

THE STORY OF THE WILMINGTON AND WESTERN RAILROAD

by

Arthur G. Volkman

THE STORY OF THE WILMINGTON AND WESTERN RAILROAD

by
Arthur G. Volkman

Historic Red Clay Valley, Inc.
Wilmington, Delaware
1963 (original publish year)

Republished digitally by HRCV – 2019
Reprint Copyright © by Historic Red Clay Valley

This publication is,

*In recognition of the 150th anniversary of the forming of the
Wilmington & Western Rail Road company in 1869,
And dedicated to the memory of HRCV founder,*

Thomas Clarence Marshall, Jr.

February 20, 1924 ~ February 12, 2019

Educator, Humanitarian, Philanthropist, Preservationist

“The best thing to make in life, is to make a difference!”



Historic Red Clay Valley Incorporated's. founder, Thomas C. Marshall, Jr., at Greenbank Station on May 17, 2009 during HRCV's celebration of #98 providing 100 years of steam service. American class 4-4-0 locomotive #98, outshopped in January 1909 by the American Locomotive Company, Schenectady Works (#45921) for the Mississippi Central Railroad, is named the “Thomas C. Marshall, Jr.” on this date in recognition of Marshall's 50 years of generous support and dedication to the organization, recognition of his donation of #98 to HRCV in 1977, and for returning steam passenger service to the Landenberg Branch of the Baltimore & Ohio Railroad. Kurt Bell photo.

Other Monograph Publications of Historic Red Clay Valley, Inc.

140 Years Along Old Public Road by Clinton A. Weslager, 1960

The Old Hollingsworth Plantation by Clinton A. Weslager, 1961

Ironworks on Red Clay Creek by Carroll W. Pursell Jr., 1962

Two Mills on the Red Clay Creek by Carroll W. Pursell Jr., 1964

Note Regarding the 2019 2nd Edition

This document was digitally scanned to high resolution images from a copy contained in the Historic Red Clay Valley Archive collection. Optical character recognition was performed and the document transferred to Microsoft WORD for editing.

Editing involved formatting for letter-size pages (the original monograph was printed in a 6" x 9" page size). As a result, the page numbers in this document do not match the page numbers of the originally published monograph. To improve readability, the font size has been increased over what was originally used for the printed monograph. The author's original numbered footnote references are unchanged.

HRCV has elected to build on the author's work with this reissue. Spelling and grammar have changed in the fifty years since this manuscript was originally presented. Where applicable, spelling and grammar changes have been made to bring the text in alignment with current grammar and spellings. Lettered footnotes refer the reader to new information as well as the original spelling and grammar references at the back of the manuscript. The use of {brackets} notes 2019 edition text clarifications.

New facts have been uncovered as well as other relevant information related to the author's original content. Any new facts and information included are printed as part of the letter footnotes at the rear of the monograph. Original photos and drawings have been updated, where possible, with the originals referenced by letter footnote at the end of the monograph. An Addendum includes financial, land parcel, and legislative Act information.

This monograph is being released by HRCV in recognition of the 150th anniversary of the Delaware Legislature's Act revising the identity of the Delaware & Chester County Railroad to the Wilmington & Western Rail Road (Laws of the State of Delaware, Volume 13, Chapter 491; March 10, 1869). With this change of corporate identity and a new slate of highly-regarded Delawareans in control of the enterprise, progress on the new railroad progressed rapidly. On October 19, 1872 their efforts were rewarded with the railroad's first day of operation.

Robert E. Wilhelm, Jr., Editor, 2019

FOREWORD

Although the Wilmington & Western Railroad is mentioned in passing in most Delaware histories, its story has never before been told in detail. In many ways, it was representative of the many small railroads that sprang up in America following the Civil War, and what might be termed its “rise and fall” finds parallel in other rail enterprises solidly constructed to withstand sun, wind, and snow, but which could not weather financial storms on their modest budgets. Although the Wilmington & Western had less than 20 miles of track, it served a vital need not only in providing public transportation for rural New Castle County families, but in making the first rail freight service available to the milling industries in the valley of the Red Clay. Its story, in fact, is an integral part of the economic history of the Red Clay Valley, and it is fitting that it should be published by Historic Red Clay Valley, Inc., whose membership includes so many railroad enthusiasts intent upon reviving the Wilmington & Western as a non-profit enterprise to bring visitors to the scenic, historic Red Clay Valley.

No one is better qualified to tell the story of the Wilmington & Western than Arthur G. Volkman. Born in Wilmington and educated at the old Willard Hall Grammar School and at Goldey College, he has a native-born sensitivity for early Delaware. In 1915, he got his first job as a messenger boy on the Philadelphia, Baltimore & Washington R.R., and he has been a railroader ever since. He has held various positions with the Pennsylvania Railroad in all departments. He has ridden engines, cabooses, and freight trains. He has lived through the exciting drama of keeping trains moving during hurricanes, floods, snow storms, and wrecks. For almost 50 years he has worked and been in daily association with railroad men. He saw coal-burning locomotives replaced by diesel and electric trains. He witnessed railroads at their peak as common carriers and watched them trying to meet the competition of the motor truck, bus, and airplane. His younger brother, John, also a railroader, retired recently from the Pennsylvania Railroad after 43 years of service. Throughout the account the reader can sense the author's experience and confident knowledge of the many facets of railroading.

To obtain data for his story, Volkman not only tramped along the old right-of-way of the Wilmington & Western from the site of the first depot in Wilmington to the turntable at Landenberg, but he sought out many old informants and consulted newspaper accounts and other documentation. Volkman is versatile in his interests, and he and his late wife Frieda Hofmann Volkman were active in Delaware archeology, archery, and natural history for many years. The Archeological Society of Delaware published a number of his papers relating to early Indians. He is also an admirer of Thoreau, and in 1960 the Peter Pauper Press published his little book of compilations entitled *Thoreau on Man and Nature*.

C. A. WESLAGER

ACKNOWLEDGEMENTS

Ever since the rounded sun and full moon may have suggested to some ancient mind the idea of a wheel, man has been capitalizing on its invention. However, the greatest potentialities of the wheel, with its resultant impact on civilization, were not realized until after the discovery of steam. It was following this development that railroads sprung into prominence, and this story is an attempt to capture the effect of the stirring industrial epoch locally. In order to do this, it was necessary for me to solicit the aid of numerous others.

Among the foremost of these so much assistance was rendered me by Dr. Clinton Alfred Weslager that it is almost presumptions to style myself the author. Indeed, without his guidance the story would never have been written at all and I gratefully acknowledge this debt. Of the others who contributed materially to this story I can mention only a few. William E. Grant, Sr., furnished many photographs, only a few of which could be used due to lack of space. The Elwood S. Wilkins' family of Strickersville, Pa., likewise furnished photographs as well as other information. Clarence T. Crossan and T. Clarence Marshall, both octogenarians, recalled stories they heard in their youth about the Wilmington & Western Railroad. The staffs and employees of the Hagley Museum, Chester County Historical Museum, the Historical Society of Delaware, and especially of the Wilmington Institute Free Library were extremely helpful. Mrs. Ruth B. Robertson, of the latter organization, read the semi-finished manuscript and offered valuable suggestions.

For whatever merit there is in the story I can credit my departed wife, Frieda Hofmann Volkman, whose unseen presence was a constant encouragement.

A. G. Volkman

August 1, 1963
Wilmington, Del.

Editor's Note – Use of 'railroad', 'railway' and 'rail road'

The United States primarily uses the term 'railroad', while the rest of the world generally prefers 'railway'. In the U.S., 'rail road' was first used in the early 19th century followed by 'railroad' by the start of the 20th century. Historic research on the 19th century Wilmington & Western uncovers both 'railroad' and 'rail road' in use for the official corporate name. Delaware legislative acts and the Company's letterheads and other corporate documentation employed both forms of the word. As a result, in this document the reader will find both 'Wilmington & Western Rail Road' and 'Wilmington & Western Railroad' in use. Note that the use of 'Wilmington & Western Railroad' on trains operated by Historic Red Clay Valley is not as a legal FRA controlled railroad entity but simply a historic livery reference to the original organization that built the line in the 1970s. The Wilmington & Western Railway Corporation however, is a commercial railroad freight entity handling all freight moves on the former B&O's Landenberg Branch.

1.

One hot summer afternoon some fifty years ago {circa 1913}, a group of us ragged, barefoot boys from the west end of Wilmington, made our way over the fields, down the hills, and through the woods of what is now known as Cleland Heights and Canby Park. We were on our way to "cat foot," an old swimming hole on Richardson's Run, although none of us knew the stream by that name. To us it was just a nameless creek where we could wade, swim in the raw, and play tricks on one another, which would have been frowned upon in the city's public bathhouses.

We crossed "Patty" Forman's farm, passed his quarry (where we had recently seen a drowned Negro fished out), stumbled over the Reading Railroad's single track a half mile west of Maryland Avenue, and followed a narrow path in single file, Indian fashion. I have since learned that it may have, indeed, been a Red Men's trail, but the real mystery was that alongside the path ran a cinder road about four or five feet wide that certainly was not of Indian origin.

As we rambled along, we amused ourselves by guessing what this road was doing there in the shadowy woods. It was grown up with mullein, Jewell and Joe Pie weeds, sumac, blackberry and raspberry bushes; and elm, ash and maple trees had taken firm root hold in and nearby. Maybe it had been the wagon road to an ancient farmhouse, or a lumbering road, or trolley or train roadbed. While no rails were visible, here and there was a rotted cross tie that seemed to point to the latter.

Years later I was to discover that in reality this obsolete road had been not only a section of a railroad right-of-way, but its abandoned state was all that remained of what had once represented the hopes and fears, ambitions and frustrations, yes, sometimes even the tragedies of human life. It was the remnants of the Wilmington & Western Railroad, and herein lies a tale.

A half century earlier, October 19, 1872, to be exact, two new shiny locomotives puffed and snorted along the then gleaming rails. They were pulling a train of 11 passenger cars, all new, festooned with flags and bunting. Aboard were some 500 happy, laughing excited passengers, including practically all of the leading politicians, newspaper men, and industrialists of New Castle County, Delaware and adjacent Chester County in Pennsylvania. It was a clear, crisp, Saturday and the color of the train was matched only by the brilliant, autumnal tints of the foliage at that time in the Red Clay Creek Valley. As a matter of fact, this was the opening run of what was destined to become a number of excursions, as well as regularly scheduled freight and passenger trains on the Wilmington & Western Railroad. It extended from what is now called the Christiana¹ River, in Wilmington, to Landenberg, Pennsylvania, a distance of approximately 20 miles.

However, as Joshua T. Heald, President of the Wilmington & Western Railroad, remarked on July 8, 1871, when he broke ground for the project in the neighborhood of

¹ - For some 250 years the Christina River was known as the Christiana River. However, in 1937 by an Act of the Delaware State Legislature the spelling was changed to Christina. The Hundred and Town in New Castle County are still officially spelled Christiana. {In his original publication, Volkman used 'Christiana' and we have maintained his practice.}

Brandywine Springs, it was the result of two years' hard work. But in making this statement he was alluding only to his own and colleagues' efforts, because others had previously labored for at least a decade before to lay the foundation.

Weslager, in his delightful and informative books, *Delaware's Forgotten River – The Story of the Christina*, and *Brandywine Springs – The Rise and Fall of a Delaware Resort*,² tells much of the history of the Red Clay Creek area, which is vital to our story. However, facts pertaining to its railroad were not an integral part of these books, but we do learn from them that northern New Castle County was favored by nature with several swift flowing streams – the Brandywine, Red Clay, Mill, and White Clay Creeks.³ Along all of these creeks at the turn of the 19th century, there were many water-powered mills, quarries, prosperous farms, and factories manufacturing such diversified goods as snuff and paper.

A similar condition prevailed in southern Delaware and Chester Counties, Pennsylvania, and up to the 1830's most of the traffic between these communities was with Wilmington. With the completion of a good highway into Philadelphia in 1833, and the Philadelphia & Baltimore Central Railroad to Perryville, Maryland, in the 1850's, this trade shifted from Wilmington to Philadelphia.

To meet this changed condition, a charter was granted in 1861 to a company known as The Wilmington and Brandywine Railroad Company.⁴ Its stated purpose was to "prepare a surface track, over which the force of gravity will convey the heaviest freight, to an outlet in Wilmington, on the broad, deep waters of Delaware Bay . . ." And further ". . . from Birdsboro (Pennsylvania) to Wilmington, there is a continual succession of iron ore and lime deposits, there are furnaces, forges, rolling-mills, grist-mills, cotton and woolen factories, lime kilns, quarries of building stone, iron-ore quarries, glass sand quarries, etc., etc.," all in need of rail transportation. Unfortunately, this project died and was not to be revived until after the Civil War.

With the resurgence of industrial activity that followed the War between the States, the Wilmington and Brandywine Railroad in 1865, changed its name to the Delaware and Pennsylvania State Line Railroad, merging the same year with the Berks and Chester County Railroad, to become the Wilmington and Reading Railroad Company.⁴ A section of it still operates for freight under the name of The Reading Railway System.

In 1865 Worley & Bracher in Philadelphia prepared a map showing the route of the Wilmington & Reading Railroad. The section with which we are concerned is reproduced in Figure 1. An examination of this map reveals some interesting facts. First, it will be

² - C. A. Weslager, *Delaware's Forgotten River* (Wilmington, 1947); *Brandywine Springs* (Wilmington, 1949).

³ - The Wilmington and Brandywine Railroad Company was incorporated by an Act passed by the Delaware State Legislature, March 5, 1861. *Laws of the State of Delaware* (Dover, Del., 1861), vol. 12, p. 136. {See the Appendices which have been added for a copy of the Act}

⁴ - The Wilmington and Brandywine Railroad Company merged with The Delaware and Pennsylvania State Line Railroad Company and changed its name to The Wilmington and Reading Railroad Company by an Act passed by the Delaware State Legislature, February 25, 1867. *Laws of the State of Delaware* (Dover, Del., 1866), volume 13, part 1, p. 207.

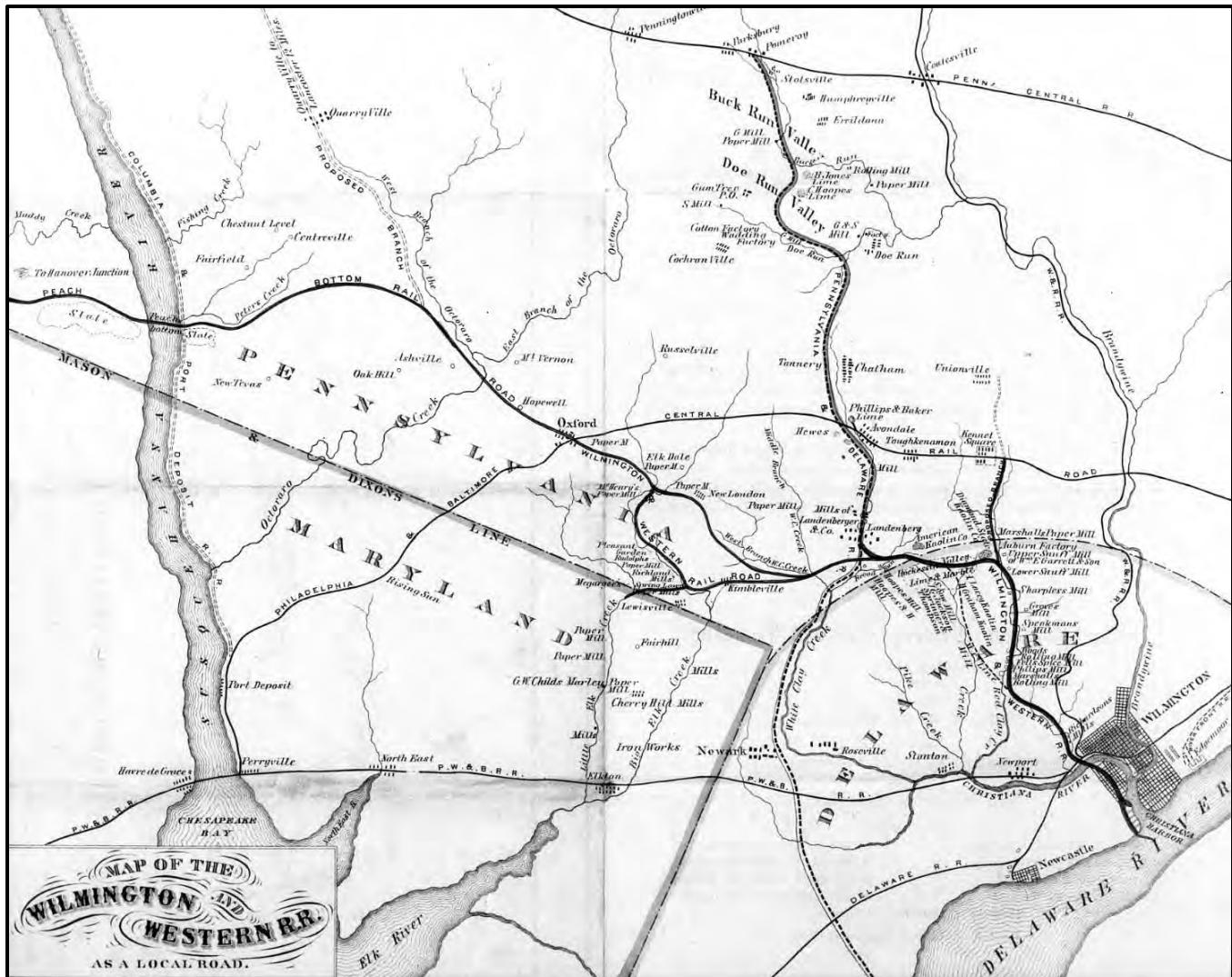


Figure 1B

Map lithographed by Worley & Bracher, Philadelphia, 1866, shows by dotted line the proposed route of Wilmington & Reading Railroad along Red Clay Creek, Mill Creek, and the Brandywine Creek.

When completed, however, rails were laid only along the Brandywine Creek. Note the diversity of water-powered mills along the Red Clay Creek – Marshalls Rolling Mill, Philips Grist Mill, Fells Spice Mill, Delaware Iron Works, Speakmans Grist and Saw Mill, Sharpes (Sharpless) Grist and Saw Mill, Garretts Snuff Mills, Clarks (wool and cotton) Factory, Marshalls Homestead Paper Mill (on the Delaware and Pennsylvania border), as well as lime kilns and kaolin quarries. C

observed the railroad was to reach two points on the Delaware River front, one spur extending out from the northern section of Wilmington and the other extending out from the southern city limits of Wilmington. Thus, a marine terminal was visualized for Wilmington and had the plan materialized, the present Marine Terminal would have been on the river front, which may have been more advantageous than the present one.

Further, the railroad was to serve the entire Brandywine Valley, including both branches of the Brandywine, the east one at Downingtown and west one at Coatesville. In addition, the plans included branches from southern Wilmington, one to be laid in the Red Clay and the other in the Mill Creek Valley, both converging at Yorklyn.

Why the original scheme was not carried out is subject to conjecture. However, we do know the only route constructed was the one that exists today from Wilmington to Birdsboro, PA. The proposed branches in the Red Clay and Mill Creek Valleys (which were to become a source of future controversy), simmered down to the area of the Red Clay Creek Valley but under a different name and company – The Delaware^D and Chester County Railroad Company, later to be known as The Wilmington and Western Railroad Company.⁵

Here it may not be remiss to detail some of the abuses that prevailed in the railroad industry during this period of expansion. Perhaps no industry (except those connected either directly or indirectly with them) grew more rapidly than the railroads. Every city, town, village and hamlet wanted a railroad to serve its needs. The Thirteenth Volume of the Laws of the State of Delaware contains many acts covering the incorporation of railroads in Delaware alone. As a result, in the score of years following the end of hostilities, railroads supplanting stage coaches and other horse-drawn vehicles, and boats tripled their *ante bellum* mileage. (Such transformation is taking place currently {1963} with liquid fuel means of transportation replacing steam and electricity.)

Unfortunately, the reinvigorated demand for steam railroads in the {eighteen} -sixties and -seventies resulted not only in legitimate railroad construction and operation, but brought in its wake all the evils attendant to a booming industry, offering unlimited opportunities for wild speculation and corruption. In order to promote the building of a new railroad, it was first necessary to have an act of incorporation passed by the state legislature involved. Members of these legislatures were sometimes not immune to monetary or other persuasion to vote in favor of the act's passage.

After this, the accepted method, condoned by law, established by precedent, and hallowed by custom was to circulate a rumor that "the railroad is a comin'." Surveyors, skilled or otherwise, were much in evidence along the proposed lines to lend credence to the rumor. Coincidental with this, unscrupulous land manipulators stepped in, thereby increasing land value along the proposed or alternate routes. The matter was then permitted to lie dormant, during which time the excitement subsided and property values returned to normal, while the officers of the company decided on the exact route. Those in the know beforehand, purchased land along the route finally selected, and after the route was published, the land bought by them greatly increased in value.

By this, and other devious means, such as the fraudulent sale of stock for railroads which were never intended to be built, money could easily be obtained from the gullible. To further the sale of such stock, maps were drawn up and distributed with literature, which was deceiving to say the least, to the unwary, prospective investor. After work on a *bona fide* railroad was actually started, the act of incorporation usually included a section permitting the promoters to mortgage the property for stipulated amounts, with stated

⁵ - The Delaware^D and Chester County Railroad Company was incorporated by an Act passed by the Delaware State Legislature, February 5, 1867. *Laws of the State of Delaware* (Dover, Del., 1866), vol. 13, part 1, p. 195. This Act was amended March 10, 1869, and name changed to The Wilmington and Western Railroad Company. *Laws of the State of Delaware* (Dover, Del., 1866), vol. 13, part 2, p. 554. I am unable to account for laws passed in 1867 and 1869 being published in 1866.

interest. This clause, of course, gave the mortgagees or bondholders priority over the stockholders insofar as payment of profit from the road was concerned.

I have not considered the huge profits realized by contractors in constructing the road, and suppliers of various necessary equipment and material. Some of these profits undoubtedly found their way back into the pockets of the railroad's promoters, in the form of "kick-backs." All this was at the expense of the stockholders.

It was in this era of railroad expansion that it came to pass that the act was passed by the Delaware Legislature^E {February 5, 1867} incorporating The Delaware and Chester County Railroad. The act names the following as commissioners "to do and perform the several things hereinafter mentioned. . .": John A. Duncan, Evan C. Stotsenburg, Samuel Barr, George G. Lobdell, Daniel H. Kent, John G. Jackson, George Capelle, George Z. Tybout, Anthony Reybold, William Couper, James C. Jackson, William G. Phillips, Edward Mendenhall, George Springer, and James Springer.

This act was amended on March 10, 1869, when the name of the corporation was changed to The Wilmington and Western Rail Road Company. This was an astute move on the part of the directors, for it gave the railroad a wide horizon – the whole West that was fast becoming populated – rather than a provincial enterprise. By the same amendment the name of James Bradford was added as a commissioner. However, between the original act of incorporation and the first amendment to it, very little physically appears to have been done. This was likely first, to the haggling over the route of the proposed line of The Delaware and Chester County Railroad, and second, for lack of sufficient money.

The original act of 1867 read, ". . . That the said company be and they are hereby authorized to locate and construct a railroad beginning at a point on the Christiana River, at or near to the junction of the Philadelphia, Wilmington and Baltimore Railroad with the New Castle and Wilmington Railroad, and extending to the lines of this State, in, or nearly in the direction of Parksburg or Pennington, in the State of Pennsylvania (passing through the limestone valley of Hockessin), as will be favorable for the transportation of lime, so important to the agricultural and building interests of this State. . ." As will be seen this left to the officers of the new railroad the choice of deciding the route, whether it should follow the course of the Mill Creek or Red Clay Creek.

It must be remembered, at this point, that northern New Castle and southeastern Chester Counties are very hilly and do not lend themselves readily to steam railroads. The creek valleys, being more level and freer of grades therefore provide excellent terrain for railroad beds. That Mill Creek was not unimportant may be deduced from the fact that a town called Milltown was, and still is, located along it. Industries such as Worrell's Mills, Mendenhall's Grist and Saw Mills, Jackson's lime quarry and kiln, together with a saw mill, and the American Kaolin Company quarries, being among the most important, abounded along Mill Creek.

Both routes had their champions. Residents in the vicinity of Brackinville (since labeled Brackenville by the state), were strongly in favor of the railroad being located along Mill Creek, for they entertained fears that if it was not, business would go to a neighboring community. That their apprehension was not groundless is proven by the fact

that when the new railroad was finally routed up the Red Clay Creek, business moved to Hockessin.

At that time the town of Hockessin was located some half-mile or more northeast of its present location. However, when the railroad chose the Red Clay Creek valley route, the town moved to the southwest its businesses and homes down in proximity to it {around Hockessin Station} and flourished, whereas Brackinville became a ghost town.

It might be of interest to note at this point that limestone was a very important mineral of the times. In its unmetamorphosed state, limestone was used in agriculture and industry; metamorphosed, a use was found for it in the construction of buildings, memorials, roads, etc. Illustration of its adoption for road construction is well supplied by the road running across the middle of New Castle County, paved with it and known as "Limestone Road."

The second reason already mentioned was no doubt encountered due to the inability of the officers to raise funds other than from the sale of 1000 shares of stock in the new railroad at \$50 each. The solution of this problem eventually provided the answer to the preceding one, and it was here that Joshua T. Heald^F, who has already been referred to, steps onto the stage.

As early as January 28, 1865, we already find Heald writing an open letter to the Editor of the West Chester, Pa., *Village Record*, citing the advantages of connecting Wilmington, Delaware, and West Chester, Pennsylvania, by rail. In this letter he referred to The Brandywine Railroad, previously described as The Wilmington and Brandywine Railroad, to serve as the rail link between the towns. The first Board of Trade of Wilmington was organized on January 3, 1837, and in 1850, Heald was its secretary. This Board of Trade, like the Wilmington and Brandywine Railroad, was also a victim of the Civil War and faded out of the picture, neither the location or time being propitious for industry.

In 1868, however, the Board of Trade was reactivated under the more ambitious title of The Board of Trade of the City of Wilmington. Edward Betts was president and Joshua T. Heald, a member of the Board of Directors. Among its other activities, the Board's plans included the improvement of the Christiana River in Wilmington, along which, incidentally, Heald owned – or shortly thereafter purchased – large tracts of land, either in his own name or that of the Christiana River Improvement Company of which he was president. In addition, the Board advocated the widening of Water Street on which three railroads would later have stations located in the vicinity of Market, King and French Streets. One, the Philadelphia, Wilmington & Baltimore, already had a station at Water and French Streets.

It naturally followed that at a meeting of the Executive Board of the Board of Trade, Heald introduced a resolution that was adopted to the effect, ". . . That the Board of Trade of the City of Wilmington deem it proper to investigate the practicability of constructing a Railroad from Wilmington to Oxford (Pennsylvania), with a view of best developing the trade in that direction, and at the same time to make the proposed direct connection with

the West and with the Pacific," and, "That the president of the Board of Trade appoint a special committee of three to report upon the whole project at an early date."

The project, of course, was given impetus by the fact that New Castle County in general and Wilmington in particular, with its heavy industries and flour milling business, offered every attraction for railroad development. As has already been stated, along the creeks in the county there were numerous mills manufacturing various commodities, all dependent on water for power and horses and wagons for transportation. These industries were, therefore, in urgent need of coal to provide steam for machinery, railroads to transport it and provide other freight and passenger service.

Wilmington was already served by the Philadelphia, Wilmington & Baltimore Railroad, insofar as rail transportation was concerned, and the Christiana River afforded excellent wharfage for boats, thereby linking rail and water. But, nevertheless, in these seemingly far-off days, trade and transportation between Wilmington and rural New Castle County was a very important factor to both.

As a businessman, Heald was well aware of these conditions. He was born on May 26, 1826, on a farm near Hockessin and grew up within walking distance of the many mills along the Red Clay Creek, at Yorklyn, Ashland, Mt. Cuba, etc., and he knew the problems of the folks in these vicinities, as well as the goods and services they had to offer. As an adult living in Wilmington, he was interested in stationery and book stores and book binderies. As well as being an author, orator, politician (he ran for Congress on the Republican ticket in 1870 but was defeated), financier, and real estate operator, Heald was one of the organizers of the first horse car street railway in Wilmington and its first president. Heald was a contributor of travel letters and open letters regarding matters of public interest to editors of local newspapers. In 1859, we find Heald a member of a committee to solicit funds for erecting a building at the northwest corner of Eighth and Market Streets in Wilmington, to house the Wilmington or Franklin Institute, later to become known as the Wilmington Institute Free Library.

And as if all this were not enough, Heald was also one of the founders of the First National Bank of Wilmington. Small wonder that one of Wilmington's streets (albeit a shabby one), perpetuates his memory. Heald, at the height of his career, was reputed to be one of the wealthiest men in Wilmington and variously described in many complimentary terms. It may also be said to Heald's credit that during the Civil War he was a staunch Unionist, which it was not always popular to have said of one in Delaware at the time. The historian Conrad writes that, "The Wilmington and Western Railroad was built largely through his (Heald's) exertions, but it proved unfortunate for him, and through it he met with severe financial losses from which he never recovered."⁶ Heald died in Wilmington, July 22, 1887.

Thus, it will be seen that Heald was a man with varied business interests and experiences, which led to his election as the first president of the Wilmington & Western Railroad. The Incorporating Act of 1867 (amended March 10, 1869), provided in Section 2 "... that as soon as one thousand shares shall be subscribed (at \$50 a share), the

⁶ - H. C. Conrad, *History of the State of Delaware* (Wilmington, 1908), vol. 1, p. 357.

subscribers, their successors and assigns, shall and are hereby declared to be incorporated by the name, style and title of *The Wilmington and Western Railroad Company*."

The following section, (3), provided (with the same reservations as was contained in Section 2 insofar as the sale of 1000 shares was concerned), that the subscribers were "to meet in Wilmington and organize the said company." Both of these objects having been accomplished in June, 1869, there being a certified subscription of over \$50,000 to the capital stock, the company was organized, directors elected, and the following executive officers chosen: Joshua T. Heald, President, William H. Swift, Treasurer, and Alfred F. Sears, Chief Engineer. It was in this year that the route of the railroad, which has been the subject of bitter controversy since its incorporation, was settled once and for all. It came about in this manner.

The *Wilmington Daily Commercial*, on August 10, 1869, published an open letter signed "Wilmington," marked "Communicated." This letter read in part as follows: "Two routes have been surveyed for this road. Which one should be selected? . . . Tens of thousands of tons of material must roll back to the hills and plains beyond the mountains. Passengers unnumbered must crowd its cars." A modest forecast!

The writer then went on to answer the objections of those to the Mill Creek route, emphasizing in rebuttal that the Red Clay Creek valley route would require three additional miles of rail to be laid. The writer also stated, "The road is made straight, as short, and as direct as it possibly can be made." That, of course, pertains to the Mill Creek area. "But if you make this road upon the Red Clay with an angle of three miles which would be avoided on the other route, will there ever be a single rail laid beyond Chandlersville (Landenberg)?"^G "Wilmington," further called attention to the fact that, "Local trade on the Red Clay cannot be much increased, and may be greatly lessened by the death, or removal, or change of business of a few individuals."

The "few individuals," referred to were probably John Jackson, William Phillips, George Springer, and James Springer, all commissioners of the Wilmington & Western Railroad and owners of land or businesses along the Red Clay Creek. Also included in the "few individuals," interested in the Red Clay Creek route would have been Joshua T. Heald, William E. Garrett, and Alan Wood, members of the Board of Directors of the Wilmington & Western Railroad in 1872, and all influential men.

This anonymous letter was not answered in kind but rather with a strategic move. We do not know who engineered the preceding but it is not hard to imagine. Be that as it may, on September 10, 1869, the *Wilmington Daily Commercial* devoted practically an entire column to a meeting under the headline of "Harvest Home and Railroad Meeting in Hockessin Valley," held on September 9, 1869.

According to the account this meeting was scheduled to start at 2:00 P.M., in the woods of Stephen Wilson, and people started to arrive at 11:00 A. M. There is no doubt it had been well publicized. "Preparations for the meeting were very complete, a stand having been provided for the speakers, and seats for the people. . . . Back of the speaker's stand was a large map of the proposed railroad and its connections, prepared by the Company engineers, and legible from all parts of the ground occupied by the meeting." The map

referred to showed the advantage of the Wilmington & Western Railroad, and its connections for westbound traffic to Pittsburgh, over those afforded by the Philadelphia & Baltimore Central Railroad.

Prominent residents orated pro and con as to whether the Mill Creek or Red Clay Creek Valley would be the most desirable, and the revenues to be derived therefrom. It was at this point that the trap was sprung.

Major Alfred P. Sears, Chief Engineer, of the Wilmington and Western, made a speech that was printed almost in its entirety, a copy of which must have been previously furnished the newspaper. Major Sears pointed out the savings that could be affected by home, mill, and property owners by the construction of the railroad. He called attention to the fact that while the route along Mill Creek would be three railroad miles shorter to Chandlersville^G {Landenberg} than the Red Clay Creek, that the latter area spent \$36,000 for transportation whereas in the Mill Creek area only \$18,000 a year was expended; that for these sums about 12,000 tons of freight was moved on the Red Clay but only 6,000 tons on the Mill Creek; he then compared the existing forms of transportation with rail, proving the latter to be much more economical.

The Major further mentioned that while the Mill Creek route would be 14 miles long, and cost about \$425,000, the Red Clay would be 17 miles long, costing \$500,000, both figures including rolling equipment. Further, with the introduction of the railroad, farm values would be enhanced and there would be improved facilities for shipping produce at lower prices.

At the conclusion of Major Sears' speech, President Heald took the floor and made a short and snappy address, which in reality was an ultimatum. He demanded to know, by vote, if the railroad was built through Red Clay Creek Valley, would the people there raise \$150,000, as against \$100,000 for the Mill Creek route. To this he received "an enthusiastic shout of Aye, which fairly shook the little valley. On call for Noes there was no response." So, the Red Clay Creek faction carried the day. There is no reference to the reaction of the Mill Creek adherents.

After the palaver had died away, which must have grown tiresome to them, the young folks took possession of the ground, and ". . . the broad seats were rapidly transformed into a smooth platform and musicians gave way to the merry dance, which kept up until midnight. . . ." They little guessed that the proceedings of the day were eventually to cost them and their parents considerable loss of money.

Official cognizance of the meeting was reported by the *Commercial* in its columns on Tuesday, October 5, 1869. It stated, "The Directors of the Wilmington and Western Railroad Company held a meeting at the Company's office, in this city, yesterday, and after a full discussion of the advantages of the proposed routes, resolved with great unanimity to build the road by way of Red Clay Creek. . . . A committee on publications was appointed to gather facts and materials for the prospectus of the enterprise, which shall fairly present its advantages. The meeting was harmonious and satisfactory, and a very earnest disposition was manifested by all to push the work with the utmost dispatch."

From this it may be inferred that the meetings were not always "harmonious and satisfactory." In retrospect, the whole program was a well laid plan to win endorsement of the Red Clay route and secure pledges from those interested to raise money to this end.

On March 10, 1869, previous to the momentous decision to build the Delaware^D and Chester County Railroad in the Red Clay Creek Valley, important amendments were made to the Act of 1867. We have already seen that one of these covered the change of name to the Wilmington and Western Railroad Company.

Section 12 of the Act has already been quoted in part to the effect, ". . . That the said company be and they are hereby authorized to locate and construct a railroad, beginning at a point on the Christiana, at or near to the junction of the Philadelphia, Wilmington and Baltimore Railroad with the New Castle and Wilmington Railroad (this was in the vicinity of what is now West Yard on the Pennsylvania Railroad) and extending to the lines of this state, etc.," was amended to read, ". . . That the said company be and they are hereby authorized to locate and construct a railroad, beginning at or near the Delaware River, within the limits of the City of Wilmington, and extending to the line of this State in a westerly direction by such eligible route (passing through the limestone valley of Hockessin) as will be favorable for connecting with a Railroad or Railroads leading westward or northwestward in the State of Pennsylvania, together with such turnouts, switches, wharves or piers, and such other lateral roads. . ." The intent, it will be seen, was to establish a station in Wilmington including the right to bridge the Christiana River and also cross the border with a line into Pennsylvania.

Simultaneously, Section 18 of the original Act, reading, ". . . That this act shall be deemed and taken to be a public act, and the Secretary of State is hereby authorized and required to publish the same along with the other laws of this State, and the said company have power to increase its capital stock by additional subscriptions of this act and to construct the railroad contemplated by it, and from time to time to borrow money for corporate purposes and uses, and to execute mortgages on all their estate, real and personal, and to issue bonds to secure the payment of same, *Provided* That the sum so borrowed shall not exceed in the aggregate the sum of three hundred thousand dollars." On March 10, 1869, this section was amended to read, following the word "same," "bearing any rate of interest deemed advisable by said company not exceeding eight percent, *Provided*, etc."

It was further amended, March 24, 1871 {Delaware Legislature, Volume 14, Chapter 145}, to read, "*Provided*, That the sum so borrowed shall not exceed in the aggregate the sum of six hundred thousand dollars. . ." and January 30, 1873, to read, "*Provided*, that the sum so borrowed shall not exceed in the aggregate the sum of fifteen hundred thousand dollars. . ."

The provisions of this section were taken advantage of on January 1, 1872, when an issue of bonds in the amount of \$500,000 was delivered to Washington Jones of Wilmington, Thomas Wood of Philadelphia, and George W. Bush of Wilmington. The {twenty-year} bonds were of \$1,000, \$500 and \$100 denominations, some payable January 1, 1892, at the First National Bank of Philadelphia, bearing 7.3 percent interest, payable

quarterly. Payment was secured by a deed of trust or mortgage on the railroad "between its termini, Wilmington, Delaware, and Landenberg, Pennsylvania."

In order to further my story, I have skipped Sections 4 to 17 (with the exception of Section 12), which, for those interested, briefly pertained to the following: Section 4, meetings of stockholders and method of electing officers; Section 5, to the election of officers; Section 6, meetings of directors; Section 7, issuance of stock certificates; Section 8, penalty to subscribers for refusing or failure to pay call within space of thirty days after call; Section 9, officers and employees to be bonded; Section 10 stated, "That dividends of so much of the profits of the company as shall appear advisable to the directors shall be declared at least twice in every year and paid to the stockholders on demand at any time after the expiration of ten days therefrom . . ."; Section 11 specified, ". . . That at each annual meeting of the stockholders the directors of the preceding year shall exhibit to them a complete statement of the affairs and proceedings of the company for the preceding year."

Section 13 provided remedy of the railroad company against owners of lands who refused to permit its officers or employees "to enter in, upon, and occupy (their land), for the purpose of making said railroad." Section 14 outlined privileges and responsibilities of the railroad passing over public road or roads. Section 15 covers suits against the railroad company for penalties under the act. Section 16, penalty to persons for injury to the works of the railroad. Section 17 stated that the railroad company was not to use any street in Wilmington without the consent of City Council. Section 18 has previously been remarked upon; Section 19 provided that the railroad company "shall erect and maintain, along the whole line of said railroad, on both sides thereof, before the same shall go into operation, a good and legal fence wherever the same may be necessary." This section undoubtedly led to many controversies with land owners, especially after the railroad company got "hard up." Section 20 was to the effect that the Wilmington and Western Railroad Company may unite with other companies to be chartered in Pennsylvania and later amended {Delaware Legislature, Volume 14, Chapter 501, March 3, 1873} to include Maryland.

Sections 21, 22, and 23 covered financial transactions eventuating from Section 20. Section 24 was to the effect, "That in case the Wilmington and Reading Railroad Company shall construct a railroad on any part of the line contemplated by this act . . . it shall be lawful for the company hereby incorporated (the Wilmington & Western Railroad) to use such part of the said Wilmington and Reading Railroad as may be found convenient and desirable as and for a part of the railroad line contemplated by this act." This section was amended March 10, 1869, and March 3, 1873, granting right of the Wilmington & Western Railroad Company to enter into an agreement with any railroad or corporation in the States of Pennsylvania or Maryland ". . . to lease, use, operate, or run such railroad: Provided, That the companies or corporations entering into such agreement, form a continuous line of railroad." Section 25, the final one, added March 3, 1873, ". . . authorized and empowered (the Wilmington & Western Railroad) to lease their said Railroad and to contract and agree for the maintenance and operating of said railroad: . . ."

April 17, 1869, the Legislature of Pennsylvania^E passed, "An Act Authorizing the Wilmington and Western Railroad Company to Connect Their Railroad with the Delaware and Pennsylvania Railroad Within This Commonwealth." This enabled the Wilmington &

Western Railroad to build a line into Pennsylvania as far as Landenberg. This act was amended April 13, 1870, authorizing the Wilmington & Western Railroad Company “. . . to extend a branch from some suitable point on the line of their road to connect with the Philadelphia and Baltimore Central Railroad, at the borough of Kennett, or other desirable point: . . .” However, although the subject was often discussed, the Wilmington and Western Railroad never built the branch to Kennett. The same statement is applicable to Oxford, Pennsylvania, to which point a branch had been contemplated by the Wilmington & Western Railroad but its nearest approach to that point was a cut started through a hill near Landenberg. All the necessary legislation having been thus passed the promoters of the 'Wilmington and Western Railroad were now ready to lay rail.

Although I have been unable to locate a copy of the prospectus which the directors ordered printed at their meeting on October 5, 1869, it must have produced results. This is proven by an item which appeared in a Wilmington evening paper on June 3, 1871, to the effect that, “At a meeting of the Board of Directors of the Wilmington and Western Railroad Company, today, the last dollar necessary to bring the bona fide subscriptions to the capital stock of the Company up to the required \$250,000 was subscribed, which makes the building of the road an absolute certainty.”

That Joshua T. Heald was not lacking in showmanship is evidenced by the groundbreaking ceremonies which followed shortly thereafter. Naturally by the prestige of his office and efforts to have the railroad built (which, incidentally, was probably the apple of his eye, providing a vehicle for his many other financial activities), the distinction of breaking ground, fell to Mr. Heald. Tickets⁷ were printed for the occasion reading^H;

Wilmington and Western Rail Road GROUND BREAKING

*The Bearer is entitled to CONVEYANCE and LUNCH
Guest will please present Tickets Upon entering the Dining Room*

LUNCH AT 12:30 P.M.

Unfortunately, the tickets did not specify the date, but a full account of the exercises is found in the *Delaware Gazette* for July 11, 1871. The newspaper stated, “On Saturday, July 8th, about 10½ o'clock, in the morning, a number of citizens and invited guests left the office of the Wilmington & Western Railroad, 7th & Market Streets, in carriages, and were driven by way of Lancaster turnpike to Brandywine Springs, about five miles to the west, to participate in a basket picnic and witness the breaking of ground for the Wilmington and Western Rail Road.”

⁷ - Copy in Joshua T. Heald's Scrap Book deposited in the Wilmington Institute Free Library. A portrait sketch of Heald may be seen opposite p. 569 in *The Historical & Biographical Encyclopedia of Delaware*, Aldine Publishing Co. (Wilmington, 1882).

After about an hour ride, the party found itself “under the noble old trees of the Springs, where parties from the surrounding country also gathered to spend a pleasant day.” Included in the article was a paragraph on the beauties of the area. There was present about 250 persons in all, numbering among them practically all of the officials of the Wilmington & Western Railroad, Mayor J. S. Valentine of Wilmington, and the Clerk and members of City Council.

“At 2 o'clock about 60 invited guests entered the hotel (Brandywine Springs) and partook of an excellent lunch. . . . The farmers of the neighborhood, with their families, had brought lunches which were previously partaken of in picnic style.” About three o'clock all “repaired” to the point where the ceremony of ground breaking was to be performed, at the foot of the hill on which the hotel stood and about 300 feet from the famous chalybeate spring.

After the election of Dr. Swithin Chandler as president, and about 20 vice presidents plus five secretaries for the day, Dr. Chandler without further preliminaries introduced Mr. Heald. After the customary opening joke, Heald struck the earth first on the bottom land, and having loosened a quantity, threw a shovelful to his right and left. Following this, the meeting was called to order and Joshua T. Heald, Esquire, appeared as orator.

Heald's speech was printed in full (he no doubt furnished the paper the text), the most important part being that, “I come to you today, with pleasure to announce first we have raised every cent of \$250,000 in *bona fide*, clear subscriptions,” and also, “We have contracted good, live earnest men, one for grading and building the smaller bridges, at the lower end of the road; and with another gentleman we have contracted for the upper part of the road, and with still another gentleman, of Mill Creek Hundred . . . for building the larger bridges and trestle work . . .” And further, “We expect very shortly to survey the mouth of the Christiana, and have it under way – giving us the greatest and best harbor on the ‘River Delaware’.”

Heald then went on to say that, “Leaving Wilmington for three miles in a very straight line, it (the Wilmington & Western) extends up the Red Clay Creek through manufactories . . . then through the Hockessin Valley . . . and up White Clay Creek to Landenberg.” He said the whole road was to be completed by April 20, 1872, and that “with the Pennsylvania and Delaware Rail Road, running from Pomeroy to Delaware City, it makes a junction at Landenberg.” Heald also referred to the great increase of freight on railroads during the past decade and the part that the Wilmington & Western Railroad was to play in this traffic. He concluded with the usual appeal for subscribers to “pay up their installments without any dunning from beginning to end.”

There were other speeches by prominent Wilmingtonians, including the Mayor and Secretary of the Wilmington Board of Trade. Also a Mr. Williamson of Newark stated that, “The Delaware City and Pennsylvania Railroad⁸ is in the course of construction. . . . The

⁸ - Williamson was referring to the Pennsylvania and Delaware Rail Road Company then in the course of construction between Pomeroy, Pennsylvania, and Delaware City, Delaware. This railroad later became two railroads – The Pomeroy and Newark Railroad Company and The Newark and Delaware City Railroad. In the course of time both were absorbed by the Pennsylvania Railroad.^G

terms of the contract require it to be ready for trains to run over on April 1, 1872." He added that four years had elapsed since the inauguration of the enterprise, and it "had met many difficulties . . . resulting from the impression in the minds of the people that capital stock invested in railroad stock is very often lost or non-paid." Invitations to others present to speak were declined due to the lateness of the evening and the meeting adjourned at 5:15 P.M., with three cheers for the success of the Wilmington and Western Railroad.

The reader may be somewhat puzzled, as was I, on first learning that the ground-breaking ceremonies of July 8, 1871, on what was the Fell property, occurred before the ground itself was officially recorded as purchased on November 19, 1872. However, as I later found, Section 13 of the 1867 Act of Incorporation stipulated that if the owners of land or lands refused to permit officers and employees of the railroad to go upon their lands for the purpose of building the railroad, either party could appeal to the Superior Court of New Castle County, to appoint five disinterested men of said county to go upon the lands to ". . . assess the damages of such owner or owners fairly and impartially, taking into consideration all the benefits to be derived from or in consequence of the said railroad to the said owner or owners . . . whereupon the company, on paying the damages so assessed, shall become entitled to have, use and enjoy the said lands for the purposes required by them forever."

Whether the owner liked it or not the railroad would get possession of such land as it desired, simply by recourse to law. This virtually amounted to confiscation as the question of "the benefits to be derived," by the owner might be highly controversial, and lead to quite a difference of opinion as to the monetary value. Whether or not this right was ever evoked is a question, but we do know that the railroad was generally welcomed as it was in a sense a communal or cooperative project, operated chiefly for the benefit of the manufactories along the line as well as a convenience for the traveling public.

A study of land deeds^I involving the Wilmington & Western Railroad in 1872 and 1873, was made by Weslager and loaned the writer for this account. It indicates that during those years at least 28 easements, lots, tracts, pieces of land, etc., on both sides of the Christiana River and in Christiana and Mill Creek Hundreds, were acquired. At least 11 of the purchases were from the Christiana River Improvement Company, at which time Joshua T. Heald was president. Prices paid varied greatly from \$1.00 for easements, which usually included a provision "and in consideration of the benefits to be derived from the railroad," up to \$10,000 for two parcels of land in Christiana Hundred from the Christiana River Improvement Co.

Some of the more noteworthy purchases were:

April 2, 1872, from Samuel M. Green^J, for \$1.00 "the full right, liberty and privilege at all times to use the stream of water near the lane on the premises of the said Samuel M. Green in the hundred aforesaid adjoining the Rail Road of the party of the second part for a watering station in said Rail Road and for the purpose of supplying the party of the second part its successors and assigns, their agents, cars, locomotives and stations with water from said stream with the right and privilege to the party of the second part its successors and assigns to lay and maintain in good order conduit pipes from the tank

house now erected near the said railroad track Eastwardly from the said Green's private road crossing over said Railroad to a cistern about to be constructed at the mouth of spring drain above and within forty feet of the said Green's gate at the woods, the said pipes and cistern to be laid and maintained on or about the situation indicated by the following courses and distances: to wit: Beginning at a point about three feet eastwardly from the North Westerly corner of said Tank House thence North fifty-four degrees ten minutes east one-hundred and fifty-one feet to a stake and North forty-one degrees thirty minutes East fifty feet to the place of the aforesaid cistern. Together with ingress, egress and regress into and along the same at all times.

"It is hereby understood that trains in said Railroad will not be needlessly stopped at the said watering station or needlessly obstruct the said Green's private road crossing said track adjacent to said station." (*N.C. Co. Deed Book W-9-392.*)

In passing it may be remarked that the property was just west of Yorklyn and this was the only watering station, aside from Wilmington, located on the Wilmington & Western Railroad. The water tank, near the Crowell Corporation^K, Yorklyn, has since been torn down. However, I was fortunate enough to secure a picture of this tank through the kindness of Mr. W. E. Grant, Sr., who photographed it some years ago (See Figure 2).



Figure 2^L

Old wooden water tank along Wilmington & Western near Yorklyn. A cistern and dam on hill in woods above tank provided supply of water which was piped to tank by gravity. This was only tank on tracks above Wilmington, and it is no longer standing, although the foundations still remain.

(Courtesy W. E. Grant, Sr.)

June 8, 1872, for \$10,000 previously mentioned from Christiana River Improvement Company, for "two lots, pieces or parcels of land in Christiana Hundred." One of these lots

comprised 7.491 acres and was probably the ground on which the engine house in Wilmington and other facilities were located. J. T. Heald signed this with the seal as president of the Christiana River Improvement Company. M. Child, treasurer of the same company, signed acknowledgment of full receipt of the consideration money. (*Deed Q-9-387*).

June 12, 1872, five lots for \$14,800 and a sixth for \$200 in South Wilmington from the Christiana River Improvement Company. (*Deeds Q-9-390; Q-9-393*).

April 17, 1873, another lot in Wilmington from Christiana River Improvement Company. (*Deed X-9-373*).

September 2, 1872, from Alan Wood and Ann, his wife, of Philadelphia, for \$5.00 and "in consideration of the benefits to accrue from the building of a Station and freight depot as hereinafter mentioned. . . a lot in Mill Creek Hundred." The station^M built thereon was named "Wooddale," after "Allendale" was considered for it and rejected. (*Deed T-9-154*).

Another sale on record covering land for an additional station in Mill Creek Hundred, was September 5, 1872^N, from Evan Brown and wife, New Garden Township, Chester County, Pa., for \$1.00. The deed stated, "The said lot of land to be held by the said The Wilmington and Western Railroad Company for the purpose of erecting and maintaining thereon a Station House and Siding for the transportation of freight and passenger traffic, and for a road or way to pass from the said public road to and from the said station, and for other customary railroad purposes and uses. And if at any time the said lot of land hereby conveyed should cease to be used for the purpose aforesaid the same shall revert to the said Evan Brown his heir or assigns. It being the intention of the parties of the first part (Brown and wife) that in such case the said lot of land above described shall (blank – probably "revert") to and revest in the persons who may then be owners of the adjoining farms to which said lot has heretofore formed a part . . ." (*Deed T-9-39*).

It was on this lot that Southwood Station was erected (the name of which the Directors of the Wilmington & Western Railroad congratulated themselves on supplying). Whether the siding was simply a spur track or passing siding cannot at this time be determined.^O

November 19, 1872, a lot in Christiana Hundred from Franklin Fell^P, for \$1.00, "for the purpose of a passenger Station House and freight Depot and other Rail Road purposes and uses, and for no other purpose: but if the said Railroad should be abandoned or the said lot no longer used for said Rail Road purposes, the said lots shall revert to and revest in the party of the first part (Fell) his heirs and assigns." (*Deed U-9-184*) Faulkland Station was erected on this land and on which, as has already been seen, ground was broken for the Wilmington & Western Railroad.

These are typical examples of the nature of the land purchases^Q except that it might be added in some instances the owners gave the railroad releases for any damages resulting to their premises by reason of constructing or maintaining it. In some of the deeds it was stipulated that should sparks from a locomotive start any fires that the railroad would indemnify the property owner.

Preliminary to ground breaking at Brandywine Springs, another dilemma comparable to that of selecting the route faced the promoters of the Wilmington & Western Railroad. Should it be standard gauge, 4 feet, 8½ inches between the inside of the rails, or narrow gauge, 3 feet between the inside of the rails? Naturally it was necessary to reach a decision on this question before work was started or rolling equipment purchased.

Parenthetically the gauge of 4 feet, 8½ inches had been established by the Roman charioteers as the most desirable measurement between the wheels on their chariots. They found from experience that if the wheels were closer together, the chariot was apt to tumble over; if they were farther apart the vehicle was found to be too clumsy. Be that as it may, many of the smaller railroads and at least one larger one (the Denver and Rio Grande), being constructed during the era, were of the narrow-gauge type.

Harkness Magazine, a monthly of the day published in Wilmington, thought the subject of narrow-gauge railroads of sufficient public interest, to merit an article in its pages for June, 1873. It gave the cost to build a mile of narrow-gauge track through the hilly country of Wyoming County, Pennsylvania, as averaging \$10,000 to \$12,000. On the Wilmington & Western Railroad the expense to build bridges, trestles, shorings, make rock-cuts, etc., was considerable. It was not, however, so much a matter of dollars and cents that confronted the builders in solving the problem, but rather one of judgment.

We have seen that one of the objectives of the Wilmington & Western Railroad was to afford a gateway for traffic both to and from Pennsylvania and the West. To accomplish this purpose two interchanges with foreign railroads were desirable – one at Landenberg with the Pennsylvania and Delaware Rail Road and the other at Oxford, Pennsylvania, with the Lancaster, Oxford and Southern Railroad (L.O. & S.R.R.). The latter, of course, was contingent upon an extension of the Wilmington & Western Railroad being built from Landenberg to Oxford. But unfortunately, the L.O. & S.R.R., was a narrow-gauge road and notwithstanding its long and impressive name operated only a distance of approximately ten miles from Peach Bottom, Pennsylvania, on the Columbia and Port Deposit Railroad, to Oxford, Pennsylvania.

On the other hand, at Wilmington, the Wilmington & Western Railroad tied in with the Philadelphia, Wilmington & Baltimore; the Wilmington and Reading, and the Delaware Railroad – all standard gauge. Wisely the directors of the Wilmington & Western Railroad finally concluded to adopt the wide gauge, thereby enabling it to interchange its equipment with the more prosperous roads.

Work, both in the field and offices, was assiduously, or as President Heald expressed it, "energetically," pushed, following the ground breaking. Road work was started from both the Wilmington and Landenberg ends, as may be intimated from Heald's remarks at the ground-breaking ceremonies, mostly with local labor. The *Jeffersonian* {West Chester, PA} on November 18, 1871, reported that the contract for the bridge over the Christiana River in Wilmington would probably be awarded to Messrs. Cranston and Thompson, and the grading for it to H. H. Crumlish, they being the lowest bidders. The news item stated the bridge would be on a pivot and have a double water passageway. See Figure 3.

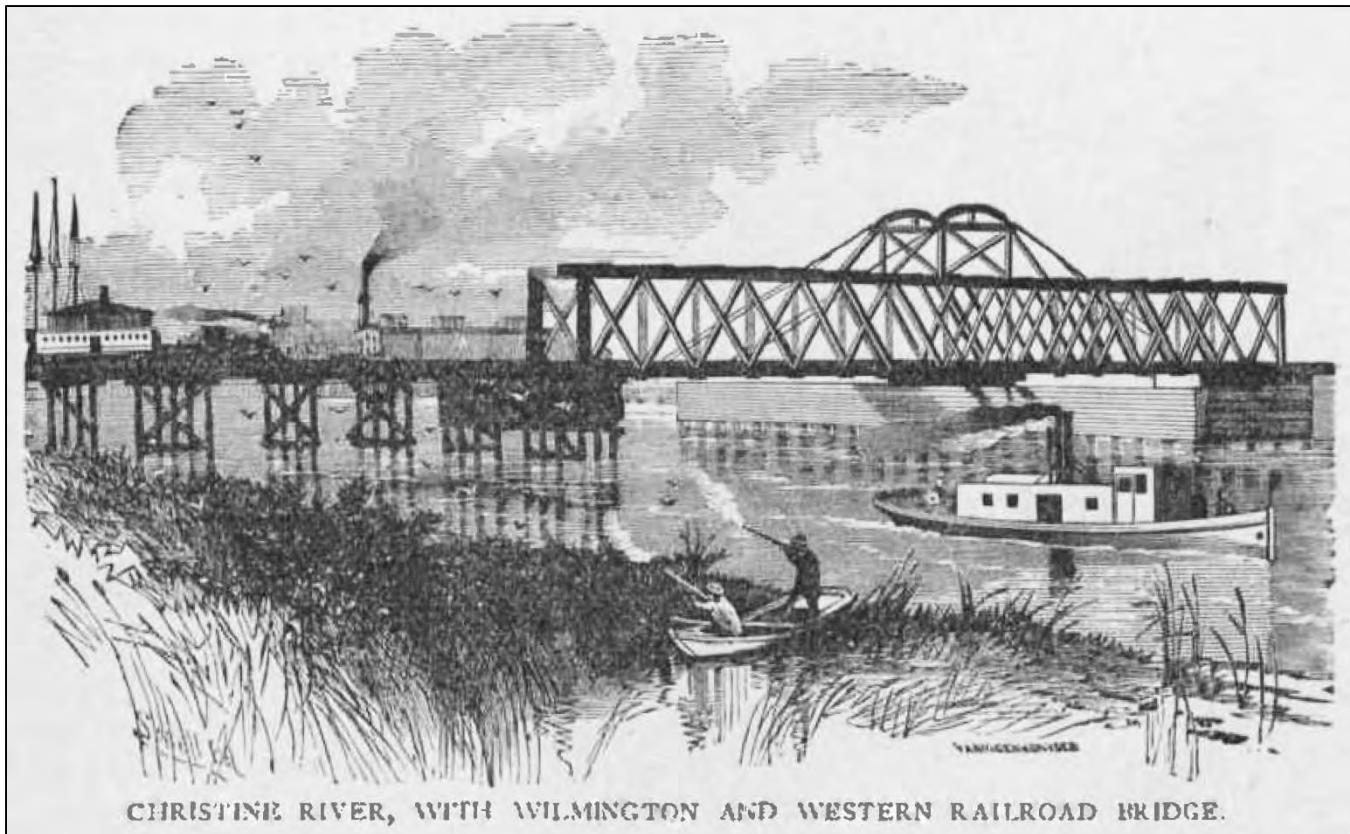


Figure 3^R

Swing bridge across Christiana River originally located about one-quarter mile west of Harlan & Hollingsworth Corporation in Wilmington. Operated by a hand crank, bridge was turned to permit boats to pass. After second station of W&W was built, passenger trains entered Wilmington without crossing the bridge. Reproduced from September 1873 Harkness Magazine. (Courtesy Elwood S. Wilkins, Jr.)

A month later the same paper contained an item to the effect that gratifying work was being made along the way, only about six or eight miles remaining to be graded, mostly in Pennsylvania. At the same time, the West Chester, PA *Daily Local News* reported that workmen were busy excavating the embankment and filling up the deep hollow at Landenberg preparatory to erecting the depot for the Wilmington & Western Railroad.

Notwithstanding these optimistic reports, however, other road work proved unexpectedly slow and likewise expensive due to the character of the terrain. A steam locomotive, pulling a train, cannot efficiently operate on a grade of more than three or four percent, and as the railroad was run through uneven country, there were many low places that had to be filled in as well as cuts through dirt and rocky hills. The rock cuts were most costly as they sometimes required the use of high explosives and men who knew how to use them.

In this respect, the rock cut near Wooddale is of particular interest. A hill of solid rock, conically shaped, roughly about 500 feet around at the bottom, 40 feet high at the apex, and through it, at the tallest and widest part, it was necessary to cut a path eleven feet wide to accommodate the trains. Even then it was so narrow that when trains passed through it at high speed, there was danger of the swaying cars scraping against the sides. The picture of a passenger train coming through this gorge was frequently used by the

Company in its advertisements.^S It took some time to complete this job alone and folks came from miles around to watch the work (side-road supervisors!). Rocks and dirt were blown sky-high from the explosions and the noise must have startled animals and people living in the nearby area.

There were also numerous trestles^T to be built over brooks, marshes, and raceways, with bridges over the creeks. It is said the railroad crossed the Red Clay Creek nine times in the six miles between Phillip's Mill and Garrett's Mills. Shorings, cribbings, and abutments, were hence required in number. Consequently, the railroad was not completed by April 20, 1872, as President Heald had predicted when ground was broken for it.

In the offices, besides the usual engineering problems, there were the contracting for erection of various buildings, purchasing of equipment and material, agreements to be drawn up covering purchase of land or easements, etc. All of this naturally required a great deal of money, the acquisition of which added to the burden of the builders. To meet the demand for cash the Wilmington & Western Railroad, in 1872, had printed (undoubtedly with the view of obtaining additional stockholders), a leaflet with maps and descriptive material on both sides. It was approximately 17 inches long and 14 inches wide, and both sides are reproduced in Figures 4A & 4B,^U and 5. Inasmuch as the reader can study it at leisure to describe it further would be superfluous except to call attention to the territory from which the promoters hoped to secure patronage. However, thumbnail biographies of the men whose names appeared on the prospectus may be of interest.

John G. Jackson,^V next if not equal in importance to President Heald (already described), was Engineer in Chief. He was as versatile as Heald, and unlike many railroad men of the day, Jackson was a scholar and well educated. He was born in the vicinity of Hockessin, September 8, 1818, and first attended school there. About 1832, Jackson entered Westtown Boarding School as a student, later to become a teacher there. In addition, he was also a surveyor, civil engineer, astronomer, author, and farmer.

He quarried limestone and kaolin in the Red Clay Creek area in the 1850's, near Hockessin. In the operation of this quarry, waste sand and debris were piled up to form a huge sugar loaf, which was facetiously called Mt. Jackson. Indeed, this mountain did become profitable to Mr. Jackson; he sold the material to the Wilmington & Western Railroad to be used as fill and ballast.

Scharf⁹ states that between 1865 and 1869, Mr. Jackson was in the state legislature where he "exercised considerable influence in matters of legislation, especially in the line of various railroad lines, then incipient, but which have since become important factors in the internal progress of the state." After the expiration of his senatorial term he interested himself in the organization of the Wilmington & Western Railroad and was Engineer in Chief during its construction. It is unlikely that the railroad could have secured a man better qualified for the position.

⁹ - J. Thomas Scharf, *History of Delaware, 1609-1888* (Philadelphia, 1888), p. 928.

T H E

Wilmington and Western Railroad

The Wilmington and Western Railroad Company are now building, and expect to have completed early in the Summer of the present year, (1872), a Railroad from Christiana Harbor, in the City of Wilmington, below the mouth of the Brandywine River, to Landenburg, in Chester County, Pennsylvania. At the latter point, it connects with the Pennsylvania and Delaware Railroad, which crosses the Philadelphia and Baltimore Central Railroad at Avondale, and extends to the Pennsylvania Railroad near Parkesburg. An extension of the Road, through Oxford and Peach Bottom to Hanover Junction, in York County, Pennsylvania, on the Northern Central Railroad, is believed to be now assured, and further extensions through southern Pennsylvania are canvassed and more or less fully developed.

As a local road it is regarded as of the utmost importance to the country which it opens up to communication, and to the City of Wilmington.

The route is thickly populated, rich in varied mineral and other natural resources, and studded with numerous manufactories of various kinds. Its prospective traffic has been estimated from the most reliable data, and is believed to be fully sufficient to pay a profit on the investment from the time the road is completed. The Capital Stock of \$250,000 has been mostly called, and will be fully paid in.

The stock subscription will about pay for the engineering, grading, bridging, masonry, trestle work, land damages and fencing. Bonds to such an amount as may be found necessary, not exceeding Five Hundred Thousand Dollars in all, are now being issued, and the proceeds of the sale thereof will be applied to the equipment of the Road with iron, rolling stock, depot buildings, and whatever else is necessary to place the road in the best working condition.

O F F I C E R S OF THE Wilmington and Western Railroad Company,

FOR 1872.

President,

JOSHUA T. HEALD, Wilmington.

Secretary,

WILLIAM H. CONNELL, Wilmington,

Treasurer,

JNO. P. McLEAR, Wilmington.

Directors,

JOSHUA T. HEALD, Wilmington.

JAMES BRADFORD, Wilmington.

WM. E. GARRETT, Philadelphia.

WILLIAM H. SWIFT, Wilmington.

ALAN WOOD, Philadelphia.

WILLIAM G. PHILLIPS, Newport.

JOB H. JACKSON, Wilmington.

GEORGE SPRINGER, Hockessin.

GEORGE G. LOBDELL, Wilmington.

JOHN G. JACKSON, Engineer in Chief,

Figure 4A^U

1872 *Prospectus of Wilmington & Western Railroad used to solicit stock subscriptions.*

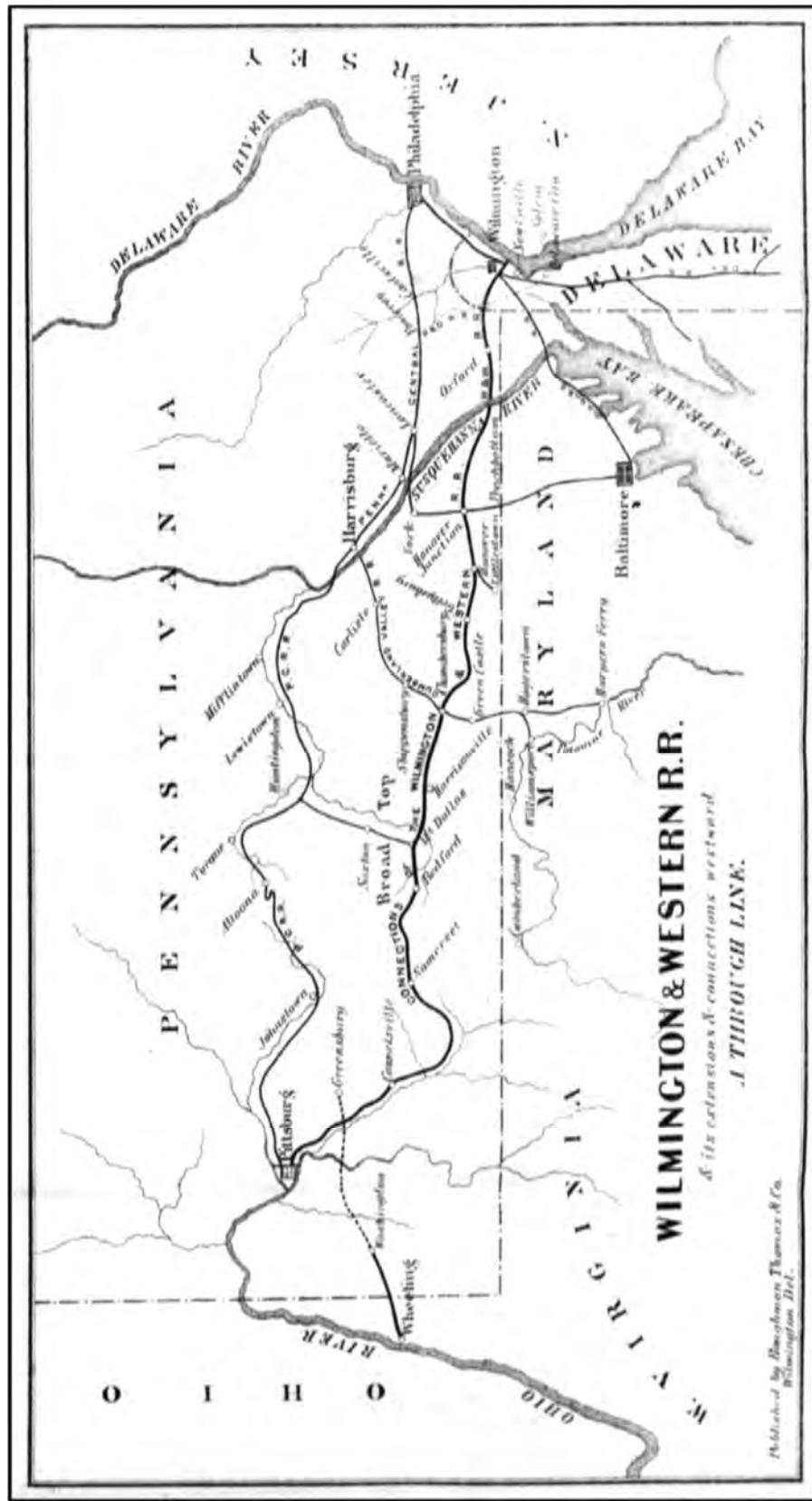


Figure 4B^U

Prospectus of Wilmington & Western used to solicit stock subscriptions. Map shows how promoters originally intended to extend line for westward connections which was never realized. This map, shown in the railroad's 1872 prospectus, was likely displayed during the September 9, 1869 Hockessin meeting.

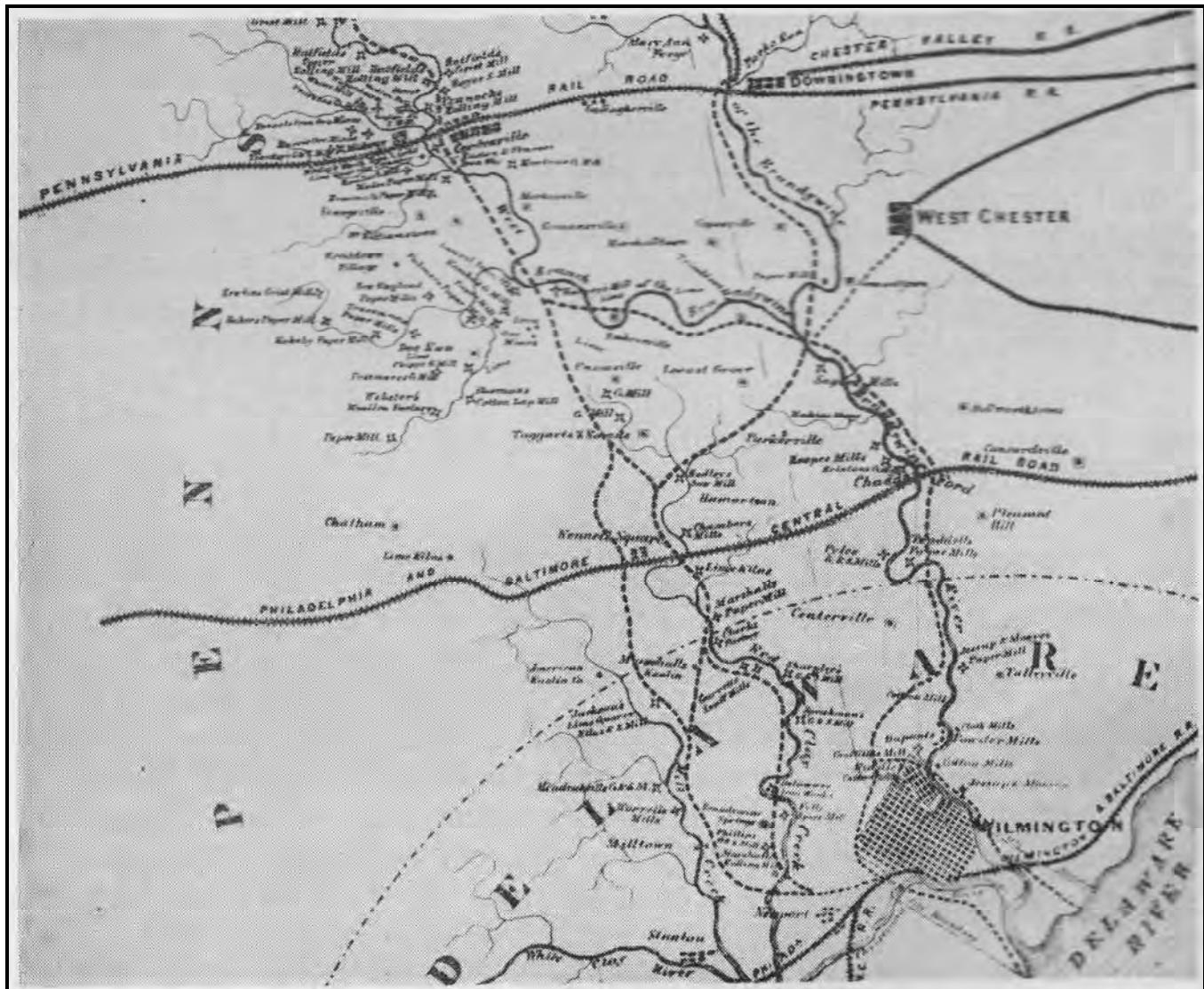


Figure 5^U

Detailed map primed on reverse side of prospectus shows proposed route of Wilmington & Western as well as industries along the Red Clay Creek in 1872 which the railroad intended to serve.

Of the Secretary, William H. Connell, comparatively little is known. His name appears in the Wilmington City Directory for 1878 listed as a clerk, and while I have nothing on which to base it, I am inclined to believe that Mr. Connell was pressed into his position from one of President Heald's numerous enterprises.

John P. McLear, Treasurer, was president of the Delaware Mutual Life Insurance Company, as well as a banker and broker, with offices between 6th and 7th Streets on Market Street in Wilmington. He advertised that he "Bought and Sold at the Brokers' Boards, Wilmington and Western Railroad, First Mortgage 7.3% bonds . . ."¹⁰ Mr. McLear had the distinction of being the first superintendent of West Presbyterian Sabbath School, established in 1868.

The Directors, in addition to Messrs. Heald and John G. Jackson, were:

William E. Garrett, snuff manufacturer at Auburn (Yorklyn).

Alan Wood, a Philadelphia business man, who built a rolling mill at a location, which, with the advent of the railroad became known as the station of "Wooddale." The Alan Wood Steel Company is still in existence in the Philadelphia area.¹¹

Job H. Jackson, organizer in 1863 of the Delaware Car Works, later known as Jackson and Sharp, builders of steam railroad cars.

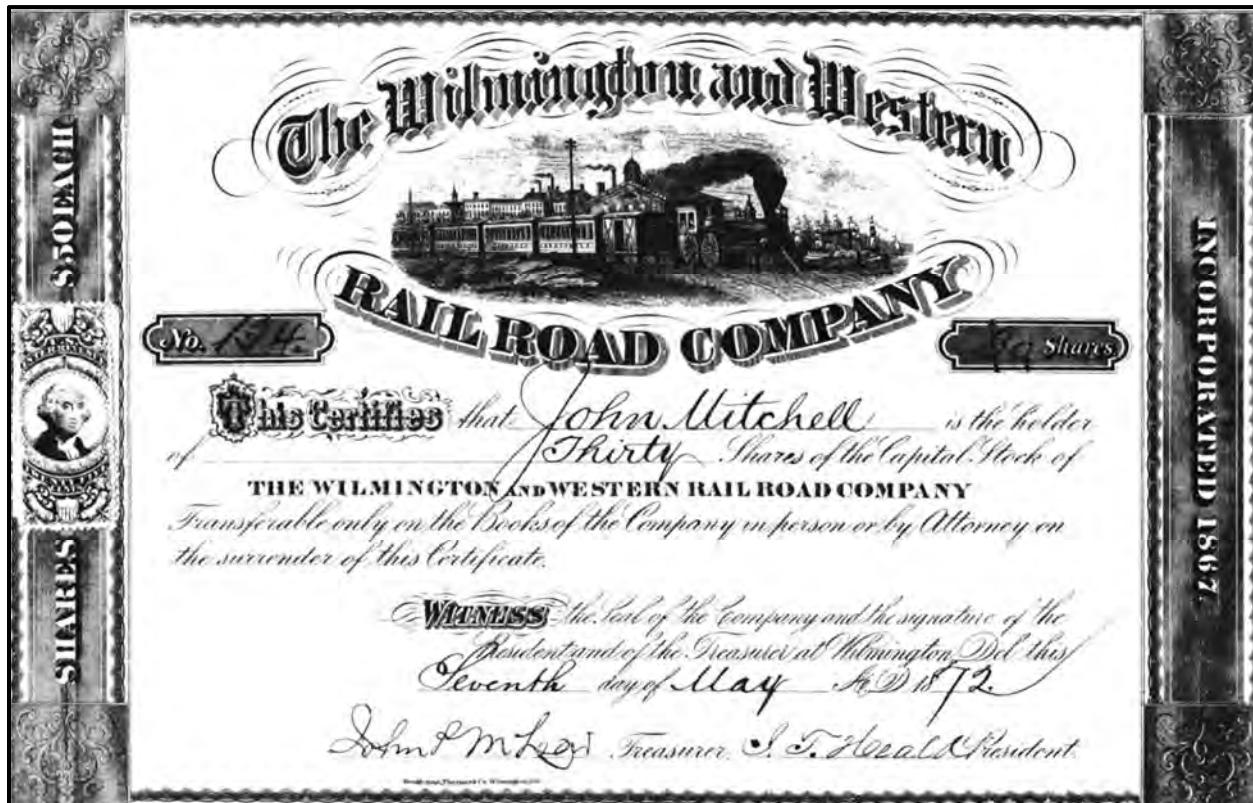
James Bradford, worked his way up from apprentice house painter to the presidency of both the Wilmington & Western Railroad and Wilmington Street Railway System {horse cars}. Bradford was connected to numerous other Wilmington businesses.

William H. Swift, a partner in a match manufacturing business in Wilmington.

William G. Phillips, with his brother, operated a grist and saw mill at Greenbank. This mill is still in operation as a grist mill. The present proprietor {1963} is J. Roy Magargle.^W

George Springer, owned vast acreage in Mill Creek Hundred. He leased some of his land in the vicinity of Hockessin to Golding Company, to quarry limestone.

George G. Lobdell was president of the Lobdell Car Wheel Company, a very prosperous manufacturer of patented iron railroad car wheels.



¹⁰ - *Harkness Magazine* (Wilmington, Del., March, 1873), vol. 1, No. 2, p. 242.

