H. Wainwright.

(592)

Old Spike Puller.  
Contributed by I. H. Wainwright.

(595)

Old Ticket Office Sign, Mount Holly Station.  
Contributed by I. H. Wainwright.

(596)

Old "Half Way" Sign used when arrival at a point half way between stations gave right of track to first train that arrived.  
Contributed by I. H. Wainwright.

# RELICS IN FRAMES.

## PHILADELPHIA, WILMINGTON & BALTIMORE RAILROAD CO.

### NEW CASTLE AND FRENCHTOWN RAILROAD.

(476)

Newspaper "Aurora," with advertisements of State boat to New Castle and stage wagon to Frenchtown, en route from Philadelphia to Baltimore. Also old line of Philadelphia and Baltimore Water and Land Stages. Printed at Philadelphia, November 10, 1806.

Contributed by S. L. Roberts.

(957)

Old New Castle and Frenchtown Railroad Ticket.  
Contributed by John H. Black.

### NEW CASTLE AND WILMINGTON RAILROAD.

(739)

Time Table No. 2. In effect June 26th, 1854.  
Contributed by H. F. Kenney.

### PHILADELPHIA, WILMINGTON AND BALTIMORE RAILROAD.

(984)

Check for \$14,949,052.20 drawn by the Pennsylvania Railroad Company in favor of H. P. Kidder, Chas. U. Cotting, Henry L. Higginson, Chas. P. Bowditch, and Wm. Meriot, Jr., Committee, in payment for stock of the Philadelphia, Wilmington and Baltimore Railroad Company. June 7, 1881.

This check is the largest ever drawn in the United States.  
Contributed by President Geo. B. Roberts.

(731)

Lithograph of railroad track on ice bridge across the Susquehanna River at Havre de Grace, in use from January 15 to February 24, 1852.  
Contributed by H. F. Kenney.

(810)

Photograph of wooden bridge at Havre de Grace, Maryland, destroyed by a tornado August 1, 1866.  
Contributed by Sarah E. Wareham.

(811)

Photograph (end view) of present iron bridge at Havre de Grace, Maryland.  
Contributed by Sarah E. Wareham.

(838)

Order for transportation in the case of Private Reynolds, 1st Regiment, N. Y. Volunteers. December 24, 1862.

Contributed by A. A. Crawford.

(908)

Conductor's Exchange Ticket. 1852.

Contributed by Mr. Cardoza.

(915)

Wooden Block Joint complete. In use 29 years, 1863-1892.

Contributed by H. F. Kenney.

(1048)

Photograph of Alfred Crawford.

Contributed by A. A. Crawford.

(1050)

Photograph of William Crawford.

Contributed by William Crawford.

(736)

Poster announcing that passenger cars propelled by a locomotive steam engine leave New Castle for Frenchtown every morning. Issued June 1st, 1833.

Contributed by H. F. Kenney.

(116)

Poster advertising U. S. Mail Lines from Philadelphia to Baltimore via Wilmington and Havre de Grace, and discontinuing the line via New Castle and Frenchtown. November 22, 1845.

Property of J. E. Watkins.

(738)

Photograph of President Street Station, Baltimore, Md. Erected 1846.

Contributed by H. F. Kenney.

(812)

Photograph of the P. W. & B. R. R. Co. Old Freight Station at President Street, Baltimore, Md.

Contributed by Freight Agent, President Street, Baltimore.

(829)

Circular announcing extensive arrangements for carrying freight between Baltimore and Philadelphia. 1845.

Contributed by Freight Agent, President Street, Baltimore.

(845)

Way Bill, Citizens Union Line to Philadelphia via Frenchtown and New Castle, per steamboat George Washington. November 2, 1849.

Contributed by Freight Agent, President Street, Baltimore.

(844 a-b)

Custom House Papers for Steamboat George Washington. April, 1845.  
Contributed by Freight Agent, President Street, Baltimore.

BALTIMORE AND PORT DEPOSIT RAILROAD CO.

(822)

Map and Profile as located and under construction to a point near Havre de Grace.  
1836.

Contributed by J. W. Congle.

PHILADELPHIA, WILMINGTON AND BALTIMORE RAILROAD CO.

(826)

Poster announcing special rates for the transportation of wood, coal, lime, etc. November 13th, 1853.

Contributed by A. A. Crawford.

(830)

Time Table between Baltimore and Philadelphia. April 2nd, 1855.

Contributed by J. W. Crauch.

(825)

Letter fixing charge for freight at 50 cents per cord on wood to employes. 1849.

Contributed by A. A. Crawford.

(820)

Round Trip Ticket from Baltimore to Philadelphia. 1850.

Contributed by Robert McClintock.

(750)

Photograph of the Wooden Howe Truss Bridge spanning the Susquehanna river at Havre de Grace. In use before the present iron bridge was erected.

Contributed by H. F. Kenney.

(708)

View of Railroad Track built on the ice across the Susquehanna River at Havre de Grace, Maryland. In use from January 15th to February 24th, 1852.

Contributed by Theo. Sumwalt.

(816)

Wooden Bridge over the Susquehanna River at Havre de Grace, Md., showing bridge reconstructed in ninety days after tornado of August 1st, 1866.

Contributed by Mrs. Sarah E. Wareham.

(770)

Wooden Howe Truss Bridge across the Susquehanna River at Havre de Grace. 1866.

Contributed by Freight Agent, President Street, Baltimore.

(839)

Pay Roll, Canton Station, July, 1844.

Contributed by Freight Agent, President Street, Baltimore.

(840)

Pay Roll, Steamboat Charles Carroll, July, 1844.  
Contributed by Freight Agent, President Street, Baltimore.

(837)

Pay Roll, President Street Station, Baltimore, October, 1851.  
Contributed by A. A. Crawford.

(732)

Poster advertising trains "twice a day," Baltimore to Philadelphia, per Railroad.  
1849.  
Contributed by H. F. Kenney.

(737)

Poster advertisement of trains twice a day to Philadelphia from Baltimore. March  
29th, 1851.  
Contributed by H. F. Kenney.

(706)

NOTICE.—All colored people wishing to travel on this road will be required to have  
some responsible white person sign a bond to the company before they can proceed.  
March 1st, 1858.  
Contributed by Theo. Sumwalt.

#### CITIZEN'S UNION LINE.

(707)

Printed Poster of the movements of steamboats between Baltimore and Philadelphia.  
March 29th, 1851.  
Contributed by Theo. Sumwalt.

#### PHILADELPHIA, WILMINGTON AND BALTIMORE RAILROAD CO.

(841)

Seven Annual Reports, Philadelphia, Wilmington and Baltimore Railroad, for the  
years 1846, 1847, 1850, 1851, 1853, 1854, 1855  
Contributed by A. A. Crawford.

(841)

Six Annual Reports, Philadelphia, Wilmington and Baltimore Railroad Co. for the  
years 1856, 1857, 1858, 1859, 1863, 1864.  
Contributed by A. A. Crawford.

(818 a-b)

Penal Bond executed in Mississippi, Sept. 8th, 1860, for \$2500 to Philadelphia, Wil-  
mington and Baltimore Railroad Co., for transportation of female slaves. Document  
bears the seal of the Mississippi Central Railroad.  
Contributed by A. A. Crawford.

(827)

Guarantee against loss for transportation of a free negro. June 11th, 1845.  
Contributed by Freight Agent, President Street, Baltimore.

(833)

A Guarantee from John P. Kennedy to Philadelphia, Wilmington and Baltimore Railroad Co. against loss for transportation of negro women from Baltimore. April 13th, 1859.

Contributed by A. A. Crawford.

(828)

Letter from F. F. Banks, to pass Francis Foreman, a free colored man. July 1st, 1854.

Contributed by Freight Agent, President Street, Baltimore.

(771)

Union Volunteer Refreshment Saloon on the Delaware River near Washington Avenue, Philadelphia, May 29th, 1861.

Contributed by Agent President Street Station, Baltimore.

(831)

Letter from Mayor Hicks to S. M. Felton, President of the Philadelphia, Wilmington and Baltimore Railroad, asking that all Northern troops in the city of Baltimore be immediately sent back to the borders of the State. April 18th, 1861.

Contributed by A. A. Crawford.

(823)

Letter of Thanks from 22nd Regiment N. Y. State Militia to the Superintendent for courtesies in transporting north the body of Colonel James Monroe. 1862.

Contributed by A. A. Crawford.

(843)

Order from Col. Edwin H. Webster, 7th Regt. Maryland Vols., to furnish transportation for recruiting officers from Perryville to Baltimore, on Sept. 4th, 1862.

Contributed by A. A. Crawford.

#### PENNSYLVANIA, DELAWARE AND MARYLAND STEAM NAVIGATION CO.

(494)

Promissory Note to pay fifty dollars to the company for the eighth instalment on shares of stock. September, 1828.

Contributed by Elmer Barney.

#### PHILADELPHIA, WILMINGTON AND BALTIMORE RAILROAD CO.

(767)

Receipt for Four Hundred Bags of Coffee. March 20th, 1843.

Contributed by Geo. R. Howell.

(360—17)

Employees' Time Table No. 2, signed, Geo. A. Parker, General Superintendent. To take effect April 2nd, 1855.

Contributed by Wilson Brown.



(741)

Schedule No. 2 between Philadelphia and Baltimore. In effect May 22nd, 1854.  
Contributed by H. F. Kenney.

(740)

Schedule of Trains between Philadelphia and Baltimore, in effect November 1st, 1853.  
Contributed by H. F. Kenney.

(746)

Schedule for Excursion Train from Baltimore to Magnolia and Havre de Grace, July 2nd, 1857.  
Contributed by H. F. Kenney.

(747)

Schedule for Excursion Train from Baltimore to Magnolia and Havre de Grace, June 15, 16, 17 and 18, 1857.  
Contributed by H. F. Kenney.

(744)

Schedule No. 9, between Philadelphia and Baltimore. In effect March 2d and 3d, only, 1857.  
Contributed by H. F. Kenney.

(721)

Schedule of Trains signed by A. B. Warford, General Superintendent, to take effect May 2d, 1859.  
Contributed by Theo. G. Calder.

(748)

Schedule No. 2, signed S. M. Felton, Pres., for excursion train from Baltimore to Magnolia and return, June 7th, 1858.  
Contributed by H. F. Kenney.

(745)

Schedule, Philadelphia and Baltimore. In effect Nov. 23d, 1857.  
Contributed by H. F. Kenney.

(758)

Table of Distances between Southwark Wharf and President Street Depot.  
Contributed by H. F. Kenney.

(749)

Schedule No. 1, from Philadelphia to Baltimore. In effect January 8th, 1866.  
Contributed by H. F. Kenney.

(470)

Time Table No. 3, to take effect November 21st, 1870.  
Contributed by Elmer Barney.

DELAWARE RAILROAD CO.

(497)

Small Time Table notice of fall arrangements of trains, signed E. Q. Sewall, Oct. 5th, 1868.

Contributed by Elmer Barney.

DELAWARE RAILROAD LINE.

(496)

Time Table No. 1, to take effect May 8th, 1871.

Contributed by Elmer Barney.

PHILADELPHIA, WILMINGTON AND BALTIMORE RAILROAD CO.

(498)

Printed Schedule of first-class rates of fare from Wilmington. Signed, Geo. A. Dadmun, June, 1871.

Contributed by Elmer Barney.

PHILADELPHIA AND WEST CHESTER RAILROAD CO.

(446)

Small Card Time Table, issued 1856.

Contributed by G. F. Irwin.

CITIZENS' CANAL LINE.

(760)

Stockholder's Ticket between Philadelphia and Baltimore to Harmaney Boggs. 1829.

Contributed by H. F. Kenney.

NEW CASTLE AND WILMINGTON, NEW CASTLE AND FRENCHTOWN AND  
DELAWARE RAILROAD.

(743)

Schedule No. 3. In effect Sept. 24th, 1855.

Contributed by H. F. Kenney.

PHILADELPHIA, WILMINGTON AND BALTIMORE RAILROAD CO.

(605)

Soldiers' Ticket, Baltimore to Wilmington. 1864.

Contributed by Geo. C. Wilkins.

(759)

Combined Trip Pass and Money Order on Paymaster. Form in use between 1850 and 1859.

Contributed by H. F. Kenney.

(761)

Ticket, one seat to Philadelphia, S. R. Abbet.  
Contributed by H. F. Kenney.

(606)

Two Round Trip Tickets, Philadelphia to Baltimore and return, issued 1858.  
Contributed by Geo. C. Wilkins.

(742)

Rules in regard to Free Passes, S. M. Felton, President, July 14th, 1853.  
Contributed by H. F. Kenney.

(493)

Excursion Ticket from Philadelphia to Wilmington, signed, George H. Dadmun.  
December 27th, 1869.  
Contributed by Elmer Barney.

#### WEST CHESTER AND PHILADELPHIA RAILROAD COMPANY.

(1003)

Eleven annual reports, viz.—January 10, 1853; January 9, 1854; December, 1854;  
April 2, 1856; January 10, 1859; January 9, 1860; January 22, 1862; January 25, 1864;  
January 30, 1865; January 25, 1869; January 1, 1870.  
Contributed through C. J. Bechdolt.

(1004)

Photograph of Edward Miller, Conductor.  
Contributed through C. J. Bechdolt.

(1005)

Photograph of six men who comprised the first three crews. Taken 1865.  
Contributed through C. J. Bechdolt.

(1006)

Newspaper clipping. April 16, 1850.  
Contributed through C. J. Bechdolt.

(1007)

Photograph of Engine "Rockdale" attached to first train to enter West Chester  
over West Chester and Philadelphia Railroad. November 11, 1858.  
Contributed through C. J. Bechdolt.

(1008)

Photograph of Miller Snare, one of the oldest employes.  
Born Philadelphia, October 24, 1818.  
Contributed through C. J. Bechdolt.

(1009)

Letter to Edward Miller, requesting extra caution in management of train. June  
25, 1859.  
Contributed through C. J. Bechdolt.

(1010)

Letter of introduction from E. Jeffries, Superintendent, to Edward Miller, while on tour of recreation and inspection.  
Contributed through C. J. Bechdolt.

(1011)

Letter appointing Edward Miller Baggage Master and Brakeman. September 18, 1854.  
Contributed through C. J. Bechdolt.

(1012)

Book of Rules and Regulations. 1866.  
Contributed through C. J. Bechdolt.

(1013)

Stop over check. 1869.  
Contributed through C. J. Bechdolt.

(1014)

Conductors' Memorandum of remittance. March 15, 1866.  
Contributed through C. J. Bechdolt.

(1015)

Newspaper Clippings.  
Contributed through C. J. Bechdolt.

(1016)

Guide Book. 1869.  
Contributed through C. J. Bechdolt.

(1017)

Pass issued to S. B. Oswald. August 22, 1864.  
Contributed through C. J. Bechdolt.

(1018)

Pass issued to Luke Oswald. February 9, 1861.  
Contributed through C. J. Bechdolt.

(1019)

Winter arrangements via Media.  
Contributed through C. J. Bechdolt.

(1020)

Fall arrangement open to Pennelton (Grubb's Bridge).  
Contributed through C. J. Bechdolt.

(1021)

Sheriff's sale of railroad cars, mules and horses. May 1, 1856.  
Contributed through C. J. Bechdolt.

(1022)

Map of Road. 1853.  
Contributed through C. J. Bechdolt.

(1023)

Report of the Southern route of the proposed railroad from West Chester to Philadelphia. 1851

Contributed through C. J. Bechdolt.

(1024)

Blank notice requesting payment on account of capital stock. April 18, 1857.

Contributed through C. J. Bechdolt.

(1025)

Application from Legislature for authority to borrow money.

Contributed through C. J. Bechdolt.

(1026)

Act of Incorporation. 1852.

Contributed through C. J. Bechdolt.

(1027)

Mortgage to Ezra Brown and George S. Fox, Trustees, for \$600,000.

Contributed through C. J. Bechdolt.

(1028)

Proposed project for completing road.

Contributed through C. J. Bechdolt.

(1029)

Schedule No. 12. March 11, 1861.

Contributed through C. J. Bechdolt.

(1030)

Copy of Preamble and Resolutions adopted at meeting of the board. April 2, 1856.

Contributed through C. J. Bechdolt.

(1031)

A further supplement to an act entitled "An act to authorize the Governor to incorporate the West Chester and Philadelphia Railroad Company."

Contributed through C. J. Bechdolt.

(1032)

Printed copy of Charter of Company. 1850.

Contributed through C. J. Bechdolt.

(1033)

Printed rules and regulations. 1834.

Contributed through C. J. Bechdolt.

(1034)

Preamble and regulations adopted December, 1854.

Contributed through C. J. Bechdolt.

(1035)

Rates of fare. August 15, 1864.  
Contributed through C. J. Bechdolt.

(1036)

Schedule No. 38. April 12, 1869.  
Contributed through C. J. Bechdolt.

(1037)

Notice to Stockholders from president and board of managers.  
Contributed through C. J. Bechdolt.

(1038)

Twenty-seven newspaper clippings.  
Contributed through C. J. Bechdolt.

(1039)

Schedule road open to Rockdale. April 14, 1856.  
Contributed through C. J. Bechdolt.

#### WASHINGTON AND SOUTHERN RAILROAD.

(1073)

Pass issued to T. L. Wallace and L. Weaver. May 23, 1862.  
Contributed by H. F. Kenney.  
Contributed through C. J. Bechdolt.

