

The Odyssey of Five Locomotives: 1835-1965

Benjamin F. G. Kline, Jr.

On October 21, 1864, this item appeared in the Lancaster newspaper: "The locomotive works, operated by J. A. Norris, has been contracted for delivery of five locomotives to the Western Pacific Railroad in California."

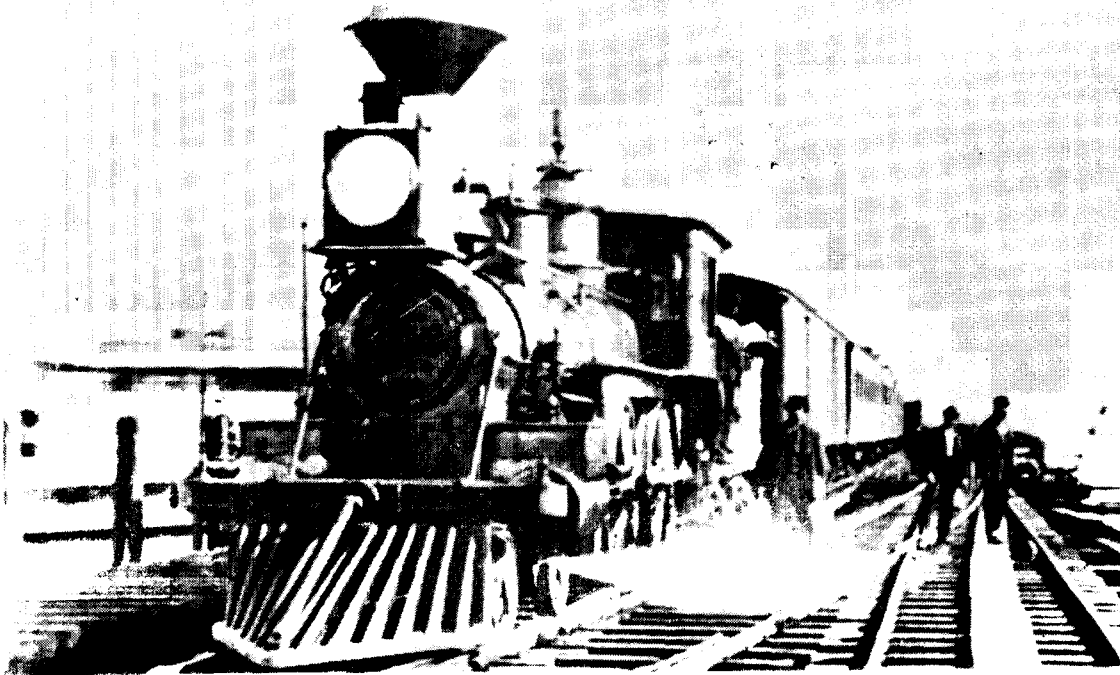
Let us examine this for more detail. First, the Western Pacific Railroad — chartered December 13, 1862 — in November 1869, was consolidated with the San Francisco Bay Railroad, which was chartered September 25, 1868. Following this consolidation, it retained the name of the Western Pacific Railroad until June 23, 1870, when it was in turn consolidated with the Central Pacific Railroad of California.

The consolidated line became a part of the Central Pacific Railroad of California. The Western Pacific Railroad and the San Francisco Bay Railroad linked Sacramento with Oakland and the San Francisco area. This provided the Central Pacific with a connection to the San Francisco area. The original Western Pacific was a line 123.45 miles in length; the consolidation with the San Francisco Bay Railroad Company added about 22.5 miles to this, giving the consolidated Western Pacific Railroad a total mileage of approximately 146 miles.

A sheet issued November 6, 1868 listed all Central Pacific motive power with their specifications. Also listed separately were the ten locomotives which were received from the Western Pacific Railroad. The first five are of no interest to us because they were Baldwin and Mason products. The remaining five were listed as being built by Norris of Lancaster, Pennsylvania.

Second, let us look at the builder. He was James Alexander Norris, one of the brothers of William Norris, who had built locomotives since almost the beginning of railroads in America.