¹¹ - Carroll W. Pursell, Jr., *Ironworks on Red Clay Creek in the 19th Century – The Wooddale and Marshallton Mills, New Castle County, Delaware* (Wilmington, Del., 1962).



Figure A – *Wilmington & Western Rail Road Company stock certificate (previous page), various 1870s letterheads, corporation logo. Hagley Museum & Library Archives*

2.

As mentioned earlier in this story, on January 1, 1872, the railroad had sold bonds in the amount of \$500,000 to Washington Jones, George W. Bush, and Alan Wood, bearing 7.3 percent interest. Thus, financially fortified, temporarily at least, road work as well as the erection of an engine house and other facilities at Lower Oak Street in Wilmington, continued doggedly during the early months and Spring of 1872, notwithstanding the vigorous weather.

As a result, the *Coatesville News* {Pennsylvania} on June 27, 1872 reported that an excursion over the Wilmington & Western Railroad would be given the stockholders and a few invited guests on the Fourth of July. It stated that the party would proceed as far as Cuba Hill, 8½ miles beyond Wilmington, to which point it was expected the track would be laid by that time. Arriving at Cuba Hill the party was to disembark and spend the day in true picnic style.

Further, it stated that this was the first excursion over the completed portion of the road and then went on to laud the speed with which the road was being constructed, ending with the words "... with so persevering and energetic man for president, as Joshua T. Heald, Esq., the Wilmington & Western Railroad enterprise is no marvel, for Mr. Heald never takes hold without a resolve to succeed."

Strangely enough I can find nothing of this excursion in the Wilmington papers, either before or after July 4, 1872. It may be possible the track was not laid in time to permit it. I wondered on first reading why the excursion was going to Cuba Hill, in the vicinity of which location a station (Mt. Cuba) was later to be established by the railroad. Further investigation, however, revealed that the territory had been a recreational area and camp meeting grounds for some years before.

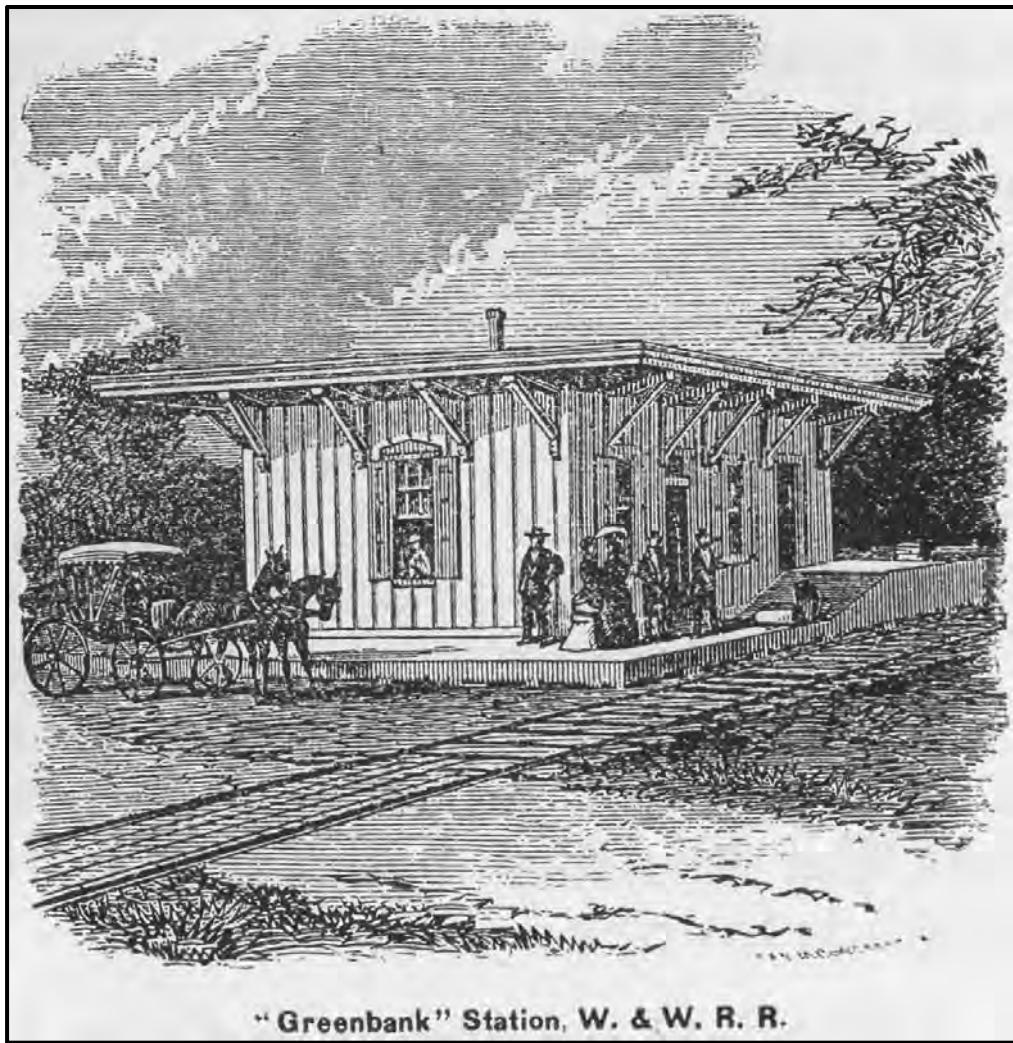
The first excursion to Cuba Hill to be authenticated by Wilmington newspapers,¹² was made on Saturday evening, August 24, 1872. A "select" party of the president of the road, a number of stockholders, several ladies and children, about 50 persons in all, including representatives from the press to give the railroad free advertising, was conveyed to the company's engine house near "Brownsville" (sic)¹³, where the train consisting of an engine, one passenger car and one open excursion car,¹⁴ left about 5:30 o'clock.

After a 20-minute ride through 6½ miles of beautiful, level country, the train stopped at Greenbank, where a "handsome and tasty" station house had already been erected, the first on the line. See Figure 6 below. So, we learn that Greenbank has other distinctions beside being the location of the New Castle County Correctional Institute, when the jail, pillory, whipping post and gallows were moved there from New Castle, Delaware.

¹² - Newspaper clippings, Joshua T. Heald's Scrap Book, op. cit.

¹³ - The company's engine house referred to was in that section of Wilmington commonly known as *Brownstown* not *Brownsville*. According to Weslager (*A Brief Account of the Richardson School*, Wilmington, 1959, p. 8) it derived its name from Dr. John A. Brown, at the time a resident of the vicinity.

¹⁴ - I have never heard of an "Excursion car." Possibly it resembled an old-time open-air trolley car with wooden seats extending crosswise from side to side.



“Greenbank” Station, W. & W. R. R.

Figure 6^X

Greenbank Station on Wilmington & Western, the first depot to be constructed. Similar architectural features were used on all the depots which were painted red. Waiting room contained benches for passengers, but a separate outhouse provided sanitary facilities. The railroad officials were very proud of their “modern” station.

At Greenbank, the excursionists were joined by William G. Phillips, a director of the road, who treated them to “luscious grapes and apples.” After the passengers had inspected the station, the train struck into the rocky and hillier portion of the country bordering the Red Clay Creek.

It passed “Allendale,” and “Highland,” anticipated stations of the railroad, slowing down to pass through the deep cut near what became Wooddale Station. It was said that here (Wooddale) were some of the finest picnic grounds in the state. In fact, the officers of the company considered making this spot a picnic resort, to be offered excursionists the next season.

As the train proceeded, President Heald told of other plans of the railroad, ostensibly for the benefit of the newsmen, giving names of prospective future stations, viz., “Ashland,” at Sharpless mill; “Auburn,” at Garrett’s mills (see Figure 7); “Hockessin,” “Kaolin,” “New Garden,” and finally Landenberg at the end of the line. It was stated that



Figure 7Y

Old Wilmington & Western Station at Yorklyn (formerly Auburn), built in 1872. As the only depot extant when the monograph was written, the building was still used as a freight station on the B&O. In the foreground is Clarence T. Crossan, whose father, Theodore Crossan, was an engineer on the line. The station was purchased by HRCV and relocated to Greenbank in 1968. (Courtesy W. E. Grant, Sr.)

although only one station had as yet been erected, six others were framed and ready to put up at short notice. Property holders at points where it was desirable to establish stations, who first gave substantial evidence that they desired to have depots near them, would be most promptly supplied by the railroad company. Others who didn't show a liberal spirit in the matter probably would have to wait longer.

The excursion train finally arrived at Cuba Hill, about 10½ miles from the river front at Wilmington. Here the party strolled through another deep cut, about 30 feet deep, of solid blue granite rock. The chief attraction was a huge boulder, estimated to weigh 40 tons, which had been blown out from a hill 30 feet into the air, after which it rolled about 200 feet down a slight declivity.^Z

After watching the operations of the workmen (from which it may be deduced work went on night and day), for about half an hour, the passengers boarded the train for the delightful ride back to Wilmington, the lateness of the hour forbidding an extended walk through the beautiful woods or tramp to the summit of Cuba Hill.

As the time was now rapidly approaching for the actual operation of the railroad, the administrative officers probably felt it necessary to add an experienced railroad man to their staff. Such an official was found in the person of S. A. Hodgeman, at the time superintendent of the Philadelphia, Wilmington and Baltimore Railroad Company's Shops at Wilmington. Hodgeman was a passenger and made himself most conspicuous on the excursion to Cuba Hill. He was given the title of General Superintendent.

With the accession of Hodgeman, progress was further accelerated and on Saturday, October 5, 1872, the *Wilmington Every Evening* carried an item to the effect that the track layers on the Wilmington & Western Railroad had met that day and connected the rails, so that the road was then completed from Wilmington to Landenberg, though a mile of it remained to be built in Wilmington, on the south side, from the depot on "C" Street (see Figure 8) to the wharves near Third Street Bridge. It continued that this would be finished in a few days and the road formally opened by an excursion on Saturday, October 19, 1872 and for regular trade and travel on Monday, October 21, 1872.

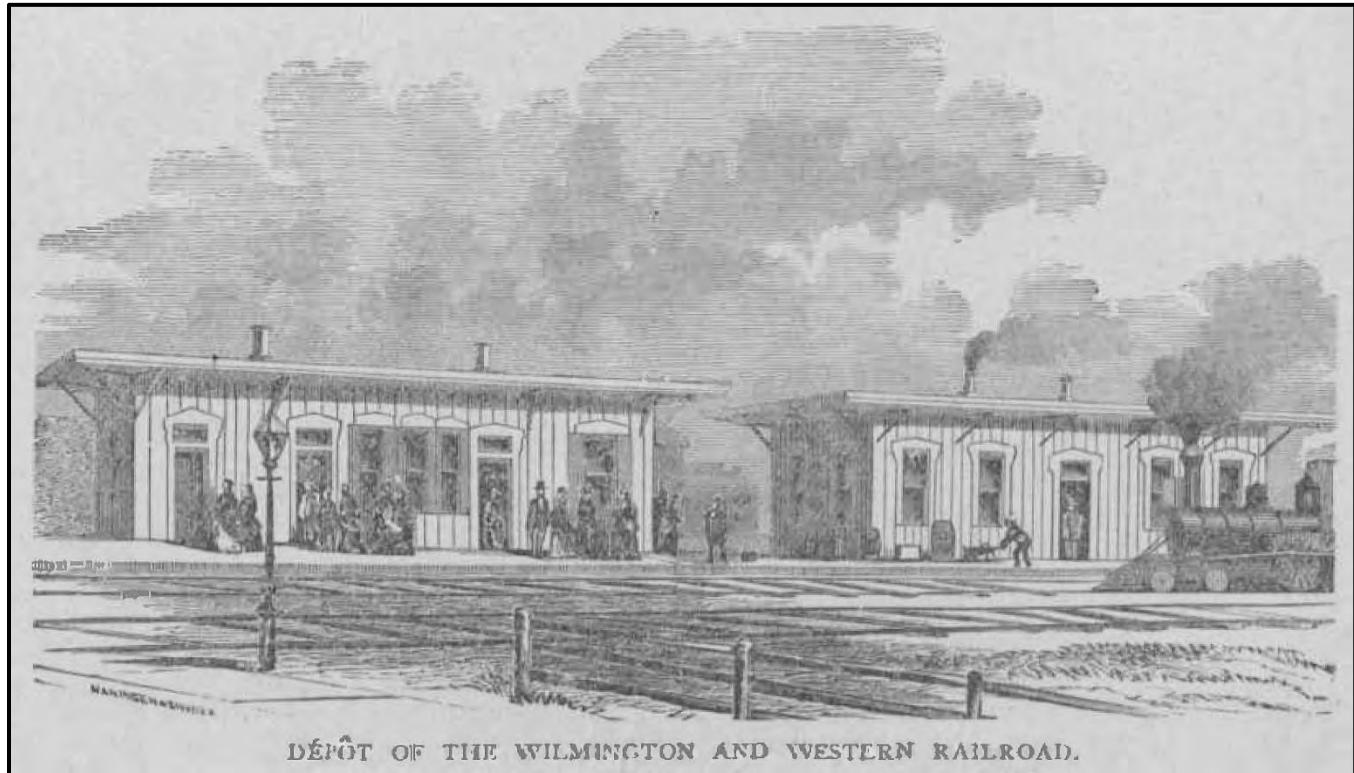


Figure 8^{A1}

First Wilmington station of Wilmington & Western which stood on C Street at Causeway. Evidently there were separate buildings here for freight and passengers. This station was later moved to Landenberg.

Reproduced from September 1873 Harkness Magazine. (Courtesy Elwood S. Wilkins, Jr.)

The paper stated it was the intention to put on at once three trains between Wilmington and Landenberg, two passenger trains and one mixed freight and passenger train. While the official timetable had not yet been prepared it was expected that the trains would move about as follows:

Leave Landenberg
 6:30 A.M. (Accommodation)
 12:30 P.M. (Mixed)
 4:00 P.M. (Mail)

Arrive Wilmington
 8:00 A.M.
 3:05 P.M.
 5:30 P.M.

Leave Wilmington (3rd Street Depot)
 8:15 A.M. (Mixed)
 10:30 A.M. (Mail)
 6:25 P.M. (Accommodation)

Arrive Landenberg
 11:07 A.M.
 12:05 P.M.
 8:00 P.M.

One would hardly call these “tight” schedules for a twenty-mile run but considering the fact that the trains carried practically everything that could be handled manually in the way of baggage, mail and express, as well as passengers, they were still faster and more efficient than horses and wagons.

On Monday, October 7, the *Every Evening* supplemented this story under the sensational headline, “Across the chasm – not the bloody one but at Broad Run.” The item read,

“On Saturday evening about 4 o'clock the track layers on the Wilmington and Western Railroad spiked down and secured the track across the Broad Run trestle, and then indulged in hearty cheers over the completion of the job.”

“The construction train loaded with iron and other supplies and sundry workmen and spectators was immediately passed back and forth over it, forming a gratifying and novel sight to the inhabitants of the valley. All parties expressed their pleasure upon noting the smoothness with which the train passed over, and how solidly the structure stood without a jar or tremble.”^{B1}

And the workmen were well justified in cheering for as for its day this trestle was a fine piece of engineering. It was conservatively estimated as being 40 feet or higher in places and approximately one-third of a mile long, constructed of long leaf yellow pine, so I am told. It was located just east of Landenberg over marshy meadows and across Broad Run, a tributary of the White Clay Creek (see Figure 9).



Figure 9C1

Broad Run trestle on Wilmington & Western. Picture was taken in 1941 when line was used by B. & O. The trestle crossed a marshy meadow drained by Broad Run, a tributary to White Clay Creek. After tracks were removed above Hockessin, trestle was razed in 1943. (Courtesy W. E. Grant, Sr.)

Events were now moving to a climax and 10 days later, October 17, a local paper reported that the telegraph line to Landenberg, by the Wilmington & Western Railroad, was completed that day.^{D1} Messrs. Hodgeman and John G. Jackson accompanied a train from Wilmington to Landenberg the same day, carrying supplies for the celebration on Opening Day, as October 19 has been designated. On arrival at Landenberg, Jackson wired President Heald, "All right at Landenberg. Lunch, etc., fixed first rate. Compliments of the party to the President." And General Superintendent Hodgeman wired the President, "Arrived on time, and leave for Wilmington at four o'clock."

The value of telegraphy or other means of communication in speeding railroad transportation, is not usually known by the general public. If, as has been said, the railroads are the arteries of the country, telegraphy in the 1800's and telephone and radio today, is the blood that sustains them. By the use of various forms of communication, railroad employees known as train dispatchers guide the trains over the road, keeping freight trains moving and passenger trains on time simultaneously. Hence, it will be seen that in the establishment of a telegraph system the Wilmington & Western Railroad was placing itself in a position to operate economically and efficiently.

In 1872 Wilmington was a bustling town of some 30,000 inhabitants with 35,000 more in the suburbs. Its industries were varied including manufacture of paper, cotton, powder, shoes, morocco, wagons, railroad cars and accessories, with flour and other mills. Consequently, it was rapidly becoming not only a stopping point for trains but a railroad center as well.

Two railroads were already located there, the Philadelphia, Wilmington and Baltimore, Railroad (P.W. & B. RR) and the Wilmington and Reading Railroad, and on October 19th, a third railroad was to be opened. Thus, it will be seen that the railroad industry vitally touched practically the life of every family in the community and its impact on the economy of the town was tremendous. As a result, great enthusiasm prevailed in the town on opening day of the Wilmington & Western Railroad, as another avenue was being unfolded, creating more jobs and further expansion. And added to this was the fact that there was going to be a parade, always an attraction in a small town.

We can well imagine the forming on Market Street of a long line of polished carriages, buggies, surreys, Daytons, barouches, and so forth, with spirited, well-groomed horses. The vehicles were filled with several hundred joyous persons, including women and children, all in a holiday mood. On the southwest corner of Seventh and Market Streets, stood the Exchange Building in which the Wilmington & Western Railroad had its offices, the starting point of the parade.

At the head of the line was the Independent Cornet Band of Wilmington, closely followed by a carriage occupied by the bewhiskered Joshua T. Heald, at the height of his career, wearing a high silk hat of the period. The procession moved down Market Street to Front where it was joined by other conveyances bearing passengers that had arrived earlier at Wilmington on the P. W. & B. RR, from points north and south. Crossing South Market Street Bridge, then on to the new depot (on which the paint was scarcely dry) of the railroad a few squares below.

Arriving at the depot, the party found a train of 11 new cars, decorated with flowers, wreathes and drapes, looking for all the world like the circus wagons of the early twentieth century. On the head end, with full steam up, were two engines, bright with gleaming brass, Numbers 2 and 4, proudly displaying on both sides of their cabs the initials of the new road, "W. & W. R. R." ^{E1}

Formal printed invitations for the excursion had been sent to all prominent personages and newspaper men to participate in the event, and tickets printed reading:¹⁵

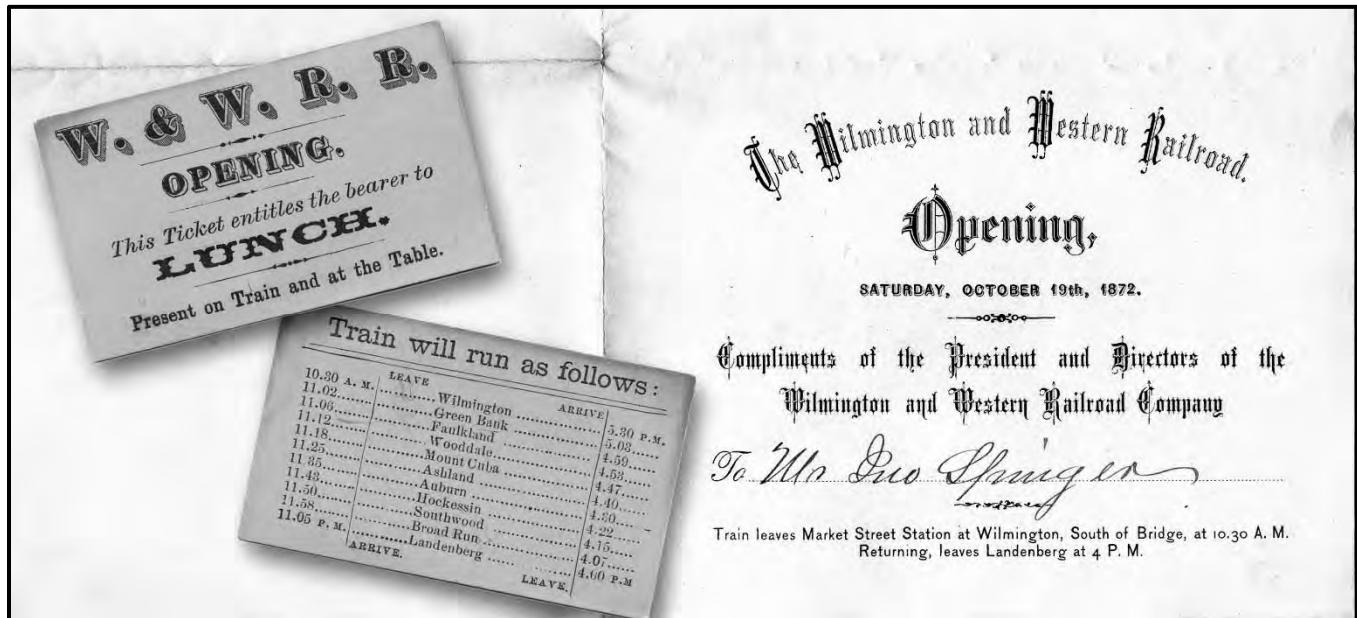


Figure B – Opening day invitation and lunch ticket (Courtesy of Mary Simons Collection) ^{F1}

At this point, to catch the spirit and atmosphere of the day, I can do no better than to quote the account that appeared in the *Wilmington Every Evening*, Monday, October 21, 1872:

“Saturday, October 19th, 1872, will be remembered as a great day in the annals of Wilmington, as the day when the great iron city broke the last of the bonds which have too long cramped her and stretched forth a hand after her proper share of the treasures of the wonderful West, for Saturday saw the formal opening of the first section of the Wilmington & Western Railroad which is destined to restore trade to its natural channels and materially help in realizing the city's magnificent destiny.”

“The day dawned propitiously, and as the crowds of people flocked to the new depot on South Market Street the sun shone as he only does shine these glorious October clays, bathing in a rich flood of light the delightful valley through which the road wends its way.”

¹⁵ - Copy in Joshua T. Heald's Scrap Book, up. cit. ^{F1}

"The train consisted of ten passenger cars and one covered platform car (flat equipped with benches or seats?) for those who did not mind the crisp October air."

"At about 10:20 A. M. (Conductor Baynard pulled the whistle cord), the train started and at every station on the line of the road, stations by the way, with such tasteful and appropriate names as Greenbank, Faulkland, Wooddale, Mt. Cuba, Ashland, Auburn, Hockessin, Southwood, Broad Run, the train halted to receive accessions to the excursion party from along the line."

"Leaving the city, the train swept rapidly through the valley of Little Mill Creek and across a nearly level tract of fertile country, to the valley of the Red Clay Creek into which it abruptly turns at Marshall's Rolling Mills to the beautiful scenery along the delightful valley and busy industry, brightened by the wondrous autumn hues of the foliage and the bright sunshine, called forth the heartiest expressions of admiration from all."

A leisurely schedule for the benefit of the sightseers, both going and returning, had been prepared as follows:

GOING (Read down)	STATION	RETURNING (Read up)
10:30 A.M.	Wilmington	5:30 P.M.
11:02 A.M.	Greenbank	5:03 P.M.
11:06 A.M.	Faulkland	4:59 P.M.
11:12 A.M.	Wooddale	4:53 P.M.
11:18 A.M.	Mt. Cuba	4:47 P.M.
11:25 A.M.	Ashland	4:40 P.M.
11:43 A.M.	Hockessin	4:22 P.M.
11:50 A.M.	Southwood	4:15 P.M.
11:58 A.M.	Broad Run	4:07 P.M.
12:05 P.M.	Landenberg	4:00 P.M.

As the train cruised along at 13 miles an hour, President Heald settled himself comfortably back on one of the red plush seat cushions, and described the railroad to his out-of-town guests. While his following imaginary remarks are not enclosed in quotation marks, they might well have been for I have lifted them practically verbatim from a booklet entitled *Westward by Rail from Wilmington*,¹⁶ published by the railroad in 1872. If Heald was not actually the author of this booklet he doubtless furnished the facts and information on which it is based. After a few remarks concerning the founding of the railroad we can imagine him saying:

¹⁶ - Copy on file in the library of the Historical Society of Delaware, Wilmington, Del. On opening this booklet, one's attention is immediately attracted by an advertisement inside the front cover of The Christiana River Improvement Company offering for sale 200 acres with wharf frontage along the Christiana River. Application to be made to J. T. Heald, President, M. M. Child, Secretary.

This road is now about 19 miles long. You will have noticed after leaving Wilmington it strikes at once across the flat lands bordering Little Mill Creek.^{G1} A few miles farther on we reach the Red Clay Creek which is a rapid, strong and unfailing stream which comes down to us from the perennial springs in the meadows of Chester County. The road follows the curve of the Red Clay because of its industrial operations.

We reach this valley near Marshall's Rolling Mill with its fiery furnaces and revolving rolls, and at this point is to be located the first station, a "flag" stop after leaving Wilmington. It is called Kiamensi,¹⁷ after the manufactory Kiamensi Woolen Mills nearby. Above Marshalls is Phillips Spoke and Carriage Stuff Factory and here is the next station, Greenbank.

It is our theory that stations should be attractive, not naked, unpainted, repulsive sheds, which are too often provided as the temporary shelter of the traveler waiting by the rail side. Leaving Greenbank, we presently come to the spice mills of C. J. Fell & Brother at Faulkland. Nearby is Brandywine Springs, the place of summer resort of visitors for health and pleasure from all parts of the country.

Above Faulkland is the sheet iron rolling mill of Alan Wood & Company of Philadelphia, who conduct similar operations at Conshohocken on the Schuylkill. At present, it is run by water power from the Red Clay but we have been assured by Mr. Wood that if he can procure coal over the railroad, he will convert his mills to steam and triple his output. Here is located the station of Wooddale.

At this point there was one of the heaviest rock-cutting on the line, though less expensive, owing to the nature of the rock, than that at Mt. Cuba, which we shall presently reach. It (Mt. Cuba) is in the neighborhood of a delightful spot which has been, for many years, the popular place of resort for picnics, basket meetings, and the like, and the scenery near the locality warrants us in expecting that its attractions will still be popular in the future.

Leaving Mount Cuba, we presently reach Ashland, near Sharpless flouring and saw mills, where there is also a very pretty station house. We next reach the extensive mills, which are being considerably enlarged of William Garrett and Sons, and near the Upper Mill is Auburn Station. From this point, we speedily leave the valley of the Red Clay and pass into the valley of Hockessin. However, before entering the Hockessin Valley we pass the large works of Kaolin (or fire-clay) belonging to the Diamond State Kaolin Company. Their big factories at Trenton, NJ., consume a large share of that produced here.

¹⁷ - A. R. Dunlap & C. A. Wcslager, *Indian Place Names in Delaware* (Wilmington, Del. 1950), p. 22, write, "Kiamensi appears to be a shortening of (the Indian word) HWISKAKIMENSI."

The station here is Hockessin and near at hand are the lime quarries of John G. Jackson; at present the works are not in operation, and also those of Springer and Thompson. Leaving the Hockessin Valley, we are reaching away now for the White Clay Creek, and here our next station is Southwood. Here is a cut through "Brown's Summit," where there is a rich deposit of soapstone, on the Pennsylvania border.

Just beyond this station we cross an extensive trestlework over Broad Run, a branch of the White Clay which reaches the main stream a short distance below our road. Upon crossing the trestle, we reach the next station, Broad Run. Rising by moderate grade, we now approach Landenberg, the present terminus of our road.

During this discourse Mr. Heald had been frequently interrupted to answer questions about the railroad, being introduced to strangers on the train and receiving congratulations from them as well as friends on the completion of the road. Thus, about the end of his conversations the excursion train reached its destination – Landenburg.^{H1}

Here a glorious sight met the eyes of the passengers. If it was a "great day," in Wilmington the demonstration in this country town far eclipsed it. Probably never before in its history or since, for that matter, has Landenberg experienced such a thrill. Business had been suspended for the day, and houses, factories, and the street (or road?) were decked with American and German flags; stretched across the highway were several great muslin streamers with "Welcome to Landenberg," printed on them in large letters.

Alighting from the train the passengers formed into another parade, this time on foot, and marched down the hillside from the station, again led by the Independent Cornet Band of Wilmington. The procession moved on to the home of Charles Weiler, where assembled guests were already being entertained by the Unionville Cornet Band {Pennsylvania}.

A partner in the flourishing mills of Martin Landenberger, Mr. Weiler was also President of the Pennsylvania and Delaware Rail Road Company^{H1}, with which the Wilmington & Western Railroad made connection at Landenberg. On his shady lawn a platform had been erected, covered with more flags, flowers and evergreens, and not far distant, "near Weiler's elegant mansion, several long tables awaited the hour for lunch when the substantial food with which they were laden would relieve many an aching void which a craving appetite rendered ravenous."

However, the company had to endure an ordeal before this "craving" was to be satisfied. A number of young men and women, operatives in the factories, neatly attired, under the leadership of a Mrs. Watt and accompanied by the band, sang a song of welcome, especially prepared for the occasion. The words of it were –

Welcome! Welcome! Welcome!
Welcome! Welcome! Welcome!
We welcome you, dear friends, on this our opening day.

It was received with great applause.

Samuel M. Harrington, of Wilmington, counsel for the Wilmington & Western Railroad, then organized the meeting. Washington Jones, the Wilmington banker, was nominated for president and elected by acclamation, together with a number of vice presidents and secretaries. There is no reference to what the duties of the latter consisted of. Mr. Jones made an impromptu speech on taking the chair, offering his congratulations to those who had made the road possible, especially Mr. Heald.

The Reverend Jacob Todd of Grace Methodist Episodical Church, Wilmington offered a prayer, asking God's blessing on the enterprise and His protection for it hereafter. Short speeches were then made by Mr. Weiler, who welcomed the visitors to Landenberg, and Col. J. W. Forney, editor of the Philadelphia *Press*, who greeted them in the name of Pennsylvania. President Heald was then introduced and gave, what is known in political circles, the "keynote speech."

President Heald lost no time in preliminaries but got right down to the business of the day, making a lengthy speech. He commenced by mentioning that more than a year had elapsed since the groundbreaking, at which he had the pleasure of making a few remarks, but it was even more pleasant for him to do this at the celebration of the opening of the line to Landenberg. He spoke of the ambitions of the road's promoters, their successes and their failures.

Addressing himself to the skeptics, Heald said they first declared it would be impossible to raise the stock subscription of \$250,000, and later the sale of \$500,000 in bonds, both of which had been done, the latter on the most advantageous terms to the interest of the road. Others said that the road would not be running in less than two years, but it was now running in about 15 months. He admitted that the rock cut at Mt. Cuba had almost defeated their objective.

He answered the arguments of those who said, "Railroads don't pay," by giving statistics showing that the average earnings of the railroads in the United States during 1869 made a clear profit of 7½ per cent, per annum.

To those who questioned the feasibility of the Wilmington & Western Railroad to do the same on account of low mileage, Heald cited the shortest railroad line in the country, between Hanover Junction and the town of Hanover in Pennsylvania, a distance of 12 miles, that regularly paid ten per cent dividends. Applying this comparison to the Wilmington & Western, Heald described its excellent prospects due to the factories, industries, and farms along its route, and plans for expansion by connecting with other railroads, predicting that it would be an important link in a great system to the West.

Cynics had asked, "What is the use of railroads? Do they make men wiser, happier and better?" (Questions that a few men are still asking today concerning our so-called modern "progress.") His reply was that to discuss this question in the light of the 19th century would be an insult to the intelligent, progressive people which he would forebear answering. Nevertheless, he went on at length to retort in the affirmative.

He further described the benefits that accrue to farmers; that the railroads enabled them to get their perishable products to otherwise inaccessible markets, cheaper and faster, and backed up his contention with figures to prove it.

To this Heald added a general history of the railroads of the country, starting with the Baltimore & Ohio Railroad's first venture with horse car railroads in 1829. After thanking the directors, engineers, officers, and employees of the Company for cooperating with him in the building of the road, Heald spoke sentimentally about being "born in a farm house in view of the line of this road," of the struggles of his Mother on the farm after his Father died when Heald was only two years old. How at the age of 16 he went over and taught school in nearby Chester County for a year, after which he came to Wilmington and thereafter made it his home. Heald concluded with a burst of oratory which I cannot resist quoting:

"And now, my hearers, after a very busy subsequent life with its cares and responsibilities, with its strugglings and its yearnings, and 35 years from the time I left my boyhood home, I return today with the goodly company of interested and sympathizing friends. Passing through and among the scenes of my early days, and of the enterprises of my Father, swiftly transported in this rumbling train, and following this grand, noble, inspiring, roaring and almost seemingly living iron horse – a monument as it is to the genius of man – heralding and echoing and re-echoing our approach among the hills of my native Red Clay, and the valleys of my old Hockessin home. My neighbors and friends, is it not inspiring, and am I not entitled, without infringing upon the proprieties and in humble thankfulness to feel this day I am a satisfied and happy man, ready to exchange congratulations with you one and all."

At 2:00 P.M., Heald sent a telegram which appeared in the Wilmington *Every Evening* that date, reading: "Landenberg, Pennsylvania, October 19 – To the Citizens of Wilmington: The Citizens of Landenberg and along the way have received us with demonstrations as I trust will bind us together hereafter in business and friendship as we are already bound in iron and lightning. J. T. Heald."

The Reverend George A. Latimer then read a historical sketch of the life of Oliver Evans, who was born at Newport, Delaware and for a time lived in the vicinity of Faulkland. John G. Jackson, was the next speaker and he offered credit to the people who lived along the line for raising money to help build the road.

Short addresses were made by Colonel Joseph W. Tatum of Bedford, Pennsylvania, regarding railroad progress and the need for it in southeastern Pennsylvania. Colonel S. G. Boyd and Samuel Dickey, officers of the Peach Bottom Railroad, spoke of its construction and relation to the Wilmington and Western Railroad.

S. M. Harrington then came forth and said that at the request of the president and directors he wished to formally recognize the eminent services of John G. Jackson,^v Engineer in Chief, of the Wilmington & Western and then led three cheers for Mr. Jackson.

The company was then invited to partake "of the bounteous collation spread upon the tables, which invitation was promptly accepted." They were all probably very happy by this time that the bombast was over, and hungry, too.

At the call of President Heald, "three cheers were given for Charles Weiler and these were followed by three cheers for Wilmington, and for the growth of Landenberg.

The Wilmington *Commercial* of October 21, 1872, completed its account of the celebration with the following:

"At 3:15 the first train left for Wilmington, conveying a number of persons who desired to return, in time for the trains bound south and north at 5:20 and 5:42. The train came directly through, only stopping for water, with the exception of one other slight detention near Brandywine Springs, where an unfortunate cow being unwary that an extra was to come down was standing on the track, inspecting the quality of the fish plates.^{J1} The locomotive struck her into an astonished pile, by the road side, and upon further examination after the train stopped, she proved to be substantially uninjured, one horn having been knocked off. This was picked up as a trophy and may be seen in the Commercial office. The second train with the great majority of the excursionists left Landenberg about 4 o'clock, stopping at the various stations to let off passengers and reached Wilmington, without accident or delay, about 5:30."

Figure C – A companion article from the October 21, 1872 issue of the Wilmington Every Evening, provide insight into the operation and fares charged by the Wilmington & Western Railroad. (courtesy of Tom Gears Collection)

W. & W. R. R.

WHAT IT COSTS TO TRAVEL OVER IT.

The Wilmington & Western Railroad Company have fixed upon the rates to be charged to the various stations on the road. To Southwood the ten cent tax imposed by the Delaware Legislature is collected, which accounts for the same fare being charged to Landenberg, in Pennsylvania. From this city to Kiamensi 28 cents, to Greenbank 30, Faulkland 35, Wooddale 40, Mount Cuba 45, Ashland 50, Auburn 55, Hockessin 60, Southwood 65, Broad Run 65, Landenberg 65.

Next week the company will issue excursion tickets to and from the various stations on the road, at a considerable reduction. The above charges are at the rate of $3\frac{1}{2}$ cents per mile and the State tax.

3.

At the Fourth Annual Meeting of the stockholders of the Wilmington & Western Railroad on January 13, 1873, three months after the inaugural run, President Heald reported that the rolling stock of the Company consisted of four locomotives, three first-class passenger cars, two mail cars, two smoking cars, ten house (box?) cars, ten gondolas, and ten flat cars. We may safely assume this was its original rolling stock. According to Poor¹⁸ the railroad was 20 miles long with two miles of sidings and other tracks, gauge 4 feet, 8½ inches, and rail 56 pounds to the yard. Modern railroads use rail of 140 to 180 pounds to the yard.^{K1}

The engines were evidently purchased from Baird & Company, for in 1877 this firm sued the Wilmington & Western Railroad Company for payment of them. Although I have been unable to obtain an actual photograph of a Wilmington & Western engine, information gathered from informants, leads me to believe they were similar to that shown in the illustration, Figure 10. By 1872, the smoke box had been extended on steam locomotives and the “balloon,” type smoke stack (commonly pictured on Civil War locomotives), had been replaced by the straight stack. They burned soft coal. The cylinder dimensions were 14 inches by 24 inches and the driving wheels 56¾ inches in diameter.

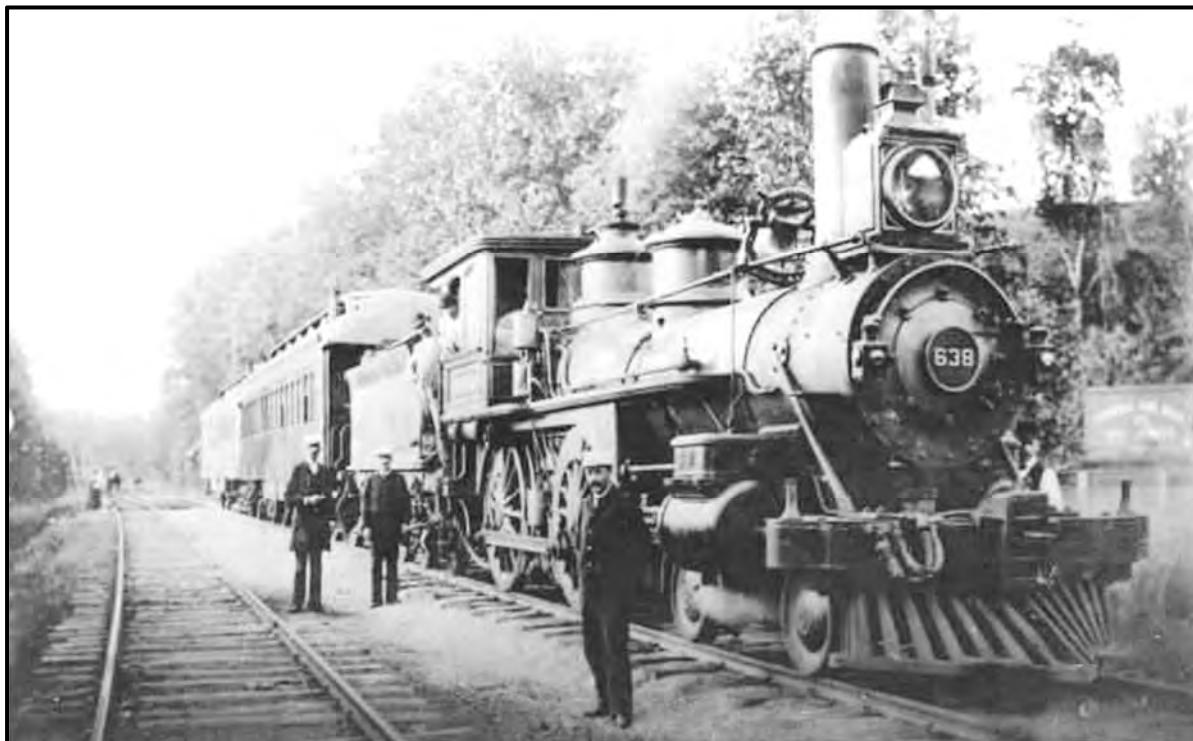


Figure 10^{L1}

B&O Class G-3 at Landenberg Station circa 1895. Most likely #638 is an M. Baird & Company locomotive purchased during the initial building of the Wilmington & Western Rail Road Company in 1872. #638 appears nearly identical to the Division I Class 16½ C locomotive pictured in the Baldwin Locomotive Works, Illustrated Catalogue of Locomotives by the M. Baird & Company of Philadelphia. Originally numbered 2, or 3 according to Baldwin records, it was probably renumbered to #638 by the B&O in 1886. Note the Link & Pin coupler in use and the steam line for coach heating along with the train brake system hose above the cow catcher. Photographer may have been Charles S. Philips.

¹⁸ - Henry V. Poor, *Manual of the Railroads of the United States* (New York, 1872), vol. 4, p. 523.

Train and engine crews worked 12 hours a day or more, including time for layovers at terminals. During the course of this period the engine consumed about 20 tons of coal, all of which was hand-shoveled by the fireman with the occasional and grudging help of a brakeman. The amount of water used was based on the fuel burned, usually about 1,000 gallons of water for every ton of coal, or approximately 20,000 gallons of water a day. A large amount of water in the boiler required the fireman to work harder to keep up steam; if the water got too low, there was danger of burning out the fire box if the engine crew did not draw the fire in time to prevent it. This provoked endless argument between the engineer and fireman.

The water gauge or “bottle,” had not yet been invented to indicate the depth of water in the boiler, and to overcome the possibility of damaging the fire box, three cocks were within reach of the engineer. These cocks were one on top of the other. If water came out of the top cock when opened, the boiler was full. If the top cock was dry the second cock was tried, and if it failed to produce water, the third and last cock was opened. If no water was then ejected, the fire was immediately quenched.^{M1}

The headlights, huge box-like affairs, burned a grade of oil known as “Signal oil,” which lasted longer than kerosene. The headlight was the fireman's responsibility, and if night overtook the train enroute, or the flame went out, the fireman had to take a torch, ignite it in the engine's fire box, and crawl to the front of the engine to relight it.^{N1}

The fireman also had to ring the bell at road crossings and approaching stations. This was done manually by a rope extending from the engine cab to the top of the bell. However, if the rope was given an unusually hard tug, the bell would flop completely over, wrapping the rope around it. The fireman would then have to get out on top of the locomotive and untangle it.

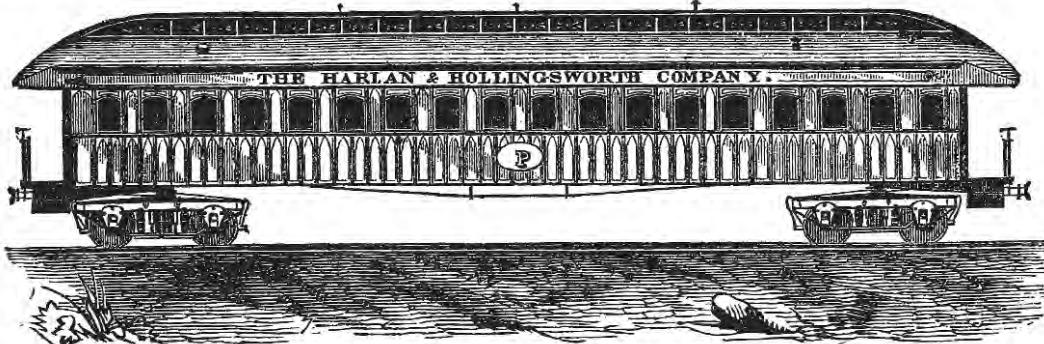
The passenger cars were bought from the Harlan & Hollingsworth Corporation and Jackson and Sharp Company, Wilmington. Undoubtedly, they are truly represented in the one shown in the Harlan & Hollingsworth advertisement¹⁹ (see Figure 11). They had a seating capacity of about 60 passengers. A pot-bellied stove in one end, burning soft coal and tended by a brakeman, furnished heat. Oil lamps, suspended by brackets from the ceiling, provided light. Additional lamps were fastened to the wall inside of the cars. Like the headlight, these lamps as well as lanterns, were fueled with “Signal oil.”

Freight cars were about 38 to 40 feet in length with a load capacity of about 40,000 pounds. Present day freight cars have as much as 250,000-pounds capacity {1963 reference; cars are now higher capacity} for ordinary freight. Although George Westinghouse^{O1} had invented air brakes by this time, it was not entirely dependable and the Wilmington & Western Railroad continued to utilize man power for applying brakes.

For this purpose, sprocket wheels were installed at each end of both passenger and freight cars and it was the brakeman's duty to apply or release the brakes. The signal to operate the brake was given by the engineer who blew two blasts on the whistle when standing to release the brakes. This allowed him to proceed (the engine but not the tender

¹⁹ - The illustration of the advertisement was taken from Poor, *ibid.*, p. 14 of the advertising section.

The Harlan and Hollingsworth Co.,



MANUFACTURERS OF ALL KINDS OF

Railroad Machinery, Passenger Cars of the Finest Finish.

Also, all kinds of City, Baggage, Mail, Sleeping, Freight, Dumping and Canal Cars, Wheels and Axles, Steel Springs, etc.—in fact, every thing for the full equipment of a Road.

From our long experience in Car-Building, and our facilities for doing work, we are enabled to give entire satisfaction in every particular.

We are also extensively engaged in building Iron Vessels and Iron Steamboats, Steam-Engines and Boilers, and Machine Work in general. For further particulars, address

**THE HARLAN AND HOLLINGSWORTH CO.,
WILMINGTON, DEL.**

Figure 11^{P1}

Advertisement illustrates type of wooden passenger cars built for use on Wilmington & Western which seated approximately 60 passengers. Car was lighted with oil lamps and heated by coal-burning, pot-bellied stove. Wilmington & Western name was lettered on either side of the cars.

(Courtesy Eleutherian Mill, Historical Library; from Poor's Manual, 1872.)

was provided with brakes actuated by steam). When the train was running, one blast on the whistle sent the brakemen located at strategic locations on the train, scampering to their posts to apply the brakes by winding the chains attached to the sprocket wheels. Brakemen were furnished heavy cudgels known as "brake clubs," ^{Q1} to give them leverage for this job. Passenger trains usually had one brakeman to every two or three cars, and freight trains averaged one to every six cars.

So far as freight trains were concerned, the brakeman's occupation was a very hazardous one. In winter weather with ice and snow on the roofs of box cars and in the bottom of open top cars, he was required to reach the cars assigned to him and apply or release the brakes. As a result, there was constant danger of falling, a possibility that was also present in clear weather and increased at night or during inclement weather. Imagine running in the dark over the top of a jolting box car, covered with sleet, with less light than a hand lantern affords!

Further, a brakeman on top of a box car was liable to be struck in the head or knocked off while the train was passing under a low overhead bridge or other structure. Later, to overcome this hazard, approaches to such obstacles were equipped with "telltale." ^{Q1} This

device consisted of a row of heavy rope strands, stretched across the track, dangling from a crossbeam. When the loose ropes struck a man standing on top of a car it reminded him to duck.

The murderous “Link and Pin”^{Q1} (etymologized to *Lincoln Pin*) couplings, were also in use by the Wilmington & Western Railroad. Figure 12 illustrates this device. There was a common saying among the railroad men of the day that, “When you lose the link you break the chain,” referring to the chain of cars in the train. Extra links were usually kept on a train for cases of emergency when a link broke. The pin was supposed to fall through the link and holes provided in the drawbar, but when it failed to do so it was necessary for the

Figure 12

Improved type (of which there were many) of “Link and Pin” to couple cars. Man is holding link, and pin is in slanting position on next car. When cars were bumped together, the jar caused pin to fall into place completing the coupling. (Courtesy Railway Service & Supply Corp., Indianapolis.)



railroad men to go between the cars and adjust it with their hands. If there was a sudden movement of the cars, fingers and hands were liable to be caught and mashed. And, as also sometimes happened, bodies were crushed between the cars. An account of such an accident was contained in the Wilmington *Every Evening* for January 14, 1876. It read that Elwood Cooper, a brakeman on the Wilmington & Western Railroad, was squeezed between two cars while coupling them that morning at Faulkland. He was considerably injured, but no bones were broken. Such occurrences were not uncommon.

Brakemen assigned to passenger baggage cars were known as baggage masters, and, as the title denotes, handled mail, express, and baggage. The baggage consisted of suit cases, trunks of all sizes, and heavy fiber sample cases so greatly favored by the traveling salesmen of the era. Besides their other duties of attending brakes and stove fires, the brakemen on mixed trains (combination local freight and passenger cars) loaded and unloaded various commodities ranging in size and weight from small packages to pianos. As a result, this service was known as “piggy back,” as much of the freight was handled on the brakeman’s backs.

Passenger conductors' duties were about the same as they are today, collecting fares, helping passengers, and calling out the names of station stops. They were respectfully addressed by other members of the crew as “Captain.” Conductors were in full charge and assumed responsibility for the safety of the train and passengers. On local lines, certain trains were known by the conductor's name. The Wilmington & Western Railroad had such a conductor in the person of Alfred Hughes. He came to work when the Wilmington &

Western was first opened and continued on this section of the railroad for over 25 years. The train of which he was conductor was commonly known as "Hughes," or "Hughes' train."

Duties of the engineers have not changed drastically in the last hundred years except that diesel and electric locomotives have supplanted steam. On the whole, even though trains are longer and heavier, the lot of the engineer at present is far easier than it was 75 or even 25 years ago. For instance, engine cabs are now warmed by heaters in winter in contrast to the steam locomotive which was only partially enclosed and very cold in winter. In addition, on steam locomotives the engineer was obliged to lean out of the cab window, regardless of weather, to watch the track and signals ahead. This is now done from behind the glass window of a comfortable cab, and cab signals within the engineer's glance, indicate the position of the roadside signals under which the train is running.

The station agent was almost as indispensable to the railroad as the engineer. His duties and responsibilities were varied and endless, especially if he was assigned to a one-man station. It was the agent's duty to have the station open long before the departure of the first passenger train in the morning in order to sell tickets, check baggage and transact any other business that might be necessary, and, on arrival of the train, to help load and unload mail, baggage and express, etc. He remained at the station until after the arrival of the last passenger train in the evening to perform similar duties, no matter how late the train might be.

Between passenger trains it was the duty of the agent to keep the station and grounds clean, tend the stove in the building during winter months, and handle both carload and less than carload freight, inbound and outbound. In addition, the station agent was frequently the town's postmaster, and although this added to his income it likewise added to his duties.

Beside his railroad salary, commissions were paid the agent by the express company for looking after its business. As far as the railroad was concerned the agent was usually a telegrapher^{D1}, thus enabling him to keep in constant touch with the main office. As a telegrapher, he also handled commercial messages for which he received a bonus. In short, the station agent was an arm of the United States Government, the railroad company, express and telegraph companies, and practically a 24-hour a day man, at least six days a week, and sometimes part time on Sunday.

In the 1880's (and I assume it was the same in the early 'seventies'), freight was transported over the railroad at a cost of 3.45¢ per ton per mile, and passengers at 2.5¢ per mile.

For an idea of the Company's properties^Q in 1872 we must again turn to the Proceedings of the Fourth Annual Meeting of the Stockholders on January 13, 1873, previously noted.

"Your Company," President Heald reported, "have at this time 19.92 miles of main track, mostly well ballasted, and in good, smooth running order; 2.30 miles of sidings and turnouts; thirty-six one-hundredths of mile in the

direction of the Christiana Harbor graded ready for the track; a line of telegraph from Wilmington to Landenberg for the immediate use of the Company, and liberal arrangements with the Western Union Telegraph Company to dispatch to and from all parts of the United States; a Freight House; Building for offices and Station House at Market Street, Wilmington, an enginehouse, a blacksmith and Repair Shop, a storehouse, with the Brandywine water introduced thereto in West Wilmington; seven neat and convenient Station Houses with lots on the line of the road, all but two completed; two shed stations (he did not state location),^{R1} an excellent Tank House with superior water facilities; an enginehouse and turntable at Landenberg, bridge and watch houses; about 27 acres of land in Wilmington (including 1000 feet on Christiana River at Third Street Bridge)."

I do not know whether Wilmington and Landenberg were included in the "seven neat and convenient Station Houses . . . all but two completed." Otherwise it seems likely that the five completed station houses were at Greenbank, Faulkland, Wooddale, Auburn (Yorklyn) and Hockessin. The uncompleted ones might have been Kiamensi, Ashland or Mt. Cuba. To dispose of the question, I might add that from available information there were shelter sheds at Southwood^{S1} and Broad Run,^{R1} but not station houses. There was a long wooden platform at Mt. Cuba, along Red Clay Creek, but the railroad's office was located in a house some quarter of a mile distant purchased by the officials. (*N. C. Co., Deed Book M-26-421*)^{T1}. The station buildings were all of the same architecture except at Wilmington, which according to the print, was more imposing than the others. See Figure 8. All station buildings and shelter sheds were painted red.

With the inception of train service, in accordance with a request made to the Postmaster General, post offices were established at Faulkland, November 22, 1872, Wooddale, November 27, 1872, and Auburn (Yorklyn)²⁰ on June 13, 1873. A post office was established at Ashland November 8, 1872, but it was in the offices of Sharpless' mills. There had been a post office at Hockessin since December 26, 1863.²¹ These were the only post offices with the exception of Landenberg (which was established November 17, 1848), on the Wilmington & Western Railroad while operating under that name.^{U1}

The original route of the railroad in Wilmington is shown in Figure 15,^{V1} and hardly needs further explanation. At present {1963} a visit to the site of the original depot reveals the track is still across the South Heald Street {Route 13} at "C" Street. It is used by the Reading System in serving the Delaware Compressed Steel Company at that location. This track continues eastward about 200 yards and then turns south.

However, as can be seen in Figure 13, when it was used by the Wilmington & Western Railroad it ran due east to Christiana Avenue. While the rail and ties have been torn up along this portion, a straight line of telephone poles testify to the former existence of the railroad. Homes and a school have been built in the vicinity, and the section is surrounded

²⁰ - Auburn was name given to milling community where the Marshall Brothers Division, National Vulcanized Fibre Company, is now located. However, the Wilmington & Western Railroad erected its station, later called Yorklyn, further down the highway and the village moved to it.

²¹ - Henry C. Bounds, *A Postal History of Delaware* (Newark, Del., 1938), p. 55 et. seq.

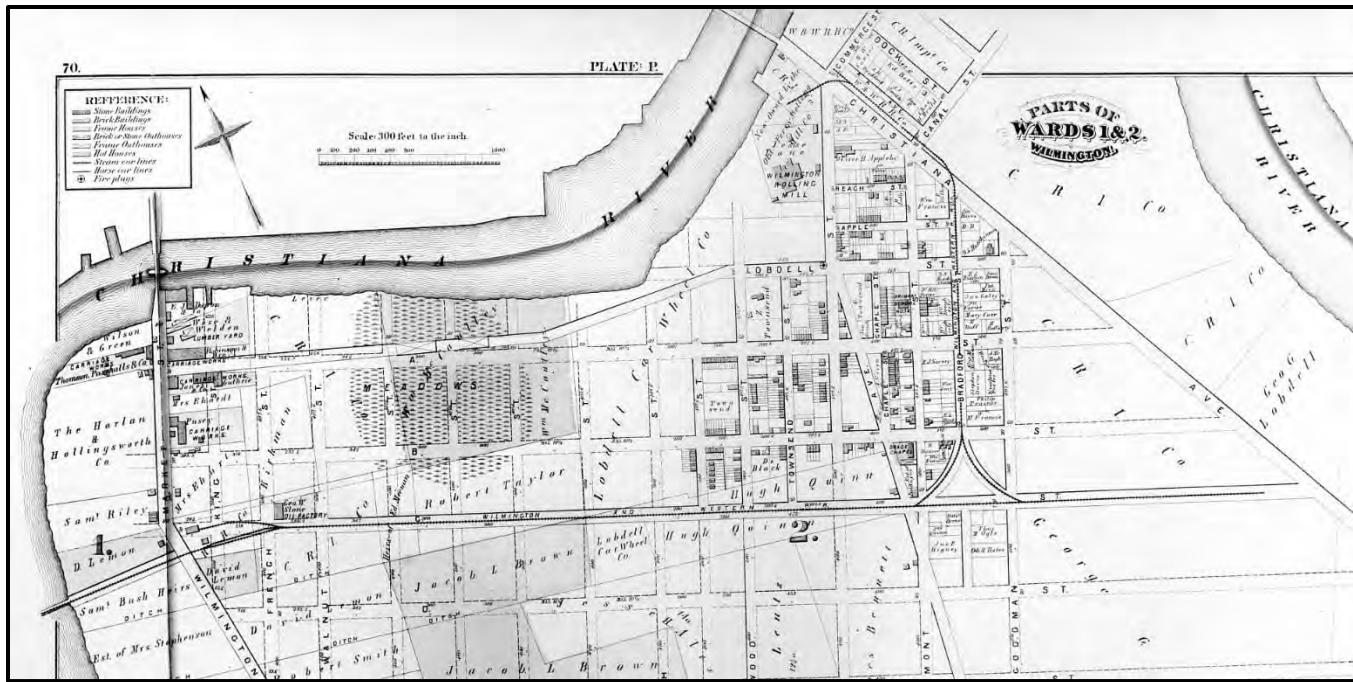


Figure 13V¹

First Wilmington station of W&W was on present C Street at Causeway (cf. Figure 8). Track continued east on C Street to Bradford, and thence to terminal off Christiana Avenue. The WYE at Bradford Street permitted turning engine without a turntable. The trestle over the Christiana was actually a drawbridge (See Figure 3). The G. A. Hopkins Atlas of Wilmington (1876) shows the above route in full detail in relation to the streets.

by junk yards, industries, gasoline service stations, etc. In some parts, the area is covered with trash and weeds. Though serving no useful purpose, the old rails are still in the bed of "C" Street where it crosses Townsend and Heald Streets. I can find no trace of the WYE, which was located near New Castle Avenue. This WYE enabled trains coming to Wilmington to turn their engines without a turntable or going to the Company enginehouse on Lower Oak Street.

The turntable at Landenberg was 60 feet in diameter with an inside diameter of about 54 feet and no doubt the one at Wilmington was of similar size. They were turned by two men on opposite sides, each pushing a six-foot pole for leverage, protruding from the table, which rotated on wheels with rail beneath.

Figure 14

Remains of W&W turntable on property of T. C. Beach, Jr., at Landenberg. Inner circle consisted of wooden ties on which rail was laid. Table was revolved manually to turn engines for return trip to Wilmington. A man, center, is standing on the pivot stone. (Courtesy of Elwood Wilkins, Jr.)



Westward, on leaving the South Market Street depot, trains crossed the Christiana River on a swing drawbridge which has since been torn down. See Figure 3. The river at this point is about 400 to 500 feet wide. A clearance of 80 feet existed on either side of the central pier for boats to pass through when the draw was off. The draw was hand operated by a tender winding a crank connected to a succession of gears that greatly reduced the manual labor incident to revolving the bridge.^{W1}

After passing the bridge, trains continued to West Junction, now West Yard, thence cross country about half a mile passing across Maryland Avenue near Richardson's Run {Little Mill Creek} where it turned north another half mile, crossing DuPont Road paralleling Little Mill Creek almost to the Wilmington & Reading Railroad where it curved west to Elsmere. The westward route after leaving Elsmere has already been described and is graphically shown in Figure 15.^{X1} The distances between stations, as given in *A Dictionary Altitudes of the U. S.* compiled by Henry Gannett in 1906, is shown below:^{Y1}

<u>Station</u>	<u>Approximate Wilmington Distance</u>	<u>Station Elevation</u>
Wilmington	0.00 miles	PB&W 8 feet
Kiamensi	6.32 miles	B&O 66 feet
Marshallton	7.25 miles	B&O 75 feet
Greenbank	7.42 miles	B&O 64 feet
Brandywine Springs	7.54 miles	B&O 71 feet
Faulkland	7.72 miles	B&O 78 feet
Wooddale	9.12 miles	B&O 109 feet
Mt. Cuba	10.72 miles	B&O 126 feet
Ashland	12.32 miles	B&O 155 feet
Auburn (Yorklyn)	13.42 miles	B&O 182 feet
Hockessin	15.42 miles	B&O 259 feet
Southwood	16.92 miles	B&O 327 feet
Broad Run/Eden, PA	18.22 miles	B&O 287 feet
Landenberg, PA	19.92 miles	B&O 215 feet

At West Junction, where the Wilmington & Western trains passed over the main line tracks of the Philadelphia, Wilmington & Baltimore Railroad, a highball signal was encountered. This was a ball about 18 or 20 inches in diameter, painted red. While a Wilmington & Western train was passing over the P. W. & B. tracks, the ball on a pulley rope was hoisted to the top of the pole, a height of about 20 feet, and remained there until the crossover movement was completed. It was then lowered into a receptacle at the base. A real lantern was substituted for the ball at night. See Figure 16.

Undoubtedly a similar type of signal was in use on other railroads throughout the country and from which the phrase, "Give him a high ball," was derived. In railroad vernacular, this is an order from the train dispatcher to the signal tower man to give a train a clear-proceed signal. Other than this there were no mast signals.

However, there were what presently are termed "pot signals," on top of short stems. The signal was hooked up with a movable switch and if the track was set up for the siding the standard showed red; when the track was set for straight through movement, the

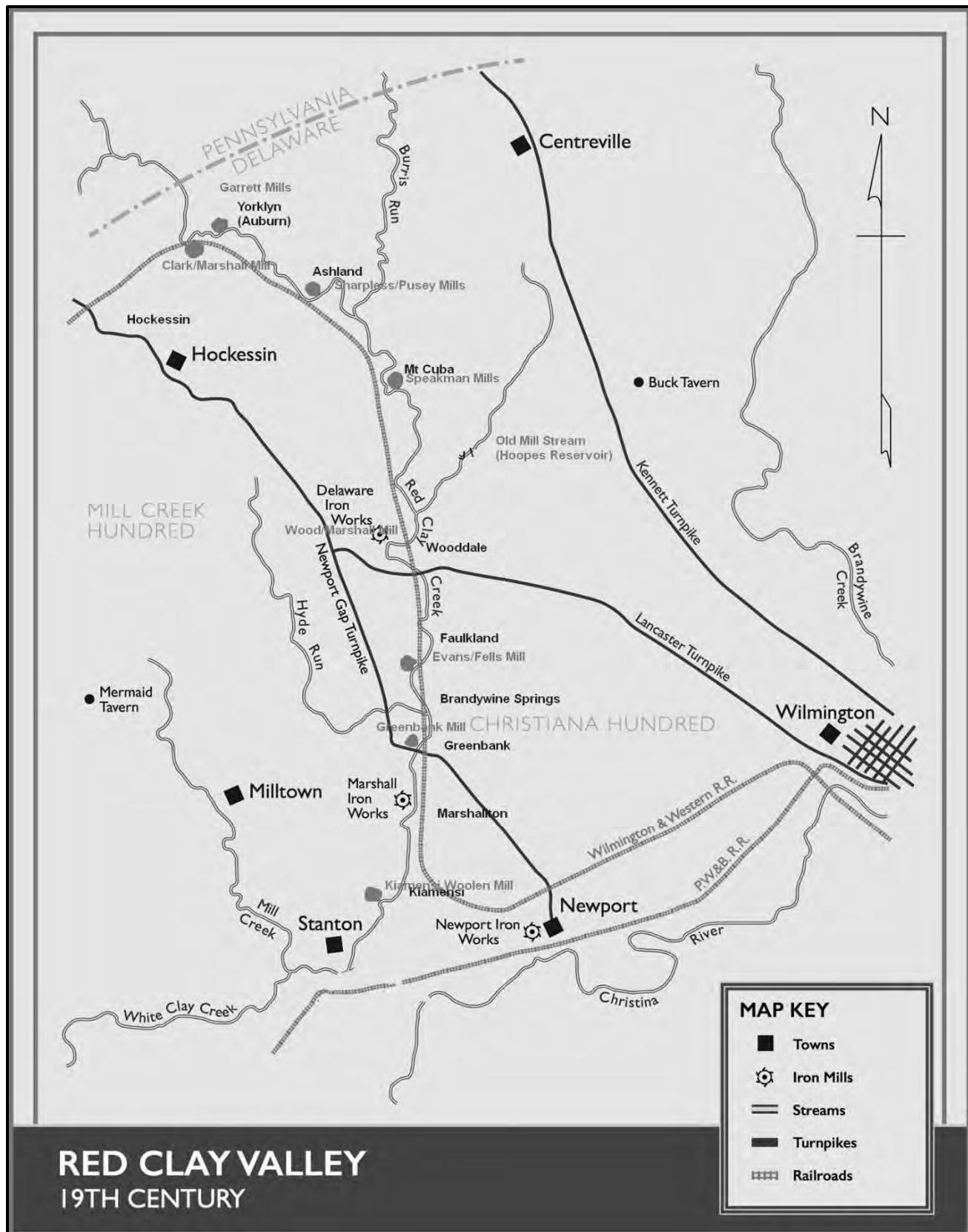


FIGURE 15^{X1}

Route of Wilmington & Western through the Red Clay Valley. Circles mark the former mills. The track still runs as far as Hockessin – but was removed from Hockessin to Landenberg. (Drawing by Brandon Hu)

standard showed white, which was the normal position. Both trailing and facing point switches were of the "stub," type, that is the ends of the rail on the main track and siding were cut square instead of the siding switch point tapering as at present, with the main track solid.

Figure 16^{Z1}

"High Ball" signal, one of two still in use in July 1965, standing at the foot of 5th Avenue and Duncan Street.

A similar signal was used in West Yard to govern movement of W&W trains over PW&B tracks.

Illuminated ball was raised and lowered (into box at bottom of pole) by hand signaling approaching train whether it was safe to cross over. Note crossover diamond at lower right of photograph. PRR tracks (former PW&B) are on stone bridge at right.

(Courtesy Ronald Foreman Collection)



Figure D (below) – Article from the Wilmington Evening Journal on October 21, 1872.^{B2}
(Courtesy of Tom Gears Collection)

The New Railroad.

BUSINESS BEGINS TO-DAY—APPOINTMENTS &c.

The regular freight and passenger traffic over the new road began to-day, and the first trains left here carrying a number of passengers and some freight.

The freight train left at 8.15 a.m., and the mail train left at 10.30 a.m., and carried mails to Hockessin and Landenberg.

Mr. M. C. Canwell, the new superintendent, in place of Mr. S. A. Hodgen, resigned, entered upon his duties to-day, as did all the following persons, just appointed to the positions named:

G. N. Caleb, Freight agent at Wilmington.

F. L. DeVou, Ticket agent and telegraph operator at Wilmington.

A. J. Williams Station agent at Greenbank.

Wilmer Palmer, Station agent at Hockessin.

R. V. Moore, Station agent at Landenberg.

C. W. Brainard, Conductor on passenger train.

Alfred Hughes, Conductor of freight train.

An omnibus will run regularly between the Market street depot of the new road and the depot of the P. W. & B. R. R., transferring passengers or baggage for 5 cents per head.

The time table will probably be published in our advertisement columns to-morrow.

As previously announced in the Wilmington *Every Evening* on October 5, 1872, regular service was instituted on the road Monday, October 21, 1872^{A2}, with three trains in each direction between Wilmington, Landenberg and intermediate stations. The *Jeffersonian*, of West Chester, Pennsylvania, October 26, 1872, reported the first freight shipment over the line was 10 kegs of nails by D. H. Kent & Company of Wilmington, Del., to G. N. Caleb, at Greenbank.

The first letter by mail over the road was sent by Messrs. Pusey & Rice, dealers in ice in Wilmington, to Mr. Henry Thompson, Broad Run. However, there was no post office at Broad Run, and the letter was taken to Landenberg where Mr. Thompson got it. It was endorsed, "This is the first letter over the W. & W. R. R. by mail, S. Hersey, Mail Agent."

The Wilmington *Evening Journal* on October 21, 1872 (See Figure D)^{B2} carried an article informing readers of the railroad's station personnel and conductor appointments and that a time table would be forthcoming. Some of the information in this article was repeated in the West Chester *Jeffersonian* on October 26, 1872.

In comparison with the earnings of other railroads, those of the Wilmington & Western seem very meager. An article in the *Delaware State Journal*, November 23, 1872, under the heading "Wilmington & Western Railroad," read:

"We learn, on inquiry that the business over this new road shows a steady and gratifying increase, as will be shown from the following figures from the Secretary's report of receipts:

<i>Week ending October 26</i> (first week)	
Passenger	\$167.22
Freight	\$ 58.72 – \$225.94
<i>Week ending November 2</i>	
Passenger	\$264.95
Freight	\$103.63 – \$368.58
<i>Week ending November 9</i>	
Passenger	\$254.97
Freight	\$185.31 – \$440.28
<i>Week ending November 16</i>	
Passenger	\$340.40
Freight	\$272.42 – \$612.82

"This shows a most gratifying increase . . . by a new road . . . less than 20 miles in length . . . within four weeks of its opening," the article stated.

Notwithstanding this enthusiastic account, the panic year of 1873^{C2} was just around the corner, spelling doom for the Wilmington & Western Railroad

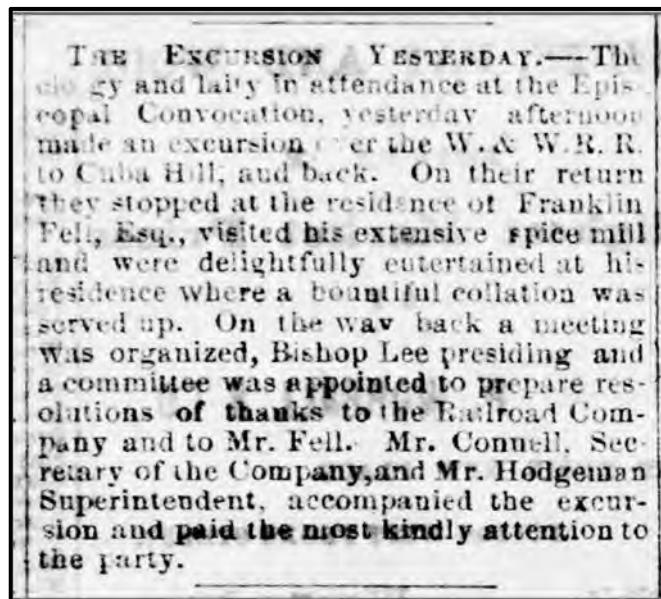


Figure E – Article from the Wilmington Evening Journal on October 3, 1872.
(Courtesy of Tom Gears Collection)

On January 13, at the beginning of the momentous year 1873, President Heald made his glowing report at the Fourth Annual Meeting of the stockholders, much of which has already been quoted. Then, and it must have fallen like the explosion of an atom bomb, at the meeting of the Board of Directors on April 22, 1873, Heald tendered his resignation, which was accepted. He gave for his reason, the time-honored excuse of "ill health," but it is significant to note that Heald continued in the real estate business at 602 Market Street, Wilmington.

More than likely Heald saw the handwriting on the wall, for at the same meeting, it was reported, measures were taken to secure prompt payment of the arrears of wages (between two and three months), due to the employees and train hands! Or perhaps his position as president of both the Christiana River Improvement Company and the Wilmington & Western Railroad Company, was no longer tenable. At a subsequent election George G. Lobdell was chosen president. But the loss of Heald as president was not the only calamity suffered that year.

The first of a series of major accidents that plagued the Company occurred when the mail train that left Landenberg at 4 o'clock the afternoon of Monday, March 24, 1873, ran into a rock slide about a mile north of Wooddale. One of the rocks weighed several tons, and the engine on hitting it was hurled against the projecting bank, and badly damaged. The telegraph operator at Ashland was away from home at the time and the conductor had to walk seven and a half miles to Wilmington to report the wreck.^{D2} The passengers on the train finally arrived in Wilmington at 10:00 P.M. The evening train from Wilmington, due to arrive in Landenberg at seven o'clock, did not reach its destination until six o'clock the next morning.

This was followed by a less serious accident on Tuesday, August 20th, when train service was disarranged and delayed by 20 tons of embankment and schist caved in at Ashland. On this occasion no trains were directly involved, but it was necessary for the eastbound train and westbound train to transfer passengers and ladings around the slide, after which the trains backed to their terminals.

The worst wreck of the year happened on Wednesday, September 3rd. Trackmen, who were engaged in repairing and raising the track at Wooddale, left such an abrupt elevation that the mail car of the westbound train leaving Wilmington at 10:40 A.M., in passing over it, hoisted the front end of the rear passenger car so far above the track that in coming down the truck struck the ties. The front truck immediately slued around and slid back, knocking the rear truck off the track and the cars telescoped. There were about fifteen passengers on the train, but only one lady was injured. Both the conductor and brakeman had a narrow escape from being caught between the cars.

To climax the previous 12-month period, on February 14, 1874, William Calhoun, a citizen of the State of New York and a bondholder of the Wilmington & Western Railroad, instituted a suit in the Circuit Court of the United States for the State of Delaware, for the railroad's failure to pay the quarterly interest due October 1, 1873.^{E2} A notice was served on James Bradford, who, by that time had succeeded George G. Lobdell as president.

Notwithstanding its financial and other difficulties, the officers of the railroad doggedly attempted to carry on its functions. The company advertised in the Wilmington *Every Evening* that the Spring Arrangement^{A2} would be in effect commencing April 7 {1873}, with trains leaving Wilmington 7:00 A.M., 10:40 A.M., and 5:35 P.M.; arriving Landenberg 9:10 A.M., 11:57 A.M., and 7:01 P.M. Leaving Landenberg 6:45 A.M., 10:55 A.M., and 3:50 P.M.; arriving Wilmington 7:55 A.M., 1:00 P.M., and 5:00 P.M. The schedule is followed by the times of trains arriving at Wilmington from Philadelphia on the PW&B RR, making connections with the Wilmington & Western trains also connections for north and southbound trains at Wilmington. The last paragraph amusingly reads, "Omnibus connections between W&W and PW&B depots and cars of Wilmington City Railway."

The management also tried to attract passenger business by encouraging private excursions as well as company enterprises. An excursion to Mount Cuba was advertised in the Wilmington *Every Evening* for Thursday, June 19, 1873, by St Paul's Methodist Episcopal Church's Sunday School; train to leave the Wilmington & Western depot at 8:00 A.M. Tickets, adults: 50¢, Children: 30¢.

On Thursday, August 14, 1873, St. Mary's Total Abstinence Beneficial Society gave its Second Grand Excursion and Picnic to Mount Cuba, on the line of the Wilmington & Western Railroad. Ritchie's String Band was engaged for the occasion. Train left the depot over Market Street Bridge at 8:30 A.M. Tickets, adults: 75¢.

Concerning its own excursions, the Wilmington & Western Railroad advertised in *Every Evening*, July 22, 1873, that there were three round-trip passenger trains between Wilmington and Landenberg daily and two on Sundays, with excursions to and from Philadelphia, Baltimore and Washington. The advertisement was signed by David Connell, Superintendent. There were also Company excursions from Wilmington and Landenberg to Mt. Cuba.

Meanwhile, in May, 1873, the Pennsylvania & Delaware Railroad had been completed between Pomeroy, PA, and Delaware City, DE. As a result, coal rolled down from Pennsylvania mines to Delaware City for fueling the trans-Atlantic steamers of the American Steamship Company, and perhaps others, from Philadelphia, for the crossing. Steamship companies probably found this more economical than refueling at Philadelphia.

A few months later, an article in the *Every Evening* for October 29, 1873, stated that immediately after the financial panic^{C2} began, it was found that arrangements previously in progress by the Wilmington & Western to prepare for payment of the October interest, would fail. Before interest became due, the directors called a meeting of the bondholders to consider the matter. A committee was appointed to study the situation leading to a pair of reports which were subsequently combined into one.^{E2}

The substance of this report was that the line would not be a paying proposition unless it was extended westward from what was then its terminal at Landenberg. To this end, the committee submitted a plan for reorganization of the road, which included raising the capital stock to \$600,000 with a bond issue of a similar amount "to cover the line from the Delaware River to Oxford, or such other point as may hereafter be settled upon."

Provision was also made for the redistribution of the existing stocks and bonds. It may be deduced from this that the officers of the Wilmington & Western were anxious to secure the lucrative coal traffic moving over the Pennsylvania & Delaware Railroad to Delaware City, believing that with expanded facilities this business could be attracted over their road to some point on the Delaware River near Wilmington.

That the plan of the directors for the redistribution of the existing stock did not meet with the approval of the stockholders is apparent from two open letters, one appearing in the *Every Evening*, January 24 and the other January 30, 1874. Both letters were addressed, "To Lewis Thompson, Esq., a Bondholder," and purportedly written by a stockholder. They were quite long, consisting of two wide full-length columns.

The first letter outlined the purpose of the railroad, its construction, future prospects and competent management, and the belief that it was of great value. The writer stated that nearly \$250,000 had been realized from stock subscriptions and that later a \$500,000 bond issue still being found insufficient to complete and equip the road, a floating debt of \$90,000 was necessarily raised by the directors and others for this purpose. Further, after getting into operation, the lack of sufficient earnings and the financial panic combined, occasioned a default in the payment of installments of interest due October 1, 1873 and January 1, 1874, giving the bondholders cause for complaint.

According to the stockholder's letter the plan submitted for redistribution of the stock would give the stockholders \$62,000 in place of the \$249,000 originally invested and the floating debt creditors \$22,000 worth of stock in payment for the \$90,000 advanced the company for material furnished for finishing and equipping the road.

The second letter contained a mass of figures to support the writer's contention that the Wilmington & Western was inexpensively constructed, per mile, compared with other railroads and, therefore, its officers were not inefficient or extravagant as had been surreptitiously charged. This letter implied that the big bondholders were anxious to come into possession of the road at a low cost. However, the writer did agree that the railroad should be extended to Oxford, Pa., but expressed the opinion that this required only \$200,000 to be borrowed instead of the amounts in the suggested plan.

Although both letters were anonymous, they were written by a person well informed on the subject, which, as will be later learned, was John G. Jackson. Stockholders must have been further discouraged when it was announced that the United States District Court for Delaware declared the brokerage firm of John McLear & Son, bankrupt on November 14, 1873. The son in this partnership was none other than John P. McLear, the Treasurer of the Wilmington & Western Railroad.