#### BALTIMORE AND POTOMAC RAILROAD.

(113)

Photograph of the Garfield Funeral Train, taken at 6th and B Street Station, Washington, D. C. 1881.  
Contributed by J. S. Mewshaw.

#### PHILADELPHIA AND BALTIMORE CENTRAL RAILROAD.

(987)

Annual Report of the President and Directors. January 14, 1856.  
Contributed through C. J. Bechdolt.

(988)

Fourth Annual Report to the Stockholders. January 10, 1859.  
Contributed through C. J. Bechdolt.

(989)

Certificate of two shares of preferred stock. April 11, 1865.  
Contributed through C. J. Bechdolt.

(990)

Annual 1860 Ticket issued to Luke Oswald, Conductor.  
Contributed through C. J. Bechdolt.

(991)

Joint and local freight tariff commencing March 1, 1869.  
Contributed through C. J. Bechdolt.

(992)

Book of Wood, Waste and Oil stubs. 1868 and 1869.  
Contributed through C. J. Bechdolt.

(993)

Notice to Agents and Shippers. November 5, 1869.  
Contributed through C. J. Bechdolt.

(994)

Notice to Agents. August 23, 1869.  
Contributed through C. J. Bechdolt.

(995)

Rates of Fare. April 12, 1869. Signed by Henry Wood, General Superintendent.  
Contributed through C. J. Bechdolt.

(996)

Rates of Fare. January 16, 1866.  
Contributed through C. J. Bechdolt.

(997)

Rates of Fare. August 15, 1864. Signed by Henry Wood, General Superintendent.  
Contributed through C. J. Bechdolt.

(998)

Rates of Fare. February 8, 1860. Signed, Robert Hodgson, Engineer and Superintendent.  
Contributed through C. J. Bechdolt.

(999)

Rates of Fare. June 5, 1863. Signed by Henry Wood, General Superintendent.  
Contributed through C. J. Bechdolt.

(1000)

Rates of Fare. March 1, 1864.  
Contributed through C. J. Bechdolt.

(1001)

Change of hours, April 26, 1869. Signed by Henry Wood, General Superintendent.  
Contributed through C. J. Bechdolt.

(1002)

Schedule Passenger and Freight Trains commencing August 22, 1860.  
Contributed through C. J. Bechdolt.

## RELICS IN CASES.

### NEW CASTLE AND FRENCHTOWN RAILROAD.

(560)

Old Rail Chair used 1835-1840.  
Contributed by Geo. Hastings.

(561)

Wood from bottom of original culvert.  
Contributed by Geo. Hastings.

(569)

Two hand-made Spikes. 1833.  
Contributed by William Wright.

### PHILADELPHIA, WILMINGTON AND BALTIMORE RAILROAD.

(599)

Four painted panels from passenger cars.  
Contributed by Jacob Scheller.

(808-809)

Investigation into alleged misconduct of late superintendent, 1855. 2 volumes.  
Contributed by Robert McClintock.

(790)

Wrought "H" Chair laid about 1845.  
Contributed by H. F. Kenney.

(787)

Section of Pear-Shaped Rail rolled about 1850.  
Contributed by H. F. Kenney.

(791)

Four-Spike Chair laid about 1850.  
Contributed by H. F. Kenney.

(789)

Section of old Tram Rail laid about 1850.  
Contributed by H. F. Kenney.

(788)

Section of "U" Rail laid about 1860.  
Contributed by H. F. Kenney.

(786)

Red Lantern in use 50 years ago.  
Contributed by John Owen.



**RELICS IN FRAMES.**  
**PENNSYLVANIA LINES, NORTH-WEST SYSTEM.**

**OHIO AND PENNSYLVANIA RAILROAD CO.**

(900)

Five Old Tickets sold at Alliance to Lima, Upper Sandusky, Van Wert, Bucyrus and Fort Wayne.

Contributed by W. W. Scott.

(873)

Old Ticket sold at Alliance for Pittsburgh.

Contributed by C. D. Law.

(899)

Five Old Tickets sold at Alliance, Alliance to Bull Creek, Franklin, Mansfield, Londonville and Crestline.

Contributed by W. W. Scott.

(725)

Old Ticket, Alliance to Franklin. Signed, T. J. Nixon, Agent.

Contributed by M. Parkin.

(724)

Ticket from Alliance to Strasburgh. Signed, J. T. Nixon, Agent.

Contributed by M. Parkin.

(877)

Ticket from Pittsburgh to Columbia.

Contributed by Geo. J. Parkin.

(947)

Time table No. 31, issued November 22, 1855.

Contributed by Geo. J. Parkin.

(513)

Four Tickets sold at Alliance. 1860.

Contributed by E. Shimp.

(294 a)

Trip Pass from Altoona to Rochester. Issued by J. M. McCollough, May 6th, 1873.

Contributed by L. F. Loree.

(501)

List of Stations and Distances. 1853.

Contributed by D. L. Zink.

(503 a and b)

Time Table Number 12, issued April 20th, 1853.

Time Table Number 24, issued November 27th, 1854.

Contributed by D. L. Zink.

(510)

Excursion Ticket to Democratic National Convention, Cincinnati. June 10th, 1856.

Contributed by W. A. Routson, Jr.

(512)

Conductor's Check, issued by D. M. Curtis, Conductor.

Contributed by W. M. Koch.

(1059)

Pass issued to Mrs. Parkin, February 1, 1855.

Contributed by J. W. Renner.

(1063)

Daguerreotype of Crestline Station. 1853.

Contributed by J. W. Renner.

(1064)

Photograph of Solomon W. Roberts.

Contributed by J. W. Renner.

(1065)

Pass issued to J. P. Farley. 1855.

Contributed by J. W. Renner.

## PITTSBURGH, FORT WAYNE AND CHICAGO RAILROAD.

(1049)

Pamphlet of Annual Meeting of the Stockholders.

Contributed by Geo. J. Parkin.

(1051)

Pass. Alliance to Canton about 1855. Signed T. J. Nixon.

Contributed by J. W. Renner.

(1052)

Schedule of tickets returned, May 31, 1862.

Contributed by J. W. Renner.

(1056)

Five bonds given by Geo. J. Parkin. 1859-1862.

Contributed by J. W. Renner.

(1057)

Circular No. 1, Accounting Department, November 1, 1861. Signed Th. D. Messier.

Contributed by J. W. Renner.

(1066)

Seven letters addressed to Geo. J. Parkin, Agent.  
Contributed by J. W. Renner.

(1071)

Pass issued to J. W. Renner. 1869.  
Contributed by J. W. Renner.

(502)

Letter concerning the Alliance accident, addressed to the editor of the Commercial Journal, by G. W. Cass, President. December 29th, 1856.  
Contributed by D. L. Zink.

(456)

Letter from Robert Rhodes, Master Transportation, in reference to movement of stock, dated April 13th, 1858.  
Contributed by C. D. Law.

(455)

Book of Train Rules, issued 1861.  
Contributed by C. D. Law.

(452)

Book of Telegraph Rules, issued 1864.  
Contributed by C. D. Law.

(882)

Photograph of Locomotive. 1853.  
Contributed by Jos. Ogilim.

(863)

Photograph of Shifting Locomotive. 1862.  
Contributed by Jos. Bell.

(909)

Colored drawing of the Locomotive "Keystone," 1855.  
Contributed by Wm. Reynolds.

(986)

Photograph of Silver Pitcher presented to G. W. Glass, by Allegheny County, Pennsylvania, Agricultural Society, for designing the Locomotive "Keystone." 1855.  
Contributed by J. C. Glass.

(937)

Photograph L. H. Adams, 1860; W. F. Ross, 1860; W. Meeker, 1861; Rod Bridges, 1861.  
Contributed by J. Detrick.

(936)

10 passes issued to D. Snyder, 1857, '64, '65, '66, '67, '68, '69, '70, '71, '72, and '82.  
Contributed by D. Snyder.

(258)

Two tickets signed by H. I. Nixon. Alliance to Damascus, and Alliance to Ennon.  
1850.

Contributed by H. I. Nixon.

(945)

Two passes issued to E. Evans. 1850-'68.  
Contributed by E. Evans.

(938)

Daguerreotype Passenger Locomotive. 1854.  
Contributed by J. Phillips.

(939)

Daguerreotype Wood Burning Locomotive. 1854.  
Contributed by J. Phillips.

(940)

Photograph of Locomotive. 1865.  
Contributed by J. J. Shultz.

(941)

Photograph of Passenger Locomotive. 1864.  
Contributed by J. Phillips.

(691)

Daguerreotype of locomotive "Beaver." The second locomotive placed in service  
on the Pennsylvania, Fort Wayne and Chicago Railway.  
Contributed by Geo. J. Parkin.

(701)

Old Pass issued to Miss Parkin from Alliance to Pittsburgh, Jan. 1st, 1862.  
Contributed by M. Parkin.

(878)

Old Ohio and Pennsylvania Railroad Ticket. Alliance to New Brighton.  
Contributed by John Graham.

(726)

Pass issued to C. T. Royce and Family, "for this day only." Signed William P.  
Shinn, July 4th, 1862.  
Contributed by M. Parkin.

(896)

Pass issued to C. C. Hackett from Chicago to Quincy. December 30, 1870.  
Contributed by C. C. Hackett.

(449)

Trip Pass issued by J. N. Du Barry, Superintendent Western Division. October  
11th, 1861.  
Contributed by C. D. Law.

(450)

Written Pass signed by Samuel Hanna, Vice-President. Issued July 28th, 1865.  
Contributed by C. D. Law.

(489)

Permit Card issued to John E. Davidson, to leave Chicago and pass through the Union Lines during the War of the Rebellion. 1862.  
Contributed by John E. Davidson.

(500)

Drivers' Passes, issued in 1859.  
Contributed by D. L. Zink.

(508—509)

Instructions to Conductors to carry persons attending conventions at reduced fare. 1857, 1858, 1859.  
Contributed by G. W. Irwin.

(507)

Time Table Number 16. Issued April 14th, 1861.  
Contributed by G. W. Irwin.

(458)

Classification Sheet, signed by W. H. Clement. September, 1848.  
Contributed by D. T. McCabe.

(511)

Conductor's Report of Cash Fares received. October 30th, 1856.  
Contributed by G. W. Irwin.

(454)

Time Table Number 24, Western Division, issued November 23d, 1857.  
Contributed by C. D. Law.

(453)

Time Table Number 1, Western Division, issued February 3d, 1861.  
Contributed by C. D. Law.

(514)

Tickets for Passage with contract printed on back. Signed, S. W. Roberts, Superintendent. Issued 1851.  
Contributed by W. A. Routson, Jr.

(405 f)

Trip Pass issued to Thomas L. Wallace, Agent Pennsylvania Railroad, from Pittsburgh to Chicago and return. Signed, G. M. Cass, President. August 13th, 1860.  
Contributed by Thomas L. Wallace.

(506)

Freight Way Bills, 1857, 1858, 1859, 1860, 1861, 1862, 1863, 1864.  
Contributed by D. L. Zink.

(510)

Letter to Thomas Frye, Agent, concerning error in accounts. Signed, T. D. Messler, Auditor. November 12th, 1856.

Contributed by G. W. Irwin.

(296 s)

Guide Book issued 1857.

Contributed by B. Thaw.

(480)

Printed Pamphlet, showing Pennsylvania Railroad Western connection.

Contributed by D. T. McCabe.

ASHTABULA, YOUNGSTOWN AND PITTSBURGH RAILROAD CO.

(146)

Time Tables Number 1. May 1st, 1873.

Number 2. May 13th, 1878.

Time Tables Number 3. November 10th, 1878.

Number 4. May 26th, 1879.

Signed by J. D. Layng and D. B. McCoy.

ELMIRA, CANANDAIGUA AND NIAGARA FALLS RAILROAD CO.

(847)

Pass issued to James Lewis. 1858.

Contributed by James Lewis.

SPRINGFIELD, MT. VERNON AND PITTSBURGH RAILROAD CO.

(324 s)

Two Omnibus Tickets and Two Passes. 1856.

Contributed by J. Kennedy.

(515)

Blank Pennsylvania State Agricultural Society Excursion Ticket. 1857.

Contributed by W. A. Routson, Jr.

STAR UNION LINE.

(504 a and b)

Through Freight Way Bills. Transfer Station of Clarke & Co. 1859-1860.

Contributed by D. L. Zink.

(505)

Freight Way Bill, Pittsburgh to Crestline. May 14th, 1864.

Contributed by D. L. Zink.

(100)

Poster Printed in Colors. Fast freight and live stock East and West via Pennsylvania route. Signed by D. S. Gray, Superintendent Union Line. Issued 1865.

Contributed by D. J. Gray.

CLEVELAND AND PITTSBURGH RAILROAD.

(490)

Two Passes issued in 1860.  
Contributed by D. L. Zink.

(221 s)

Passenger Conductors' Check of form used 1855-1860.  
Contributed by L. F. Loree.

(294)

Annual Passes, 1868, 1869, 1873, 1875.  
Contributed by L. F. Loree.

(218)

First Book Rules issued for the government of conductors, engineers and employees.  
Contributed by W. H. Sriver.

(292)

Book of Rules for the regulation of officers and agents. January 7th, 1852.  
Contributed by L. F. Loree.

(212)

Book of Rules and Regulations for the government of the Transportation Department. Issued May 16th, 1864.  
Contributed by L. F. Loree.

(283)

Book of Rules for the government of the Transportation Co. November 14th, 1867.  
Contributed by L. F. Loree.

(219 s)

Book of Rules and Regulations for the running of trains. 1870.  
Contributed by W. H. Sriver.

(99)

Agents' Bond. March, 1854.  
Contributed by L. F. Loree.

(220)

Copy of Book of Rules. 1876.  
Contributed by W. H. Sriver.

(99)

Bond for \$1000, given by Patrick Rogers, March 1st, 1854.  
Contributed by L. F. Loree.

(223)

Bank Bill of the Rochester Exchange Bank. Raised from \$1.00 to \$10.00 with a pen, and passed upon passenger conductor, who accepted it for fare. 1861.  
Contributed by W. H. Sriver.

(222)

Complimentary Card of Invitation to the Excursion given in honor of the Grand Duke Alexis, Cleveland to Newburgh, December 27th, 1871.

Contributed by W. H. Sriver.

(1053)

Foreign Ticket report, April 30, 1893.

Contributed by J. W. Renner.

(1054)

Ticket report, April 30, 1867.

Contributed by J. W. Renner.

(1055)

Certificate of appointment, June 1, 1863.

Contributed by J. W. Renner.

(1058)

Five passes, three written and two printed. January 7, 1858; July 3, 1858; September 27, 1858; April 20, 1864; August 24, 1854.

Contributed by J. W. Renner.

(1070)

Two passes issued to J. W. Renner, 1868 and 1869.

Contributed by J. W. Renner.

## RELICS IN FRAMES.

### PENNSYLVANIA LINES, SOUTH-WEST SYSTEM.

#### MADISON AND INDIANAPOLIS RAILROAD CO.

(312)

Letters Patent, signed by Andrew Jackson, President of the United States, and Martin Van Buren, Secretary of State. March 5th, 1831. Granting to Emmor Kimber exclusive rights for "a new and useful improvement in Locomotive carriages and rails adapted thereto." This invention was designed to be used on the inclined plane at Madison, Indiana.

Contributed by William Swanson.

(153)

The first poster advertisement of a railroad in the State of Indiana. Time table of railroad line open from head of Madison Plane to Vernon, 20 miles distant. Speed, 13 miles per hour. April 1, 1839.

Contributed by R. J. Elvin.

(239)

Way Bill of passengers, trip No. 1, from Madison to Vernon and return. Tickets were not then in use. Names of passengers were then entered on the bill as had been customary at the stage coach offices. 1839.

Contributed by R. J. Elvin.



(237 s)

Employes' Time Table and Regulations for running trains. The first employes' time table printed in the State of Indiana. Issued by Henry R. Hall, Superintendent, between Madison and Indianapolis. October 16th, 1848.

Contributed by R. J. Elvin.

(254 s)

Time Table No. 3, issued November 27th, 1854.

Contributed by R. J. Elvin.

(188)

Written statement of passengers and freight business. November, 1840.

Contributed by R. J. Elvin.

(250)

Statement of wages paid in 1841.

Contributed by R. J. Elvin.

(235)

Statement of salaries paid for services. 1865.

Contributed by R. J. Elvin.

(156)

Internal improvement bond for \$1000 issued by the State of Indiana. The funds obtained from the sale of these bonds were expended in the construction of the Madison and Indianapolis Railroad. Date of bond, March 1st, 1841.

Contributed by R. J. Elvin.

(195 n)

First Mortgage \$1000 bond, bearing interest at seven per cent. Issued April 1st, 1862.

Contributed by R. J. Elvin.

(115)

Scrip issued to those who subscribed in the State of Indiana for the construction of the Madison and Indianapolis Railroad. The \$5.00 notes numbers 3115 and 3129 of the series issued October 14th, 1842.

Contributed by R. J. Elvin.

(277 s)

Scrip issued to those who subscribed in the State of Indiana for the construction of the Madison and Indianapolis Railroad. Note No. 3122 of the \$5.00 series. Issued October 18th, 1842.

Contributed by George B. Roberts, President of the Pennsylvania Railroad Company.

(114)

12½ Cent Shin Plaster note. Forty of these were exchanged for \$5.00 in scrip. November 21st, 1842.

Contributed by R. J. Elvin.

(189)

Deed for lands subscribed for the stock of the Madison and Indianapolis Railroad when scrip was issued. October 11th, 1843.