James A. Norris acquired the facilities of the Lancaster locomotive works, which had been operated by John Brandt, Sr. from 1853 to 1857, and closed during the panic of 1857-58. Norris opened his works in 1863-



Western Pacific train at the Oakland Pier, date unknown. Norris-Lancaster Constr. No. 27. Wide steam chests identical with Stockton Terminal & Eastern No. 1.

Courtesy of Gerald M. Best Collection

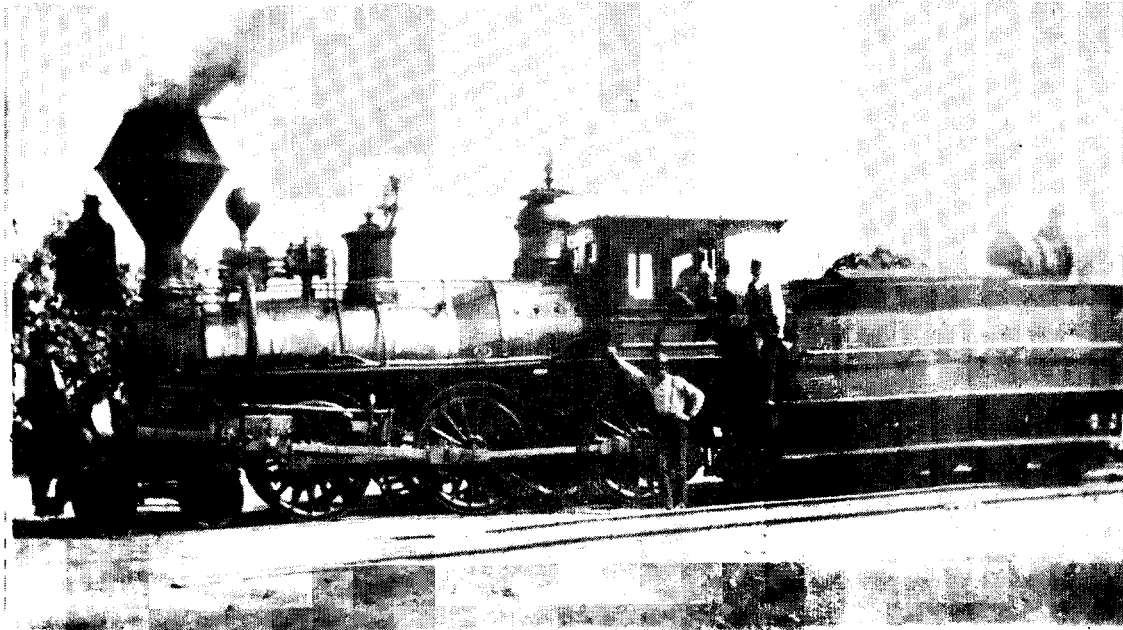
How he acquired the contract is unknown, but these are the five locomotives built:

"F" Merced	4 drivers,	Cylinders 16½ by 24	66" Diameter
"G" Mariposa	4 drivers,	Cylinders 16½ by 24	66" Diameter
"H" Sonoma	4 drivers,	Cylinders 16½ by 24	66" Diameter
"I" Industry	4 drivers,	Cylinders 16 by 24	60" Diameter
"J" Wm. Penn	2 drivers,	Cylinders 10 by 18	54" Diameter

We will examine these locomotives separately and uncover the history of each of these locomotives in the order in which they were listed on the Central Pacific Roster.

"F" THE MERCED. This engine is an example of a locomotive built as one wheel arrangement changed to another, then back to the original. It was built as a 4-4-0, then became C. P. 172 in 1868. In 1875 it was assigned as a fire-fighting engine for use in the numerous Sierra snowsheds. For this purpose a steam driven water pump was mounted on top of its boiler. To carry this increased weight, the wheel arrangement was changed to a 4-6-0. In 1876 it was changed again to a 4-4-0 arrangement. In 1890 the engine received a new boiler; it was renumbered 1284 in 1891 and again to 1522 in 1907. It finished its remaining days of service as a commuter engine. It was scrapped January 23, 1910.