We now come to an act of comedy in this history of the Wilmington & Western, with a grave ending. The *Every Evening*, March 12, 1874, reported a grand reception and dinner given Colonel Henry Simpson McComb,^{F2} a Wilmingtonian, residing in New Orleans, as a testimonial of his work as President of the New Orleans, Jackson & Great Northern Railroad. The paper's one and a half columns described the affair in detail, as well as Colonel McComb's activities in creating a railroad system extending from New Orleans to Chicago. It quoted in full the story from the New Orleans *Picayune* of March 11, 1874.

The next day {March 13} local residents were attracted by the headline in the *Every Evening*, "GOBBLING A RAILROAD – The pretended fear that Colonel McComb would swallow the Wilmington & Western – Some curious inner history." Under this fascinating heading, the article went on to state that there were rumors around town of dissatisfaction on the part of the railroad's bondholders as to its operation, expenses and profits. Further, as a result at the October 1, 1873, meeting, a committee had been formed with Colonel Henry S. McComb chosen as one of the members "to investigate the affairs of the road and report to a future meeting."

Following this was a copy of a letter said to have been written by John G. Jackson, Engineer in Chief, W. & W. R.R., from his home in Hockessin, Delaware, dated January 20, to one, C. Van Houten of New Orleans. In this letter Jackson inquired of Van Houten (whom he apparently did not know) the facts concerning McComb's activities and relations with the New Orleans, Jackson & Great Northern Railroad (NOJ&GN RR), and that Colonel McComb wanted to "play the same grab game with a little railroad in Delaware," whereupon the said Van Houten gave Jackson, what the Editor of the *Every Evening* was pleased to call a "peppery reply." It was the effect that he {Van Houten} "knew nothing detrimental to that gentleman."

In reply to this allegation, Jackson addressed a letter to Messrs. Croasdale and Cameron, Editors of the *Every Evening*, which appeared in the paper March 17, 1874. He stated that inasmuch as his name had been freely used in the news article, he felt compelled to defend himself. Jackson wrote that he was not the originator of the report that Colonel McComb was trying to "gobble" the WWRR, although that was the impression that had been gained from several prominent men around town.

He then went on to say that his efforts in the matter were to protect the rights and interest of the railroad and its creditors "myself in a very small degree being one of them. I had my say in two letters published in your columns and which are believed to have presented the true features of the case."

Mr. Jackson criticized the Editors for bringing up the issue long after the events had occurred and further challenged them to produce the alleged letter to Mr. Van Houten, bearing his signature. Thus, after first inferentially admitting that he had questioned Colonel McComb's actions, Mr. Jackson intimated that he was not the author of the letter published in the *Every Evening*.

The finale of the act was printed in the *Every Evening* on March 26, 1874, under the headline, "W. & W. R.R. – Reduction of Expense – The office of Chief Engineer abolished." The item was brief – "At a meeting of the Directors of the Wilmington & Western Railroad, held at their offices on the 24th instant, Mr. David Connell was reappointed General Superintendent. The office of the Engineer in Chief was abolished and duties thereof transferred to the Superintendent." From this the reader can draw his own conclusions.

The following month, April, 1874, the secretary and treasurer, W. H. Connell, resigned, and no successor was elected, it being assumed that his duties would be divided among the officers of the company.²²

22 *Daily Local News* West Chester, Pa., April 30, 1874.

Early in the same month and year, President Frazer of the Wilmington & Reading Railroad, and James Bradford, who by this time had succeeded Lobdell as president of the Wilmington & Western, petitioned the City Council of Wilmington for permission to extend the track of their respective roads along Water Sheet from the western boundary of the city. This permission was granted by City Council at a meeting held April 23, 1874, with a rental set at one dollar per year.²³

Accordingly, the Sunday train on the Wilmington & Western, July 12, 1874, left from the foot of West Street, to which point the additional track had been laid, and on July 24, of the same year, the passenger trains left from Market and Water Streets, instead of from the first station at "C" Street. See Figure 17 which shows the second and third locations of the Wilmington stations.



Figure 17^{G2}

- (1) — Second location of Wilmington & Western Railroad Station, July 13, 1874.
- (2) — Third and final location of Wilmington & Western Railroad station, July 24, 1874.
(1960s era B. & O. Freight Office built on this site.)
- (3) — Location of Wilmington & Reading Railroad Station, circa 1872.
- (4) — Location of Philadelphia, Wilmington & Baltimore R.R. Station, circa 1872.
(Map section from G. W. Baist, *Atlas of New Castle County, Delaware, 1893*)

Following this advantage in gaining a foothold in Wilmington proper, the Wilmington City Council was petitioned on July 9, 1874, by the Wilmington & Western Railroad, for permission to extend its track along Water Sheet to French, and down the latter street to the Christiana River, and for authority to erect temporary sheds on the eastern side of the last named street.²⁴ It was evidently the idea of the officers of the company to eventually locate a permanent station in place of the temporary sheds. At this time, of course, the area involved was bustling with activity.²⁵

²³ - *Every Evening*, Wilmington, Del., April 24, 1874.

²⁴ - *Every Evening*, Wilmington, Del., July 10, 1874.

²⁵ - See C. A. Weslager, *Delaware's Forgotten River* (Wilmington, Del., 1947), p. 70.

However, a week later City Council received a petition from G. H. Ruddie, George W. Bush & Son, Pusey & Jones, the PW&B RR, and others, remonstrating against the Wilmington & Western Railroad being given the privilege of laying tracks and erecting sheds on French Street between Water Street and the Christiana.²⁶ The PW&B RR was probably the strongest objector, no doubt fearing the competition of the Wilmington & Western Railroad. Thus, apparently the effort to build a permanent station at the foot of French Street was unsuccessful and the plan abandoned for when the Wilmington & Western built its new station in Wilmington, it was at Water and Market Street.

Commencing May 25, 1874, the railroad advertised four round-trip passenger trains between Wilmington and Landenberg, weekdays.²⁷ On Sundays there was one round-trip beginning in the first part of June, mostly for the accommodation of church services at Mt. Cuba. From later advertisements, it would appear this train left Wilmington at 2:00 P.M., and returning, left Landenberg at 4:30 P.M.

There seems to have been a popular demand for this service as the *Every Evening* on June 8, 1874, reported that the Sunday train on the Wilmington & Western began running again the previous day, for the summer. It carried a large number of passengers, a considerable number of them stopping at Cuba Hill, where religious services were held by the Reverend Israel Fielder, Minister of the First Unitarian Church. A number of people also attended the meeting from the country around Mt. Cuba. At Wilmington, there was such a crowd that another car was attached to the train.

A few days later, through the liberality of the directors of the railroad, 21 inmates and managers of the Home for Aged Women, had a delightful trip from Wilmington to Landenberg, and after remaining there 30 minutes, returned to Mt. Cuba to spend the day. One of the ladies, 78 years of age, had never been on a train before, and was highly pleased with her ride on the railroad.²⁸

Also, in the spring and summer of 1874 excursions were resumed from Wilmington to Mt. Cuba by various lodge and church organizations. The company ran daily newspaper advertisements of its regular schedules as well as of these excursions and to reciprocate (I imagine), there appeared a "plug," in the *Every Evening* dated June 22, 1874, under the headline, "Excursions – Mt. Cuba by Moonshine." It stated a large number of people took passage the previous day over the Wilmington & Western Railroad to Mt. Cuba "to seek from the scorching heat of the summer's sun, a short respite beneath the cooling shade of that charming rustic retreat, and this evening another large party will leave here with the excursion of the Eastern Star Counsel."

It went on to say that the pavilion's floor at Mt. Cuba had been refitted for dancing and the platform was "large and commodious." The anticipated beauty of the weather was described in flowery language and concluded, "The beautiful grounds at Mt. Cuba will be bathed in a sea of suffused and softened splendor of silvery light, making the scene a

²⁶ - *Every Evening*, Wilmington, Del., July 17, 1874.

²⁷ - *Delaware Gazette*, Wilmington, Del., April 17, 1874^{A2}.

²⁸ - *Every Evening*, Wilmington, Del., June 12, 1874.

paradise of delight in which none should fail to participate. For the accommodation of those not having them, tickets will be for sale at the depot this evening."

As was not uncommon on the railroads of the day (and still is for that matter), two serious accidents or what may be considered one as both resulted from the same cause, marred the summer of 1874. The train west from Wilmington on the evening of August 21, carried a freight car loaded with ice for Brandywine Springs, to be set off at Faulkland. At the latter point this car was put off on the siding and "was rushed down with such momentum that it struck the platform of the depot, breaking and crashing it to a considerable extent, and moving it some three or four feet. Dr. Swithin Chandler, Mr. James Newlin and two ladies were standing on the platform at the time of the accident, but escaped uninjured, though their position was for a moment a dangerous one, and had the floor doubled up they would probably have been hurt.

This morning {August 22}, just as the morning train came up, the platform suddenly swayed again and the raised portion of it came down to the ground. Several persons were on it at the time, but were not hurt. The freight car was thrown partly off the track at the time of the accident. The siding was slightly down grade, but it seemed to those who witnessed the affair that the accident was due to carelessness."²⁹

In the meantime, the country was in the midst of a financial depression and newspapers contained numerous accounts of short rail lines failing, merging with more successful larger ones, or going into the hands of receivers. The employees of the Wilmington & Reading Railroad, for instance, it was noted in the *Every Evening* for September 12, 1874, would go on half time, the men working two weeks out of the month at eight hours a day (normal workday was 12 hours), on account of reduced business.

However, there is no account of the Wilmington & Western Railroad taking any drastic action at the time, either in reducing its force or leasing the line, which both the Pennsylvania, and the Baltimore & Philadelphia {Baltimore & Ohio} Railroad Companies were anxious to secure.

On the contrary, the *Daily Commercial* (Wilmington's *Wall Street Journal* of the period), on November 19, 1874, reported;

"It will be encouraging to those interested in the Wilmington & Western Railroad to know that its freights have been steadily on the increase. This is true, both as to through and local freight. The through traffic is mostly bituminous coal from Western Pennsylvania, and used in our manufactories. Sometimes the train from the P. & D. Railroad is so long that the engines of the W. & W., which are not calculated for heavy freight, cannot bring it without dividing and a part is brought down the following morning with the passenger train."

"To say nothing of the steady increase of marketing, the other local freights have increased in a large ratio. The kaolin quarries, though not run

²⁹ - *Every Evening*, Wilmington, Del., August 22, 1874.

to their full capacity, have been very active and huge quantities of clay have been shipped to Trenton and other points."

"From Ashland the flour shipments have been heavy, and the same may be said of snuff from York Lynn (sic), spices from Faulkland, and spokes, sleigh runners, fellows (wooden wheel parts), handles, and other wood work from Greenbank."

"In addition to the freights mentioned, the rolling mills at Wooddale and the lime and marble quarries at Hockessin will soon be in operation, and Hamilton Graham has several hundred tons of clay quarried for winter shipment when the weather will be too bad to work in the pits. The present outlook of the road, so far as freight is concerned, is certainly favorable, and should have the effect of reviving the effort to complete the road to Oxford, as early as possible."

About a week earlier than the second anniversary of the opening run on the Wilmington & Western, there was another celebration, almost as elaborate. However, this celebration was to honor a literary man rather than the completion of a railroad. The *Every Evening* on Monday, October 12, 1874, devoted six columns to what was headlined, "HOCKESSIN'S WELCOME TO BAYARD TAYLOR. A POET'S WELCOME. Fame won at home is of fame the best."^{H2}

Previous to this a leaflet³⁰ had been printed for the occasion, reading "HOCKESSIN'S GREETING TO BAYARD TAYLOR. The friends and admirers of Bayard Taylor as Traveler, Author and Poet, will meet him in Social Basket Pic-Nic at Mt. CUBA, on the W. & W. Railroad, on Saturday, October 10th, the trains running as follows:

From Wilmington	10:30 A.M.
From Wilmington	(special train) 1:30 P.M.
Leave Landenberg	1:30 P.M.
Leave Mt Cuba, both ways	About 6:00 P.M."

Then followed the names of the Committee of Arrangements, "COMPOSED OF PRESENT AND FORMER RESIDENTS OF HOCKESSIN" They were John G. Jackson, Emma Worrell, Joseph S. Heald, Lewis Thompson, Thomas L. J. Baldwin, John Mitchell, Spencer Chandler, J. T. Heald and wife, Leo Pusey and wife, S. Irwin Gause and wife.

The newspaper article stated that it had been announced in the Wilmington papers some days previous that "the Hockessin friends and neighbors of Bayard Taylor, proposed giving expression to their pleasure at their distinguished neighbor's return and their thanks for his loving mention of their pleasant valley in his poem Lars, by giving him a reception upon the grounds over which he took his hero in that story."

It further reported that, "The only public notice was that thus given and such invitation as could pass around by word, where it was understood that all who care to

³⁰ - Joshua T. Heald's Scrap Book, op. cit.

come were invited, and yet this was enough to secure at Cuba Hill (in this county but near Cedar Croft, Bayard Taylor's home), the place selected on Saturday, what we may without exaggeration call an ovation to our Poet, and such an ovation has as rarely been given to author or bard since the days when the grateful Greeks crowned their noblest singers with consecrated laurel."

In the morning Mr. Taylor's friends from Hockessin, Kennett, and a few from Wilmington, met at Cuba Hill and there spread a long table with "an ample supply of good things for a picnic dinner." The pavilion was decorated with evergreens and red, yellow, and other variegated colored leaves of autumn, and "in one place the flags of America and Germany were festooned together in compliment to the well-beloved wife the Poet brought with him from her German home, which has also been a second home to him. Taylor arrived in Wilmington accompanied by Mrs. Taylor, on the noon train from New York, and a special train in waiting on the Wilmington & Western road soon took them and a number of others to their destination. The platform was crowded with people when the train arrived, who greeted Taylor with cheers when he stepped from the cars."

Taylor was "escorted to the seat of honor at the table, and for the time justice was done to the ample substantial feast which preceded that which it is our pleasant duty to report." Then after the clatter of knives and forks died away, an impromptu choir sang Taylor's translation of *Der Wacht am Rhein*; John G. Jackson, former Engineer in Chief, of the Wilmington & Western Railroad, made the first address of welcome, and was followed by greetings of Benjamin Nields, H. W. Jenkins, the Reverend Israel Fielder and Dr. Frank Taylor of West Chester, a cousin of Bayard Taylor.

Most of the addresses contained apt quotations from Taylor's poems. The speeches were interspersed with two original poems of greeting read by their authors, Mrs. M. C. Pyle and Samuel Bancroft. Both of the poems were printed in full, and practically all of the speeches in their entirety. Another lengthy poem composed and read by Emma Worrell, prominent Wilmington teacher and a leader in the city's intellectual life, was later reprinted in a 19-page pamphlet entitled *Reunion of Old Friends and Associates at Mount Cuba, Del.*

On completion of the formal program Taylor made an extemporaneous speech in response to the many encomiums that had been heaped upon him. During the course of his talk Taylor described the circumstances and associations that inspired him to write the poem *Lars*, and led to his selection of the Hockessin Valley as its locale. That Taylor was deeply touched by the testimonial dinner there can be no doubt, for several days later he had printed in the *New York Tribune* a poem entitled "Ad Amicos," with his Hockessin greeting as the theme.

5.

The sixth annual meeting of the stockholders of the Wilmington & Western was held on January 11, 1875, and the report was printed on that date in the *Every Evening*. President James Bradford reported in substance that the number of miles of main line remained the same; that changes had been made in the rock cuts thereby reducing the risk of slides, from which the company had escaped that year; that the roadbed had been improved, as well as the bridge over Mill Creek and the other bridges and masonry were in good order; that during the year sidings had been increased as follows: Christiana River Improvement Company near Third Street Bridge, one at Faulkland, private siding of Alan Wood with coal dump at Wooddale, siding at Yorklyn with coal dump, private siding of S. M. Brown at his quarries near Broad Run.

The stations along the road, being new and well built, were in good condition. "The local traffic," Bradford reported, "has suffered to a considerable extent from the causes arising from the financial troubles of the past year, the shipments of kaolin alone showing a decrease from 8,112 tons in 1873 to 4,002 in 1874." In conclusion he wrote, "The roadway, rolling stock, machinery, depots, etc., have been well maintained and are in good condition. The morals (sic) of the employees are excellent, and the road is capable of doing a largely increased business when a general revival from the present stagnation shall come."

The treasurer then submitted his report, giving comparison with the previous year, summarized briefly as follows:

	1873	1874
Receipts	\$35,319.24	\$31,871.15
Expenses	\$37,858.55	\$30,008.39
Freight carried (tons)	20,030	33,144
Passengers carried	39,308	24,142

The figures shown were for the company's fiscal year ending October 31.¹²

Following the treasurer's report James L. Devou thanked President Bradford for his fine services to the company, adding, "We learn with pleasure that the business of the Wilmington & Western R.R., under the management of President Bradford, gives general satisfaction to all parties interested; therefore, *Be it Resolved*, That James Bradford, Esq., be invited to remain president of the road, and, if agreeable, on the same liberal terms."

The newspapers, going to print before the meeting adjourned, predicted the following would be elected directors: James Bradford, John Jones, James L. Devou, H. M. Jenkins, George M. Bates, William M. Canby, William G. Phillips, George Springer and Martin Landenberger.

As recounted earlier, the terrain of creek and river valleys lends itself readily to railroad construction. However, there is one disadvantage to a railroad bed along any stream regardless of size. That is the danger from floods, especially quick thaws in winter or early spring.

Such a condition was experienced on February 3, 1875, when the water level rose six feet above normal in both the Brandywine and Red Clay Creeks.³¹ The torrent on the Red Clay Creek weakened the supports of the two railroad bridges between Faulkland and Ashland^{J2} rendering them unsafe to pass over. The engines were on the Landenberg side of the creek, but the resourceful Superintendent Connell procured a train from the Reading Road and went up to meet the down train from Landenberg. The passengers each way then walked across the bridges and boarded the trains on opposite sides. The following day trains were again crossing the bridges and running on time.

By 1875, the Wilmington & Western had discontinued advertising its passenger schedules in the daily papers, no doubt due to lack of business, and apparently the excursions to Mt. Cuba had also lost their popularity. The only excursions I can find advertised for that year was of the Cecilian Cornet Band of Wilmington on June 10, and the Union Church Sunday School to Faulkland Grove on July 9, the latter attracting some 1,000 persons, for many of whom the railroad ran three special trains. Other organizations advertised holding excursions, but they were on the Delaware River to such points as Penns Grove and Collins Beach. However, on Sunday, June 6, the Sunday train again commenced running, leaving Wilmington at 2 o'clock and returning leaving Landenberg 4.30 P.M.

The biggest event on the Wilmington & Western during 1875 was a scandal, which received scant attention in the Wilmington papers. The West Chester {Pennsylvania} *Daily Local News* on July 10, 1875, carried an item to the effect that F. R. Devou had resigned his position as Secretary of the Wilmington & Western Railroad to accept a position with H. H. Crumlish on the latter's road in western Virginia. (H. H. Crumlish, by the way, was one of the contractors engaged in construction of the railroad. He afterwards sued the railroad alleging breach of contract.) The *Daily Local News* further stated that Joseph C. Hamlet, agent at Wilmington, had also resigned.

The same paper on July 31, 1875, contained an article to the effect that during the previous week officers of the company had examined the accounts of the late secretary and further evidences of fraud detected; that the selling of tickets and pocketing of the money obtained was not the only way in which the company suffered, this proved to have been but little profit to the speculators. A large sum was taken by means of false entries on the books and by abstractions from the returns of the station agents along the line of the road. It was believed that the partnership of Devou and Hamlet or Hammett (his name is variously spelled), did not extend back beyond the first of the preceding month, but the precise date of its beginning could not be determined. The paper stated that while the theft was probably the work of Devou alone, Hamlet may have known what was going on. The full extent of the loss was about \$3,000 {roughly \$70,000 in 2019}. It again repeated that Devou did not get so much from stealing tickets as from money sent in by agents, especially on Sundays. On one such occasion over \$17.00 was abstracted.

The Wilmington *Every Evening*, on the other hand, did not publish news of the defalcation until July 29, 1875, when it ran a story to that effect that apparently a well-founded rumor was in circulation that an ex-officer of the Wilmington & Western Railroad

³¹ - *Every Evening*, Wilmington, Del., February 4, 1875.

– it did not mention his name – was a defaulter to that concern. “The amount of the defalcation is not stated,” the paper read, “but it has probably been running for some time and has reached a considerable sum. The books of the company are now being examined with a view of ascertaining the facts regarding the case. We understand that the alleged defaulter yesterday executed a judgment note in favor of the company for \$1,000.” There is no indication that Devou was ever brought to justice.

On Monday, August 9, it was announced in the *Every Evening* of August 6, 1875, that the business then being transacted at the depot of the Wilmington & Western Railroad at Market and Water Streets, would be temporarily transferred to a building on the opposite corner while various improvements were being made at its present location, including rearrangement of the waiting rooms, introduction of gas, etc. The first floor of the building was to be lowered and the garret floor raised, to give more space to the intervening apartments, and a flat roof was being placed on the building, all work to be completed about the middle of September.

According to the *Every Evening* of September 4, 1875: freight business had increased on the Wilmington & Western Railroad during the past few days and on one occasion two extra freight trains came down the road; that the Sunday passenger excursion trains from Wilmington would cease in a few weeks and they had been well patronized. Also, workmen were engaged at Landenberg filling the ground on which the station house, to be moved from Wilmington was to be placed.

So far as the station house at Landenberg was concerned, the same paper on November 1, 1875 contained the following item:

“The village of Landenberg, the picturesque terminus of the W. & W. Railroad, has been greatly improved by a new and handsome station house which the Company has erected there in the place of the old shed which formerly laid claim to that title. The new building has just been completed; the painting only remaining to be done. It is built from the material of the former depot of the Company on the south side of this city (the first depot on “C” Street), the removal and reconstruction having taken place within the month. The building is of one story, with two waiting rooms, one for ladies and the other for gentlemen, an agent's room and ticket office and a freight department.”

See Figure 18 for the location of the Landenberg Station and further detail on the P. & D. connection. Concerning the Sunday excursion trains, the *Every Evening* on Saturday, October 1, 1875, contained a paragraph which read;

“A delightful ride for a small sum can be enjoyed tomorrow by going up the Wilmington & Western on the Sunday excursion train which leaves at 2 o'clock in the afternoon. The train goes to Landenberg, the western terminus of the road, and returns. A more pleasant ride, especially at this season of the year, cannot be taken, the scenery along the road being, in many instances, of rare beauty. Persons who have not been over the W. & W., should go tomorrow.”



Figure 18A K2

Topographic detail of the Wilmington & Western Rail Road from Hockessin west (Route 41 is upper right) to Landenberg, the 1872 terminus. Connections in Landenberg were with the north-south running Pennsylvania & Delaware Railroad (future Pomeroy & Newark Railroad and eventually the Pennsylvania Railroad). The white circles are the two points of abandonment; August 1942 (left); January 1957 (right).

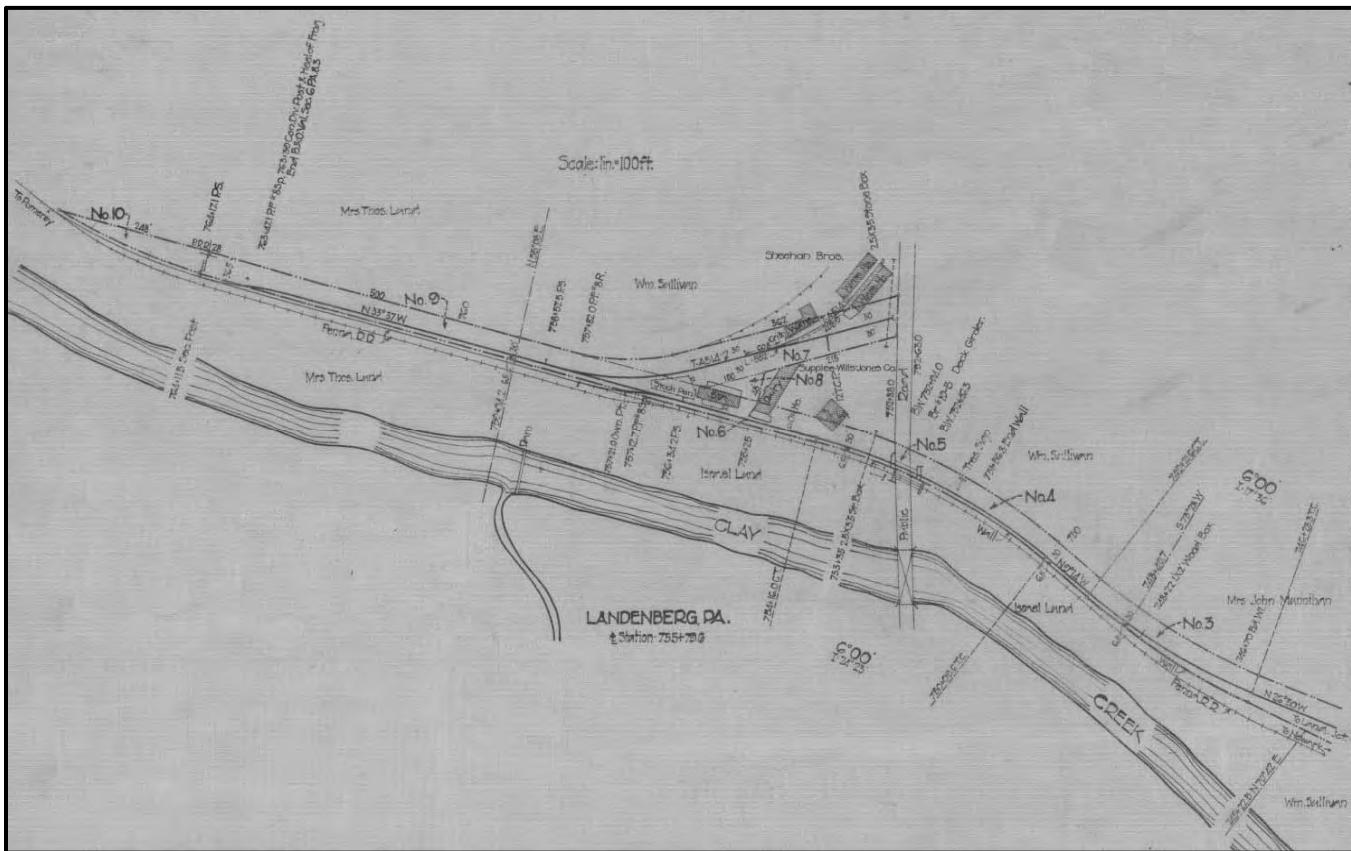


Figure 18B K2

Detail of Landenberg area from the Right-of-Way and Track Map, V-8.3, page 2, dated June 30, 1918. Map by the Baltimore & Philadelphia Railroad Company, owned by the Baltimore and Ohio Railroad Company, Office of the Valuation Engineer)

Another disaster visited the line in 1875. The story is told in the *Every Evening of Saturday, November 13, 1875*. It read,

“The store house and blacksmith shop of the Wilmington & Western Railroad, in West Wilmington, was destroyed by fire last night. The building was of frame and immediately adjoined the engine house at its western end.”

“The fire was discovered by the watchman at about 10 minutes before 6 o'clock, on the opening of the door of the oil room, and the flames had then gained too much headway to be subdued without the assistance of the fire department, which, of course, owing to the long run (the Weccacoe Volunteer Fire Company of Wilmington responded to the call) and the difficult ground to be passed over in the western suburbs of the city, did not get into service until 15 or 20 minutes past 6, when the flames had taken possession of the building. “

“The locomotive and three cars were in the engine house adjoining, and were at once run out. The only damages sustained by them being reported the slight burning of the side of one of the cars. The ground to the building was very unfavorable for the steamers, which drew their water from a point alongside of the engine house, and considering the length of the run and unevenness of the ground, the streams were got on the fire in a very short time. Another fact, which, under the circumstances, redounds to the credit of the department, is that not a single accident occurred. . . . “

“By 7 o'clock the fire was subdued, but only a portion of the walls of the house remains. A large amount of coal, stored in the building, had fed the flames, as did three barrels of oil in the oil room. The engine house was saved, the walls at one corner being slightly charred by fire. After the fire great difficulty was experienced getting the (fire) engines out of the soft ground, where most of them had taken position, close to the rear.”

“The loss on the material, which was not insured, will reach \$500 or \$600. The building itself was insured for full value, \$1,000, in the Delaware Mutual, which covers the loss. The origin of the fire is unknown.”

A few days later the same paper reported that the debris had been cleared away and the company expected to put up another building on the same site, the erection of which would probably start at an early date.

With this fire, it might be imagined, the Wilmington & Western Railroad had been subjected to every catastrophe to which railroads are liable, but one still remained – a receivership. We learn of it from the *Every Evening*, December 7, 1875:

“In the U. S. Circuit Court, this morning Judge Bradford presiding, a bill was filed by William Calhouse,³² of New York State, a bondholder of the Wilmington & Western R.R. Co., against the Company and the trustees named in the mortgage.”

³² - The grounds for Mr. Calhoun's suit was previously mentioned in this booklet^{E2}

"George H. Bates appeared as counsel for the complainants; Samuel M. Harrington for the company and E. G. Bradford, Jr., for the trustees."

"Mr. Bates moved for the appointment of a receiver for the road, and the order was made by the Judge without objection."

"William M. Canby Jr.,³³ was then proposed by Mr. Bates, to the bondholders, as receiver and James Bradford³⁴ was proposed by Victor du Pont, counsel for certain bondholders."

"After arguments, in which Messrs. Bates, Harrington, Spruance and DuPont participated, the Judge appointed William M. Canby, stating that he recognized Mr. Bradford's services as president of the road, but that, by reason of the office he holds he considered that he could not be appointed."

"Mr. Canby subsequently appeared in the court and entered into bond with the sureties for the faithful performance of his duties."

"The object of the proceeding is to protect the property of the road for proper administration by the court for the benefit of the parties properly entitled."

Considering the fact that the Company was thrown into the hands of a receiver on December 7, 1875, it might be thought that the next annual report, if published at all, would be a gloomy one. Therefore, I was surprised to find the annual report for 1875 rather an encouraging one.

The annual meeting of the stockholders was held on Monday, January 10, 1876, in the office of Charles Warner & Co., on Market Street below Water.³⁵ On behalf of the directors, James Bradford, President, of the Wilmington & Western Railroad, presented his annual report to the directors and stockholders, and following is a condensed version:

The condition of the main line had been well maintained at the present (emergency); the cuts have been widened; special attention paid to the track, cleanliness of the roadway and drainage, the masonry had been improved by new piers and abutments; the bridges, damaged by the ice freshets of previous winter, all completely repaired and in good condition; the stations along the line of the road have been kept in repair, and the enginehouse and water tank at Landenberg painted.

The building on the south side of Wilmington, formerly used as a passenger station, had been removed to Landenberg and placed on the company's grounds. It is now occupied as a freight and passenger depot and being used jointly with the Pennsylvania Railroad, and fills a want long felt at that place. Obtaining a lease of five years on the building at Water and

³³ - William M. Canby was a director of the Wilmington & Western Railroad.

³⁴ - James Bradford was president of the Wilmington & Western Railroad at the time.

³⁵ - *Every Evening*, Wilmington, Del., January 10, 1876.

Market Streets, Wilmington, it has been fitted up in a substantial manner for a passenger station and general office.

The rolling stock remains the same as last year, with the exception that locomotive number 1, which, having become useless (without a large amount of repairs), it was deemed advisable to sell. (It was sold for \$2,000.) Locomotives numbers 2 and 3 have been put in good condition.

The business of the road increased considerably over the preceding year, as will be shown by the following comparison:¹²

	1874	1875
Earnings	\$31,871.15	\$41,265.42
Expenditures on account of road operation	\$30,008.39	\$34,604.40
Excess of receipts over operating expenses	\$1,862.76	\$6,633.02
Freight carried in tons	33,144	59,984
Number of passengers conveyed	24,142	20,646

In conclusion, President Bradford wrote:

“Although not an event of the present fiscal year, we would state that, owing to the fact that parties holding old claims against the Company were about to obtain judgments, which would enable them to attach moneys in the hands of our agents or parties owing us, thereby preventing us from successfully operating the road, we felt obliged to notify the bondholders of the situation whereupon they took steps of putting the road in the hands of a Receiver, this being done on December 7th, 1875; the court appointing William. M. Canby, Esquire, a very efficient gentleman, who we believe is running the road, for the best interests of all concerned.”

Parenthetically I would say that this, in my opinion, hints at collusion. The report then continued that the company received \$12,172.78 in the years 1874 and 1875 in excess of operating expenses. This was expended in *paying back wages*, old account due to parties who at various times were in the company's debt and settled by offsetting their claims, and by the Wilmington and Landenberg improvements.

The treasurer then submitted his report, the substance of which has already been included in the president's report.

Regarding the payment of back wages to employees, mentioned in Bradford's report, the West Chester *Daily Local News* of January 15, 1876, was more explicit. It stated, “William M. Canby, Receiver of the Wilmington & Western R.R. Co., paid off, on Friday morning the employees of the road to January 1, including the wages due for November and part of December under the previous management. This latter payment was made under the direction of the U. S. Court.” It seems incredible that these employees were so loyal and worked so long, without pay.

That the railroad's failure to pay its debts, including employees' wages, during the depression or financial panic years was due to reduced revenue and not through choice is

borne out by an item appearing in the *Every Evening* of February 29, 1876. Under the headline, "Reopening of a W. & W. Station," it read, "Wooddale Station on the Wilmington & Western Railroad, which has been closed about two years, will be reopened tomorrow with George M. Bennett as agent. The rolling mill of Allen (sic) Wood, near the station, is now in full operation, and bids fair to continue working."

The biggest news, both nationally and locally in 1876, was, of course, the Centennial Exposition in Philadelphia. For months before the opening the newspapers had devoted a great deal of space to its preparation. Delaware contributed a building. It was heralded as a "great exposition of the world's industry, organized in honor of the completion of the Centennial Anniversary of our Nation's independence."

The *Every Evening* of May 6, 1876, contained an account of the railroad excursion trains that were to be run from Washington and intermediate stations to the exposition grounds, including three from Wilmington, starting on May 10, 1876. The article read, in part as follows:

"To enable persons residing on the line of the Wilmington & Western Railroad to be present at the opening ceremonies of the Centennial on the 10th inst. {‘inst.’ means “in the present month”}, a train will leave Landenberg at 6:45 A.M., connecting with the 8:10 train from Wilmington to Philadelphia and leave the Centennial grounds at about 7:45 for Landenberg. Through excursion tickets will be issued at the usual excursion rates." See Figure 19.

On Tuesday, May 9, an article in the same paper stated: "By reference to our advertising columns the special arrangement of trains on the Wilmington and Western for the accommodation of those who desire to be present at the Centennial opening ceremonies tomorrow will be seen. Through tickets to the grounds via P. W. & B. railroad will be sold from all stations along the W. & W. railroad."

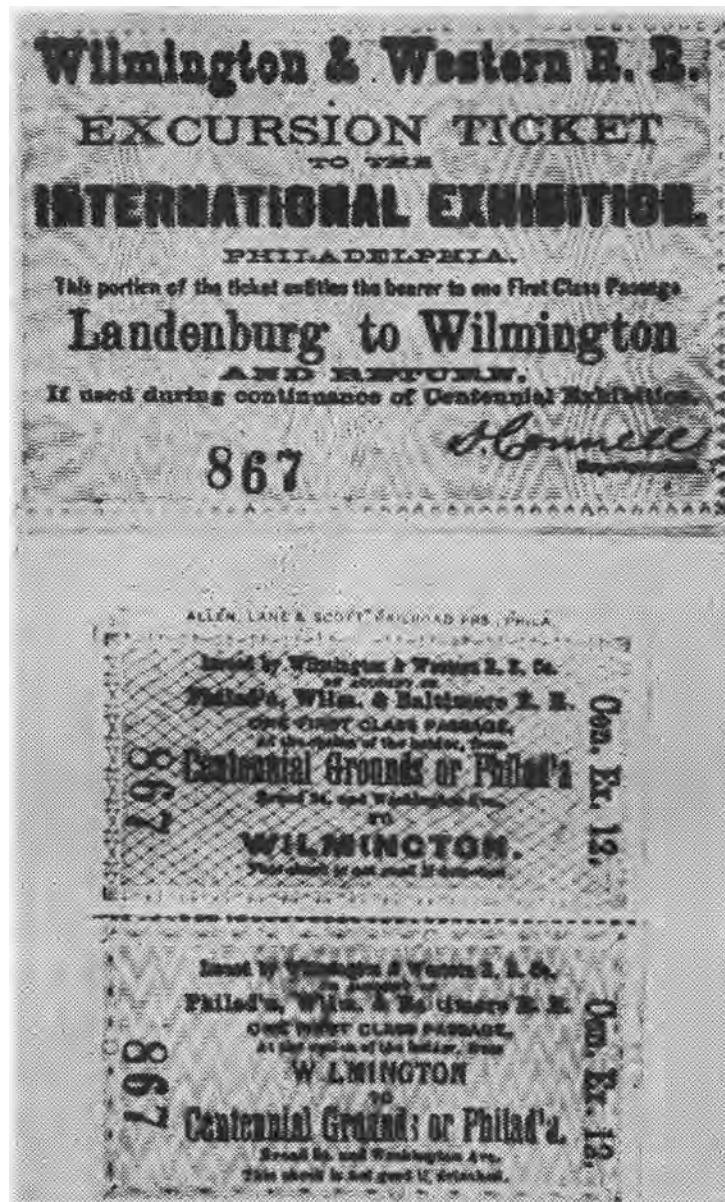


Figure 19

Excursion ticket from Landenberg to Centennial Ground in Philadelphia over W&W and PW&B in 1876. (Courtesy Elwood S. Wilkins, Jr.)

The advertisement read, "WILMINGTON AND WESTERN R.R. – Special train arrangement for the International Exposition Opening! – Wednesday, May 10th, leave Landenberg at 6:45 & 8:45 A.M., arrive at Exposition grounds (via P. W. & B. railroad) at 9:30 and 11:05 A.M. Returning, leave the Exposition grounds (via P. W. & B. railroad) at 4:00 and 6:15 P.M., arrive at Landenberg at 6:30 and 8:57 P.M. (Signed) D. Connell, Superintendent."

On May 10 the city of Wilmington was in a gay and holiday spirit. Stores, fire engine houses, and the PW&B railroad station were decorated with flags and bunting. Business was practically suspended for the day. It was estimated that 2,500 persons were on the special trains run from Wilmington, while others used regular scheduled trains. But this is another story that does not concern us here.

The custom of operating an excursion train every Sunday from Wilmington to Mt. Cuba and Landenberg over the Wilmington & Western Railroad, during the summer months, was not resumed in 1876; only one being run on August 13. However, two others were advertised later on in the year, one on September 17 and the other October 15. They left Wilmington at 2:00 P.M., and returned from Landenberg at 4:30 P.M., and Mt. Cuba 5:10 P.M., arriving Wilmington 5:40 P.M. Fare 50 cents.

Aside from these there does not appear to have been any other excursions to Mt. Cuba except one on July 4 by an organization known as the Y.M.C. Philopatrian L.I. {Young Mens' Christian Philopatrian of Long Island}. Whether excursions were discontinued due to the novelty having worn off or the competition of the Centennial Exposition in Philadelphia, it would be difficult to say. Perhaps it was a combination of both. On June 4 there was a special train from Hockessin, leaving 5:45 A.M., connecting at Wilmington with the 6:40 A.M. train over the P. W. & B. Railroad to the Exposition Grounds in Philadelphia.

On Saturday, July 22, 1876, the Wilmington *Every Evening* reported that a number of bondholders of the Wilmington & Western Railroad, representing more than a majority of the first mortgage bonds, had associated themselves together to protect their interests in case of the sale of the road under the proceedings then pending in the United States Court, and to secure to every bondholder his proportionate interest. Messrs. Daniel M. Bates, William Canby, Henry S. McComb, J. L. Devou and Hugh DeHaven were appointed a committee to take such action as the joint interest of the bondholders might require. The committee invited all holders of such bonds to deposit them with the Guarantee Trust and Safe Deposit Company, of Philadelphia, before September 1, to be used if necessary, in the purchase of the road. The agreement could be made by signing there or at the office of R.R. Robinson & Company, in Wilmington.

Subsequently there appeared in the advertising section of the *Every Evening* on September 6, and for several days thereafter, a notice to the effect that "it being represented to the committee of bondholders of the Wilmington & Western Railroad Company that there are still some bondholders agreements, the time for making such deposit has been extended to October 1st next. All bondholders desiring to participate in the benefits of the arrangement should without delay, deposit their bonds with the Guarantee Trust and Safe Deposit Company, number 318 Chestnut Street, Philadelphia.

Bonds for deposit may be left, as heretofore, with Messrs. R. R. Robinson & Co., 400 Market Street, Wilmington. (Signed) WILLIAM CANBY, Secretary."

The name of Joshua T. Heald again appears in connection with the Wilmington & Western Railroad, on Saturday, September 16, 1876. On that date he sold, presumably at public auction, some real estate and railroad bonds, the latter including \$1,200 of the road Heald built. These were first mortgage coupon bonds and were purchased by Charles F. Thomas for \$222.

On December 4, 1876, announcement³⁶ was made of change in schedule^{A2}, reducing the number of round trips between Wilmington and Landenberg from three to two. On the revised schedule an eastbound train left Landenberg at 6:45 A.M., arriving Wilmington at 7:55 A.M. Another left Landenberg at 1:30 P.M., arriving at Wilmington at 3:10 P.M. Westbound from Wilmington, the first train left the depot at Market and Water Streets at 10:20 A.M., arriving at Landenberg at 12:00 Noon, and the second train left Wilmington at 5:30 P.M., arriving at Landenberg at 6:40 P.M.

Probably as a result of the road being in receivership, there does not appear to have been an annual meeting of the stockholders in January 1877; at least I have been unable to locate any record of one. However, the receiver made a report on December 21, 1876, of the financial condition of the railroad.³⁷ The report read:

"In the United States Court this morning, the official account of the receiver of the Wilmington and Western Railroad Company was presented, approved by the Court, and ordered filed. It shows the operations of the road from December 7, 1875, to November 30, 1876. During that time the earnings have been \$42,222.77, and the expenses \$30,300.84, leaving a balance of \$11,921.23; \$201.33 collected from the account of the W. & W. R.R. Company, added to this, making a total net surplus on November 30 last of \$12,123.36. Receiver's liabilities on account of traffic, etc., \$16,552.30; receiver's assets on accounts receivable \$16,112.29; cash on hand November 30, 1876, less amount of liability in excess of assets, \$12,123.26."

An example of the friendship that had hitherto existed between its employees and the officers of the road was reported in the West Chester {Pennsylvania} *Daily Local News* on January 2, 1877. The item stated that a package was loaded on a Wilmington & Western train at Hockessin and on examination it was found to contain six turkeys, one for each of the train hands, with the compliments of J. G. Jackson and several others. The turkeys went to Conductor Alfred Hughes, Engineer Oliver, Fireman Cockran, and three brakemen.^{L2}

On Wednesday, March 7, 1877, the *Wilmington Every Evening* contained an article reading:

"This morning, in the United Circuit Court, Judge Bradford made a decree for the sale of the Wilmington & Western Railroad, by the Trustees named in

³⁶ - Advertisement in the *Every Evening*, Wilmington, Del., December 2, 1876.

³⁷ - *Every Evening*, Wilmington, Del., December 21, 1876.

the mortgage. The sale is made returnable to the Court on Tuesday, May 8th. As the Legislature has passed an Act providing the necessary authority for the corporate organization of the purchasers,³⁸ the matter is now in the course of speedy settlement. Less than \$10,000 of the bonds are now outside the associated bondholders – the holders of over \$490,000 having pooled their bonds in order to protect their mutual interests in the foreclosure proceedings.”

Accordingly, there appeared in the pages of the Wilmington *Every Evening* for March 21, 1877, and for a number of days thereafter notice of Trustees' Sale of the Wilmington & Western Railroad. It read:

“In accordance with the decree of the Circuit Court of the United States for the District of Delaware in the suit^{E2} of William Calhoun, et al., vs. The Wilmington and Western Railroad Company, et al., made on the seventh day of March, 1877, the undersigned as Trustees executed on the first day of January, A.D. 1872 by said Company to secure its bonds, will sell at public auction on the twenty-fifth day of April, A.D. 1877 at 3 o'clock P.M., at the sales room of Joshua T. Heald (how ironical) in the basement of the Clayton House building in the City of Wilmington, . . . to the highest and best bidder or bidders therefor, in one entire lot, The Wilmington and Western Railroad, extending from Wilmington, in the State of Delaware, to Landenberg, in the State of Pennsylvania. . . .”

Then followed a long list. of the appurtenances belonging to the railroad such as wharfs, fences, bridges, abutments, estate, properties, rolling stock, etc. The terms and conditions of the sale were:

“(1) . . . the estate and property aforesaid will be sold to the highest and best bidder or bidders therefor. (2) The purchaser or purchasers must pay to the Trustees at the time of the sale the sum of Five Thousand Dollars, and sign the written conditions of the sale; and must pay the balance of the purchase money to said Trustees on or before Saturday the fifth day of May, 1877. (3) The sale of the estate and property aforesaid is to be subject to the approval and confirmation of Court. (Signed) Washington Jones, Thomas Wood, and George W. Bush. Trustees. Edward G. Bradford, Jr., Solicitor for Trustees.”

However, before the railroad went on the auction block a lawsuit intervened. The first intimation of it was contained in the *Every Evening* and *Commercial* (these papers having combined on April 5, 1877), which stated that the U. S. Court had met that morning, April 24, 1877, Judge Bradford on the bench, but transacted no business of any importance, and adjourned in a short time. It went on to say that the Court would meet again at 12 o'clock

³⁸ - This act was undoubtedly sponsored by the Trustees in anticipation of the pending sale of the railroad. It was titled, “AN ACT to incorporate the purchasers of the Wilmington and Western Rail Road,” and outlined the rights and privileges of prospective purchasers as well as their obligations. It was passed by the Delaware Legislature on February 22, 1877, and will be found in the *Laws of the State of Delaware*, (Wilmington, Del., 1877), p. 509.

the next day when Judge Bradford would deliver his opinion in the cases of Crumlish and others against the bondholders of the Wilmington & Western Railroad.

The following day the same paper under the headline, "U. S. Court – The Decision of Judge Bradford in the Wilmington & Western R.R. suit," reported:

"The decision of the U. S. Court in the case of Andrew Crumlish, et al., vs. The Wilmington & Western Railroad, was rendered by Judge Bradford today at noon. The Court decided that the prayer of the petitioners, asking for the amendment of the decree of the foreclosure and sale of the road, issued some time ago by the Court, and the admission of the petitioners as paramount to the first mortgage liens, could not be granted, and ordered that the rules be discharged and the petitioners dismissed."

The petitioners were ordered to pay the costs of the suit. Mr. Nields, counsel for the Lobdell Car Wheel Company, William H. Swift and W. G. Phillips, whose claims amounted to about \$12,000, and Mr. Higgins, counsel for Andrew Crumlish, representing a claim of \$26,509.57, both prayed an appeal from the decision of the Court, and gave notice the proper bonds would be filed and the other requirements of the Court complied with within ten days.

On April 26, 1877, the same newspaper {Every Evening} under the headline of, "Wilmington & Western – The floating debt creditors vs. the bondholders," contained the full text of Judge Bradford's opinion sustaining the rights of the First Mortgage Bondholders. The individual petitioners and amounts involved appeared in Judge Bradford's opinion. They were:

Andrew Crumlish, contractor, \$26,509.57.

George G. Lobdell, for services as president, \$1,875.

William G. Phillips, for endorsement of promissory note, \$5,000.

William H. Swift, for endorsement of promissory note, \$5,000.

George Springer, for endorsement of promissory note, \$4,000.

Lobdell Car Wheel Company, for endorsement of promissory note, \$7,000.

Boughman, Thomas & Co., judgment on note, \$460.86.

Matthew Baird, for judgment on note, \$2,235.67.

Thus, the last legal obstacle for the sale of the road having been overcome by the Trustees, a brief article appeared in the *Every Evening* and *Commercial* on April 25, stating that,

"The Wilmington & Western Railroad was sold this afternoon at Heald's salesroom, Fifth and Market Streets, by L. W. Stidham & Son, Auctioneers, to William Canby, for the bondholders, for \$5,000."

A full description of the sale was given in the same paper April 26, 1877, and is here reprinted in full. Following the headline, "The Wilmington & Western Railroad – The Sale of the Road at auction yesterday afternoon – The Bondholders Buy it for Five Thousand Dollars," the article read:

"As briefly stated in our third edition last evening, the Wilmington & Western railroad was sold at the salesrooms of J. T. Heald in the basement of the Clayton House, corner of Fifth and Market Streets, between 3 and 4 o'clock yesterday afternoon."

"The sale was in accordance with a decree of the United States Circuit Court for this district, issued on the 7th day of March, in the suit of William Calhoun et al. vs. the W. & W. Railroad Company, and attracted considerable attention, being largely attended by the business men of this city and Philadelphia, who, without participating themselves, watched with evident amused interest, the bidding of Messrs. William Canby and William C. Spruance, who represented the bondholders of the road and the plaintiffs in whose interests the sale was ordered, respectively."

"At 3:05 o'clock Mr. E. G. Bradford, Jr., Solicitor for the Trustees of the road, read the conditions of the sale and Mr. Frank C. Stidham & Son, auctioneer, then came forward with gavel in hand and announced that he was ready to receive a bid for the road."

"Benjamin Nields, Esquire, here arose and stated that as counsel for the Lobdell Car Wheel Company, W. H. Swift, W. G. Phillips, G. G. Lobdell and Matthew Baird, he holds claims against the road, aggregating over \$20,000, and that so much of the property and effects of the road as would be sufficient to liquidate these claims would be exempted from the process of sale."

"Mr. Anthony Higgins, counsel for Andrew Crumlish, made a similar announcement in the interests of his client, stating that his claim was for \$26,509.57, with interest from September 1872, and further that Mr. Crumlish purposed prosecuting his claim to the utmost extent."

"Mr. Bradford, in reply to the statements made by Messrs. Nields and Higgins, said that the claims mentioned by those gentlemen had been litigated and entirely disposed of by the U. S. Court; they had been presented to the Court, considered and rejected, and both the Trustees and the bondholders of the road had repudiated them one and all. He assured the purchaser, whoever he might be, that he would take the road free of all claims and encumbrance."

"What am I offered to start the sale?" asked Mr. Stidham, the auctioneer. "Will you say \$500,000?"

"There was no answer and the crier dropped down and down and presently asked, 'Will you give me \$5,000 for the road?'"

"I'll give you \$1,000 to start it," said Mr. William Canby. Probably five minutes were spent in crying the sale at this figure, and then Mr. Bradford announced that the sale would positively take place."

“ ‘Fifteen hundred dollars,’ said Mr. Spruance.”

“ ‘Sixteen hundred,’ replied Mr. Canby.”

“Mr. Spruance bid \$1,700 and Mr. Canby immediately raised it to \$2,500. The bids then successively increased \$500 until the auctioneer said, ‘I am offered \$4,500 for the road,’ being Mr. Canby’s bid.”

“ ‘Forty-nine hundred,’ said Mr. Spruance.”

“ ‘Five thousand,’ replied Mr. Canby, and after vainly striving to increase the amount offered the road was knocked down to Mr. Canby, for the bondholders, for the sum bid, \$5,000. There was no cheering.”

On May 8, 1877, about two weeks after the sale of the road, the *Every Evening* and *Commercial* under the headline, ‘The Wilmington and Western – Return of the Sale by the Trustees of the Road,’ contained the following paragraph:

“Before Judge Bradford this morning the counsel for the Trustees of the Wilmington and Western Railroad, and also the counsel for the Receiver of the road appeared. The return of the sale by the Trustees of the road and the time for rendering the final decision of the Court to receive the same was extended to the first of June. The surrendering and cancellation of the bonds asked for in the decree was made and the *pro rata* share to the bondholders was tendered to the Court amounting to one percent on \$3,200, making in all \$32. The Court ordered the Trustees to execute the deed of the premises, and made an order directing the Receiver to pay sundry costs and allowances.”

Several items pertaining to the Wilmington & Western Railroad appeared in various editions of the *Every Evening* and *Commercial* on May 31, 1877. The first stated the purchasers of the railroad met for organization under the law of this State, that morning, and about \$400,000 of bonds were represented. The name of the Delaware Western Railroad, was adopted and a seal fixed upon. The meeting was still in session at the hour of going to press and its further proceedings would be reported in later editions.

A second item in the same edition read:

“As will be seen in another column, the purchasers of the Wilmington & Western Railroad met this morning to organize a new corporation for control of that portion of the road lying in this state. The persons interested under the purchase will meet for the purpose of organizing a new corporation to hold that part of the road which lies in Pennsylvania, at the station house at Landenberg, the terminus of the road, in Chester County, tomorrow morning at 11 o’clock. A special train for the accommodation of those interested will leave this city at 9:45 for Landenberg.”

In another column, the editor of the paper lamented, “The Wilmington & Western Railroad will lose the best name that could be given it by the change announced elsewhere, but we suppose the new name was necessary.”

Following is a full account of the meeting in the last edition of the paper:

“The first mortgage bondholders of the Wilmington & Western Railroad, by whom the road was recently purchased, met this morning at 602 Market Street, for the purpose of effecting the organization of a new company for the management of the road.”

“Lewis Thompson was called to the chair and George Richardson chosen secretary.”

“The report of the purchasing committee was received, read and accepted, and meeting then proceeded to organize under the name of Delaware Western Railroad Company of Delaware, by the election of the following officers: President, William M. Canby. Directors – Daniel M. Bates, William Canby, Henry S. McComb, James L. Devou, Henry C. Robinson, Washington Jones.”

“Another meeting of the bondholders will be held at Landenberg, Pennsylvania, tomorrow afternoon, at which time a company will be organized under the name of the Delaware Western Railroad Company of Pennsylvania. The same officers named above will be chosen and the meeting will be similar in every respect to the one held here this morning with the exception that the name will read ‘of Pennsylvania’ instead of ‘of Delaware’.”

“Some time during the next month a meeting of the two companies will be held and a consolidation effected.”

On the same date Wilmington & Western first mortgage bonds were quoted by R. R. Robinson & Company, Wilmington brokers, as selling at \$12 a share.

Saturday morning, June 1, 1877, a special train left Wilmington at 9:45 A. M. However, its engine bore the initials “D.W.R.R.” instead of the familiar “W. & W. R.R.” On board the train was the newly elected President and Board of Directors of the Delaware Western Railroad Company, enroute to Landenberg for the purpose stated in the *Every Evening* and *Commercial* the previous day.

Its mission accomplished the party stopped at Cuba Hill on the way home “where a handsome collation was served.”³⁹ Thereafter the railroad was referred to in all advertisements, notices, newspaper articles, etc., as the “Delaware Western.” Thus, the Wilmington & Western Railroad came to an ignominious end, leaving in its wake great financial losses, and in the city of Wilmington the names of three streets, named after its presidents – Heald, Lobdell, and Bradford.

As is not unusual in such casualties, the editor of the *Every Evening* and *Commercial* on June 1, 1877, had the last word. He wrote:

³⁹ - *Every Evening and Commercial*, Wilmington, Del., June 1, 1877.

“. . . The new corporation, the Delaware Western Railroad, was organized yesterday with a strong company free from debt and with a board of directors strong enough in business ability and financial strength to run a railroad ten times the length of this one. It embraces among its members our largest financier, one of the leading members of our bar, the heads of our principal banking firms and a number of gentlemen of wealth and influence, who could readily accomplish any extension of the road if there is really any necessity for such extension and a reasonable promise if made it will assure increased profits. . . .”

“The new company starts off well in selecting William H. Canby, Esq., as its president. His management of the road while acting as receiver has been all that could be asked, and we have no doubt that he will be able to make it not merely pay its expenses but leave a reasonable margin for profits to the stockholders who have gone a long time without any profit on their investments.”

“Under his management the company has already been offering liberal terms as inducement to those inclined to settle along it, and we do not doubt that the number of Wilmingtonians, who will make their homes for the summer, at least, in the lovely country through which the road runs will increase from year to year. We do not exaggerate in saying that it is a lovely country. We advise those who are not familiar with it to go and see it for themselves. . . .”

Under new management and of even more importance, decreased financial obligations as a result of reorganization, the road prospered, notwithstanding the fact it never extended its original mileage. In fact, its value as a connecting link with Wilmington and the west became such in the early 'Eighties' that two giant railroad corporations struggled for its ownership.

It was finally acquired by the Baltimore & Ohio Railroad, successor to the Baltimore & Philadelphia Railroad, on February 1, 1883. Thereafter, it continued to flourish as a passenger line for several generations succumbing only when modern automobiles and improved highways provided residents with a better mode of transportation. After the Baltimore & Ohio Railroad obtained control of the Delaware Western Railroad, it eventually utilized the tracks and facilities (including the stations at Madison Street and Fifth Avenue, Wilmington), of the Wilmington and Reading Railroad, for trains between Wilmington and Elsmere until passenger service was discontinued. It was during this interval that the old rail of the Wilmington & Western Railroad was removed between those points.

The epitaph of the Wilmington & Western Railroad was written in the *Wilmington Sunday Morning Star*, August 9, 1942, in the following words:

“The death knell was sounded last week for a three-mile portion of the Wilmington and Western Railroad – the 70-year-old dream of Joshua Heald.

"Those once shiny rails, laid back in 1872, will be ripped up from Southwood to the western terminus of the road at Landenberg, Pa. For many years the system has not carried passenger traffic for the owners . . . and in more recent years it has been used for freight, its most important customer being the experimental station of the Hercules Powder Company.

"When tire and automobile rationing first went into effect it was rumored that the railroad would again be put in passenger service, but this was never confirmed."

At present {August, 1963}, a Baltimore & Ohio Railroad freight train makes a round trip from Wilmington to Hockessin three times a week, serving the Hercules Experimental Station and industries in the Yorklyn and Hockessin areas. How much longer this service will continue is conjectural.

If the dream of the members of Historic Red Clay Valley, Inc., is realized a passenger train pulled by a steam locomotive may someday bring sightseers to the upstream country of the Red Clay, there to enjoy the rural scenery and be reminded of days gone by.



Figure F – HRCV founder Thomas C. Marshall, Jr. drives a 'golden spike' on opening day for the 'Red Clay Valley Line' on May 28, 1966. Initial trains displayed 'The Red Clay Valley Line' livery, along with 'Wilmington & Western Rail Road' along the border of a diamond shaped logo on the engine tender. The use of 'Wilmington & Western Rail Road' or 'Wilmington & Western Railroad' as the official livery was still being investigated by B&O lawyers for legal use when the first trains ran on opening day. If the Wilmington & Western name had been legally retired in 1877, the B&O would grant HRCV formal approval to use the name as the official livery for the weekly operation.

The B&O would eventually determine the name was legally retired. The original line used "Rail Road" in their 1867 corporate identity and B&O lawyers suggested using the more modern "Railroad" to ensure no future conflict might exist. "Wilmington & Western Railroad" is a tradename and not an FRA recognized railroad (Wilmington & Western Railway Corporation, formed in 1984, is however an official FRA recognized freight railroad). Steve Jensen photo.

POSTSCRIPT: 1877 TO 2019 M2

Arthur Volkman's original monograph details the history of the original Wilmington & Western Railroad Company from its beginnings through its bankruptcy in 1877. We now know how history unfolded with respect to Volkman's hopes and wishes expressed in his last paragraph of the original monograph. We hope that he would be pleased that steam trains continue to operate on the Landenberg Branch into the 21st century. We feel it important to provide a synopsis of the line's history from the 1877 bankruptcy to the present time.

A detailed look at the Landenberg's final B&O years and the first fifty years of Historic Red Clay Valley Incorporated operation are detailed in a *Special 50th Anniversary Historic Timeline – The Wilmington & Western's Half-century of Operation* by railroad historian Robert E. Wilhelm, Jr (published May 2016 and available electronically online at Hagley Museum, Wilmington, DE and the WWRR.com website).

Even in the 21st century there is not a lot of detailed information available on the Delaware Western Railroad (DWRR) which followed out of the ashes of Wilmington & Western Railroad's bankruptcy. The Delaware Western considered the line costing \$742,203.79 to construct (a reduction of cost from what the Wilmington & Western was showing). Either way, the line was around 50% more expensive to construct than originally planned back in 1869 (\$500,000 initially, raised to \$590,000 after construction began).

By 1881 the Delaware Western experienced good fortunes and operations as well as financial profits. The country was well on its way to recovery from the Long Depression and the road was no doubt seeing the prosperity that the original founders envisioned and wrote about in the first prospectus. In 1880 the railroad exceeded moving 2-million tons of freight at least one-mile. Freight traffic in 1880 had increased 16% over 1879. Passengers carried one-mile were up 33% in 1880 over 1879 as more rural workers used the Delaware Western for travel to and from work at one of the many industries that had started to spring up along the Delaware River and Christiana Creek waterfronts.

Controlling stock ownership of the 45-employee Delaware Western Railroad began in 1882 when the Baltimore & Ohio Railroad (B&O) became interested in the line after they failed to purchase the Philadelphia, Wilmington, & Baltimore Railroad (PW&BRR) in February 1881. As a result, the B&O created the Baltimore & Philadelphia Railway Company as a holding company. The B&O merged the Delaware Western with the Baltimore & Philadelphia Railway to form a new entity, the Baltimore & Philadelphia Railroad Company (B&PRR) in February 1883. The B&O thus maintains controlling interest in the B&PRR and the owners of the Delaware Western are issued stock in the B&PRR as payment.

The purchase of the DWRR provides a resolution to Delaware's legal requirement on railroad construction within the state. Delaware law at that time required a railroad company to already own right-of-way within the state, if they intended to construct new main line trackage. By the B&PRR taking control of the DWRR, the B&O gained the

Delaware Western's "pre-approval" by the Delaware legislature to "construct additional miles of trackage at a later date".

The B&PRR obtains right-of way and constructs tracks through New Castle County, north of, and relatively parallel to the Pennsylvania Railroad leased PW&BRR right-of-way. It will be more than a year before the main tracks are finished between the MD-DE and DE-PA state lines. The eastern section of mainline track of the Delaware Western is rerouted towards the end of construction. Delaware Western operations during construction are showing a 15.85% profit in 1884. B&PRR stock and bonds issued to pay for construction reach \$10.1-million by the late 1880s

The DWRR continues operation under Delaware Western Railroad livery between Wilmington, DE and Landenberg, PA. Once the B&PRR line is operational in August 1886 between Baltimore, MD and Wilmington, DE, the Delaware Western Railroad livery is replaced with that of the Baltimore & Ohio Railroad. The tracks of the former Delaware Western between Wilmington and Marshallton, DE form part of the B&O's main trackage through Delaware known as the Philadelphia Division. The Delaware Western's tracks from Marshallton to Landenberg, PA become known as the Landenberg Branch of the B&O.

On September 19, 1886, the B&O begins passenger operations between Baltimore, MD and Philadelphia, PA through Delaware after a multi-year hiatus. By the end of 1886 the B&O offers scheduled passenger service connecting Washington DC, Baltimore, MD, Wilmington, DE, Philadelphia, PA, and New York City, NY. On July 31, 1890, the B&O inaugurates Royal Blue service between Baltimore and New York City. The service gains the reputation as the benchmark of luxury rail travel in the United States to which all other US railroads will be compared.

The 1887, 1889, 1891, 1893, 1897, and 1899 issues of Poor's Manual of the Railroads documents the Baltimore & Philadelphia Railroad for all operations between Baltimore and Philadelphia including Delaware Western operations. While the Baltimore and Ohio Railroad holds nearly all of the stock of the B&PRR, the B&O has not assumed full legal and financial responsibility for the B&PRR's operations even though all rolling stock have B&O livery.

At the end of 1899 operations on the Landenberg Branch, as it has now become known, become part of the expanding Baltimore & Ohio Railroad network. While the Baltimore & Philadelphia Railroad Company continues to exist as a holding company into the late 21st century, in the early 1900s the B&O redeems all of the B&PRR's outstanding bonds and stock and replaces those financial instruments with B&O issued stock and bonds. Transfer and ownership including financial and legal responsibility for the Baltimore & Philadelphia Railroad Company, created to permit the B&O to cross the state of Delaware, is essentially complete in the first years of 1900.

In 1901 the Baltimore & Philadelphia Railroad is fully owned and operated by the Baltimore & Ohio Railroad. Because the original easements and land sales for the Landenberg Branch were between right-of-way land owners and the Wilmington &

Western Rail Road and were subsequently transferred to the Delaware Western Railroad as part of the bankruptcy proceedings, and those same easements and sales were again transferred to the Baltimore & Philadelphia Railroad as part of the purchase, the Baltimore & Ohio Railroad elected to keep the Baltimore & Philadelphia Railroad Company intact as a Delaware corporation holding the B&O's Delaware assets.

The B&O continued passenger service on the Landenberg Branch between Landenberg, PA and Wilmington, DE from the late 1880s into the 1930s. The picnic grove at Mt. Cuba closed by the start of the 1900s and the hotel complex and later amusement park at Brandywine Springs ceased operations at the end of 1923. With no passenger destinations on the line and the automobile becoming more popular as the means to travel to work, passenger traffic on the Landenberg Branch declined during the early part of the 20th century. Passenger service on the Landenberg Branch was discontinued on September 28, 1930. The last B&O operated steam powered passenger train on the branch, a special excursion between Philadelphia, PA and Annapolis, MD, made a special side excursion to Hockessin (the end of the line) on May 1, 1949.

As passenger service declined during the early part of the 20th century on the Landenberg Branch, new industry along the Red Clay Valley line transforms the branch line into the B&O's most profitable freight branch line in the early part of the 20th century. During the 1900s, shipments of kaolin clay, lime, limestone, tobacco, cotton rags, vulcanized fibre, and grains for milling at Greenbank and Ashland would move along the Landenberg Branch.

Abner Marshall discovers Kaolin clay on his farm between Hockessin and Yorklyn which leads to additional Kaolin deposit discoveries and soon a booming Kaolin mining business around Hockessin is shipping product by rail. This was in addition to the Sharpless flour mills at Ashland, the Garrett snuff mills at Yorklyn, Wood's Delaware Rolling Mill at Wooddale, and the Marshall Rolling Mill at Marshallton all relying on the Delaware Western and eventually the B&O for raw materials and coal as well as for shipping finished product.

Israel and Elwood Marshall, Pennsylvania papermakers, purchase the old rolling mill at Wooddale and convert it into a paper mill. The burned-out Clark mill at Yorklyn is purchased and converted to a modern paper mill. Dozens of boxcars of rags are required monthly to each mill to feed their papermaking operations and to ship their papers to the vulcanized fibre companies in Wilmington, Newport, and Newark, DE. At the start of the 20th century the Marshalls invent and patent the Endless Fibre Machine and form the beginnings of a business that eventually becomes the National Vulcanized Fiber Company in Yorklyn, the B&O's largest shipper by annual tons moved on the Landenberg Branch for multiple decades.

By the middle of the 20th century the automobile was becoming the preferred mode of travel in the United States and airlines are beginning to provide another mode of long-distance travel at faster speeds and less cost than what the railroads could provide. While passenger traffic on many branch lines such as the Landenberg Branch had ended after the Great Depression for many lines in America, the mainline routes were experiencing

difficulty filling trains with passengers and turning profits. The B&O provides passenger service through Delaware for 68 years before ending the service due to falling passenger counts. On April 26, 1958, the last of the Royal Blue trains travel the B&P mainline route as the B&O discontinues passenger service north of Baltimore.

In the 1950s the B&O's freight business through Delaware remains profitable but change is on the horizon. On August 9, 1942, the B&O abandons the western portion of the 14.3-mile-long Landenberg Branch from just east of Southwood, DE to Landenberg, PA. With kaolin and limestone mines played out and the coal deposits in southeastern PA nearly depleted, coal is no longer traveling on the B&O's Landenberg Branch. The 885-foot long icon of the former Wilmington & Western Railroad, and now the Landenberg Branch, the Broad Run Trestle, is dismantled (July and August 1943) and all right-of-way land reverts to the present owners of the property. The B&O abandons additional Landenberg Branch tracks on January 7, 1957 between Hockessin, and Southwood, DE. Only 10.2 miles of the original Wilmington & Western Rail Road tracks remain profitable for the B&O at the start of the 1960s.

With the twilight of steam freight operations occurring on the Landenberg Branch, Thomas C. Marshall, Jr. of Yorklyn, DE investigates returning steam passenger tourist operations to the branch line. Several other eastern railroad organizations have begun successful tourist operations and Marshall believes the tranquil route of the Landenberg Branch offers an opportunity not to be lost to future generations to enjoy. Marshall's objective becomes preserving a piece of American railroading for future generations to appreciate both historically and physically.

In March 1960, Marshall, George T. Sargisson and Leroy J. Scheuerman sign the Certificate of Incorporation for Historic Red Clay Valley, Incorporated. The group obtains steam locomotives and Pullman coaches needing restoration for a potential tourist operation. Their work with the B&O, Interstate Commerce Commission, Federal Railroad Administration, railroad unions, and others produces an operating lease between HRCV and the B&O for weekend tourist passenger operations on the Landenberg Branch. The legal agreements signed between B&O management and Historic Red Clay Valley, Incorporated become prototype templates for other non-profits to follow in later year when arranging similar tourist railroad operations on class one freight railroads.

On May 28, 1966, after 35 years and 8 months, the sights and sounds of a steam locomotive is once again experienced at grade crossings along with the sounds of first-generation passenger coaches. Former Canadian National #92, a 2-6-0 Mogul locomotive, pulls four former Delaware, Lackawanna & Western Railroad "Boonton" coaches and a wooden caboose along the Landenberg Branch signaling the return of scheduled passenger service. Now, in addition to the B&O's fleet of 8400-series SW-1 locomotives pulling boxcars of freight, steam power is acknowledging the visions of Joshua Heald and the original railroad's founders.

On June 24, 1982, Historic Red Clay Valley becomes the new owner of the Landenberg Branch, purchasing it and SW-1 locomotive #8408 from CSX Transportation and the Chessie System, the recent purchasers of the out of bankruptcy B&O Railroad. With the

purchase of the railroad the Wilmington & Western Railway is created as a freight company with exclusive rights to freight operations on the HRCV owned right-of-way. CSX Transportation, primarily interested in long-haul freight-only operations, relies on branch line owners and operators to deliver freight.

When CSX Transportation and Chessie sell the branch line's right-of-way and enginehouse property to Historic Red Clay Valley in the early 1980s, the right-of-way transfers are between the Baltimore & Philadelphia Railroad Company and HRCV. Over much of the 20th century the B&O has granted easements and leases alongside and under the tracks to Delaware corporations for telephone, electrical, water, advertising signs, and similar uses. In 1982 as part of the sale of the line to HRCV, CSX Transportation agrees to notify current easement and lease holders of the change in ownership, which should generate an estimated \$12,000 to \$15,000 in annual payments to HRCV.

In 1986 when the total income fails to materialize, HRCV initiates a review and computerization for all leases and easements for ease in tracking payments, determining renewal dates, etc. HRCV discovers there are leases uncollected by CSX Transportation, Chessie, and the B&O since 1932 while others are still being paid to the order of the B&O or Chessie System and being deposited in a general account instead of properly being paid to HRCV. Rate structures for many of the agreements are based on obsolete B&O rates set in the early 1900s and do not reflect current rate structures and conditions. HRCV updates contracts and agreements and by 1989 has new leasing rates and contracts based on commercial practices. HRCV recovers those payments from CSX Transportation for leases incorrectly paid to CSX or Chessie after the purchase date.

Over time, Hercules discontinues coal shipments to their research site having switched to cleaner fuel sources for the boiler house alongside the railroad. The manufacturing operations in Marshallton no longer need railroad shipments. NVF increasingly uses trucks to deliver rags for making vulcanized fibre while using their own trucks to deliver their products. Eventually only the occasional movement of a boxcar of bricks is the Landenberg Branch's sole freight business which still continues today.

At the start of the 21st century, and after more than 50 years of passenger operations, the Historic Red Clay Valley operated Wilmington & Western Railroad continues operations as one of Delaware's top-ten top tourist attractions. The railroad is the 7th oldest, standard gauge, heritage railroad (started operations in May 1966) in North America and is the oldest tourist railroad operated entirely by volunteers! It is known as "Delaware's Operating Railroad Museum" and handles more than 36,000 passengers annually.

The Mill Creek Route^{N2}

*The following article written for the HRCV quarterly publication, **The Lantern**, by the Editor is included as it provides additional detail related to the alternate route along Mill Creek that was under strong consideration in the early 1870s for the Wilmington & Western. The West Chester, Kennett, & Wilmington Electric Railway Company, also known as the Kennett Trolley, eventually selected a route along Mill Creek to connect Kennett Square with Brandywine Springs at the start of the 1900s. The following article is based on research done by Mel Schoenbeck on the Kennett Trolley and the Editor related to a plan to flood the Red Clay Creek Valley as an alternate site to construct a water reservoir for the city of Wilmington.*

Hoopes Reservoir and Dam is a concrete gravity dam constructed between 1924-1932 and restructured several times since. Its namesake, Colonel Edgar M. Hoopes, Jr. (1888-1931), was Chief Engineer of the Wilmington Water Department from 1913 through 1918. The construction portion of the project, occurring at the time of the Great Depression, cost the City of Wilmington \$3-million. Impounding over 2.2 billion gallons of Brandywine Creek water (the 42" pipe line between Brandywine Creek and Hoopes Dam both fills and draws water), Hoopes provides water to Wilmington's Porter Filter Plant when heavy rainfall makes the Brandywine's water supply overly turbid and muddy.

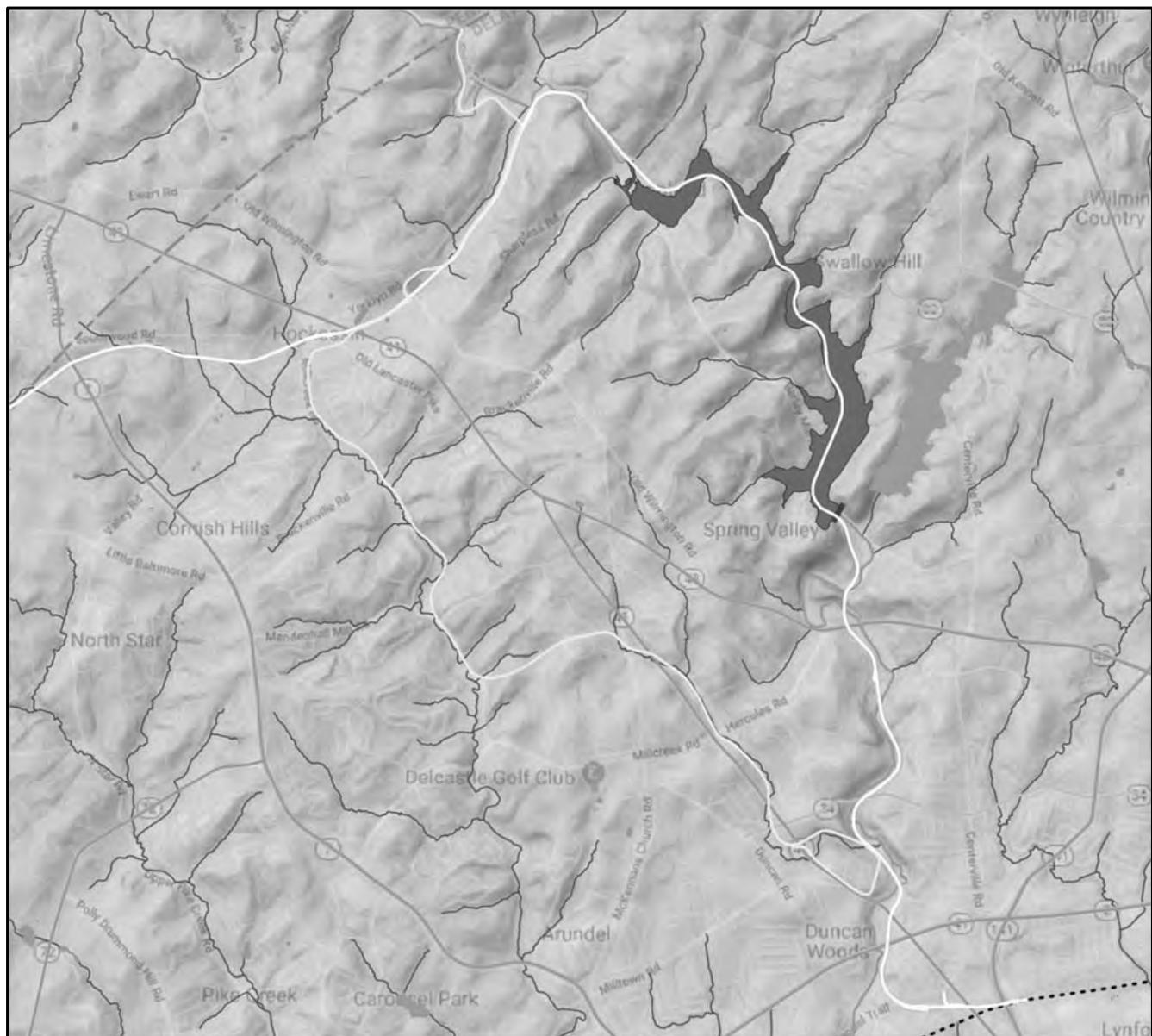
In 1924, Wilmington launched a project planning the construction of a large reservoir outside city limits for storing water to augment the Brandywine's supply in the event of drought or upstream contamination. In summary, Wilmington Water Department engineers considered multiple natural Piedmont locations associated with Brandywine Creek, White Clay Creek, Christina Creek, Pike Creek, and Mill Creek where land might be purchased for a new reservoir. The final decision came down to infrastructure obstacles including rerouting the Baltimore & Ohio Railroad (B&O) and obtaining water rights for flooding the Red Clay Valley versus Old Mill Stream Valley which is a tributary of Red Clay Creek.

The B&O's 1927 estimate of \$1,000,000 (nearly \$14,750,000 in 2019) to reroute the Landenberg Branch to skirt a proposed Red Clay reservoir area no doubt figured heavily in the decision. Old Mill Stream's limited flow is restrained within higher elevation rocky slopes offered the advantage of a smaller footprint for holding 2-billion gallons of fresh water. An Old Mill Stream reservoir required a long, high dam but T. Coleman du Pont would donate the land and water rights. All elements considered, flooding Old Mill Stream Valley was selected and the Red Clay Valley plan was abandoned as simply unaffordable.