Contributed by R. J. Elvin.

(192)

Red, green and blue poster card. 1850.

Contributed by R. J. Elvin.

(193)

Red, white, and blue, and gilt poster. 1852.

Contributed by R. J. Elvin.

(190)

Railroad Map of Indiana, showing location of Madison and Indianapolis Railroad and connecting lines, from surveys by Thomas A. Morris. 1850.

Contributed by R. J. Elvin.

(107 s)

Railway Map State of Indiana. Published by D. B. Cooke & Co., Chicago. January, 1855.

Contributed by E. B. Wall.

(253)

Inventory of rolling stock when the railroad was turned over by the State of Indiana to the Madison and Indianapolis Railroad Company. February 20th, 1843.

Contributed by R. J. Elvin.

(240)

Statement of receipts at North Vernon for week ending December 8th, 1856.

Contributed by R. J. Elvin.

(482)

Printed pamphlet, time table of trains. 1856.

Contributed by D. T. McCabe.

(148)

Freight Tariff (pamphlets), to take effect May 19th, 1856.

Contributed by R. J. Elvin.

(148 a)

Freight Tariff, to take effect December 1st, 1857.

Contributed by R. J. Elvin.

(149)

Original joint tariff between the Madison and Indianapolis Railroad and the Jefferson Railroad. Signed by D. Ricketts, President, and A. Crothers, Superintendent, Jefferson Railroad; T. H. Smith, President, and D. C. Branham, Superintendent, Madison and Indianapolis Railroad. February 19th, 1858.

Contributed by R. J. Elvin.

(148 b)

Freight Tariff, to take effect October 10th, 1864.  
Contributed by R. J. Elvin.

(211)

Instructions for Running Trains. In effect October 25th, 1864.  
Contributed by R. J. Elvin.

(150)

Tariff for the transportation of live hogs, issued November 20th, 1859.  
Contributed by R. J. Elvin.

(242)

Freight Tariff, in force 1860.  
Contributed by R. J. Elvin.

(234)

Time Book issued by D. C. Branham, Superintendent. In effect May 5th, 1856.  
Contributed by R. J. Elvin.

(147)

Time Table in effect January 30th, 1860.  
Contributed by R. J. Elvin.

(231 s)

Old Time Table, signed by D. C. Branham, Superintendent. Issued Dec. 19th, 1859.  
Contributed by R. J. Elvin.

(152)

Time Table No. 1. Signed by A. B. Culver. Issued November 13th, 1864.  
Contributed by R. J. Elvin.

(230)

Time Table No. 4. Signed by A. B. Culver. Issued September 17th, 1865.  
Contributed by R. J. Elvin.

(109)

Eight pamphlets, containing annual reports of the Madison and Indianapolis Railroad Co., addressed to the stockholders. 1849, 1853, 1854, 1856, 1859, 1861, 1863, 1864, 1867.  
Contributed by R. J. Elvin.

(246)

Card to all shippers issued by J. O. D. Lilly, Superintendent. April 16th, 1855.  
Contributed by R. J. Elvin.

(236)

State of Indiana. Act prescribing punishment for running trains across other railroads without stopping. February 27th, 1857.  
Contributed by R. J. Elvin.

(209)

Half fare ticket from Ebenburg to Columbus, 1866. Signed by J. W. Lewis.  
Contributed by W. F. Brunner.

(251)

Deed and Script. 1845.  
Contributed by R. J. Elvin.

(1041)

Receipts and expenditures. 1850.  
Contributed by Superintendent Prindle.

(1040)

Schedule passenger, freight and hog trains.  
Contributed by Superintendent Prindle.

## JEFFERSONVILLE, MADISON AND INDIANAPOLIS RAILROAD.

(191 b)

Circular notice of the assignment of H. J. Jewett to take charge of the Jeffersonville, Madison and Indianapolis and the Indianapolis and Vincennes Railroads. Signed, Thomas A. Scott. Issued January 1st, 1874.

Contributed by R. J. Elvin.

(191 a)

Circular notice issued by H. J. Jewett upon assuming control of the road. January 1st, 1874.

Contributed by R. J. Elvin.

(191)

Circular notice of the death of J. Edgar Thomson. Signed by Horace Scott, General Superintendent. Issued May 20th, 1874.

Contributed by R. J. Elvin.

(241)

Statement of cost, earnings and expenses, issued by S. McKiernan, Secretary April 30th, 1871.

Contributed by R. J. Elvin.

(145)

Notice, "Thou shalt not pass." Issued 1876.

Contributed by R. J. Elvin.

(261)

Exchange passes of various dates and from different railroad companies. Issued to R. J. Elvin. 1869-1875.

Contributed by R. J. Elvin.

(97)

Two Photographs of old car now stored in Jeffersonville Yard. While this car was in service on the night express, the train was robbed by the Reno Gang of train robbers, at Marshfield, Ind. Bullet holes on the car door as evidence of the robbery.

Contributed by J. M. Lindley, Louisville, Ky.

MADISON, INDIANAPOLIS AND PERU RAILROAD CO.

(259, 260, 295)

Fifteen old Passes and Tickets. 1855-1866.

Contributed by R. J. Elvin.

(485)

Half-fare Ticket, Ebensburg to Indianapolis. Issued 1856.

Contributed by H. I. Miller.

LITTLE MIAMI RAILROAD CO.

(462)

Time Table. Issued 1847.

Contributed by D. T. McCabe.

(461)

Printed Regulations, signed by W. H. Clement, Supt. October 18th, 1849.

Contributed by D. T. McCabe.

(244)

Invitation to the railroad ball "given in honor of the commencement of the White-water and Miami Valleys," at Richmond, Indiana. May 30th, 1850.

Contributed by G. P. Enswiler.

(466)

Time Table No. 34, issued April 5th, 1853.

Contributed by D. T. McCabe.

(464)

Circular of rates to Cincinnati. 1858.

Contributed by D. T. McCabe.

(466 a)

Time Table, issued April 25th, 1860.

Contributed by D. T. McCabe.

(279)

Manifest of freight shipped from Cincinnati to Springfield. August 9th, 1847.

Contributed by R. Peters.

(290)

Freight Tariff. Signed by W. H. Clement, Superintendent. Issued Sept., 1848.

Contributed by F. F. Fuller.

(459)

Special notice concerning freight from Cincinnati to New York. Issued 1855.

Contributed by D. T. McCabe.

(460)

Rate Sheet, from Cincinnati. 1860.

Contributed by D. T. McCabe.

## MIAMI CANAL.

(194)

Topographical Map of Cincinnati, showing location of the canal, from a survey by Captain H. L. Barnum. 1830.

Contributed by R. J. Elvin.

## INDIANA CENTRAL RAILROAD CO.

(233)

Letter from John S. Newman, President, to G. P. Enswiler, Agent at Richmond, Indiana, refusing to accept his resignation. Dated May 6th, 1854.

Contributed by G. P. Enswiler.

(243)

Receipt \$245.00. Signed by Saml. Hanna, Treasurer, I. C. R. Co. to G. P. Enswiler, February 10, 1854.

Contributed by G. P. Enswiler.

## PITTSBURGH, CINCINNATI AND ST. LOUIS RAILWAY CO.

(481)

Small pamphlet, showing trains on Xenia Branch, etc.

Contributed by D. T. McCabe.

(151)

Circular issued to employes ordering a 10 per cent. reduction in salaries. Signed. Thomas A. Scott, President. Issued May 25th, 1877.

Contributed by R. J. Elvin.

(491)

Card of Invitation issued by P. C. C. & St. L. Railway Co. to accompany President Lincoln from Columbus to Pittsburgh. February 14th, 1861.

Contributed by T. B. McKnight.

(104)

Annual Passes P. C. C. & St. L. R. R. and Cincinnati and Muskingum Valley Railroads. 1872-1892.

Contributed by C. H. Walton.

(305)

Clergyman's order to purchase tickets at half price. 1874.

Contributed by C. H. Walton.

## CINCINNATI, WILMINGTON AND ZANESVILLE RAILROAD CO.

(282 s)

Written Pass issued to William Goss, Agent. "He to carry water to the passengers and to assist in wooding up the engines." August 17th, 1857.

Contributed by C. H. Walton.

(326 s)

Written Time Table for extra trains and instructions to take up pass. 1857.

Contributed by C. H. Walton.

(325 s)

Passes issued in 1855, 1856. Contributed by William Linton.

(293)

Book of Rules regulating the maintenance and operating of the road, issued December 24th, 1857. Contributed by C. H. Walton.

LITTLE MIAMI, COLUMBUS AND XENIA RAILROAD CO.

(299 s)

Quarterly Commuter's Tickets, issued 1856, 1857, 1865, 1867, 1869.  
Contributed by R. Peters.

(72)

Tickets issued 1860-1865. Contributed by W. C. Mellin.

(463)

Two Excursion Tickets, Philadelphia to Cincinnati. 1853.  
Contributed by D. T. McCabe.

(1069)

Pass issued to J. W. Renner. Contributed by J. W. Renner.

(905)

Quarterly Ticket issued to W. C. Mellow. April 1st-July 1st, 1869.  
Contributed by Passenger Agent, Indianapolis.

(895)

Pass issued to C. C. Hackett, from Pittsburgh to Steubenville and return. November 22d, 1871. Contributed by C. C. Hackett.

(468)

Monthly Ticket issued to Miss I. C. Woolsey over Pittsburgh, Cincinnati and St. Louis Railroad. June, 1880.

JEFFERSONVILLE RAILROAD.

(1060)

Thirteen blank passes. Contributed by J. W. Renner.

JEFFERSONVILLE AND LOUISVILLE FERRY.

(1061)

Personal monthly ticket. Contributed by J. W. Renner.

STEUBENVILLE AND INDIANA RAILROAD.

(1067)

Book of rules and regulations. 1854. Contributed by J. W. Renner.

ALLEGHENY RAILROAD.

(1068)

Two passes issued to J. W. Renner, 1863 and 1869.  
Contributed by J. W. Renner.

# RELICS IN CASES.

## PENNSYLVANIA LINES SOUTH-WEST SYSTEM.

### MADISON AND INDIANAPOLIS RAILROAD CO.

(14)

"State Rail," 45 lbs. per yard, rolled in England. Laid on the 9th mile of Madison and Indianapolis Railroad, 1838. Remained in track until 1881. Although punched for splice bars in England, no splice bars were used until it was punched with machine run by hydraulic pressure, 1870, without taking rail out of track.

Contributed by R. J. Elvin.

(328)

Center Chairs used in laying the original track. 1838.

Contributed by D. Gray.

(8)

First Spikes made in Pittsburgh. Laid between Madison and Vernon, 1838. Cost 10 cents per pound cash and 20 cents when paid in state bonds. Laid 1838.

Contributed by R. J. Elvin.

(1)

Center Chairs, the first four used in track. 1838.

Contributed by R. J. Elvin.

(2)

Joint Chair with loose dog held in place by bolt and nut. Laid 1838.

Contributed by R. J. Elvin.

(3)

"Grapple Chair" with overhanging lips to keep tie from splitting. Laid 1839.

Contributed by R. J. Elvin.

(4)

Center Chair without grapple. Laid 1839.

Contributed by R. J. Elvin.

(7)

Hand Made Spikes for "T" Rail. Laid between Vernon and "6 Mile," 1841.

Contributed by R. J. Elvin.

(394)

Flat Bar of "Strap Rail" laid between Columbus and Indianapolis. Cost \$67.50 per ton cash. 1845.

Contributed by R. J. Elvin.

(1081)

Model of Bolster with original Monkey Boxes in use 1838.

Contributed by R. J. Elvin.



(5)

Wrought Chair obtained from Eastern Road. Experimented with about 1845.  
Contributed by R. J. Elvin.

(6)

Cast Joint or End Chair. Laid 1850.  
Contributed by R. J. Elvin.

(18)

Model of Rail with lap joint. Invented by J. O. D. Lley, 1853.  
Contributed by R. J. Elvin.

#### SHELBYVILLE AND RUSHVILLE RAILROAD.

(13)

Rail laid in 1860 when reorganized. Rolled at Covington, Ky. A plate of wrought iron 10 inches wide, varying in thickness, was run through the rolls, thus a hollow rail was formed. Rolled 1859.  
Contributed by R. J. Elvin.

(20)

Side Stake used by engineering corps in locating the line of road. Set on 9th mile from Madison. 1836.  
Contributed by R. J. Elvin.

(17)

Brass used in "Monkey Box." 2½-inch journal.  
Contributed by R. J. Elvin.

(16)

Brass for box used after Monkey Box was discarded. The box had a lid for oiling. 2½-inch journal.  
Contributed by R. J. Elvin.

#### JEFFERSONVILLE, MADISON AND INDIANAPOLIS RAILROAD.

(54)

Old Leather Water Bucket, used on locomotives on the Madison Plane. 1845.

(387)

Pattern of Standard Journal bearing in use 1850.  
Contributed by R. J. Elvin.

(19)

Cast Cap for king bolt for passenger cars. 1852.  
Contributed by R. J. Elvin.

## LITTLE MIAMI RAILROAD.

(69)

Chair for Iron Rail in use in 1846.  
Contributed by C. E. Lindsay.

(65)

Two pieces strap rail, with joints and spike holes, in use 1851.  
Contributed by C. E. Lindsay.

(64)

Winslow Compound Rail in use in 1852.  
Contributed by C. E. Lindsay.

(68)

English Steel Rail in use in 1856.  
Contributed by C. E. Lindsay.

(67)

Cap Iron Rail in use in 1860.  
Contributed by C. E. Lindsay.

(429)

One Old Track Spike.  
Contributed by Ralph Peters.

(61)

Three-Spike Single Lug Chairs in use in 1851.  
Contributed by C. E. Lindsay.

(329)

Four-Spike Single Lug Chair in track in 1851.  
Contributed by C. E. Lindsay.

(331)

Three-Spike Double Lug Chair in track 1853.  
Contributed by C. E. Lindsay.

(63)

Four-Spike Step Chairs in use in 1853.  
Contributed by C. E. Lindsay.

(62)

Four-Spike Double Lug Chairs in use in 1853.  
Contributed by C. E. Lindsay.

(60 j)

Light and Heavy "H" Chairs in use in 1847.  
Contributed by C. E. Lindsay.

(71)

Track Punch in use in 1846.  
Contributed by C. E. Lindsay.

(59 j)

Spot Board used in adzing the first cross-ties laid 1846.  
Contributed by C. E. Lindsay.

(66)

Ratchet Drill in use in the Springfield shops, 1850.  
Contributed by C. E. Lindsay.

(58)

Spiking Hammer used in laying the track at Cedarville, Ohio. 1851.  
Contributed by Mrs. C. Sweeney.

(332)

Track Punch designed by John Durand, in use in 1857.  
Contributed by C. E. Lindsay.

(102)

Red Lantern used by watchman at Miamiville Bridge over the Little Miami River during the war. 1861.  
Contributed by Mrs. T. Welch.

(101)

White Lantern used by watchman at Miamiville Bridge over the Little Miami River during the war. 1861.  
Contributed by Mrs. T. Welch.

(103)

Two Torpedoes used by watchman at Miamiville Bridge over Little Miami River during the war. 1861.  
Contributed by Mrs. T. Welch.

(70)

Ratchet Track Wrench in use in 1865.  
Contributed by C. E. Lindsay.

(428)

Old Office Stamp used at Corwin's Station.  
Contributed by R. Peters.

(431)

Old Book containing Way Bills.  
Contributed by C. H. Walton.

(430)

Brass Baggage Check.  
Contributed by Ralph Peters.

(388)

German Silver Receipt Check Holder for checks given passengers who paid fare on train to conductor. 1860.  
Contributed by Ralph Peters.

# DRAWINGS, PHOTOGRAPHS, ETC.

## LOCOMOTIVES, ROLLING STOCK, FLOATING EQUIPMENT AND APPLIANCES.

### LOCOMOTIVES.

SERIES IN FRAMES ILLUSTRATING THE DEVELOPMENT OF THE LOCOMOTIVE ON THE PENNSYLVANIA LINES EAST AND WEST OF PITTSBURGH, 1831-1871. IN ADDITION TO THE MODELS IN CASES.

#### CAMDEN AND AMBOY RAILROAD.

(119)

Locomotive "John Bull." No. 1. Camden and Amboy Railroad Co. Built in 1831. Photograph made at the Centennial Exposition at Philadelphia, 1876. With whistle, tender, head-light and cow-catcher added by the mechanics of the Camden and Amboy R. R. The cow-catcher was connected to the axles of the driving wheels, upon which there was a lateral play of 1 to 1½ inches to "ease" the locomotive when running around curves. Originally the locomotive had wooden wheels, but these are shown replaced with cast iron wheels with wrought iron tires. The "gig top" on the tender was occupied by a brakeman whose duty it was to hold the signal cord and communicate signals to the engineman by whistle or otherwise.

(2501)

Locomotive "John Bull," and two passenger cars constructed in 1836. Photographed while standing on the east bank of the Delaware River below Bordentown, N. J. 1872.

#### PENNSYLVANIA RAILROAD CO.

(2663)

P. R. R. locomotive No. 143. 4 driving wheels 34 inches in diameter. Cylinders 13 in. by 18 in. Constructed at Baldwin's Locomotive Works. March, 1847.

(2664)

P. R. R. locomotive No. 43. 6 driving wheels 44 inches in diameter. Cylinder 17 in. by 22 in. Constructed at Smith & Perkins'. December, 1852.