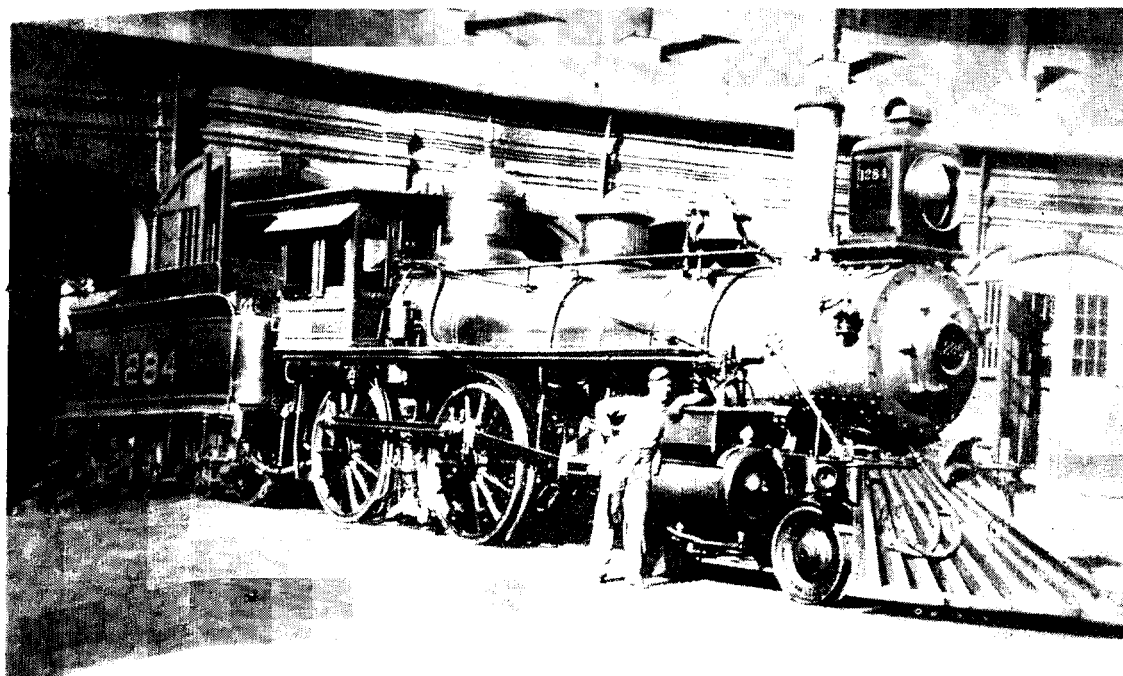
"G" MARIPOSA. This locomotive has the most varied history of the five J. A. Norris locomotives. It was Western Pacific "G", Central Pacific 2nd #31, then renumbered 1193, 2nd #1215 and #1488. It was then sold to the Stockton Terminal & Eastern as their #1 January 6, 1909. (This engine for many years was reportedly the oldest locomotive in service on a common carrier.)