Of interest to readers might be the B&O's plans if Red Clay Valley flooding had been selected! Passenger operations were still occurring (discontinued in September 1930) along with significant freight movements on the Landenberg Branch (the B&O Philadelphia Division's highest income branch line for freight movements). The Landenberg Branch generated solid income in the early 1900s providing B&O management little enthusiasm to support any Landenberg Branch alteration. No matter what decision would be made, the City of Wilmington needed to minimize fallout from business and job losses even though the dam's construction would create temporary jobs. The City would issue bonds

covering all railroad, local business, and resident relocation expenses as part of the dam project cost.

We can speculate probable outcomes the B&O might have considered if Old Mill Stream had proven overly expensive or geologically impractical. An obvious solution would have been simply raising the elevation of the Landenberg Branch's right-of-way higher on the Red Clay Valley's sloping shoulders to skirt the reservoir. The computer-generated image below uses an Open Streets Map of New Castle County providing road and other major landmark references. Hoopes Reservoir is the prominent blue area at the right in the image. Enhancing the map is Light Detection and Ranging (LIDAR) elevation data (1' accuracy) courtesy of Piedmont Geologist Sandy Schenk of the Delaware Geological Survey (DGS), which provides a 3-dimensional feel to the rolling Piedmont landscape the Red Clay Creek flows across.



1924 – B&O Landenberg Branch (white, center right), West Chester, Kennett, & Wilmington Electric Railway (light gray, center left), 2-billion-gallon Red Clay Valley Reservoir (proposed), Hoopes (right)

Had the Red Clay Valley been flooded to impound 2-billion gallons, equivalent to what Hoopes was initially constructed to contain, the darker area (top center) represents the flooded area. The heavy black line at center bottom connects two massive Wooddale rock outcrops representing the dam's proposed location. The Landenberg Branch right-of-way (white line) forms the "spine" of a virtual Red Clay Valley reservoir. Red Clay Creek is fed by a number of named and un-named tributaries (lighter thin lines) contained in valley settings as the creek flows towards White Clay Creek. These tributary valleys are seen in the 3D image.

In 1924 when the study began, the West Chester, Kennett, & Wilmington Electric Railway Company (WCK&W) tracks would still have been present but the future of the "Kennett Trolley" was uncertain. In 1903, the WCK&W was formed to connect Kennett Square with Brandywine Springs and the local amusement park. A connection with the People's Railway Company at Cedars permitted travel between Kennett Square and Wilmington. The Kennett Trolley continued operations until the end of 1923. The trolley tracks (5-feet 2-1/4 inch gauge) were scrapped in 1925. Thanks to research by Mel Schoenbeck, we can plot the trolley's route (light gray line, center left, in above image).

It becomes quickly apparent that moving the Landenberg Branch to higher elevations, while skirting the banks of a Red Clay Valley reservoir, might require tunneling as well as constructing impressive bridges and trestles. While a higher elevation route might have been more economical in the 1870s, by the 1920s, purchasing right-of-way lands and relocating any infrastructure in the path of the railroad quickly exceeds the \$1-million cost estimate the B&O provided.

This implies the B&O had an alternate plan that management believed workable and cost effective. In the late 1920s there remained little industry along the Landenberg Branch in the area of the Red Clay Creek proposed for flooding. This knowledge, coupled with a nearby abandoned trolley right-of-way, may have influenced the B&O's alternate route planning.

The daily passenger trains between Landenberg and Wilmington were still profitable as not everyone had access to an automobile and only major Delaware roads were becoming paved in the 1920s. Disrupting passenger schedules thus creating hardship would be a difficult sell to the City of Wilmington. The B&O had tested a self-propelled gasoline motor coach in 1922 on the Landenberg Branch. Perhaps B&O management considered "doodlebug" use for connecting stations at Yorklyn and Ashland with Hockessin as well servicing Wooddale and Faulkland with Greenbank for passenger and light freight services.

Likewise, freight shipments between Landenberg and Wilmington had to continue. The Landenberg Branch provided Wilmington industry and business access to Anthracite coal and Pennsylvania lumber, minerals, and materials. Milk and eggs from farms in Landenberg and Eden, PA as well as around Southwood, Hockessin, Yorklyn, and Ashland would need daily shipment to Wilmington by rail. Mt. Cuba would lose local milk pickup, but the milk cans could be hauled to Ashland Station.

Between Wooddale and Mt. Cuba, Biederman's Spring Hill Brewery was unlikely to reopen. Wooddale's Leach Quarry experienced sporadic operation and along with the still operating sash, grist, and cider mills at Mt Cuba, would have been shuttered if the Red Clay Valley were flooded. Only the quarry's closing would result in a loss of railroad revenue and job losses.

At the southern outskirts of the flooded area were the ruins of the Marshall Paper Mill at Wooddale. A fire in 1918 destroyed the mill and it was unlikely to return to operation and thus freight service was unlikely to return. The flour mills at Ashland might have closed depending on how the confines of the reservoir's northern banks were constructed. The flour mills were a local operation receiving occasional grain shipments that could be accommodated by truck if necessary.

One potential future customer existed. The Hercules Company's research facility north of Faulkland was in planning at the same time as the reservoir study. The railroad no doubt recognized the complex might require coal service for the powerhouse. Hercules would join Marshallton (Delaware Hard Fiber), Greenbank (County Workhouse Prison powerhouse), Yorklyn (National Vulcanized Fiber & former Garrett Snuff Mill powerhouses), Hockessin (General Store and Golding kaolin mines) and PA limestone mines as locations where hoppers of Anthracite were received and empty hoppers retrieved.

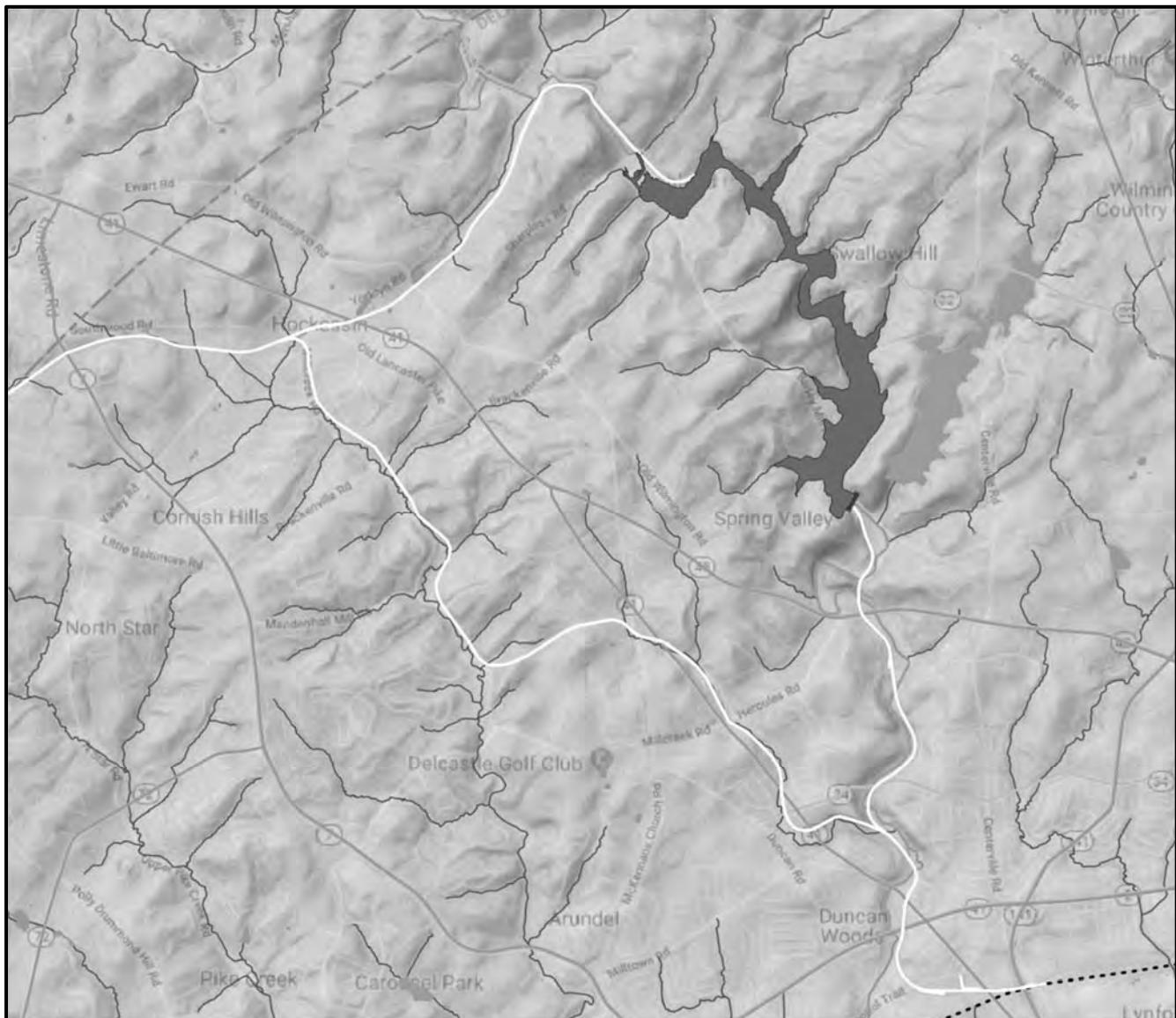
North of a Red Clay reservoir, National Vulcanized Fiber in Yorklyn was the most prolific shipper (incoming boxcars of rags, chemicals; outgoing boxcars of vulcanized fiber products) on the Landenberg Branch. Northwest of a Red Clay reservoir, Golding's Quarry (boxcars of processed kaolin in brick form headed to potteries) remained in operation as probably the second largest shipper on the Branch. Rail service to National and Goldings would need to continue after the reservoir's construction. No matter what decisions happened regarding a reservoir, the Delaware Hard Fiber Company's freight operations at Marshallton and mining operations west of Hockessin would be unaffected.

While we've been unable to find discrete documentation detailing the B&O's precise rerouting plan, there are strong suggestions their plan involved the former right-of-way of the West Chester, Kennett, & Wilmington Electric Railway Company (WCK&W). The Kennett Trolley ran south from Kennett Square eventually crossing into Delaware alongside the Red Clay Creek. Following the Red Clay to Yorklyn, the trolley turned westward and paralleled B&O tracks to Hockessin. West of Hockessin the WCK&W soon followed Mill Creek on its southernly path through New Castle County. South of Graves Road the line turned east following Hyde Run. Reaching Brandywine Springs, the trolley serviced Brandywine Springs Amusement Park and a common station at Cedars with the People's Railway Company.

Ceasing operations just as the reservoir study began, B&O management might have been interested in securing the Kennett Trolley's right-of-way to relocate the Landenberg Branch. A switch near Hyde Run would have transformed the 1872 tracks northward into the 'Wooddale Spur'. Wooddale Spur would now serve the B&O Pavilion at Brandywine Springs (if it reopened) and continue to Faulkland where Faulkland Station could remain

in service. New coal sidings at Hercules might provide Anthracite delivery while operations to Wooddale would continue if warranted. New main line trackage originating at the Hyde Run switch would follow the WCK&W right-of-way northwest along Hyde Run eventually following Mill Creek to rejoin the Landenberg Branch west of Hockessin at Swift Park.

In a like fashion, original Wilmington & Western tracks running due east from a new switch west of Hockessin in the Swift Park vicinity would continue freight service to Goldings Quarry, National Vulcanized Fiber and the repurposed Garrett Snuff Mill



Suggested B&O routing of the Landenberg Branch allowing for a 2-billion-gallon Red Clay Valley Reservoir

businesses at Yorklyn. Depending on the reservoir's northern boundary, existing tracks south from Yorklyn could be maintained to service the Crowell Corporation in the Lower Snuff Mills north of Ashland and the Ashland milling industry including Ashland Station. The image above shows a suggested rerouting of the Landenberg Branch following the former WCK&W's right-of-way.

So that leaves us wondering what a present-day ride on the Wilmington & Western might encompass had Red Clay Reservoir become reality. After leaving Greenbank Station and crossing Hyde Run, the line turns west through Brandywine Springs County Park. A pair of Newport-Gap Pike grade crossings might follow as the line tracked the eastern bank of Hyde Run. Crossing to the west bank of Hyde Run, the line could nestle between Newport-Gap Pike to the west and Hyde Run to the east. Crossing Newport-Gap Pike for the final time, and after a McKennan's Church Road crossing, the route continues west to Mill Creek. Along Mill Creek was a WWRR route proposed in 1870. Turning north, shadowing the eastern bank of Mill Creek, grade crossings for Graves and Brackenville Roads would follow. Just east of Mill Creek Road the rerouted line rejoins 1870s-laid track at Swift Park west of Hockessin.

While today the alternate route might offer a somewhat scenic trip, perhaps the elimination of Mt. Cuba's picnic grove, coupled with limited alternate intermediate destinations in 1960, might have meant Tom Marshall's vision of returning steam to the Landenberg Branch had little chance of long-term success.



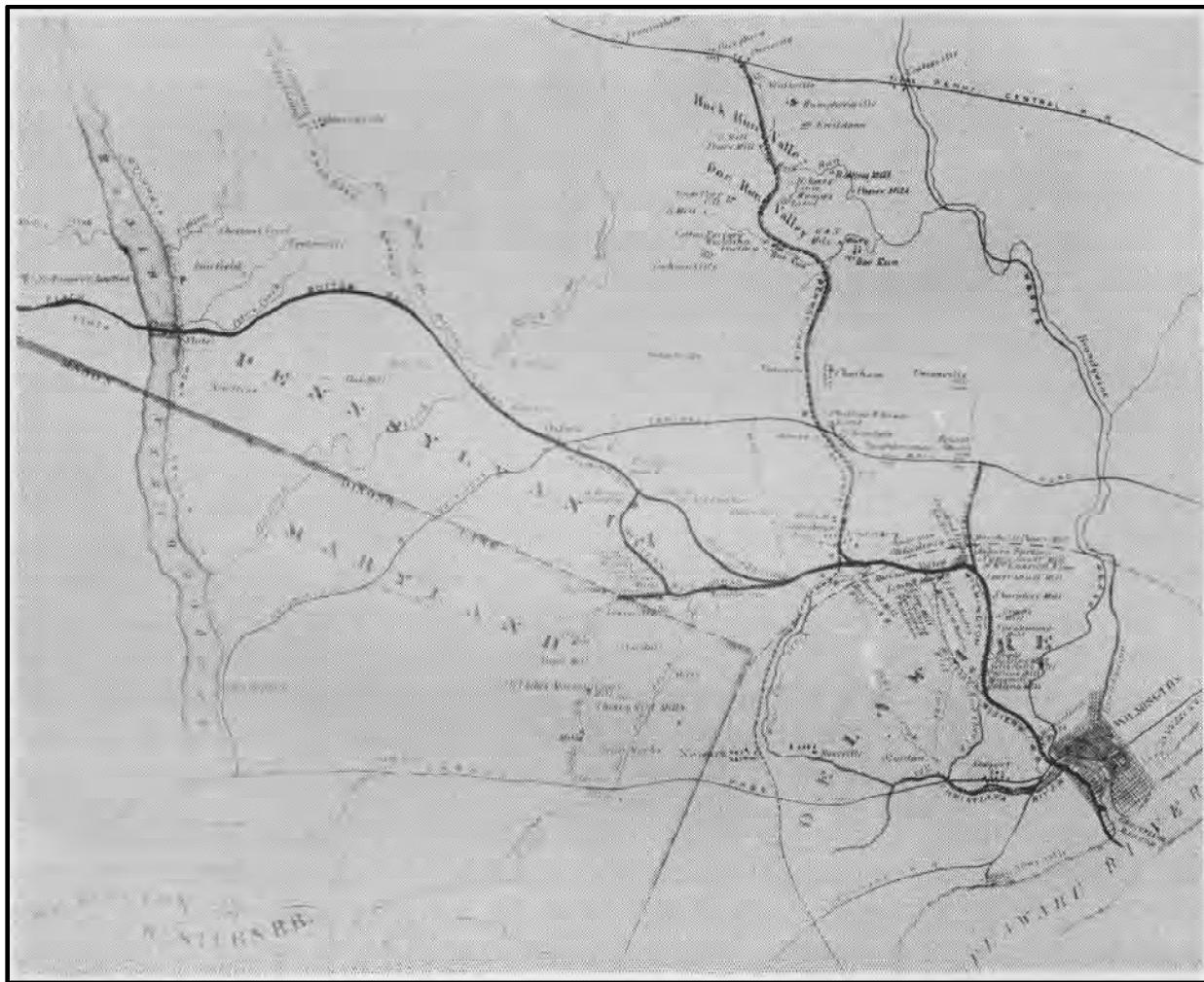
Figure G

Map showing the two points of abandonment of the former Wilmington & Western Railroad. On September 28, 1930 the final passenger trains operated on the Landenberg Branch between Landenberg, PA and Wilmington, DE. There were still freight customers along the Landenberg Branch and the Baltimore & Ohio Railroad continued freight operations until the end of July 1942 between Landenberg and Wilmington. In August 1942 the tracks were removed from just east of Southwood Station in Delaware to Landenberg. The 885-foot long Broad Run Trestle, an icon of the early line, was removed by mid September 1941. In 1953 the last steam locomotive shifted freight cars on the Landenberg Branch from Hockessin to Wilsmere Yard as the B&O's fleet of General Motors Electro-Motive Division SW-1 diesel locomotives would shift freight cars going forward. The short section of track from Valley Road to the end of line at Southwood, DE served as a storage siding for up to 70 coal hopper cars until early 1957. With the development of the Southwood area, the B&O removed the hopper cars in storage in January 1957 and abandoned the track between the western side of Valley Road and the end of track at Southwood, DE. In the 1980s as part of a construction project to widen Valley Road, HRCV reverted the right-of-way on either side of Valley Road to the State of Delaware. The 'western' terminus of the original Wilmington & Western Railroad tracks is now at 39.75 degrees North latitude and 75.71 degrees West longitude a short distance from the junction of Evanson and Valley roads.

2019 EDITION LETTER FOOTNOTES

A – Pike Creek, west of Mill Creek, was another important Mill Creek Hundred stream providing multiple mills access to harness a creek's water power. Review of the 1868 *Atlas of the State of Delaware* published by Pomeroy & Beers shows Pike Creek powering a half dozen or so saw, grist and textile mills as it flows south and empties into White Clay Creek.

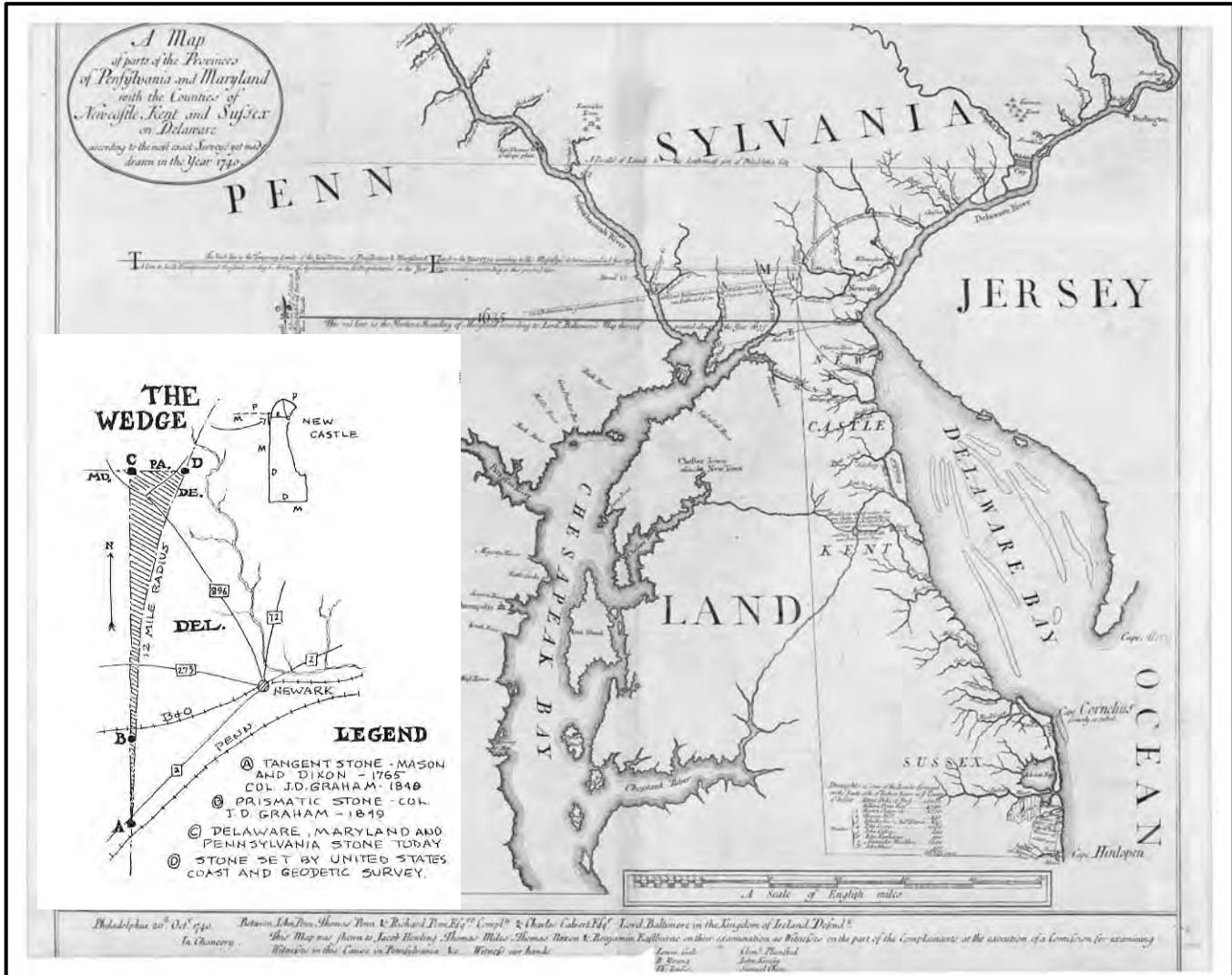
B – Original publication's Figure 1 prospectus map from 1866 replaced with a better copy from the Hagley Museum & Library digital archives.



C – In the 1860s the western portion of the arc border between Delaware, Maryland, and Pennsylvania remained in dispute. This uncertainty raises the question if all or part of Marshall's Homestead Paper Mill was in Pennsylvania and/or Delaware. The cause of the dispute was the accuracy of the 12-mile arc, and the William Penn and Lord Calvert territories' common east-west boundary as compared to the mid-1700s boundaries determined by Charles Mason & Jeremiah Dixon. The 1887 map below created by the Pennsylvania Secretary of Internal Affairs highlights the various disputed boundaries between the three states.

The “wedge” and the “horn” were disputed lands north and south of the arc line between Pennsylvania and Delaware. The DE-PA arc line is not part of the Mason-Dixon line. Originally established as part of an informal resolution between William Penn and Lord Calvert, it wasn't

formally measured and laid out until 1801. The “wedge” is perhaps the better known of the two disputed land areas and covers roughly 800 acres (see the inset). It wasn’t until the United States Coast and Geodetic Survey (an early version of the US Geological Survey) reviewed the matter in the early 1890s that a resolution was reached. While Pennsylvania accepted the proposed resolution in 1898, it took Delaware until 1921 to legally accept the result. Marshall’s Homestead Paper Mill was located near or within the “horn” portion in dispute.



D – Volkman referred to the proposed railroad as the “*Wilmington* and Chester County Railroad Company” in several locations within the monograph. This is most likely a confusion resulting from the final name chosen for the railroad of “*Wilmington* and Western Railroad Company”. According to legislative records, the legal name chosen and documented was “*Delaware* and Chester County Railroad Company”. It is unknown, and research does not confirm, if theories suggesting the organizers may have considered the use of “*Wilmington*” instead of “*Delaware*” are accurate. Volkman uses “*Delaware*” for later monograph references to the proposed railroad. The text has been corrected (in three locations) from “*Delaware*” to “*Wilmington*” to avoid confusion.

E – An Addendum has been added to Volkman’s original monograph which provides copies of applicable Delaware and Pennsylvania legislative acts related to railroads directly associated with either the Delaware and Chester County Railroad or the *Wilmington* and Western Railroad along with a couple of the other railroads Volkman references. These documents are appended to assist

the reader in obtaining comprehensive picture of the early history, legal, and operational details for a railroad operated in both Delaware and Pennsylvania in the late 1800s.

The appended documents relate to the following railroads:

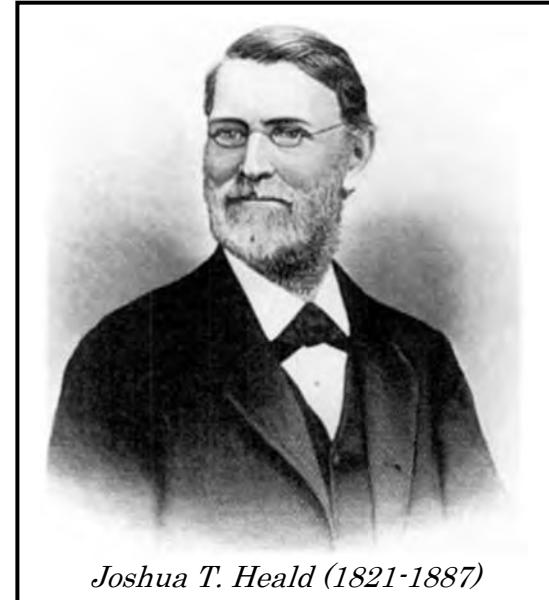
- Doe Run and White Clay Creek Railroad Company
- Delaware and Pennsylvania Railroad
- Philadelphia and Baltimore Central Railroad
- Peach Bottom Railway Company
- Delaware and Chester County Railroad
- Wilmington and Western Railroad Company
- Delaware Western Railroad Company
- Baltimore and Philadelphia Railroad Company

F – Joshua Heald is generally recognized as the driving force behind the building of the Wilmington and Western Railroad. In 2012, *Mill Creek Hundred History Blog* historian Scott Palmer researched and wrote a short biography of Joshua T. Heald. Excerpts of Palmer's blog article is reproduced below;

It is, admittedly, true that Mill Creek Hundred (MCH) does not boast much in the way of sons or daughters who have made a lasting or visible impact on the national or global level. However, if we step down a notch to the state/local level, we do find some residents who did make significant impacts on the development of the region. One such MCH native was a 19th Century businessman, son of an 18th Century farmer, but with a decidedly 20th Century vision. His name was Joshua T. Heald (1821-1887), and of him Delaware historian John Thomas Scharf said, "...it is probably not an exaggeration to say that he did more to enhance the interests of Wilmington than any other one man."

When he was born in northern MCH, it seemed he was destined to live as a farmer like his father and most of his neighbors. However, an unfortunate accident for him turned out to be a stroke of good luck for the city of Wilmington and the surrounding area, including his home region. Heald would instead turn his attention to the business world, and in the process, he would help the region transition into the new, modern world. His vision was one that would benefit everyone, from the most powerful industrialists to the lowliest immigrants. He also quite literally changed the map of Wilmington and beyond.

Joshua Taylor Heald was born on May 26, 1821 to Joseph and Hannah (Mendenhall) Heald. Joseph and Hannah originally hailed from Chester County, but moved to MCH in about 1805. They had ten or eleven children, the youngest being Joshua. Young Joshua grew up in a stone house (still standing) just east of Benge Road, north of Old Public Road. He never knew his father, who died just shy of Joshua's first birthday, and the boy probably attended the Friends school just down the road. His life took a fateful turn when he was about 12 or 13, when he was accidentally cut by a knife while cutting Indian corn and lamed for life. Now, with a life of farm work no longer an option, Joshua turned toward education.



Joshua T. Heald (1821-1887)

He moved away from the family homestead and attended several schools in Pennsylvania, even teaching briefly in one before moving to Wilmington in 1838 at the age of 17. He began working as a bookkeeper for the manufacturing firm of Betts, Pusey, and Harlan (soon after to become Harlan and Hollingsworth), where he quickly impressed with his hard work and business acumen. After only five years, he left to join Edwin A. Wilson in the book and stationary business, forming Wilson & Heald. He would soon be running the business on his own, and under his own name, and would become one of the leading booksellers and binders in the city.

While working his first job, it seems that Samuel Pusey (of Betts, Pusey and Harlan) was not the only member of that family he impressed. In 1844, Joshua married Hannah Pusey, who I believe was Samuel's niece. They moved in with her father Jonas Pusey, an attorney, and started a family that would eventually number eight children, two of whom died in infancy. With a family and a thriving business, Joshua's thoughts soon turned to other, grander business ventures. Sometime around 1850, Joshua T. Heald turned his attention to two very related fields: transportation and real estate. His success in these areas would make him one of the most powerful and influential men in the city.



The 1850's saw Heald start to build his fortune, power, and influence through his real estate and banking transactions. By 1859 his standing was such that he was named one of the directors of the newly-formed Mechanics Bank. That same year, he also became the first president of the Wilmington Institute – the organization that still operates the free library on Rodney Square. It wasn't until five years later, however, that Heald would commence the undertakings that would have the greatest impact on his adopted city. They were a near-perfect synchronicity of transportation and real estate.

In early 1864, the state legislature approved the charter of the Wilmington City Railway Company, and Joshua T. Heald was elected its first president. It was his vision that powered the construction of the first trolley line in Wilmington (although it was horses that powered the actual trolleys). The first horse-drawn cars began service in June 1864, on the line that ran from the train station (different station, but in the same place as today's), along Front Street, up Market Street, then west along 10th Street and Delaware Avenue to the new car barns and office on the north side of Delaware Avenue between Clayton and DuPont Streets (where the Trolley Square Shopping Center is now).

One of the reasons (if not the main reason) why Heald's trolley line ran out in this direction stemmed from a move several years earlier when the city of Wilmington expanded its limits westward to Union Street. Although much of this area was still farmland, J.T. Heald the entrepreneur saw its potential. About the same time that the trolley line was being laid, Heald purchased a plot of land along Delaware Avenue (and the trolley line) with the intention of developing it for residential use. This plot, 40 acres in size, would come to be known as the neighborhood of Forty Acres.

Although his new development was technically within the city, it really was suburban living that Heald was trying to promote to his working-class clientele. Since the trolley line

had been extended out to Rising Sun Lane, giving it easy access to the DuPont powder mills on the Brandywine, many of the new residents were Irish immigrants working for the DuPont families. Still today, Forty Acres has a distinctly Irish feel. Through Heald's work, many working-class families were able to move out of "the city", and into what really could be thought of as the first trolley suburb in Delaware, and probably one of the first in the nation.

And what about the area that generally is considered as Wilmington's first trolley suburb – Elsmere? That was Joshua Heald's work, too. In 1886, just before he died, Heald began developing the area west of the city, near the Baltimore & Ohio's Elsmere Junction. Just as with Forty Acres, the developer urged people to move out of the crowded, dirty city and into the suburbs. It would actually be another 10 years, though, before trolley service would come to Elsmere.

Another effect of Heald's Delaware Avenue trolley line was that it made that street into a showcase. Still today, when you drive along Delaware Avenue, you can see many of the homes of late 19th Century Wilmington's most influential people, including Joshua T. Heald. His house, seen above in an 1873 etching (with trolley tracks visible) and today, is on the corner of Delaware Avenue and Broome Street. By the 1880's, Delaware Avenue had become a showplace for the homes of the powerful, while just a bit further along their workers could afford their own homes, all thanks to Heald's vision.

It wasn't just to the north and west that he envisioned the expansion of the city, though. Heald also served as the president of the Christiana River Improvement Company, an organization that lobbied for the development of the area to the south and east of the city. Although the city never really stretched all the way to the Delaware as some thought it would, their work did lead to much of the industrial development along the Christina and in South Wilmington in the late 1800's.



For all the work he did improving the city of Wilmington, Heald did have one more venture that greatly benefited his home area of MCH. As early as the early 1860's, businessmen were looking for another route along which to build a railroad into Wilmington. Although the Civil War pushed the project back, by the late 1860's it was back on again. Eventually, a route along the Red Clay Creek was agreed upon, and funding was sought for the new line. The man in charge of securing the funding for the new Wilmington and Western Railroad was Joshua T. Heald. He turned the first shovel of dirt near the Fell Spice Mill in 1871 when work began on the line, and Heald was named as the first president of the railroad.

Unfortunately, when the railroad suffered almost immediate financial difficulty in 1873 due to a nationwide economic crisis, Heald lost much of his personal fortune, which he had invested into the line. This didn't stop him, though, and he soon formed the banking and real estate finance firm of Heald and Company, which he ran until his death. Joshua Taylor Heald passed away on July 22, 1887, at the age of 66, of typhoid fever.

From his humble beginnings in the hills above Hockessin, Heald went on to become one of the most influential and respected men in Wilmington, and in the state. His vision and civic-mindedness helped him become possibly the most important figure in the late 19th Century growth of the city and the county.

Additional Facts and Related Thoughts:

- The Mechanics Bank that Heald was a Director of in 1859 closed after only a few years. To take its place, the First National Bank of Wilmington was formed in 1864, with Heald named a Director of that as well.
- Another proof of Heald's position in the city: when President Grant visited the city in 1873, just before being inaugurated for his second term, his reception was hosted by Heald at his home.
- In 1870, Heald was nominated on the Republican ticket to run for the U.S. House of Representatives but lost in a close race.
- After being involved in its first incarnation, Heald helped to reorganize the Wilmington Board of Trade in 1868, after it had been idle for a number of years. The Board eventually became the Delaware State Chamber of Commerce.

^G – Chandlersville was one of two so-named locations in America in the 1800s. The Pennsylvania village of mill workers adopted the Chandlersville name in respect to Enoch Chandler who founded and operated a large woolen mill along the White Clay Creek starting in 1825. The Chandlersville post office was established on November 17, 1847. A grist mill, a bone and fertilizer mill, a comb mill and a match factory were powered by the White Clay Creek in the area of Chandlersville.

The Chandlersville post office was changed to Landenberg in 1869, named after Martin Landenberg(er) who had become the woolen mill owner. The change coincided with interest from two railroads proposing service to the mills in the area. In addition to the Delaware & Chester County Railroad Company (Wilmington & Western Railroad), the Doe Run & White Clay Creek Railroad Company had been formed on August 20, 1868 to provide a route along the White Clay Creek and through DE.

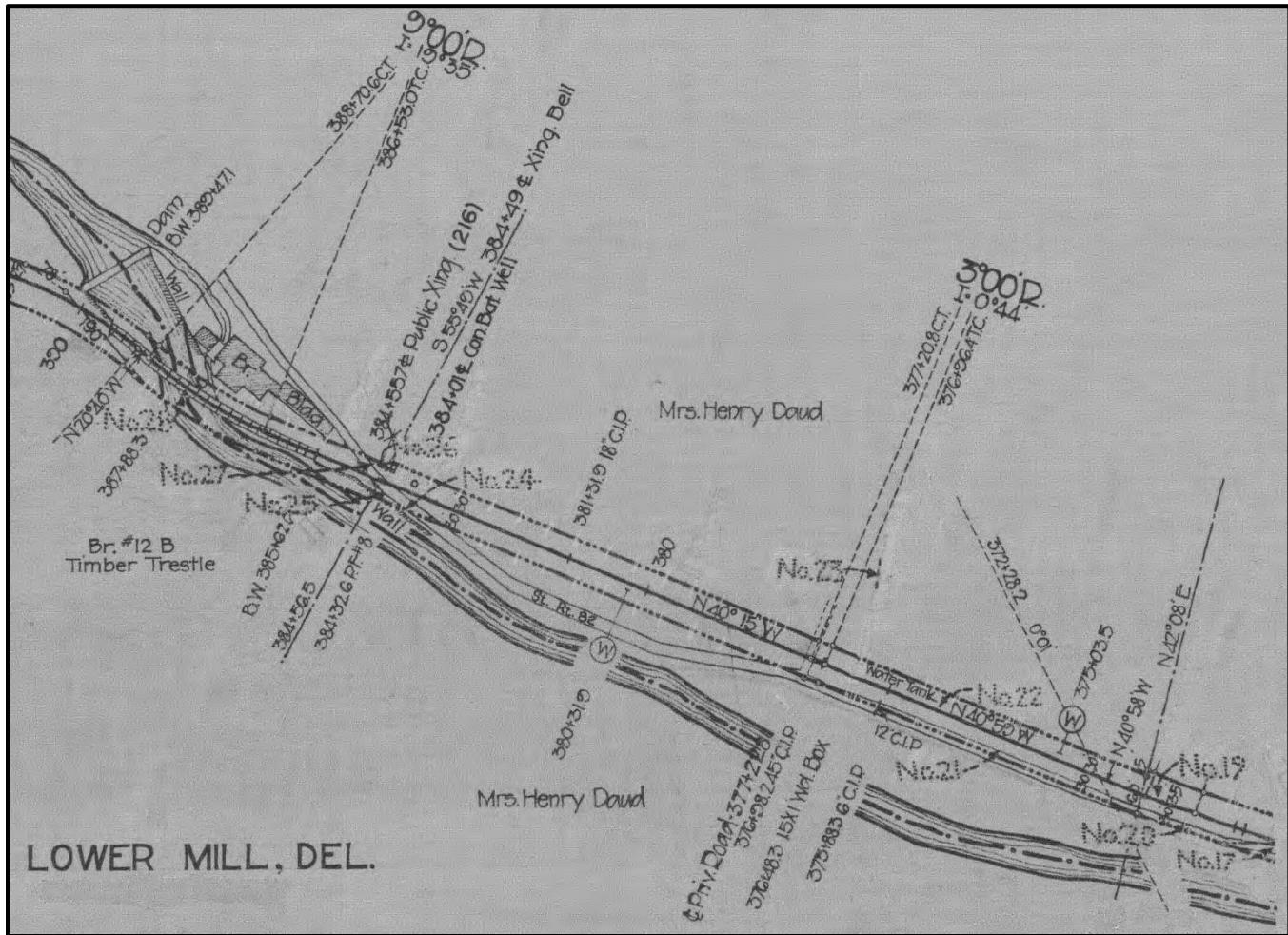
One of the cited goals of the proposed White Clay route was hauling coal from PA mines to DE ports to feed the steam ships distributing goods along the east coast. Processed iron ore from southeastern PA mines heading to Wilmington's iron shipbuilders and railroad coach builders offered yet another freight opportunity. This railroad eventually became the Pennsylvania & Delaware Railway Company and connected Pomeroy, PA with the port at Delaware City, DE. Several corporate identity changes eventually saw it named the Pomeroy & Newark Railroad Company in PA and the Newark & Delaware City Railroad in DE (both becoming part of the Pennsylvania Railroad in the 1880s).

^H – The ticket information was written out in Volkman's original monograph as part of the paragraph. The ticket appearance depicted is provided for effect as part of this revised monograph.

^I – The Hagley Museum and Library Digital Archives contains the original hand-drawn pen and India ink on linen Baltimore & Ohio Railroad valuation maps created in June 1918 for the Interstate Commerce Commission. The maps cover the railroad's route as documented in 1918 from Landenberg Junction near Route 141 to the line's terminus in Landenberg, PA. The eight maps are digitized and available online. Each map includes a table of deed data detailing easement and land transactions between landowners along the Wilmington and Western Railroad's right-of-way and the railroad company (summary table of data included in the Addendum). The maps are part of the "*Robert E. Wilhelm, Jr. Collection of Red Clay Valley Materials*" and are available for access online at "digital.hagley.org".

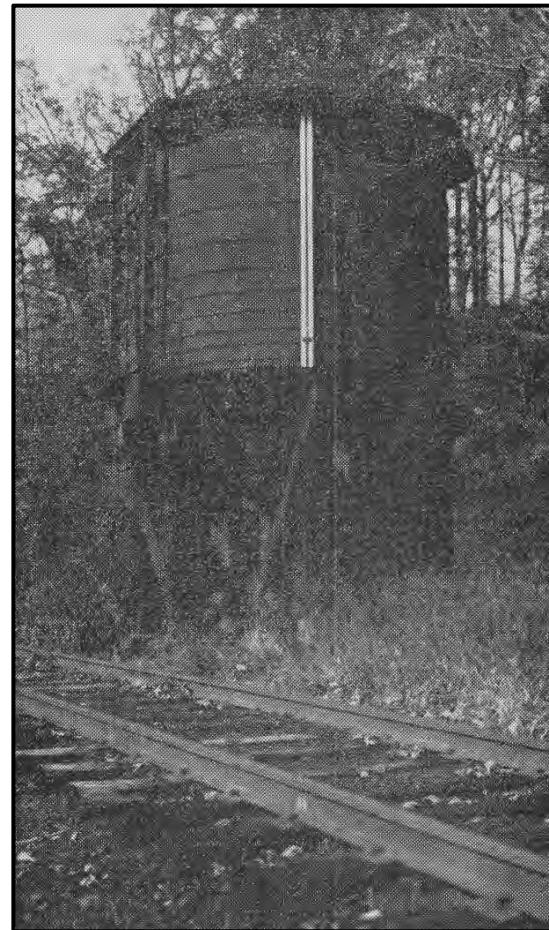
J – Review of the Baltimore & Ohio Railroad 1918 Valuation Map V-9.4-4 (below) reveals two entries related to Samuel M. Green. They cover land parcels No. 22 (NCC Deed Book M26, page 443) for trackage and parcel No. 23 (NCC Deed Book W-9, page 392) for “conveying water rights and ground for pipe line” to a cistern to be built at a natural spring in the hill to the northeast of the tank’s proposed location. Parcel 22 represents a land strip 60-feet wide (the typical right-of-way width the WWRR used) by 1,300-feet long totaling 1.79 acres (78,072 square feet).

The valuation map documents the former Samuel Green property now owned by Mrs. Henry Daud in 1918. The property eventually became part of the Eleanor Marshall Reynolds Trust. Mrs. Reynolds gifted the land to The Nature Conservancy as a means to preserve pristine open space in Delaware. In 2007, as part of planning Auburn Heights Preserve, the State of Delaware purchased the property from The Nature Conservancy. The location of the water tank is noted within the railroad right-of-way at lower right.



At the upper left is the vacant former Garrett #4 Snuff Mill which would have been owned by the Helme Snuff Company when the map was issued in 1918. In 1901 a quarter of the world's snuff was being made at the Garrett mills in Yorklyn and Lower Mill, DE (3.5 million pounds annually). Declared a monopoly by the Supreme Court, the American Snuff Company became three smaller companies. In 1911 the Helme Snuff Company was given ownership of the former Garrett operations in Delaware. A railroad trestle siding served the mill warehouse having been constructed in the mid-1880s. As it is no longer shown on the valuation map, it was probably removed when Helme shut down mill operations in 1912 and scrapped the machinery and equipment contained in the buildings before placing the property up for sale.

K – Constructed in the mid-1870s and doubled in size in the mid-1880s, the #4 Garrett snuff mill (below left, courtesy of Chester County Historical Society) was owned by the American Snuff Company, a subsidiary of James Buchanan Dukes' American Tobacco Company by 1907. When the U.S. government broke up the American Tobacco Company's snuff and tobacco monopoly, mill #4 became part of the George W. Helme Company in 1911. A year later the #4 mill was the first of the five former Garrett mills to close. Snuff milling declined at Yorklyn as more efficient operations took over production and on October 1, 1954 the last of the original Garrett mills was shut down. The mill equipment was scrapped and the remaining 75 men were laid off.



After discontinuing operations at Mill #4, the mill was gutted of all machinery and equipment and eventually sold to The Crowell Company in February 1920. Crowell, a manufacturer of gummed cloth and paper tapes, was looking to expand operations beyond their Brooklyn, NY facility. Crowell shipped raw materials and finished product via motor freight until a 1964 fire completely destroyed the facility which was not rebuilt. The siding, a trestle siding constructed by Garrett in the mid-1880s, is not shown on the 1918 valuation map above. The trestle and switch were likely removed when Helme shut down operations after 1912.

L – William E. Grant's original Figure 2 (above right) replaced with a better image.

M – Alan Wood provided two tracts of land totaling 0.426 acres (18,577.2 square feet) for the 60' wide right-of-way and for Wooddale Station. See the HRCV monograph "*Ironworks on Red Clay Creek in the 19th Century – The Wooddale and Marshallton Mills of New Castle County, Delaware*" by Carroll W. Pursell, Jr for more information on Wooddale Mill.

In the late 1880s, Israel and Ellwood Marshall of Yorklyn were looking to expand their papermaking business and knew Wooddale Mill was for sale. In 1891 (some reports suggest 1894) the Marshalls likely took control of the mill under a lease to purchase agreement. Israel, Elwood and Dr. Taylor Mitchell, the husband of their sister Mary, founded Marshall & Mitchell Company at Wooddale, DE and converted the former iron rolling mill to making wood-pulp paper. Three 600-pound beating engines and a 62-inch Fourdrinier paper machine were installed at Wooddale. Relying on both water power and steam power, the widest trimmed sheet the mill could produce was 58-inches. Eventually the mill started producing rag paper for the Marshall's vulcanized fiber operation in Yorklyn. A photo of the Marshall & Mitchell mill, courtesy of the Chester County Historical Society is shown below.



Wooddale Station (left) and Marshall & Mitchell Paper Company
Charles S. Philips Collection – January 14, 1896

^N – Volkman noted the date as September 25, 1872 however the Baltimore & Ohio Railroad valuation map of 1918, map V9.4-6, indicates September 5, 1872 for the date of the deed and September 27, 1872 as the date the deed was recorded in the NCC Recorder of Deeds book T-9, page 39. The total area involved was 1.129 acres (49,194 square feet). On April 18, 1871, Evan Brown agreed to release to the Wilmington & Western Railroad Company a total of 1.96 acres (85,378 square feet) of land providing the right-of-way for the railroad.

On August 9, 1942 the Baltimore & Ohio Railroad officially abandoned the track from east of Limestone Road to Landenberg, PA. Valuation map V9.4-6 indicates that the property provided by Evan Brown was quit claim returned to those owning the former Brown property. Examination of NCC deed maps reveal the original route of the railroad in Delaware is now owned by the maintenance associations for the local housing developments.

° – A review of valuation map V9.4-6, suggests the siding was a passing siding. The valuation drawings document locations of switch components for turnouts and sidings. When the line was abandoned in 1942 the B&O updated the valuation drawing to remove the track that had been abandoned. The erasures show what appear to have once been documentation for a passing siding. It appears on 1918 valuation map that a passing siding started just southwest of Limestone Road and paralleled north of the main track to a point just northeast of the DE-PA state line. A set of valuation photos taken by the B&O in November 1927 call out an abandoned siding which does not appear to still be connected to the main tracks in the vicinity of Limestone Road.

° – The 1918 valuation map does indicate that a quarter acre of land for Faulkland Station was transferred by deed between Franklin Fell and the Wilmington & Western Railroad Company. What is more interesting to note is that 4.26 acres of railroad right-of-way crossing Franklin Fell's property, starting at Hyde Run and continuing northeast and crossing Faulkland Road, then continuing behind Faulkland Woods to Brookmeade II & III, was obtained by being condemned versus having been granted or deeded. A photograph of Faulkland Station in 1896 is shown below.



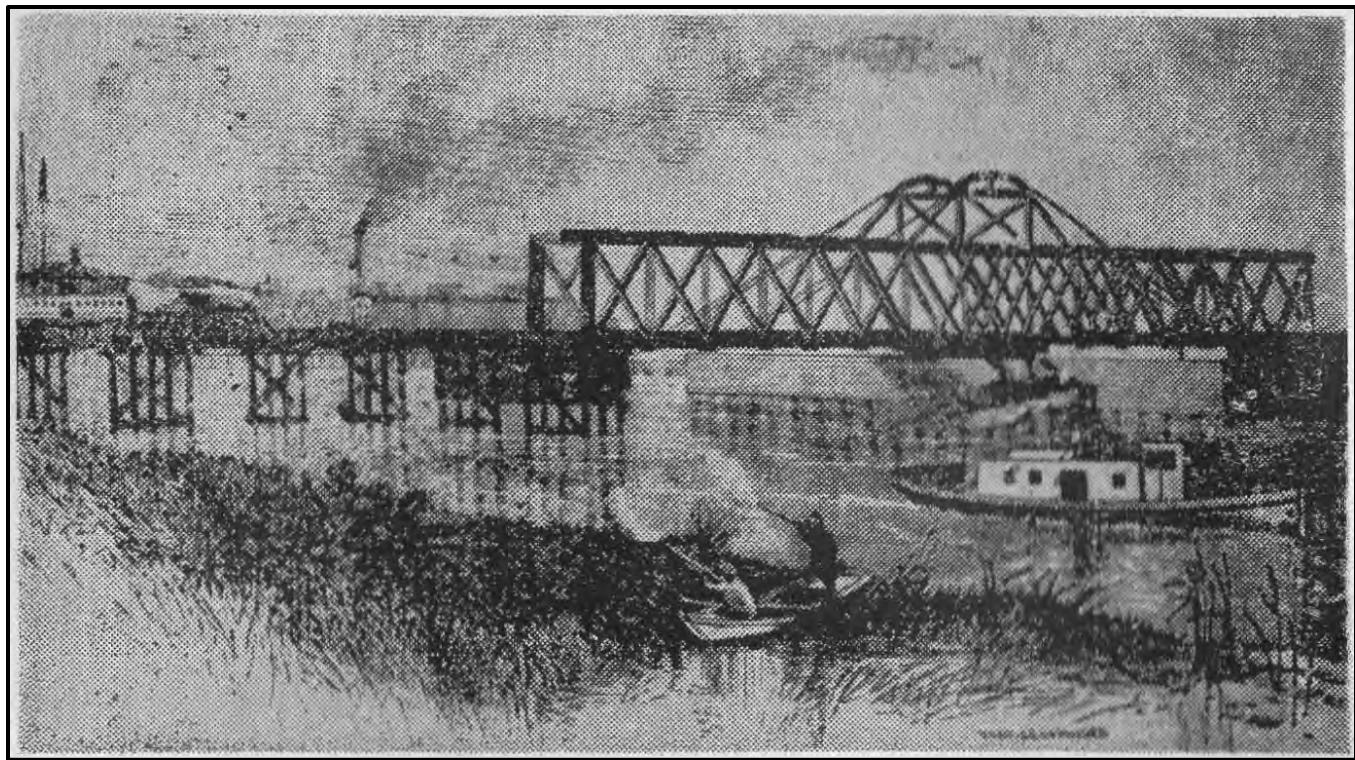
*Faulkland Station – Charles S. Philips Collection – January 14, 1896
The Faulkland Road iron truss bridge is to the right foreground of the station. The road, foreground left served the spice mills and is now open area and driveways for residences.*

° – The Addendum includes a listing of all the property transfers recorded on the Baltimore & Ohio Railroad 1918 Valuation Maps for the Landenberg Branch. Land was conveyed by release (a grant of easement permitting the railroad to place tracks and cross the owner's property for a defined period of time), and actual transfer of property by deed from the owner to the railroad, or by the owner not wishing to grant a release or sell the property outright whereby the railroad had the needed access condemned and took ownership.

It should be noted that while many landowners completed their land agreements before the railroad began operations on October 19, 1872, several completed their land agreements as late as early 1873. A few of the releases and deeds were filed with the New Castle County Recorder of Deeds as late as 1917. The Baltimore & Ohio Railroad did a major upgrade to the railbed so that heavier cars could be handled in 1907. This is when the iron Pratt truss bridge (11A) was installed

on the line to eliminate a very long trestle spanning a low area and the Red Clay Creek at Ashland. No doubt the Baltimore & Philadelphia Railroad, the owners of the Landenberg Branch and a fully owned subsidiary of the Baltimore & Ohio Railroad uncovered additional releases and deeds requiring filing with the NCC Recorder of Deeds. Finally, as part of the nationwide railroad valuation effort begun in 1913 and requiring all railroad to supply the Interstate Commerce Commission with accurate valuation maps and data by June 1918, any missing land transactions had to be resolved and documented with the NCC Recorded of Deeds.

R – The original publication's Figure 3 from 1873 Harkness Magazine – “*Wilmington and its Industries*” image replaced with a better copy. Volkman's caption for Figure 3 originally started out as “Trestle, or drawbridge, across Christiana...”. The caption was changed to reflect that a swing bridge design was provided.



On March 7, 1871 the Delaware legislature passed an Act (see Addendum for a copy; Volume 14, Chapter 64) requiring the “Wilmington and Western Railroad Company, in constructing its road across the Christiana River, shall, and the said company is hereby required to erect and maintain a draw or pivot bridge at the crossing of said stream, of not less than thirty-five feet in clear width, for the passage of vessels, and shall also provide, at the expense of the said company, proper attendance upon said bridge, as is customary in such cases.”

The bridge constructed in 1872 was of the broad classification of a moveable bridge design as it moved the truss structure allowing passage of tall ships on the river. A “pivot” or “swing” bridge rotates the truss structure 90-degrees and parallel to the flow of the body of water being crossed. It requires a central pier and operator at the pier to turn a crank to rotate the balanced structure. A “draw” design lifts one end of the truss structure higher to provide clearance.

Below is an aerial image of the Christina River area south of Wilmington taken for the National Park Service's Historic American Engineering Record in the early 1930s. At the right center edge, the former WWRR right-of-way and central pier for the swing bridge is visible.



^S – Volkman may have been referring to the lithograph at right. While the description provided fits the rock cut at Wooddale, the image from the September 1873 issue of Harkness Magazine was captioned for “Cuba Hill Ridge” which would have been the Mt. Cuba rock cut. The image shown is the only image we’ve found during our research.

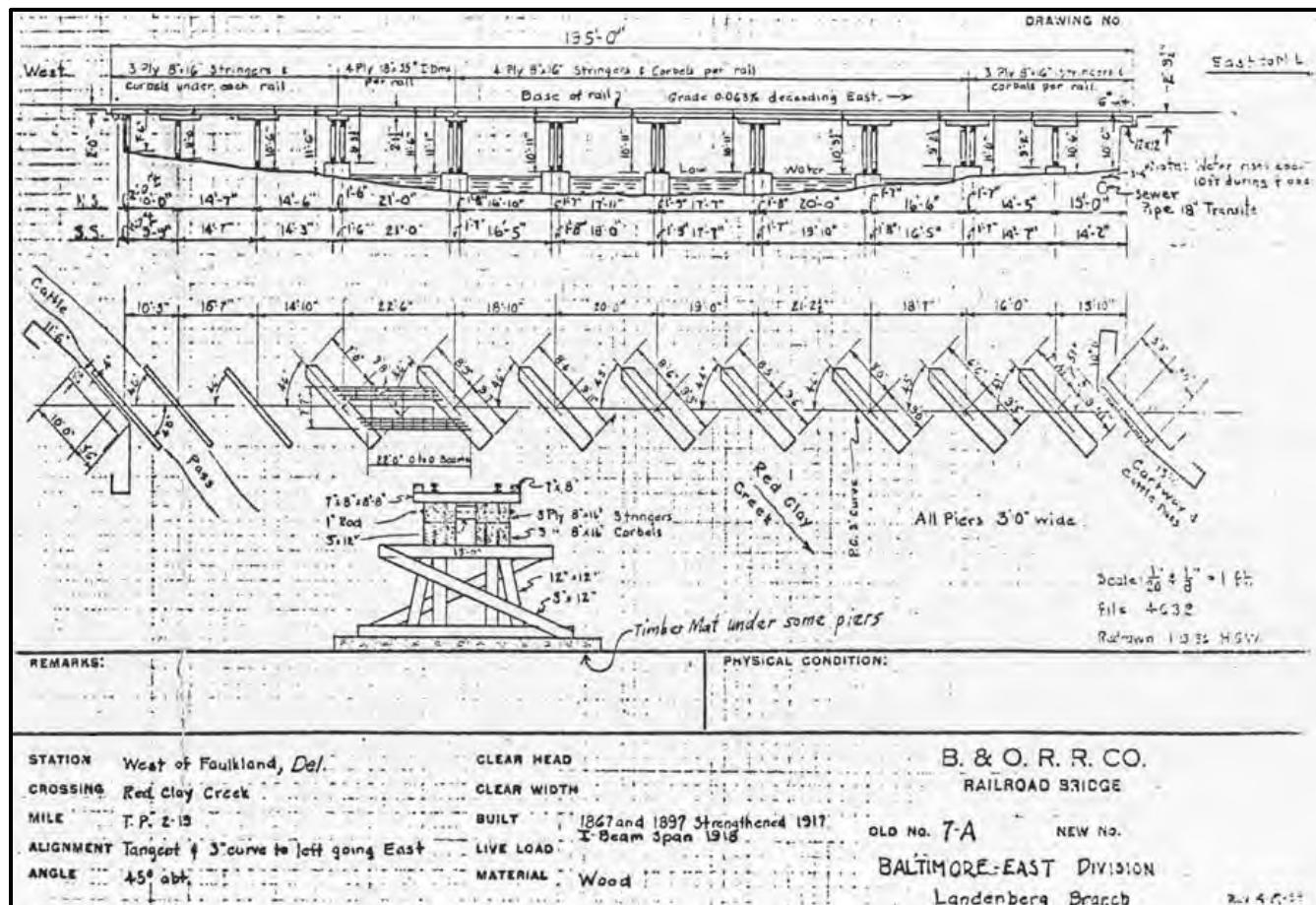
^T – A Mr. Darlington was contracted to construct the fifty bridges, trestles, and wood-box lined ditches for the new road. For the fourteen major bridges and trestles required, wooden beams for the supporting and securing of ties and track on top were to be 14" deep by 12" wide with multiple beams used under each rail as necessary for the weight of the trains and the distance between the trestle bents (support between the creek bed and wooden beams under the railroad ties and track) supporting the structure from the creek bed.

Trestles required ample stone pad foundations resting on the creek bottom. A wood base was constructed deep in the creek bed (but not on bedrock) upon which each



stone pad was constructed. Each trestle bent was to be constructed with four 12"x12" vertical and angled posts resting on, and capped with, 14"x12" beams secured with cross-bracing.

The drawing below from the B&O's engineering division shows the detail typical of the wooden trestles on the line by 1918 when valuation maps and details were documented. Built in 1871-2, the trestles were all strengthened in the latter 1890s to enable them to support the heavier weight of larger railroad freight cars that were coming into use. Additional trestle strengthening was done in the first decades of the 1900s.



The numerous wood box lined ditches under the roadbed were replaced with clay pipe and later ductile iron pipe to eliminate the constant repairs necessary for wood box linings. In the early and mid-20th century, many of the Red Clay tributary crossings originally constructed using wooden stringers were replaced with either riveted steel stringers or large diameter concrete pipe.

U – The original publication's Figure 4 from prospectus is replaced with a better copy from the Hagley Museum & Library digital archives. The one-page figure is split into two independent figures so that they may be better examined. The original Figure 4 caption read ‘Prospectus of Wilmington & Western used to solicit stock subscriptions. Map shows how promoters originally intended to extend line for westward connections which was never realized.’ Captions 4A and 4B are new.

The original publication's Figure 5 from prospectus replaced with a better copy from the Hagley Museum & Library digital archives.

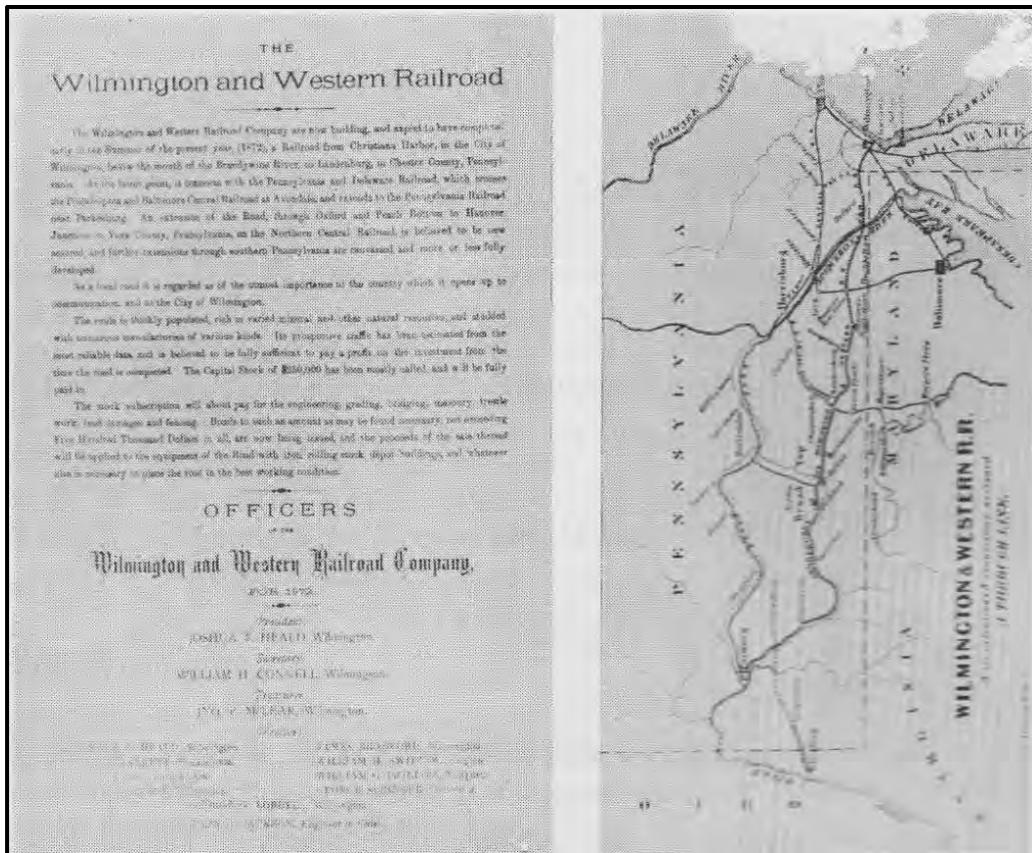


Figure 4 now Figure 4A (left half) and Figure 4B (right half)

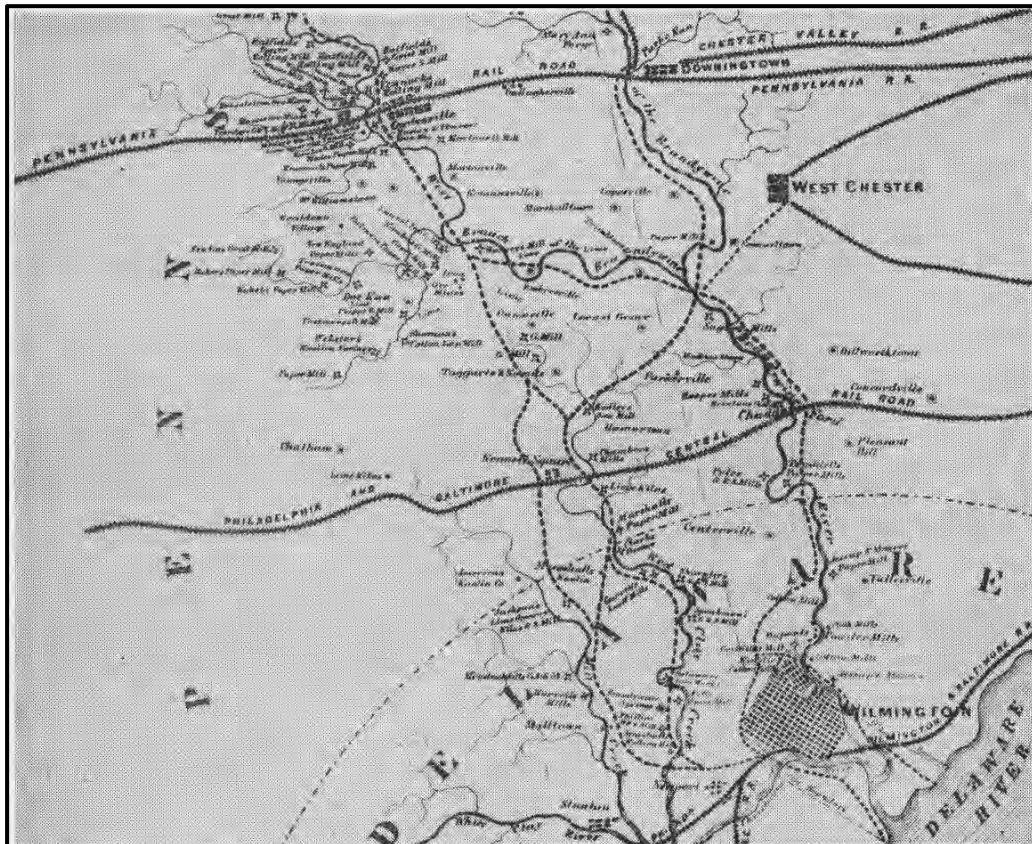
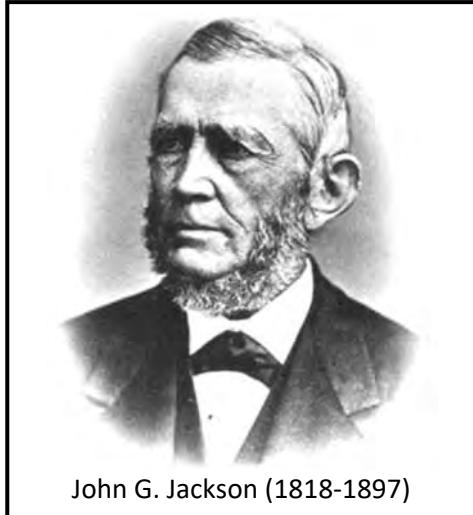


Figure 5 original

v – In 2012, *Mill Creek Hundred History Blog* historian Scott Palmer researched John G. Jackson. As Jackson was, as Volkman suggests, “next if not equal in importance to President Heald”, excerpts of Palmer’s blog article are reproduced below;

John G. Jackson was a native son of Hockessin, born into one of the largest landowning families there at the time. He was born in 1818 in the Dixon-Jackson House, which his grandfather James Jackson had purchased in 1771. The child of Thomas (1777-1861) and Jane Griffith (1784-1853) Jackson, John was the second of two sons, two years younger than his brother James C. Jackson (1816-1907). John spent his early years being schooled first at home by his parents, then at the Friends school nearby (the Jacksons, like many of their Hockessin neighbors, were Quakers). Young John had a voracious appetite for knowledge, and supplemented his schooling with hours spent reading books from a local library. It was from these books that he discovered a passion for astronomy that would stay with him his entire life.



John G. Jackson (1818-1897)

In 1832 at the age of fourteen, John was sent off to study at the Westtown Boarding School near West Chester. After attending Westtown for several years as a student, Jackson became first an assistant teacher, and then a full-time teacher and lecturer in 1838. He spent only one-year teaching astronomy and science there, as health concerns forced him to resign and go off to lead a more active life, as Scharf tells us.

Jackson next, after serving a short apprenticeship, went to work as a surveyor and conveyancer (which seems to be a sort of real estate lawyer). After about a year of that, he and another man rode west to Pittsburgh, then took a boat down to Cincinnati. There he spent the winter of 1840-41 working in the U.S. Land Office, transcribing field notes and putting together maps from government surveys of Northern Ohio. It would not be his last contact with a government job. In the spring of '41, Jackson and another teacher set off on a lecturing tour of southern Ohio, speaking on scientific topics and carrying their equipment with them.

After his lecture tour, John G. Jackson eventually made his way back to Hockessin, and in September 1842 married Elizabeth Baily. The two took up residence in the family home, while John began his business career in earnest. As he had done previously elsewhere, Jackson took work locally as a surveyor and conveyancer. He also started a business in the south end of one of his family's fields, south of Valley Road. The land there, it turned out, was rich in limestone. Slightly different than the softer limestone mined by the Eastburns, Jackson's lime was harder and well-suited for building. He even submitted a sample to the committee building the Washington Monument in DC, but was not awarded that prestigious contract. A picture of his lime kiln is below.

By 1848, Jackson's quarry and other ventures (including a sawmill) were profitable enough that he was able to move himself and his family out of the Dixon-Jackson House (which remained with his brother James) and construct a new home overlooking his lime business. His house still stands, north of Valley Road and east of Southwood Road. Across Valley Road he erected a large red barn, located right about where the entrance to the Hockessin library is today.



Congressional nominee in Delaware for the Greenback Party. None of the major histories mention it, but he was also the gubernatorial nominee for the Greenbacks in 1882. This may be due to the fact that while he received almost a quarter of the vote in 1878, he likely pulled in far fewer by 1882.

Politics wasn't the only place in which John G. Jackson was unafraid to stand up for what he believed in, regardless of public perception. As mentioned earlier, he was raised in the Quaker faith, but as the years went by, he slowly drifted away from it. In what I think might be one of his more interesting episodes, Jackson seems to have dabbled in the Spiritualism movement that arose in the late 1840's. Although I have not read through it fully, this work seems to be a defense – written by John G. and James C. Jackson – of their interest in Spiritualism from attacks by the Society of Friends. Also involved (this is my fairly informed guess, since only initials are used) are John's wife Elizabeth and his cousin Jane Griffith.

Returning now to more worldly pursuits, there was one more venture, vital to Hockessin, in which Jackson was intimately involved. While seated in the State House and Senate, one of the fields he was active in was the incorporation of railroad companies. One of these happened to be the Wilmington and Western Railroad. Not at all coincidentally, Jackson was also an original member of the Board of Directors of the railroad, and served as its Chief Engineer. He helped to lay out its course, and it was also no coincidence that the line happened to run right by his lime quarry.

Unfortunately for Jackson, not only was he a board member of the Wilmington & Western, he was also a major investor. When the line went bankrupt only a few years after its start, he ended up losing a good deal of money. It seems that by this time, though, Jackson was already looking towards retirement. In 1880 he sold his lime quarry business.

Right about this same time, he built a new house for himself and Elizabeth called Sunset Cottage (above right), named for its southwest fronting as well as for his own Sunset Years he planned on spending there. The

Jackson's first experience with a public position arose in 1857, when he was appointed a Notary Public. He was reappointed in 1864, but resigned the position later that year when he was elected to the state legislature on the Republican ticket. In 1866, Jackson moved up to the State Senate, where he served one four-year term. The state legislature was strongly Democratic at the time, but Jackson never seemed to mind being in the minority. By 1878 he had moved even further from the mainstream, when he was named as the



couple had raised two sons in their first home on Valley Road. William, the eldest, followed in his father's footsteps and became a civil engineer, working with his father on the Wilmington & Western and helping to build the bridges for the line. When John moved into Sunset Cottage, William took over the original 1848 home. The younger son, Thomas, also an engineer who helped build the Wilmington & Western, had by that time moved away, first to western Pennsylvania and then to Fort Wayne, Indiana.

John Jackson's new Sunset Cottage, located on the south side of Southwood Road just off of Valley Road, certainly appears to have been the perfect retirement home for him. It was a little smaller than the old house, but with something the old home didn't have – its own telescope. For the long-time avid astronomer, his new observatory (at the top of the Sunset Cottage picture above) was surely a point of pride. From here he observed in 1882 a transit of Venus that he had predicted as a young man in 1837. Also, in 1882, Jackson made a moon observation from his Sunset Cottage telescope which caused a bit of a sensation around the world. He thought he saw a mist or cloud on the moon, implying an atmosphere, which to some implied that life might be possible. And in case you think the "around the world" part is exaggeration, the "discovery" was even mentioned in a paper in New Zealand.

Jackson was fortunate enough to spend nearly twenty years in his Sunset Cottage. His wife Elizabeth died in 1894, and John followed her three years later, passing away in March 1897. Sunset Cottage still stands, albeit with a different look today. Sometime several decades after John G. Jackson's death, it was heavily damaged in a fire and rebuilt in a different style, without its signature dome. One source says the fire was in 1922, while this newspaper article from 1940 says the fire was in 1933. In either case, the house now bears little resemblance to the house in which Jackson lived.

Now, 115 years after his passing, not many people know the name John G. Jackson. In his home town of Hockessin during his life, though, I think there were very few who didn't know him. Jackson was many things during his 79 years: scholar, teacher, adventurer, surveyor, engineer, businessman, spiritualist, astronomer, writer, lawmaker, developer and advocate for the working class (to be elaborated upon in the next post). If there's one thing that seems to have been a constant, it's that a lot of thought, care, and passion went into everything he did. It's those qualities that made John G. Jackson one of the most well-known and highly thought of men in history of Hockessin, and of Mill Creek Hundred.

^w – In March 1964, two months after Volkman released this publication, HRCV initiated an initiative to purchase Greenbank Mill and 7.7 acres of mill property, including water rights, from Saul Cohen for \$11,500. The deal closed in June 1964 with Roy Magargal continuing as miller in residence.

HRCV's long term goal was to halt the decay and neglect that had occurred, and to transform Greenbank Mill into a complementary attraction to the tourist railroad. The operating mill would display life as a miller living in the 1700s and 1800s. A secondary objective would be to display and highlight Newport, DE's Oliver Evans' patented milling inventions which revolutionized the milling industry. Evans' inventions are considered as representing the first example of automated industrialization in the world. His prototype flour mill equipment was first installed at Evans' mill at Faulkland, DE and within a few years Greenbank Mill had been equipped with improved milling equipment of Evans' design.

HRCV began restoration of the mill and offered open house events on select days. In August 1969, three juvenile arsonists burned Greenbank Mill. Their excuse was they were drunk and didn't know what they were doing (they would be acquitted via directed verdict). The "Madison Wool

Factory" was totally gutted and 30 percent to 50 percent of the original mill destroyed. All milling activities ceased after 179 years of continuous operation that commenced in 1790.

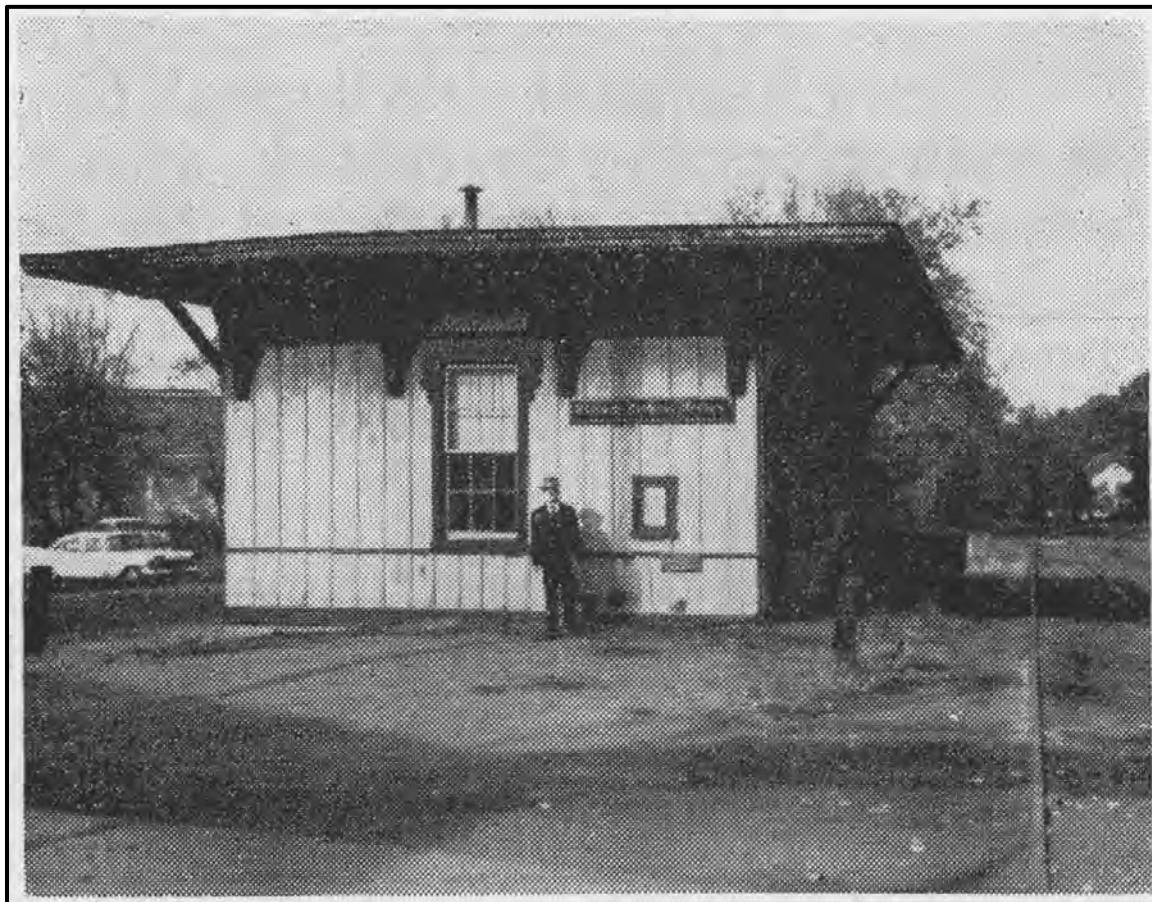
Historic Red Clay Valley, working to restore the fire damaged mill, worked with local authorities and historians to secures the nomination of Greenbank Mill and the adjacent farmhouse and properties with the National Register of Historic Places (Listing 73000513). The Greenbank Historic Area was listed on July 2, 1973.

In January 1988 after working to restore a large portion of Greenbank Mill, HRCV formed Greenbank Mill Associates as an independent 501(c)(3) non-profit organization. With the formation of the independent non-profit, the Greenbank Mill property and mill were transferred from HRCV ownership to Greenbank Mill Associates, Incorporated.

Abbott's Mill Nature Center in Milford Delaware provides one of the few operating examples of Oliver Evans patented milling equipment. Abbott's Mill Nature Center is a partnership between the Delaware Nature Center, the State Division of Historical and Cultural Affairs, and the Division of Fish and Wildlife. Abbotts Mill is generally open daily except select holidays.

^x –The original publication's Figure 6 replaced by a better copy.

^y – Figure 7 taken by William E. Grant replaced with a better copy. The caption was updated. It originally read "Figure 7 – Old Wilmington & Western Station at Yorklyn, built in 1872, the only depot extant. In foreground is Clarence T. Crossan, whose father, Theodore Crossan, was an engineer on the line. Building is still in use as a freight station on B&O. The name of the community was formerly Auburn. (Courtesy W. E. Grant, Sr.)."