(2621)

P. R. R. locomotive No. 34. 6 driving wheels 44 inches in diameter. Cylinders 18 in. by 22 in. Constructed at Baldwin's Locomotive Works. August, 1852.

(2022)

P. R. R. locomotive No. 42. 6 driving wheels 44 inches in diameter. Cylinder 17 in. by 22 in. Constructed at Baldwin's Locomotive Works. December, 1852.

(2623)

P. R. R. locomotive No. 26. 4 driving wheels 60 inches in diameter. Cylinders 15 in. by 22 in. Constructed at Baldwin's Locomotive Works. January, 1852.

(2624)

P. R. R. locomotive No. 40. 4 driving wheels 60 inches in diameter. Cylinders 16 in. by 22 in. Constructed by Norris & Sons. November, 1852.

(2625)

P. R. R. locomotive No. 48. 6 driving wheels 43 inches in diameter. Cylinders 19 in. by 22 in. Constructed by Ross Winans. January, 1853.

(2626)

P. R. R. locomotive No. 77. 6 driving wheels 44 inches in diameter. Cylinders 17 in. by 22 in. Constructed by Perkins. December, 1853.

(2627)

P. R. R. locomotive No. 106. 4 driving wheels 54 inches in diameter. Cylinders 17 in. by 22 in. Constructed at Baldwin's Locomotive Works. April, 1854.

(2628)

P. R. R. locomotive No. 174. Class E. Constructed by Brandt & Co. May, 1854.

(2629)

P. R. R. locomotive No. 118. 6 driving wheels 48 inches in diameter. Cylinders 19 in. by 22 in. Constructed at Baldwin's Locomotive Works. December, 1855.

(2630)

P. R. R. locomotive No. 131. 6 driving wheels 43 inches in diameter. Cylinders 19 in. by 24 in. Constructed by Ross Winans. April, 1856.

(2631)

P. R. R. locomotive No. 187. 4 driving wheels 54 inches in diameter. Cylinders 16 in. by 22 in. Constructed by Brandt & Co. April, 1856.

(2632)

P. R. R. locomotive No. 45. 6 driving wheels 44 inches in diameter. Cylinders 18 in. by 24 in. Constructed at Baldwin's Locomotive Works. November, 1857.

(2633)

P. R. R. locomotive No. 145. 4 driving wheels 60 inches in diameter. Cylinders 18 in. by 22 in. Constructed by Brandt & Co. December, 1860.

(2634)

P. R. R. locomotive No. 212. 4 driving wheels 57 inches in diameter. Cylinders 10 in. by 18 in. Constructed at Baldwin's Locomotive Works. April, 1861.

(2635)

P. R. R. locomotive No. 218. Class F. Constructed at Baldwin's Locomotive Works. October, 1861.

(2636)

P. R. R. locomotive No. 252. 6 driving wheels 44 inches in diameter. Cylinders 15 in. by 18 in. Constructed at Baldwin's Locomotive Works. October, 1862.

(2637)

P. R. R. locomotive No. 279. Class A. Constructed by Norris & Sons. April, 1863.

(2638)

P. R. R. Locomotive No. 137. Class D. Constructed at Baldwin's Locomotive Works. November, 1864.

(2639)

P. R. R. locomotive No. 110. Class F. Constructed at Baldwin's Locomotive Works. January, 1864.

(2640)

P. R. R. locomotive No. 98. 8 driving wheels 48 inches in diameter. Cylinders 19 in. by 24 in. Constructed at Pennsylvania Railroad shops, Altoona. 1864.

(2641)

P. R. R. locomotive No. 283. Class D. Constructed by New Jersey Locomotive Company. June, 1865.

(2642)

P. R. R. locomotive No. 203. 4 driving wheels 43 inches in diameter. Cylinders 11 in. by 24 in. Constructed at Pennsylvania Railroad shops, Altoona. 1865.

(2643)

P. R. R. locomotive No. 120. 8 driving wheels 48 inches in diameter. Cylinders 18 in. by 22 in. Constructed at Pennsylvania Railroad shops, Altoona. Nov., 1866.

(2644)

P. R. R. locomotive No. 210. Class F. Constructed at Pennsylvania Railroad shops, Altoona. December, 1866.

(2645)

P. R. R. locomotive No. 217. 4 driving wheels 60 inches in diameter. Cylinders 10 in. by 18 in. Constructed at Baldwin's Locomotive Works. 1866.

(2646)

P. R. R. locomotive No. 261. Class G. Constructed at Pennsylvania Railroad shops, Altoona. 1866.

(2647)

P. R. R. locomotive No. 96. 4 driving wheels 48 inches in diameter. Cylinders 14 in. by 22 in. Constructed by Baldwin's Locomotive Works. June, 1866.

(2648)

P. R. R. locomotive No. 14. 6 driving wheels 48 inches in diameter. Cylinders 18 in. by 20 in. Constructed by Norris & Sons. February, 1867.

(2649)

P. R. R. locomotive No. 91. 6 driving wheels 48 inches in diameter. Cylinders 18 in. by 24 in. Constructed at Pennsylvania Railroad shops, Altoona. 1867.

(2650)

P. R. R. locomotive No. 421. Class "A." Constructed at Baldwin's Locomotive Works. September, 1867.

(2651)

P. R. R. locomotive No. 237. 4 driving wheels 44 inches in diameter. Cylinders 11 in. by 20 in. Constructed at Pennsylvania Railroad shops, Altoona. 1867.

(2652)

P. R. R. locomotive No. 407. 6 driving wheels 54 inches in diameter. Cylinders 17 in. by 24 in. Constructed at Norris & Sons. 1867.

## PHILADELPHIA AND COLUMBIA RAILROAD.

(1082)

Lithograph of Baldwin, Vail and Hufty's Locomotive Steam Engine for Burden. Submitted to the Motive Power Department, Philadelphia and Columbia Railroad. 1838.

## NORTHERN CENTRAL RAILWAY.

(139)

Locomotive No. 111. Constructed by Pittsburgh Locomotive Works. Sept., 1868.

## NEW JERSEY RAILROAD AND TRANSPORTATION CO.

(121)

Wood-burning Passenger Locomotive built at N. J. R. R. & T. Co.'s shops, Jersey City. 1864.

Contributed by John Headden.

(130)

Wood-burning Passenger Locomotive built at N. J. R. R. & T. Co.'s shops, Jersey City. 1866.

Contributed by John Headden.

(129)

Anthracite Coal-burning Locomotive built at N. J. R. R. & T. Co.'s shops, Jersey City. 1866.

Contributed by John Headden.

(125)

Anthracite Coal-burning Locomotive built at the N. J. R. R. & T. Co.'s shops, Jersey City. 1867.

Contributed by John Headden.

(126)

Morning Express Train for Philadelphia, the Gulf, the Lakes and the Pacific, passing Point of Rocks, Jersey City. 1867.

Contributed by John Headden.

(131)

Anthracite Coal-burning Locomotive "General Darcy," built at the N. J. R. R. & T. Co.'s shops, Jersey City. 1868.

Contributed by John Headden.

(132)

Bituminous Coal-burning Locomotive, built at N. J. R. R. & T. Co.'s shop, Jersey City. 1869.

Contributed by John Headden.

(124)

Bituminous Coal-burning Locomotive, built at New Jersey Railroad and Transportation Company's shops, Jersey City. 1869.

Contributed by John Headden.

(133)

Anthracite Coal-burning Locomotive, built at N. J. R. R. & T. Co.'s shops, Jersey City. 1869.

Contributed by John Headden.

(127)

Bituminous Coal-burning Locomotive, built at New Jersey Railroad and Transportation Company's shops, Jersey City. 1869.

Contributed by John Headden.

(128)

Anthracite Coal-burning Locomotive, built at N. J. R. R. & T. Co.'s shops, Jersey City. 1869.

Contributed by John Headden.

#### PHILADELPHIA, WILMINGTON AND BALTIMORE RAILROAD CO.

(814)

P., W. and B. Freight Locomotive No. 64, built 1870.

Contributed by Agent President Street, Baltimore.

(813)

P., W. and B. Locomotive No. 16, built 1870.

Contributed by Agent President Street, Baltimore.

(817)

P., W. and B. Standard Passenger Coach, built 1870.

#### NEW CASTLE AND FRENCHTOWN RAILROAD.

(733)

Passenger locomotive built by the New Castle Manufacturing Co., New Castle, Del. 1852.

Contributed by H. F. Kenney.

#### PITTSBURGH, FORT WAYNE AND CHICAGO RAILROAD.

(2832 a)

Passenger Locomotive No. 51.

(2832 b)

Passenger Locomotive No. 105.



(2832 c)

Passenger Locomotive No. 202, built by Hinckley, with Fontaine's Improved Smoke Stack. 1865-1870.

## JEFFERSON, MADISON AND INDIANAPOLIS RAILROAD CO.

(155)

The "Reuben Wells," a ten-wheel tank locomotive constructed for service on the Madison Plane (grade of 320 feet per mile) from plans furnished by Reuben Wells, Master Mechanic. Weight, with fuel and water, 56 tons. This engine is still in service (1892). The driving wheels have been reduced to 8 in number. Constructed 1868.

Contributed by R. J. Elvin.

(154)

Locomotive "M. G. Bright," constructed for service on the Madison Plane from plans furnished by Reuben Wells, Master Mechanic. 1871.

Contributed by R. J. Elvin.

## PITTSBURGH, CHICAGO AND ST. LOUIS RAILROAD CO.

(141)

Locomotive No. 90, built by Pittsburgh Locomotive Works. 1871.

(140)

Locomotive No. 318, built by the Pittsburgh Locomotive Works in 1872.

## ROLLING STOCK.

## TRACK INDICATOR CAR.

(2678)

Instrument for recording condition of surface track, variation in gauge and elevation of outer rail and curves.

(2677)

Principal recording instrument and apparatus for indicating the condition of track surface.

(2679)

Compound pendulum for ascertaining elevation of outer rail on curves.

(2680)

Diagram upon which have been recorded surface of track, variation in gauge, elevation of outer rail, speed of train and location of points under observation.

(2676)

View of running gear and track gauging apparatus.

(2675)

Mechanism by which motion is transmitted from car wheels to the instrument.

## FLOATING EQUIPMENT.

(2548)

Steamboat "Trenton," built by R. L. Stevens, at Hoboken, N. J. The fastest steamboat in the world in 1825. Speed, 12 miles per hour. Ran between Philadelphia and Bordentown, N. J., for many years. Launched 1824.

(2447)

Steamboat "John Stevens," designed by Robert L. Stevens, 1843. The first iron passenger steamboat built in America. Ran for eight years between Philadelphia and Bordentown, N. J. Joiner work was destroyed by fire at Bordentown, 1852. Hull in 1892 forms part of a twin screw-propelled freight boat in New York harbor. Launched 1844.

(2610)

Lower Saloon Ferry Boat Cincinnati, showing full length of saloon and grand staircase leading to upper saloon. Photographed 1892.

(2611)

Head of Staircase, Ferry Boat Cincinnati, showing decorations and stairway leading to lower saloon. Photographed 1892.

(2781)

Steamboat "Phoenix," first steamboat to navigate the ocean. Built by Jno. Stevens, 1837.

(2549)

The Iron Steamboat "R. F. Stockton." The first Screw Propeller boat in America. 1839.

## APPLIANCES.

(2661)

Old form of Truck Frame and Wheels.

(2662)

Old forms of Brake Shoes.

(2653)

Old forms of Injectors.

(2654)

Old forms of Whistles.

## STANDARD EQUIPMENT 1893.

(2808)

Standard Passenger Locomotive, Class "P."

(2809)

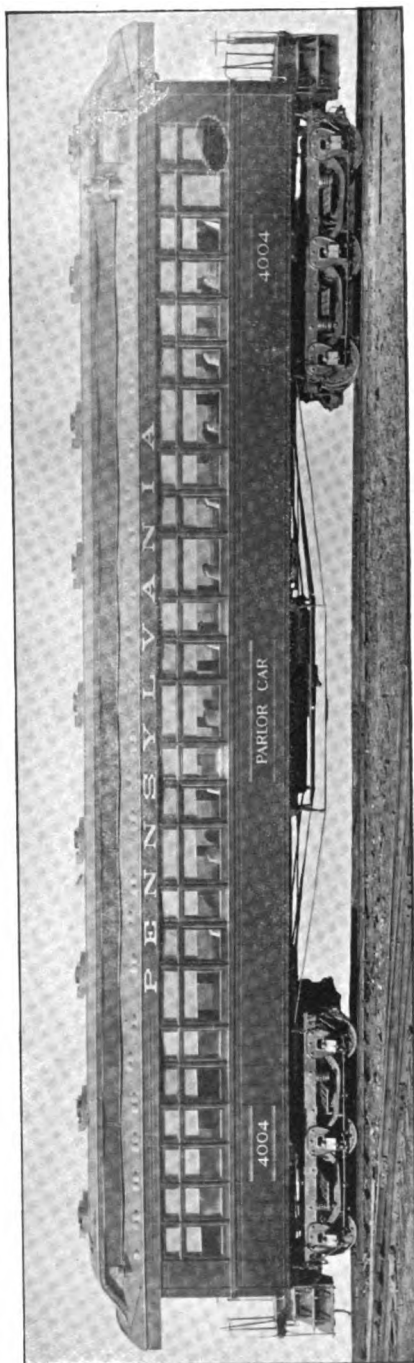
Standard Passenger Locomotive, Class "T."

(2810)

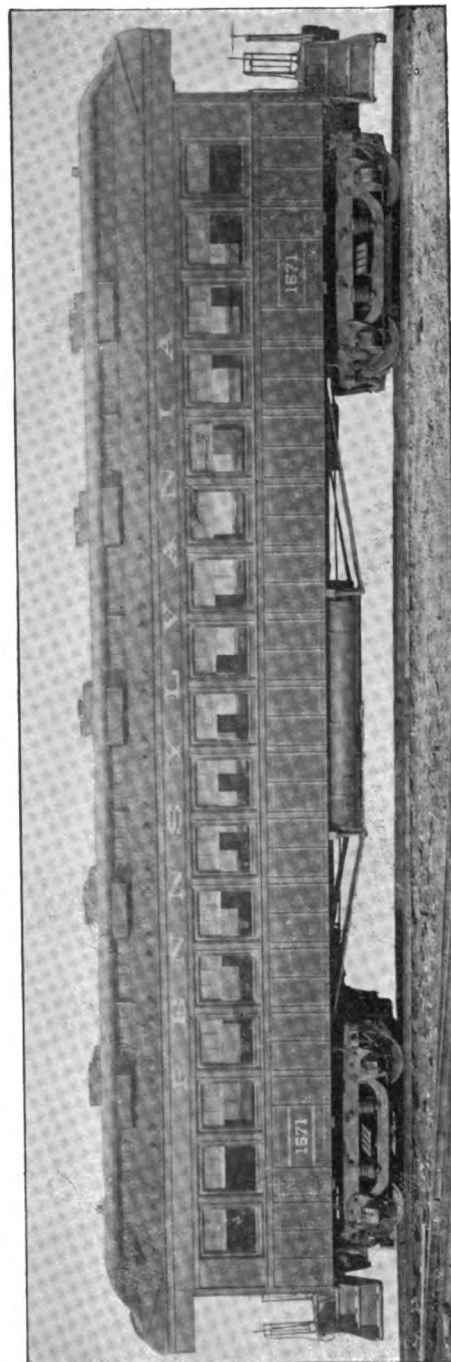
Standard Passenger and Freight Locomotive, Class "X."

|   |        |
|---|--------|
| Standard Freight Locomotive, Class "R."                       | (2811) |
| Standard Light Shifting Locomotive, Class "Q."                | (2812) |
| Standard Heavy Shifting Locomotive, Class "M."                | (2813) |
| Standard Bay Window Parlor Car, Class "Ca."                   | (2966) |
| Standard Passenger Car, Class "Pg."                           | (2967) |
| Standard Combined Passenger and Baggage Car, Class "Pg."      | (2968) |
| Standard Passenger Car, Class "Ph."                           | (2814) |
| Standard Baggage and Express Car, Class "Eh."                 | (2969) |
| Standard Freight Car, Class "Fa" Maintenance of Way Flat Car. | (2823) |
| Standard Freight Car, Class "Fb" Flat Car.                    | (2824) |
| Standard Freight Car, Class "Fd." Capacity 100,000 lbs.       | (2815) |
| Standard Freight Car, Class "Ge" Drop Bottom Gondola Car.     | (2816) |
| Standard Freight Car, Class "Ge" Coke Car.                    | (2818) |
| Standard Freight Car, Class "Gd" Coal Car.                    | (2817) |
| Standard Freight Car, Class "Ke" Stock Car.                   | (2819) |
| Standard Freight Car, Class "Nc" Cabin Car.                   | (2820) |
| Standard Freight Car, Class, "Xe" Box Car.                    | (2821) |
| Standard Freight Car, Class "Xf" Furniture Car.               | (2822) |
| Standard Express Car, Class "Ea."                             | (2825) |
| Standard Horse and Carriage Car.                              | (2826) |
| Standard Postal Letter Car, Class "Ma."                       | (2827) |
| Standard Refrigerator Car.                                    | (2828) |
| Standard Track Indicator Car.                                 | (2829) |
| Standard Track Inspection Car.                                | (2830) |
| Dynamometer Car.  | (2831) |

**PENNSYLVANIA RAILROAD COMPANY.**



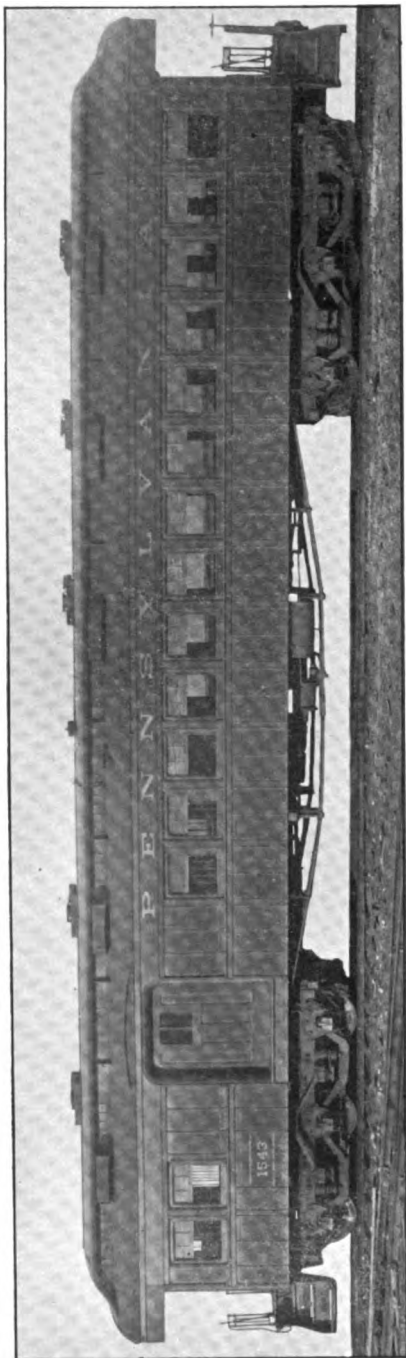
**STANDARD CLASS "CA" BAY WINDOW PARLOR CAR.**  
Photograph on Exhibition in Transportation Building.