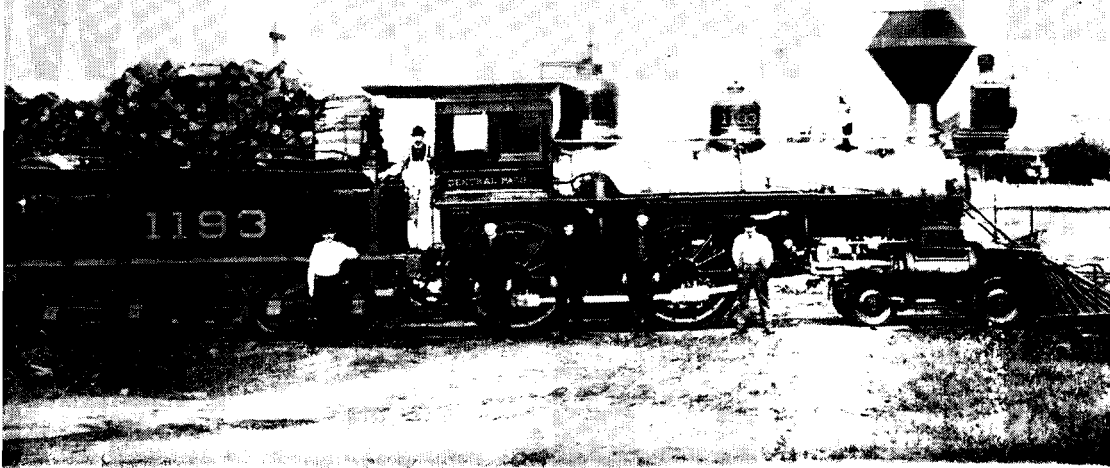


Norris-Lancaster No. 27, 1864. Western Pacific "F" Merced; rebuilt to 4-6-0 fire engine at Sacramento Shops 1870, back to 4-4-0 in 1878, Southern Pacific No. 1284 in 1901, Southern Pacific No. 1522 in 1906, scrapped 24 Jan. 1910.
Courtesy of Gerald M. Best Collection

Southern Pacific No. 1284, Oakland, California, 1901.

Courtesy of Gerald M. Best Collection





Norris-Lancaster No. 12, Western Pacific "G" Mariposa, Central Pacific 2nd No. 31, Central Pacific No. 1193, Southern Pacific 2nd No. 1215, Southern Pacific No. 1488, Stockton Terminal & Eastern No. 1, now at Traveltown, Los Angeles, California. Photo at Biggs, Calif. 1893

Courtesy of Gerald M. Best Collection

The engine was reboilered in 1893, but it kept the same machinery and tender as well as cab. Sometime in 1900 era, it was given a steel cab and converted to burn oil. The locomotive went into semi-retirement in 1947, and in 1955 its owner, Dr. John Hiss, did not know what to do with it. Mr. Gerald Best of Beverly Hills, California persuaded him to give it to Traveltown, a transportation display in Los Angeles, California.

The locomotive still has Lancaster wheel centers, counterbalance weights, cylinders, tender trucks, in fact, the entire chassis has come through to this time.

It is indeed surprising that a Lancaster built locomotive could have survived this amount of time. It would now be 101 years old. Many historians may claim it is no longer a Lancaster engine, but in answer to this, the original chassis remains, and this, I believe is the base of the locomotive. In comparison, the old General of the Western & Atlantic Railroad, later acquired by the Louisville & Nashville, has been altered even more than this locomotive.

"H" SONOMA. This engine until recently has a somewhat clouded history, having been credited for a long time to have been built by the Sacramento shops of the Central Pacific. However, discovery of the shops foreman records proved otherwise. For recorded within was a detailed description of what work was performed on each engine as it was shopped. The #173 was rebuilt from the Norris-Lancaster of the same number, but all that was used from the old engine was the frame, cylinders, wheel centers, tender and a few other miscellaneous parts. This is just about as complete as a rebuilding as a locomotive can get and still retain its original features.

However, it was not listed as a new engine, although the 12 other 4-4-0's they built at the same time were listed as new locomotives. The locomotive was numbered through its history as Western Pacific H., Gen-