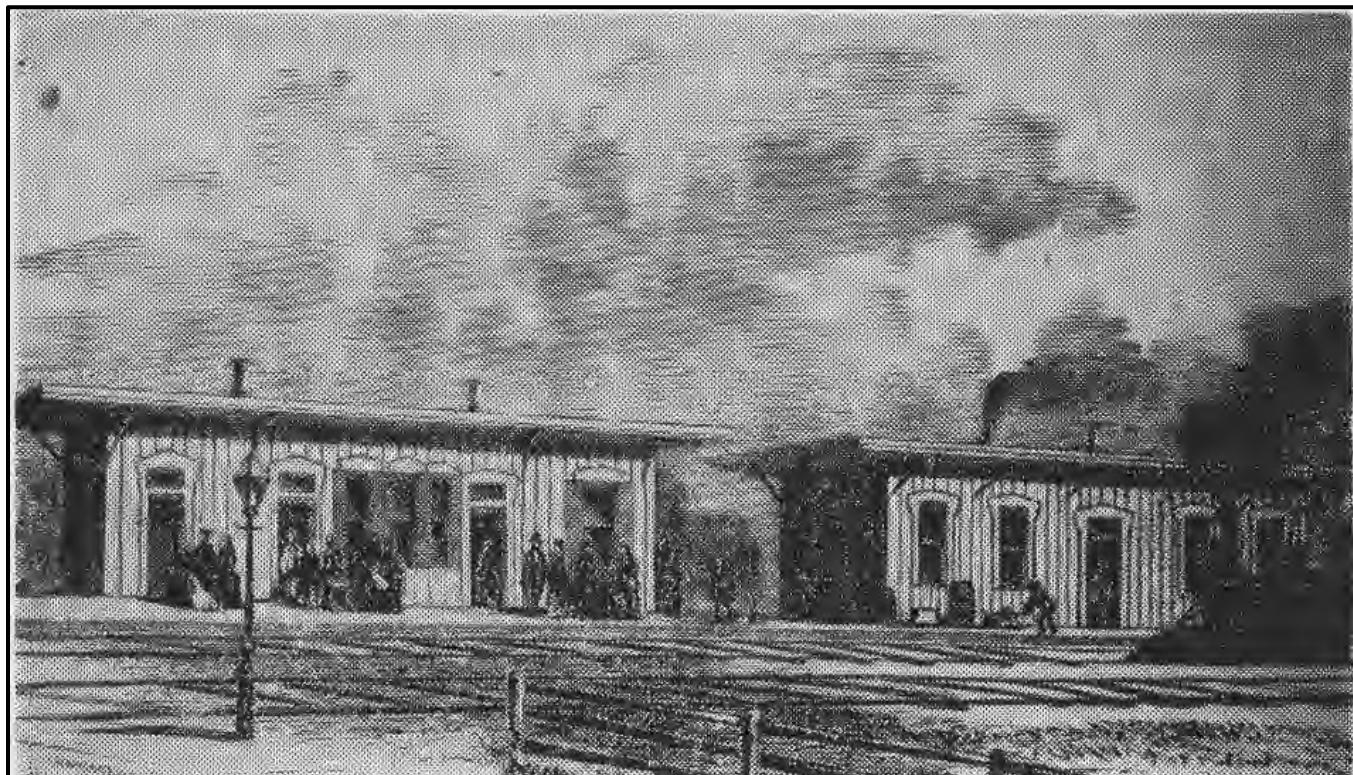
The B&O Railroad ceased using Yorklyn station in 1966. On July 13, 1967 the B&O Railroad transferred the station and associated 0.68-acre of land to NVF. On February 2, 1968 NVF sold the station to HRCV for \$1. In early April 1968, HRCV moved the 32' by 52' Yorklyn Station from its basement foundation (used to store milk and one of only a couple WWRR stations with basements) at Yorklyn to a new foundation at Greenbank a short distance north of where the original WWRR Greenbank Station once stood.

^z – The 40-ton rock blasted out of Cuba Hill (Mt. Cuba rock cut) resting where it stopped rolling in 1872 still rests where it landed in the 21st century. The newspaper clipping implies the rock was blasted through the air 200 feet distant. Other accounts detail the rock was blown out of the 50-foot deep cut to the peak of the rock formation being cut through. The rock then rolled 200-feet down the side of the rocky hillside to where it rests today. Courtesy of the Tom Gears Collection.

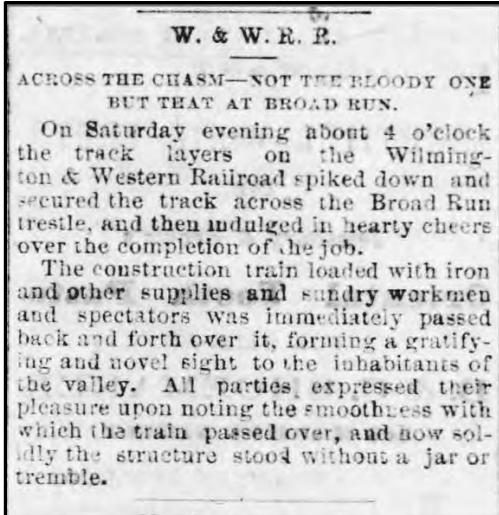
—The contractors of the Wilmington & Western Railroad are pushing forward the completion of the grading and putting some heavy blasts of powder in the rock cuts. Masses of rock, amounting to 200 tons, have been torn up at one blast, and a chunk weighing two tons was thrown half a mile. The heaviest work is at Cuba Hill, on Red Clay Creek, and a single stone, weighing forty tons, was lifted clear out of this cut, (50 feet deep,) the other day, and sent some 200 feet away from the edge ! It fortunately fell on nothing living



^{A1} – Original publication's Figure 8 from 1873 Harkness Magazine – “*Wilmington and its Industries*” image replaced with a better copy.



B¹ – Copy of the original October 7, 1872 article is provided below. (Tom Gears Collection)



C¹ – Original publication's Figure 9 taken by William E. Grant replaced with a better copy.



D¹ – Because the telegraph was critical to a railroad's successful operation as noted by Volkamn in a following paragraph, reproduced below is an article by the editor for the Spring 2018 edition of *The Lantern* detailing railroad telegraph operations such as might be found on the Wilmington & Western Railroad in the late 1800s.

A majority of Baltimore & Ohio Railroad depots included Western Union telegraph stations and those along the Landenberg Branch constructed in 1872 were no exception. Railroads relied on the telegraph to transmit train orders to conductors and engineers. Stations built during Wilmington & Western Rail Road construction in 1872 provided area residences and businesses both telegraph and postal system access. In the late 1800s to early 1900s, the local railroad station was perhaps the most important location within a community.

The first telegraphic codes appeared in the 1850s. As telegraph companies charged by the transmitted word, it wasn't long before a single codeword represented a commonly used phrase. An early requirement, codewords had to be pronounceable, in common use to reduce telegrapher errors, and a viable word of Dutch, English, French, German, Italian, Latin,

Portuguese, or Spanish languages. To facilitate an individual business' unique terminology and phrasings, many companies issued supplemental codewords for telegraph communications.

For decades following the invention of the telephone, the telegraph remained supreme as the most cost effective and reliable means to quickly exchange messages long distances. Western Union's slogan in 1901 was "The Pioneer of Cheap Rates!" To transmit a message from Wilmington, DE to New York City, NY in 1873, Western Union charged 40-cents for up to 10 words and 3-cents a word after that. By 1883 the cost had dropped to 25-cents for 10 words or less and 2-cents a word after that. In 1908 the cost for up to 10 words was 30-cents with additional words still costing 2-cents each. The typical full-time Western Union telegraph operator in the Philadelphia area averaged \$71 a month in 1908 (postal employees averaged \$56 per month).

Government documents from 1901 indicate the Western Union Telegraph Company accessed more than 972,766 miles of telegraph wire serving more than 23,000 offices. Nearly 70-million messages were transmitted in 1901 at an average cost of 31-cents per message. Western Union profited 6-cents on each 1901 message earning them \$6.67-million in profit. There were seven trans-Atlantic cables to England for European customers; the first laid in 1866. The average U.S. telegram length in the early 1900s was 11.93 words with most messages less than ten words.

Several kinds of messages were handled. Non-revenue messages, termed "service" messages, pertained to Western Union or host railroad business along a route. "Wire" messages were transmitted to keep the telegraph system working and troubleshoot outages. "CND" messages, represented "commercial news department" subscription revenue messages which included headline news and current prices of stocks trading on the New York Stock Exchange. The remaining messages were per-message and per-word revenue generating private messages either for personal or business communication.

To facilitate the sending of telegraphs, an 800+ page codebook titled "Western Union Telegraphic Code" was used. This book contained common phrases one might wish to use in communications along with calendar, weight, length, financial, and other related reference phrases. Phrases could contain "fill in the blank" word(s) where the sender supplied the code word for each blank. The code word of the phrase, followed by the code word(s) for any blanks that were part of the phrase made up the message.

Most telegraphic codes included a numerical identification for each code word. The sender and receiver would agree on a "key number" and the sender would add that key number to the desired word's numerical identification and instead use the resulting word of the code in the transmitted message. The receiver would then subtract the key number from the word received to obtain the actual word the sender intended.

Below, from the Marshall Collection at Hagley Museum and Library, is a photo of a young telegrapher working the Baltimore & Ohio's Yorklyn Station Western Union telegraph. While the young man's name is unknown, the wall calendar displays March 1904 and the lit kerosene lamp and dark window suggests either pre-dawn or post-sunset. From the uniform, the young man is probably a railroad employee sending a "service" telegram related to railroad operations. Station masters, train conductors and engineers, and maintenance-of-way foremen were often trained and authorized to use Western Union telegraph stations.

A single telegraph wire on poles alongside the WWRR tracks is seen in some of the Charles Philips 1890s images displayed throughout the HRCV business office. By running the telegraph line(s) along a railroad's right-of-way, Western Union gained easy access to remote locations while the railroad received free telegraph service between their stations to communicate with trains.

A typical contract called for Western Union to supply all poles, wire, insulators, batteries, Morse telegraph equipment, message stationary, and similar to the railroad. The railroad transported and installed the poles and wire on their right-of-way and maintained the line according to Western Union requirements as well as provided space in their stations. If a single wire were installed, as was the case on the Landenberg Branch, free railroad service messages between stations had priority over paid commercial messages over the wider telegraph network. If sufficient commercial messages were present, two or more lines might be installed and one would be dedicated for railroad use.

Sending a telegraph in the late 1800s would have been an effective means for a business such as Marshall Brothers in Yorklyn or Marshall & Mitchell Company in Wooddale to receive orders for industrial rag paper or for placing orders for cotton waste from textile mills. In 1904 a Yorklyn or Wooddale telegrapher might receive the following Marshall message: "gaincha pernilongo 36 red 005 polysemum raverust ". Western Union charged by the word and the seven-word message conveys; "Please send us the following order (gaincha) by the end of June (pernilongo) 36-inch wide (Marshall produced papers as wide as 62"), red (the most common color of more than a dozen produced), 0.005-inch thick (various paper widths and thickness were offered), 12,000 pounds (polysemum), (Marshall paper was wound on large rolls and sold by the pound), and that the order was to be shipped using the Baltimore & Ohio Railroad (raverusto)". A roughly 30-word conversation is reduced to seven code words saving significant telegrapher time and sender cost. The response telegram, consisting of two Western Union code words, from Marshall might have been "gachage raceuiarium," meaning: "Your order has been accepted, and the cost is 6-cents per 100 pounds."

In addition to the Western Union Telegraphic Code, there were other commercial codes in use. The ABC Electric Telegraphic Code was a British code used by financiers, merchants, shipowners, underwriters, engineers, brokers, agents, etc. and was first published in 1872. The E. A. Adams Cable Codex was used primarily in the steam ship industry.



The Western Union Company started as the New York and Mississippi Valley Printing Telegraph Company in 1851. The company expanded quickly by absorbing eleven peers. In 1856 the Western Union Telegraph Company name was adopted. By 1861 the company had installed its first transcontinental telegraph line which contributed to the eventual end of the Pony Express.

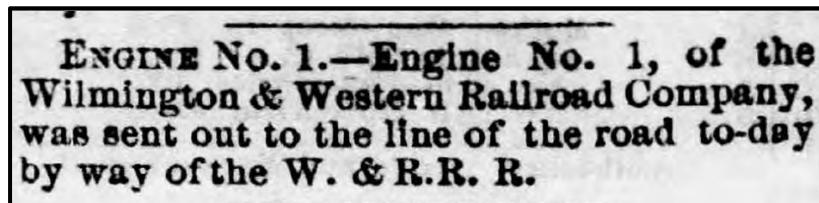
In 1884, Western Union became one of the original eleven companies tracked as the Dow Jones Industrial Average of stocks issued through the New York Stock Exchange having acquired over 500 smaller telegraph companies! Today we refer to stock prices as appearing on a "stock ticker". The term represents the Western Union paper tape updating the world with current stock pricing from New York.

In the late 1800s Western Union offered the ability to transfer money between parties. In the mid-20th century, sales gimmicks such as "singing telegrams" and "candygrams" were offered by Western Union. They were the first telecommunications company to own a constellation of geosynchronous satellites (Westar) for transmitting messages. By the 1980s Western Union was downsizing as the business model eroded due to telephone, radio, and other forms of communication.

By 2006, the Western Union was handling only 20,000 telegrams a year, and the business was no longer profitable. In February 2006, the last telegraphs bearing the, Western Union logo were transmitted after 155 years of service. Today a service such as International Telegram (iTelegram), which purchased the Western Union telegram and telex businesses during Western Union's 1991 bankruptcy proceedings, is the only means to send a telegram.

^{E1} – The Wilmington & Western Railroad purchased a used locomotive, #53, from the Philadelphia, Wilmington, and Baltimore Railroad before the start of line construction as a way to move materials from Wilmington to the construction sites. It was renumbered to Number 1.

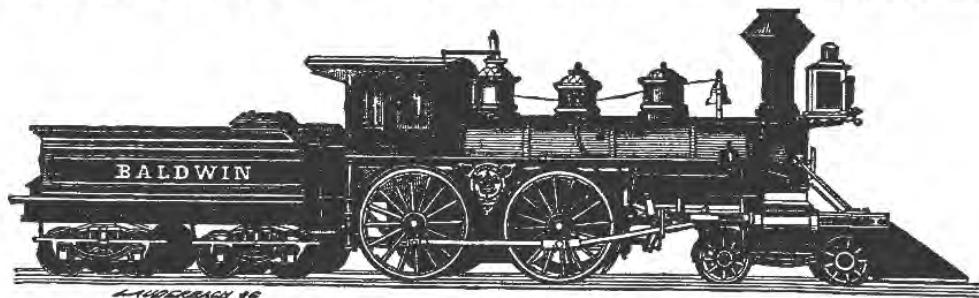
The Wilmington & Western Railroad Company, on February 14, 1872 signed a contract with Matthew Baird & Company of Philadelphia, PA for three new American class 4-4-0 locomotives. After Matthias Baldwin died in 1866 the Baldwin Locomotive Company, the largest producer in the United States, had changed its name to Matthew Baird & Company. In 1873 it became Burnham, Parry, Williams & Company. In 1891 the firm's name changed to Burnham, Williams & Company until 1909 when it incorporated in the founder's name as Baldwin Locomotive Works.



May 1, 1872 article from Every Evening (Tom Gears Collection)

Two engines ordered were Class 16½ C (Numbers 3 & 4). The third locomotive ordered was Class 22½ C (Number 2) providing more power for freight moves. Advertised for passenger and freight service, specifications and representative photographs for each of the soft coal-fired engines, are shown below. Both engines were wagon-top boiler designs with diamond stacks, employed simple Link valve motion, and relied on two pumps instead of injectors to maintain boiler water.

BALDWIN LOCOMOTIVE WORKS.



M. BAIRD & CO.,
PHILADELPHIA,

Manufacturers of

LOCOMOTIVE ENGINES,

Especially adapted to every variety of RAILROAD SERVICE, and to the Economical use of Wood, Coke, Bituminous and Anthracite Coal, as Fuel.

SYSTEM OF STANDARD LOCOMOTIVES.

CLASS.	SERVICE.	CYLINDER.	Whole No. of Wheels.	DRIVERS.		REMARKS.
				Nos.	Inches.	
7 B	Passenger.....	7x14	6	2	42	
5 C	Mining.....	9x12	4	4	30	
6 C	Mining or Furnace.....	9x12	4	4	30	
8 C	Shifting.....	9x16	4	4	36	
10 $\frac{1}{2}$ C	Shifting.....	11x16	4	4	36	
11 $\frac{1}{2}$ C	Shifting.....	11x16	6	4	36	
14 C	Shifting.....	14x22	4	4	48	
14 $\frac{1}{2}$ C	Shifting.....	14x22	6	4	48	
15 C	Light Passenger.....	10x20	8	4	54	
16 $\frac{1}{2}$ C	Light Passenger.....	12x22	8	4	54 to 60	
20 $\frac{1}{2}$ C	Light Passenger.....	13x22	8	4	56 to 66	
22 $\frac{1}{2}$ C	Passenger or Freight.....	14x22 or 24	8	4	56 to 66	
24 $\frac{1}{2}$ C	Passenger or Freight.....	15x22 or 24	8	4	56 to 66	
27 $\frac{1}{2}$ C	Passenger or Freight.....	16x22 or 24	8	4	56 to 66	
28 C	Passenger or Freight.....	17x22 or 24	8	4	56 to 66	
27 $\frac{1}{2}$ D	Freight or Pusher.....	16x22 or 24	8	6	48 to 54	"Mogul" Pattern.
25 $\frac{1}{2}$ D	Freight or Pusher.....	17x22 or 24	8	6	48 to 54	"Mogul" Pattern.
30 D	Freight or Pusher.....	18x22 or 24	8	6	48 to 54	"Mogul" Pattern.
24 $\frac{1}{2}$ D	Freight.....	16x22 or 24	10	6	48 to 54	"Ten-wheel" Pattern.
26 $\frac{1}{2}$ D	Freight.....	17x22 or 24	10	6	48 to 54	"Ten-wheel" Pattern.
28 $\frac{1}{2}$ D	Freight.....	18x22 or 24	10	6	48 to 54	"Ten-wheel" Pattern.
34 E	Freight or Pusher.....	20x24	10	8	48	"Consolidation" Pattern.

*Special Patterns of Small Locomotives designed expressly for
Narrow-Gauge Railroads.*

All Work accurately fitted to Gauges, and thoroughly Interchangeable.

Plan, Materials, Workmanship, Finish, and Efficiency fully guaranteed.

For full particulars address

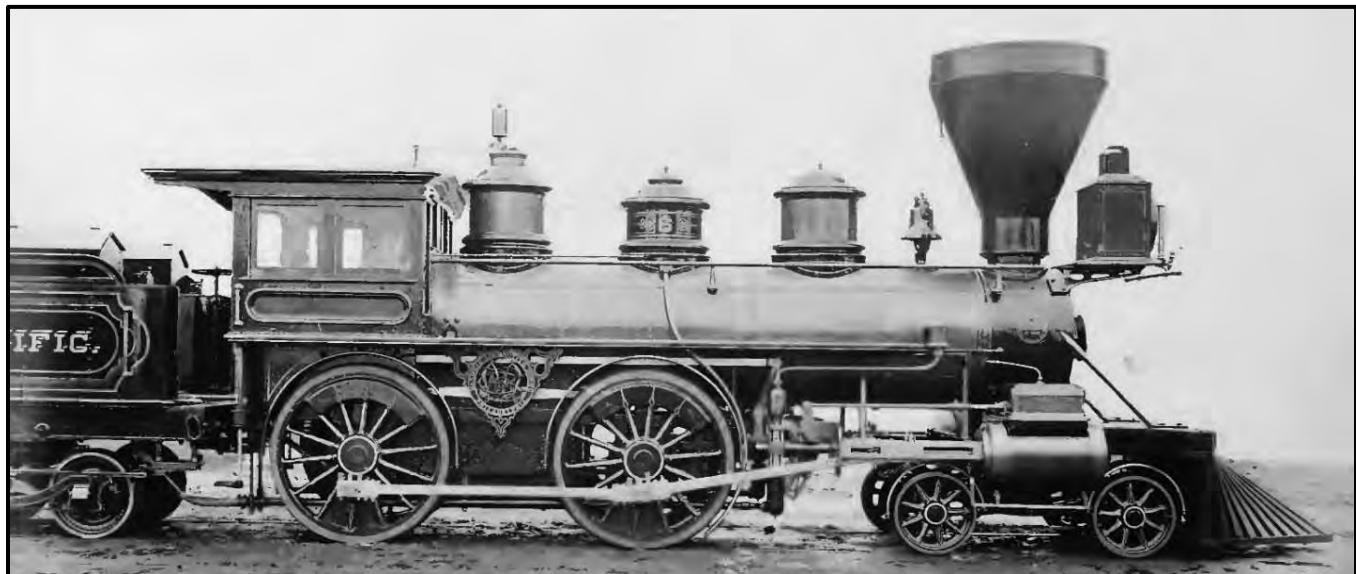
M. BAIRD,
GEO. BURNHAM,
CHAS. T. PARRY,

EDWARD H. WILLIAMS,
WM. P. HENSZEL,
EDWARD LONGSTRETH.

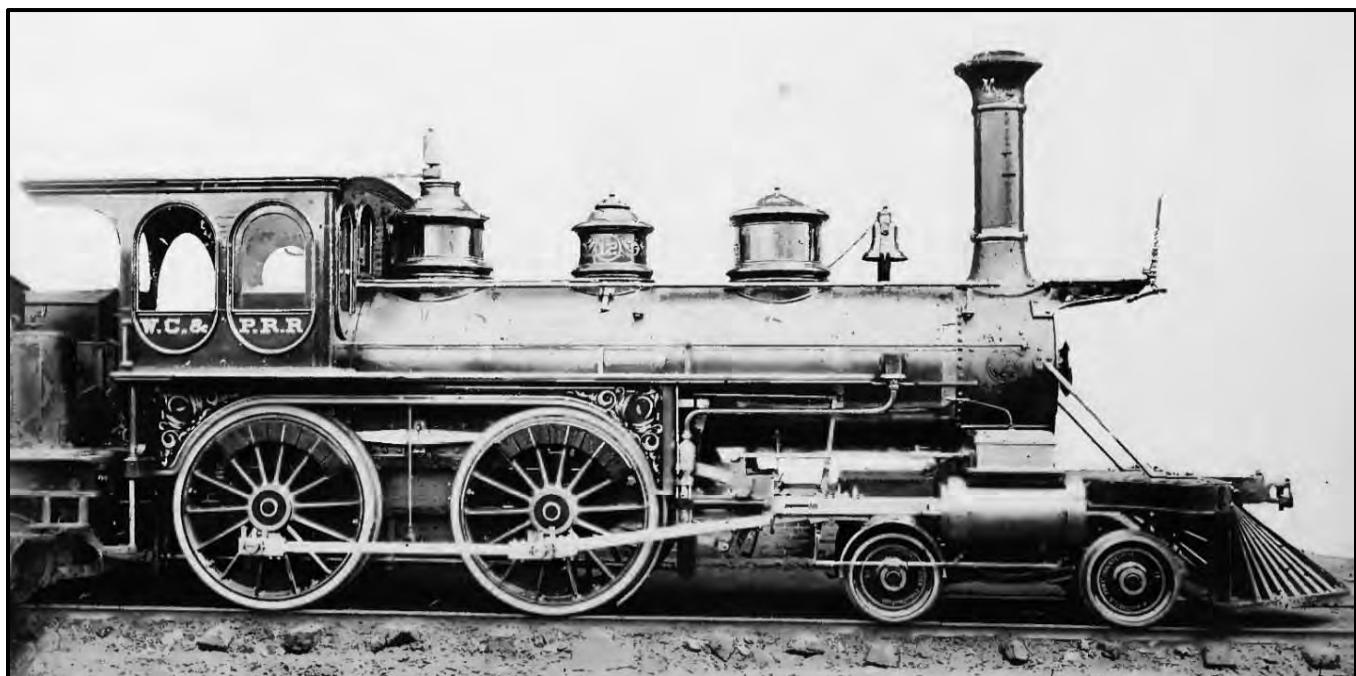
M. BAIRD & CO.,
PHILADELPHIA.

M. Baird & Company ad from Poor's Manual of the Railroads, 1871

Lobdell wheels set at 4'-8½" track gauge was specified with "Wilmington and Western" painted in fancy script on both sides of the tenders. Operating pressures were not specified on either the order sheets or in the Baldwin catalog material. In that era, the use of 3/8" thick cast iron plate to construct boilers of less than 48" diameters were standard. Operating pressures were nominally one-hundred pounds per square inch according to period engineering literature. A note on each engine's order requested the water capacity be increased with the applicable reduction in the space allowed for soft coal in recognition of access to only three water towers on the new line.



Matthew Baird Company Shop Photo of a Class 16½ C Locomotive
Bore/Stroke: 12"x22"; Engine Weight: 22 tons; Drivers: 56¾"; Load Pulled on Level: 665 tons



Matthew Baird Company Shop Photo of a Class 22½ C Locomotive
Bore/Stroke: 14"x24"; Engine Weight: 27.5 tons; Drivers: 56¾"; Load Pulled on Level: 835 tons

Specification for Two Engines, Class 16 $\frac{1}{2}$ P. Nos 12 + 13

For Wilmington & Western R.R.

Feb 14 1873 Drawing

35

Drawing No. 4

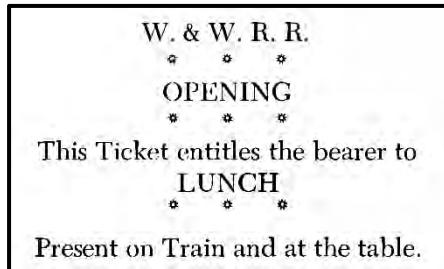
Matthew Baird Company Order Book Entry for WWRR Class 16½ C Locomotives

80 Specification for Our Engines, Class 22½ C Nos. 55 to 60
For Wilmington & Western R.R. Feb 14 1872. Drawing No. 5

Gauge of Road,	4' 8 1/8"	Pumps, No. & Kind,	2. Brass
Play,	3/8" on back, 1" front	Top Chamber,	Brass Pipe on left hand
Fuel,	Soft Coal	Bottom "	air chamber to mid
Boiler Material,	Iron	Feed Cock,	"
Diam.,	48" at Smoke Box	" Pipes,	Single
Plan,	Wagon top	Check "	Open
Domes,	One	Checks,	Copper
Dome Casing,	Brass	Injectors, No. & Size,	1/16, 1/16, 1/16
" Beads,	Iron painted	Steam Pipes,	Steel
Mud Drum,	Iron	Feed "	"
Jacket,	Russia Iron	Check "	"
" Bands,	Brass	Check,	"
Safety Valves,	1/2" D. 1/16. 2" Oct 1/16. 3" Safety	Sand Box, Size,	Round 2 1/2" C. Size 2 1/2"
Gauge Cocks,	3	Body,	Iron painted
Furnace Material,	Steel	Beads,	Iron painted
Length,	3 1/2	Pipes,	Brass Iron
Width,	3 1/2	Cab,	Minuteman yellow with red piping
Depth,		Pilot,	Need 2" iron foot plate 4 1/2"
Chamber,	16 x 6	Truck, Plan,	1/16 Wheel Spring Bumper
Kollow Stays,	"	Wheels, Diam.,	2 1/2" 2 1/2"
Fire Brick,	"	Kind,	1 1/4
Tubes, Material,	Iron Copper wires to end	Journals, Diam.,	1 1/2
Number,	119	" Length,	3 1/2"
Diam.,	1 1/2"	Wheel Covers,	Brass Pipe
Length,	10' 9 1/4"	Tender Plan,	White Drawing No.
Steam Pipe,	10 1/2" Iron	Frame,	Square
Grates,	Cast Iron. Rocking to tracing	Trucks,	Brass on tank
Ash Pan,	Double Damper	Wheels, Diam.,	3 1/2" art iron
Cylinders, Diam.,	11	Kind,	1 1/2" 13 1/2" Loddell
Stroke,	7 1/4	Journals, Diam.,	3 1/2" 3 1/2" Card 13 1/2" 3 1/2"
Steam Ports,	1 1/2 x 1 1/8	" Length,	4 1/2"
Exhaust "	1 1/2 x 2 1/2	Brakes,	Brass truck
Bridge, width,	1	Safety Chains,	Single
Valve Motion,	Link	Tool Boxes,	Top & back
Ecc. Throw,	5	Tank Capacity,	1600 Gallons Fancy Painting
Valve Travel,	5 1/2	Run Board,	Non water space less fuel space & propane
Lap,	3/4" O.S. 1/2" I.D.	Nosing,	1000
Lead,	7/8	Steam Gauge,	Brass
Exhaust,	Double	Stand,	"
Oilers,	One cast oily condensation	Bell "	1000
Casing,	Brass	Flag Fixtures,	"
Covers,	Iron polished	Hand Rail,	Brass
Stm. Chst. Casing,	Brass	Oil Cups,	Brass
" " Covers,	Iron Bushings	Bumpers,	Brass
Piston Packing,	Spring	Number Plates,	Brass
Guides,	Cast Iron	Name and Number	2 1/2" 2 1/2"
Crossheads,		Painting,	Best finish
Rock Shafts,		General Finish,	Brush back page 24
Engine Frame,	Solid Priestcraft Hodgman plan		Littering
Braces,	Welded in		On side of tank as below
Drivers, Diam.,	6 1/2 5 6 1/2		
Centre Diam.,	5 1/2 5 2		
Journals "	6		
" Length,	8		
Tires, Kind,	Steel all flanged		
" Size,	5 1/2 x 2 1/2		
Wheel Covers,	Marlboro Brass pipe		
Throttle, Kind,	Balance		
Position,	Brass		
Smk. Stack, Kind,	Diamond		
Dia. Inside Pipe,	1 1/2		
Height from Rail,			
Venting,	for soft coal		

Matthew Baird Company Order Book Entry for WWRR Class 22½ C Locomotives

F¹ – Volkman did not have a photograph of the opening day ticket in the original monograph. A photo of an actual invitation and lunch ticket was provided courtesy of the collection of Mary Simons. Volkman's original from the monograph is shown below.



G¹ – The Little Mill Creek is a small tributary of the Christina River and should not be confused with Mill Creek which is a tributary of the White Clay Creek. Little Mill Creek starts with a tributary just south of Hillside Road between Centerville Road at the west and the Kennett Pike (Route 52) to the east. Flowing south several smaller streams feed Little Mill Creek including Chestnut Run Creek which has its start east of the intersection of Center Road (Route 141) and Lancaster Pike (Route 100). Little Mill Creek flows through the middle of CSX's Wilsmere Yard, then makes its way east crossing North DuPont Road (Route 100) before turning south again to cross both Maryland Avenue (Route 4) and Route I-95 before emptying into the Christina River.

H¹ – The September 4th, 5th, and 6th 1871 editions of *Every Evening* carried an unsigned article regarding the new railroad then under construction. Those articles, reproduced below, provide additional insight into the attitudes, thoughts, and opinions of the era in which the Wilmington & Western Railroad was constructed. In many ways the articles' descriptions of the Red Clay Valley remain equally applicable today and the author's suggestion of "leaving our readers to indulge their imaginations with pleasant fancies of summer homes amid these pleasant surroundings of hill and dale and running steam, of sunny lawns, and wooded bluffs. . ." is visionary.

The three articles were each formatted as single columns occupying more than a half-page of length. Due to the archived quality of the original newspaper, the articles are transcribed below. The grammar, punctuation, and layout have been transcribed verbatim and are not edited (with the exception of the date added to the title block) to reflect historic writing practice(s). The reader will note alternate spellings in use over a century ago for numerous words including Kiamensi (Kimensi) and many now-hyphenated words.

OUR NEW ROUTE WEST. A Day's Tramp Over the Line of the Wilmington and Western Railroad

Monday, September 4, 1871

Desirous of laying before the readers of *Every Evening* all the facts in relation to the new and important enterprise which promises eventually to give to Wilmington a shorter and more direct connection with the Great West, we, in company with another gentleman, last week walked over that portion of the road now in process of construction. We started on Monday morning and first struck the line of the road at

NEWPORT PIKE CROSSING

Just this side of Little Mill Creek. Up to this point it runs parallel with the Wilmington & Reading Railroad, but just beyond the pike it deflects to the

southward through Robinson's woods, and thence follows a pretty direct line till it crosses the Newport and Gap Turnpike a short distance above the residence of Samuel Cranston, about 1½ or 2 miles west of Newport. It continues from this point, in a nearly direct line in a westerly direction, till it strikes the

RED CLAY CREEK.

On the lands of James Cranston, at a point about opposite Marshall's Rolling Mills. Here we encountered the first heavy work we had found on the line thus far, it being a fill of 28 feet. Here, too, the road first strikes the thriving manufacturing district which lies along the Red Clay, the first establishments being the

KIMENSI WOOLLEN MILLS AND MARSHALL'S ROLLING MILLS,

Above mentioned. The Kimensi [sic] mills have recently passed into the proprietorship of the enterprising firm of Pilling & Dean while the rolling mills are old and well-known sheet-iron mills doing an excellent business. The road now follows pretty closely the line of the creek, crossing it quite frequently to avoid the numerous curves of the sinuous course. The next establishment on the line is

WM. G. PHILIPS & BRO.'S MILLS

Where a large business is carried on in the manufacture of bent felloes, sleigh-runners, camp-stool frames &c. Wm. G. Philips is by the way, a director of the company and one of the most energetic friends the road has. Next to these and but a short distance above them we come to

FELL'S SPICE MILLS,

A large establishment with a national reputation, to which the road will provide a great convenience and benefit, and from whose freights it will doubtless derive no incosiderable [sic] revenue. Just before it reaches these mills, it skirts the grounds of the once beautiful and famous

BRANDYWINE SPRINGS,

Formerly a favorite resort for the most fashionable class of Summer loungers. The place can readily be restored to its former beauty, and it is altogether probable that the ease of access secured to it by the new road will lead some enterprising capitalists to take it again in hand, rebuild the large hotel, destroyed years ago by fire, and call back to its beautiful shades and health-giving waters its glories of auld lang syne.

THE RED CLAY VALLEY.

Which is very beautiful up to this point all along from the place where the road first strikes it, just beyond here greatly increases in beauty, an in the woods of the Mesers Fell just above the spice mills, art has given just the needful touches to the landscape to make the natural beauties more appreciated. Here, along this beautiful valley, it seemed to us, as we strolled through it in early morning; must arise the pleasant villas which are to be in the near future

THE COUNTRY HOMES OF OUR CITIZENS.

The banks are high but have many gentle, lawn-like slopes to the edge of the pure, swift-running stream, and then, again, there are numerous steep declivities and abrupt bluffs, which give just that dash of ruggedness necessary to the picturesque. It is but a few minutes ride from the city and has every advantage that could be asked for such purposes as we have suggested. Here leaving our readers to indulge their imaginations with pleasant fancies of summer homes amid these pleasant surroundings of hill and dale and running steam, of sunny lawns, and wooded bluffs, we will defer any further description of the new road to tomorrow's edition.

OUR NEW ROUTE WEST.

A Day's Tramp Over the Line of the Wilmington and Western Railroad

Tuesday, September 5, 1871

We resume to-day our description of the line of the new railroad, which we brought in yesterday's issue up to the point where the road passes Fell's Spice Mills. The next manufacturing establishment on the line is

WOOD'S ROLLING MILLS.

The well-known and extensive iron works near the Lancaster Pike about five miles from this city. In the mill-dam of these mills we noticed a little home made [sic] paddle wheel boat on which was conspicuously printed the scarcely poetic title of "The Lady of the Dame."

TWO GRIST MILLS

Are the next establishments we find in the line the first one being rather a small one known as Speakman's Mill. A short distance beyond this, are more extensive flour mills of Sharpless and Brothers, at Ashland a pretty little village of a few houses. About a mile beyond these we came to

GARRETT'S SNUFF MILLS

Probably the most extensive establishment of the kind in the country. They are two in number, less than half a mile apart, and their average product is about 80 barrels, or 16,000 pounds of Scotch snuff per week. The snuff is of the rubbing kind and is manufactured almost exclusively of Kentucky and Missouri Tobacco. This is but just, as the chief market for the manufactured article is in the South and Southwest, where the dipping habit is not yet *rubbed* out. We arrived here at noon and were hospitably entertained by Mr. Press the superintendent of the mills, who doubtless has a kindly feeling for members of the *press*. He has been superintendent of these mills for twenty years.

The road here leaves the valley of the Red Clay Creek, and passes through what is known as Kaolin Valley in which are evaluated extensive. Passing through this valley is reached the beautiful Hockessin valley, far famed for rich farms and thrifty intelligent people and passes directly along side [sic] of

JACKSON'S LIME QUARRIES,

Owned by John G. Jackson, Esq., Chief Engineer of the road, and one of the men to whose energy and pluck the Wilmington & Western owes its existence. These quarries produce a splendid quality of lime, especially sought after by builders, and have heretofore been without any sufficient outlet. They will bring a large and lucrative freight traffic to the road, while the road will be of incalculable benefit to them by giving them easy access to market.

After leaving these works the road passes through a difficult piece of country, for some miles with several heavy cuts and fills until it reaches

LANDENBERG

Its terminus, a small manufacturing village in Chester County, about 17 miles from the city, formerly known as Chandersville. Just before reaching this place the road has to make a wide circuit around the hill on the banks of the White Clay Creek, the valley of which creek it here strikes. The chief industry of Landenberg is the worsted manufacture carried on quite extensively in the mills of

MARTIN LANDENBERER & CO.,

which give employment to a large number of hands and are kept running twenty hours per day. The village itself is not much of a place but has great expectations for the future to be opened up to it by the new road or rather roads, for the proposed Delaware & Pennsylvania Road is expected to be built from this point to Delaware city. In fact, many of the people seem to look upon this last named [sic] project with even more favor than they show toward the Wilmington Road. This we presume is because the other has been longer talked of. Here we rested for the night having reached

THE PRESENT TERMINUS

Of the road, the Wilmington and Western Railroad Company is actually building, but which we hope will soon prove to be a way station on a great through line. To build the road to this point, however, will prove of untold benefit to Wilmington, bringing as it will, to our wharves the products of the rich manufacturing, quarrying, and agricultural region we have hastily described, and also giving us, by a road now building from Landenberg, Westward, direct connection with the great Pennsylvania Railroad. We leave, however, a brief notice of the connections of the new road to another number of our paper.

BEYOND LANDENBERG.

**Project Connections of the
Wilmington and Western**

Wednesday, September 6, 1871

Landenberg is, as we have stated, the present terminus of the Wilmington and Western Railroad, and its extension beyond this point is as yet problematical, though the problem is one almost certain of a gratifying solution. In fact, it is already being solved if we can consider

THE PENNSYLVANIA & DELAWARE ROAD

An extension. This road was projected to connect with the Delaware and Pennsylvania Railroad at Landenberg, giving a continuous line from Pomeroy, a station on the Pennsylvania Central Railroad, near Parkesburg, southward to Delaware City, in this State. Work has already been commenced on the lower end of this route, and though it has not made very rapid progress its friends are confident of success. The upper portion, however,

FROM POMEROY TO LANDENBERG

Is in the hands of another corporation, and is being pushed forward quite vigorously, and it will certainly be built whether the connecting road is built or not. From Pomeroy eastward, considerable grading has been done, but for some reason, little or if anything has been done immediately west of Avondale.

FROM AVONDALE TO LANDENBERG,

The grading is entirely completed, the masonry of all the bridges is finished, and a considerable force is busily engaged in the construction of the superstructure. The road follows the course of the White Clay Creek, and crosses it again and again, four times, if we mistake not, within a mile of Landenberg. The completion of these bridges will render

THE ROAD READY FOR THE RAILS

And give Landenberg connection with the Baltimore Central railroad. The completion of this road to Pomeroy will, of course, in connection with the Wilmington and Western, give Wilmington a much more direct route West via the Pennsylvania Central, than we now have.

But the interesting question to the friends of the Wilmington and Western, (ad this ought to include all Wilmington,) is, What is the Prospect for a new

NARROW GUAGE RAILROAD

Through the Southern tier of Pennsylvania counties via Oxford, Peach Bottom, Hanover, Gettysburg, and Connellsburg? To gather information concerning the prospects of this project we visited Oxford. There we found excellent quarters in the Octorara House and were so fortunate as to find our genial friend, Judge Passmore there. We found him an enthusiastic friend of the project. He also introduced us to Mr. E. H. Rollins, one of the proprietors of the Oxford *Press*. and also agent of the Baltimore Central Road at Oxford. He is one of the hard workers in behalf of the projected road

FROM OXFORD TO PEACH BOTTOM,

An gave us the gratifying intelligence that the project is certain of success while his information was to the effect that the proposed extension west from Peach Bottom was equally certain of being built. So far as the road from Oxford to Peach Bottom was concerned the subscriptions are nearly completed. It is to be a narrow gauge road. Oxford is devoting its enthusiasm and its cash to this project and has apparently thought but little of the link

BETWEEN OXFORD AND LANDENBERG,

Thought we found considerable interest in and curiosity around it, the feeling concerning it, however, appears to be that if it is built it must be built by the Wilmington & Western Co., and the property owners along the line. The distance is about twelve miles, and it appears to us that the construction of this link is necessary to the success of both projects, and the two ought to unite together in building it. Wilmington can well afford to lend liberal assistance, as its advantages to her will be incalculable, for the new gauge, as will be added to the natural advantages she already has as the proper shipping point for the products of interior and southern Pennsylvania.

¹¹ – The Delaware and Pennsylvania Railroad Company was incorporated February 26, 1857 by the Delaware Legislature.

The Doe Run & White Clay Creek Railroad Company was incorporated under a Special Act of the Pennsylvania Legislature on August 20, 1868. Under a decree of the Court of Common Pleas of Chester County, Pennsylvania, the name was changed to Pennsylvania & Delaware Rail Road Company on August 9, 1870.

A consolidation and merger of the Delaware & Pennsylvania Railroad Company and the Pennsylvania & Delaware Rail Road Company to become the Pennsylvania & Delaware Railway Company was filed in Delaware and Pennsylvania in May 1873. The Pennsylvania & Delaware Rail Road Company's 10,000 shares of \$50 par value stock, and the Delaware & Pennsylvania Railroad Company's 8,000 shares of \$50 par value stock were converted to 18,000 shares of \$50 par value stock in the name of the Pennsylvania & Delaware Railway Company. Additionally, the 7% bonds of the Pennsylvania & Delaware Rail Road Company (\$700,000 total) and the 6% bonds of the Delaware and Pennsylvania Railroad Company (\$570,000 total) were converted to 7% bonds of the Pennsylvania & Delaware Railway Company due July 1, 1903 (an additional \$332,000 was issued as well). The line listed 38.62 miles of track connecting Pomeroy, Pennsylvania with Delaware City, Delaware.

Pennsylvania & Delaware Railway Company property sold at foreclosure in August 12, 1879 to a pair of newly formed companies; the Pomeroy and State Line Railroad Company (incorporated February 26, 1880 in Pennsylvania) and the Newark and Delaware City Railroad Company (incorporated April 30, 1880 in Delaware). In December 1881 the two companies were consolidated and merged back together again to form the Pomeroy and Newark Railroad Company after the right-of-way south of the line's crossing of the Philadelphia, Wilmington, & Baltimore Railroad Company (11.82 miles) was sold by the Newark and Delaware City Railroad Company to the Philadelphia, Wilmington, & Baltimore Railroad Company. The Pennsylvania Railroad Company signed a 99-year lease for the Pomeroy and Newark Railroad Company on March 1, 1880. The following year the Pennsylvania Railroad Company took control of the Philadelphia, Wilmington, & Baltimore Railroad Company and in November 1902 the Philadelphia, Wilmington, & Baltimore Railroad Company was merged into the Pennsylvania Railroad's Philadelphia, Baltimore & Washington Railroad.

¹¹ – The reference to the first train “stopping for water” would have most likely been the Yorklyn water tank. It has been suggested that water was available at Landenberg for the Wilmington & Western Railroad however research has not uncovered a documented location or ownership. The 1918 valuation map does not indicate a Landenberg water tank as part of the B&O's Landenberg Branch. There are historical indications that a Landenberg tank might have belonged to the Pennsylvania & Delaware Rail Road Company but we do not know when it was put in operation. A

dam across the White Clay Creek in the vicinity of the Landenberg Station which supplied water to a mill race might have served as the water source for a tank.

The Wilmington Commercial's article mentions that the cow was "inspecting the quality of the fish plates". These are referred to as splice or joint bars as well. Examination of Charles S. Philips' photographs taken in the 1890s of the line, indicate the use of simple, 4-bolt fishplates holding the rails together. Railroad annual reports (excerpts appear in Henry Varnum Poor's *Manual of the Railroads*) indicate the rails remained 56-pound iron through the Delaware Western Railroad years (in 1881 only $\frac{1}{2}$ -mile had been converted to steel; perhaps only newly added sidings). The Baltimore & Philadelphia Railroad annual reports through 1891 indicate continued use of iron rail for the line.

Photos taken by Charles S. Philips in the mid-1890s indicate the rail was more than likely still the original 56-pound iron rail installed without the use of tie plates and minimal ballast. B&O records show the first major strengthening of the trestles across the Red Clay Creek occurring in 1895-7. Poor's data for 1897 indicates that only steel rail was in use in weights of 67 and 85 pounds.

^{K1} – When HRCV purchased the Landenberg Branch in 1982, there was only a short segment of 140-pound rail on the line. The major road crossings had 131-pound welded joint rail while most of the rest of the line was a mix of 85-pound and 100-pound rail. The rail used by the B&O for the Landenberg Branch was known as "relay rail" as evidenced by date codes stamped on the rails. Over the years of HRCV ownership, as rail has been replaced, rail weights have been increased, especially in crossings where 180-pound rail may be found.

Rail used on high-volume routes experiences fatigue and wearing of the rolling surface with use. The flexing due to heavy cars can cause the internal structure of a rail to develop voids and cracks which lead to rail breakage and derailments. As a precaution, railroads generally replace a high-volume route's rail long before the rail's useful life is used up.

Railroads take the main route rail that is being replaced, and turn it into "relay rail" for service on secondary routes where the traffic may be lighter, speeds slower and train weights less. Rail lengths that were welded during installation on primary high-volume routes (generally starting in the 1960s) and slated to become relay rail have the rail ends drilled for attaching fish plates to splice rails together during relaying. As relay rail is placed on secondary and branch lines (like the B&O did with the Landenberg Branch) it is oriented such that maximum life can be obtained. The rail being removed from secondary and branch lines is then used for sidings if its condition is acceptable or the rail is scrapped having most of its useful life used up.

Curves on primary and secondary routes will be re-laid more frequently than tangent (straight) sections. The wheel flanges rubbing against the outside rail on a curve cause wear to the inside of the outer rail over time. This wear requires that curves have the rails transposed; the outside rail (also called the high rail on sharper curves) becomes the inside rail (low side rail) and vice versa so as to equalize the wear faces of the rail. Generally, after curves have been transposed one time and the wear has reached the design limits for the rail, replacement is required. The need to replace rail in curves often sets the stage for the replacement of rail, ties, and ballast for a long section of right-of-way. Tangent track as well as curve track is replaced with new rail with the used rail from tangent sections becoming relay rail while the worn-out rail from curve sections is scrapped.

^{L1} – Volkman's Figure 10, while very close to what the Wilmington & Western operated, has been replaced with an actual image of a B&O locomotive at Landenberg Station in 1895 from the Hagley Museum & Library's photographic archive, along with an updated caption. Volkman noted

the smokebox had been extended (note the original smokebox length in the Baldwin shop photographs in Footnote E1) which is also seen the replacement image. A comparison of the engine stopped at Landenberg Station to the locomotive that Volkman used originally (below) it might cause one to conclude they are indeed the same engine. Baldwin was the most prolific of locomotive builders and the Wilmington & Western chose a "catalog" engine of which no doubt hundreds were manufactured for numerous railroads of the era.

Locomotive #638 appears to be one of the two Division I Class 16½ C engines purchased in 1872 by the Wilmington & Western based on cab features and other details. Only two coaches are being pulled which also indicates the lighter Class 16½ C engine would be a preferred choice over the larger and more expensive to operate Class 22½ C locomotive.

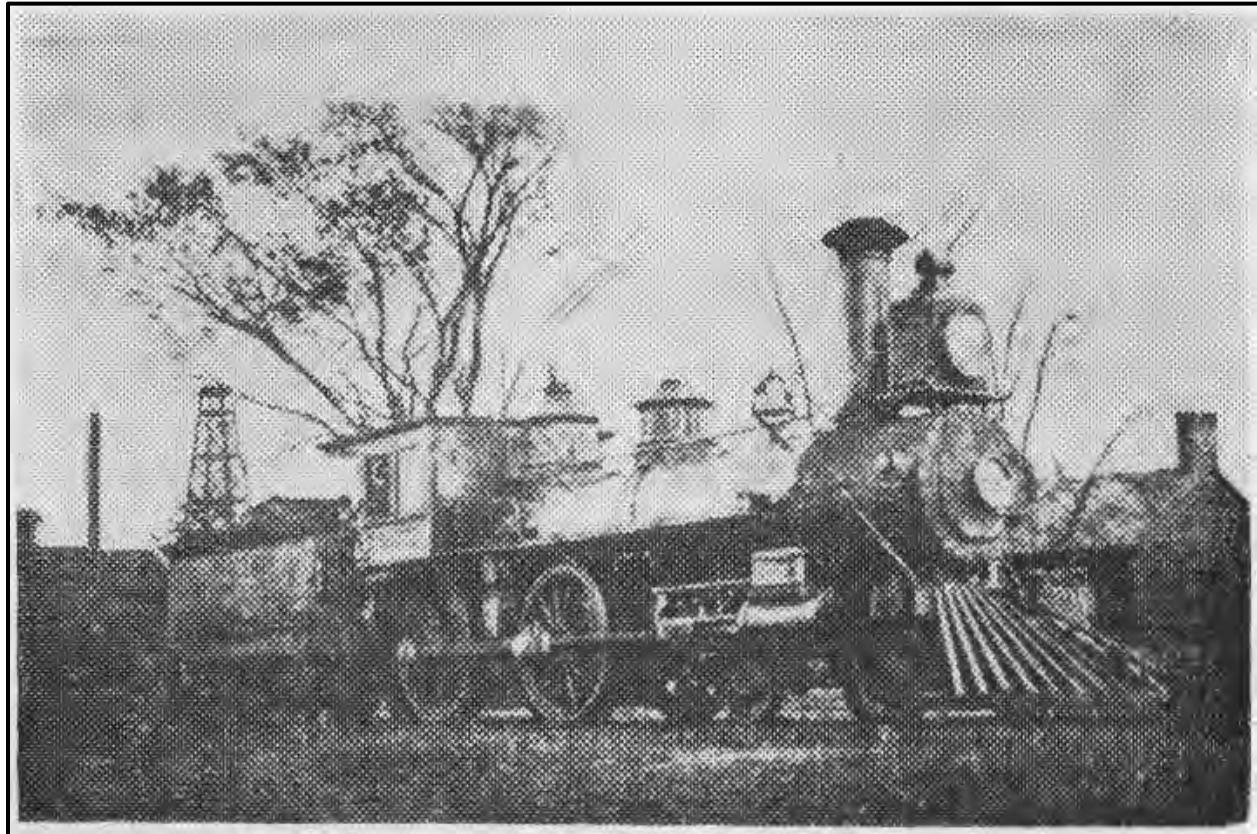


Figure 10

Type of locomotive used in late 'seventies' and doubtless similar to those used on Wilmington & Western. Oil was used in the headlights, and the earlier balloon-type smokestack was modified to type shown. (Cf. with drawing of W& W locomotive partially shown in Figure 8.) Large "cow catcher" was actually intended to push animals and other obstructions off track. (Courtesy George F. Nixon, President, National Capital Historical Museum of Transportation, Inc., Baltimore.)

M¹ – The use of Gauge Cocks on a boiler to determine water level were part of the design of the first boilers. Even with cocks installed, failure to use them made low water boiler explosions a common railroad accident. Their operation is as Volkman describes. The only improvement to a set of gauges or "try" cocks was the sloped installation of the cocks at the back of the boiler so that a drip pan could be installed to carry the water out of the cab instead of spraying the cab floorboards with water and making for slippery conditions.

The first glass tube water style indicator specified for installation on a locomotive under construction was for a Mohawk & Hudson Railroad engine in 1831. Even though the boiler

operated at low pressure, the device proved troublesome and dangerous due to accidental breaking of the glass. While some sort of glass indicator was always preferred, the glass quality in the early 1800s would not withstand the increased design pressures being generated in locomotive boilers as locomotives became more powerful. There was also the problem of poor water being used which tended to create a beer-like foam thus rendering a glass gauge useless. In 1872 when the WWRR locomotives were ordered, glass tube water indicators were still considered an unreliable and dangerous extravagance.

It turns out that railroad headlight glass, signal lens, marker light lens, and lantern globes were also fragile in the 1800s. By the end of the 1800s, fires started by hot shattering glass, as well as injuries to railroad workers from lantern glass accidents, were becoming a major source of operating loss to the railroads. The railroads challenged Corning Glass Works to come up with a better glass for railroad use to eliminate the breakage. As a result of Corning's success around 1900, borosilicate glass became available for the making of robust lenses, globes, and "dead side indicators" also known as glass sight glasses. This same glass became Corning Pyrex glass that could be used for making cookware and laboratory glass.

By the late 1800s, locomotives were required to have two sets of gauge cocks in the cab at the back of a locomotive's boiler (note the WWRR order with Baldwin that a single set of gauge cocks was still acceptable in 1872). With borosilicate glass available, sight gauges came into common use and in 1911 the Interstate Commerce Commission required all new steam locomotives to be equipped with both a set of gauge cocks and a borosilicate glass sight glass at least 3" above the boiler crown sheet. The sight glass was to include three valves for testing that it was functional and "blowing down" the gauge. The glass tube water indicator had to be enclosed in a protective shield in case the element ruptured and it had to be lit from the backside for easy reading. The newer designs were an immediate success for their safety aspects and as the reasons for boiler water foaming were now controlled, the gauges proved more accurate and reliable than gauge cocks.

^{N1} – "Signal Oil" has often been referenced as "just another name for kerosene". This isn't exactly true from a chemical composition viewpoint. In the late 1800s, illuminating oil from Galena-Signal Oil Company was used by a majority of U.S. railroads. It was a special blend of kerosene that burned longer and whiter than an equivalent volume of standard kerosene. In fact, until Corning Glass developed special colored glass, the colored signal lens used in signal equipment had to be matched to the fuel used in some applications!

In 1862 Eli E. Hendrick received two patents on improvements made to lubricating oils. He dissolved "caoutchouc" (an un-vulcanized natural rubber also sometimes called India rubber) in a high-grade oil. This oil became known as "Hendrix Lubricator" and was found superior to the lubricating oils currently in use.

In 1866 Charles Miller and John Coon purchased the rights and patents to manufacture Hendrix Lubricator and began offering it to the railroads who found it superior to lubrication oils then in use. Hendrick patented, in 1869, an improved lubricating oil based on "plumboleum" (a mineral oil and lead oxide combination) which he added to refined oil. As the lubricating oil included lead oxide in the recipe, the product was given the name "Galena". The oil was so successful that the name of the company was changed to Galena Oil Company.

Already selling Galena lubricating oils to railroads, Charles Miller and his brother-in-law Joseph C. Sibley, formed the Signal Oil Company within Galena Oil Company, in 1873. Taking lessons learned from Eli Hendrick to heart, Sibley blended highly refined kerosene (what we might call Jet-A today) and animal fat-based oils together at elevated temperatures using a patented process. The result was a fuel tailored specifically for railroad lantern and signal use. The company's

“Signal Oil” burned longer and brighter as compared to an equal volume of kerosene. The product was marketed as Perfection Signal Oil.

Galena-Signal Oil Company lubrication and illumination oils are estimated to have been used by 95% of railroads in the U.S. The Galena-Signal business was eventually purchased by Standard Oil but was split off from Standard Oil in 1911 as part of the government’s antitrust activity. Valvoline bought the company in 1931.

⁰¹ – George Westinghouse, Jr was a prolific inventor obtaining over 360 patents during his lifetime. His first patent at age 16 was for a grain and seed winnowing machine. Three years later Westinghouse patented improvements to the rotary steam engine.

In 1869, in his early 20s, Westinghouse was awarded the first of many patents related to train braking which up until that time was performed as Volkman describes; manually. While vacuum and pressure braking systems were in use by a few railroads, they were not fail-safe and still required brakemen for the cars to manually apply the brakes. Westinghouse’s braking system (first patented April 13, 1869; patent 88,929) revolutionized train braking due to its fail-safe pressurized design. The Railroad Safety Appliance Act of 1893 made air brakes compulsory on all U.S. trains. Westinghouse Air Brake Company equipment remains in use in the 21st century on the Wilmington & Western’s vintage locomotives and passenger cars.

Purchasing patents to combine with his own inventions, Westinghouse developed electrical and compressed-air designs for a railroad signal system. These ideas evolved into the Union Switch and Signal Company, founded in Pittsburgh in 1881.

Westinghouse knew that natural gas was plentiful beneath the earth however it was considered dangerous because it was at high pressure. After he had a drilling rig punch a hole 1/3 of a mile to reach a pocket of natural gas in the back yard of his home outside of Pittsburgh, PA, Westinghouse was granted 28 patents related to the pressure regulation, control, and metering of natural gas in 1884 and 1885. Today’s gas appliances use gas control designs that automatically stop the gas flow if a flame is extinguished or the pressure drops too low that are based on Westinghouse’s original ideas and patents.

Westinghouse understood the advantages of Nikola Tesla’s alternating current electrical system designs over the Edison direct current design. The Westinghouse Electric Company was formed in 1884 and in 1888 Westinghouse obtained exclusive rights to Tesla’s patents as well as persuading Tesla to join his company.

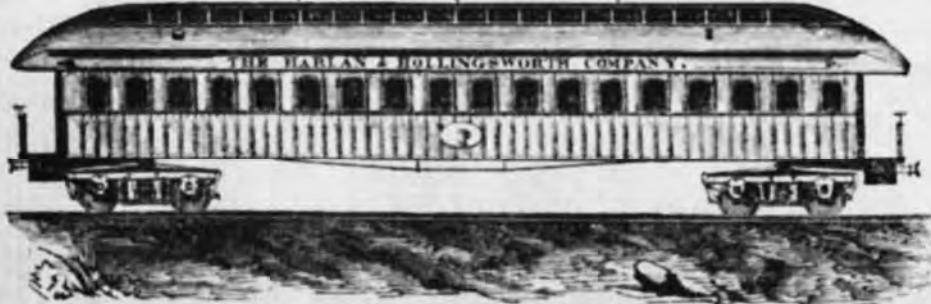
Westinghouse’s interest in railroads and electrical power were brought together with the first use of alternating current to power the Manhattan Elevated Railway in New York City, and later with the New York subway system. Westinghouse developed steam turbines for maritime propulsion which also required his engineers to develop a gearbox able to change the high RPM of a turbine to the slower speeds required for a propeller. Before he died in 1914, Westinghouse had founded 60 companies with a total worth reaching \$120 million and employing over 50,000 workers.

^{P1} – Figure 11, an advertisement for Harlan and Hollingsworth Company, is replaced with a better copy from Henry Varnum Poor’s *Manual of the Railroads - 1872*.

Added below is an advertisement for Jackson & Sharp Company (also from Poor’s), also mentioned by Volkman in the text. Jackson and Sharp Company was another large railroad car builder in America in the 1870s. Between the two companies, nearly three-quarters of all coaches produced through the 1880s came from Wilmington. These two companies producing hundreds of railroad

cars per year, along with the various horse carriage makers in Wilmington in the late 1800s earned Wilmington, Delaware the reputation as the "Queen City of Coach Building". With the Lobdell Wheel Company producing patented iron wheels for freight car, passenger coach, and locomotive use (note the specification of Lobdell wheels for the Baldwin locomotives the WWRR ordered), Wilmington was a major industrial town in the late 1800s employing thousands of workers in numerous occupations supporting not only railroad businesses but shipbuilding as well.

The Harlan and Hollingsworth Co.,



MANUFACTURERS OF ALL KINDS OF

Railroad Machinery,
Passenger Cars of the Finest Finish.

Also, all kinds of City, Baggage, Mail, Sleeping, Freight, Dumping and Canal Cars, Wheels and Axles, Steel Springs, etc.—in fact, every thing for the full equipment of a Road.

From our long experience in Car-Building, and our facilities for doing work, we are enabled to give entire satisfaction in every particular.

We are also extensively engaged in building Iron Vessels and Iron Steamboats, Steam-Engines and Boilers, and Machine Work in general. For further particulars, address

THE HARLAN AND HOLLINGSWORTH CO.,
WILMINGTON, DEL.

DELAWARE CAR WORKS,



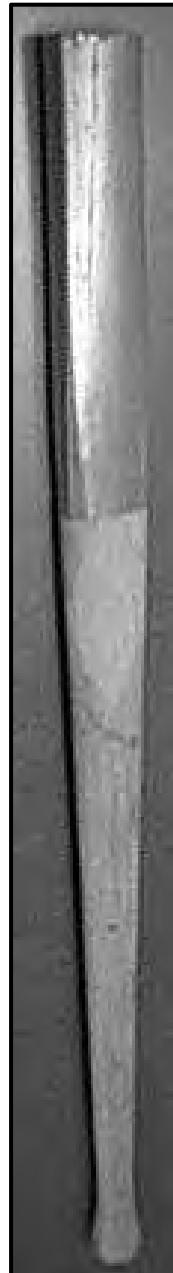
*MANUFACTURERS
PASSENGER,
SLEEPING,
CITY,
BAGGAGE,
CITY,
CARS*

JACKSON & SHARP COMPANY
WILMINGTON DELAWARE.

*JOH H. JACKSON PRES.
W. S. ADKINS VICE PRES.
J. F. SHARP GEN. MGR.*

Manufacturers of Sleeping, Saloon, Drawing Room, and Passenger Cars.
EMPLOY 900 MEN. SPECIAL ATTENTION GIVEN TO NARROW-GAUGE CARS.

Q¹ – Examples of a brakeman's club (right), telltale signal (left top) before a tunnel in West Virginia, and a link & pin coupler (left bottom) similar to what might have been found in use on the Wilmington and Western Railroad in the 1870s.



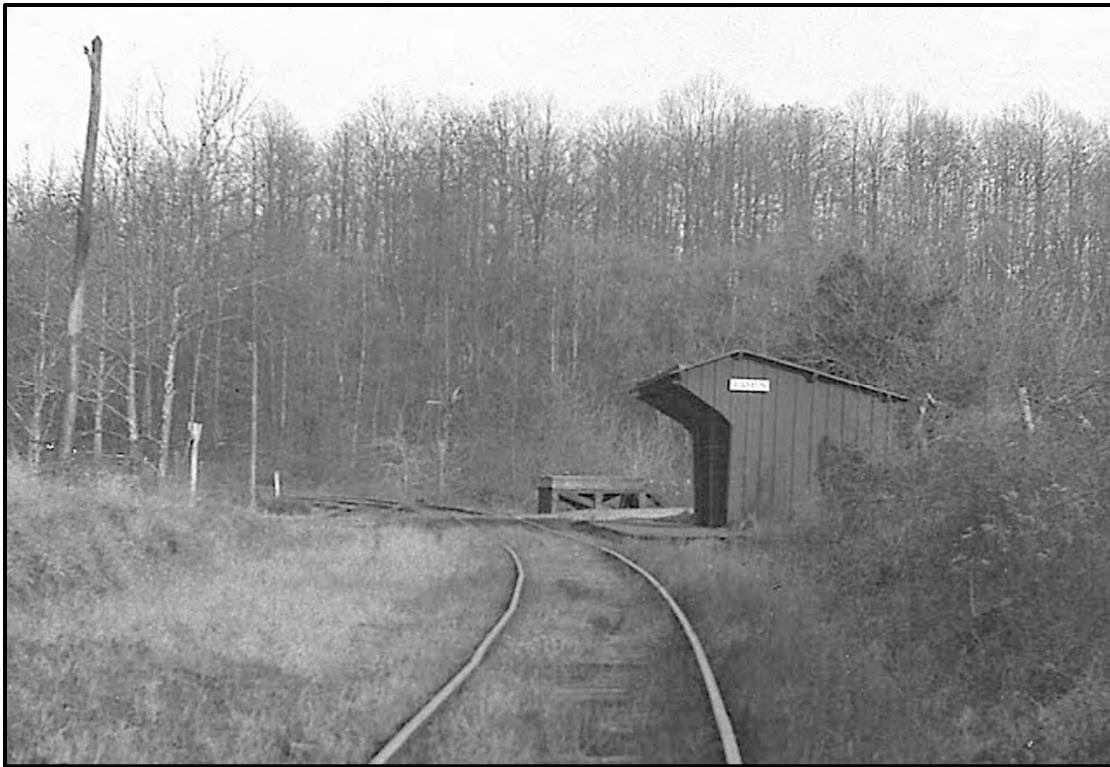
R1 – Baltimore & Ohio valuation records show shed (shelter) stations at Mill Creek, DE next to Valley Road and at Eden, PA next to Broad Run Road. These may have been the shed stations Heald referred to. There are references to a “Broad Run Station” but it is unknown if there was an additional shed station by that name or it was an alternate name for the station at Broad Run Road located in Eden, PA. In the late 1800s, Eden, PA was east of the Broad Run Trestle and creek while Broad Run, PA was an area west of the Broad Run Trestle and creek. There are also references to a shed station where the railroad crossed Barley Mill Road at Spring Valley, DE. The only shed stations documented with photographs are Mill Creek, DE and Eden, PA.

These shed stations do not appear on the normal passenger time tables although the shed type stations may have served as “whistle stops” where a train stopped only if there were passengers present to board or had notified the conductor that they wished to disembark. The photographs below of the shed stations at Mill Creek and Eden, taken in November 1927 by the Baltimore & Ohio Valuation Team, are looking eastbound. The Mill Creek and Eden shed stations are located approximately midway between Hockessin and Southwood Stations (Mill Creek Station) and Southwood and Landenberg (Eden/Broad Run Station).

Note the freight platform beyond the station on the opposite side of Broad Run Road from the station. Eden station, as well as Mill Creek Station, were unattended freight stations primarily set up for farmers to ship cans of milk to Wilmington’s diaries as well as pick up returned empty cans. Also note the wide right-of-way to the left of the tracks in the Eden photograph. B&O valuation maps show this area once included a siding for the limestone quarry located here (the Broad Run Trestle and Landenberg are behind the photographer). The limestone quarry was on either side of the tracks where the photographer would have been standing. The quarry had long played out by 1927 when this photograph was taken thus the siding has been removed. Also note the single telegraph wire on its pole at the left side of both photographs.



*Shed Station at Mill Creek, Delaware (looking towards Hockessin).
Valley Road is the grade crossing at center-bottom in the photograph.*



Shed Station at Eden, Pennsylvania (Looking towards PA-DE state line). Valley Road is the grade crossing at center-bottom in the photograph. Level area at left once hosted a siding for the limestone quarry operation along both sides of the right-of-way.

^{S1} – Southwood station was a standard station and not a shed station as Volkman suggests, as shown in this B&O valuation photo from 1927. The station is obscured by underbrush at center left of the photo below. The overpass beyond the station is Limestone Road (Route 7). The view is looking eastbound. There was once a siding left of the tracks.



Station at Southwood, Delaware (looking towards Limestone Road (Route 7) seen passing over the WWRR track (center). Roof of Southwood Station can be seen behind hill and heavy underbrush at center left. The station's siding formerly paralleled the track to the left.

^{T1} – The “long wooden platform at Mt. Cuba, along Red Clay Creek” that Volkman references was most likely at the Mt. Cuba Picnic Grove area. The photograph below from the B&O Valuation of 1927 shows the “railroad’s office located in a house some quarter of a mile distant purchased by the officials”. In the 1870s, as Volkman points out later in the text, the Mt. Cuba area served as a picnic and park area as well as hosted an occasional religious retreat.

The Charles S. Philips Collection also includes photos of the Mt. Cuba area taken in the mid-1890s and the area is little changed from the 1927 image shown. The Philips photo does show fenced-in areas across from the house and the Mt. Cuba Road bridge as a covered bridge. Both images show the siding that in 1927 has added the wooden platform for ease in loading a box or flat car as well as the siding being closer to the main tracks.



Station at Mt. Cuba, Delaware. The delivery truck (center) is using Mt. Cuba Road. The covered bridge carrying Mt. Cuba Road over the Red Clay Creek has been replaced by an iron truss bridge (center right). A boxcar sits on one of two sidings that were at Mt. Cuba Station in this B&O photo from 1927.

^{U1} – In July 1863 the U.S. Postal Service charged 3¢ to handle a $\frac{1}{2}$ -ounce letter. That was decreased to 2¢ on October 1, 1883. On July 1, 1885 the cost was changed to 2¢ per ounce. The cost varied between 2¢ and 3¢ per ounce until August 1, 1958 when postage became 4¢ per ounce. Postage costs have risen steadily since and as of this writing (2018) postage is 50¢ per ounce.

In the early 1860s, baggage cars were converted to Railway Post Offices (RPO), and mail was sorted and postmarked on the train as it traveled from station to station. Postal agents working the trains had to know the junctions and stations along their assigned routes along with details relating to how mail was delivered from those stations and junctions. Routine testing required an accuracy rating of better than 96% to maintain postal service employment.

For the Summer 2003 edition of *The Lantern*, John L. Kay and Frederick S. Dickson wrote an article titled *How Mail Was Moved on the Wilmington & Western Railroad*. It is reproduced here to provide information related to the mail operation on the line in the early years of its operation.

How Mail Was Moved on the Wilmington & Western Railroad

by John L. Kay and Frederick S. Dickson

The Wilmington & Western Railroad began operating in the fall of 1872 to connect Wilmington with the Newark & Pomeroy Railroad at Landenberg, Pennsylvania. Pomeroy was then a connection point for trains to Pittsburgh and the west.

The Post Office Department appointed Solomon Hersey of Wilmington as Mail Route Messenger at a salary of \$400 per year on August 3, 1872. His duties included receiving bagged mail at Wilmington for points along the route, delivering it to the post offices, delivering mail for points beyond Landenberg to the Landenberg clerk, and receiving letters handed to him at each station. These he cancelled with the 'WIL & WES RR' postmark of 1879 shown here, and sorted them on the train. (The spelling of Landenberg/Landenburgh differs in various records.)



For a short time between February 15, 1879 and September 23, 1880 the Mail Route Messenger went from Wilmington to Pomeroy at a salary of \$750 per year. No special postmark of this era is known.



This 'WILM. & LANDEN AGT.' Cancel shows that the clerk was later classed as a Route Agent at a salary of \$900 or more per year. This cancel continued in use as late as 1885, even though the route became part of the Railway Post Office system on August 1, 1882.

The Route Agent and later the RPO Clerk did all distribution of the letters and had pouches ready for dispatch to through trains at Wilmington. The 'WILM & LAND. R.P.O.' cancel was used about 1892-1905.



This 'WILMING. DEL. & LAND. R.P.O.' cancel was used about 1905-1917. RPO service was discontinued on the Wilmington & Western April 27, 1917.



Passenger service was discontinued during the Depression of the 1930's, but freight is still moved several times a week to Yorklyn and Hockessin. The railroad became part of the Chessie System until it was scheduled to be abandoned in 1982, when it was bought by Historic Red Clay Valley, Incorporated and was returned to its original name. It is now operated mainly by volunteers who man the track and train crews and rebuild the antique rolling stock.

<u>Post Office</u>	<u>Opened Date</u>	<u>Closed Date</u>
Marshallton	February 11, 1878	Still Open
Greenbank	No Post Office	No Post Office
Faulkland	November 27, 1872	December 31, 1914
Wooddale	November 27, 1872	May 31, 1911
Mt. Cuba	March 12, 1877	July 15, 1933
Ashland	November 8, 1872	July 15, 1933
Yorklyn/Auburn	June 13, 1873	Still Open
Hockessin	December 16, 1863	Still Open
Southwood	No Post Office	No Post Office
Landenberg	November 30, 1848	Still Open

Most of the post offices along the route or the Wilmington & Western opened soon after the railroad furnished the means for delivering mail. Four of them were discontinued when rural free delivery became available from larger post offices, but four are still operating. Four stations did not have post offices, but MRM, Agent or RPO clerk would have received and canceled outgoing mail handed to him at any station.

Mail for the Brandywine Springs Post Office less than one mile west of the railroad was handled through the Faulkland Post Office. It is believed that mail for Mermaid and Limestone Road came on the Wilmington & Western at one time. If so, it probably was transferred at Southwood on Limestone Road or at Hockessin.

V1 – For Figure 13, the hand drawing was replaced with an image of the actual G.A. Hopkins Atlas of Wilmington map from Hagley Museum & Library.

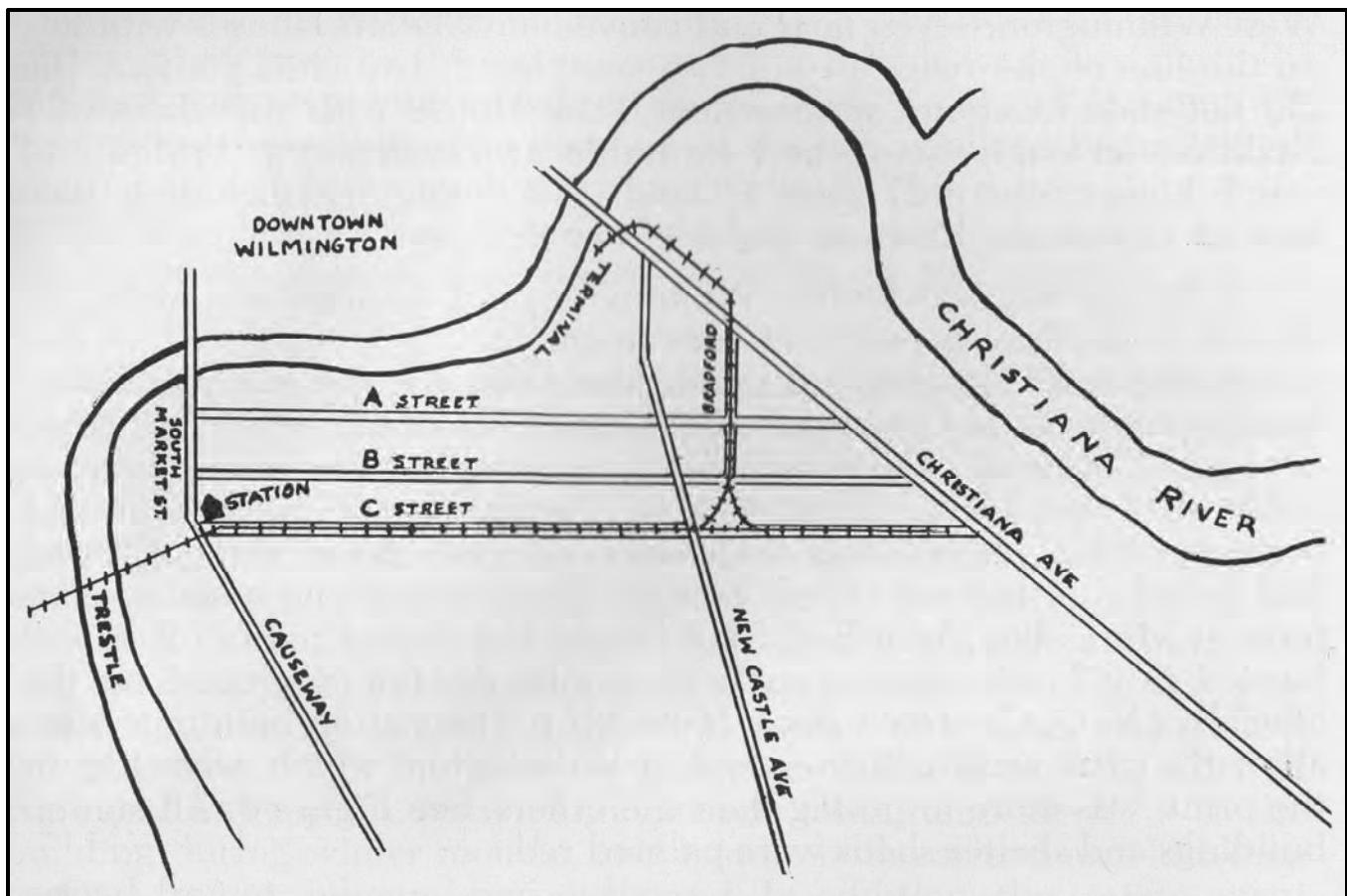
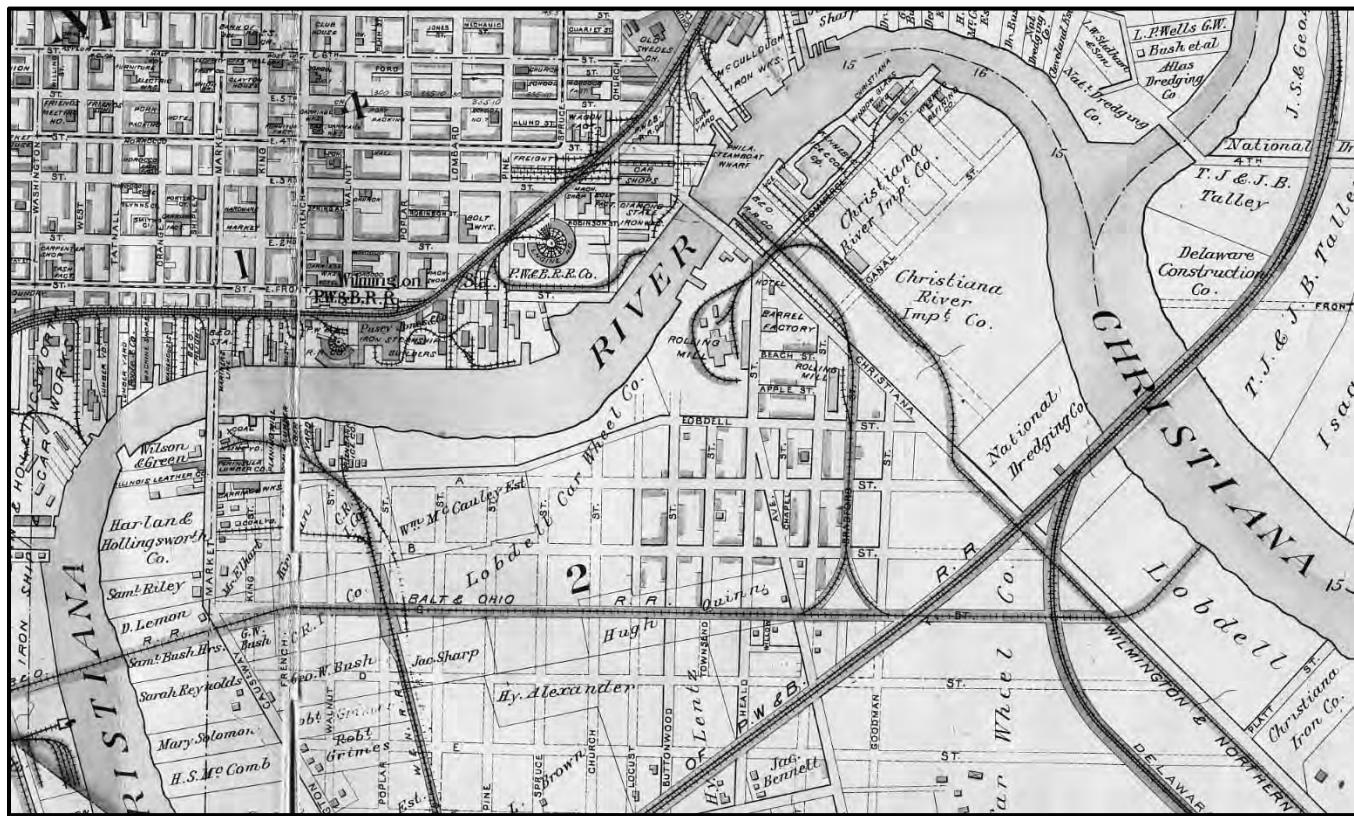


Figure 13

First Wilmington station of W&W was on present C Street at Causeway (cf. Figure 8). Track continued east on C Street to Bradford, and thence to terminal off Christiana Avenue. The WYE at Bradford Street permitted turning engine without a turntable. The trestle over the Christiana was actually a drawbridge (See Figure 3). The G. A. Hopkins Atlas of Wilmington (1876) shows the above route in full detail in relation to the streets.