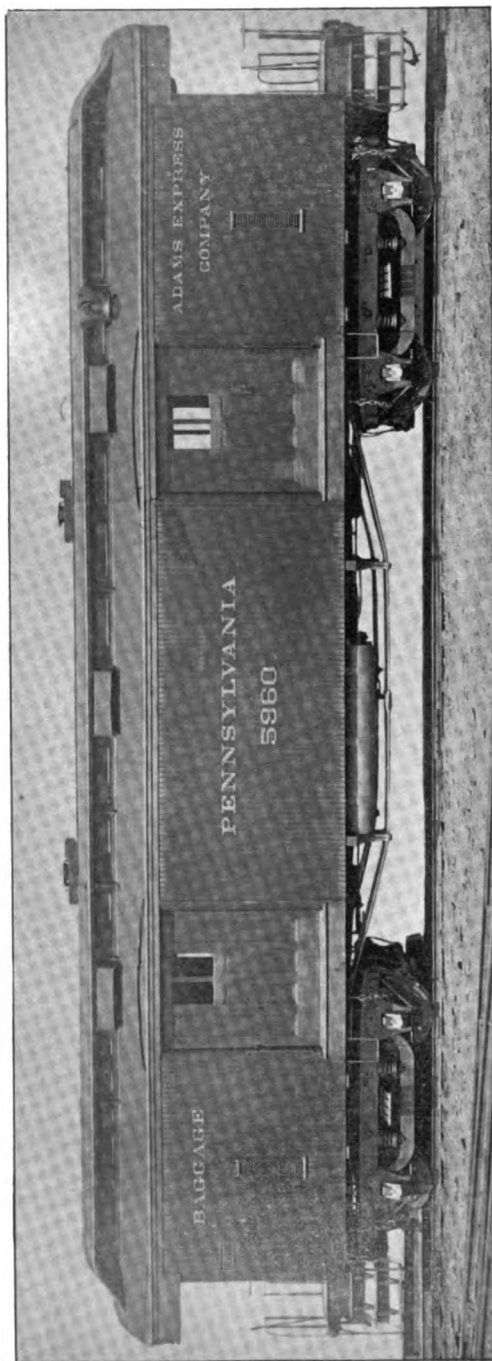
**STANDARD CLASS "PG" PASSENGER COACH.**  
Photograph on Exhibition in Transportation Building.



**PENNSYLVANIA RAILROAD COMPANY.**



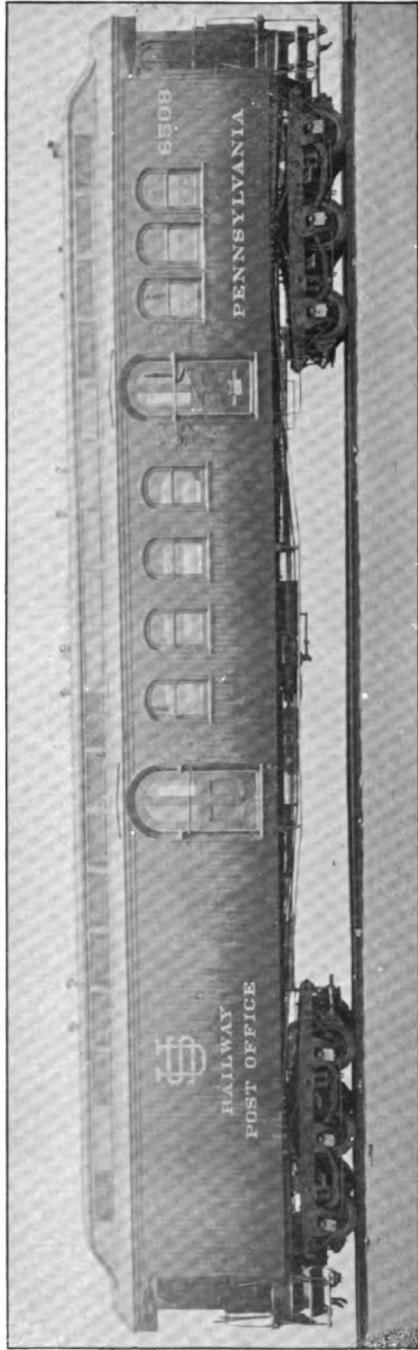
**STANDARD "PG" COMBINED PASSENGER AND BAGGAGE CAR.**  
Photograph on Exhibition in Transportation Building.



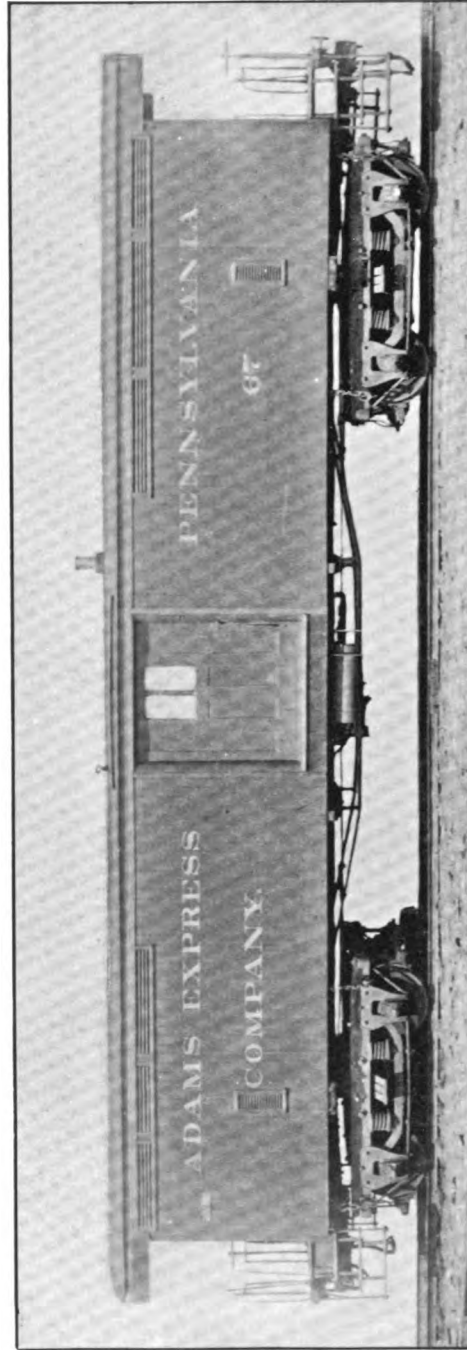
**STANDARD CLASS "BD" BAGGAGE AND EXPRESS CAR.**  
Photograph on Exhibition in Transportation Building.



**PENNSYLVANIA RAILROAD COMPANY.**



**STANDARD CLASS "MA" POSTAL LETTER CAR.**  
 Photograph on Exhibition in Transportation Building.

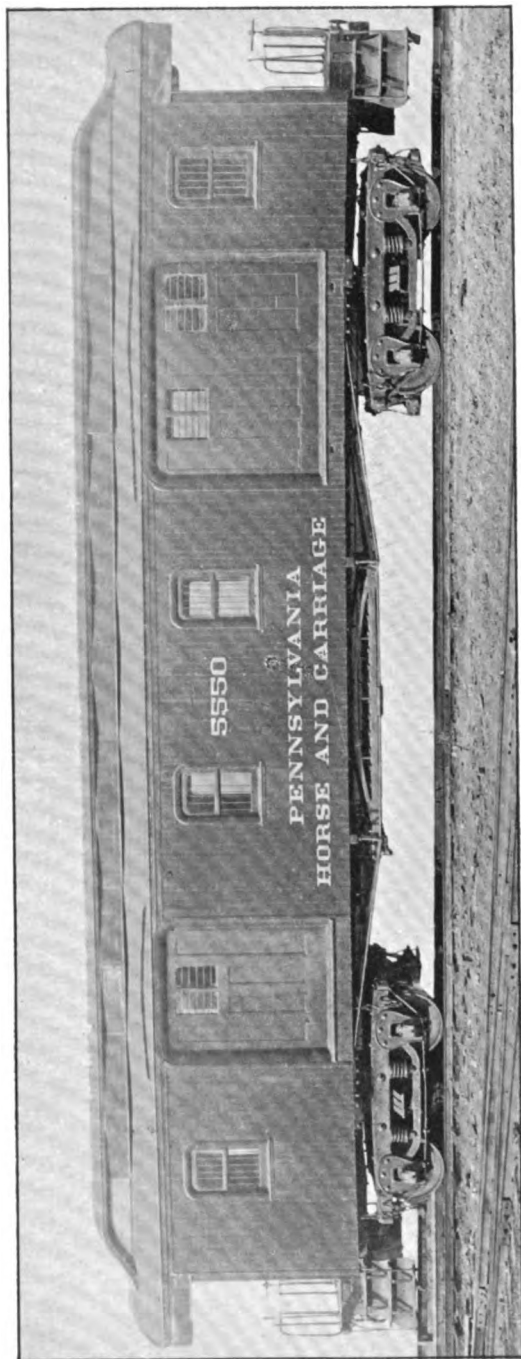


**STANDARD CLASS "EA" EXPRESS CAR.**  
 Photograph on Exhibition in Transportation Building.

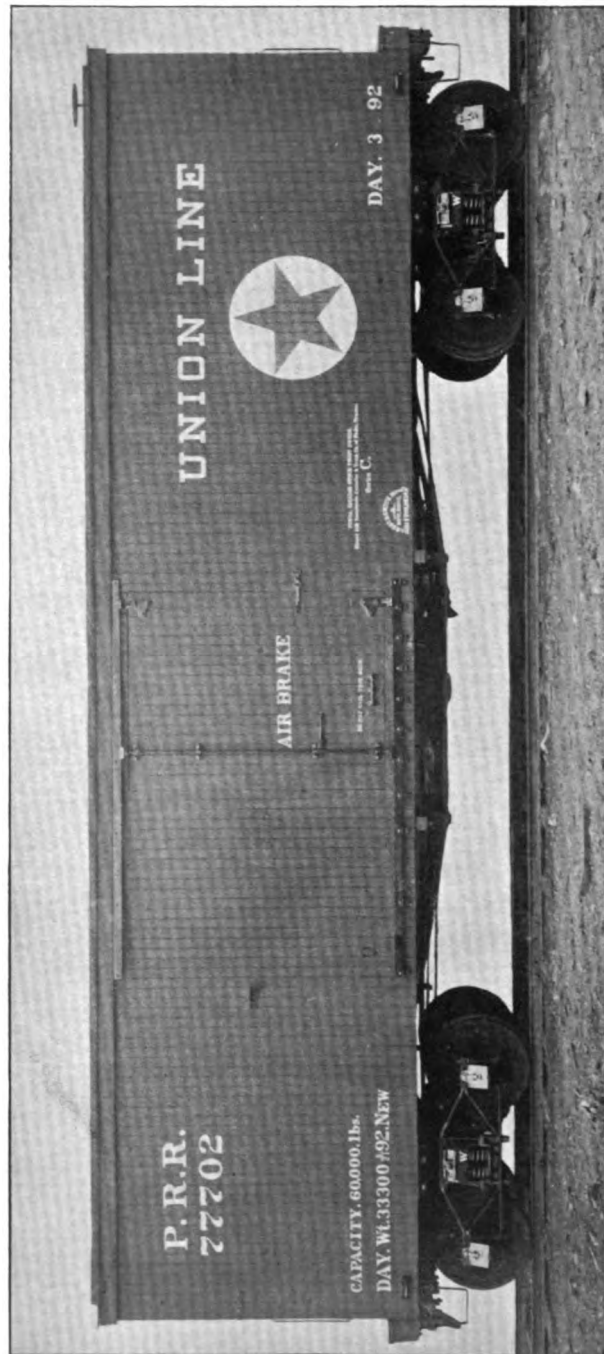




**PENNSYLVANIA RAILROAD COMPANY.**



**STANDARD HORSE AND CARRIAGE CAR.**  
 Photograph on Exhibition in Transportation Building.



**STANDARD CLASS "XE" BOX CAR.**  
 Photograph on Exhibition in Transportation Building.



# DRAWINGS AND PHOTOGRAPHS

## ENGINEERING, CONSTRUCTION, AND MAINTENANCE.

### BRIDGES.

(2709)

Stone Bridge over Poquessing Creek, Torresdale, Pa., four arches. Replacing old iron bridge. Photographed 1892.

(2710)

Stone Bridge over the Big Conestoga Creek, East of Lancaster, five arches—spans 54½ feet. Replacing old iron bridge. Photographed 1892.

(2568)

Conestoga Bridge, one of the longest stone bridges on the Main Line. Photographed 1892.

(2713)

Bridge over Octoraro Creek (24 feet arch) near Christiana, Pa. Replacing old iron bridge. Photographed 1892.

(2715)

Stone Bridge over Tuscarora Creek at Port Royal, Pa., three arches, spans 60 feet each. Replacing old iron bridge. Photographed 1892.

(2725)

Bridge No. 8 over Little Juniata River, three spans 50 feet each, ribbed arch. Replacing old iron bridge. Photographed 1892.

(2719)

Stone Bridge No. 11 over Little Juniata River near Tyrone, five center arches, three spans 50 feet each. Photographed 1892.

(2714)

Bridge No. 1 over Little Conemaugh River, near Summerhill, Pa., stone arch 64 feet span. Replacing old iron bridge. Photographed 1892.

(2726)

Stone bridge No. 2 over the Little Conemaugh at Sommerhill, 64 feet span, stone arch. Replacing old iron bridge. Photographed 1892.

(2716)

Stone bridge No. 4 over Little Conemaugh River. Ribbed arch 64 feet span near Sommerhill, Pa., replacing old iron bridge. Photographed 1892.

(2731)

Stone Bridge across Tinker Creek, Cleveland, Ohio. Photographed 1892.

(2720)

Stone Bridge No. 5 at South Fork, Pa. 4 arches, replacing iron bridge destroyed by the breaking of South Fork dam May 31, 1889. Photographed 1892.

(2599)

New Conemaugh Viaduct, built upon the site of the one-arch bridge washed away by the Johnstown flood. Photographed 1892.

(2717)

Stone Bridge No. 6 over the Conemaugh River, built on curve near Johnstown, Pa. Three spans, ribbed arch, 60 feet arch. Replacing iron bridge destroyed by flood May 31st, 1889. Photographed 1892.

(2718)

Stone Bridge at Brinton, Pa. 3 spans, ribbed arch, crossing Turtle Creek, replacing old iron bridge. Photographed 1892.

(2608)

Schuylkill Bridge near Philadelphia. A fine structure of iron and stone, Fairmount Park. Photographed 1892.

(2707)

Four-track Overhead Bridge, near Bryn Mawr, Pa. One method of avoiding grade crossings. Photographed 1892.

(2571)

Manayunk Bridge, an example of difficult engineering. Photographed 1892.

(2566)

Coatsville Bridge, one of the longest iron bridges on the Pennsylvania Railroad system. Photographed 1892.

(2576)

Bridge over the Susquehanna River at Rockville, with "The Chicago Limited" crossing, showing the finest train in the world, on the longest bridge in Pennsylvania. Photographed 1892.

(2591)

McKeesport and Bessemer R. R. Bridge, a recent type of iron bridge-building. Photographed 1892.

(2708)

Wooden Howe Truss Bridge, near Martin's Creek, N. J., over Delaware River. Photographed 1892.

(2655)

Construction and erection of the Ohio River Connecting Bridge at Pittsburgh, Pa. Photographed 1892.

(2732)

Iron Bridge at Louisville.

(2733)

Iron Bridge at Steubenville.

(2734)

Iron Bridge at Cincinnati.

## TUNNELS.

(2557)

Portal of Allegheny Tunnel, the longest tunnel on the Allegheny Mountains,  $\frac{7}{8}$  of a mile long. Photographed 1892.