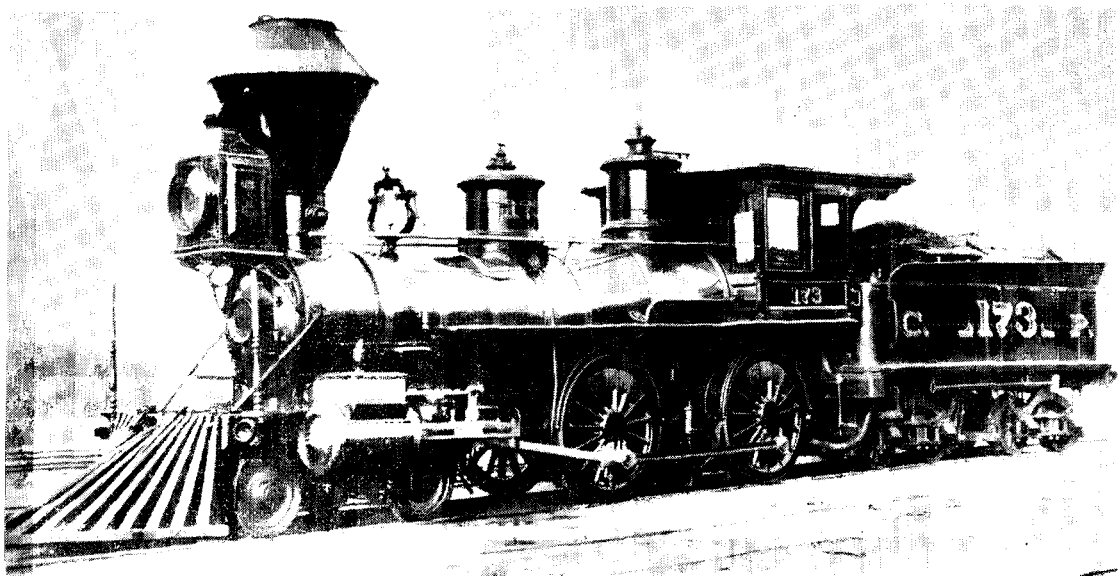
Stockton Terminal & Eastern No. 1, now at Traveltown, Los Angeles. This is the only Lancaster-built locomotive now in existence. Photo taken on 4 February 1965. Courtesy of Gerald M. Best Collection

tral Pacific #173, Southern Pacific #1385, then #1523, and was scrapped December 18, 1909.

As this engine was rebuilt in 1872, it was a perfect example of the art of locomotive building. It was so attractive that when Walt Disney was shown a photograph of this locomotive, he literally fell in love with it. He had a 2" scale model of it built first and this in turn served as the pattern for Santa Fe and Disneyland #1, which is a 3/4 full size locomotive that just recently turned over 125,000 miles. So it can be seen again that a Lancaster locomotive has served as more than a cold statistic in history. As a further footnote, Guy L. Duscomb states that the engine apparently was used off the Western Pacific property before the actual incorporation with the Central Pacific, inasmuch as old records state that the #173 was badly damaged in a collision on the Central Pacific near Verdi, Nevada in 1868, which may have been the reason for the complete rebuilding in 1872.

"I" THE INDUSTRY. This locomotive has the shortest history of the Lancaster engines. However, it is the only one we have a photo of as it appeared when built. It became Central Pacific's 2nd #25. (The original #25, named YUBA, was a McKay and Aldus engine built in 1866 that blew up at Clipper Gap, between Auburn and Colfax, California in 1868 and not rebuilt.) Second #25, the Norris-Lancaster engine, was converted to burn coal in 1870, reportedly the first coal burning locomotive in California. This locomotive was on the C. P. engine roster of 1878 but not later. There is no record of disposal and no trace has ever been found of the locomotive.

"J" THE WILLIAM PENN. One thing immediately stands out about this locomotive and that is its name. Whereas the other locomotives of this



Central Pacific No. 173, Norris-Lancaster Construction, No. 13, 1864. Ex-Western Pacific "H", Sonoma, rebuilt Sacramento, 1872.