Below is an 1893 map of the same area from *Atlas of New Castle County Delaware from Actual Surveys, Official Records, and Private Plans* that was compiled and published by G. W. Baist (courtesy of Hagley Museum & Library). The original Wilmington & Western Railroad tracks are now marked with their new owner, the Baltimore & Ohio Railroad. The Wilmington & Northern Railroad's tracks (future Reading Railway), originally built by the Wilmington & Brandywine

Railroad are shown along with those of the Philadelphia, Wilmington, & Baltimore Railroad (future Pennsylvania Railroad).



W1 – The Delaware General Assembly passed a law in Volume 14, Chapter 64 stating the minimum bridge requirements for the Wilmington & Western Railroad to cross the Christiana River.

CHAPTER 64.

BRIDGE OVER CHRISTIANA RIVER.

AN ACT to Protect the Navigation of the Christiana River.

Preamble.

WHEREAS the act of incorporation of the Wilmington and Western Railroad Company authorizes the said company to construct a railroad, beginning at or near the Delaware River, within the limits of the City of Wilmington, and extending thence in a westerly direction to the line of this State, crossing in its route the navigable waters of the said Christiana River, therefore,

Be it enacted by the Senate and House of Representatives of the State of Delaware in General Assembly met, (two-thirds of each branch thereof concurring),

SECTION 1. That the Wilmington and Western Railroad Company, in constructing its road across the Christiana River, shall, and the said company is hereby required to erect and maintain a draw or pivot bridge at the crossing of said stream, of not less than thirty-five feet in clear width, for the passage of vessels, and shall also provide, at the expense of said company, proper attendance upon said bridge, as is customary in such cases.

Draw, or
pivot bridge
authorized
over Chris-
tiana river
at the ex-
pense of
Wilmington
and Western
Railroad.

Passed at Dover, March 7, 1871.

X1 – For Figure 15, the hand drawing was replaced with an updated drawing containing additional information.

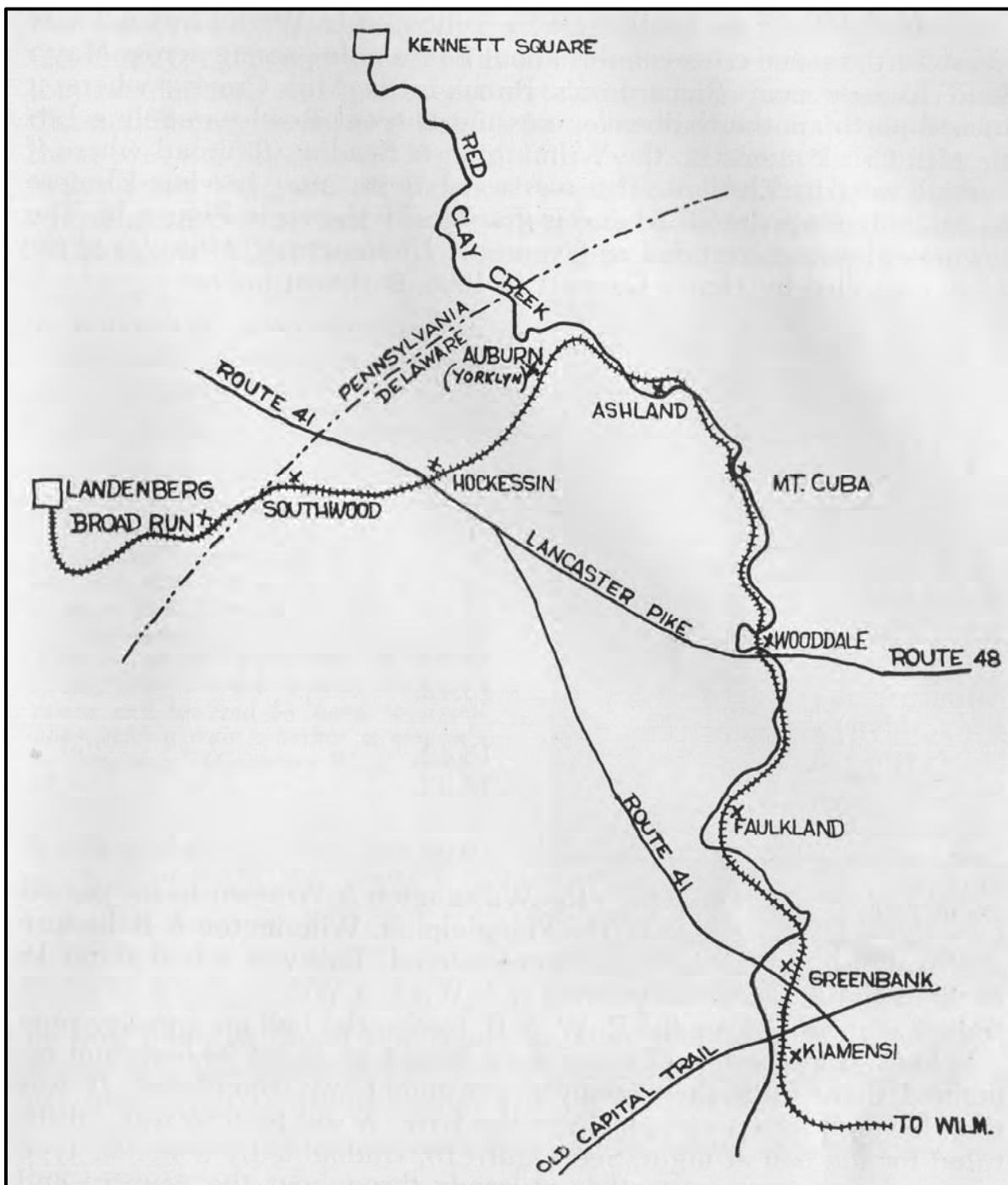


FIGURE 15
Route of Wilmington & Western through Red Clay Creek Valley with X's marking the former stations. The track still runs as far as Hockessin – but was removed from Hockessin to Landenberg.
(Drawing by William E. Grant, Sr.)

Y1 – Henry Gannett is considered “The Father of Government Mapmaking”. He was also described as the “Father of the Quadrangle” which is the basis for all U.S. topographical maps of the United States. Henry Gannett was a major force behind the formation of the U.S. Geological Survey. His “Dictionary of Altitudes,” first published in 1884, was issued in four editions including 1891, 1899,

and 1906. Volkman's original table was missing data for West Junction (Landenberg Junction), Marshallton, Brandywine Springs, Wooddale, and Southwood. Those have been added to the monograph.

^{z1} – For Figure 16, William Grant’s photo was replaced with a better-quality photo from Ronald Foreman which includes the diamond crossing being controlled.

Figure 16^{Z1}

"High Ball" signal, one of the last of its kind, standing at the foot of Fifth Avenue and Duncan St. and still in use. Similar signal was used in West Yard to govern movement of W&W trains over PW&B tracks. Ball was raised and lowered by hand to signal approaching train whether it was safe to cross over.

(Courtesy W. E. Grant, Sr.)



The *Map of New Castle County* published in 1881 by G.M. Hopkins & Company, below, details the W&W tracks entering at left center, the Wilmington & Northern (W&N) entering at upper left, and the PW&B tracks entering from lower center in 1881. The highball signal would have been just right of center in the image.

Also note the crossover between the W&N (Reading) and the W&W (B&O) tracks a short distance east of the crossover of the W&W and the PW&B tracks. This high ball signal was the 3rd one still in use in the country when it was retired and relocated to Greenbank Station.



^{A2} – Volkman states further in the monograph that commencing April 7, 1873, trains leave Wilmington at 7:00 A.M., 10:40 A.M. and 5:35 P.M.; and arrive at Landenberg at 9:10 A.M., 11:57 A.M. and 7:01 P.M. respectively. Trains leave Landenberg at 6:45 A.M., 10:55 A.M., and 3:50 P.M.; and arrive at Wilmington at 7:55 A.M., 1:00 P.M. and 5:00 P.M. respectively.

The *Travelers' Official Railway Guide for the United States and Canada containing Railway Time Schedules, Connections, and Distances; Ocean and Inland Steam Navigation Routes* published January 1874 by the National Railway Publication Company included the following schedule for the Wilmington & Western effective October 1, 1873. As the Wilmington & Western didn't begin operations until late October 1872, the January 1873 (top below) edition is the first we've found showing a listing for the railroad.

The October 1, 1873 schedule of two trains in each direction was changed by May 25, 1874 (September 1874 issue of the *Railway Guide*) to a three-trains each direction schedule and remained in effect until September 14, 1875 (September 1875 issue of the *Railway Guide*) when the schedule changed back to two trains in each direction. The two trains in each direction was still listed in the January 1876 *Railway Guide*. For the summer of 1876 the schedule changed to three trains again but returned to two trains on December 4, 1876.

A January 1879 *Railway Guide* shows the Delaware Western operating a schedule of three trains in each direction starting on February 24, 1879 and that the schedule in Landenberg was coordinated with trains running to Pomeroy, PA. Note the spellings of "Green Bank", "Wood Dale", and "York Lyn".

212 WILMINGTON AND WESTERN RAILROAD.									
Pas. Mix.		Mls.		October 1, 1873.		Mls.		Pas. Mix.	
P. M.	A. M.	(Philadelphia time.)		lv.	Wilmington ¹ .ar.	20	7 55	3 30	P. M.
5 35	2 30	0	lv. Wilmington ¹ .ar.	20	7 55	3 30	7 55	3 00	CONN
5 55	2 55	7	Green Bank.....	13	7 35	2 55	2 55	2 45	NECTIONS
6 05	3 05	8	Faulkland.....	12	7 35	2 55	2 49	2 05	Wilmington
6 05	3 10	9	Wood Dale.....	11	7 27	2 45	2 40	1 55	Delaware &
6 12	3 12	11	Mount Cuba.....	9	7 21	2 38	2 32	1 45	Wilmington &
6 18	3 13	12	Ashland.....	8	7 16	2 30	2 22	1 45	Wilmington
6 24	3 14	13	York Lyn.....	7	7 11	2 22	2 10	1 45	Wilmington
6 32	3 20	15	Hockessin.....	5	7 03	2 00	1 52	1 33	Wilmington
6 38	3 22	17	Southwood.....	3	6 58	1 45	1 37	1 21	Wilmington
6 45	3 22	18	Broad Run.....	2	6 52	1 37	1 30	1 15	Wilmington
6 50	3 23	20	Landenberg.....	0	6 45	1 30	1 25	1 15	Wilmington
P. M. NO N		ARRIVE]		[LEAVE		A. M. P. M.		A. M. P. M.	

Railway Guide – October 1873

211 WILMINGTON AND WESTERN RAILROAD.									
JAMES BRADFORD, President.				DAVID CONNELL, Superintendent.					
JOHN JONES, Treasurer.				General Offices—Wilmington, Del.					
P. M.	P. M.	Mix.	Mls.	May 25, 1874.		Mls.	Pas.	Mix.	Pas.
P. M.	P. M.	A. M.		(Philadelphia time.)			A. M.	P. M.	A. M. P. M.
1 30	5 35	8 30	0	lv. Wilmington ¹ .ar.	20	7 55	3 30	11 25	7 00
1 54	5 58	8 52	7	Green Bank.....	13	7 35	2 55	11 05	6 45
1 57	6 01	8 55	8	Faulkland.....	12	7 35	2 49	11 01	6 40
2 02	6 06	9 02	9	Wood Dale.....	11	7 27	2 40	10 55	6 36
2 08	6 12	9 08	11	Mount Cuba.....	9	7 21	2 30	10 50	6 30
2 17	6 18	9 15	12	Ashland.....	8	7 16	2 17	10 45	6 15
2 21	6 24	9 20	13	York Lyn.....	7	7 11	2 10	10 40	6 10
2 27	6 33	9 27	15	Hockessin.....	5	7 03	1 52	10 33	6 05
2 34	6 39	9 35	17	Southwood.....	3	6 58	1 42	10 26	5 58
2 39	6 44	9 40	18	Broad Run.....	2	6 52	1 37	10 21	5 52
2 45	6 50	9 45	20	Landenberg.....	0	6 45	1 30	10 15	5 45
P. M. P. M. A. M.				ARRIVE]		[LEAVE		A. M. P. M. A. M. P. M.	

CONNECTIONS.—¹ With Philadelphia, Wilmington & Baltimore; Delaware, and Wilmington & Reading Railroads.

Railway Guide – January 1879

^{B2} – Volkman provided the railroad's appointments as part of the original monograph's text. As we found a Wilmington *Evening Journal* newspaper article from opening day containing the same appointments along with new information of interest, the actual newspaper article was substituted for Volkman's text in the monograph along with a new paragraph. Below is Volkman's original monograph paragraph referenced to the *Jeffersonian*, of West Chester, PA, October 26, 1872:

The same paper continued that the following appointments had been made:

Wilmington Freight Agent	– G. N. Caleb
Ticket & Telegraph Agent	– F. L. Devou
Agent at Greenbank	– A. J. Williams
Agent at Hockessin	– William Palmer
Agent at Landenberg	– R. V. Moore
Conductor – Passenger train	– C. W. Bainard [sic]
Conductor – Freight train	– Alfred Hughes

The article states in the last paragraph that "The time table will probably be published in our advertisement columns tomorrow." The October 22, 1872 edition of the Journal carried the fare schedule for the new railroad.

W. & W. R. R.

WHAT IT COSTS TO TRAVEL OVER IT.

The Wilmington & Western Railroad Company have fixed upon the rates to be charged to the various stations on the road. To Southwood the ten cent tax imposed by the Delaware Legislature is collected, which accounts for the same fare being charged to Landenberg, in Pennsylvania. From this city to Kiamensi 28 cents, to Greenbank 30, Faulkland 35, Wooddale 40, Mount Cuba 45, Ashland 50, Auburn 55, Hockessin 60, Southwood 65, Broad Run 65, Landenberg 65.

Next week the company will issue excursion tickets to and from the various stations on the road, at a considerable reduction. The above charges are at the rate of $3\frac{1}{2}$ cents per mile and the State tax.

^{C2} – By the time the Wilmington & Western began operations in October 1872 the world's economy was revealing indications of instability. Materials like pig iron had experienced cost increases more than double (\$30 to \$61/ton between 1871 & 1872; \$19/ton by 1879) with other raw materials seeing similar price increases. Labor strikes and the formation of unions occurred frequently in response to soaring company profits being paid to management while worker's compensation and working conditions deteriorated.

What was about to unfold over the next decade has been designated the first international economic crisis and recession. Neither Heald, or any of the others, in the joy of seeing their railroad constructed and becoming operational, foresaw that by late 1875 the line would cost them their hard-earned fortunes and be in receivership as Volkman explains further along in the

monograph. Had any of them the insight that history now provides, in all likelihood they might have left the Delaware & Chester County Railroad a good idea that was never developed.

In May 1873, six months after the WWRR's opening, the Vienna stock market collapsed. In September 1873, Jay Cooke & Company, a leading Philadelphia Bank and the first to pioneer the use of the telegraph for securities transactions, failed. The bank, unable to sell \$100,000 worth of Northern Pacific Railroad bonds, became insolvent. The resulting run on Cooke & Company began what historians now call the "Panic of 1873". Within days, additional banks entered receivership shuttering the New York Stock Exchange for two weeks (start of World War I in July 1914 is the longest closure at four months).

Fifty-five railroads seek receivership protection in 1873 and another sixty railroads fail in 1874. Over 18,000 businesses close in 1873-74 and unemployment for the century-old nation hits 8.25%. The economic boom had become an abrupt bust initiating the six-year "Long Depression"; the first world-wide depression.

WWRR construction costs exceed original estimates due to the difficulty blasting through rock along the route chosen and the need to move large amounts of fill to keep grades less than one-percent. Prices for timber, rail, and other materials were experiencing near-daily price increases. By the time the railroad operated a regular schedule in 1873, \$720,206.76 had been spent on its construction according to annual reports (see data in the Addendum). The company was scheduled to make quarterly payments of 7.3% interest on \$451,831.99 worth of 20-year bonds (\$32,983.74 in payments as of November 1, 1873). While a dividend not to exceed 8% had been suggested and perhaps promised to those purchasing stock, none is declared on \$248,807.50 of capital stock issued.

In its first year of operation, the Wilmington & Western Railroad Company moved 39,308 passengers and 20,030 tons of freight (equivalent to moving 250,375 tons one mile) according to company annual reports filed with the Commonwealth of Pennsylvania. The railroad debt was approaching \$40,000 after the first year of train operations, maintaining equipment, and paying employees. The effects of the Long Depression were negatively affecting the railroad's cash flows.

On January 30, 1873 the Delaware legislature authorized (Laws of Delaware, Volume 15, Chapter 115) the company's bond issuance limit raised from \$600,000 to \$1,500,000. On November 1, 1873 the Wilmington and Western Railroad Company was estimated to have \$39,896.09 unencumbered from a floating debt agreement. As shown in annual report data, few if any, buyers turned up to purchase the additional bonds authorized. As Volkman has described in Chapter 4 of the monograph, revenues do not cover operating expenses and will be insufficient to cover upcoming interest payments on previously issued bonds. It is becoming abundantly clear the Wilmington & Western is in financial trouble as expenses continue to exceed payment commitments.

D² – This accident description seems to have some questionable information presented. Volkman does not cite a source but he comments; ". . . the mail train that left Landenberg at 4 o'clock the afternoon of Monday, March 24, 1873, ran into a rock slide about a mile north of Wooddale. . .".

Wooddale Station is located on a Landenberg Branch track map near the 3.4 milepost. A mile or so towards Mt. Cuba from Wooddale would make the accident location between Barley Mill Road and Mt. Cuba Road. On either side of Mt. Cuba Road, the railroad had to cut the banks back for the right-of-way so it is conceivable that one of those rock outcrops produced the rock slide which caused the accident. There are additional rocky cuts between Mt. Cuba to Ashland including the Mt. Cuba rock cut but that makes the distance two miles or more from Wooddale.

Regardless of where the accident occurred, Volkman goes on to state; "The telegraph operator at Ashland was away from home at the time and the conductor had to walk seven and a half miles to Wilmington to report the wreck."

We know the railroad had a telegraph line from Wilmington to Landenberg with telegraph stations in each of the train stations. Why would a conductor walk 7½-miles into Wilmington to summon assistance? It appears that Mt. Cuba would have been the closest railroad station for the conductor to walk to. If not the Mt Cuba station, perhaps Wooddale Station although we know it was closed for part of 1873 into part of 1874?

If there were no telegraph operator at Ashland, it has to be assumed this conductor didn't have station keys and or he wasn't qualified to operate the telegraph (telegraph agreements permitted railroad employees to use telegraphs for train operations as part of the Western Union contract as noted earlier in these footnotes). What about walking back to Yorklyn or Hockessin stations and using their telegraphs?

It seems a hike into Wilmington wasn't the best choice. We suspect once the conductor got to Barley Mill Road or Lancaster Turnpike, he might have been able to get a ride in a wagon or send word to the home office. It is easy to wonder these things in the 21st century and as we don't know all the circumstances the crew was dealing with, the fact that there was an accident and it appears that no one was injured, is the important information presented.

E2 – With the abundance of railroads failing due to the Long Depression that started in 1873 and which continued for six years, various publications documented the various business stages each railroad was experiencing. One such publication was *The Commercial and Financial Chronicle; Hunt's Merchants' Magazine*, a weekly Saturday publication. The newspaper's tag-line indicated their purpose; "Representing the industrial and commercial interests of the United States". The following five articles detailed the ongoing WWRR bankruptcy, receivership, and reorganization. Research has uncovered nearly identical articles appearing in other banking and financial publications.

Wilmington & Western.—This company failed to pay the quarterly interest due on its bonds in October, and several meetings of the bondholders have been held. It has been proposed that Colonel McComb, of Wilmington, shall take the road and complete it westward to Oxford, and build the extension through Wilmington to the Delaware. This plan, which is now under consideration, proposes that the company should be reorganized, with a capital stock of \$600,000 and an issue of \$600,000 in first mortgage bonds. The present stockholders are to receive 25 per cent of their present holdings in new stock, the bondholders to surrender their bonds and past due coupons and receive 75 per cent of the amount in new bonds at par, and 25 per cent in new stock. The floating debt creditors to receive new stock. The remainder of the new stock and bonds to be used to complete the road.

The road is now 20 miles long, from Wilmington, Del., to Landenburg, Pa., and the extension to Oxford will be about 16 miles long. The present issue of bonds is \$500,000, and the capital stock subscribed is about \$250,000. It is thought that the plan proposed will be adopted.

Two lines have been surveyed for the extension to Oxford, but no final location has been made.

Commercial and Financial Chronicle, V17, N438, P661, November 15, 1873

Wilmington and Western.—At a recent meeting of the directors it was resolved to offer the floating debt creditors payment in bonds to be issued under a new second mortgage. The amount of these bonds is not to exceed \$100,000, and they are not to bear interest until the road earns a surplus after paying interest on the first mortgage bonds. This offer will probably be accepted, provided it is made a part of the settlement with the bondholders. The floating debt is nearly \$90,000.

Commercial and Financial Chronicle, V18, N452, P192, February 20, 1874

Wilmington & Western.—In the United States Circuit Court, at Wilmington, Del., on suit of William Calhoun, of New York, a bondholder of the Wilmington & Western Railroad Company, praying for a foreclosure of mortgage and sale of road, Judge Bradford has appointed William M. Canby Receiver, who gave bonds and took possession of the road.

Commercial and Financial Chronicle, V21, N546, P565, December 11, 1875

Wilmington & Western (Del).

(For the year ending Oct. 31, 1875.)

The funded debt is \$500,000, on which interest has been in default since 1873. Foreclosure proceedings were recently begun and a receiver appointed.

The earnings were as follows:

	1874-75.	1873-74.
Gross earnings.....	\$41,267 42	\$81,871 15
Expenses.....	34,604 40	30,008 89
Net earnings.....	\$6,663 01	\$1,862 78

The road and stations have been kept in good repair, the bridges repaired after the freshets of last spring, and a depot erected at Landenberg. One locomotive was sold, being very much out of repair and not needed.

The income account was as follows:

Net earnings, 1873-74 and 1874-75.....	\$8,525 78
Insurance.....	1,176 00
Sale of locomotive.....	2,000 00
Stock subscriptions.....	471 00
Total.....	\$12,172 78
Back wages, accounts due, buildings, etc.....	\$12,172 78

Commercial and Financial Chronicle, V22, N561, P304, March 25, 1876

WILMINGTON & WESTERN.—This railroad was sold April 25, at public sale, to the first mortgage bondholders for \$5,000. The amount of claims by stockholders was \$250,000 and the floating indebtedness was \$90,000.

Commercial and Financial Chronicle, V24, N618, P386, April 28, 1877

F2 – The early founders of the Wilmington & Western Railroad involved many prominent Delaware natives who gained wealth and power from their ownership of a prominent business established within New Castle County. Henry Simpson McComb, a Wilmington, Delaware native, got his start in leather manufacturing. The majority of McComb's wealth and reputation was earned through ownership of the Mississippi Central Railroad (MCRR). The MCRR ordered a 4-4-0 locomotive in 1909, which is still providing service in the 21st century on the WWRR thanks to the purchase and donation of #98 by Thomas C. Marshall, Jr. The McComb City Railroad Depot Museum, located in

the 1901-built McComb railroad depot in McComb, Mississippi, is named in McComb's honor. McComb's involvement in the Transcontinental Railroad's Credit Mobilier scandal during the 1870s coincided with his involvement in the WWRR's receivership and reorganization. This created speculation and hearsay regarding McComb's motives and interests.

In 2014, *Mill Creek Hundred History Blog* historian Scott Palmer researched Colonel Henry Simpson McComb. Excerpts of Palmer's blog article are reproduced below;

Henry S. McComb (1825-1881) rose from very humble beginnings to become one of the wealthiest and most powerful men in Delaware. The second of five children, McComb's blacksmith father died when the boy was only seven. Consequently, young Henry spent little time in school, as he was forced to find a job to help support his family. After working for a couple years in a newspaper office, Henry was apprenticed to a tanner. Being a bright boy, he picked up the trade quickly. He also spent much of his free time making up for the schooling he missed as a young boy. In fact, he so impressed his teacher, Judge Willard Hall (Federal Judge, head of Wilmington schools, and school namesake, among many other things), that Hall gave him a personal loan to start his own leather business.

This, it seems, was all McComb needed to get started. He began his business at age eighteen, and by twenty-five was one of the leading businessmen in the city. This is reflected in the fact that in 1853, McComb married Elizabeth McKean Bush, daughter of Charles Bush, the part-owner of Bush and Lobdell, the country's largest manufacturer of railcar wheels at the time.

By age thirty, Henry McComb had one of the largest leather companies in the country. At the outbreak of the Civil War, he was able to land several lucrative government contracts for items such as tents, knapsacks, and leather goods. Because of the exemplary manner in which he fulfilled his contracts, he secured the admiration and friendship of many high officials, including Secretary of War Edwin Stanton and even President Lincoln. When a military governor was suggested for Delaware, the position was offered to Henry S. McComb. He advised against the idea, and the proposition was dropped. Instead, McComb raised and equipped at his own expense the Fifth Delaware regiment, which he commanded as Colonel.

After the close of the war, through his military and political connections, McComb was pulled into the construction of the Union Pacific Railway, part of the Transcontinental Railway. He took part in the infamous Credit Mobilier scam, one of the biggest scandals of the Grant presidency (and that's saying a lot). If you like reading about corporate/political scandals, this is a good one. McComb, though, was unhappy with how the spoils were divided, and ended up leaking documents to a newspaper, leading to the public disclosure of the massive fraud.

After this affair, McComb turned his sights on broken-down Southern railroads looking to



Henry S. McComb (1825-1881)

recover from the war. He first acquired the Mississippi Central Railroad and greatly expanded it, even founding the new railroad town of McComb, Mississippi. He went on to purchase several other small lines, and for a time served as the president of the Southern Railroad Association. Unfortunately for him, his ventures turned sour during the Panic of 1873, and all were absorbed by larger railroads.

He did have one more railroad venture in him, though, and in 1880 purchased the struggling eight-year-old line known then as the Delaware Western Railroad. It's better known by its original name, the Wilmington & Western Railroad. Henry McComb was briefly involved in the high-stakes negotiations between the Pennsylvania and the Baltimore & Ohio Railroads (and others) to build a second East Coast Corridor line. The former leather merchant's part ended with his death in 1881, just as things were heating up.



By the late 1850's Henry McComb was already quite wealthy, and he decided that he should have a home befitting his stature in Wilmington, DE. In 1859 and 1860 he purchased his property (which eventually amounted to the block bounded by 11th and 12th Streets, as well as, Market and King Streets), which had on it a large home built some thirty years earlier by Dr. George Stephenson, a prominent physician from Pittsburgh.

McComb moved into the house and in 1865 (presumably after the war) began a major renovation of it. The renovation took more than seven years, completely changing the look of the mansion, bringing it "up to

date" with the newest Second Empire style. According to an article from the March 18, 1934 edition of the *Delmarva Star*, McComb's architect may have been the same one who designed Philadelphia's City Hall.

As noted, Colonel McComb (as he was referred to) owned the entire block, which in addition to the house contained large stables, a milk house, and even a one cow dairy. During most of McComb's lifetime the house overlooked not Rodney Square, nor even the old courthouse, but instead faced the Market Basin reservoir. The new courthouse opened in January, 1881 – McComb died in December of that year. After his passing the house went to his daughter Elizabeth and her husband, James Price Winchester. The Winchesters owned the home for more than 50 years.

In 1933 the Winchesters sold the property to the US Government for the (then) princely sum of \$500,000. That would amount to more than \$10 million today (2019). The house was soon razed (as seen below) and construction of the new Federal Building began in 1935. It was completed in 1937.

For a number of reasons, including the strong Quaker influence upon the city, Wilmington was never host to many large, opulent mansions. It did have generally recognized as very beautiful, elegant homes, though. Few homes within the Wilmington city limits said "Wealthy Industrialist" better than the Henry S. McComb's mansion.

To add to Scott Palmer's information, McComb was an indentured apprentice while learning the leather trade in his teens. This was a common practice where young teens could learn a trade by becoming indentured to the business owner for a given period of time. After working as an errand boy and then as an ink roller boy for the Delaware State Journal, he became an apprentice with Isaac Pusey of Wilmington's industrialist Pusey family. McComb was given scraps of leather from Pusey's operation and he turned them into things he could sell for a profit. Pusey is said to have mused that the young McComb was making more money selling leather scraps than Pusey was paying himself from his business.

At 18, McComb bought out the remaining two years of his indentured service and began working with James Webb, a leather craftsman and currier. McComb eventually bought Webb's leather interest and expanded the business. With the start of the Civil War, McComb secured lucrative government contracts as Scott Palmer reported. Colonel McComb subcontracted the government work ensuring that his company supplied the raw leather and other materials needed. In Philadelphia, six large buildings warehoused supplies furnished from Colonel McComb operations.

McComb is most often connected with the Credit Mobilier (no connection to the French bank of similar name) scandal. The scandal involved the building of the eastern portion of the Transcontinental Railroad with the Union Pacific Rail Road and Credit Mobilier of America construction company. The first part of the scandal involved the construction company charging the Union Pacific marked up prices for construction of the railroad line. The construction company, while portrayed as an independent company and not affiliated in any way with the Union Pacific, was in fact totally under Union Pacific's control and leadership and several U.S. congressmen served as directors in both organizations. As the U.S. government was paying for the tracks to be constructed (Union Pacific's profits would come strictly from operations), the Union Pacific and Credit Mobilier directors were able to skim excess project profits of nearly \$44-million from the government through "indirect billing".

The second portion of the scandal involved Credit Mobilier and Union Pacific stock being offered to congressmen and other government officials at attractive discounts (below par value in most cases). Because Credit Mobilier was able to show consistent profits due to its major contract with the Union Pacific (and indirectly the U.S. government), the construction company's stock enjoyed a steady increase in market value and dividend payments as did the railroad's stock

For those holding Credit Mobilier stock, significant dividends were paid. As shares continued to accumulate, congressmen and others associated with the scheme, would quietly sell their below cost obtained shares on the stock market to anxious public investors so as not to attract attention that they might be accumulating too much voting power in the company. Those selling the stock were then rewarded with huge capital gains profits. The stock just sold would be replaced with new, below par cost shares.

Because of constant "unforeseen" expenses and cost overruns, these same government officials would sign off on inflated billings, construction status reports, and similar Transcontinental Railroad construction matters. These same elected officials continued appropriating additional taxpayer money to the project, approving any legislative rulings necessary to keep the graft covered up, extended project's timing, and did not minimize project expense.

Henry McComb, following the Transcontinental Railroad construction closely over more than four years, constantly tried to press Oakes Ames to sell McComb additional Credit Mobilier shares at a discount because of its great value. Ames had become President of Credit Mobilier in 1867 and his U.S. Representative position provided him the ideal setting in which to commit fraud. Ames refused to sell McComb discounted shares as Ames consistently claimed he “needed more friends in Congress”. Unfortunately for Ames, his correspondence with McComb slowly unveiled the corruption occurring.

In 1872, the New York City newspaper *The Sun*, which had been doing in-depth research into the construction effort, uncovered potential indirect billing and below value stock pricing. In parallel with *The Sun*’s investigations, McComb had entered into a lawsuit with Ames. McComb purchased Credit Mobilier stock at market value from Ames instead of the New York Stock Exchange and after the sale Ames disallowed the transaction. McComb attempted to complete the purchase and after several unsuccessful attempts, along with Ames publicly insulting McComb, McComb shared his copies of the Ames-McComb correspondence documenting the graft with *The Sun*. With hard evidence in hand, the newspaper was ready to expose the corruption and fraud that was ongoing.

The paper’s story revealed the construction company had billed \$72-million (slightly over \$3-billion in 2019) for work worth only \$53-million (approximately \$2.25-billion in 2019). Oakes Ames, a U.S. House of Representative from Massachusetts was named along with thirteen others from congress (including James A. Bayard, Jr. from Delaware). Additionally, the ensuing scandal brought down Vice President Schuyler Colfax (R-IN). The scandal became a major election issue for our 20th president, James A. Garfield who had accepted Union Pacific stock indirectly from Ames but then returned it keeping only some dividends that had been paid.

The Credit Mobilier scandal of the 1870s broke with the coming of the telegraph and the rise of multiple dishonest practices related to American railroading. The Long Depression, numerous railroad scandals, and the telegraph and newspaper’s ability to publicize the details combined to allow such scandals to play out in near real time. The scandal was as large, and consumed the nation’s attention in the 1870s, similar to the way the Pentagon Papers, Watergate Break-in, and Whitewater scandals unfolded in the 20th century.

While McComb was in a position to be indicted in the crimes committed, the fact that he was never able to obtain discounted shares in Credit Mobilier from Ames, but had receipts showing the purchase of his shares at market prices, kept him from prosecution. While McComb was reprimanded in the newspapers for selling his Union Pacific and Credit Mobilier shares a few days before *The Sun* article was published, he could not be prosecuted as the first insider trading laws were not passed by Congress until the Securities Exchange Act of 1934.

^{G2} – Figure 17 was replaced by the same area of the 1893 *Atlas of New Castle County Delaware from Actual Surveys, Official Records, and Private Plans* compiled and published by G. W. Baist (courtesy of Hagley Museum & Library).

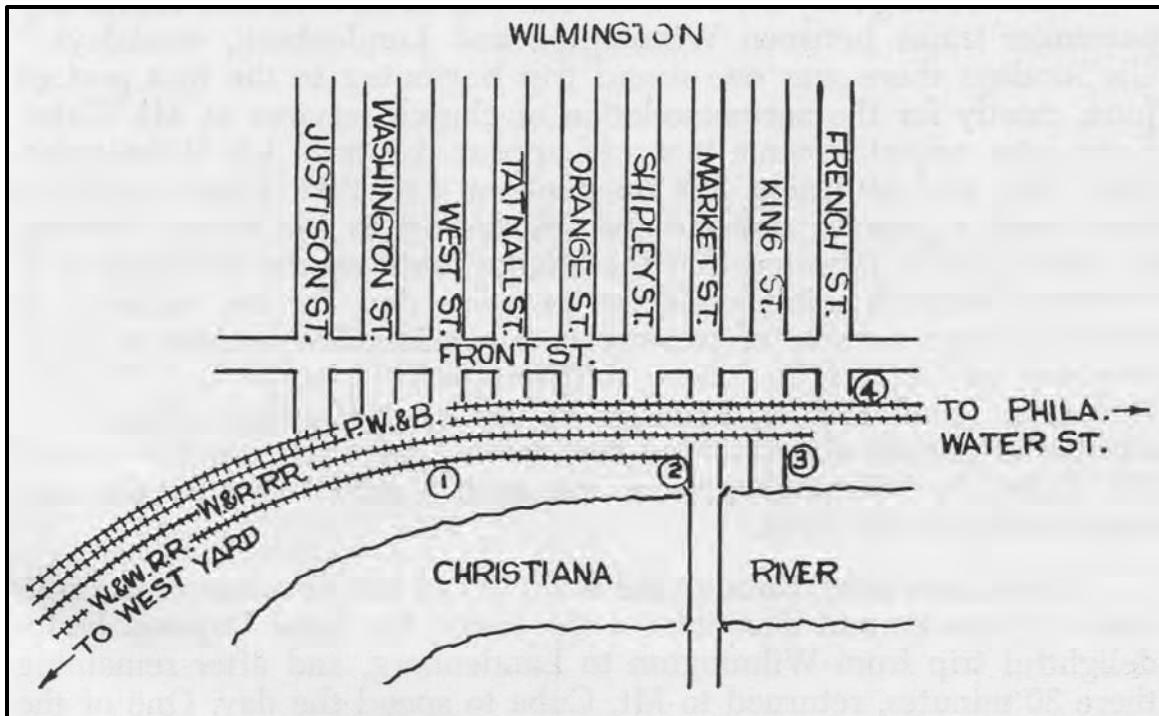


Figure 17

- (1) – Second location of Wilmington & Western Railroad Station, July 13, 1874.
- (2) – Third and final location of Wilmington & Western Railroad station, July 24, 1874
(Present B. & O. Freight Office built on this site.)
- (3) – Location of Wilmington & Reading Railroad Station, circa 1872.
- (4) – Location of Philadelphia, Wilmington & Baltimore R.R. Station, circa 1872.
(Drawing by William E. Grant, Jr.)

H² – Volkman details the celebration for Bayard Taylor more extensively than he does other events noted in the monograph. In the 1800s, American literary figures such as Nathaniel Hawthorne, Washington Irving, Joel Barlow, James Russell Lowell, Philip Freneau, and Bayard Taylor were well-known writers who enjoyed international recognition. They accepted invitations to serve the U.S. in a diplomatic assignment partially based on their skills with the written word and diverse backgrounds and experiences.

Bayard Taylor (he would add James in later years) was a poet, translator, travel author, diplomat, and literary critic of the mid-to-late 19th century. Taylor, born in Kennett Square (January 11, 1825 – December 19, 1878), fancied himself a poet, however he is perhaps best remembered for his literary works. In 1844-6 he toured England, France, Germany, and Italy on foot sending graphic accounts of his travels back to the *New York Tribune*, *Saturday Evening Post*, and the *United States Gazette*. Through these writings he gained wide recognition and following in America.

Upon Taylor's return to the U.S. he joined the *Tribune* staff and in 1849 was sent to the Sierra Nevada Mountains of California to report the events of the gold-rush that gripped the nation. He eventually toured Mexico and published a two-volume book in 1850 titled *El Dorado; or,*



Bayard Taylor (1825-1878)

Adventures in the Path of Empire which sold ten thousand copies in America and thirty thousand copies in the United Kingdom within the first month. From 1852 until 1855 he toured Calcutta, China, Japan, Egypt, Palestine, Sicily, Spain, and India all of which were covered by the *Tribune* and in books he published upon his return to Kennett Square.

Taylor married Maria Hansen, the daughter of Peter Hansen, a Danish/German astronomer in October 1857 (his first wife, Mary Agnew, died in 1850 of tuberculosis after less than two years of marriage). When Taylor was not traveling the world, he and his second wife resided north of

Kennett Square (in East Marlborough Township; not Kennett Township) at Cedarcroft. The Taylors resided at Cedarcroft from 1859 to 1874. The mansion is preserved as a National Historic Landmark.



Bayard Taylor's Cedarcroft Estate
Engraving from *History of Chester County* by Futhey & Cope, 1881

In 1862 he was appointed to the diplomatic service of St. Petersburg, Russia and in 1863 became the Chargé D'affaires at the Russian capital. Upon his return to the U.S., Taylor penned *The Story of Kennett* (first published in 1866) chronicling typical American life in Chester County following the American Revolution.

In the manuscript, Taylor highlights many locations around Chester County, PA and New Castle County, DE. The Fairthorn family in the work is believed to represent some of Taylor's family members. *The Story of Kennett* immortalized highwayman "Sandy Flash", a real-life outlaw of the time with the given name of James Fitzpatrick. Taylor described Sandy's 'Robin Hood' type antics around Mt. Cuba where the savory villain is said to have maintained a hideout. In the late 1860s the Taylors toured the rocky mountain areas of Colorado on horseback.

During 1870-71, Taylor combined his love of poetry and knowledge of Germany to translate Goethe's *Faust*. His translation is generally regarded as one of the best ever done and was well received. It remains in print as one of the most acclaimed interpretations of this classic. As a result of his work, Taylor was appointed Minister to Berlin in 1878 however he passed away in Germany in late 1878 before completing his assignment.

When the October 10, 1874 event honored James Bayard Taylor as he now preferred to be called, Taylor had obtained an international level of recognition and following. He was friends with Abraham Lincoln, Ralph Waldo Emerson, John Greenleaf Whittier, James Russell Lowell, Horace Greeley, and Samuel Langhorne Clemens (Mark Twain). Bayard Taylor remains well honored and remembered around Kennett Square and Chester County, PA with public buildings and streets bearing his name not to mention numerous events each year that include the use of his name.

¹² – The Wilmington & Western Railroad Company's fiscal year was based on October 31st. The Addendum includes financial data from several *Poor's Manual of the Railroads* for selected years. From the information presented by Volkman and the *Poor's* data, the reader should recognize the railroad's precarious performance during the Long Depression era lasting from 1873 through 1879.

The monograph's table, below, has a fourth column added with 1875's financial data from the *Commercial & Financial Journal*. After three years of operations, October 1872 through October 1875, the company generated \$5,986.47 operating profit from freight and ridership. According to the *Commercial & Financial Journal*, Volume 22, Number 561 for March 26, 1876, the railroad had sold a locomotive (*Poor's* shows 3 locomotives for the 1874 report but only 2 locomotives for the 1876 report) for \$2,000, had received \$1,176 from insurance claims, and had sold \$471 in additional stock subscriptions during 1875. In October 1875 the Company had \$12,172.78 on the books and more than that sum in unpaid bills. The company's \$451,831.99 of 7.3% interest, 20-year bonds (as of October 31, 1873) required \$32,984 a year to meet bond interest payments of which the Company was in arrears since 1873. No stock dividends had been declared.

<u>Year Ending October 31</u>	<u>1873</u>	<u>1874</u>	<u>1875</u>
Receipts	\$35,319.24	\$31,871.15	\$41,767.42
Expenses	\$37,858.55	\$30,008.39	\$34,604.40
Profit/(Loss)	(\$2,539.31)	\$1,862.76	\$6,663.02

While the railroad's founders no doubt had good intentions, the confluence of events unfolding at the start of the Long Depression were affecting the Company. It is interesting to note that had the original \$500,000 estimated cost that Heald boasted about during the September 9, 1869 meeting in Hockessin been what the railroad actually cost to build and set into operation, instead of the actual \$796,516.51 *Poor's* indicates for October 31, 1873, the Company might have been in financial trouble.

On October 31, 1875 the Company's books according to annual reports recorded a debt load of \$249,503.50 in stock, \$500,000 in 7.3% interest, 20-year bonds, and \$163,497.04 in floating debt. The Wilmington & Western Railroad Company, in 2019 dollars, had expended roughly \$18-million to construct and start operations on a 19.2-mile railroad and was now carrying roughly \$21-million in dept. Many 21st century companies are far more leveraged than the WWRR was!

J² – The statement “weakened the supports of the two railroad bridges between Faulkland and Ashland” cannot is questionable as to accuracy. There are seven trestles (trestles have supports along their length; bridges are supported at two points only) between Faulkland and Ashland.

Approximately three-quarters of a mile west (railroad cardinal direction and not compass direction; see explanation below) of Faulkland the railroad crosses the Red Clay Creek (trestle 7A). Further west at Wooddale are two trestles for crossing the creek with the Wooddale rock cut separating them (trestles 8A & 8B). Next are the pair of trestles across the creek at Mt. Cuba (10A & 10C). Finally, just before reaching Ashland, trestle 11A (now an iron bridge) was the 2nd longest wooden trestle on the line back in 1873. That makes for a total of six wooden trestles between Faulkland and Ashland covering a track distance of approximately 4½ miles.

As stated, “The passengers each way then walked across the bridges and boarded the trains on opposite sides”, we can eliminate trestles 7A and 11A since these trestles are not paired. That suggests the damaged trestle pair to be either the 8A & 8B trestles at Wooddale or the 10A & 10C trestles at Mt. Cuba (bridge 8B at Mt Cuba carried the railroad over a mill race).

Walking across trestles is possible, however doing so exposes one to the potential for a nasty fall and possible broken bones. Railroad ties on trestles are spaced roughly a tie width apart. To cross, one steps on each tie in succession. Wooden railroad ties used for trestles in the 1870s were saw cut having flat surfaces and uniform dimensions of the ties and the space between ties. Oils dripping from the engine, and as it was February, potentially ice and snow buildup might have made obtaining sure footing even more precarious. Miss-step a foot landing squarely on a tie's

center surface, or have a foot slip into the void between two ties, and the individual is likely to fall with their leg dropping between a pair of ties.

Railroad Coordinates and Directions

Concerning the use of direction with respect to the Wilmington & Western, railroads use a cardinal direction system instead of an actual compass direction system. The Wilmington & Western Railroad Company used the cardinal system when the line was constructed in 1871-2 and it has remained in use since that time. The use of a cardinal directional system is also known as “railroad directions”.

In the cardinal system, a railroad has a starting point and an ending point regardless of the route taken. For the chartering of the Wilmington & Western the new railroad connected Wilmington, Delaware with Landenberg, Pennsylvania. If you look at a mapping website such as Bing, Google or Yahoo maps and plot Landenberg, PA and Wilmington, DE you’ll note that the east-west straight-line distance between the two points is greater than the north-south straight-line distance. Hence the name of the line was chosen as Wilmington (origin point) & Western (the line travels west more than it does north) Railroad.

Wilmington & Western trains are referenced as going “west” or “east” regardless of the compass direction at any given point on the line. All trains leaving Wilmington go “westbound” to Marshallton, Greenbank, Wooddale, Mt Cuba, Ashland, Yorklyn, Hockessin, Southwood, and eventually arrive at Landenberg the route’s destination even though for 7½ miles the compass direction is nearly true north.

^{K2} – The original hand-drawn Figure 18 (next page) is replaced by a pair of maps. Figure 18A is an Open Railway Map indicating the route of the Wilmington & Western across Pennsylvania. Figure 18B is the Map from Right-of-Way and Track Map, V-8.3, page 2, The Baltimore & Philadelphia Railroad Company operated by the Baltimore and Ohio Railroad Company, Baltimore Division, Landenberg Branch, June 30, 1918 with revisions; Office of the Valuation Engineer.

^{L2} – Three brakemen might seem excessive today however the Wilmington & Western operated without the benefit of George Westinghouse’s recently introduced pneumatic air brake equipment. Thus, a typical Wilmington & Western consist in the 1870s and most likely 1880s required brakemen for every couple of cars on a consist. The brakeman’s job was to listen to steam whistle signals from the engineer and apply or release each car’s brakes manually by setting a large wheel on each car. See earlier footnote Q1 for additional information.

^{M2} – Added the Postscript to provide a historical update of the Landenberg Branch’s major events post-bankruptcy of the original Wilmington & Western Rail Road Company. Readers wishing a detailed history of the Wilmington & Western Railroad operated by Historic Red Clay Valley, Incorporated are invited to read *“Special 50th Anniversary Historic Timeline – The Wilmington & Western’s Half-century of Operation: May 1966 ~ May 2016”* edited by Robert E. Wilhelm, Jr. Copies in digital format are available online at wwrr.com and digital.hagley.org.

^{N2} – In the 1920s the City of Wilmington required additional potable water storage as the existing city reservoirs were strained during droughts. A solution proposed involved damming the Red Clay Creek at Wooddale to form a 2-billion-gallon reservoir. This would have required the B&O to relocate the Landenberg Branch or abandon it by the start of the Great Depression. The B&O’s solution might have been to utilize a section of the recently abandoned Kennett Trolley right-of-way to re-route the Landenberg Branch.

Historian Robert E. Wilhelm, Jr. researched the reservoir project and looked at the alternates the B&O might have considered and proposed. The City ultimately decided to dam Old Mill Stream, a

tributary of the Red Clay Creek, to construct Hoopes Reservoir and Dam. We've included excerpts of several History Obscura articles written for HRCV's quarterly publication **The Lantern** with this monograph. The articles examined the route of the Kennett Trolley along Mill Creek which was one of the two initial routes proposed for the Wilmington & Western in the 1870 and thus provides additional insight as to those early decisions to choose the Red Clay Creek route.

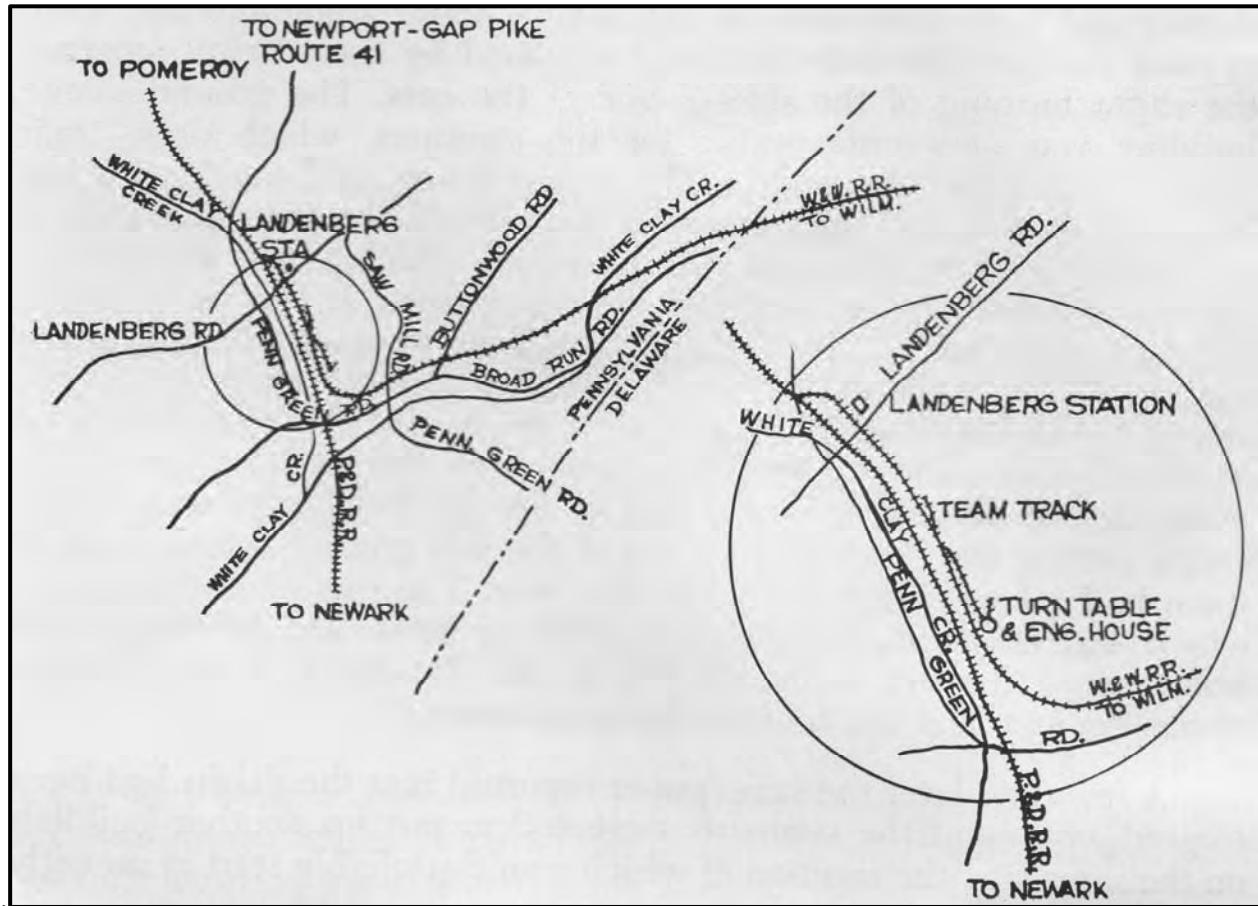


Figure 18

Detail of Landenberg area, terminal point of Wilmington & Western where connections were made with P. & D. R.R. upper extension of stream marked "White Clay Creek." is called Broad Run. (Drawing by William E. Grant, Jr.)

Addendum

In Delaware and Pennsylvania as the first American corporations formed in the 1790s, a legislative Act was required in order to form the incorporation. The formation of a corporation allowed for the raising of capital from many sources and provided a means for Americans to invest, and hopefully profit, from corporations that did well. While corporations existed before the Civil War, it wasn't until after the war that especially the railroads made use of corporate protections and laws.

An Act specifies the purpose, structure, and other relevant details related to a corporation, as well as changes over time, and is a historical record of the corporation. Until the start of the 1900s, all private corporations established in Delaware required an Act of the legislature in order to form. Eventually the Delaware legislature established a set of guidelines allowing private corporations to form without the need for a legislative Act if their charters curtailed specific legal requirements as part of their incorporation.

A similar situation existed in Pennsylvania where corporations required a legislative Act as part of their incorporation in the 1860s and early 1870s. Pennsylvania did away with the necessity of legislative oversight in the late 1870s, we have early railroad corporate documentation for railroads in Pennsylvania and nothing from the late 1870s on.

During the review and reissue of this monogram we've made frequent reference, as did the monogram's author Arthur G. Volkman, to these various Acts. They are provided as an addendum to this work so that the reader may reference the complete documents referenced by Volkman. On the following page in an index of the legislative Acts related to the Wilmington & Western and its successors. There are Delaware Acts from 1861 through 1899 and Pennsylvania acts from 1868 through 1873.

Another source of corporate information are financial records. While Delaware did not publish annual reports, Pennsylvania did. We've recovered financial data for the years 1872 through 1878 from the "Annual Report of the Auditor General of the State of Pennsylvania" and the "Annual Report of the Secretary of Internal Affairs of the Commonwealth of Pennsylvania". This data includes corporate and State of Pennsylvania performance. This financial data includes the formation of the Wilmington & Western Railroad Company, the company's three years in receivership, and the first year of Delaware Western Railroad Company operation.

Another excellent source for financial data is Poor's annual issues of "Manual of the Railroads of the United States". In 1919 Moody's absorbed Poor's and financial information related to the railroads was published as "Moody's Manual of Railroad and Corporation Securities".

Finally, we are including a listing of the land owners who transferred land or right-of-way to the Wilmington & Western Railroad Company in the late 1860s through the early Baltimore & Philadelphia Railroad ownership days from the 1819 Valuation Maps.

Laws of the State of Delaware

Wilmington & Brandywine Railroad – Volume 12 – Chapter 88 - March 5, 1861

Wilmington & Brandywine Railroad – Volume 12 – Chapter 509 - February 2, 1865

Delaware & Chester County Railroad – Volume 13 – Chapter 185 - February 5, 1867

Delaware & Chester County Railroad – Volume 13 – Chapter 491 - March 10, 1869

Delaware & Chester County Railroad – Volume 14 – Chapter 497 - January 30, 1873

Delaware & Chester County Railroad – Volume 14 – Chapter 501 - March 3, 1873

Wilmington & Western Railroad – Volume 14 – Chapter 64 - March 7, 1871

Wilmington & Western Railroad – Volume 14 – Chapter 145 - March 24, 1871

Wilmington & Western Railroad – Volume 14 – Chapter 512 - April 4, 1873

Wilmington & Western Railroad – Volume 15 – Chapter 115 - March 23, 1875

Wilmington & Western Railroad – Volume 15 – Chapter 433 - February 22, 1877

Delaware Western Railroad – Volume 16 – Chapter 454 - March 1, 1881

Delaware Western Railroad – Volume 17 – Chapter 164 - February 26, 1883

Delaware Western Railroad – Volume 17 – Chapter 560 - February 4, 1885

Baltimore & Philadelphia Railroad – Volume 17 – Chapter 609 - April 15, 1885

Baltimore & Philadelphia Railroad – Volume 18 – Chapter 744 - March 27, 1889

Baltimore & Philadelphia Railroad – Volume 18 – Chapter 761 - April 25, 1889

Baltimore & Philadelphia Railroad – Volume 19 – Chapter 211 - May 1, 1891

Baltimore & Philadelphia Railroad – Volume 19 – Chapter 355 - May 6, 1891

Baltimore & Philadelphia Railroad – Volume 19 – Chapter 858 - April 18, 1893

Baltimore & Philadelphia Railroad – Volume 20 – Chapter 163 - April 5, 1895

Baltimore & Philadelphia Railroad – Volume 20 – Chapter 654 - April 7, 1897

Baltimore & Philadelphia Railroad – Volume 21 – Chapter 327 - February 9, 1899

Laws of the State of Pennsylvania

Wilmington & Western Railroad – Number 1158 – April 17, 1869

Wilmington & Western Railroad – Number 1030 – April 13, 1870

Wilmington & Western Railroad – Number 277 – March 9, 1872

Doe Run & White Clay Creek Railroad – Number 425 – March 24, 1868

Peach Bottom Railway – Number 721 – March 24, 1868

Peach Bottom Railway – Number 579 – March 29, 1872

Peach Bottom Railway – Number 570 – April 7, 1873

To aid in finding a relevant Act, each page header displays the name of the Act shown on that page. All of the Delaware Acts are followed by the Pennsylvania Acts in the order listed above. All of the Acts are from digitally scanned books in the collections of the Internet Archive (from various university library holdings) or the National Archives in Washington, D.C.

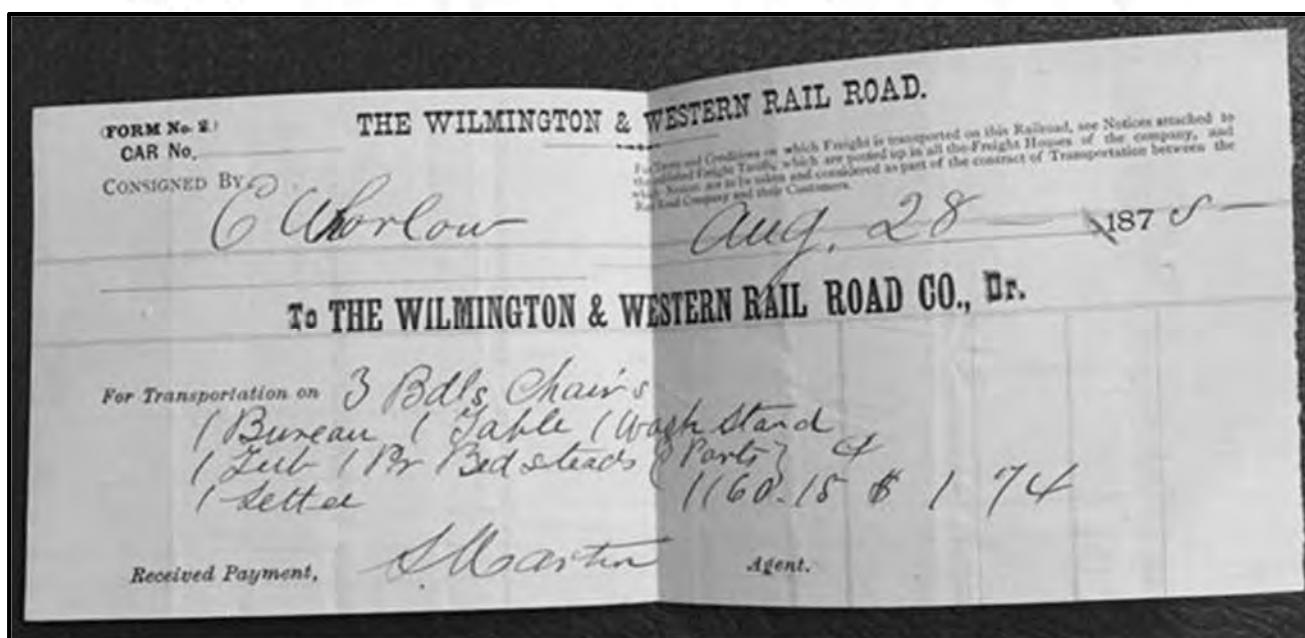
To fill white space, we have included some newspaper articles from the WWRR era.

CHAPTER 88.

An Act to Incorporate the Wilmington and Brandywine Railroad Company.

SECTION 1. *Be it enacted by the Senate and House of Representatives of the State of Delaware in General Assembly met, (two-thirds of each branch thereof concurring,) That David C. Wilson, John Wales, Samuel Wallaston, John H. Price, Evan C. Stotsenburg, T. Jenifer Adams, William S. Hilles, or any two of them, be, and they are hereby appointed Commissioners to do and perform the several things hereinafter mentioned, that is to say: They shall at such time or times as they may deem expedient, procure two or more books, which shall be opened at such time or times, place or places, as they shall think proper, in each of which they shall enter as follows: "We, whose names are hereunto subscribed, do promise to pay to the president and Directors of the Wilmington and Brandywine Railroad Company the sum of fifty dollars for every share of stock set opposite to our respective names, in such manner and proportions and at such times as shall be determined by the President and Directors of the said Company, in pursuance of an act of the General Assembly of this State, entitled 'An act to incorporate the Wilmington and Brandywine Railroad Company.' Witness our hands this _____ day of _____ in the year of our Lord one thousand eight hundred and _____;" and after giving such notice as to them shall seem proper, they shall permit all persons of lawful age who shall offer to subscribe in the said books, in their own names, or in the name of any other person or company who shall authorize the same, for any number of shares in the said stock.*

SECTION 2. *And be it further enacted by the authority aforesaid, That when and as soon as one thousand shares shall be subscribed, the subscribers, their successors and assigns shall be, and they are*



Early freight receipt. Kathie Lilly Collection

STATE OF DELAWARE.

137

hereby declared to be incorporated by the name, style and title of the "Wilmington and Brandywine Railroad Company," and by ^{Name.} the same name the subscribers shall have perpetual succession, ^{Corporate powers.} and be able to sue and be sued, implead and be impleaded, in all courts of record and elsewhere, and to purchase, receive, have, hold and enjoy to them and their successors, lands, tenements and hereditaments, goods, chattels, and all estate, real, personal and mixed, of what kind or quality soever, and the same from time to time to sell, mortgage, grant, alien or dispose of, and to make dividends of such portions of the profits as they may deem proper, and also to make and have a common seal, and the same to alter and renew at pleasure; and also to ordain, establish and enforce such by-laws and regulations as shall be deemed necessary and convenient for the government of the said corporation, not being repugnant to the constitution and laws of this State and of the United States; and generally to do all and singular the matters and things which to them it shall lawfully appertain to do, for the well being and ordering of the same. *Provided*, That nothing ^{Proviso.} herein contained shall be considered as in any way giving to the said corporation any banking privileges whatsoever, or any other ^{Banking powers prohibited.} liberties, privileges or franchises, but such as may be necessary ^{Banking powers prohibited.} or incident to the making and proper arrangement of the said railroad.

SECTION 3. And be it further enacted, That the Commissioners aforesaid, as soon as conveniently may be, after one thousand shares shall be subscribed as aforesaid, shall give notice in two of the Wilmington newspapers, and in such other newspapers as they shall deem proper, for at least twenty days, of the time for the said subscribers to meet in the City of Wilmington in order to ^{Where held.} organize the said Company, and to choose, by a majority of votes present, to be given in person or by proxy, nine Directors, a majority of whom shall be residents of this State, and the said Directors shall conduct the business of the said Company until the second Monday of January next ensuing their election, and until like officers shall be chosen, and may make such by-laws, rules ^{Nine Directors to be chosen.} and regulations as are not repugnant to the constitution and laws of this State and of the United States, and that may be necessary ^{Duties of Directors.} to the well-governing the affairs of said Company. ^{May make by-laws.}

SECTION 4. And be it further enacted, That the Stockholders shall meet on the second Monday in January, in each and every year after the number of shares of stock mentioned in the second Section of this act shall have been subscribed, at the City of Wilmington, of which notice shall be given at least twenty days, by the Secretary, in the newspapers before-mentioned, and choose by a majority of votes present, their officers for the ensuing year as mentioned in the third Section of this act, who shall continue in office for one year and until others are chosen: And at such other times as they may be summoned by the Directors, in such manner

LAWS OF THE

and form as shall be prescribed by the by-laws, at which annual or special meetings they shall have full power and authority to make, alter or repeal, by a majority of votes, in manner aforesaid, all such by-laws, rules and regulations as aforesaid, and to do and perform every other corporate act; and the number of votes to

Powers of stockholders at annual meetings.

5

Each share to entitle holder to one vote.
Exceptions.

Voting by proxy.

Election of Directors, how conducted.

Non-election of Directors not to dissolve corporation.

Notice of the time and place for election. Continuance in office.

Vacancies, how filled.

Meetings of Directors, where held.

Quorum. Election of President.

which each stockholder shall be entitled shall be according to the number of shares he shall hold, each share entitling him to one vote, but no share shall confer a right of suffrage which shall not have been held three calendar months prior to the day of election, nor unless it be holden by the person in whose name it appears, absolutely and *bona fide* in his own right, or in that of his wife, or for his or her sole use or benefit, or as executor or administrator, trustee or guardian, or in the right and for the use and benefit of some co-partnership, corporation or society of which he or she may be a member, and not in trust for and to the use and benefit of any other person, and in all voting by proxy the attorney shall be legally constituted under the hand and seal of the party, and the authority properly authenticated when, according to the laws of this State, such authentication is necessary.

SECTION 5. *And be it further enacted*, That the election of Directors provided for in the preceding section shall be conducted in the following manner, that is to say: the Directors for the time being shall appoint two of the stockholders not being Directors, to be judges of the said election, and to conduct the same, after having severally taken and subscribed an oath or affirmation before a Judge or Justice of the Peace, well and truly, and according to law, to conduct such election; and the said Judges shall decide upon the qualifications of voters, and when the election is closed, shall count the votes, and declare who has been elected; and if it shall at any time happen that an election of Directors shall not be made, the corporation shall not, for that cause, be deemed to be dissolved; but it shall be lawful to hold and make such election of Directors on the same day or on any day thereafter, by giving

at least ten days notice, signed by the President or Secretary, in the newspapers before mentioned, of the time and place of holding said election; and the Directors of the preceding year shall, in that case, continue to act and be invested with all the powers belonging to their office until another election shall take place. In case of the death, resignation, or removal from the State of any Director, his place shall be filled by the Board of Directors, until the next annual election: *Provided*, The removal of a Director from this State shall not operate to vacate his place, should there be a majority of Directors still residing in the State.

SECTION 6. *And be it further enacted*, That the said Board of Directors shall hold their meetings in the City of Wilmington, or in such other place as they may adopt, and when met, five shall be a quorum. They shall elect a President and Secretary and Treasurer, and such other officers as may be required for the trans-

STATE OF DELAWARE.

139

action of their business, and for carrying on the intended work; and other officers.
and shall have power to fix their salaries and wages, to ascertain the times, manner and proportion in which the said stockholders shall pay the moneys due on their respective shares: and generally to do all such other acts, matters and things as by this act, ^{Powers of Directors.} _{To fix salaries.} ^{To make calls.} and by the by-laws and regulations of the Company they are authorized to do.

SECTION 7. *And be it further enacted*, That the Board of Directors first chosen shall procure certificates or evidences of stock for all the shares of said Company, and shall deliver one such certificate, signed by the President and countersigned by the Treasurer, and sealed with the common seal of said corporation, to each person or party entitled to receive the same according to the number of shares by him, her or them respectively subscribed or held; which certificates or evidences of stock shall be transferable at the pleasure of the holder, in person, or by attorney duly authorized, in the presence of the President or Treasurer, in a suitable book or books to be kept by the Company for that purpose, (subject, however, to all payments due or to become due thereon,) and the assignee, or the party to whom the same shall have been so transferred, shall thereupon be a member of said corporation, and have and enjoy all the immunities, privileges and franchises, and be subject to all the liabilities, conditions and penalties incident thereto, in the same manner as the original subscriber would have been: *Provided*, That no certificate shall be transferred so long as the holder thereof is indebted to said Company, unless the Board of Directors shall consent thereto: *And Provided*, That no such transfer of stock shall have the effect of discharging any liabilities or penalties theretofore incurred by the owner thereof.

SECTION 8. *And be it further enacted*, That if, after thirty days notice in the public papers aforesaid, of the time and place appointed for the payment of any proportion or installment of the said capital stock, in order to carry on the work, any stockholder shall neglect to pay such proportion or installment at the place appointed for the space of thirty days after the time so appointed, every such stockholder, or his or her assignee, shall, in addition to the installment so called for, pay at the rate of two per cent. per month for the delay of such payment; and if the same and the additional penalty shall remain unpaid for such space of time as that the accumulated penalty shall become equal to the sum before paid in part and on account of such shares, the same shall be forfeited to the said Company, and may be sold to such person or persons willing to purchase for such price as can be obtained for the same, or in default of payment by any stockholder of any such installment as aforesaid, the President and Directors may, at their election, cause suit to be brought before any Justice of the Peace, Mayor of the City of Wilmington, or in any court having competent jurisdiction, for the recovery of the same, together with the ^{President and Directors may bring suit for the amount of the calls and penalty.}

No stockholder entitled to vote who has not paid his calls within thirty days.

penalty aforesaid: *Provided*, That no stockholder, whether original subscriber or assignee, shall be entitled to vote at any election, or at any general or special meeting of the said Company, on whose share or shares any installment or arrearages may be due and payable more than thirty days previous to said election or meeting.

Treasurer to bond. Other officers to bond when required.

SECTION 9. *And be it further enacted*, That the President and Directors of the said Company shall demand and require of and from the said Treasurer, and from such other officers and persons by them employed as they may deem necessary, bond in sufficient penalties and with such sureties as they shall, by their by-laws, rules and regulations, require for the faithful performance of the several duties and trusts to them or any of them respectively committed.

Dividends.

Not to exceed the nett profits of the Company.

Individual liability of Directors declaring dividends exceeding profits. Directors present deemed to consent, unless, &c.

SECTION 10. *And be it further enacted*, That dividends of so much of the profits of the Company as shall appear advisable to the Directors, shall be declared at least twice in every year, and paid to the stockholders on demand at any time after the expiration of ten days therefrom, but they shall, in no case, exceed the amount of the nett profits actually acquired by the Company, so that the capital stock shall never be thereby impaired. If the said Directors shall make any dividends which shall impair the capital stock of said Company, the Directors consenting thereto shall be liable in their individual capacities to said Company for the amount of the stock so divided; and each Director present, when such dividend shall be made, shall be adjudged to be consenting thereto, unless he forthwith enter his protest on the minutes of the Board, and give public notice to the stockholders at the declaring of such dividend.

At annual meetings of stockholders. Directors to exhibit statement of the affairs of Company. Special meetings, how called. Notice. Special business only to be transacted, unless, &c.

Company authorized to construct railroad. Where.

May enter upon any lands necessary.

SECTION 11. *And be it further enacted*, That at each annual meeting of the stockholders, the Directors of the preceding year shall exhibit to them a complete statement of the affairs and proceedings of the Company for the preceding year, and that special meetings of the stockholders may be called by order of the Directors or by stockholders holding one-fourth in amount of the capital stock on like notice as that required for annual meetings, specifying, moreover, the object of the meeting, but no business shall be transacted at such special meeting, unless a majority, in value, of the stockholders, shall attend in person or by proxy.

SECTION 12. *And be it further enacted*, That the said Company be and they are hereby authorized to locate and construct a railroad, beginning at some point on the Christiana river, within or near the city of Wilmington, and extending to the line of this State in the direction of Parkesburg, in the State of Pennsylvania, with such lateral railroads as occasion may require; and for that purpose to enter upon any lands necessary for locating, laying out, or making the same, or to procure sand, gravel, earth, or

STATE OF DELAWARE.

141

wood, for such use, and to obtain title and right to the same, as ^{any there-}
 hereinafter provided. *Provided*, That the said route shall not be ^{for}
 fixed nor laid down, nor shall the main road, nor any lateral road ^{May obtain}
 hereby authorized to be located and constructed be made, located ^{title to the}
 and constructed, so that the same or any part thereof shall run or ^{same.}
 be laid down within the distance of one-half mile of any powder ^{Road not to}
 mill, powder yard, or powder magazine, or any building used for ^{within one-}
 the making or storing of gunpowder, and which may now, or at ^{half mile of}
 the time of the location and construction of the said main or ^{Dupont's}
 lateral road, belong to the firm of E. I. Dupont, de Nemours and ^{powder}
 Company, and shall not pass through any burying-ground, or ^{work.}
 place of public worship, nor any dwelling house, without the ^{shall not}
 consent of the owner thereof: *Provided*, That before the Com- ^{pass through}
 pany shall enter upon or take possession of any lands, or mate- ^{any burying}
 rials required for the construction or location of the said road, ^{ground.}
 they shall make compensation to the owner or owners thereof, or ^{Lands not to}
 shall tender adequate security therefor. <sup>be taken un-
 til compen-
 sation be
 made to
 owner.</sup>

SECTION 13. *And be it further enacted*, That whenever it shall be necessary for the President and Directors of the said Company, or their agents, to enter in and upon and occupy for the purpose of making said railroad, any lands the owners of which refuse to permit such entry and occupation, then it shall be lawful for the Superior Court of New Castle County, if in term time, or any Judge of said court in vacation, on application of either party, and at the cost and charge of said Company, to appoint five disinterested men of said county, who shall go upon the said lands, and assess the damages of such owner or owners fairly and impartially, taking into consideration all the benefits to be derived from or in consequence of the said railroad to the said owner or owners, and the said Commissioners shall certify their finding and award to both parties; whereupon the said Company, on paying the damages so assessed, shall become entitled to have, use and enjoy the said lands, for the purposes by them required, forever. And in case any owner or owners of any lands necessary for the purposes of said Company shall be a minor, or non-resident, or for any cause incapable of receiving, or unwilling or neglecting to receive said damages, or to call on the Company for the same, the said Company may deposit the amount of the said damages to the credit of such owner or owners in Branch of the Farmers Bank of the State of Delaware, at Wilmington, subject to his, her, or their order; whereupon the said Company shall be entitled to have, use, and enjoy the said lands and premises required for the purposes of said Company, for or on account of which damages shall have been so assessed. The expenses of the assessment of said damages shall always be paid by the said Company.

<sup>Remedy of
 Company
 against own-
 ers of lands
 refusing to
 permit entry</sup>

<sup>Commission-
 ers to certify
 award to
 both parties.</sup>

<sup>Owners
 under dis-
 ability, or re-
 fusing to ac-
 cept dam-
 ages, Com-
 pany may
 deposit them
 in the bank.</sup>

<sup>Wherupon
 Company
 to have title
 to have
 damages.</sup>

SECTION 14. *And be it further enacted*, That the said railroad shall be so constructed by the said Company as not to impede or <sup>crossings
 over public
 roads.</sup>

obstruct the free use or passage of any public road or roads which may cross or enter at the same being now laid out, or hereafter to be laid out, and in all places where the said railroad may cross, or in any way interfere with any public road, it shall be the duty of the said Company to make, or cause to be made, a good and sufficient causeway or causeways, to enable all persons passing or travelling such public road to cross or pass over or under the said railroad, which causeway or causeways shall be made by the said Company, and maintained by them; and that for the accommodation of all persons owning or possessing land through which the said railroad may pass, it shall be the duty of the said Company to make, or cause to be made, a good and sufficient causeway or causeways whenever the same may be necessary to enable the occupant or occupants of said lands to cross or pass over the same, with wagons, carts, or implements of husbandry, as occasion may require: *Provided*, That the said Company shall in no case be required to make, or cause to be made, more than one such causeway through each plantation or tract of land for the accommodation of any one person owning or possessing land through which the said railroad may pass; and where any public road shall cross such railroad the person owning or possessing land through which the said road may pass shall not be entitled to make such requisition on said Company. And if the said Company shall neglect or refuse to make such causeway or causeways on request, or when made to keep the same in good repair, then said Company shall be liable to pay any person aggrieved thereby all damages sustained by such person in consequence of such neglect or refusal, to be sued for and recovered before any Justice of the Peace, or any Court having cognizance thereof; and the service of process upon any officer or agent of said Company shall be as good and available in law, as if served upon the President thereof.

Other crossings.

One crossing only to one tract of land.

Penalty for neglect to make such crossings.

How recovered.

Service of process.

Suit against Company for penalties under this act.

Company may plead the general issue.

Penalty for injury to works of Company.

How recovered.

SECTION 15. *And be it further enacted*, That no suit or action shall be brought or prosecuted by any person or persons, for any penalties incurred under this act, unless suit or action shall have been commenced within six months next after the offence shall have been committed, or the cause of action shall have accrued; and the defendant or defendants in such suit or action may plead the general issue, and give this act and the special matter in evidence, and that the same was done in pursuance and by authority of this act.

SECTION 16. *And be it further enacted*, That if any person or persons shall wilfully or knowingly destroy, injure, or break the railroad, or any part thereof, or any work, edifice, or device, or any part thereof, to be erected by the said Company in pursuance of this act, he, she, or they shall forfeit and pay to the said Company three times the actual damages so sustained, to be sued for and recovered with costs of suit, before any Justice of the Peace,

or in any Court having cognizance thereof, by action of debt, in the name and for the use of the said Company.

SECTION 17. *And be it further enacted,* That if at any time a Company incorporated by the Legislature of Pennsylvania, for the purpose of constructing a railroad from Parkesburg, Coatesville, or Downington, in that State; to the line of this State, should wish to unite with the railroad contemplated by this act, and it shall be desired by the President and Directors of the two Companies respectively, to unite the capital stock of the said companies, than then and in such case, the President, Directors, and Company of the Wilmington and Brandywine Railroad, are hereby authorized and empowered to form such union of the capital stock of the said Companies, so that it shall constitute a common stock, and the two Companies shall constitute one Company, and be entitled to all the rights, privileges, and immunities conferred by their charters respectively.

SECTION 18. *And be it further enacted,* That it shall not be lawful for the said Company to use or occupy any street or alley of the City of Wilmington, for the purpose of making the said railroad, or any siding or branch therof, without first procuring the consent of the City Council to such use or occupation.

SECTION 19. *And be it further enacted,* That "An act to incorporate the Wilmington and Brandywine Railroad Company," passed at Dover, February 13, 1855, be and the same is hereby repealed.

SECTION 20. *And be it further enacted,* That this act shall be public act, deemed and taken to be a public act; that the said Company shall have power to increase its capital stock by additional subscriptions to an amount or amounts, sufficient to effectuate the objects of this act, and construct the railroad contemplated by it, and from time to time to borrow money for corporate purposes and uses, and to execute mortgages on all their estate, real and personal, and to issue bonds to secure the payment of the same: *Provided*, That the amount so borrowed shall not exceed in the aggregate the sum of three hundred thousand dollars.