(2558)

West end of tunnel on the New Portage Railroad, used for freight only. Photographed 1892.

(2585)

Radebaugh Tunnel. Photographed 1892.

(2583)

Carr's Tunnel, at Donohoe. Photographed 1892.

(2573)

Phoenixville Tunnel, a fine structure, with handsome stone finish. Photographed 1892.

(2584)

Greensburg Tunnel, near junction of the Southwest Division. 1892.

## PASSENGER AND FREIGHT STATIONS.

(2575)

Passenger Station at Harrisburg, showing the "Chicago Limited" going East, and offices of Superintendent of Middle Division. Photographed 1892.

(2581)

Passenger Station at Altoona, showing the Logan House and Train Shed. Photographed 1892.

(2588)

Union Station, Pittsburgh, as rebuilt after the riots of 1877. Photographed 1892.

(2724)

Broad Street Station Train Shed, under construction. Photographed 1892.

(2704)

Passenger Station, Chelton Avenue, Germantown, Pa. Philadelphia, Germantown and Chestnut Hill Railroad. Photographed 1892.

(2705)

Standard Brick Suburban Passenger Station at Queenslake, on the Philadelphia, Germantown and Chestnut Hill Railroad. Photographed 1892.

(2702)

Park Station, standard Brick Passenger Station. Photographed 1892.

(2570)

Passenger Station Bala, near which is located the residence of Mr. George B. Roberts, President of the Pennsylvania Railroad Company. Photographed 1892.

(2572)

Passenger Station at Phoenixville, showing overhead roadway crossing and terraced embankment. Photographed 1892.

(2574)

Passenger Station at Reading and offices of the Division Superintendent. Reading is the largest city on this division. Photographed 1892.

(2703)

Stone Passenger Station at Devon. Photographed 1892.

(2563)

Passenger Station at Ardmore, ornamented with flower-beds, being a typical suburban station. Photographed 1892.

(2564)

Passenger Station at Bryn Mawr (of stone), showing overhead bridge and safety fence between tracks. Photographed 1892.

(2565)

Passenger Station at Wayne, one of the most attractive stations on the main line. Photographed 1892.

(2617)

Passenger Station at Paoli, showing a long stretch of well-ballasted tracks. Photographed 1892.

(2561)

Broad St. Station, Philadelphia, front view, showing details of Gothic architecture. Photographed 1892.

(2618)

Cortlandt Street Station, New York, with overhead bridge on same level as upper deck of ferry boats. Photographed 1892.

(2619)

Showing interior Double Deck Slip. Photographed 1892.

(2699)

Jersey City Train Shed, under construction. August, 1892.

(2613)

Jersey City Train Shed, from the interior. Photographed 1892.

(2614)

West end of Jersey City Train Shed. Photographed 1892.

(2603)

Passenger Station at Newark, N. J., showing its location in a busy manufacturing city. Photographed 1892.

(260)

Passenger Station at Trenton, N. J., with overhead bridge connecting passenger platforms. Photographed 1892.

(2735)

Railway Station, Rahway, N. J. Photographed 1892.

(2711)

Passenger Station at Baltimore, Md. Photographed 1892.

(2712)

Interior of Passenger Station, Baltimore, Md. Photographed 1892.

(2736)

Sewickley Station.

(2737)

Shields' Station.

(2738)

Passenger Station at Salem, Ohio.

(2739)

Canton Station, Ohio.

(2740)

Union Station, Chicago, Ill.

(2960)

Colliers' Station.

(2061)

Dennison Station.

(2964)

Sheridan Station.



|   |        |
|---|--------|
| Station at Warsaw, Ind.                                   | (2741) |
| Station at Beaver Falls, Ind.                             | (2742) |
| Euclid Ave. Station, Cleveland, Ohio.                     | (2743) |
| Union Station, Cleveland, Ohio.                           | (2744) |
| Whitings Station, Ind.                                    | (2745) |
| Dixmont Station.  | (2746) |
| West Bellevue Station.                                    | (2747) |
| Newark Station, Ohio.                                     | (2748) |
| Hamilton Station.   | (2749) |
| Union Station, Richmond, Ind.                             | (2750) |
| Urbana Station, Ohio.                                     | (2751) |
| Union Station, Indianapolis, Ind.                         | (2752) |
| J. M. & I. Station, Louisville, Ky.                       | (2753) |
| Union Station, Louisville, Ky.                            | (2754) |
| Station at Logansport, Ind.                               | (2755) |
| Freight Station, Broad and Washington Ave., Philadelphia. | (2956) |
| Grain Depot, 30th and Market Streets, Philadelphia.       | (2957) |
| Storage Trussels, Ashtabula, Ohio.                        | (2954) |

(2952)

General view of freight yard, Cleveland, Ohio.

(2727)

Freight Station, 18th and Market Streets, Philadelphia, Pa. Photographed 1892.

(2706)

Duquesne Freight Station, Pittsburgh, Pa. Photographed 1892.

#### TRACK SYSTEMS AND SIGNALS.

(2601)

Interlocking Switches, Jersey City Yard. Photographed 1892.

(2600)

Jersey City Train Shed and Interlocking Switch Lever. Photographed 1892.

(2615)

Jersey City, interior of Interlocking Switch Tower, showing front view of apparatus. Photographed 1892.

(2616)

Jersey City, interior of Interlocking Switch Tower, showing side view of apparatus. Photographed 1892.

(2606)

Sample Track, near Dean's saloon on the New York Division, showing a perfect piece of well-ballasted four-track system. Photographed 1892.

(2607)

Quadruple Track Tanks, Monmouth Junction, N. J., the only four-track tank in America. Photographed 1892.

(2562)

Broad St. Station, Philadelphia, looking from 17th St. Tower, showing the system of signals and switches between the tower and the station. Photographed 1892.

(2700)

30th Street, West Philadelphia, showing tracks at different elevations. Photographed 1892.

(2567)

Dillerville Junction, Pennsylvania, showing an extensive signal and switch system. Photographed 1892.

(2580)

Ardenheim Tower, Jack's Mountain, showing a typical Block Tower and Signals. Photographed 1892.

(2587)

Pittsburgh Yard, looking from depot, showing system of tracks, signals and switches and overhead incline. Photographed 1892.

(2701)

Track System, Pittsburgh Freight Yard, the Western Terminus of the Pittsburgh Division. Photographed 1892.

DEEP CUTS AND FILLS AND HEAVY GRADES.

(2552)

The Deep Cut, looking from Bridge No. 6, Pittsburgh Division, the deepest cut on the line. The flood from South Fork was 20 feet deep here. Photographed 1892.

(2594)

Deep Fill, Muleshoe Curve, showing the deepest fill on the road, 120 feet. Photographed 1892.

(2595)

Heavy Grade, near Summit, Pa. Five locomotives conveying 45 cars over the heaviest grade on the Pennsylvania system. Photographed 1892.

(2582)

Old Water Station at Lockport, a typical old-time structure. Photographed 1892.

WHARVES AND DOCKS.

(2559)

Ships loading coal, Greenwich Point, Philadelphia. The coal is dropped from the piers through the chutes directly into the steamship. Photographed 1892.

(2560)

Coal Wharves, Greenwich Point, Philadelphia, looking from the river, showing the extensive system of shipping coal. Photographed 1892.

(142)

Photograph of Ore Docks, Cleveland, Ohio. Photographed 1892.  
Contributed by Geo. B. Raiser.

(143)

Ore Dock at Harbor near Ashtabula, Ohio. Photographed 1892.  
Contributed by G. B. Raiser.

(2756)

Harbor Ashtabula, Ohio.

(2757)

Ore Dock at Harbor near Ashtabula, Ohio.

(2758)

Docks at Harbor Ashtabula, Ohio.

(2759)

Entrance to Cleveland Yard and Freight Houses, showing Pier.

- (2760)  
Docks, Cleveland, Ohio.
- (2761)  
Docks No. 3, No. 4, No. 5 and No. 6, Cleveland, Ohio.
- (2762)  
Docks, East Cleveland, Ohio.
- (2764)  
Coal Wharves, Greenwich Point, Philadelphia.
- (2765)  
Elevator and Coal Pier, Baltimore, Md.
- (2766)  
Boston Street Coal Pier, Baltimore, Md.
- (2767)  
Piers No. 4, No. 5, No. 27, No. 28, No. 29, New York City.
- (2768)  
Steamship Piers, Jersey City, New Jersey.
- (2769)  
Grain Elevator at Harsimus, Jersey City, New Jersey.
- (2770)  
Girard Point, Grain Elevator, Philadelphia.
- (2771)  
Coal Pier at Erie, Pa.
- (2772)  
Grain Elevator at Erie, Pa.
- (2773)  
Ore Docks at Erie, Pa.
- (2774)  
Lake Front, Erie, Pa., showing Grain Elevators.
- (2775)  
Ore Pier, Erie, Pa.

## OLD VIEWS ON THE LINES OF THE P. R. R.

### "BEFORE THE RAILROAD ERA."

(2777)

Conestoga Wagons, stage coaches, freight canal boats, and passenger packets transporting freight and passengers over the mountains of Pennsylvania and through the canals built by the State. Two photographic views from paintings owned by H. H. Houston, Philadelphia.

(2778)

Stage coach changing horses at a Pennsylvania tavern. 1825.

### "BEFORE THE LOCOMOTIVE."

(2779)

Passenger coach drawn by horses on the Philadelphia and Columbia Railway. 1832.

### PHILADELPHIA AND COLUMBIA RAILROAD.

(2529)

Philadelphia:—Passenger Depot on Market Street, corner of Eighteenth. From Wood Engraving published 1852.

(2530)

Wooden Bridge over the Schuylkill River at Philadelphia, Pennsylvania, erected in 1804. This bridge was used for railroad purposes and by vehicles and foot passengers, until it was destroyed by fire, Nov. 20, 1875. It was replaced by a temporary wooden structure erected in the short space of twenty-one days, under the direction of the officers of the Pennsylvania Company, who had full charge of the work. The temporary bridge was in use for thirteen years, until 1888, when the present iron bridge was completed.

From Wood Engraving published in 1852.

(2545)

Lancaster, Pennsylvania:—Railway Station with locomotive and cars owned by the State in the foreground. 1842.

(2522)

Columbia:—View showing branch running to Canal Basin. The terminus of the Philadelphia and Columbia Railroad. 1842.

### OLD PORTAGE RAILROAD.

(2543)

Holidaysburg, Pennsylvania. Terminus of the Eastern Division of the canal and beginning of the Old Portage Railroad. Canal boat and cars in the foreground.

From Wood Engraving published 1842.

(2555)

Plane "No. 6." Showing view near the bottom. A train of freight cars is being drawn up the incline by cable. The small safety car behind was called the "Buck." The engine house and hitching shed are shown at the summit.

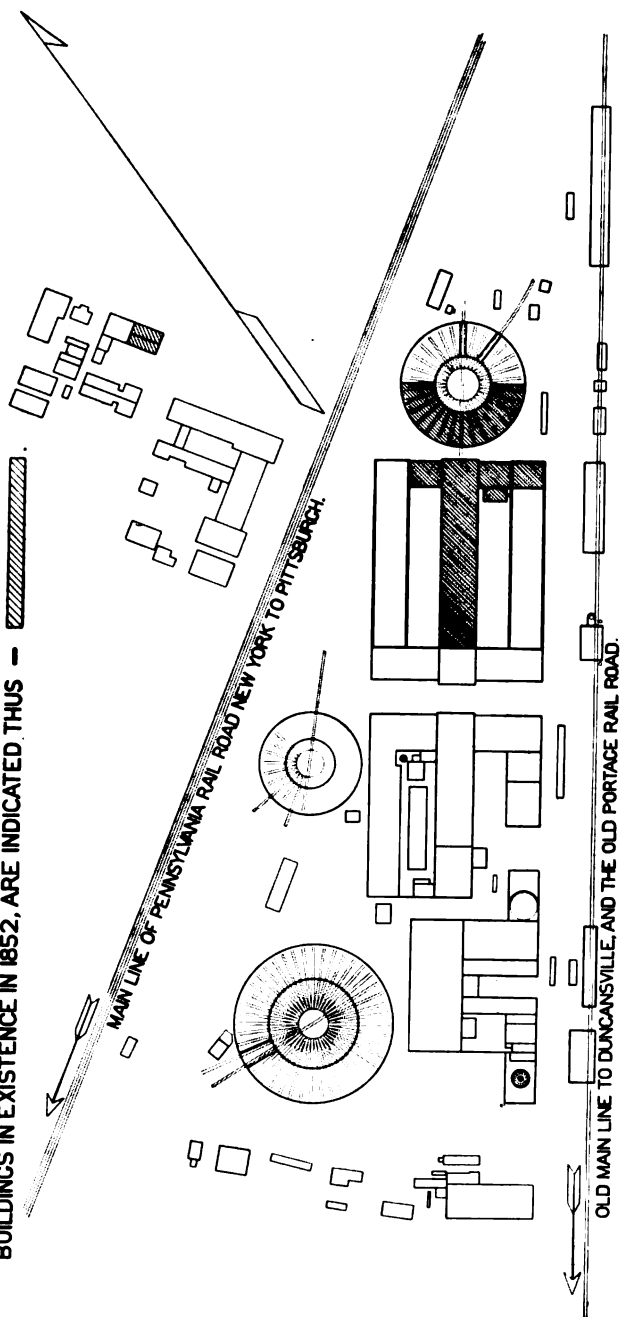


## PENNSYLVANIA RAIL ROAD SHOPS

ALTOONA, PA.

1852-1892.

BUILDINGS IN EXISTENCE IN 1852, ARE INDICATED THUS -



(2556)

Plane "No. 6." Showing view near the bottom. A train of freight cars is being drawn up the incline by cable.

(2721)

"Fountain Inn," near the head of Plane No. 6. Erected 1836.

(2723)

Stone arch carrying the New Portage Railroad over the Old Portage Railroad at the foot of Plane No. 6. Constructed 1856.

(2539)

Altoona, Pennsylvania, 241 miles west of Philadelphia. View showing the Pennsylvania Railroad shops in 1852. A locomotive, with passenger cars, is coming east from Hollidaysburg. The old offices are on the extreme right. The new offices occupy the same site. The stack of the machine shop shown was not taken down until 1882.

From Wood Engraving published 1852.

(2540)

Conemaugh Station, 277 miles west of Philadelphia, 3 miles east of Johnstown. From Wood Engraving published 1852.

(2521)

Blairsville. View of canal and bridge over the Conemaugh.

From woodcut published 1842.

(2541)

Johnstown, Pennsylvania, 280 miles west of Philadelphia. The old Aqueduct, carrying the canal over the Conemaugh River, is shown in the foreground.

From Wood Engraving published 1852.

(2531)

The Susquehanna River. View above Columbia, Pennsylvania, about eighty miles west of Philadelphia, showing a portion of the Pennsylvania Canal.

From Wood Engraving published in 1852.

(2535)

Middletown, Pennsylvania, ninety-six miles west of Philadelphia, nine miles east of Harrisburg. A locomotive and passenger train is passing through the village.

From Wood Engraving published 1852.

(2520)

Harrisburg, Pennsylvania. From Wood Cut published 1842. Showing bridge over Susquehanna River and canal.

(2533)

The Safe Harbor Iron Works. A large portion of the rails laid by the Pennsylvania Railroad Company in the original tracks west of Harrisburg were manufactured here.

From Wood Engraving published 1852.

(2534)

Railroad Bridge over the Susquehanna River, 5 miles west of Harrisburg, Pennsylvania.

From Wood Engraving published 1852.



138 OLD VIEWS ON THE LINES OF THE PENNSYLVANIA R. R. CO.

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(2532)

Millerstown, Pennsylvania, 33 miles west of Harrisburg. View showing railway train and wooden bridge over the Juniata River.

From Wood Engraving published 1852.

(2536)

Huntingdon, Pennsylvania, 203 miles west of Philadelphia. View of the railroad and canal.

From Wood Engraving published 1852.

(2537)

Mifflin, Pennsylvania, 154 miles west of Philadelphia. View showing bridge over the Juniata River and canal, also locomotive and passenger train.

From Wood Engraving published 1852.

(2538)

Mifflin, Pennsylvania, 49 miles west of Harrisburg. View of Pennsylvania Railroad shops.

From Wood Engraving published 1832.

(2542)

The city of Pittsburgh, Pennsylvania. View showing confluence of the Allegheny and Monongahela Rivers.

From Wood Engraving published 1852.

(2730)

Pittsburgh. View showing the Ohio River, the water connection between the western terminus of the Pennsylvania Canal and the Mississippi Valley. 1835.

(2503)

Pittsburgh. Western terminus of the Pennsylvania Canal, Freight Dock and Canal Office.

From painting in the possession of Robert Pitcairn, made 1835.

PHILADELPHIA AND ERIE RAILROAD CO.

(2523)

Williamsport, Pennsylvania. Showing four-horse stage and turnpike.

From Wood Engraving published 1842.

CAMDEN AND AMBOY RAILROAD CO.

(2509)

Bordentown, New Jersey:—View of Railroad Arch. 1844.

(2508)

Camden, New Jersey:—View from the River showing Ferry Boat and Smith's Island. 1844.

NEW JERSEY RAILROAD AND TRANSPORTATION CO.

(2526)

Jersey City:—View of the Terminus and Ferry Slips taken from the River. 1844.

(2502)

Jersey City, N. J.:—View of Old Passenger Station. 1849.  
Contributed by John Headden.