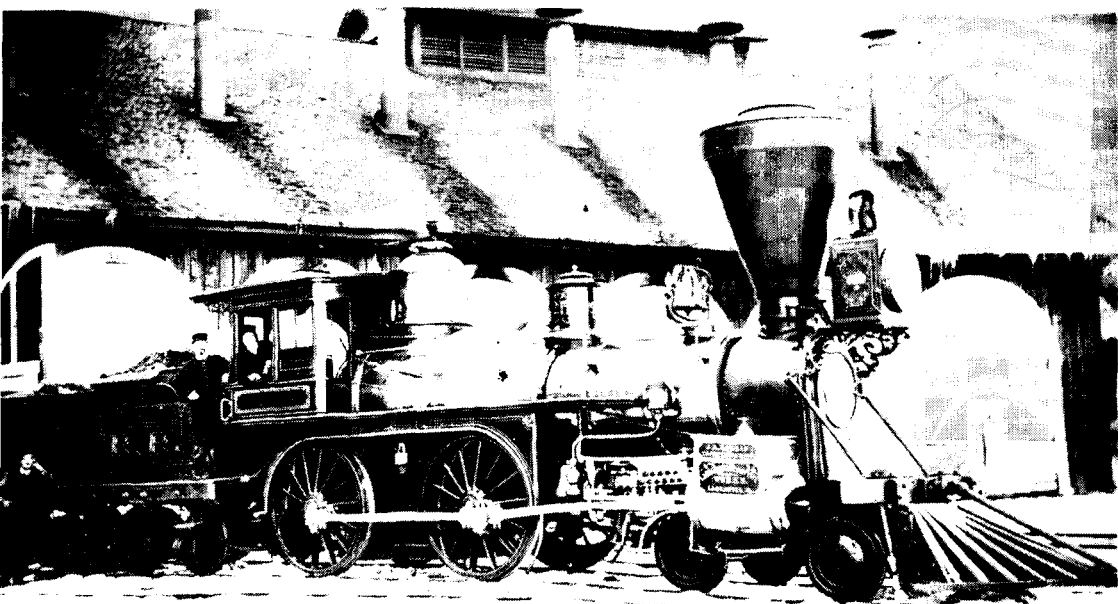
Courtesy of Gerald M. Best Collection

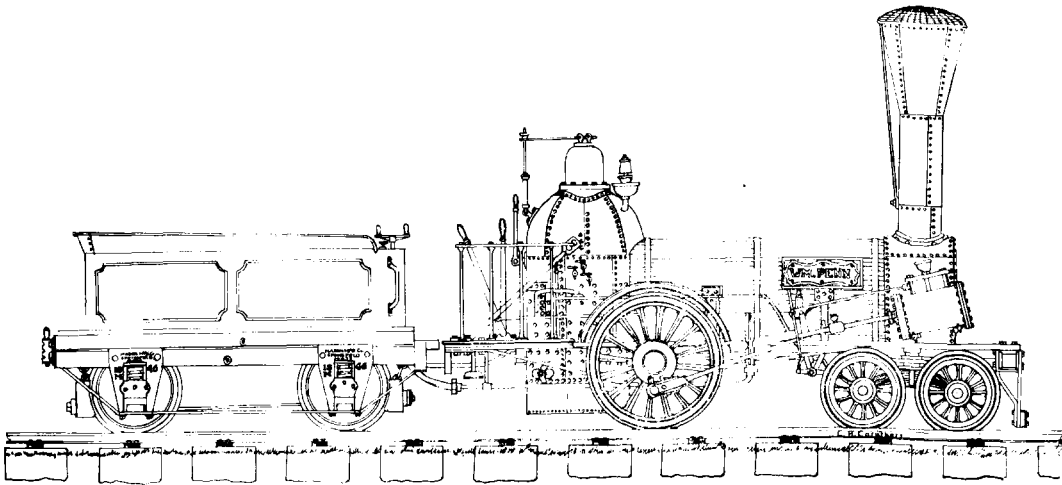
group are named for California cities or allegorical subjects this engine bears a name that could have only originated in Pennsylvania.

As we delve into this subject, we find that this locomotive is the most historical of all the locomotives listed.

We must now return to the earliest days of the railroad in the United States. The Philadelphia and Columbia was one of the pioneer railroads of our country. In October of 1835, the firm of William Norris, located at Bush Hill near Philadelphia, delivered to the Philadelphia and Colum-

Central Pacific 2nd No. 25, ex-Western Pacific "I" Industry, Norris-Lancaster Construction No. 14, 1864. J. Bourier, Engr., Pat Sheenee, fireman, at Terrace, Utah, 1869. Courtesy of Gerald M. Best Collection





The "William Penn" built in 1835 by William Norris of Philadelphia and rebuilt by J. A. Norris at the Lancaster Locomotive Works in 1864. The drawing is a C. H. Caruthers 1903 reconstruction of the "Wm. Penn" as it appeared in about 1846.

bia Railroad a locomotive named "The William Penn." This must have been one of the first locomotives built in this country. It was of the 4-2-0 wheel arrangement with the single pair of drivers placed forward of the firebox. Total weight of engine was 23,350 pounds.