SECTION 21. *And be it further enacted,* That the said Company shall erect and maintain along the whole line of said railroad, on both sides thereof, in this State, (before the said railroad shall go into operation,) a good and legal fence, wherever the same may be necessary: *Provided*, That the said Company shall have the right to make special contracts for erecting and maintaining fences with any persons through whose lands said road shall pass.

Passed at Dover, March 5, 1861.

CHAPTER 509.

*An Act to amend an act entitled "An Act to incorporate the
Wilmington and Brandywine Railroad Company," passed at
Dover, March 5, 1861.*

*Be it enacted by the Senate and House of Representatives of the
State of Delaware in General Assembly met: SECTION 1. That the
name and title of the said Corporation be changed, and that from
and after the passage of this act it be known and designated by
the name and title of "The Delaware and Pennsylvania State
Line Railroad Company," which name shall be inserted in lieu of
the former name wherever the same occurs throughout said
act.*

*SECTION 2. That Section 1 of said Act be amended by striking
out the names of *David C. Wilson, John Wales, Samuel Wollaston, T. Jennifer Adams and Joseph T. Price*, and adding thereto
the names of *Alfred D. Jessup, James Bradford, Achilles Hollings-*
Sec. 1 of
Chapter 88,
Volume 12,
unended by
striking out
names of
certain Com-
missioners.
worth, A. J. Barratt, Andrew Eliason, Daniel Corbit, James V. Moore, William Tatnall, Isaac S. Elliott, Joseph Tatnall, William Lea, and John G. Jackson, so that the said Commissioners, named collectively, shall now be *John H. Price, Evan C. Stotsenberg, William S. Hilles, Alfred D. Jessup, James Bradford, Achilles Hollingsworth, A. J. Barratt, Andrew Eliason, Daniel Corbit, James V. Moore, William Tatnall, Isaac S. Elliott, Joseph Tatnall, William Lea, and John G. Jackson*.*

SECTION 3. That Section 17 of said Act be amended by inserting, next after the enacting clause, the following words, to wit: "That the end and purpose of granting this act of incorporation is to encourage the construction of a Railroad to connect the Railroads of this State with extensive lines of roads in the State of Pennsylvania, and with the coal and iron regions and lime districts of that State and."

SECTION 4. That all parts of said Act of Incorporation that are inconsistent with these amendments be and they are hereby repealed.

Passed at Dover, February 2, 1865.

WILMINGTON & WESTERN R. R.—The W. & W. R. R. Co. have their telegraph line working between Landenburg and Wilmington. Instruments are being put in the office at Hockessin. Faulkland is also to be a telegraph station.

Each of the Wilmington & Western's stations included Western Union Telegraph Service. (Tom Gears Collection)

CONCERNING RAILROADS.

CHAPTER 185.

THE DELAWARE AND CHESTER COUNTY RAILROAD.

SEC. 1. Commissioners appointed. Their duties. What entry to be made in Company's books. Who can subscribe.	SEC. 12. May enter upon land for these purposes. Shall not pass through any burying ground. Lands not to be taken until compensation be made to owner. Crossing other railroads authorized. Proviso.
2. Company incorporated. Name. Powers.	13. Remedy of company against the owners of lands refusing to permit entering. Commissioners to certify award to both parties. Owners under disability, or refusing to accept damages, company may deposit them in bank. Whereupon company to have title. Expenses of assessing damages.
3. First meeting. When. Where and for what purposes held.	14. Crossings over public roads. Other crossings. One crossing only to one tract of land. Penalty for neglect to make such crossings. How recovered. Service of process.
4. Annual meetings of stockholders. To choose officers for ensuing year. Special meetings. Powers of stockholders at annual or special meetings. Each share to entitle holder to one vote. Exceptions. Voting by proxy.	15. Suit against company for penalties under this act. 16. Penalty for injury to works of the company.
5. Election of directors. How conducted. Non-election of directors not to dissolve corporation. Notice of the time and place for election. Continuance in office. Vacancies. How filled.	17. Company not to use any street in Wilmington without the consent of City Council.
6. Meetings of directors. Where held. Quorum. Election of President and other officers. Powers of directors. To fix salaries. To make calls.	18. Public act. Capital stock may be increased. May borrow money. Not exceeding \$300,000.
7. Certificates of stock. To whom delivered. Certificates of stock transferable. How. Assignee to be a member of the corporation. Proviso.	19. Fences. Proviso.
8. Penalty for refusing to pay call within thirty days. President and directors may bring suit for the amount of the calls and penalty. No stockholder entitled to vote who has not paid his calls within thirty days.	20. Company may unite with other company to be chartered in Pennsylvania. When united the companies to form one company. Agreement of consolidation. What to state. Agreement to be submitted to stockholders.
9. Treasurer to bond. Other officers to bond when required.	21. Certificate of adoption. Agreement and certificate. Where filed. Certified copy of agreement and certificate evidence of new corporation. Publication of filing of agreement, &c.
10. Dividends. Not to exceed the net profits of the company. Directors liable for declaring dividends exceeding profits. Directors present deemed to consent, unless they protest, &c.	22. Stock of company deemed transferred to new company. Rights, privileges, &c., of new corporation. All property of the different companies to be vested in new corporation. Rights of creditors.
11. Directors to exhibit statement of the affairs of company at annual meetings. Special meetings. How called. Nature of the business to be transacted.	23. Subscriptions and additional shares of stock. For what purpose. May borrow money.
12. Company authorized to construct railroad. Where. Branch road authorized.	24. An agreement authorized with the Wilmington and Reading Railroad in case a certain road is constructed.

An Act to incorporate the Delaware and Chester County Railroad Company.

SECTION 1. *Be it enacted by the Senate and House of Representatives of the State of Delaware in General Assembly met, (two-*

CONCERNING RAILROADS.

Commissioners appointed. *thirds of each branch thereof concurring),* That John A. Duncan, James Bradford, Evan C. Stotsenburg, Samuel Barr, George G. Lobdell, Daniel H. Kent, John G. Jackson, George Capelle, George Z. Tybout, Anthony Reybold, William Couper, James C. Jackson, William G. Philips, Edward Mendenhall, George Springer and James Springer, or any three of them, be and they are hereby appointed commissioners to do and perform the several things hereinafter mentioned, that is to say: they shall, at *Their duties.* such time or times as they may deem expedient, procure and open two or more books at such place or places as they may think proper, in each of which they shall enter as follows: "We, *What entry to be made in company's books.* whose names are hereunto subscribed, do promise to pay to the president and directors of the Delaware and Chester County Railroad Company the sum of fifty dollars for each and every share of stock set opposite to our respective names, in such manner and proportions, and at such times as shall be determined by the president and directors of the said company in pursuance of an act of the General Assembly of this State, entitled, "An act to incorporate the Delaware and Chester County Railroad Company." Witness our hands this—day of_____, A. D. one thousand eight hundred and_____, and after giving such notice as to them shall seem proper, they shall permit all persons of lawful age who shall offer to subscribe in the said books in their own names, or in the name of any other person or company who shall authorize the same, for any number of shares in the said stock.

Who can subscribe.

Company incorporated. **SECTION 2.** *And be it further enacted by the authority aforesaid,* That when and as soon as one thousand shares shall be subscribed, the subscribers, their successors and assigns, shall be and they are hereby declared to be incorporated by the name, style and title of *The Delaware and Chester County Railroad Company,* and by the same name the subscribers shall have perpetual succession, and be able to sue and be sued, implead and be impleaded in all courts of record and elsewhere, and to purchase, receive, have, hold and enjoy to them and their successors lands, tenements and hereditaments, goods, chattels, and all estate, real, personal and mixed, of what kind and quality soever, and the same from time to time to sell, mortgage, grant, alien or dispose of, and to make dividends of such portions of the profits as they may deem proper, and also to make and have a common seal and the same to alter and renew at pleasure, and also to ordain, establish and enforce such by-laws and regulations as shall be deemed necessary and convenient for the government of the said corporation not being repugnant to the constitution and laws of this State and of the United States, and generally to do all and singular the matters and things which to them it shall lawfully appertain

CONCERNING RAILROADS.

to do for the well being and ordering of the same: *Provided*, That nothing herein contained shall be considered as in any way giving to the said corporation any banking privileges whatsoever, or any other liberties, privileges or franchises but such as may be necessary or incident to the making and proper arrangement of the said railroad.

SECTION 3. *And be it further enacted*, That the commissioners aforesaid, as soon as conveniently may be, after one thousand shares shall be subscribed as aforesaid, shall give notice in two of the Wilmington newspapers, and in such other newspapers as they shall deem proper, for at least ten days, of the time for the said subscribers to meet in the City of Wilmington in order to organize the said company and to choose, by a majority of the votes present, to be given in person or by proxy, nine directors, a majority of whom shall be residents of this State; and the said directors shall conduct the business of the said company until the second Monday of January next ensuing their election, and until like officers shall be chosen, and may make such by-laws, rules and regulations as are not repugnant to the constitution and laws of this State and of the United States, and that may be necessary to the well governing the affairs of said company, subject to be altered, extended, or repealed by them, or any future board of directors.

SECTION 4. *And be it further enacted*, That the stockholders shall meet on the second Monday in January in each and every year after the original organization of the company as aforesaid, upon notice, which shall be given by the secretary in the newspapers aforesaid at least ten days previous, and shall choose by a majority of the votes present their officers for the ensuing year as mentioned in the third section of this act, (who shall continue in office for one year and until others are chosen,) and at such other times as they may be summoned by the directors in such manner and form as they shall prescribe by the by-laws, at which annual or special meetings they shall have full power and authority, by a majority of votes, in manner aforesaid, to do and perform every proper and corporate act; and the number of votes to which each stockholder shall be entitled shall be according to the number of shares he shall hold, each share entitling him to one vote, but no share shall confer a right of suffrage which shall not have been held three months prior to the day of election, nor unless it be helden by the person in whose name it appears, absolutely and *bona fide* in his own right, or in that of his wife, or for his or her sole use or benefit, or as executor or administrator, trustee or guardian, or in the right and for the use and benefit of some copartnership, corporation or society of which he or she may be a member, and not in trust for and to

CONCERNING RAILROADS.

the use and benefit of any other person. And in all voting by proxy the attorney shall be legally constituted under the hand and seal of the party, and the authority properly authenticated when, according to the laws of this State, such authentication is necessary.

Voting by proxy.
Election of directors, how conducted.

SECTION 5. *And be it further enacted,* That the election of directors provided for in the preceding section shall be conducted in the following manner, that is to say: The directors for the time being shall appoint two of the stockholders, not being directors, to be judges of the said election and to conduct the same after having severally taken and subscribed an oath or affirmation before some proper officer well and truly and according to law to conduct such election; and the said judges shall decide upon the qualifications of voters, and when the election is closed shall count the votes and declare who has been elected, and if it shall at any time happen that an election of directors shall not be made the corporation shall not for that cause be deemed to be dissolved, but it shall be lawful to hold and make such election of directors on the same day, or any day thereafter, by giving at least ten days notice (signed by the president or secretary) in the newspapers before mentioned of the time and place of holding said election; and the directors of the preceding year shall in that case continue to act and be invested with all the powers belonging to their office until another election shall take place. In case of the death, resignation or removal from the State of any director, his place shall be filled by the board of directors until the next annual election: *Provided*, the removal of a director from this State shall not operate to vacate his place should there be a majority of directors still residing in this State.

Non-election of directors not to dissolve corporation.

Notice of the time and place for election. Continuance in office.

Vacancies, how filled.

Meetings of directors, where held.

Quorum. Election of President and other officers. Powers of directors, to fix salaries.

To make calls.

Certificates of stock.

SECTION 6. *And be it further enacted,* That the said board of directors shall hold their meetings in the City of Wilmington, or in such other place as they may adopt, and when met five shall constitute a quorum. They shall elect a president and secretary and treasurer, and such other officers as may be required for the transaction of their business and for carrying on the intended work, and shall have power to fix their salaries and wages, to ascertain the times, manner and proportion in which the said stockholders shall pay the moneys due on their respective shares, and generally to do all such other acts, matters and things as by this act and by the by-laws and regulations of the company they are authorized to do.

SECTION 7. *And be it further enacted,* That the board of directors first chosen shall procure certificates or evidences of stock for all the shares of said company, and shall deliver one such certificate, signed by the president and countersigned by the

CONCERNING RAILROADS.

treasurer, and sealed with the common seal of said corporation, to each person or party entitled to receive the same according to ^{To whom delivered.} the number of shares by him, her or them respectively subscribed or held, which certificates or evidences of stock shall be transferable at the pleasure of the holder, in person or by attorney duly authorized, in the presence of the president or treasurer, in a suitable book or books, to be kept by the company for that purpose, (subject to all payments due or to become due thereon,) and the assignee, or the party to whom the same shall have been so transferred, shall thereupon be a member of said corporation and have and enjoy all the immunities, privileges and franchises, and be subject to all the liabilities, conditions and penalties incident thereto in the same manner as the original subscriber would have been: *Provided*, That no certificate shall be transferred so long as the holder thereof is indebted to said company, unless the board of directors shall consent thereto: *And provided*, That no such transfer of stock shall have the effect of discharging any liabilities or penalties theretofore incurred by the owner thereof.

SECTION 8. *And be it further enacted*, That if, after thirty days' notice in the public papers aforesaid of the time and place appointed for the payment of any portion or installment of the said capital stock in order to carry on the work, any stockholder shall neglect to pay such proportion or installment, at the place appointed, for the space of thirty days after the time so appointed, every such stockholder, or his or her assignee shall, in addition to the installment so called for, pay at the rate of two per cent. per month for the delay of such payment; and if the same and the additional penalty shall remain for such space of time as that the accumulated shall become equal to the sum before paid in part and on account of such shares, the same shall be forfeited to the said company, and may be sold to such person or persons willing to purchase for such price as can be obtained for the same; or in default of payment by any stockholder of any such installment as aforesaid, the president and directors may, at their election, cause suit to be brought before any justice of the peace, mayor of the City of Wilmington, or in any court having competent jurisdiction for the recovery of the same, together with the penalty aforesaid: *Provided*, That no stockholder, whether original subscriber or assignee, shall be entitled to vote at any election, or at any general or special meeting of the said company, on whose share or shares any installment or arrearages may be due and payable more than thirty days previous to said election or meeting.

SECTION 9. *And be it further enacted*, That the president and directors of the said company shall demand and require of and from the said treasurer, and from such other officers and persons ^{Treasurer to bond, other officers to bond when required.}

CONCERNING RAILROADS.

by them employed as they may deem necessary, bond in sufficient penalties and with such sureties as they shall, by their by-laws, rules and regulations require for the faithful performance of the several duties and trusts to them or any of them respectively committed.

Dividends.

Not to exceed the net profits of the company.

Directors liable for declaring dividends exceeding profits.

Directors present deemed to consent unless, &c.

SECTION 10. *And be it further enacted*, That dividends of so much of the profits of the company as shall appear advisable to the directors shall be declared at least twice in every year and paid to the stockholders on demand at any time after the expiration of ten days therefrom; but they shall in no case exceed the amount of the net profits actually acquired by the company, so that the capital stock shall never be thereby impaired. If the said directors shall make any dividends which shall impair the capital stock of said company, the directors consenting thereto shall be liable, in their individual capacities, to said company for the amount of the stock so divided, and each director present when such dividend shall be made, shall be adjudged to be consenting thereto unless he forthwith enter his protest on the minutes of the board and give public notice to the stockholders at the declaring of such dividends.

Directors to exhibit statement of the affairs of company at annual meetings.

Special meetings, how called.

Nature of the business to be transacted.

Company authorized to construct railroad. Where.

Branch road authorized.

SECTION 11. *And be it further enacted*, That at each annual meeting of the stockholders the directors of the preceding year shall exhibit to them a complete statement of the affairs and proceedings of the company for the preceding year, and that special meetings of the stockholders may be called by order of the directors, or by stockholders holding one-fourth in amount of the capital stock, on like notice as that required for annual meetings, specifying, moreover, the object of the meeting. But no business shall be transacted at such special meeting, unless a majority in value of the stockholders shall attend in person or by proxy.

SECTION 12. *And be it further enacted*, That the said company be and they are hereby authorized to locate and construct a railroad, beginning at a point on the Christiana River, at or near to the junction of the Philadelphia, Wilmington and Baltimore Railroad with the New Castle and Wilmington Railroad, and extending to the line of this State, in, or nearly in the direction of Parksburg or Penningtonville, in State of Pennsylvania, by such eligible route (passing through the limestone valley of Hockessin,) as will be favorable for the transportation of lime, so important to the agricultural and building interests of this State, together with the power of constructing a branch from the beginning point of the same to the City of Wilmington, and such other lateral roads, or branches or extensions, not exceeding eight miles in length, as occasion may require, and for these purposes to enter upon any lands necessary for locating, laying

CONCERNING RAILROADS.

out, or making the same, or to procure sand, gravel, earth, or stone for such use, and to obtain title and right to the same, as hereinafter provided: *Provided*, That neither the said railroad, nor any of its branches, shall be laid so as to pass through any burying ground, or place of public worship, nor through any dwelling house without the consent of the owner thereof: *And provided*, That before the company shall enter upon or take possession of any lands or materials required for the construction or location of the said road, they shall make compensation to the owner or owners thereof, or shall tender adequate security therefor. And the said company may lay down the track of their railroad across any other railroad that may now or hereafter be constructed in this State, and which it may be necessary to cross for purposes aforesaid: *Provided*, That in crossing the track of any other railroad, they shall construct their crossing in such a manner that the same shall not impede or obstruct the passage of any car or locomotive upon the road or roads so crossed: *And provided further*, That the corporation whose track is thus crossed may claim and obtain damages according to the provisions of this act.

SECTION 13. *And be it further enacted*, That when it shall be necessary for the president and directors of the said company, or their agents, to enter in, upon, and occupy, for the purpose of making said railroad, any lands the owners of which refuse to permit such entry and occupation, then it shall be lawful for the Superior Court of New Castle county, if in term time, or any judge of said court in vacation, on application of either party, and at the cost and charge of said company, to appoint five disinterested men of said county, who shall go upon the said lands and assess the damages of such owner or owners fairly and impartially, taking into consideration all the benefits to be derived from or in consequence of the said railroad to the said owner or owners, and the said commissioners shall certify their finding and award to both parties; whereupon the company, on paying the damages so assessed, shall become entitled to have, use and enjoy the said lands for the purposes required by them forever. And in case any owner or owners of lands necessary for the purposes of said company shall be a minor or non-resident, or for any cause incapable of receiving, or unwilling or neglecting to receive said damages, or to call on the company for the same, the said company may deposit the amount of the said damages to the credit of such owner or owners in the National Bank of Wilmington and Brandywine, subject to his, her, or their order, whereupon the said company shall be entitled to have, use and enjoy the said lands and premises required for the purposes of said company for and on account of which damages shall have

CONCERNING RAILROADS.

by them employed as they may deem necessary, bond in sufficient penalties and with such sureties as they shall, by their by-laws, rules and regulations require for the faithful performance of the several duties and trusts to them or any of them respectively committed.

Dividends.

Not to exceed the net profits of the company.
Directors liable for declaring dividends exceeding profits.
Directors present deemed to consent unless, &c.

SECTION 10. *And be it further enacted*, That dividends of so much of the profits of the company as shall appear advisable to the directors shall be declared at least twice in every year and paid to the stockholders on demand at any time after the expiration of ten days therefrom; but they shall in no case exceed the amount of the net profits actually acquired by the company, so that the capital stock shall never be thereby impaired. If the said directors shall make any dividends which shall impair the capital stock of said company, the directors consenting thereto shall be liable, in their individual capacities, to said company for the amount of the stock so divided, and each director present when such dividend shall be made, shall be adjudged to be consenting thereto unless he forthwith enter his protest on the minutes of the board and give public notice to the stockholders at the declaring of such dividends.

Directors to exhibit statement of the affairs of company at annual meetings.
Special meetings, how called.

Nature of the business to be transacted.

Company authorized to construct railroad.
Where.

Branch road authorized.

SECTION 11. *And be it further enacted*, That at each annual meeting of the stockholders the directors of the preceding year shall exhibit to them a complete statement of the affairs and proceedings of the company for the preceding year, and that special meetings of the stockholders may be called by order of the directors, or by stockholders holding one-fourth in amount of the capital stock, on like notice as that required for annual meetings, specifying, moreover, the object of the meeting. But no business shall be transacted at such special meeting, unless a majority in value of the stockholders shall attend in person or by proxy.

SECTION 12. *And be it further enacted*, That the said company be and they are hereby authorized to locate and construct a railroad, beginning at a point on the Christiana River, at or near to the junction of the Philadelphia, Wilmington and Baltimore Railroad with the New Castle and Wilmington Railroad, and extending to the line of this State, in, or nearly in the direction of Parksburg or Penningtonville, in State of Pennsylvania, by such eligible route (passing through the limestone valley of Hockessin,) as will be favorable for the transportation of lime, so important to the agricultural and building interests of this State, together with the power of constructing a branch from the beginning point of the same to the City of Wilmington, and such other lateral roads, or branches or extensions, not exceeding eight miles in length, as occasion may require, and for these purposes to enter upon any lands necessary for locating, laying

CONCERNING RAILROADS.

out, or making the same, or to procure sand, gravel, earth, or stone for such use, and to obtain title and right to the same, as hereinafter provided: *Provided*, That neither the said railroad, nor any of its branches, shall be laid so as to pass through any burying ground, or place of public worship, nor through any dwelling house without the consent of the owner thereof: *And provided*, That before the company shall enter upon or take possession of any lands or materials required for the construction or location of the said road, they shall make compensation to the owner or owners thereof, or shall tender adequate security therefor. And the said company may lay down the track of their railroad across any other railroad that may now or hereafter be constructed in this State, and which it may be necessary to cross for purposes aforesaid: *Provided*, That in crossing the track of any other railroad, they shall construct their crossing in such a manner that the same shall not impede or obstruct the passage of any car or locomotive upon the road or roads so crossed: *And provided further*, That the corporation whose track is thus crossed may claim and obtain damages according to the provisions of this act.

SECTION 13. *And be it further enacted*, That when it shall be necessary for the president and directors of the said company, or their agents, to enter in, upon, and occupy, for the purpose of making said railroad, any lands the owners of which refuse to permit such entry and occupation, then it shall be lawful for the Superior Court of New Castle county, if in term time, or any judge of said court in vacation, on application of either party, and at the cost and charge of said company, to appoint five disinterested men of said county, who shall go upon the said lands and assess the damages of such owner or owners fairly and impartially, taking into consideration all the benefits to be derived from or in consequence of the said railroad to the said owner or owners, and the said commissioners shall certify their finding and award to both parties; whereupon the company, on paying the damages so assessed, shall become entitled to have, use and enjoy the said lands for the purposes required by them forever. And in case any owner or owners of lands necessary for the purposes of said company shall be a minor or non-resident, or for any cause incapable of receiving, or unwilling or neglecting to receive said damages, or to call on the company for the same, the said company may deposit the amount of the said damages to the credit of such owner or owners in the National Bank of Wilmington and Brandywine, subject to his, her, or their order, whereupon the said company shall be entitled to have, use and enjoy the said lands and premises required for the purposes of said company for and on account of which damages shall have

CONCERNING RAILROADS.

Expenses of assessing damages. been so assessed. The expenses of the assessment of said damages shall always be paid by the said company.

Crossings over public roads. SECTION 14. *And be it further enacted,* That the said railroad shall be so constructed by the said company as not to impede or obstruct the free use or passage of any public road or roads which may cross or enter at the same, being now laid out or to be hereafter laid out, and in all places where the said railroad may cross, or in any way interfere with any public road, it shall be the duty of the said company to make and maintain, or cause, to be made and maintained, a good and sufficient causeway or causeways to enable all persons passing or traveling such public roads to cross or pass over or under the said railroad, and that for the accommodation of all persons owning or possessing land through which the said railroad may pass, it shall be the duty of the said company to make and maintain, or cause to be made and maintained, a good and sufficient causeway or causeways whenever the same may be necessary to enable the occupant or occupants of said lands to cross or pass over the same with wagons, carts, or implements of husbandry, as occasion may require: *Provided,* That the said company shall in no case be required to make and maintain, or cause to be made and maintained, more than one such causeway through each plantation or tract of land for the accommodation of any one person owning or possessing land through which the said railroad may pass, and where any public road shall cross such railroad the person owning or possessing land through which the said railroad may pass shall not be entitled to make such requisition on said company. And if

One crossing only to one tract of land. the said company shall neglect or refuse to make such causeway or causeways on request, or when made to keep the same in good repair, then said company shall be liable to pay any person aggrieved thereby all damages sustained by such person in consequence of such neglect or refusal, to be sued for and recovered before any justice of the peace or any court having cognizance therof; and the service of process upon any officer or agent of said company shall be as good and available in law as if served upon the president therof.

Penalty for neglect to make such crossings. SECTION 15. *And be it further enacted,* That no suit or action shall be brought or prosecuted by any person or persons for any penalties incurred under this act unless suit or action shall have been commenced within six months next after the offence shall have been committed or the cause of action shall have accrued, and the defendant or defendants in such suit or action may plead the general issue, and give this act and the special matter in evidence, and that the same was done in pursuance and by authority of this act.

How recovered. SECTION 16. *And be it further enacted,* That if any person or per-

Service of process.

Suit against company for penalties under this act.

CONCERNING RAILROADS.

sons shall wilfully or knowingly destroy, injure, or break the rail-road or any part thereof, or any work or edifice or device or any part thereof to be erected by the said company in pursuance of this act, he, she or they shall forfeit and pay to the said company three times the actual damages so sustained, to be sued for and recovered with costs of suit before any justice of the peace or in any court having cognizance thereof, by action of debt in the name and for the use of the said company.

SECTION 17. *And be it further enacted*, That it shall not be lawful for the said company to use or occupy any street or alley of the city of Wilmington for the purpose of making the said railroad, or any sideling or branch thereof, without first procuring the consent of the city council to such use or occupation.

SECTION 18. *And be it further enacted*, That this act shall be public act, deemed and taken to be a public act, and the Secretary of State [is] hereby authorized and required to publish the same along with the other laws of this State, and the said company shall have power to increase its capital stock by additional subscriptions to an amount or amounts sufficient to effectuate the objects of this act and to construct the railroad contemplated by it, and from time to time to borrow money for corporate purposes and uses, and to execute mortgages on all their estate, real and personal, and to issue bonds to secure the payment of the same: *Provided*, That the amount so borrowed shall not exceed in the aggregate the sum of three hundred thousand dollars.

SECTION 19. *And be it further enacted*, That the said company shall erect and maintain, along the whole line of said railroad, on both sides thereof, before the same shall go into operation, a good and legal fence wherever the same may be necessary: *Provided*, That the said company shall have the right to make special contracts for erecting and maintaining such fences with any persons through whose lands said road shall pass.

SECTION 20. *And be it further enacted*, That if at any time a company, properly incorporated by the Legislature of Pennsylvania for the purpose of constructing a railroad in that State to the line of this State, should wish to unite with the railroad contemplated by this act, and it shall be desired by the company hereby incorporated to unite therewith, that then and in such case the president, directors and company of the Delaware and Chester County Railroad are hereby authorized and empowered to unite with such company as above described so that the said companies shall constitute one consolidated company and the stock of the two companies one common stock for the purpose of building a continuous line of railroad as described in Section 12 of this act.

SECTION 21. *And be it further enacted*, That the said consoli-

CONCERNING RAILROADS.

Agreement of consolidation. dation shall be made under the conditions, provisions and restrictions to be prescribed in a joint agreement made by and under the corporate seal of each of the said companies; said agreement to prescribe the mode of carrying the same into effect, the name of the new corporation, the number of shares, and the par value of the capital stock, the number of the directors and other officers thereof, and the places of their residence, and the names of the first directors and officers, and in general all necessary matters not inconsistent with this act: *Provided*, That the said agreement of consolidation shall become binding only after the same shall (upon due public notice as heretofore specified in this act) have been submitted to the stockholders in public meeting and adopted by them by a two-third vote taken by ballot, (each share of stock entitling the holder to one vote,) and the adoption certified thereon by the secretaries of the respective companies under the seals thereof; and the agreement so adopted, or a copy thereof certified as aforesaid, shall be filed in the office of the Secretary of State of the respective States, where it shall remain of record, and a certified copy thereof shall be received in evidence of the existence of the said new corporation, and upon the filing of the said agreement, or a certified copy thereof as aforesaid, the Secretary of State shall publish the fact, together with the date of filing and the name of the new corporation, and the names of its officers, in two newspapers of this State.

Agreement to be submitted to stockholders. SECTION 22. *And be it further enacted*, That all the stock of the Delaware and Chester County Railroad Company shall be taken liable and subject to such agreement of consolidation, and shall, by the perfecting thereof as aforesaid, be deemed and taken to be effectually transferred to the said new corporation, to be disposed of by the directors thereof; and the said new corporation, under the name, title and conditions prescribed in said perfected agreement, shall possess, within this State, all and singular the rights, privileges and franchises, and [be] subject to all the restrictions, disabilities and duties of each of the original corporations so consolidated or merged; and all property, real, personal and mixed, and all debts due on whatever account, including stock subscriptions and things in action belonging to each of the said companies, shall be taken and deemed to be transferred to and vested in such new corporation without further act or deed, and all property, all rights of way, and all and every other interest shall be as effectually the property of the new corporation as they were of the original companies or corporations parties to the said agreement; and the title to real estate, either by deed or otherwise, under the laws of this State, vested in either of such companies, shall not be deemed to revert or be in any way impaired by reason of this act: *Provided*, That all rights of credit-

What to state.

Certificate of adoption.

Agreement and certificate, where filed.

Certified copy of agreement and certificate of evidence of new corporation.

Publication of filing of agreement.

Stock of company deemed transferred to new company.

Rights, privileges, &c., of new corporation.

All property of the different companies to be vested in new corporation.

CONCERNING RAILROADS.

ors and all liens upon the property of either of the said companies or corporations shall be preserved unimpaired, and the respective companies or corporations may be deemed to continue in existence to preserve the same, and all debts, liabilities and duties of either of the said companies or corporations shall thenceforth attach to the said new corporation and be enforced against it to the same extent as if said debts, liabilities and duties had been incurred or contracted by it.

SECTION 23. *And be it further enacted,* That the said new corporation be and is hereby authorized to receive subscriptions for, and issue such additional shares of capital stock as may be necessary to construct and fully equip the railroad or railroads to be constructed or operated by it; and the said new corporation may, from time to time, borrow money for corporate purposes and uses, and execute mortgages on all or part of their real estate and issue bonds to secure the payment of the same.

SECTION 24. *And be it further enacted,* That in case the Wilmington and Reading Railroad Company shall construct a railroad on any part of the line contemplated by this act, then and in that case it shall be lawful for the company hereby incorporated and the said Wilmington and Reading Railroad Company, to enter into a mutual agreement satisfactory to both companies permitting the company hereby incorporated to use such part of the said Wilmington and Reading Railroad as may be found convenient and desirable as and for a part of the railroad line contemplated by this act.

Passed at Dover, February 5, 1867.

Flooding of the Red Clay Creek is documented in this February 4, 1875 article from the Evening Journal. This event is discussed in Volkman's original monograph and lettered footnote J2 further discusses the accuracy of what was reported. This may be the article which Volkman used as reference for his discussion. (Tom Gears Collection).

THE WILMINGTON & WESTERN.

The flood in Red Clay Creek weakened the supports of two railroad bridges between Faulkland and Ashland, so that it was unsafe for trains on the W. & W. to pass over.

The engines were all on the other side of the creek, and Superintendent Connell procured an engine from the Reading Road and went up last evening to meet the down train from Landenberg, the passengers each way walking across the bridges and taking the trains on the other side. To-day the trains are again crossing the bridges and running on time.

On the Philadelphia, Wilmington and Baltimore and Wilmington and Reading roads no damage was done.

CHAPTER 491.

THE DELAWARE AND CHESTER COUNTY RAILROAD

Current Vol. 195.	Sec. 1. Name of Company changed.	Sec. 4. Section 19 amended.
	2. Section 12 amended.	Fencing.
	Where the road shall be made.	5. Section 24 amended.
	3. Section 14 unended.	Agreements with other companies.
	Crossings for benefit of land owners.	6. Section 18 amended.
		Rate of interest on money borrowed.

An Act to amend the act entitled, "An Act to Incorporate the Delaware and Chester County Railroad Company," passed at Dover, February 5, 1867.

Be it enacted by the Senate and House of Representatives of the State of Delaware in General Assembly met, (two-thirds of each branch thereof concurring):

Name changed.

SECTION 1. That the name of said corporation be changed

FOURTH OF JULY.
A TEMPERANCE
Celebration and Pic-nic
 WILL BE HELD JULY 4th, 1873,
At Mount Cuba,
ON THE W. AND W. RAILROAD.
Rev. Pennell Coombe
 HAS BEEN INVITED,
And is Expected to be the Principal
Orator of the Day.
 The Declaration of Independence will also be
 read.
ELLINGER'S CITY CORNET BAND

Has been engaged for the occasion.
 No spirituous liquors will be allowed upon the
 ground.
 The refreshment stand will be plentifully sup-
 plied with ice cream, cakes, lemonade, etc.
 Trains will be run on the W. and W. Railroad
 as follows:—
 Leave Wilmington—8.00, 9.30, 10.40, a. m.;
 2.00, 3.00, 5.35, 11.00 p. m.
 Leave Landenberg—6.45, a. m.; 12.45, 3.50,
 7.10, p. m.
 Leave Mount Cuba for Wilmington—7.26, 8.45,
 10.10, a. m.; 1.27, 4.25, 6.00, 7.45, p. m.
 Leave Mount Cuba for Landenberg—11.16, a. m.;
 2.25, 6.13, 11.35 p. m.
 Fare for the round trip from all stations, 50
 cents; children under ten years of age, 30 cents
 Committee of Arrangements—S. Hersey, J. H.
 Publ, C. B. Woodward, J. W. Sullivan, W. C.
 Scott, J. P. Hayes, S. N. Fogg.

As noted by Volkman, the picnic grove at Mt. Cuba was used extensively by the Wilmington & Western Railroad for various gatherings and celebrations. This ad from July 1873 details one such event. (Tom Gears Collection).

CONCERNING RAILROADS.

from "The Delaware and Chester County Railroad Company" to that of "The Wilmington and Western Railroad Company," and shall hereafter be so published in the title of said act and wherever the name is repeated throughout the several sections thereof.

SECTION 2. That Section 12 of said act be amended by ^{Section 12} ~~amended.~~ striking out all between the word "beginning" in the third line, and the word "such" at the end of the twelfth line of said Section, and inserting in lieu thereof the following, to wit: "at or ^{Where the} ~~near the Delaware River within the limits of the City of Wil-~~ road shall be made. mington, and extending to the line of this State in a westerly direction, by such eligible route (passing through the limestone valley of Hockessin) as will be favorable for connecting with a railroad or railroads leading westward or north-westward in the State of Pennsylvania, together with such turnouts, switches, wharves or piers, and".

SECTION 3. That Section 14 be amended by inserting ^{Section 14} ~~amended.~~ next after the word "pass," in the 22d line, as follows: "unless more ^{Crossings for} ~~than one be necessary for obtaining access to all parts of the~~ ^{benefit of} ~~land owners.~~ lands of said owner or owners."

SECTION 4. That Section 19 be amended by inserting ^{Section 19} ~~amended.~~ therein next after the word "necessary," at the end of the fourth line, the following, to wit: "and where the said railroad shall pass through improved lands the said company shall erect the said fences whenever practicable before commencing work upon the ~~reeling.~~ said lands, and shall be liable for damages resulting from neglect to fulfil the requirements of this Section, to be recovered as set forth in Section 14 of this act."

SECTION 5. That Section 24 of said act be amended by ^{Section 24} ~~amended.~~ inserting in the first line thereof, between the words "that" and "in," as follows, to wit: "it shall be lawful for the company hereby incorporated to enter into an agreement with any railroad company or corporation created by or existing under the laws of the State of Pennsylvania, for the purpose of authorizing and enabling the said Wilmington and Western Railroad Company to lease, use, operate or run such railroad: *Provided*, that the companies or corporations entering into such agreement form a continuous line of railroad and". ^{Agreements with other companies.}

SECTION 6. That Section 18 of said act be amended by ^{Section 18} ~~amended.~~ inserting therein next after the word "same," at the end of the tenth line, the following words, to wit: "bearing any rate of interest ^{rate of interest on} ~~deemed advisable by said company, not exceeding eight per cent.~~ ^{money bor-} ~~rowed.~~

Passed at Dover, March 10, 1869.

CHAPTER 497.

RAILROADS.

Vol. 13, 185. AN ACT to amend an act entitled "An act to incorporate the Delaware and Chester County Railroad Company," passed at Dover, February 5, 1867.

Section 18,
Chap. 185,
Vol. 13,
amended.

SECTION 1. *Be it enacted by the Senate and House of Representatives of the State of Delaware in General Assembly met, (two-thirds of each branch thereof concurring,) That Section 18 of the act entitled "An act to incorporate the Delaware and Chester County Railroad Company," passed at Dover, February 5, 1867, as the same is amended by Chapter 145 of Volume 14 Delaware Laws, passed at Dover, March 24, 1871, be and the same is hereby amended by striking out the word "six" in the last line of said section, and inserting in lieu thereof the word "fifteen."*

Passed at Dover, January 30, 1873.

CHAPTER 501.

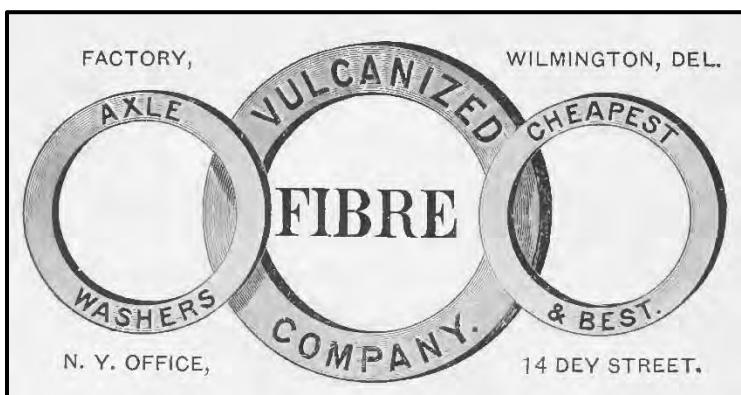
RAILROADS.

Vol. 13, 185. AN ACT to amend an act entitled, "An act to incorporate the Delaware and Chester County Railroad Company," passed at Dover, February 5th, 1867.

Section 3,
Chap. 185,
Vol. 13,
amended.

Prov. 180.

SECTION 1. *Be it enacted by the Senate and House of Representatives of the State of Delaware in General Assembly met, (two-thirds of each branch of the Legislature concurring herein,) That an act entitled, "An act to incorporate the Delaware and Chester County Railroad Company," passed at Dover, February 5th, 1867, be and the same is hereby amended by adding to Section 8 the words following, to wit: "Provided that in case the railroad of the said company shall at any time be extended beyond Landenburg, the directors may, by resolution, (two-thirds of their number concurring,) increase their number to thirteen, and appoint*



Vulcanized Fibre was discovered in England by Thomas Taylor and patented in 1871 in the U.S. A manufacturing plant was established in 1873 in Wilmington relying on industrial rag paper supplied by the Marshall Family of Kennett Township, PA. At the start of the 1900s Israel & Elwood Marshall invented the Endless Fibre Machine which revolutionized vulcanized fibre manufacture leading to the forming of the National Vulcanized Fibre Company.

OF CORPORATIONS.

four directors in addition to their present number, to serve as such until the annual meeting of the stockholders then next ensuing; and at such annual meeting, and thereafter, thirteen directors shall be chosen in the manner provided by the said act.

SECTION 2. That Section 12 of the said act be and the same is hereby amended by inserting, in the sixteenth line thereof, between the words "same" and "or," the words "or for the erection of station houses, or freight or passengers' depots, and necessary sidings and turn-outs."

SECTION 3. That Section 20 of the said act be and the same is further amended by inserting, in the third line thereof, between the word "Pennsylvania" and the word "for," the words "or the Legislature of Maryland;" and by striking out the words "that State to the line of this State," in the third and fourth lines, and inserting in lieu thereof the words "either or both of said States."

SECTION 4. That Section 24 of the said act, as amended by Section 5 of an act entitled, "An act to amend an act entitled, 'An act to incorporate the Delaware and Chester County Railroad Company,' passed at Dover, February 5, 1867," being Chapter 491 of Volume 13 of Delaware Laws, be and the same is hereby amended by inserting, between the words "Pennsylvania" and "for," the words "or of the State of Maryland."

SECTION 5. That the said act be and the same is hereby further amended by adding thereto the following, to wit: "Section 25. The Wilmington and Western Railroad Company is hereby fully authorized and empowered to lease their said railroad, and to contract and agree for the maintenance and operating of the said railroad; *Provided* that the terms and conditions of such lease, or contract, or agreement, shall be first submitted to the stockholders of the said the Wilmington and Western Railroad Company, at a meeting called for that purpose after at least ten days notice of the time and place of said meeting, published in one or more of the newspapers of the city of Wilmington, and shall be first approved of by a majority of the stock of the said Wilmington and Western Railroad there represented.

Passed at Dover, March 3, 1873.

CHAPTER 64.

BRIDGE OVER CHRISTIANA RIVER.

AN ACT to Protect the Navigation of the Christiana River.

Preamble. WHEREAS the act of incorporation of the Wilmington and Western Railroad Company authorizes the said company to construct a railroad, beginning at or near the Delaware River, within the limits of the City of Wilmington, and extending thence in a westerly direction to the line of this State, crossing in its route the navigable waters of the said Christiana River, therefore,

Be it enacted by the Senate and House of Representatives of the State of Delaware in General Assembly met, (two-thirds of each branch thereof concurring),

SECTION 1. That the Wilmington and Western Railroad Company, in constructing its road across the Christiana River, shall, and the said company is hereby required to erect and maintain a draw or pivot bridge at the crossing of said stream, of not less than thirty-five feet in clear width, for the passage of vessels, and shall also provide, at the expense of said company, proper attendance upon said bridge, as is customary in such cases.

Passed at Dover, March 7, 1871.

CHAPTER 145.

DELAWARE AND CHESTER COUNTY RAILROAD.

AN ACT to amend an act entitled "An act to incorporate the Delaware and Chester County Railroad Company." Volume 18, 1865.

SECTION 1. *Be it enacted by the Senate and House of Representatives of the State of Delaware in General Assembly met, (two-thirds of each branch thereof concurring,) That Section 18 of the act entitled "An act to incorporate the Delaware and Chester County Railroad Company," passed at Dover, February 5th, 1867, (since amended and named the Wilmington and Western Railroad Company,) be amended by striking out the word "three," in the last line of said section as amended, and inserting in lieu thereof the word "six."*

Passed at Dover, March 24, 1871.

CHAPTER 512.

RAILROADS.

AN ACT in relation to the Wilmington and Reading Railroad Company.

*SECTION 1. Be it enacted by the Senate and House of Representatives of the State of Delaware in General Assembly met, (two-thirds of each branch concurring therein,) That the Wilmington and Reading Railroad Company may, in addition to the powers heretofore granted, locate and construct a railroad or railroads from any point or points on its present road to the Delaware River at any point or points, *Provided* that the railroads so to be constructed shall not any one of them exceed seven miles in length; and may make connection with the said road or roads, and may locate and construct such lateral railroads, switches, wharves and piers as may be required, and for these purposes the said corporation is hereby invested and clothed with all the rights, powers, franchises and privileges granted by or contained in the acts heretofore passed in relation to the Wilmington and Brandywine Railroad Company and the said Wilmington and Reading Railroad Company; *Provided* that this act shall not be so construed as to confer upon the said "The Wilmington and Reading Railroad Company" any power or authority to locate or construct any railroad, or any siding, lateral or branch track, within the present corporate limits of the City of Wilmington without first obtaining the consent of the City Council thereto; nor to condemn or use any property for any*

The W. & W. R. R.

THE NEW ROAD OPENED TO DAY—EXCURSION TO LANDENBURG.

The Wilmington & Western Railroad was formerly opened to day by a grand excursion to Landenburg, the terminus of the road, this morning. The excursion train, consisting of ten cars, left the South side of Market street bridge at 10.30 this morning.

Many distinguished guests, Col. John W. Forney, of the Philadelphia *Press*, Col. Joseph W. Tate, of Bedford, Pa., Stephen J. Boyer, of York, Pa., President of the Peach Bottom Railroad Co., S. H. Delfey, Vice-President of the same road, and Martin Landenburg, of the Pennsylvania and Delaware road, accompanied the officers of the road and their friends. At Landenburg a banquet will be given to the excursionists and the final ceremonies gone through with. A full report will appear on Monday.

From the October 19, 1872 issue of the Evening Journal is acknowledgement of the first day of operations of the Wilmington & Western Railroad. (Tom Gears Collection).

OF CORPORATIONS.

wharf or pier without first obtaining the consent of the owner or owners thereof, nor to bridge the Christiana River at any point below the westerly boundary line of the lands now belonging to the firm of Walton, Whann & Co., which said boundary line is about sixteen hundred and forty-five feet (1645 ft.) above the bridge of "The Wilmington and Western Railroad Company," nor to construct any bridge across said river at more than one point below the bridge of the Wilmington and New Castle Railroad Company.

SECTION 2. *And be it further enacted,* That the Wilmington and Reading Railroad Company, in constructing its railroad across the Christiana River, shall be and is hereby required to erect and maintain a draw or pivot bridge at the crossing of the said stream, of not less than seventy-five feet in clear width, for width the passage of vessels, and shall also provide, at the expense of the said company, proper attendance upon said bridge, as is customary in such cases.

SECTION 3. *And be it further enacted,* That the said The Wilmington and Reading Railroad Company may borrow money for the purpose of building the roads hereby authorized, and for that purpose may make mortgages of the said roads or any of Mortgages them.

SECTION 4. That nothing in this act contained shall be so construed as to impair, effect, or restrict, or in anywise to deprive the said The Wilmington and Reading Railroad Company of any rights, powers, franchises or privileges granted to or conferred upon the said The Wilmington and Reading Railroad Company, or which said company now has or enjoys by virtue of any act or acts of the General Assembly of this State heretofore passed.

Passed at Dover, April 4, 1873.

GEO. W. STONE & CO.,

MANUFACTURERS OF THE CELEBRATED

HOCKESSIN VALLEY LIME

Quarries at Marbleton, on W. & W. R. R.

**Address and Office---No. 9 E. Water Street,
WILMINGTON, DEL.**

Lime for sale by the Car Load, in Hogsheads, and in Barrels. Also, Land Lime by the Car Load. This is a Marble Lime, and it has no super or Also, Dealers in
Bricks, Sand, Plaster, and Cement.

ORDERS SOLICITED.

The George W. Stone Company was awarded the contract for ballast, ties, and laying of track for the Wilmington & Western. Marbleton Quarry Company was incorporated February 8, 1875.

CHAPTER 115.

OF THE NAVIGATION OF THE CHRISTIANA RIVER.

AN ACT to protect the navigation of the Christiana River.

Be it enacted by the Senate and House of Representatives of the State of Delaware in General Assembly met, (two-thirds of each branch thereof concurring,)

Wilmington
and Western
R. R. Co. to
bridge Chris-
tiana river
below
mouth of the
Brandywine

How con-
structed

Bridge at-
tendance to
be provided
by company.

SECTION 1. That the Wilmington and Western Railroad company, in constructing their railroad as described in the act incorporating said company, are hereby authorized to bridge the Christiana river below the mouth of the Brandywine in the city of Wilmington; and the said company are hereby required to make the said bridge a pivot bridge of not less than ninety feet clear width, for the passage of vessels on each side of the centre pier, and the said centre pier shall be so located in relation to the channel of the river as the wharf commissioner of said river shall direct.

SECTION 2. That the said company shall, at their own expense, provide proper attendance upon said bridge as is customary in like cases.

Passed at Dover, March 23, 1875.

Delaware Spring Works was one of several manufacturers of springs for horse-drawn carriages and wagons that transitioned to making springs for railroad cars, locomotives, and trolley cars in the city of Wilmington.

**Delaware Spring Works,
WILMINGTON, DEL.,**

LOCOMOTIVE AND RAILROAD
CAR SPRING MANUFACTURER.



MANUFACTURER OF

Extra Tempered Light Elliptic

Cast Steel Springs,

For Locomotive, Passenger and Freight Cars.

PRINCIPAL OFFICE AND MANUFACTORY,

EIGHTH AND RAILROAD,
WILMINGTON, DEL.

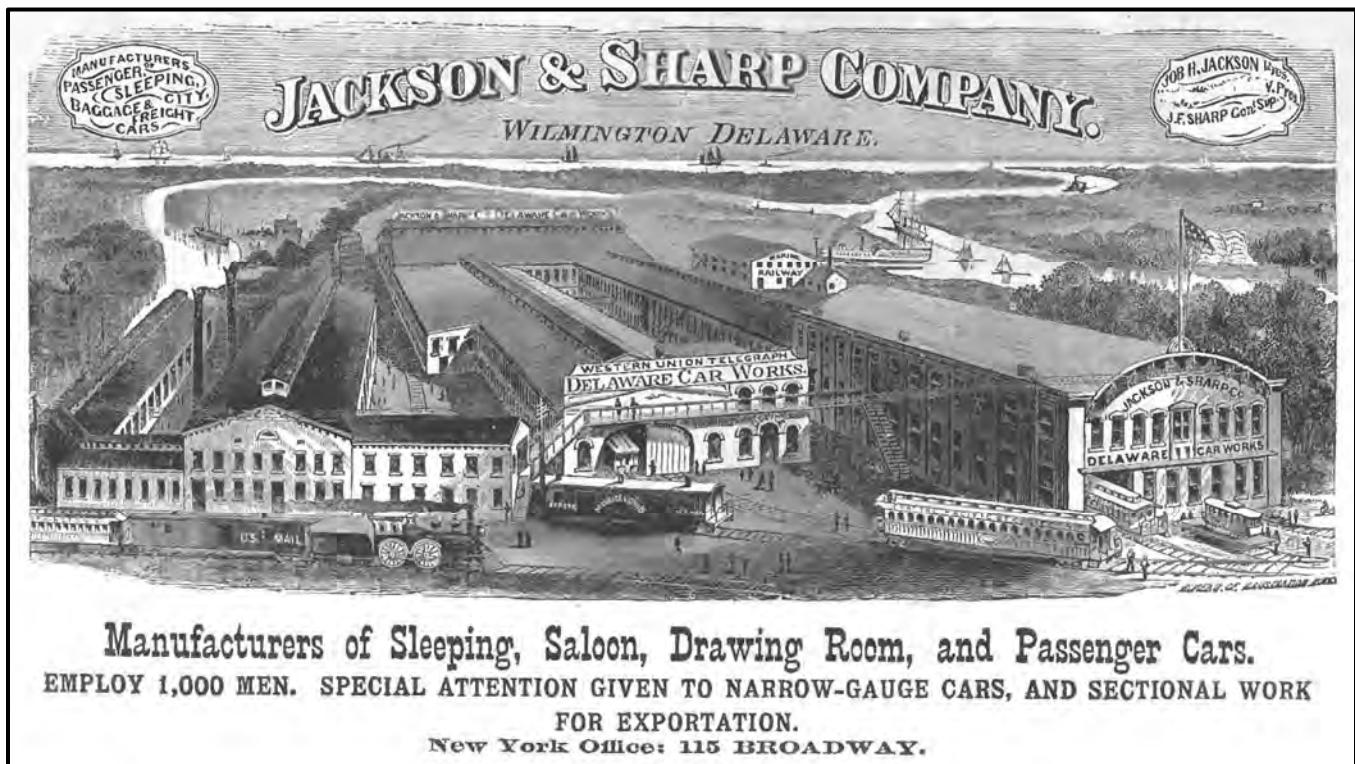
CHAPTER 433.

RAILROADS.

AN ACT to incorporate the purchasers of the Wilmington and Western Rail Road.

WHEREAS, certain proceedings are now pending in the Circuit Court of the United States, for the District of Delaware, ^{Preamble.} for the foreclosure of a mortgage executed by the Wilmington and Western Rail Road Company, (a corporation existing under concurrent laws of this State and the State of Pennsylvania,) under which proceedings it is contemplated that the property and estate, real and personal, of the said corporation, will be sold in execution of a decree of the said Court, and

WHEREAS, in the event of such sale and the purchase thereof of the property and estate of the said corporation, some legislation, such as is hereinaster provided, is necessary, in order to enable the purchasers to operate the said railroad beneficially, and thereby protect their own interests therein, and also to preserve and promote the general interests which are involved in the said rail road as a public improvement; therefore,



Jackson & Sharp Company, also known as the Delaware Car Works, was one of several major railroad and trolley car builders in Wilmington employing hundreds of workers in the 1800s.

OF CORPORATIONS.

When purchasers of Wilmington and Western railroad shall be incorporated.

What shall vest in same.

what.

Paramount liens.

Meeting for organization: when.

Notice of time and place.

Election of officers.

Term.

Annual election of officers.

Term.

Adoption of corporate name and seal.

Capital stock.

Certificates of shares.

May issue preferred stock.

Borrow money and issue bonds secured by mortgage.

SECTION 1. *Be it enacted by the Senate and House of Representatives of the State of Delaware in General Assembly met, (two-thirds of the members of each branch of the General Assembly concurring herein,) That whenever the rail road of the Wilmington and Western Rail Road Company shall be sold and conveyed under and by virtue of any decree or order of the Circuit Court of the United States, for the District of Delaware, (whether such decree or order be made in the pending or in any future proceeding for foreclosing the said mortgage of the said corporation,) the persons for whom, or on whose account, the said railroad may be purchased, shall be and they are hereby constituted a body politic and corporate, and shall be vested with all the right, title, interest, property, possession, claim and demand, at law or in equity, of, in, and to, such railroad, with its appurtenances, and with all the rights, powers, immunities, privileges and franchises of the corporation as whose property or estate the said railroad shall have been sold, and which may have been granted thereto or conferred thereupon, by any act or acts of Assembly, whatsoever, in force at the time of such conveyance, and subject to all the provisions in such act or acts contained, except so far as the same may be modified hereby, and subject, also, to such lien or liens as are paramount to, and not divested by, such sale. The persons for whom, or on whose account, the said railroad shall have been purchased, shall meet within ninety days after the conveyance thereof shall have been delivered as aforesaid, public notice of the time and place of such meeting having been given, at least, once a week, for two weeks in, at least, one newspaper published in the county of New Castle, and shall, thereupon, organize said corporation by electing a president and a Board of, at least, six directors, (to continue in office until the first Monday of May next succeeding such meeting, when and annually thereafter, on the said day, a like election for president and directors shall be held to serve for one year,) and shall also adopt the same or any other corporate name, and a common seal, shall determine the amount of the capital stock thereof, and make and issue certificates therefor to the persons who may be entitled to the same, to the amount of their respective interest therein, in shares of fifty dollars each, and said corporation may then or at any time thereafter, create and issue preferred stock to such an amount as they may deem necessary or proper, and, from time to time, may borrow money and may issue bonds, and may secure the same by one or more mortgages of the real and personal property, and of the corporate rights, powers, privileges and franchises of such corporation or of either or any part or parts thereof.*

OF CORPORATIONS.

SECTION 2. *And be it further enacted,* That it shall be the duty of the corporation to be organized under the foregoing section, to make, within two calendar months after its organization, a certificate thereof under its common seal, attested by the signature of its president, specifying the date of such organization, the name so adopted, the amount of its capital stock, and the names of its president and directors, and shall transmit the said certificate to the Secretary of State, to be filed in his office, and a copy of the same, duly certified by him under his seal of office, shall be recorded in the office of the recorder of deeds, in and for New Castle county. The said certificate, so filed in the office of the Secretary of State, or the said record in the office of such recorder of deeds, or a copy of such certificate or record, duly certified under the hand of said secretary or recorder and his seal of office, shall be evidence of the due and legal organization and corporate existence of said corporation in all courts of law and equity within this State.

SECTION 3. *And be it further enacted,* That it shall be lawful for the corporation which shall be organized under the foregoing sections of this act, at any time after it shall have been so organized, to merge and consolidate its capital stock, franchises and property into and with the capital stock, franchises and property of such rail road corporation to be organized under the laws of the State of Pennsylvania as shall then have authority to operate that portion of the railroad of the Wilmington and Western Rail Road Company which is situated within the said State of Pennsylvania, and which, together with the portion situated in the State of Delaware, forms the entire line of said railroad to be sold under the decree of the Circuit Court aforesaid.

SECTION 4. *And be it further enacted,* That such consolidation as is provided for in the next foregoing section, shall be made under the conditions, provisions, restrictions, and with the powers hereinafter mentioned and contained; that is to say,

I. The directors of the two corporations proposing to consolidate, may enter into a joint agreement under the corporate seal of each company, for the consolidation of said companies and rail roads, and prescribing the terms and conditions thereof, the mode of carrying the same into effect, the name of the consolidated corporation, the number and names of the directors and other officers thereof, and who shall be the first directors and officers, and their places of residence, the num-

OF CORPORATIONS.

Conversion of shares of each company into consolidated stock ber of shares of the capital stock, the amount or par value of each share, and the manner of converting the capital stock of each of the said companies into that of the consolidated corporation, and how and when directors and officers shall be chosen, with such other details as they shall deem necessary to perfect such new organization, and the consolidation of said companies or railroads.

Separate meetings of stockholders of respective companies for adoption of agreement. Notice of time and place; how given 11. Said agreement shall be submitted to the stockholders of each of the said companies or corporations at a meeting thereof, called, separately, for the purpose of taking the same into consideration, due notice of the time and place of holding such meeting, and the object thereof shall be given by written or printed notices addressed to each of the persons in whose names the capital stock of said companies stands on the books thereof, and delivered to such persons, respectively, or sent to them by mail when their post office address is known to the company, and, also, by a general notice published for, at least, two weeks in some newspaper in the city, town or county where such company or corporation shall have its principal office or place of business, and at the said meeting of stockholders the agreement of the said directors shall be considered, and a vote by ballot taken for the adoption or rejection of the same, each share entitling the holder thereof to one vote, and said ballots shall be cast in person or by proxy, and if two-thirds of all the votes of all the stockholders shall be for the adoption of said agreement, then that fact shall be certified thereon by the secretary of the respective companies, under the seal thereof, and the agreement so adopted, or a certified copy thereof, shall be filed in the office of the Secretary of State, and a copy of the same duly certified by him under his seal of office shall be recorded in the office of the recorder of deeds, in and for New Castle county, and the said agreement or a certified copy thereof, having been so filed in the office of the Secretary of State and recorded in the office of the said recorder of deeds, shall from thenceforth be deemed and taken to be the agreement and act of consolidation of the said companies, and shall be conclusive evidence of the due performance of all acts necessary to such consolidation, and a copy of said agreement and act of consolidation duly certified by the Secretary of State, or recorder under his seal of office, shall be evidence of the corporate existence of said consolidated corporation.

Manner of voting on said agreement. Vote necessary to adopt. Adoption how certified. Agreement to be filed in office of Secretary of State. His certified copy to be recorded where. What shall be evidence of corporate existence of consolidated corporation •

SECTION 5. *And be it further enacted*, That upon the making and perfecting of the agreement and acts of consolidation as provided in the next foregoing section, and the filing and recording of the same, as aforesaid, the two corporations, parties

Effect of such consolidation

OF CORPORATIONS.

thereto, shall be deemed and taken to be one corporation by the name provided in said agreement and act, possessing within this State, all the rights, powers, immunities, privileges and franchises, (including the power to borrow money and secure the same by bond and mortgage of all its property and franchises,) and subject to all the restrictions, disabilities and duties of each of the corporations so consolidated.

SECTION 6. *And be it further enacted,* That upon the ^{Further} ^{summation of said act of consolidation as aforesaid, all and} ^{effect.} singular the rights, privileges and franchises of each of said corporations, parties to the same, and all the property, real personal and mixed, and all debts due on whatever account, as well as of stock subscriptions and other things in action belonging to each of such corporations, shall be deemed and taken to be transferred to and vested in such consolidated corporation without further act or deed, and all property, all rights of way, and all and every other interest shall be as effectually the property of the consolidated corporation as they were of the respective corporations so consolidated, and the title to real estate, either by deed or otherwise, under the laws of this State, vested in either of such corporations, shall not be deemed to revert or be in any way impaired, provided that all debts incurred, or liens suffered by either of said corporations so consolidated, and in force at the time of such consolidation, shall be preserved unimpaired, and the respective corporations may be deemed to continue in existence to preserve the same, and all debts, liabilities and duties, public or private, of either of said corporations, shall thenceforth attach to said consolidated corporation and be enforced against it to the same extent as if said debts, liabilities and duties had been incurred or contracted by it.

SECTION 7. *And be it further enacted,* That such consolidated company shall, as soon as convenient after such consolidation, establish such offices as may be desirable, one of which shall be at some point within this State on the line of its road, and may change the same at pleasure, giving public notice thereof in some newspaper published on the line of said road.

SECTION 8. *And be it further enacted,* That suits may be brought and maintained against such consolidated company in any of the Courts of this State, for all causes of action, in the same manner as against other rail road corporations herein. If, at the time of such consolidation, there shall be pending against either of the corporations so entering into such con-

OF CORPORATIONS.

How consolidated company may be made a party thereto.
Effect.

solidation, any action, suit, or proceeding at law, or in equity, the consolidated corporation may be made a party to such action, suit or proceeding ; that is to say, as a plaintiff or complainant, by motion to the court, and as a defendant or respondent, by a *scire facias*, to be issued at the suit of the adverse party or parties, and upon said consolidated corporation being so made a party, the action, suit or proceeding shall proceed as if such consolidated corporation were an original party, and the court shall have full power to make such order or decree, or to render such judgment, as to right and justice shall appertain.

Railroad and
all property
of said com-
pany in this
State to be
subject to
taxation.

SECTION 9. *And be it further enacted*, That so much of the railroad of such consolidated company, together with all other its real estate and property as may be situated within this State, shall be subject to like taxation, and assessed in the same manner and with like effect as property of other railroad corporations within this State, and nothing contained in this act or to be done under it shall, in any wise, affect or impair the exercise by this State of its power of taxation.

Reveration

SECTION 10. *And be it further enacted*, That the Legislature reserves to itself the power to revoke the corporate franchise of any company which may at any time be organized under the provisions of this act.

Pulchra et

SECTION 11. *And be it further enacted*, That this act shall be deemed and taken to be a public act.

Passed at Dover, February 22, 1877.

Lobdell Car Wheel Company was a prominent manufacturer of wheels for locomotives and railroad cars located in Wilmington.

This 1874 full page ad from behind the title page of Wiley's American Iron Trade Manual was typical of the ads Lobdell ran in major publications of the 1860s and into the 1890s. Lobdell patented a manufacturing process that hardened the running circumference and flange of a cast iron railway wheel as well as other innovations making Lobdell branded wheels superior to much of their competition at the time. With the expiration of their patent and steel replacing iron as the material of choice for railway wheels, the Lobdell Company eventually went out of business. (Franklin Institute Library).



CHAPTER 454.

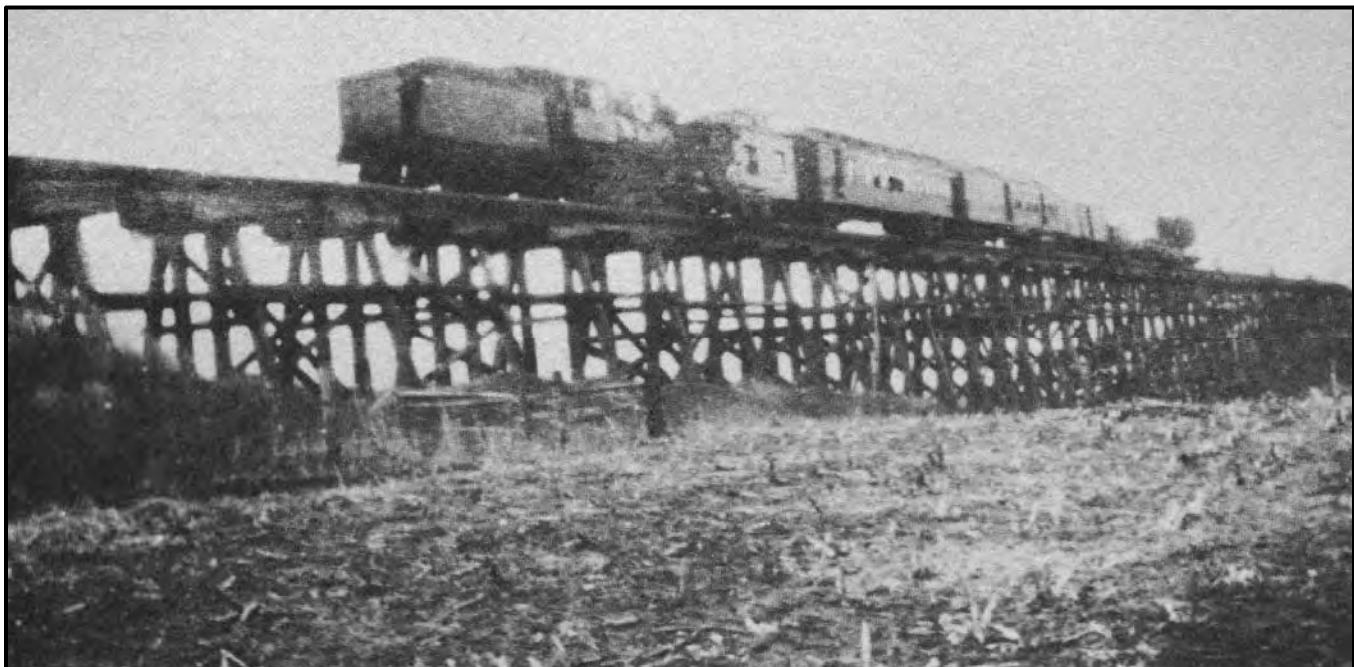
OF RAILROADS.

Title A SUPPLEMENT to an act entitled "An act to incorporate the purchasers of the Wilmington and Western Railroad."

Be it enacted by the Senate and House of Representatives of the State of Delaware, in General Assembly met (two-thirds of the members of each branch thereof concurring):

Del. Western R. R. Co. authorized to construct railroads between certain points.

SECTION 1. That the Delaware Western Railroad Company be and is hereby authorized to locate and construct a railroad or railroads, beginning at such eligible point or points upon the present line of its railroad as may be deemed most favorable, and extending in a southwesterly direction and running within



Things haven't changed much in more than fifty years as a mixed passenger and freight train crosses the Broad Run Trestle in the 1940s in this undated photograph. By the land contour, the train is on the eastern part of the 884-foot long trestle, the longest on the line. To the left is Eden, PA and Southwood, DE and to the right is Landenberg, PA. Engines in the 1870s and 1880s would have pulled the consist from Wilmington to Landenberg and used the turntable in Landenberg for turning the engine so that it could pull the train by the locomotive tender back to Wilmington. With B&O ownership, larger engines would have been used and the turntable in Landenberg was now too short for engine turning. The B&O simply ran and engine around the train using the siding in Landenberg and coupled the locomotive to the train at the front of the engine as seen here for the return trip to Wilmington. The consist is three box cars, a passenger car, and caboose.

OF CORPORATIONS.

one-half of a mile of the town of Newark on the north side thereof, passing out of the State of Delaware at some point in the boundary line of said State, north of the point at which the Philadelphia, Wilmington and Baltimore railroad crosses the said boundary line, and in a northwesterly direction to or into the State of Pennsylvania, and for these purposes to enter upon any lands necessary for locating, laying out or making the same, or for the erection of station houses, or freight or passenger depots and shops and necessary sidings and turnouts, or to procure sand, gravel, earth or stone for such use, and to obtain title and right to the same in the same manner as is provided in ^{Mode of obtaining} Sections 12 and 13 of an act entitled "An Act to incorporate the ^{title to} Delaware and Chester County Railroad Company," passed at ^{Proviso.} Dover, February 5th, 1867, and amendments thereto; *Provided*, that the said powers, rights and privileges granted and conferred in this section shall become null and void unless such extension or extensions upon the present line of said railroad shall be commenced within one year, and completed within three years from the date of the passage of this act; but if any attempt be made to hinder or delay the construction of such railroad by litigation, the time occupied thereby shall not be estimated in the said periods; *And provided also*, that on any ^{Regulation of fares and freights.} railroad so to be built, the rate of fare for passengers shall not exceed three cents per mile, but no single fare need be less than fifteen cents; and the rate to be charged for freight of any kind by the car-load for a distance exceeding ten miles shall not be more than five cents per ton per mile; and the whole charge for freight between any two points shall not be greater than the whole charge for the same kind and amount of freight between more distant points on said road.

SECTION 2. For the location, construction and operation of such railroad or railroads, the said corporation may from time to time increase its capital stock and issue the same for cash, or for work and labor done, or materials furnished, and generally shall and may have and exercise all the powers, privileges and franchises, and be subject to such provisions and restrictions as are mentioned and set forth in all such act or acts of assembly as have been passed by the General Assembly of this State relative to the said Delaware Western Railroad Company, or to the Wilmington and Western Railroad Company, whose successor it became; *Provided, however*, that three of the directors of ^{Qualifications of} said company shall reside in the State of Delaware. And it shall ^{directors as to residence} and may be lawful for the said Delaware Western Railroad ^{Branch} Company, at any time when it shall be deemed expedient so to ^{How} do, to operate any road so to be constructed as its main or principal road operated.

OF CORPORATIONS.

Power to lease. cipal line, and its present line to Landenburg as a branch line, and from time to time to lay out, construct and operate such branches or extensions as may be deemed expedient, in the manner and to the extent provided for in Section 12 of the said act entitled "An Act to incorporate the Delaware and Chester County Railroad Company," and said company may also, at any time, take a lease of any other railroad or railroads, or lease all or any part of its own railroad upon such terms as may be mutually agreed upon between the parties.

Power to connect with certain railroads.

SECTION 3. That it shall be lawful for the said corporation to connect any railroad or railroads so built or to be built, or any branch or branches, extension or extensions thereof with any railroad or railroads which are or may be incorporated by this State, or the States of Pennsylvania or Maryland; and at any time or times when it may be deemed expedient to merge and consolidate its capital stock, franchises and property into and with the capital stock, franchises and property of such railroad corporation or corporations in this State or in Maryland and Pennsylvania or in either of said States; *Provided*, any such consolidation or consolidations shall be made under the conditions, provisions, restrictions and with the powers and results mentioned and contained in Sections 4, 5, 6, 7, 8 and 9 of an act entitled "An Act to incorporate the purchasers of the Wilmington and Western Railroad," passed at Dover, February 22, 1877; *And provided also*, that nothing herein contained shall be held or construed to authorize the consolidation or merger of the said Delaware Western Railroad Company or any company of which it may, under the provisions of this act, become a part, with any railroad passing entirely across this state.

Power to merge.

Proviso.

SECTION 4. That whenever the Delaware Western Railroad, authorized to be constructed by this act, or any branch or extension thereof, shall unite or become consolidated or connected with the railroad of any railroad company existing or organized under the laws of any other State so as to form a part of a continuous line of railway, the said Delaware Western Railroad Company, its assignee or assignees, lessee or lessees, shall pay to the Treasurer of this State, for the use of the State,

Payment of an annual sum in lieu of taxes. a gross annual sum of money, payable in equal semi-annual payments on the first day of October and the first day of April in each and every year, in lieu of all other taxes, which gross annual sum shall bear the same proportion to the sum of forty

Mode of ascertaining amount. thousand dollars, the amount now paid annually to this State by the Philadelphia, Wilmington and Baltimore Railroad Company in lieu of taxes, which the length of the Delaware Western Railroad in this State, so forming a part of a continuous line of

OF CORPORATIONS.

railway, bears to the length of the Philadelphia, Wilmington and Baltimore Railroad within this State. *Provided*, that nothing ^{Proviso.} in this Section shall be deemed, taken or construed to impair or limit the right of the Legislature, at any time hereafter, to determine and fix a different amount of money to be paid by said Delaware Western Railroad Company, its assignee or assignees, lessee or lessees, in lieu of other taxes.

SECTION 5. That this act shall be deemed and taken to be a ^{Public} act, and the power to revoke, alter or amend the same is hereby expressly reserved to the Legislature.

Passed at Dover, March 1, 1881.

CHAPTER 164.

OF RAILROADS.

A SUPPLEMENT to an act entitled "A supplement to an act to incorporate the Purchasers of the Wilmington and Western Railroad," passed March 1st, 1881. Laws of Delaware, Volume 16, Chapter 454.

Preamble.

WHEREAS the Delaware Western Railroad Company and the Baltimore and Philadelphia Railway Company, in pursuance of the act to which this is a supplement and of the laws of Pennsylvania, have been consolidated so as to form one corporation, known as the Baltimore and Philadelphia Railroad Company, as shown by the certified copy of the agreement of consolidation now on file in the office of the Secretary of State; and whereas by such consolidation said The Baltimore and Philadelphia Railroad Company has become entitled to all the rights, powers, privileges and franchises of the Delaware Western Railroad Company; therefore

OF RAILROADS.

Be it enacted by the Senate and House of Representatives of the State of Delaware in General Assembly met (two-thirds of the members of each branch thereof concurring):

SECTION 1. That the said "The Baltimore and Philadelphia Railroad Company," being the corporation which has succeeded to all the rights, powers, privileges and franchises of the Delaware Western Railroad Company, shall be and is hereby authorized to locate and construct its railroad or railroads, authorized to change route of road, authorized by the first section of the act to which this is a supplement, within the town of Newark, on the route now located by said Delaware Western Railroad Company for said railroad within said town, instead of running within one-half a mile of said town on the north side thereof, as provided in said act.

SECTION 2. The time for the completion of the extension or extensions of said railroad, as provided in the first section of said act, is hereby extended for a further period of ten (10) months beyond the date fixed by said first section. Time for completion extended.

SECTION 3. The president and directors of the said Baltimore and Philadelphia Railroad Company may, from time to time, borrow money and issue bonds, or other certificates or evidences of indebtedness, and secure the same by one or more mortgages or deeds of trust upon its railroad or branches, constructed and to be constructed, and upon the real, personal and mixed property owned, or to be thereafter acquired by said company, and the corporate rights, powers, privileges and franchises of said company, or upon any part or parts of said road, branches, property, or rights and franchises; and said president and directors may sell, or otherwise dispose of such bonds or certificates of indebtedness as they may deem necessary and proper for the corporate purposes of said company. Authorized to borrow money and issue bonds.

SECTION 4. That this act shall be deemed and taken to be a public act.

Passed at Dover, February 26, 1883.

CHAPTER 560.

OF RAILROADS.

A SUPPLEMENT to the act entitled "An act to authorize the Philadelphia, Wilmington and Baltimore Railroad Company to widen and improve its lines of Railroad within this State," passed at Dover, February 27, 1883.

Be it enacted by the Senate and House of Representatives of the State of Delaware in General Assembly met (two-thirds of each branch of the Legislature concurring therein), as follows:

Authorized to construct branch railroad.

Location.

May construct additional branch road.

Right to purchase or appropriate land for this purpose.

SECTION I. That in addition to the powers conferred by Section 3 of the act to which this is a supplement, it shall and may be lawful for "The Philadelphia, Wilmington and Baltimore Railroad Company" to construct, maintain and operate a branch railroad, of one or more tracks, commencing at some point on its main line near the Delaware Junction, and thence to a point on said main line near the crossing of Shellpot creek, and in its location and construction to cross the Christiana river west of the present bridge of the Delaware Western Railroad Company, and also to cross the said last mentioned river between its mouth and the mouth of Brandywine creek, and at a point at least three hundred yards distant from the mouth of the said river; with power also to locate and construct another branch railroad, of one or more tracks, from a point on the line of its Delaware Division, near State Road Station, to a suitable point on the branch first herein mentioned and authorized. And for the purpose of locating and constructing the branches hereby authorized, the said company shall have power to purchase, hold, and use, or enter upon, take and appropriate such land and materials as may be necessary; *provided, however,* that before the said company shall enter upon or take possession of any such land or materials it shall make ample



Bellah & Elliott Hardware was one of several general hardware suppliers in Wilmington that initially supplied the horse-drawn carriage and wagon industry that later became a supplier to the various railway coach and trolley manufacturers in the city. Wilmington was also a major shipbuilding city and establishments such as Bellah & Elliott also served the shipbuilding industry.

OF RAILROADS.

compensation to the owner or owners thereof, or parties interested therein; such compensation to be ascertained by agreement, or in the mode provided by Section 2 of the act to which this is a supplement, as the same is by this act modified and amended.

SECTION 2. That in the construction of its road, authorized by this act, across the said Christiana river at the point between its mouth and the mouth of the Brandywine creek, the said company shall be required to erect and maintain a draw or pivot bridge at the crossing of the said stream which shall afford a passage for vessels of not less than one hundred feet in width, and shall also provide at all times, at its own cost and expense, proper attendance upon said bridge, as is customary in such cases; and the said bridge shall be so constructed as to impede as little as possible the free navigation of said river, and shall also maintain a suitable draw or pivot bridge at the crossing of said river west of the Delaware Western bridge.

SECTION 3. That in the location of the branch secondly authorized in Section 1 of this act, the said company may occupy any public street of the City of New Castle, *provided* the City Council thereof shall first give its assent to such occupation.

SECTION 4. That Section 2 of the act to which this is a supplement be and the same is hereby so amended and modified as to make it the duty of the court or judge appointing freeholders to assess damages to land owners to appoint a second set of freeholders in every case, upon the petition of either the land owner or the said company, if such application be made within five days after the freeholders first appointed shall have made their return, and the return made by such second set of freeholders shall, when confirmed, be final.

SECTION 5. That both the branches authorized to be constructed by Section 1 of this act shall be located, constructed, fully completed and put in operation within three years from and after the passage of this act, or all the powers, privileges and franchises by this act conferred and granted shall cease and determine and become null and void; *provided, however,* that if the said company shall be hindered and delayed in the work of location and construction by litigation in any form; or by the appointment of a second set of

OF RAILROADS.

freeholders, in any case, to assess damages to land owners, the time consumed in such delays shall not be computed as within the period aforesaid, but equivalent additional time shall be allowed to the said company for the completion of the said work.

Existing rights preserved.

SECTION 6. That nothing in this act contained shall be so construed as to affect, alter, impair, or restrict the exercise by the said company of any of the rights, powers, franchises, or privileges it is now possessed of under any act of the General Assembly of this State.