(2525)

View of Jersey City Docks and Ferry Slips, 1852.

(2524)

Rahway, N. J.:—View of Old Station and train running on the left-hand track. 1844.

(2528)

New Brunswick, N. J.:—View of Railroad Bridge and Delaware and Raritan Canal.  
1844.

(2510)

(2519)

Railroad Bridge at Trenton, N. J. View taken from the Philadelphia side. 1844.  
Bristol, Penna.:—View taken from the Delaware River, showing steamboats. 1844.

(122)

Machine shops N. J. R. R. and T. Co. at Jersey City, N. J. 1805.  
Contributed by John Headden.

(642)

New York and Washington Express Mail Train hauled by Engine No. 30, "A. L.  
Dennis" passing the Point of Rocks at Jersey City. 1866.  
Contributed by D. H. Baker.

#### PITTSBURGH, FORT WAYNE AND CHICAGO RAILROAD CO.

(187)

Union Passenger Station, Chicago, Illinois. Colored lithograph. 1876.  
Contributed by R. J. Elvin.

#### LITTLE MIAMI RAILROAD.

(2513)

Cincinnati:—Passenger Station. 1854.

(2518)

Pendleton:—Stone Round House and Car Shops. 1853.

(2515)

Miamiville:—Bridge over the Little Miami River. 1853.

(2516)

Xenia:—Passenger Station and Engine House. 1853.

(2517)

London:—Stone Water Tank. 1853.

(2514)

Columbus:—Interior of Passenger Station. 1853.

# MISCELLANEOUS VIEWS

## ALONG THE LINES OF THE PENNSYLVANIA R. R. CO.

THE RAILROAD RIOTS AT PITTSBURGH, PA., JULY 21st, 22d, 1877.

(2783)

View opposite 32d Street and 31st, looking down.

(2784)

View opposite 29th and 31st Streets, looking down.

(2785)

View of Hill Side, opposite 28th Street, where citizens were shot.

(2786)

View at 28th Street and Upper Round House, where citizens were shot.

(2787)

View of Interior of Upper Round House.

(2788)

View looking down Liberty Avenue from 27th Street. Most of the fighting was done here on Saturday night.

(2789)

View of Machine Shop opposite 27th Street. Burning cars were run in front of this to burn the Round House.

(2790)

View of Interior of Lower Round House, where troops were besieged.

(2791)

View of Interior of Lower Round House, where troops were besieged.

(2792)

View looking up the track opposite 25th Street.

(2793)

View opposite 23d Street looking up towards Carpenter Shop.

(2794)

View opposite 22d Street looking up the track towards Transfer Depot.

(2795)

View opposite 17th looking up the track to 20th Street.

(2796)

View opposite 16th Street looking up the track to 20th Street.

(2797)

View opposite 14th Street looking up the track to 20th Street.

(2798)

View of Ruins of Passenger Cars in Union Depot.

(2799)

View of Rear of Union Depot with ruins of Gen'l Sup't Gardiner's Palace Car in the foreground.

(2800)

Union Depot from 11th Street looking up.

(2801)

View Elevator, corner Liberty and Grant Streets. Pan-Handle Machine Shop is shown in the rear.

(2802)

View from Pan-Handle Railroad showing Washington Street Bridge, Elevator and Union Depot.

(2803)

View of Pan-Handle Tunnel and rear of office.

(2804)

View of the Pittsburgh, Cleveland and St. Louis Railroad Office on 7th Avenue.

(2805)

View showing where cannon shot was fired through stove pipe into locomotive, near sand box.

(2806)

View of Locomotive No. 483, destroyed at Upper Round House.

#### THE JOHNSTOWN FLOOD—1889.

(2683)

The breaks in the bank of the South Fork Dam. Photograph taken at a point outside, looking into the drained dam. June, 1889.

(2696)

The Bed of the South Fork Dam. Taken from the edge of the broken bank. June, 1889.

(2551)

South Fork, where the flood from the broken dam first struck the railroad. May 31, 1889.

(2553)

Johnstown looking from Westmont, showing the rebuilt portion of the Valley of the Conemaugh, down which came the flood. May 31, 1889.

(2695)

The "Old Viaduct," stone arch below South Fork, Pa., destroyed by the waters of the South Fork Dam. May 31, 1889.

(2693)

Temporary Trestle (90 feet high and about 2000 feet long), constructed to replace the stone arch known as the "Old Viaduct," below South Fork, destroyed by the flood, May 31, 1889.

(2692)

Reconstructing Track above bridge No. 6, entirely destroyed by the breaking of the South Fork Dam. May 31, 1889.

(2694)

Temporary Track near South Fork. The original track and embankment were entirely destroyed by the flood. May 31, 1889.

(2681)

Tree driven entirely through house, from garret to basement. The railroad cars were floated over a mile. May 31, 1889.

(2682)

Wreckage brought down by the Conemaugh River and Strong Creek blocked by the Johnstown bridge. May 31, 1889. Over two thousand bodies were taken from this spot.

(2684)

Freight Train carried from the Conemaugh Round House by the waters and half buried in the drift.

(2685)

Class "R" Freight Engine, after being dug out of the drift in the bed of the Conemaugh River, where it had been rolled about a mile from the Conemaugh Round House by the waters. May 31, 1889.

(2690)

"Day Express." Wreck of train going East, caught by the waters of the South Fork Dam below Conemaugh, several passengers losing their lives. May 31, 1889.

(2691)

Freight Engine carried from Conemaugh Round House and rolled about a mile by the flood. May 31, 1889.

(2688)

Effect of the flood on trains and road bed near Johnstown. May 31, 1889.

(293—2728)

Freight Cars wrecked and wheels moved by the force of the waters. May 31, 1889.

(2605)

The Stone Bridge at Johnstown, in front of which lay the many acres of debris brought down by the flood of May 31, 1889.

(2598)

Bridge No. 6, built on a curve with stepped arches on the site of the bridge washed away by the flood. 1892.

(2689)

Stone Railroad Bridge at Johnstown, Pa. Photographed about a month before the damage by the flood. April, 1889.

(2667)

Main Street, Woodvale, where 1200 houses were destroyed by the bursting of South Fork Dam. Photographed 1889.

(2686)

The Woodvale Woolen Mill, only building left standing in a town of 1200 houses destroyed by the flood. May 31, 1889.

(2687)

Woodvale a year after the flood. Twelve hundred houses were destroyed May 31, 1889, but only a dozen claimants had been found for the building lots in 1890. Photographed 1890.

GENERAL VIEWS.

(2596)

"The Limited," on Horseshoe Curve. The train is going East and is on the sharpest part of the curve. Photographed 1892.

(2597)

Observation end of "The Limited," on Horseshoe Curve, showing the elaborate Observation Car. Photographed 1892.

(2612)

Cape May Beach, one of the oldest and most fashionable resorts in New Jersey. Photographed 1892.

(2593)

Atlantic City Beach (north), showing large number of people in sea bathing. Photographed 1892.

(2592)

The birthplace of Hon. J. G. Blaine, West Brownsville. Photographed 1892.

(2729)

View looking up Old Plane No. 6. Photographed 1892.

(2782)

Site of Old Fort Wayne.

(2665)

Bed of road below Plane No. 10, near Hollidaysburg. Stones in road are the old railroad ties. Photographed 1892.

(2698)

Road on the Summit of the Alleghenies looking west.

(2578)

Old Iron Furnace at Bailey's Station, within 50 feet of the track, abandoned since 1843. View taken 1892.

(2577)

Aqueduct across the Susquehanna River above Harrisburg, showing how the canal is carried across the river. Photographed 1892.

(2579)

Tied-up Canal Boats at Trimmer's Rock, showing old canal and its relation to the river and the Railroad. Photographed 1892.

(2780)

Elevated Railroad at Jersey City, New Jersey.

## INDUSTRIES ALONG THE LINES OF THE PENNSYLVANIA RAILROAD COMPANY.

### UNITED RAILROADS OF NEW JERSEY.

(2833)

Waldo Avenue Yards, East Jersey City, New Jersey.

(2834)

Stock Yards at Harsimus, Jersey City, New Jersey.

(2835)

Ballentine's Brewery, Newark, New Jersey.

(2836)

Singer Sewing Machine Co., Elizabeth, New Jersey.

(2837)

Janeway and Carpender Wall Paper Manufactory, New Brunswick, New Jersey.

(2838)

Trenton Rubber Company, Trenton, New Jersey.

(2839)

Roebbing Wire Works, Trenton, New Jersey.

(2840)

William E. Hooper & Sons, Woodbury, New Jersey.

### PHILADELPHIA AND ERIE AND NORTHERN CENTRAL RAILROAD.

(2841)

Mount Vernon Cotton Duck Mills, Baltimore, Md.

(2842)

Claremont Stock Yards, Baltimore, Md.

(2843)

A. Booth Packing Company's Works, Baltimore, Md.

(2844)

York Haven Paper Company, York, Pa.

(2845)

Williamsport Furniture Company, Williamsport, Pa.

(2846)

Keystone Furniture Company, Williamsport, Pa.

(2847)

Crescent Tannery, Driftwood, Pa. L. A. Gleason and Sons.

(2848)

Neracker Sprinkler Company's Works, Warren, Pa.

PENNSYLVANIA RAILROAD COMPANY.

(2849)

Stock Yards, West Philadelphia.

(2560)

A Tobacco Field near Mount Joy, showing one of the principal industries of Lancaster County. Photographed 1892.

(2851)

Tobacco Warehouse, Lancaster, Pa.

(2852)

Paxson Furnace, Harrisburg, Pa.

(2853)

Pennsylvania Steel Company No. 1.

(2854)

Pennsylvania Steel Company No. 2.

(2855)

Paxson Rolling Mill, Harrisburg, Pa.

(2955)

Paxson Furnace, Harrisburg, Pa.

(2856)

Harrisburg Car Works No. 1.

(2857)

Harrisburg Car Works No. 2.

(2858)

Chambers & McKee, Jeannette, Pa.

(2859)

Apollo Steel Works, Apollo, Pa.

(2860)

Pittsburgh Plate Glass Works, Pittsburgh, Pa.



**146 INDUSTRIES ALONG LINES OF PENNSYLVANIA RAILROAD CO.**

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- (2861)  
Freeport Distillery, Pittsburgh, Pa.
- (2832)  
Guggenheim Brothers, Freeport, Pa.
- (2862)  
Jones & McLaughlin, Pittsburgh, Pa.
- (2863)  
Duquesne Steel Works, Pittsburgh, Pa.
- (2864)  
Homestead Steel Works, near Pittsburgh, Pa.
- (2865)  
Homestead, Pa.
- (2866)  
Edgar Thompson Steel Works, Pittsburgh, Pa.
- (2867)  
Morehead Brothers' Manufactory, Pittsburgh, Pa.
- (2868)  
Isabella Furnace, Pittsburgh, Pa.
- (2869)  
Perkins & Co.'s Works, Sharpsville, Pa.
- (2870)  
National Tube Works, McKeesport, Pa.
- (2871)  
Monongahela Furnace, McKeesport, Pa.
- (2872)  
Kestler's Tannery, Lock Haven, Pa.
- (2873)  
New York and New Haven Paper Co., Lock Haven, Pa. No. 1 and No. 2.
- (2874)  
Bellefonte Furnace Co., Bellefonte, Pa.

## NORTHWEST SYSTEM.

- (2875)  
Carnegie Steel Works, Beaver Falls, Pa.
- (2876)  
Industries at Beaver Falls.
- (2877)  
Industries at Salem, Ohio.
- (2878)  
Morgan Engineering Company, Alliance, Ohio.
- (2879)  
Dueber Watch Company, Canton, Ohio.
- (2880)  
C. Aultman & Company, Canton, Ohio.
- (2881)  
Russell & Company, Engine Saw Mill, etc., Massillon, Ohio.
- (2882)  
Foundry and Machine Shops, Fort Wayne.
- (2883)  
Pennsylvania Railroad Shops, Fort Wayne.
- (2884)  
H. T. Nail & Co., Cleveland, Ohio.
- (2885)  
Brown Hoisting and Conveying Machine, Cleveland, Ohio.
- (2886)  
Warner & Swasey, Cleveland, Ohio.
- (2887)  
Union Steel Screw Co., Cleveland, Ohio.
- (2889)  
Brush Electric Machine Company, Cleveland, Ohio.
- (2890)  
American Wire Works, Cleveland, Ohio.
- (2891)  
Emma Furnace, Union Rolling Mill, Cleveland, Ohio.
- (2892)  
Cleveland Rolling Mill, Cleveland, Ohio.
- (2893)  
National Safe and Lock Company, Cleveland, Ohio.

(2894)

Crisholm Steel Shovel Works, Cleveland, Ohio.

(2895)

Ohio Steel Company, Cleveland, Ohio.

(2896)

Knowles, Taylor &amp; Knowles, East Liverpool, Ohio.

(2897)

Bellaire Nail Works, Bellaire.

(2934)

Great Western Pipe Works, Toronto.

(2935)

Forest City Pipe Works.

(2898)

Stewart Iron Company, Sharon, Pa.

(2958)

Sharon Iron Co., Sharon, Pa.

(2899)

Wilkes Rolling Mill, Sharon, Pa.

(2900)

E. B. Kembery &amp; Co., Sharon, Pa.

(2586)

Grapeville, Natural Gas Wells, supplying a radius of 50 miles with natural gas.  
Photographed 1892.

(2589)

Hecla Coke Ovens, Trauger, newly built, models of their class. Photographed 1892.

(2590)

Standard Coke Works and Shaft, Mount Pleasant, one of the largest plants of the  
kind in Pennsylvania. Photographed 1892.

(2901)

New Castle Wire Works, New Castle, Pa.

(2902)

Etna Iron Co., New Castle, Pa.

(2959)

Crawford Iron and Steel Company, New Castle, Pa.

(2903)

Ohio Iron and Steel Co., Lowell, Pa.

(2904)

Griswold Linseed Oil Works, Warren, Ohio.

(2905)

Page Tube Co., Warren, Ohio.

(2906)

American Tube and Iron Company, Youngstown, Ohio.

(2907)

Union Iron Company, Youngstown, Ohio.

(2908)

Union Iron and Steel Co., Youngstown, Ohio.

(2909)

William Todd &amp; Co., Foundry and Machine Works, Youngstown, Ohio.

(2910)

Mahoning Valley Iron Company, Youngstown, Ohio.

(2911)

Youngstown Mills, Youngstown, Ohio.

(2912)

Youngstown Bridge Co., Youngstown, Ohio.

(2913)

Brown &amp; Bonnel Iron Co., Youngstown, Ohio.

(2914)

Andrews Bros. &amp; Co., Furnace and Rolling Mill, Youngstown, Ohio.

(2915)

Youngstown Steel Co., Youngstown, Ohio.

(2916)

Girard Iron Company, Girard, Ohio.

(2953)

Oil Tanks, Whiting, Indiana.

## SOUTHWEST SYSTEM.

(2918)

Briar Hill Iron and Coal Co., Briar Hill, Pa.

(2919)

Oil Country at McDonalds, Pa.

(2920)

Columbus Shops, Columbus, Ohio.

(2921)  
Columbus Buggy Company, Columbus, Ohio.

(2922)  
Boiler Shops and Transfer, Columbus, Ohio.

(2923)  
Tin Plate Works, Piqua, Ohio.

(2924)  
Piqua Rolling Mill, Piqua, Ohio.

(2925)  
Straw Board Works, Piqua, Ohio.

(2926)  
Favorite Stove Company, Piqua, Ohio.

(2927)  
Western Straw Board Works, Gas City, Ind.

(2928)  
United States Glass Works, Gas City, Ind.

(2929)  
Tin Plate Works, Gas City, Ind.

(2935)  
American Green Glass Works, Gas City, Ind.

(2930)  
York Inn, Marion, Ind.

(2931)  
Stewart & Co., Glass Works, Marion, Ind.

(2933)  
Dithrich Glass Company.

(2936)  
Warehouse, Cincinnati, Ohio.

(2937)  
Cincinnati Terminal, East.

(2938)  
Cincinnati Terminal, West.

(2939)  
Hoosier Drill Company, Richmond, Ind.

(2940)  
Gear, Scott & Co., Richmond, Ind.

- (2941)  
Pearl Top and Pearl Glass Works, Elwood.
- (2942)  
American Tin Plate Works, Elwood.
- (2943)  
Bottle Works, Elwood.
- (2944)  
American Plate Glass Works, Elwood.
- (2945)  
Plate Glass Works, Kokomo, Ind.
- (2946)  
Belknap Company Cement Works, Louisville, Ky.
- (2947)  
Car Repair Shops, Indianapolis, Ind.
- (2948)  
Locomotive Repair Shops, Indianapolis, Ind.
- (2949)  
Office Indianapolis Shops, Indianapolis, Ind.
- (2950)  
Planing Mill Indianapolis Shops.
- (2951)  
American Encaustic Tile Works, Zanesville, Ohio.
- (2962)  
National Surface Cattle Guard.
- (2963)  
Standard Pit Cattle Guard.

# EXHIBIT OF DEPARTMENT OF CHEMICAL AND PHYSICAL TESTS

LOCATED AISLE N, POST NO. 4, TRANSPORTATION BUILDING.

This Department was established over twenty years ago. It was the first railroad test laboratory in America. It was the first attempt to make scientific research an important and permanent feature in railroad operation. That its success has been phenomenal is evidenced by the numerous chemical and physical specifications which it has issued, and which have been adopted as standard by other railroads, and used as a guide in many instances by manufacturers in the preparation of their products. The work of this Department covers a field so broad that it is difficult to prepare an exhibit illustrative of its functions, except in a limited way. It deals with the development of the locomotive and other rolling and floating stock, the quality and economical use of fuel and other supplies, the investigation of electrical machinery and methods, sanitary care of the road and its employes; in a word, everything in the construction and maintenance of a modern railway in which the services of experts can be made useful. A large corps of experts of the highest standing are constantly employed, whose work, notwithstanding the expense involved, is considered indispensable to the operation of the Pennsylvania Railroad Company's Lines.

## SPECIMENS OF SUPPLIES SUBMITTED TO CHEMICAL TESTS.

### EXTRA LARD OIL. (2153)

Used in making signal oil, navy sperm oil and cylinder lubricant. Amount tested and used in 1892, 294,443 gallons (1,114,596 litres). See specifications.

### EXTRA No. 1 LARD OIL. (2154)

Used in making engine oil, passenger car oil and for engine lubrication. Amount tested and used in 1892, 661,250 gallons (2,503,122 litres). See specifications.

### 150 DEGREE FIRE TEST OIL. (2155)

Used in making signal oil, in locomotive head-lights, and in lamps in offices, towers, etc. Amount tested and used in 1892, 1,140,240 gallons (4,316,310 litres). See specifications.

### 300 DEGREE FIRE TEST OIL. (2156)

Used in making signal oil, navy sperm oil, and in lighting cars, and also in miners' lamps. Amount tested and used in 1892, 448,264 gallons (1,696,876 litres). See specifications.

### 500 DEGREE FIRE TEST OIL. (2157)

Used alone as cylinder lubricant, in stationary engines and on the floating equipment, and in making cylinder lubricant for locomotives. Amount tested and used in 1892, 426,841 gallons (1,615,780 litres). See specifications.

**PARAFFINE OIL.**

(2158)

Used in making engine oil. Amount tested and used in 1892, 435,668 gallons (1,649,195 litres). See specifications.

**WELL OIL.**

(2159)

Used in making passenger car oil and in freight car lubrication. Amount tested and used in 1892, 1,647,493 gallons (6,236,485 litres).

**TALLOW.**

(2160)

Used alone and mixed with 500 degrees fire-test oil as cylinder lubricant on some divisions. Amount tested and used in 1892, 155,171 pounds (70,375 kilogrammes). See specifications.

**COTTONSEED OIL.**

(2161)

Used in miners' lamps in coal mining. Amount tested and used in 1892, 24,150 gallons (91,418 litres). See specifications.

**FISH OIL.**

(2162)

Used in certain coal mines in miners' lamps. Amount tested and used in 1892, 10,400 gallons (39,368 litres). See specifications.

**ENGINE OIL.**

(2163)

A mixture of half each paraffine oil and extra No. 1 lard oil. Used for engine lubrication on shafting and for general lubricating purposes. Amount used in 1892, 871,336 gallons (3,298,390 litres). See specifications.

**PASSENGER CAR OIL.**

(2164)

A mixture of half each extra No. 1 lard oil and well oil. Used for fast passenger trains. Amount used in 1892, 351,164 gallons (1,329,406 litres). See specifications.

**LOCOMOTIVE CYLINDER OIL.**

(2165)

A mixture of three parts 500 degree oil and one part extra lard oil. Used in locomotive steam cylinders. Amount used in 1892, 489,606 gallons (1,853,374 litres). See specifications.

**SIGNAL OIL.**

(2166)

A mixture of four parts, by volume, of extra lard oil and one part 150 degree fire test oil. Used principally in hand lanterns. Amount used in 1892, 423,160 gallons (1,601,846 litres). See specifications.

**NAVY SPERM OIL.**

(2167)

A mixture of one part 300 degree fire test oil and one part extra lard oil. Used as signal oil on floating equipment. Amount used in 1892, 5,556 gallons (21,031 litres).

**CABIN CAR COLOR.**

(2168)

Used for painting cabin cars and the targets of signals. Amount tested and used in 1892, 33,741 pounds (15,304 kilogrammes). See specifications.

**COMMON SOAP.**

(2169)

Used for general cleaning purposes. Amount tested and used in 1892, 131,052 pounds (59,442 kilogrammes). See specifications.



## TOILET SOAP.

(2170)

Used in offices, towers, shops, etc. Amount tested and used in 1892, 18,868 pounds (8558 kilogrammes). See specifications.

## POWDERED SOAP OR DETERGENT.

(2171)

Used in car cleaning. Amount tested and used in 1892, 12,863 pounds (5834 kilogrammes). See specifications.

## ZINC.

(2172)

Used in primary batteries for telegraph purposes and in making yellow brass. Amount tested and used in 1892, 101,960 pounds (46,248 kilogrammes). See specifications, No. 25.

## SAL AMMONIAC.

(2173)

Used in Leclanche cells for telephones, call bells, etc. Amount tested and used in 1892, 1611 pounds (730 kilogrammes). See specifications.

## CONCENTRATED LYE.

(2174)

Used in coarse cleaning. Amount tested and used in 1892, 37,104 pounds (16,830 kilogrammes). See specifications, No. 24.

## LOCOMOTIVE SPRING STEEL.

(2175)

Used in making springs for locomotives. Amount tested and used in 1892, 239,818 pounds (108,780 kilogrammes). See specifications.

## PHOSPHOR BRONZE.

(2176)

Used in making driving boxes and car bearings for special purposes. Amount tested and used in 1892, 2,431,818 pounds (1,003,059 kilogrammes). See specifications, No. 32.

## TUSCAN RED.

(2177)

Used as standard passenger car color. Amount tested and used in 1892, 36,720 pounds (16,655 kilogrammes). See specifications.

## FREIGHT CAR COLOR.

(2178)

Used in painting freight cars. Amount tested and used in 1892, 860,222 pounds (390,190 kilogrammes). See specifications, No. 31.

## MINERAL WOOL.

(2179)

Used to deaden sound in passenger car construction and as insulator in refrigerator cars. Amount tested and used in 1892, 266,906 pounds (131,067 kilogrammes). See specifications, No. 28.

## TURPENTINE.

(2180)

Used in general painting. Amount tested and used in 1892, 15,324 gallons (58,008 litres). See specifications.

## WOOD PRESERVATIVE.

(2181)

Used on joints and tenons and elsewhere, to prevent decay of wood. Amount tested and used in 1892, 14,530 gallons (55,002 litres). See specifications.

## BLUE VITRIOL.

(2182)

Used in telegraph batteries. Amount tested and used in 1892, 573 barrels. See specifications, No. 22.

**HELICAL SPRINGS.**

(2183)

Used in freight and passenger car construction. Number of all kinds tested and used in 1892, 113,643. See specifications.

**E x B METAL.**

(2184)

Standard bearing metal. Copper 76.80%, tin 8.00%, lead 15%, and phosphorus 0.20%. Amount used in 1892, 1,370,655 pounds (621,716 kilogrammes), making 115,553 bearings.

**NEATSFOOT OIL.**

(2185)

Used interchangeably with extra No. 1 lard oil, when the market will permit. None used in 1892. See specifications.

**TALLOW OIL.**

(2186)

Used interchangeably with extra No. 1 lard oil, when the market will permit. None used in 1892. See specifications.

**DISINFECTANT.**

(2187)

Manufactured under the supervision of the laboratory. A concentrated solution of chloride of zinc, chloride of copper, and bichloride of mercury. Amount made and used in 1892, 366 gross of 8-ounce bottles and 69 barrels (14,125 litres). See specifications, No. 27.

## SPECIMENS OF SUPPLIES SUBMITTED TO PHYSICAL TESTS.

**BOILER STEEL FOR FIRE BOXES.**

(2188)

$\frac{1}{4}$  in. thick. Test Section 8 in. Total amount of Boiler Steel tested in 1892, 1715 tons (1,555,850 kilogrammes). Rejected, 1.68 per cent. See specifications.

**BOILER STEEL FOR FIRE BOXES.**

(2189)

5-16 in. thick. Standard Test Section 8 in. Total amount of Boiler Steel tested in 1892, 1715 tons (1,555,850 kilogrammes). Rejected, 1.68 per cent. See specifications.

**BOILER STEEL FOR OUTSIDE FIRE BOXES.**

(2190)

$\frac{3}{8}$  in. thick. Standard Test Section 8 in. Total amount of Boiler Steel tested in 1892, 1715 tons (1,555,850 kilogrammes). Rejected, 1.68 per cent. See specifications.

**BOILER STEEL FOR SHELL OF BOILER.**

(2191)

7-16 in. thick. Standard Test Section 8 in. Total amount of Boiler Steel tested in 1892, 1715 tons (1,555,850 kilogrammes). Rejected, 1.68 per cent. See specifications.

**BOILER STEEL FOR FLUE SHEET.**

(2192)

$\frac{1}{2}$  in. thick. Standard Test Section 8 in. Total amount of Boiler Steel tested in 1892, 1715 tons (1,555,850 kilogrammes). Rejected, 1.68 per cent. See specifications.

**BOILER STEEL FOR DOME RINGS.**

(2193)

$\frac{7}{8}$  in. thick. Standard Test Section 8 in. Total amount of Boiler Steel tested in 1892, 1715 tons (1,555,850 kilogrammes). Rejected, 1.68 per cent. See specifications.

**BOILER STEEL SHOWING MANNER OF MAKING NICKING TEST.**

(2194)

See specifications. Both Homogeneous (Accepted) and Laminated (Rejected) samples shown.

**CAST IRON FOR CAR WHEELS.**

(2195)

Transverse Test Section 2 in. square. Supports, 12 in. apart. Amount tested and used in 1892, 32,468 tons (29,454,775 kilogrammes), making 114,995 wheels.

**CHAIN.**

(2196)

$\frac{1}{2}$  in. used on "Hopper Bottom" Gondola Cars, and  $\frac{3}{4}$  in. used as standard Brake Chain on Freight Cars. Amount tested in 1892, 337 tons (305,725 kilogrammes). Rejected, 5.3 per cent. See specifications.

**BLOOM STEEL USED FOR MAIN AND PARALLEL RODS ON LOCOMOTIVES.**

(2197)

Standard Test Section 2 in. Amount tested in 1892, 325 tons (294,890 kilogrammes). Rejected, 10 per cent. See specifications.

**AXLE STEEL USED FOR PASSENGER CARS.**

(2198)

Standard Test Section 2 in. Amount tested in 1892, 1545 tons (1,401,600 kilogrammes), representing 11,536 axles. Rejected, 5.49 per cent. See specifications.

**CRANK PIN STEEL USED FOR CRANK PINS ON LOCOMOTIVES.**

(2199)

Standard Test Section 2 in. Amount tested in 1892, 83 tons (75,300 kilogrammes). Rejected, 10.26 per cent. See specifications.

**MERCHANT BAR STEEL USED IN CONSTRUCTING FREIGHT CARS.**

(2200)

1 in. Round. Standard Test Section 2 in. Total amount of Merchant Bar Steel of all sizes tested in 1892, 850 tons (771,110 kilogrammes). Rejected, 5.2 per cent. See specifications.

**MERCHANT BAR STEEL USED IN CONSTRUCTING FREIGHT CARS.**

(2201)

$1\frac{1}{2}$  and  $\frac{3}{4}$  in. Round. Standard Test Section 2 in. Total amount of Merchant Bar Steel of all sizes tested in 1892, 850 tons (771,110 kilogrammes). Rejected, 5.2 per cent. See specifications.

**MERCHANT BAR STEEL USED IN CONSTRUCTING FREIGHT CARS.**

(2202)

3 in. x  $\frac{1}{2}$  in. and  $1\frac{3}{4}$  in. x  $\frac{1}{2}$  in. Standard Test Section 2 in. Total amount of Merchant Bar Steel of all sizes tested in 1892, 850 tons (771,110 kilogrammes). Rejected, 5.2 per cent. See specifications.

**FRACTURES OF REJECTED STEEL.**

(2203)

Samples show Steel rejected for being too low in strength, too high in strength, too low in elongation, and for being honeycombed.

**MERCHANT BAR IRON.**

(2204)

$1\frac{1}{2}$  in. Round. Used for Coupling Pins. Test Section 2 in. Total amount of Merchant Bar Iron of all sizes tested in 1892, 31,300 tons (28,395,375 kilogrammes). Rejected, 9.96 per cent. See specifications.

**MERCHANT BAR IRON.**

(2205)

$1\frac{1}{4}$  in. Square. Used for miscellaneous purposes. Test Section 2 in. Total amount of Merchant Bar Iron of all sizes tested in 1892, 31,300 tons (28,395,375 kilogrammes). Rejected, 9.96 per cent. See specifications.

## MERCHANT BAR IRON.

(2206)

1½ in. Square. Used for miscellaneous purposes. Test Section 2 in. Total amount of Merchant Bar Iron of all sizes tested in 1892, 31,300 tons (28,395,375 kilogrammes). Rejected, 9.96 per cent. See specifications.

## MERCHANT BAR IRON.

(2207)

2½ x ¼ in. Used for miscellaneous purposes. Test Section 2 in. Total amount of Merchant Bar Iron of all sizes tested in 1892, 31,300 tons (28,395,375 kilogrammes). Rejected, 9.96 per cent. See specifications.

## MERCHANT BAR IRON.

(2208)

4 in. x 1 in. Used for miscellaneous purposes. Test Section 2 in. Total amount of Merchant Bar Iron of all sizes tested in 1892, 31,300 tons (28,395,375 kilogrammes). Rejected, 9.96 per cent.

## MERCHANT BAR IRON.

(2209)

1¼ in. diameter. Section used for Coupling Links. Test Section 2 in. Total amount of Merchant Bar Iron of all sizes tested in 1892, 31,300 tons (28,395,375 kilogrammes). Rejected, 9.96 per cent. See specifications.

## MERCHANT BAR IRON.

(2210)

1½ in. Round. Showing material rejected on account of low strength and low elongation.

## FRACTURES OF REJECTED IRON.

(2211)

Samples showing Iron rejected for being crystalized, for being too brittle, and for containing flaws and slag.

## MATERIAL BROKEN IN SERVICE.

(2212)

Samples show Axles, a Crank-pin, and a piece of Tire which have been broken in "detail."

## CAST IRON CAR WHEEL.

(2213)

Diameter, 33 in. Weight, 555 pounds. Serial Number, 18,168. To test the strength of the Plate of this wheel, between brackets, a number of blows with a 25-pound sledge have been given on the plate at each point of breaking through. The number of blows required is given below for each hole:

| No. of Hole. | No. of Blows required. | No. of Hole. | No. of Blows required. | No. of Hole. | No. of Blows required. |
|--------------|------------------------|--------------|------------------------|--------------|------------------------|
| 1            | 46                     | 6            | 30                     | 11           | 30                     |
| 2            | 33                     | 7            | 15                     | 12           | 26                     |
| 3            | 29                     | 8            | 27                     | 13           | 25                     |
| 4            | 23                     | 9            | 33                     | 14           | 28                     |
| 5            | 43                     | 10           | 29                     | Total...417  |                        |

In order to break out the piece through Thread and Flange, to show the chill, which was done after all the holes had been broken through, 65 additional blows were required on Bracket and Rim about that point.

## PASSENGER CAR WHEEL.

(2214)

Mileage, 146,188 miles. In service seven years. Made at Altoona Shops. Placed in service May 6, 1896, at Philadelphia, under Passenger Car No. 1531. Drawn at Pittsburgh March 24, 1898.

**FREIGHT AXLE WHICH HAS BEEN TESTED.**

(2215)

Standard test, five blows with a 1640 lb. weight falling 25 feet, axle resting on supports 3 feet apart and turned over after each blow. Must not fracture under this test. Number tested in 1892, 44,922 axles, weighing 9,950 tons (6,026,800 kilogrammes). Rejected, 9.58 per cent. See specifications.

**DRAFT SPRING USED FOR FREIGHT CARS.**

(2216)

Called "Class X." Total number "Class X" springs tested in 1892, 42,165. Rejected, 0.14 per cent.

**BOLSTER SPRINGS FOR FREIGHT CARS.**

(2217)

Called "Class W." Total number "Class W" springs tested in 1892, 42,635. Rejected, 0.63 per cent.

**CAST IRON CAR WHEEL.**

(2218)

Diameter, 36 inches. Weight, 692 pounds. Serial No., 18,180.

This wheel has been broken to show the character of the iron and the uniformity and depth of chill.

According to P. R. R. specifications, cast iron car wheels must stand without fracture 5 blows of a weight of 140 pounds, dropped from a height of 12 feet centrally on the hub.

This wheel stood the test until the 11th blow, when a small crack on the flange was noticed; 20 blows developed a crack across the plate, and 22 blows a crack through tread, and wheel was broken in 2 pieces after 26 blows.

It was broken in more pieces by a large drop used for breaking car wheels.

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|  |     |
|--|-----|
| Philadelphia & Columbia Railroad and Old Stage Lines .....                             | 161 |
| Camden & Amboy and Belvidere-Delaware Railroads, and Delaware & Raritan Canal Co ..... | 174 |
| Newcastle & Frenchtown, and Philadelphia, Wilmington & Baltimore Railroads .....       | 178 |
| Madison & Indianapolis Railroad .....  | 181 |









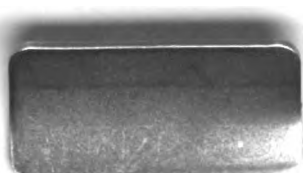


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