SECTION 7. That this act shall be deemed and taken to be a public act.

Passed at Dover, February 4, 1885.

Engines Disabled.

Engine No. 2 of the Landenberg branch of the B. & O. railroad, drawing the accommodation train to this city, scheduled to reach here at 3 o'clock, was disabled when leaving the Landenberg station yesterday afternoon, between 1 and 2 o'clock. The boiler gave out and another engine was sent from this city to relieve the disabled engine. The train arrived here about an hour and a half late.

About 2:30 o'clock yesterday morning an engine on the Maryland division of the P., W. & B. railroad, broke an axle when near Newport. The wrecking train was summoned and the engine was brought to this city.

A July 25 1890 Wilmington Morning News article mentioning one of the Baltimore & Ohio's engines became disabled the prior day near Landenberg. As the year was 1890 and after the B&O had purchased the Delaware Western Railroad, the engine involved is most likely one of the original engines the Wilmington & Western Railroad purchased from Matthew Baird & Company in 1872. Baird would eventually become Baldwin Locomotive Works. Baird built three engines for the railroad. Engine #2 mentioned in the article was constructed as a Class 22½ C and would have been the original Wilmington & Western's largest steam locomotive. See lettered footnote E1 for more details on the original order with Baird & Company.

CHAPTER 609.

OF CORPORATIONS.

AN ACT supplemental to an act entitled "A supplement to an act to incorporate the purchasers of the Wilmington and Western Railroad," passed at Dover, March 1, 1881, Laws of Delaware, Volume 16, Chapter 454.

WHEREAS the Baltimore and Philadelphia Railroad Company is the corporation which has succeeded to all the rights, privileges, powers and franchises of the Delaware Western Railroad Company under the various acts by which said rights, powers, privileges and franchises have been granted to said Delaware Western Railroad Company and its predecessors; and whereas by Section 13 of an act entitled "An act to incorporate the Delaware and Chester County Railroad Company," passed February 5, 1867, Delaware Laws, Volume 13, Chapter 185, certain powers for the entering in and upon and occupancy and condemnation of lands for the purpose of making its railroad or railroads were granted unto the said Delaware and Chester County Railroad Company, of which said powers, privileges, rights and franchises the said Baltimore and Philadelphia Railroad Company is the successor; Preamble.

Be it enacted by the Senate and House of Representatives of the State of Delaware in General Assembly met (two-thirds of the members of each branch thereof concurring):

SECTION 1. That when it shall be necessary for the Baltimore and Philadelphia Railroad Company to exercise any of the powers of condemnation of lands or other property, for the railroad or any of its branches, the commissioners appointed, as provided in said Section 13 of said act to incorporate the Delaware and Chester County Railroad Company, shall give five days notice of the time and place when and where the said commissioners shall go upon the land and assess the damages to the owners thereof. The method of giving said notice shall be as follows: By service thereof either upon the owner or occupant of said lands, and if the said lands are unoccupied, then said notice shall be posted upon the premises, and the posting thereof shall have all the Service of notice on land owners.

legal effects of a personal service upon the owner or owners of said lands or other property.

SECTION 2. That this act shall be deemed and taken to be a public act.

Passed at Dover, April 15, 1885.

CHAPTER 744.

Joint Resolution to pay the Hon. Charles B. Lore one thousand dollars.

Preamble. WHEREAS, The Baltimore and Philadelphia Railroad Company refused to pay its tax as provided by Sec. 4, Chap. 454, Vol. 16, Laws of Delaware, claiming that in order to ascertain the amount of tax per mile on its road, the sum of forty thousand dollars, the tax paid annually by the Philadelphia, Wilmington and Baltimore Railroad Company, should be divided by forty-five miles, which included the line of the said Philadelphia, Wilmington and Baltimore Railroad Company extending from Delaware Junction to what was Rodney Station; and that the said sum of forty thousand dollars should not be divided by the twenty-three and six-tenths miles, being the distance from the Pennsylvania State line to the Maryland State line, as was claimed by the State;

RESOLUTIONS.

AND WHEREAS, In order to determine this question a suit was brought by William Herbert, Esq., State Treasurer, against the said The Baltimore and Philadelphia Railroad Company, in the Superior Court of this State, in and for New Castle County, at the September Term 1887, which case was by the said Superior Court ordered to be heard before all the Judges at the Court of Errors and Appeals at its next term;

AND WHEREAS, The said case was argued before all the Judges at the Court of Errors and Appeals at the January Term 1888, by the Hon. Charles B. Lore and John Biggs, Attorney-General, for the State, and the Hon. John K. Cowan and Levi C. Bird, Esq., for the said The Baltimore and Philadelphia Railroad Company; the said Hon. Charles B. Lore being employed by William Herbert, Esq., State Treasurer, to assist the Attorney-General in the said case;

AND WHEREAS, The said Court of Errors and Appeals, on May 2, 1888, unanimously decided the said case in favor of the State, requiring the said The Baltimore and Philadelphia Railroad Company to pay the annual tax to the State of thirty-six thousand, one hundred and one dollars and sixty-nine cents (\$36,101.69), and not the sum of twenty-four thousand, three hundred and forty-two dollars and seventy cents (\$24,342.70) which the said The Baltimore and Philadelphia Railroad Company claimed was all that it should pay, thereby making a difference to the State of the sum of eleven thousand, seven hundred and fifty-eight dollars and ninety-nine cents (\$11,758.99) annually; now therefore,

Resolved by the Senate and House of Representatives of the State of Delaware in General Assembly met:

That the State Treasurer be and he is hereby authorized and directed to pay to the said Hon. Charles B. Lore the sum of one thousand dollars (\$1,000.00) payment in full for his services in behalf of the State in the said case.

State Treasurer authorized to pay Hon. C. B. Lore \$1,000.

Adopted at Dover, March 27, 1889.

CHAPTER 761.

A Joint Resolution concerning the Baltimore and Philadelphia Railroad Company.

WHEREAS, The Baltimore and Philadelphia Railroad Company, the corporation that has succeeded to all the rights and privileges of the Delaware Western Railroad Company, has been completed and is now in operation through the State and forms a continuous line of railroad from the West to the City of Philadelphia;

AND WHEREAS, By reason of the great cost of constructing and maintaining the said road, it has incurred a large bonded indebtedness and is now being operated at great loss;

AND WHEREAS, The annual tax imposed upon the said railroad company by the Laws of this State, viz.: the act entitled "A Supplement to an act entitled An act to incorporate the purchasers of the Wilmington and Western Railroad," passed at Dover, March 1, 1881, is a large sum of money and more in equity than the said railroad company should at this time pay; now, therefore,

Be it resolved by the Senate and House of Representatives of the State of Delaware in General Assembly met:

State Treasurer authorized to accept and receive of and from the Baltimore and Philadelphia Railroad Company for the period of two years only, computing such period from the first day of April, A. D. 1889, until the first day of April, A. D. 1891, the sum of twenty-five thousand dollars (\$25,000.00) per annum, in manner following, viz.; The sum of twelve thousand and five hundred dollars (\$12,500.00) thereof on the first day of October, A. D. 1889; the further sum of twelve thousand and five hundred dollars (\$12,500.00) on the first day of April, A. D. 1890; the further sum of twelve thousand and five hundred dollars (\$12,500.00) on the first day of October, A. D. 1890; and the further and like sum of twelve thousand and five hundred dollars (\$12,500.00) on the first of April, A. D. 1891; which said sums shall be accepted and received in commutation for said period of two years of the taxes which will for that period be due and payable from said company to the State under the provisions of Section 4 of the act entitled "A Supplement to the act entitled An Act to incorporate the purchasers of the Wilmington and Western Railroad," passed at Dover, March 1, 1881; Provided, however, that nothing herein contained shall have the effect to alter, modify, qualify or impair the contract created and existing between the said company and the State by the provisions of said Section 4 of the act aforesaid; and shall have no other effect than to provide for commutation of said tax for the said period of two years as herein designated, at the sum of twenty-five thousand dollars per year for each of said years; And provided further, that this shall in no wise affect the liability of said company to the assessment and payment of county and municipal taxes as now provided by law.

Manner of payment.

Proviso.

Commutation of tax to last for two years.

That the State Treasurer be and he is hereby authorized, empowered and directed to accept and receive of and from the Baltimore and Philadelphia Railroad Company for the period of two years only, computing such period from the first day of April, A. D. 1889, until the first day of April, A. D. 1891, the sum of twenty-five thousand dollars (\$25,000.00) per annum, in manner following, viz.; The sum of twelve thousand and five hundred dollars (\$12,500.00) thereof on the first day of October, A. D. 1889; the further sum of twelve thousand and five hundred dollars (\$12,500.00) on the first day of April, A. D. 1890; the further sum of twelve thousand and five hundred dollars (\$12,500.00) on the first day of October, A. D. 1890; and the further and like sum of twelve thousand and five hundred dollars (\$12,500.00) on the first of April, A. D. 1891; which said sums shall be accepted and received in commutation for said period of two years of the taxes which will for that period be due and payable from said company to the State under the provisions of Section 4 of the act entitled "A Supplement to the act entitled An Act to incorporate the purchasers of the Wilmington and Western Railroad," passed at Dover, March 1, 1881; *Provided, however,* that nothing herein contained shall have the effect to alter, modify, qualify or impair the contract created and existing between the said company and the State by the provisions of said Section 4 of the act aforesaid; and shall have no other effect than to provide for commutation of said tax for the said period of two years as herein designated, at the sum of twenty-five thousand dollars per year for each of said years; *And provided further,* that this shall in no wise affect the liability of said company to the assessment and payment of county and municipal taxes as now provided by law.

Adopted at Dover, April 25, 1889.

CHAPTER 211.

OF HIGHWAYS.

AN ACT to provide Safe Travel over certain Highways in the City of
Wilmington.

*Be it enacted by the Senate and House of Representatives
of the State of Delaware in General Assembly met:*

SECTION 1. That the Baltimore and Philadelphia Railroad Company be and it is hereby ordered and directed to construct, make and maintain a suitable overhead street bridge for public travel over the track and roadbed of said railroad company, where such track and roadbed intersects Lancaster avenue in the city of Wilmington. Such bridge shall be constructed within such times as the Board of Directors of the Street and Sewer Department of the city of Wilmington shall determine, and shall be of such height above such track and roadbed, and of such width, and of such general construction as the said Board of Directors of the Street and Sewer Department may determine. The construction of said bridge shall include the making of all necessary and proper approaches to said bridge. The said railroad company shall be solely responsible for all damages resulting to contiguous property by reason of the making of said bridge, and the making of the approaches thereto. Should the said railroad company neglect or refuse to construct such bridge, or the approaches thereto, in conformity with and within the time specified by the said Board of Directors of the Street and Sewer Department of the city of Wilmington, the said board of directors are hereby authorized and empowered to erect and construct such bridge and all necessary approaches thereto at the expense of the city, and "The Mayor and Council of Wilmington" may then collect the cost of such erection and construction in an action on the case against such delinquent railroad company.

Railroad company to construct a certain bridge.

Dimensions of bridge.

Damages from making of bridge.

Failure of R. R. Co. to erect bridge.

SECTION 2: The Board of Directors of the Street and Sewer Department of the city of Wilmington shall have supervision over the bridge by this act authorized to be constructed, and may, from time to time, order the widening or re-

JAS. F. EARLEY.

JAS. B. TOMAN.

EARLEY & TOMAN,

MOROCCO MANUFACTURERS.

Glazed and Dull Dongola,

711 and 713 West Third Street, WILMINGTON, Del.

*There were 58 tanneries and leather manufacturers in Wilmington over the decades.
Earley & Toman one of the larger concerns (Shoe & Leather Reports, February 1890)*

OF THE CITY OF WILMINGTON.

Failure of
company to
observe
direction of
Board.

pairing of said bridge by said railroad company in such manner and within such times as in their judgment public convenience may require; and in case the said railroad company shall neglect or refuse to obey any such order or direction in respect to the widening or repairing said bridge, said Board of Directors of the Street and Sewer Department for said city may cause the required widening or repairing to be executed at the expense of the city of Wilmington, and "The Mayor and Council of Wilmington" may then collect the amount of such expense in an action on the case brought in its corporate name against such delinquent railroad company.

Passed at Dover, May 1, 1891.

BLASTING ACCIDENT.—A workman on the Wilmington & Western Railroad named Crossan, was badly hurt some days since, by being struck on the leg by a large stone, thrown by a blast in the cut near David Nevin's in London Britain. Our correspondent says: It is surprising that so few accidents happen where so many men are at work putting off such heavy blasts so frequently.—*Village Record.*

Constructing the railroad required blasting through rocky outcrops at numerous locations between Landenberg and Wilmington. The construction methods of the day would have started with drilling a series of holes in the rock followed by filling them with black powder. Setting off the power would cause the rock to fracture and laborers would then remove the rock and rubble resulting from the blast using ropes, pulleys, and oxen. Newspaper reports posted during the line's construction phase noted several accidents occurring. Two construction crews were used with one crew starting in Wilmington and laying track towards Landenberg while the second crew started in Landenberg and worked towards Wilmington. Both crews met at Mt. Cuba were a large cut through hard rock was attacked by both crews from east and west. As soon as the Mt. Cuba Rock Cut was complete and the tracks joined operations could begin. The article is from the West Chester Village Record dated February 28, 1872.

(Tom Gears Collection).

CHAPTER 355.

Joint Resolution for the relief of the Baltimore and Philadelphia Railroad Company.

Be it resolved by the Senate and House of Representatives of the State of Delaware in General Assembly met:

Certain
Joint resolu-
tions re-
adopted for
two years.

That the joint resolution concerning the Baltimore and Philadelphia Railroad Company, adopted at Dover, April 25, 1889, being Chapter 761, Volume 18, Laws of Delaware, be and the same is hereby readopted and all the provisions thereof continued as a part of this resolution for the period of two years from the first day of April, A. D. 1891, during which time, viz: from the first day of April, A. D. 1891, to the first day of April, A. D. 1893, the State Treasurer is hereby authorized, empowered and directed to

LAWS OF DELAWARE.

565

RESOLUTIONS.

receive of and from the Baltimore and Philadelphia Railroad Company, in lieu of all State taxes, the sum of twenty-five thousand dollars (\$25,000) per annum in manner following, viz: The sum of twelve thousand five hundred dollars per annum (\$12,500) thereof on the first day of October, A. D. 1891; the further sum of twelve thousand five hundred dollars (\$12,500) on the first day of April, A. D. 1892; the further sum of twelve thousand five hundred dollars (\$12,500) on the first day of October, A. D. 1892, and the further sum of twelve thousand five hundred dollars (\$12,500) on the first day of April, A. D. 1893.

Adopted at Dover, May 6, 1891.

EDGE MOOR IRON COMPANY
Design and Manufacture
Railway Bridges, Viaducts and Roofs,
IN STEEL AND IRON.

TENSILE MEMBERS FORGED WITHOUT WELDS, PILES OR BUCKLES,
Compressive Members Manufactured by Processes which Insure an Entire Absence
of Constructional Strains.

WROUGHT-IRON TURN-TABLES

With Centers of Conical Steel Rollers and Steel Plates.

GALLOWAY BOILERS,

Giving Greatest Safety and Highest Economy.

WM. SELLERS, Pres't.
JOHN SELLERS, Jr., V. Pres't.
ELI GARRETT, Treas.
GEO. H. SELLERS, Gen. Supt. { Main Office and Works at Edge Moor, on Delaware River, New York Office:
1600 HAMILTON ST.
Post Office, WILMINGTON, Del. 79 LIBERTY STREET.

Edge Moor Iron Company was a major iron supplier to many of the industries in Wilmington. Their offices were in Wilmington with branch offices in Philadelphia and New York City.

CHAPTER 858.

Joint Resolution for the Relief of the Baltimore and Philadelphia Railroad Company.

Be it resolved by the Senate and House of Representatives of the State of Delaware in General Assembly met:

Provisions
of previous
resolution
continued
in force for
two years.

State Treas-
urer author-
ized to
accept
\$25,000 an-
nually in
lieu of taxes

Manner of
payment.

That the joint resolution concerning The Baltimore and Philadelphia Railroad Company, adopted at Dover, April 25, 1889, being Chapter 761, Vol. 18, Laws of Delaware, be and the same is hereby readopted and all the provisions thereof continued as a part of this resolution for the period of two years from the first day of April, A. D. 1893, during which time, viz: from the first day of April, A. D. 1893, to the first day of April, A. D. 1895, the State Treasurer is hereby authorized, empowered and directed to receive of and from The Baltimore and Philadelphia Railroad Company, in lieu of all State taxes, the sum of twenty-five thousand dollars (\$25,000) per annum in manner following, viz: The sum of twelve thousand five hundred dollars (\$12,500) thereof on the first day of October, A. D. 1893; the further sum of twelve thousand five hundred dollars (\$12,500) on the first day of April, A. D. 1894; the further sum of twelve thousand five hundred dollars (\$12,500) on the first day of October, A. D. 1894; and the further sum of twelve thousand five hundred dollars (\$12,500) on the first day of April, A. D. 1895.

Adopted at Dover, April 18, 1893.

Diamond State Car Spring Co.

NATHAN H. DAVIS, President.
PUSEY A. WALTON, Manager.

LOUIS C. GRATZ, Treasurer.
HENRY AVERY, Jr., Secretary.

Office, 411 and 413 Walnut Street, Philadelphia.
Works, WILMINGTON, DEL.



Crucible Steel Locomotive and Elliptic
SPRINGS
Of all Descriptions.
Improved Band Prevents Plates from getting out of Position.

Manufacturers of the Celebrated "DAVIS" WIRE CAR SPRINGS.

SPIRAL SPRINGS
Of all Descriptions, for Railway Cars, Switches and Machinery.
Licensed to Manufacture EDGE-ROLLED SPRINGS.

Wilmington became a major location for the manufacture of horse-drawn carriages and wagons in the mid-1800s. As the railroad and trolley industries grew at the end of the 1800s, carriage manufacturers turned to supplying the rail industries. With multiple companies in Wilmington turning out railroad passenger coaches and trolley cars, a number of supply companies sprang up in Wilmington and throughout the state in support of the carriage and coach businesses. Delaware, also known as the 'The Diamond State' (so nicknamed by Thomas Jefferson according to legend because of Delaware's "jewel" location along the Atlantic Seaboard), included companies such as Diamond State Car Spring Company that had corporate and business offices in Philadelphia but manufacturing in Wilmington.

CHAPTER 163.

Joint Resolution for the relief of the Baltimore and Philadelphia Railroad Company.

Be it resolved by the Senate and House of Representatives of the State of Delaware in General Assembly met:

Chapter 761,
Volume 18,
re-adopted
and con-
tinued for
two years.

Communi-
cation State
tax on
Baltimore
and
Philadel-
phia rail-
road.

That the joint resolution concerning the Baltimore and Philadelphia Railroad Company, adopted at Dover, April 25, 1889, being Chapter 761, Vol. 18, Laws of Delaware, be and the same is hereby re-adopted, and all the provisions thereof continued as a part of this resolution for the period of two years from the first day of April, A. D. 1895, during which time, viz: from the first day of April, A. D. 1895, to the first day of April, A. D. 1897, the State Treasurer is hereby authorized, empowered and directed to receive of and from the Baltimore and Philadelphia Railroad Company in lieu of all State taxes, the sum of twenty-five thousand dollars (\$25,000) per annum in manner following, viz: the sum of twelve thousand five hundred dollars (\$12,500) thereof on the first day of October, A. D. 1895; the further sum of twelve thousand five hundred dollars (\$12,500) on the first day of April, A. D. 1896; the further sum of twelve thousand five hundred dollars (\$12,500) on the first day of October, A. D. 1896; and the further sum of twelve thousand five hundred dollars (\$12,500) on the first day of April, A. D. 1897.

Adopted at Dover, April 5, 1895

Baltimore & Philadelphia Railroad – Volume 20 – Chapter 654

CHAPTER 654.

Joint Resolution for the relief of the Baltimore and Philadelphia Railroad Company.

Be it resolved by the Senate and House of Representatives of the State of Delaware in General Assembly met:

That the joint resolution concerning the Baltimore and Philadelphia Railroad Company, adopted at Dover, April 25, 1889, being Chapter 761, Volume 18, Laws of Delaware, be and the same is hereby re-adopted and all the provisions thereof continued as a part of this resolution for the period of two years from the first day of April, A. D. 1897, during which time, viz., from the first day of April, A. D. 1897, to the first day of April, A. D. 1899, the State Treasurer is hereby authorized, empowered and directed to receive of and from the Baltimore and Philadelphia Railroad Company in lieu of all State taxes the sum of twenty-five thousand dollars (\$25,000) per annum, in manner following, viz.: The sum of twelve thousand five hundred dollars (\$12,500) thereof on the first day of October, A. D. 1897; the further sum of twelve thousand five hundred dollars (\$12,500) on the first day of April, A. D. 1898; the further sum of twelve thousand five hundred dollars (\$12,500) on the first day of October, A. D. 1898, and the further sum of twelve thousand five hundred dollars (\$12,500) on the first day of April, A. D. 1899.

Adopted at Dover, April 7, 1897.

CHAPTER 327.

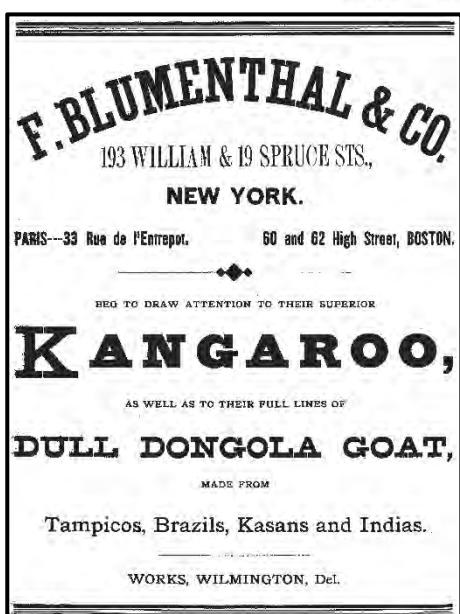
HOUSE JOINT RESOLUTION RE-ADOPTING CHAPTER 761, VOLUME 18, LAWS OF DELAWARE, FOR THE RELIEF OF THE BALTIMORE AND PHILADELPHIA RAILROAD COMPANY BY AUTHORIZING, EMPOWERING AND DIRECTING THE STATE TREASURER OF THE STATE OF DELAWARE TO RECEIVE OF AND FROM SAID THE BALTIMORE AND PHILADELPHIA RAILROAD COMPANY IN EACH OF THE TWO YEARS BEGINNING WITH THE FIRST DAY OF APRIL, A. D. 1899, AND THE FIRST DAY OF APRIL, A. D. 1900, RESPECTIVELY, THE SUM OF TWENTY-FIVE THOUSAND DOLLARS IN LIEU OF ALL TAXES DUE THIS STATE FROM SAID COMPANY IN EACH OF SAID YEARS.

Be it resolved by the Senate and House of Representatives of the State of Delaware in General Assembly met:

Joint resolution
Chap. 761, Vol
18, relieving Bal-
timore and Phil-
adelphia R. R.
Co. from a part
of taxes re-
adopted.

That the Joint Resolution concerning the Baltimore and Philadelphia Railroad Company, adopted at Dover, April 25, 1889, being Chapter 761, Volume 18, Laws of Delaware, be and the same is hereby re-adopted and all the provisions thereof continued as a part of this resolution for the period of two years from the first day of April, A. D. 1899, during which time, viz: from the first day of April, 1899, to the first day of April, A. D. 1901, the State Treasurer is hereby authorized, empowered and directed to receive of and from the Baltimore and Philadelphia Railroad Company in lieu of all State taxes the sum of Twenty-five thousand dollars (\$25,000) per annum, in manner following, viz: the sum of Twelve thousand five hundred dollars (\$12,500) thereof on the first day of October, A. D. 1899; the further sum of twelve thousand five hundred dollars (\$12,500) on the first day of April, A. D. 1900; the further sum of twelve thousand five hundred dollars (\$12,500) on the first day of October, A. D. 1900; and the further sum of twelve thousand five hundred dollars (\$12,500) on the first day of April, A. D. 1901.

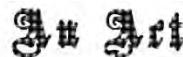
Approved February 9, A. D. 1899.



F. Blumenthal & Company was one of several leather wholesalers that maintained their production facilities in Wilmington but sold to an international market from their corporate offices in New York City. The importing of hides, the tanning of hides, and their shipment to all parts of the U.S. as well as internationally was possible due to the railroads that serviced Wilmington as well as the fact that the Port of Wilmington remains relatively ice free during the winter months due to the higher salt concentration of the water. (Shoe & Leather Reports, February 1890).

Laws of the State of Pennsylvania

Laws of PA – Wilmington & Western Railroad – Number 1158 – April 17, 1869



Authorizing the Wilmington and Western Railroad Company to connect their railroad with the Delaware and Pennsylvania railroad within this commonwealth.

Preamble.

WHEREAS, The Wilmington and Western Railroad Company, a corporation created in the state of Delaware, is desirous of connecting the railroad to be built according to their charter, with the Delaware and Pennsylvania railroad, when the same shall have been built in this commonwealth:

And whereas, The said connection, owing to the features of the county, cannot be advantageously made without entering for a short distance upon the territory of this commonwealth:

And whereas, Such connection will conduce to the prosperity of the citizens of this state, in giving an outlet to lime and other merchandise towards the city of Wilmington; therefore,

SECTION 1. *Be it enacted by the Senate and House of Representatives of the Commonwealth of Pennsylvania in General Assembly met, and it is hereby enacted by the authority of the same,*
That the said Wilmington and Western Railroad Company May extend railroad into this state may extend the railroad to be built in the state of Delaware, according to the provisions of the charter of said company, so far into the territory of this commonwealth as will enable them to connect with the said Delaware and Pennsylvania railroad, or any other railroad in the valley of White Clay creek, at any suitable point not more than two miles in a direct line from the circular boundary line of this state.

SECTION 2. That for the purpose of making and operating such extension, the said Wilmington and Western Railroad Company shall and may exercise all the power, privileges and immunities, and be subject to all the conditions and restrictions granted and created by the laws of this commonwealth, to and in relation to railroad companies or corporations existing under the laws thereof, excepting only, and it is hereby especially provided, that the said Wilmington and Western Railroad Company shall not, on account of such extension into this commonwealth, be required to have the president and a majority of the directors of said company resident therein.

SECTION 3. And it shall be lawful for the said Delaware and Pennsylvania Railroad Company, or any other railroad company created by or operating under the laws of this commonwealth, to connect at the point designated in section two of this act, with the said Wilmington and Western railroad, extended as aforesaid, and to enter into an agreement with said Wilmington and Western Railroad Company, for the joint use and operation of the railroads forming a continuous line at said point.

JOHN CLARK,
Speaker of the House of Representatives.

WILMER WORTHINGTON,
Speaker of the Senate.

APPROVED—The seventeenth day of April, Anno Domini one thousand eight hundred and sixty-nine.

JNO. W. GEARY.

An Act

To amend the act, entitled "An Act authorizing the Wilmington and Western Railroad Company to connect their railroad with the Delaware and Pennsylvania railroad, in this commonwealth."

SECTION 1. *Be it enacted by the Senate and House of Representatives of the Commonwealth of Pennsylvania in General Assembly met, and it is hereby enacted by the authority of the same,* That the act, entitled "An Act authorizing the Wilmington and Western Railroad Company to connect their railroad with the Delaware and Pennsylvania railroad, in this commonwealth," approved the seventeenth day of April, Anno Domini one thousand eight hundred and sixty-nine, be amended by adding thereto, next after section three, as follows, to wit:

SECTION 4. And the said Wilmington and Western Railroad Company are hereby further authorized to extend a branch from some suitable point on the line of their road to

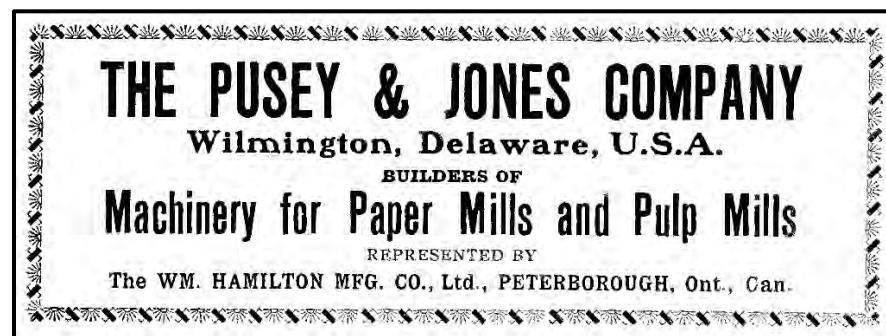
connect with the Philadelphia and Baltimore Central railroad, at the borough of Kennet or other desirable point: *Provided,* That such branch shall not extend more than four miles into this commonwealth, and that the same be built and operated in accordance with the provisions of section two and three of this act.

BUTLER B. STRANG,
Speaker of the House of Representatives.

CHARLES H. STINSON,
Speaker of the Senate.

APPROVED—The thirteenth day of April, Anno Domini one thousand eight hundred and seventy.

JNO. W. GEARY.



1901 Pulp & Paper Magazine ad for Pusey & Jones' Canadian representative.

An Act

To amend an act, entitled "An Act authorizing the Wilmington and Western Railroad Company to connect their railroad with the Delaware and Pennsylvania railroad, within this commonwealth."

SECTION 1. *Be it enacted by the Senate and House of Representatives of the Commonwealth of Pennsylvania in General Assembly met, and it is hereby enacted by the authority of the same,*
That the act, entitled "An Act authorizing the Wilmington and Western Railroad Company to connect their railroad with the Delaware and Pennsylvania railroad, within this commonwealth," approved the seventeenth day of April, Anno Domini one thousand eight hundred and sixty-nine, be amended, by striking out all of section one, after the words, "White Clay creek," and inserting in lieu therof the words following, to wit: "And also with the Peach Bottom railroad, at or near the borough of Oxford, with full power to effect crossings of, or connections with, any railroad necessary to be crossed or intersected in making said extensions; and also with full power to build such spurs or branches, not more than five miles in length, for the accommodation of local, manufacturing, mining or other interests, as occasion may require, and to mortgage any or all extensions or branches authorized to be made in this commonwealth, and to issue bonds and borrow money, on the basis of such mortgage or mortgages, sufficient to complete the construction, equipping and operation of the same."

Section one of
former act
amended.

SECTION 2. That section two of said act be and the same is hereby amended, by inserting between the word "extension," first occurring in said section, and the word "the" next thereafter, the words, "and spurs or branches."

SECTION 3. That section three of said act be and the same is hereby amended, by striking out the words, "at the point designated in section two of said act."

WILLIAM ELLIOTT,
Speaker of the House of Representatives.

JAMES S. RUTAN,
Speaker of the Senate.

APPROVED—The ninth day of March, Anno Domini one thousand eight hundred and seventy-two.

JNO. W. GEARY.

An Act

To incorporate the Doe Run and White Clay Creek Railroad Company.

SECTION 1. *Be it enacted by the Senate and House of Representatives of the Commonwealth of Pennsylvania in General Assembly met, and it is hereby enacted by the authority of the same,* That Evan Jones, Robert Parke, Benjamin Jones, Cyrus Hoopes, Benjamin Seal, James N. Taylor, Lewis Pennock, George W. Lefever, George B. Sharp, Samuel Hughes, Lewis Bernard, Aaron Baker, Charles Dingee, James Watson and Martin Landenberger, or any five of them, be and they are hereby appointed commissioners to open books and receive subscriptions and organize a company by the name, style and title of the Doe Run and White Clay Creek Railroad Company, with power to construct a railroad from a point on the Pennsylvania Central railroad, at or near Parkesburg, in Chester county, thence by the most available route along the Buck Route. run and that branch of White Clay creek that runs west of Chatham to the state line; and the said railroad company shall be entitled to all the privileges, and be subject to all the provisions and restrictions prescribed by an act regulating railroad companies, approved the nineteenth day of February, Anno Domini one thousand eight hundred and forty-nine.

Commissioner
Title.
Subject to.

30



B&O engineer William B. Dudkewitz, the editor's grandfather, in the early 1960s at Yorklyn water tank shortly before his retirement. Dudkewitz started with the B&O as a fireman in 1917-18. He was eventually assigned to Wilsmere Yard in 1924 where he served the remainder of his railroading career as a B&O engineer until retirement in 1963. He frequently delivered freight to industries on the Landenberg Branch.

Capital stock.

SECTION 2. That the capital stock of said company shall consist of four thousand shares, of fifty dollars each: *Provided*, That the said company may, from time to time, by a vote of the stockholders or otherwise, as hereinafter provided, increase their capital stock to an amount sufficient to complete said road, and carry out the true intent and meaning of this act.

Authorized to construct branches, connect with other roads, &c.

SECTION 3. That said railroad company is hereby authorized to construct branches or lateral railroads, not exceeding nine miles in length, to any mines, quarries or manufactories, or to connect with any other railroads in the county of Chester, to project and construct additional tracks, sidings, turnouts, depots, water stations, engine houses, shops, offices, telegraph wires, and all necessary buildings, houses, shops and offices, together with platforms and chutes for loading and unloading ores and minerals; and whenever the said company shall enter upon lands for the purposes aforesaid, they shall stake off and designate the boundaries of the same, and make an accurate survey and draft thereof, upon which shall be based all legal proceedings for the recovery or adjustment for damages.

To stake off boundaries, &c., when entering upon lands.

Authorized to borrow money and pledge property for payment of same.

SECTION 4. That the president and directors of said company shall have the power to borrow money, from time to time, in such sums and at such rates of interest as they may think proper, not exceeding seven per cent., for the construction of said railroad, and the procuring of the rolling stock therefor, and to pledge the said road, rolling stock and franchises, or any part thereof, by bonds, mortgage or otherwise, for the payment of the same: *Provided*, That said company shall not issue bonds for a less denomination than one hundred dollars; and the said bonds may be convertible into capital stock of said company at the option of the holder thereof, or otherwise, as the said president and directors may elect.

Proceedings in cases of disagreement as to damages with owners of lands and materials.

SECTION 5. That in all cases where said company and the owners of land and materials cannot agree upon the amount of damages claimed, either for land or materials, the said company may tender a bond, with sufficient security, to the party claiming damages, the condition of which shall be that the company will pay or cause to be paid such amount of damages as the party shall be entitled to receive, after the same shall have been agreed upon by the parties or assessed according to law: *Provided*. In case the party or parties claiming damages refuse to accept the bond or bonds tendered by said company, the said company may in such cases present their bond or bonds to the court of common pleas of the proper county, or any one of the judges thereof, and if the said court or any one of the judges thereof approve the security, they shall direct the said bond or bonds to be filed in the prothonotary's office of said court for the benefit of those interested; whereupon the said company may enter upon or take possession of such land and materials.

SECTION 6. That in all cases in which the owners of lands and materials are minors, lunatics or habitual drunkards, it

Proviso.

shall and may be lawful for the guardian or committee of such owners and the said company amicably to adjust the amount of damages to be paid, if they can agree; and on payment of the amount, it shall be lawful for such guardian or committees to release said company from all claims therefor and to execute all necessary papers in the premises; in case the said parties cannot agree, the said company may proceed as is provided for in the fifth section of this act.

SECTION 7. That the number of directors shall be eight, and the president and four of the directors of said company shall constitute a quorum to do business.

SECTION 8. That the said Doe Run and White Clay Creek Railroad Company shall commence said road within five years from the first day of July, Anno Domini one thousand eight hundred and sixty-eight: *Provided*, That the right to construct branches, additional tracks, sidings, turnouts, depots, water stations, engine houses, shops, offices, telegraph wires, and all necessary buildings, houses, shops and offices, together with platforms and chutes for loading and unloading ores and minerals, as provided in the third section of this act, shall not terminate with such completion, but shall continue as corporate powers of said corporation.

ELISHA W. DAVIS,
Speaker of the House of Representatives.

JAMES L. GRAHAM,
Speaker of the Senate.

APPROVED—The twenty-fourth day of March, Anno Domini one thousand eight hundred and sixty-eight.

JNO. W. GEARY.



Initially the line was constructed using 56-pound (pounds per yard of length) cast iron rail. Steel rail was being developed at the time of the railroad's construction in 1871 but was not used initially. Typically, sidings were left iron rail as they were not heavily used or traveled. Conversion of the main branch line to steel rail occurred selectively with iron rail breakage and with the 1890s upgrades for increased freight car loadings. Note the thick vertical web and bulbous cross-section of the railhead unlike the more rectangular railhead used today. (Andrew Schiebel photograph.)

An Act

To incorporate the Peach Bottom Railway Company.

Commissioners. SECTION 1. *Be it enacted by the Senate and House of Representatives of the Commonwealth of Pennsylvania in General Assembly met, and it is hereby enacted by the authority of the same,* That William M'Sparren, Rufus Wiley, C. R. M'Conkey, J. D. Ramsay, Robert Bartol, Robert Irwin, Foulk Jones, John Humphrey, Benjamin Grinnell, W. B. Galbreath, Isaac Parker, Senior, Joseph Anderson, Henry Hammond, Dr. John Free, J. C. Jordan, Christopher Coulter, Clarkson Manifold, Edie Patterson, Samuel Dickey, Lawrence Hipple, R. Jones, James Patterson, John Tweddell, W. R. Bingham, B. F. Kohler, J. B. Welsh, James Gerry, Junior, Thomas Platt, W. G. Ross, William Stokes, Valentine Trout, T. G. Cross, J. S. Fulton, Jacob Deal and S. W. P. Boyd, of the state of Pennsylvania; and Samuel Whiteford, H. C. Whiteford, Thomas Glen, E. S. Rogers and David A. Wiley, of the state of Maryland, or any ten of them, be and they are hereby appointed commissioners to open books, receive subscriptions and organize a company, by the name, style and title of the Peach Bottom Railway Company, with all the powers and subject to all the provisions and restrictions prescribed by an act of assembly, entitled "An Act regulating railroad companies," passed the nineteenth day of February, Anno Domini eighteen hundred and forty-nine.

Title. SECTION 2. That the said company is hereby authorized and empowered to lay out, construct and operate a railroad from any point on the Northern Central railroad between the borough of York and the Maryland state line, eastward through the south-eastern portion of the county of York to the Susquehanna river, striking said river at any point between the mouth of Muddy creek and the Maryland state line, with power to cross said river and continue its line of railroad eastward through the county of Lancaster, and connect it in the county of Chester with any railroad leading towards the city of Philadelphia.

Route. SECTION 3. That the railway company hereby incorporated shall have power to construct such branch railroads as may be deemed necessary for the development of its business: *Provided*, That in no case shall any one of said branches exceed ten miles in length; and it shall have power to connect with the Hanover Branch railroad or the Gettysburg railroad, in the county of York, and cross with its main line at grade any railroad or railroads intersecting the route of its said main line.

Branches. SECTION 4. That the capital stock of said Peach Bottom Railway Company may consist of twenty thousand shares of fifty dollars each; and it shall be lawful for the said company,

Proviso.

Connections and crossings.

Capital stock.

Laws of PA – Peach Bottom Railway – Number 721 – March 24, 1868

upon a vote of the stockholders at any stated or special meeting convened for the purpose, to increase the capital stock of said company so many shares, and to such an amount as will enable said company to carry out successfully the privileges granted under this act.

SECTION 5. That the railway company hereby incorporated may, with the approval of the stockholders duly obtained, borrow money, bearing a rate of interest not exceeding seven per centum per annum, with which to complete and equip its main road and branches: *Provided*, That at no time shall the sum or sums of money so borrowed exceed in the aggregate two hundred per centum of the capital stock actually paid in.

SECTION 6. That said company shall organize and commence the construction of the main line of its road within three and completion years after the passage of this act, and complete said main line within ten years after the same shall have been commenced.

ELISHA W. DAVIS,
Speaker of the House of Representatives.

JAMES L. GRAHAM,
Speaker of the Senate.

APPROVED—The twenty-fourth day of March, Anno Domini one thousand eight hundred and sixty-eight.

JNO. W. GEARY.

As the train drew up to Greenbank Station, Mr. Cowell pointed out to us the extensive Spoke Mills of Messrs. Phillips & Bro. and at Faulkland the large Brick Spice Mills of Franklin, Fell and Sons, established in 1766. Mr. Fell is the present owner of the Brandywine Springs estate, once the most celebrated Summer resort in America. From far and near, people flocked to Brandywine to enjoy the beneficial effects of the waters of its mineral springs. Remains of Summer houses and arbors, which doubtless, had they the power of speech, could reveal many a secret whispered within their walls, can still be seen scattered through the once beautiful, but now deserted and neglected grounds. The R. R. now wends its noisy way through the ancient park, and the scream of the Locomotive echoes where once only the merry voice of pleasure seekers was heard.

At Wooddale are located Alan Wood's Rolling Mills, where great quantities of galvanized iron are yearly manufactured. Just beyond is Cuba Hill, said to be the highest elevation in the State. At its base are Speakman's Flour Mills, and at Ashland, only ten minutes ride from Mt. Cuba, are Sharpless' Flour Mills, and near thereto W. E. Garrett's celebrated Upper and Lower Snuff Mills. These are the most extensive works for the manufacture of Snuff in the United States. The tax annually paid by Mr. Garrett on his manufacture amounts to \$22,000 per month.

Near here Mr. C. called our attention to a Tank House, to which water was conveyed from a spring on the hill back of the house by means of a pipe, which he had laid under the ground, thus furnishing for the use of the Iron Horse, a constant supply of excellent water, without any expense to the company for pumping machinery.

Thus far the Railroad has followed the Valley of Red Clay Creek, crossing that winding stream eleven times, by means of as many bridges, but at Auburn it leaves the Red Clay, and enters the "Kaolin Valley." At this place are located Trucks and Parker's great "Diamond State Kaolin Mills," from which immense quantities of white clay are annually shipped to the Trenton, N. J. Potteries, for the manufacture of Porcelain and Queensware. A short distance from these mills on Graham's Summit, are "Graham's Kaolin Works," and just beyond, "Lacy & Co's Kaolin Works," so that the digging of clay is a great business in this valley.

We next enter Hockessin Valley, whence are obtained great quantities of excellent Lime and Marble. Here are situated the "Jackson Lime Quarries," the value of which are duly appreciated by all house-keepers on the return of every house cleaning and white washing season.

December 21, 1872 article from the Middletown Transcript. (Tom Gears Collection).

A Supplement

To an act to incorporate the Peach Bottom Railway Company.

Repeal of portion of act of incorporation.

President and directors may borrow money, mortgage road and issue bonds.

May open bridge across Susquehanna to general travel.

SECTION 1. *Be it enacted by the Senate and House of Representatives of the Commonwealth of Pennsylvania in General Assembly met, and it is hereby enacted by the authority of the same,* That the proviso contained in the fifth section of the act, entitled "An Act to incorporate the Peach Bottom Railway Company," approved the twenty-fourth day of March, Anno Domini one thousand eight hundred and sixty-eight, be and the same is hereby repealed, and that the president and directors of said company, with the consent of the stockholders thereof, are hereby authorized and empowered to borrow any sum or sums of money, not exceeding sixteen thousand dollars per mile, in the aggregate, for each and every mile of said main road and branches actually located and adopted by the president and board of directors aforesaid, and to mortgage the same or any parts thereof, and issue bonds therefor, bearing a rate of interest not exceeding seven per cent. per annum: *Provided*, The mortgage or mortgages given to secure the payment of said bonds shall be the first lien upon the part or branch of the road for which it is given.

SECTION 2. That the said railway company is hereby granted the power to open any bridge it may hereafter build across the Susquehanna, under the provisions of an act to which this is a supplement, to general travel, and charge such usual rates of toll as may be fixed upon by the president and directors aforesaid.

WILLIAM ELLIOTT,
Speaker of the House of Representatives.

JAMES S. RUTAN,
Speaker of the Senate.

APPROVED—The twenty-ninth day of March, Anno Domini one thousand eight hundred and seventy-two.

JNO. W. GEARY.

The Pusey & Jones Company
WILMINGTON, DELAWARE,
BUILDERS OF
PULP and PAPER

Machinery

ALL MACHINERY REQUIRED FOR
SULPHITE PULP, SODA PULP, }
GROUND WOOD, }
PULP BOARD, STRAW BOARD, }
Mills.
SOLE AGENTS FOR THE
SOLOMON BRUNCKER SULPHITE PATENTS.
SEAMLESS WELDED DIGESTERS
FURNISHED ONLY BY
The Pusey & Jones Company
WILMINGTON, DELAWARE.

Pusey & Jones Company was one of the largest employers in Wilmington. They operated in three major business areas; railroad cars, iron-hull (and eventually steel) shipbuilding, and pulp & paper. The company began in 1848 as a small machine shop but was soon building wooden ships and constructed the first U.S. built iron-hulled ship, a schooner named 'Mahlon Betts', in 1854. The company became the largest shipbuilder in the U.S. in the later 1800s and again during World War I. By 1887 they were constructing steel-hulled ships.

In 1867 Pusey & Jones built their first papermaking machines beginning with a pair of 86-inch Fourdrinier machines for Rockland Paper Mills (eventually Jessup & Moore Paper Company) north of Wilmington. Pusey & Jones papermaking equipment was shipped worldwide. While best known for their papermaking equipment and iron and steel hulled ships, Pusey & Jones also constructed railroad sleeping and parlor coaches specializing in narrow-gauge cars during the 1800s.

Three of Pusey & Jones yachts are still sailing having lasted longer than the company which closed in 1959.

A further Supplement

To an act to incorporate the Peach Bottom Railway Company.

SECTION 1. *Be it enacted, &c.*, That the second section of the act of incorporation of the Peach Bottom Railway Company, approved the twenty-fourth day of March, Anno Domini one thousand eight hundred and sixty-eight, shall be and is so far altered and supplied as to authorize and empower the said company to lay out, construct and operate the main line of its railroad to the town of Berlin, in the county of Adams.

May construct and operate the main line to Berlin.

SECTION 2. That it shall be lawful for the court of common pleas of the proper county, in the selection of viewers for the assessment of damages, under the provisions of the charter of said company and the general railroad laws of this commonwealth, to appoint resident freeholders in any part of said commonwealth.

Viewers of damages, how selected.

APPROVED—The 7th day of April, A. D. 1873.

J. F. HARTRANFT.

WILMINGTON & WESTERN RAILROAD — TIME TABLE									
On and after MONDAY, October 21st, 1872, trains leave as follows:									
WEST.					EAST.				
No. 1.	2.	3.	No. 1.	2.	3.	A. M.	P. M.	A. M.	P. M.
8 15	10 30	6 25	Wilmington,	3d St depot,	8 00	3 05	5 30		
			Market St.	depot,	7 55	3 00	5 25		
8 25	10 40	6 35	Kiamensl.	7 40	2 20	5 05			
9 02	10 48	6 50	Green Back,	7 43	2 16	5 03			
9 09	11 02	6 57	Faulkland.	7 29	2 08	4 49			
9 17	11 06	7 01	Wooddale,	7 23	1 56	4 43			
9 29	11 12	7 07	Mount Cuba,	7 7	1 44	4 47			
9 41	11 18	7 13	Ashland,	7 10	1 39	4 40			
9 53	11 25	7 20	Auburn,	7 00	1 10	4 30			
10 13	11 35	7 30	Hockessin,	6 52	12 54	4 22			
10 29	11 43	7 38	Southwood,	6 45	12 40	4 15			
10 43	11 50	7 45	Broad Run,	6 37	12 30	4 07			
10 57	11 58	7 53							
			P. M.	P. M.					
11 07	12 05	8 00	Landenberg,	6 30	12 20	4 00			
Trains leaving Wilmington at 10 40 a. m. and 6 35 p. m. connect with trains leaving Philadelphia at 8 30 a. m. and 5 p. m.									
The 10 40 a. m. train also connects with the Delaware R. R. and P. W. & B. R. R. trains arriving in Wilmington at 10 15 and 10 25 a. m.									
Trains leaving Landenberg at 6 30 a. m. and 4 00 p. m. connect with the trains for Philadelphia, leaving Wilmington at 8 10 a. m. and 5 42 p. m., and the Delaware train south, leaving Wilmington at 6 25 p. m.									
Omnibus transfer between W. & W. and P. W. & B. depots, and cars of Wilmington City R. R., at Front and Market streets, by McMullen & Seal, at 5 cents for each passenger, and 5 cents for each piece of baggage.									
Oct 26th									
M. C. CONWELL, Sept.									

First Wilmington & Western Timetable published in the Wilmington Evening Journal.

The Delaware R.R. mentioned refers to the Wilmington & Western's Landenberg connection with the Pennsylvania & Delaware Railroad formed in 1868. After several additional mergers and name changes, the Pennsylvania & Delaware Railroad became the Pomeroy & Newark Railroad in December 1881. It eventually became part of the Pennsylvania Railroad.

The P.W.&B.R.R. refers to the Philadelphia, Wilmington & Baltimore Railroad that ran through Wilmington which eventually became part of the Pennsylvania Railroad.

The Wilmington City R.R. refers to the Wilmington City Railway Company which was the first horse-drawn street railway in Wilmington (1864). It was formed by Joshua T. Heald who also spearheaded the development of the Wilmington & Western Railroad Company.

(Tom Gears Collection)

WWRR Financial Data – 1872 to 1878

Delaware & Chester County Railroad to Delaware Western Railroad Years

Financial and operating data related to the Wilmington & Western Railroad Company and its immediate predecessor, Delaware & Chester County Railroad Company, and its successor, the Delaware Western Railroad Company, is confined to government, legal, financial, and newspaper records as a complete historical file of either company is not known to exist.

After stock control of Delaware Western was obtained by the Baltimore & Philadelphia Railroad which was formed by the Baltimore & Ohio Railroad, historical recordkeeping remained much as it had been. Delaware Western Railroad operations were profitable as the company no longer had the burden to pay the construction bond interest along with stock dividends.

By the late 1870s the Long Depression was ending, kaolin mining was now occurring at multiple sites around Hockessin, The Garrett Snuff mills had added sidings for their new mill buildings, the Marshall brothers were receiving tons of cotton rags for making paper which they shipped to Wilmington vulcanized fibre makers by rail, and other mills on the Red Clay were returning to prosperity.

After the B&O completed construction of what became known as the Philadelphia Division (which now included the former Wilmington & Western right-of-way), the now named Landenberg Branch's operational and financial data was consolidated into the B&O's overall Philadelphia Division reporting. It wouldn't be until Historic Red Clay Valley began operating on the line in 1966, and took ownership of the line in 1984, that passenger and freight data records specific to the branch were kept. Those records are beyond the scope of this monograph.

Below are operational and financial data for the years 1872 through 1878. This data includes the formation of the Wilmington & Western Railroad Company, the company's three years in receivership, and the first year of Delaware Western Railroad Company operation. This information was compiled from the "Annual Report of the Auditor General of the State of Pennsylvania" or "Annual Report of the Secretary of Internal Affairs of the Commonwealth of Pennsylvania".

Another excellent source is the "Manual of the Railroads of the United States". The publisher's name was added in 1895 changing the publication to "Poor's Manual of the Railroads of the United States". In 1919 Moody's absorbed Poor's and financial information related to the railroads was published as "Moody's Manual of Railroad and Corporation Securities".

While the layouts differ from year to year, the annual publications begin with an excellent overview of the railroad industry for the preceding year. The publications include many railroad related ads for companies associated with railroading as well as route maps for the major lines.

While data is mostly from the Pennsylvania Annual Reports as they are the most extensive, where applicable Poor's information has been used. Where data was not available, gray italic entries are estimated as the average of the previous two years' and following year's data. Blank entries indicate data not present and not able to be estimated.

As you review each of the entries, please keep the following in mind:

- There are variations as to how data is presented in various publications. For example, the total length of the line may differ. In 1867 the line was envisioned to connect Wilmington with Oxford but with the 1869 reorganization the distance was cut back to Landenberg. Some sources may cite the line's length as 35 or 36 miles reflecting the intention to connect Wilmington, DE with Oxford, PA. History tells us the line was officially 19.92 miles long connecting Wilmington, DE with Landenberg, PA.
- Ground was broken for the start of construction, on July 8, 1871, and road between Wilmington and Landenberg opened for public business October 23, 1872. The envisioned extension from Landenberg to Oxford had not yet located. With the nation's financial difficulties developing soon after the railroad began operations, the idea was dropped. Several preliminary surveys and been made but no route had yet been established. Indications are that a final Landenberg to Oxford route was slated be determined during the coming spring or summer of 1873.
- Initially the line was constructed using 56-pound (pounds per yard of length) cast iron rail. Steel rail was being developed at the time of the railroad's construction and while not used initially, the branch line was converted to steel rail in the late 1880s after the Baltimore & Philadelphia Railroad began routine operations between Philadelphia, PA and Baltimore, MD. Typically, sidings were left iron rail as they were not heavily used or traveled. Conversion of the main branch line to steel rail occurred selectively with iron rail breakage and with the 1890s upgrades for increased freight car loadings.
- The entries for "carried one mile" in reference to passengers or freight (in tons) are financial metrics allowing for comparisons between companies. A passenger, for example, could travel from Wilmington to Greenbank, or Hockessin, or to Landenberg. That passenger shows up as a single passenger carried without respect to distance. By including the "passengers carried one mile" data, performances of different railroads can be compared.
- The 1873 Data shows operating results since opening on October 19, 1872; the first year of operations. The line cost \$796,516.51 to construct. Note that in the first year of operations the railroad did not earn enough to cover expenses; Receipts: \$34,135.73; Expenses: \$37,859.55.
- The Financial Panic of 1873 resulted in the failure of fifty-five railroads in 1873 and another sixty railroads failed in 1874. Runaway inflation and a trade deficit placed the country in what became referred to as the Long Depression. Over 18,000 businesses failed and unemployment in the century old nation hit 8.25%. The

nation, along with the rest of the world suffered the effects of the Long Depression lasting into 1879. The Long Depression was triggered by several events including the U.S. eliminating silver as a co-currency standard leaving gold as the monetary standard. Failure of several U.S. banks and general oversupply from strong economic growth after the Civil War are also cited causes contributing to the event.

- The Wilmington & Western Railroad handled passengers and freight associated primarily with the following railroad stations: Kiamensi/Marshallton (Kiamensi Woolen Mills and Marshall Iron Rolling Mills), Greenbank (Phillips Spoke & Carriage Factory, Kiamensi Spring Water), Faulkland (Brandywine Springs Hotel & Chalybeate Springs, Fells Spice Mill), Wooddale (Delaware Iron Works rolling mill, Biedermann's Spring Hill Brewery, Leach rock quarry), Mt. Cuba (picnic/park, Speakman Mills), Ashland (Sharpless flour mill), Yorklyn (Garrett Snuff Mills, Clark Woolen Mill (Marshall Brothers Paper Mill after 1890)), Hockessin (general store including lumber and coal); Southwood (Kaolin and Limestone quarries,), Eden/Broad Run, PA (limestone quarries, milk shipments), Landenberg (General Store, Feed/Grain businesses, carload transfer point with the Pennsylvania Railroad).
- See the Postscript: 1877 to 2019 for a summary of important historical financial and operational history notes. The B&O was a well-documented railroad and numerous historical books and records are available related to its operations.

The entries in the various publications mentioned above include physical details of the line including rolling stock, financial and operational data, and the company's officers. Presented as a table, the reader gains insight into Wilmington & Western monthly operations. Below are some additional data that was presented as part of the documentation in Poor's and Mood's reports.

Number of stations – 12

Number of bridges/trestles – 14; Feet of bridges/trestles – 1,837

Number of Culverts – 26; Feet of culverts – 394

1873 – February 8th, Brakeman John T. Johnson injured while coupling cars at Landenberg, PA. Died afterwards from the effects of the injuries sustained.

1874 – Chief Engineer's position abolished in March. John G. Jackson laid off. Duties assigned to the General Superintendent who was David Connell.

1875 – December 7th, William M. Canby appointed receiver by United States District Court.

1877 – The property and effects of the Wilmington & Western Railroad were transferred effective May 1st from the hands of William M. Canby, receiver, to the Delaware Western Railroad Company. Bought a locomotive for \$2,305.00.

Report for Year Ending	12/31/1872	10/31/1873	10/31/1874	10/31/1875	11/30/1876	12/31/1877	12/31/1878
D&CCRR-WWRR	WWRR	WWRR	WWRR	WWRR-Receiver	Receivership	Receiver-DWRR	DWRR
\$50 Par Stock Subscribed	\$253,850.00	\$253,850.00	\$253,850.00	\$253,850.00	\$253,850.00	\$248,400.00	\$248,400.00
Stock Shares Issued	\$4,887.00	\$4,958.00	\$4,958.00	\$4,973.00	\$4,973.00	\$4,968.00	\$4,968.00
Capital Stock Paid In	\$244,380.00	\$248,807.50	\$249,032.50	\$249,503.50	\$249,503.50	\$248,400.00	\$248,400.00
\$50 Par 7.3% 1st Mortgage Bonds Due 1/1/1892	\$400,000.00	\$451,831.99	\$500,000.00	\$500,000.00	\$500,000.00	\$50,00	\$50,00
Floating Debt	\$52,799.00	\$91,588.74	\$133,223.74	\$163,467.04	\$205,872.39	\$0.00	\$0.00
Floating & Funded Debt	\$452,799.00	\$643,430.73	\$633,223.74	\$665,746.04	\$705,872.39	\$0.00	\$0.00
Dividends Paid @ 1%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$2,484.00
Construction Cost	\$594,740.65	\$720,206.76	\$723,360.92	\$722,103.26	\$723,076.52	\$742,203.79	\$742,203.79
Equipment Cost	\$87,487.49	\$76,309.75	\$76,567.72	\$74,617.32	\$74,617.32	\$74,617.00	\$74,617.00
Total Construction & Equipment Costs	\$682,228.14	\$796,516.51	\$799,928.64	\$796,720.58	\$797,693.84	\$816,820.79	\$816,820.79
Value of Real Estate Held (No R.O.W.)	\$88,550.00	\$45,038.59					
Total Passenger & Freight Miles	7,280.00	38,686.00	35,050.00	32,075.00	34,840.00	28,170.00	28,940.00
Through Passengers (Wilmington/Landenberg)	1,813.00	4,952.00	6,907.00	5,927.00	9,418.00	8,017.00	7,105.00
Total Passengers (Report Period)	7,001.00	39,308.00	39,142.00	32,646.00	32,044.00	28,297.00	24,957.00
Passenger Miles Carried One Mile		373,246.00	415,975.00	246,718.00	456,816.00	381,219.00	331,357.00
Through Gross Freight Tonnage (Report Period)			13,625.00	47,137.00	59,473.00	72,218.00	60,785.00
Gross Freight Tonnage (Report Period)	1,998.00	20,303.00	111,228.00	59,981.00	75,820.00	88,218.00	81,622.00
Freight Tons Carried One Mile		250,375.00	332,320.00	1,095,007.00	1,401,903.00	1,644,659.00	1,477,936.00
Passenger Rate per Mile (cents)	3.5 & 4	3.5 & 4	3.5 & 4	3.5 & 4	3.5 & 4	3.5 & 4	3.5 & 4
Freight Rate Per Mile (cents)	5	5	5	5	5	5	5
Passengers Hauled - All Classes							
January	1,904	1,517	1,503	1,624	1,677	1,283	
February	1,680	1,358	1,089	1,452	1,701	1,812	
March	2,434	1,876	1,100	1,583	1,904	1,485	
April	2,647	1,349	1,267	1,461	1,573	2,008	
May	2,825	1,567	1,487	2,206	2,086	1,817	
June	3,693	2,366	1,256	3,345	2,724	1,897	
July	5,599	3,020	1,859	3,698	3,660	2,686	
August	5,080	2,614	2,839	2,807	3,583	2,800	
September	3,873	2,002	2,427	3,567	3,307	2,686	
October	608	2,574	1,735	2,172	3,512	2,262	2,425
November	3,397	2,169	1,735	1,637	2,996	1,888	1,683
December	2,996	2,426	1,912	2,163	2,001	1,929	2,373
Total	7,001	36,904	23,051	20,799	30,252	28,294	24,955
Freight Hauled							
Anthracite Coal	612	3,819	1,624	2,294	2,922	3,009	2,908
Bituminous Coal			8,563	37,805	47,757	56,427	49,427
Petroleum Products	1	1,673	1,692	21	76	79	121
Iron Products	123	1,692	912	1,982	6,361	10,106	4,414
Stone & Lime		1,004	1,026	968	1,376	1,985	1,625
Agricultural Products	39	887	9,758	740	2,297	1,096	1,169
Merchandise & Manufactured	227	2,522	4,767	7,489	4,134	5,343	7,354
Lumber	140	321	2,472	3,106	1,860	2,814	3,834
Kaolin	692	8,112	4,022	5,576	6,291	7,352	10,762
Total (Tons)	1,834	20,030	33,144	59,981	75,024	88,211	81,614

HRCV volunteers donated their time to prepare this publication. Please consider a donation to HRCV as a thanks for their efforts and to insure our future.

Report for Year Ending	12/31/1872	10/31/1873	10/31/1874	10/31/1875	11/30/1876	12/31/1877	12/31/1878
	D&CCRR-WWRR	WWRR	WWRR	WWRR-Receiver	Receivership	Receiver-DWRR	DWRR
Equipment							
Number of Engines	4	3	3	2	2	3	3
Passenger Cars (\$4,625.00 each)	3	3	3	3	3	3	3
Baggage/Mail/Express Cars (\$3,925.00 each)	2	2	2	2	2	2	2
Box Cars (\$802.00 each)	10	10	10	10	10	10	10
Gondola (\$703.50 each)	10	10	10	10	10	10	10
Flat (\$650.00 each)	10	10	10	10	10	10	10
Value of Real Estate Held (No ROW)	\$88,550.00	\$45,038.59	\$45,038.59	\$45,048.53		\$4,990.32	
56 Pound Iron Rail - Main	19.92	19.92	20	20	20	20	20
56 Pound Iron Rail - Sidings	2.31	2.4	2.39	3.3	4.3	4.55	
56 Pound Steel - Rail Main	0	0	0	0	0	0.25	
Real Estate & Machinery Expense							
ROW/Building Repair/Maintenance/Taxes	\$1,880.58	\$7,525.93	\$6,701.72	\$11,026.17	\$11,751.05	\$23,594.45	\$11,748.50
Engine/Fender Repair	\$462.27	\$824.87	\$220.71	\$2,830.63	\$362.33	\$575.01	\$683.93
Passenger/Freight Repair	\$236.23	\$954.20	\$412.31	\$619.95	\$1,504.56	\$1,381.57	\$954.02
Oil, Fuel, Watchmen, Clerks	\$436.96	\$436.96	\$304.27	\$181.16	\$90.32		
Real Estate & Machinery Total	\$2,620.04	\$9,741.96	\$7,639.01	\$14,657.91	\$13,708.26	\$25,551.03	\$13,386.45
Operations Expense							
Office Expense	\$79.75	\$3,641.29	\$1,918.39	\$2,292.66	\$1,311.23		
Agents & Clerks	\$526.12	\$6,298.46	\$5,465.81	\$6,293.03	\$4,095.09		
Engine/Train Crews	\$1,273.54	\$6,566.79	\$2,100.65	\$3,198.00	\$8,968.20	\$11,355.39	\$11,741.34
Fuel	\$701.66	\$4,598.31	\$4,548.51	\$4,108.11	\$4,317.15	\$3,833.26	\$3,254.81
Oils & Waste	\$107.09	\$909.93	\$480.44	\$181.16	\$707.85	\$666.57	\$463.66
Freight & Baggage Losses	\$0.00	\$29.52	\$75.27	\$65.60	\$204.21		
Tolls (for PA operations)	\$60.00	\$383.15		\$2,598.63	\$1,327.59		
Property Damages	\$40.00						
General Superintendence	\$80.76	\$5,635.14	\$3,551.66	\$2,329.92	\$2,233.31	\$4,990.32	\$247.30
Contingencies	\$0.00	\$15.00			\$718.80		
Expenses Total	\$3,628.92	\$28,117.59	\$18,140.73	\$21,067.11	\$23,883.43	\$24,825.65	\$22,640.36
Total Operating Expenses	\$6,248.96	\$37,859.55	\$25,779.74	\$35,725.02	\$37,591.69	\$50,386.68	\$36,026.81
Interest on Bonds (7.3% annually)	\$4,048.98	\$32,983.74	\$26,500.00	\$36,500.00			
Taxes (All)		\$222.06	\$222.06				
Total Expenses	\$692,526.08	\$867,581.86	\$852,430.44	\$868,945.60	\$871,785.53	\$868,373.21	\$853,666.00
Construction Funding							
Stockholders	\$244,380.00	\$248,807.50					
Bond Sales	\$460,991.00	\$451,831.99					
Other Sources	\$5,892.47	\$95,877.02					
Accounts Receivable		\$3,751.36					
Construction Funding Total	\$711,263.47	\$800,267.87	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Number of Stations	12	12	12	12	12	12	12
Bridged - Number	14	14	14	14	14	18	18
Bridges - Feet	1,837	1,837	1,837	1,837	1,837	2,161	2,161
Culverts - Number	26	26	26	26	25	25	25
Culverts - Feet	394	394	394	394	370	370	370
Accidents	0	1	0	0	0	0	0

Report for Year Ending	12/31/1872	10/31/1873	10/31/1874	10/31/1875	11/30/1876	12/31/1877	12/31/1878
D&CCRR-WWRR	WWRR	WWRR	WWRR	WWRR-Receiver	Receiver	Receiver-DWRR	DWRR
\$50 Par Stock Subscribed	\$253,850.00	\$253,850.00	\$253,850.00	\$253,850.00	\$253,850.00	\$248,400.00	\$248,400.00
Stock Shares Issued	\$4,887.00	\$4,958.00	\$4,958.00	\$4,973.00	\$4,973.00	\$4,968.00	\$4,968.00
Capital Stock Paid In	\$24,380.00	\$248,807.50	\$249,032.50	\$249,503.50	\$249,503.50	\$248,400.00	\$248,400.00
\$50 Par, 7.3% 1st Mortgage Bonds Due 1/1/1892	\$400,000.00	\$451,831.99	\$500,000.00	\$500,000.00	\$500,000.00	\$50,00	\$50,00
Floating Debt	\$52,759.00	\$91,598.74	\$133,223.74	\$163,467.04	\$205,872.39	\$50,00	\$50,00
Floating & Funded Debt	\$452,799.00	\$54,430.73	\$663,223.74	\$663,467.04	\$705,872.39	\$50,00	\$50,00
Dividends Paid @ 1%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$2,484.00	
Construction Cost	\$594,740.55	\$720,206.76	\$723,360.92	\$722,103.26	\$723,076.52	\$742,203.79	
Equipment Cost	\$87,487.49	\$76,309.75	\$76,567.72	\$74,617.32	\$74,617.32	\$74,617.00	\$74,617.00
Total Construction & Equipment Costs	\$682,278.14	\$796,516.51	\$799,928.64	\$796,720.58	\$797,693.84	\$816,820.79	
Value of Real Estate Held (No R/W)	\$86,550.00	\$45,038.59					
Total Passenger & Freight Miles	7,280.00	38,688.00	35,050.00	32,075.00	34,840.00	28,170.00	28,940.00
Through Passengers (Wilmington/Landenberg)	1,813.00	4,952.00	6,907.00	5,927.00	9,418.00	8,017.00	7,105.00
Total Passengers (Report Period)	7,001.00	39,308.00	24,142.00	20,646.00	32,044.00	28,297.00	24,957.00
Passengers Carried One Mile		373,246.00	415,975.00	246,718.00	456,816.00	381,219.00	331,357.00
Through Gross Freight Tonnage (Report Period)			13,625.00	47,137.00	59,423.00	72,218.00	60,785.00
Gross Freight Tonnage (Report Period)	1,998.00	20,303.00	111,228.00	59,981.00	75,820.00	88,218.00	81,622.00
Freight Tons Carried One Mile		250,375.00	332,320.00	1,095,007.00	1,401,903.00	1,644,659.00	1,477,936.00
Passenger Rate per Mile (cents)	3.5 & 4	3.5 & 4	3.5 & 4	3.5 & 4	3.5 & 4	3.5 & 4	3.5 & 4
Freight Rate Per Mile (cents)	5	5	5	5	5	5	5
Passengers Hauled - All Classes							
January	1,904	1,517	1,503	1,624	1,677	1,283	
February	1,680	1,358	1,089	1,452	1,701	1,812	
March	2,434	1,876	1,100	1,583	1,904	1,485	
April	2,647	1,349	1,267	1,461	1,573	2,008	
May	2,825	1,567	1,487	2,206	2,086	1,817	
June	3,623	2,366	1,256	3,345	2,724	1,897	
July	5,599	3,020	1,859	3,698	3,660	2,686	
August	5,080	2,614	2,839	3,807	3,583	2,800	
September	3,873	2,002	2,427	3,567	3,307	2,686	
October	608	2,574	1,735	2,172	3,512	2,262	2,425
November	3,397	2,169	1,735	1,637	2,996	1,888	1,683
December	2,996	2,426	1,912	2,163	2,001	1,929	2,373
Total	7,001	36,904	23,051	20,799	30,252	28,294	24,955
Freight Hauled							
Anthracite Coal	612	3,819	1,624	2,294	2,922	3,009	2,908
Bituminous Coal			8,563	37,805	47,757	56,427	49,427
Petroleum Products	1	1,673	21	76	79	121	
Iron Products	123	1,692	912	1,982	6,361	10,106	4,414
Stone & Lime		1,004	1,926	968	1,376	1,905	1,625
Agricultural Products	39	887	9,758	740	2,297	1,096	1,169
Merchandise & Manufactured	227	2,522	4,767	7,489	4,134	5,343	7,354
Lumber	140	321	2,472	3,106	1,860	2,814	3,834
Kaolin	692	8,112	4,022	5,576	8,241	7,352	10,762
Total (Tons)	1,834	20,030	33,144	59,981	75,024	88,211	81,614

HRCV volunteers donated their time to prepare this publication. Please consider a donation to HRCV as a thanks for their efforts and to insure our future.

Valuation Map Land Ownership & Transfers

Below is a listing of all the property transfers recorded on Baltimore & Ohio Railroad 1918 Valuation Maps for the Landenberg Branch. There is a total of eight valuation maps for the Landenberg Branch when the valuation was issued in 1918. The V9.4-n (Delaware; 6 maps) and V8.3-n (Pennsylvania; 2 maps) cover the branch in each respective state. The last identifier is the map number. V9.4-3 is the 3rd valuation map in the six Delaware maps and covers the right-of-way from Spring Valley, through Mt. Cuba to east of Ashland.

It is interesting to note the number parcels of right-of-way that weren't legally settled until just before the valuation was issued. Any land parcel transactions after 1900 are indicated by a light gray field in the data below.

Customer Number	Transaction		Grantor to Wilmington & Western Railroad Company	NCC Deeds Record Book			Area Transferred	
	Instrument	Date		Book	Page	Date	Square Feet	Acres
V9.4-1	Delaware							
1042	Release	9/5/1871	Samuel Cranston	K-21	424	7/12/1907	550	0.01
1045	Release	9/20/1871		M-26	429	3/8/1917		
	Deed	9/16/1872	James Cranston	W-9	134	2/13/1873	184,800	4.24
	Deed	10/16/1872		X-9	103	2/13/1873		
1046	Deed	1/6/1916	Delaware Hard Fibre (B&PRR)	X-25	532	3/21/1916	219,240	5.03
1060	Condemned	8/3/1871	John J. Flinn	Prothonotary Office		3/8/1917	61,745	1.42
1061	Release	1870	William G. Phillips & Brothers				35,278	0.81
1062	Release		John Robinson				30,672	0.70
1064	Condemned	2/12/1872	Franklin Fell	Prothonotary Office		3/8/1917	185,697	4.26
	Deed	11/19/1872		U-9	184	11/20/1872	10,890	0.25
1044	War Deed	7/10/1918	Hugo Fuchsig (B&PRR)	V-27	245	8/17/1918	248,553	5.71
V9.4-2	Delaware							
1065	Deed	8/30/1872	John Jordan	W-9X-9	132			
	Mortgage Release		Samuel Lindsay, Executor		112	2/13/1873	157,252	3.61
1066	Release	1/30/1873	J. Paulson Armstrong	X-9	116	2/13/1873		
1067	Release	9/26/1871	John Peoples	M-26	431	3/8/1917		
			Wilmington & Lancaster Turnpike	-	-		3,150	0.07
1068	Release	7/10/1871	Edward Sandon	B-20	541	12/7/1904	72,378	1.66
1069	Release	1/16/1871	Christopher Columbus West				1,830	0.04
1080	Deed	9/2/1872	Alan Wood	T-9	154	9/18/1872	185,772	4.26
1082	Release	1870	Joseph Leach	SH 3			65,776	1.51
V9.4-3	Delaware							
1083	Release	9/16/1871	Joshua L. Pusey, Trustee.	W-9	128	2/13/1873		
				M-26	433	3/8/1917	51,660	1.19
1084	Release	10/11/1871	Joshua B. Barker	M-26	435	3/8/1917	84,675	1.94
1085	Deed	9/26/1871	Thomas S. Vandever	M-9	14	9/18/1871		
		12/28/1872		M-26	421	3/8/1917	244,748	5.62
1086	Deed	4/1/1872	John N. Speakman	M-26	437	3/8/1917	61,420	1.41
1087	Release	5/26/1917	Jacob Chandler	T-26	570		31,674	0.73
	Deed		L.R. Chandler					
1088	Release	8/19/1871	Jonathan P. Mason	M-26	439	3/8/1917	229,561	5.27
V9.4-4	Delaware							
1100	Release	9/16/1871	Thomas B. Johnson	M-26	441	3/8/1917	12,456	0.29
1101	Release	7/21/1870	A. & J. Sharpless				103,126	2.37
1102	Deed	6/1/1871	David M. Brown	L-9	327	9/18/1871	255,362	5.86
1104	Release	4/2/1872	Samuel M. Green	M-26	443	3/8/1917		
	Deed			W-9	392	4/7/1892	78,072	1.79
1115	Release		William E. Garrett	M-26	445	3/8/1917	71,683	1.65
1116	Deed		John B. Dilworth	W-9	124105	2/13/1873	157,332	3.61
	Mortgage Release		Wilton & Lewis Agnew					
1117	Release		E. G. Barthelomew				56,192	1.29

Customer Number	Transaction		Grantor to Wilmington & Western Railroad Company	NCC Deeds Record Book			Area Transferred	
	Instrument	Date		Book	Page	Date	Square Feet	Acres
V9.4-5	Delaware							
1118	Release	9/19/1871	Samuel Sharpless	M-26	447	3/8/1917	192,535	4.42
1119	Release		Weeks, Louckett & Parker				35,808	0.82
1120	Release	12/31/1870	Stephen S. Wilson				57,499	1.32
1121	Agreement	6/25/1903	West Chester, Kennett and Wilmington Electric Railway Co.				For Overhead Bridge	
1135	Release	2/4/1870	Hamilton Graham				102,348	2.35
1136	Release	6/11/1871	Spencer Chandler				27,342	0.63
1137	Release Deed	2/21/1872	Israel Lacy Benjamin Fish	M-26 Q-9	451 486	3/8/1917 3/15/1872	69,760	1.60
1138	Deed	9/7/1872	Stephen Wilson	W-9	121	3/13/1873	62,151	1.43
1145	Release	1/11/1871	John G. Jackson				147,827	3.39

V9.4-6	Delaware							
1146	Release	11/9/1871 1/19/1906	Samuel F. Ewart Joshua Dixon	M-26 P-20	449 439	3/8/1917 1/23/1906	115,434	2.65
1147	Release	1/12/1870	Thomas Pierson				84,942	1.95
1148	Release	10/23/1871	Patrick Reardon	M-26	427	3/8/1917	34,302	0.79
1149	Release	7/29/1871	Thomas M. Eotor	B-25	137	6/15/1914	77,478	1.78
1150	Release	8/18/1871 9/5/1872	Evan Brown	T-9	39	9/27/1872	134,572	3.09
1151	Condemned	8/3/1871	Alvan Davis	Prothonotary Office		3/8/1917	58,806	1.35

V8.3-1	Pennsylvania							
1152	Condemned	8/3/1871	Thomas McIntire Samuel Moore	Prothonotary Office		3/8/1917	93,654	2.15
1153	Release	11/20/1871	William W. Walker	B-25	139	6/15/1914	38,090	0.87
1154	Release	8/17/1871	David M Brown	Book 41	274	2/8/1917	114,432	2.63
1155	Release	8/16/1871	Evan Brown (2/3rds interest is David Brown)	Book 41	274	2/8/1917	405	0.01
1156	Deed	8/24/1909	William N. Kelton	S13-V-315	273	9/1/1909	14,000	0.32
1157	Release	11/11/1871	James R. Cooper	Book 41	273	2/8/1917	16,322	0.37
1158	Release	2/9/1871	Pennook Palmer				30,000	0.69
1170	Release	12/17/1872	J. H. Hollingsworth	15	157	3/24/1873	54,180	1.24
1171	Release	9/4/1871	Sharpless Moore	Book 41	270	2/8/1917	133,096	3.06
1172	Release	10/2/1871	Benjamin W. Pusey	Book 41	270	2/8/1917	18,417	0.42
1173	Release Deed	7/5/1872 10/22/1873	David B. Nivin	Book 41 X-14	272 348	2/8/1917	182,345	4.19

V8.3-2	Pennsylvania							
1174	Release	1/19/1871	Joseph Fisher				61,420	1.41
1175	Release	12/6/1872	Martin Landenberger	Book 24	426	6/21/1892	68,769	1.58
1186	Release	11/16/1872	Charles Weiler	Book 41	272	2/8/1917	18,432	0.42

V9.4-2	To Historic Red Clay Valley Inc.							
1494	Agreement Bill of Sale Deeds	6/23/1982 8/11/1982 8/11/1982	Baltimore & Philadelphia Railroad and Baltimore & Ohio Railroad and CSX Transportation	G-119 Q-102	186 325	8/13/1982	3,151,130	72.34

1 Acre = 43,560 square feet

RELEASE – In the data above, a ‘release’ occurs when the landowner provides right-of-way passage to a railroad but retains ownership of the property. In the event the railroad ceases operation, the land remains owned by the original owner and not the railroad.

DEED – A ‘deed’ is transfers ownership of the right-of-way from the owner to the railroad. In the event the railroad ceases operation, the land is a railroad asset to be sold.

CONDEMNED – For entries showing ‘condemned’, it indicates the landowner was not interested in having the railroad cross their property. The railroad was required to go through a legal process to purchase the land parcel against the landowner’s will. As the owner is paid for the land, in the event of a railroad ceasing operations, the land is considered a railroad asset to be sold.