It has been surmised that this locomotive was the prototype of the Norris engine "The George Washington," which in 1836 amazed railroad circles by pulling a loaded train up the Belmont Incline of the Philadelphia and Columbia Railroad near Philadelphia. Up to this time it was generally believed that a railroad had to be planned as nearly level as possible, with incline planes to surmount any sizeable grade. So doubtful was this performance, that "The George Washington" had to repeat this demonstration three times before credited witnesses before it was accepted as fact.

So rapid were improvements in locomotive buildings at this time, that the P. & C. report for the year ending October 31, 1837, says the William Penn had not been used for the last year, having been built before recent improvements. "Extensive changes were not recommended," so we have here a locomotive that within two years became obsolete.

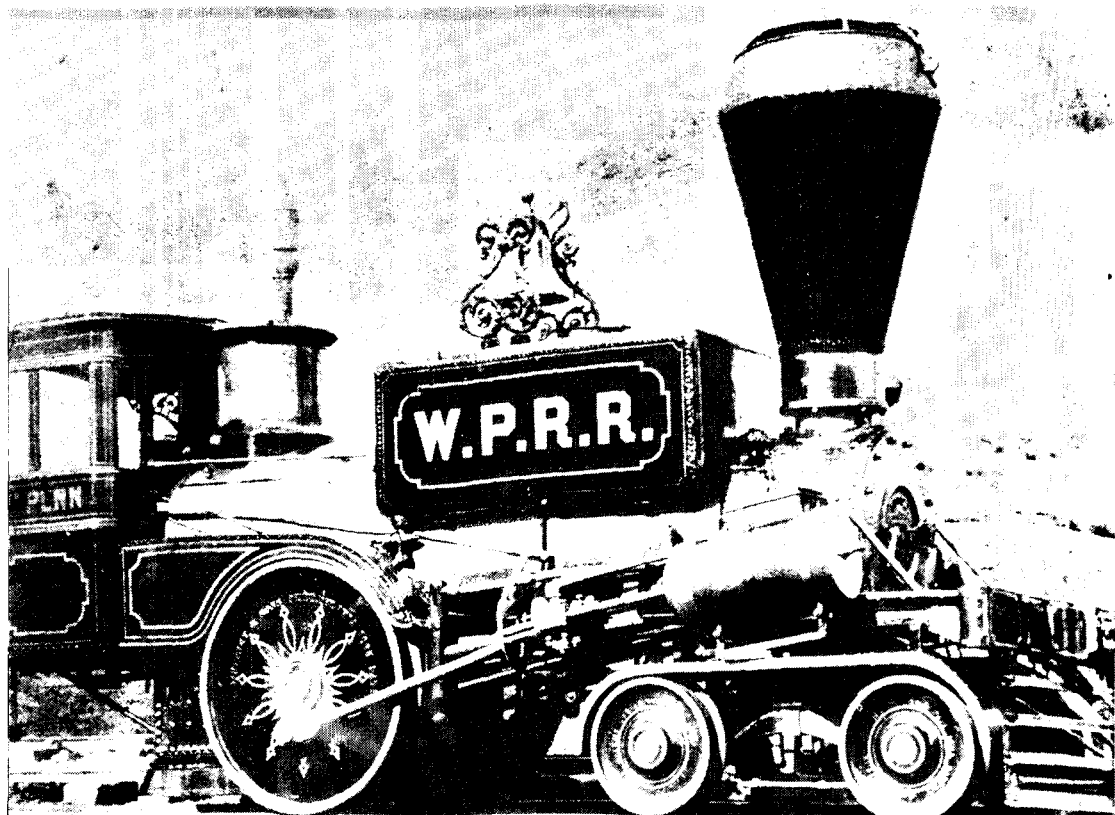
How did this locomotive escape scrapping? First, locomotives at that date were not so plentiful that a company could afford to scrap them. Second, there were then, as now, smaller companies looking for second hand engines. C. H. Caruthers published a drawing as it was to have appeared in 1846. By this date a tender built in 1846 had been added, because it is doubtful if the engine had one previous to this time. He lists it as P. R. R. #1.

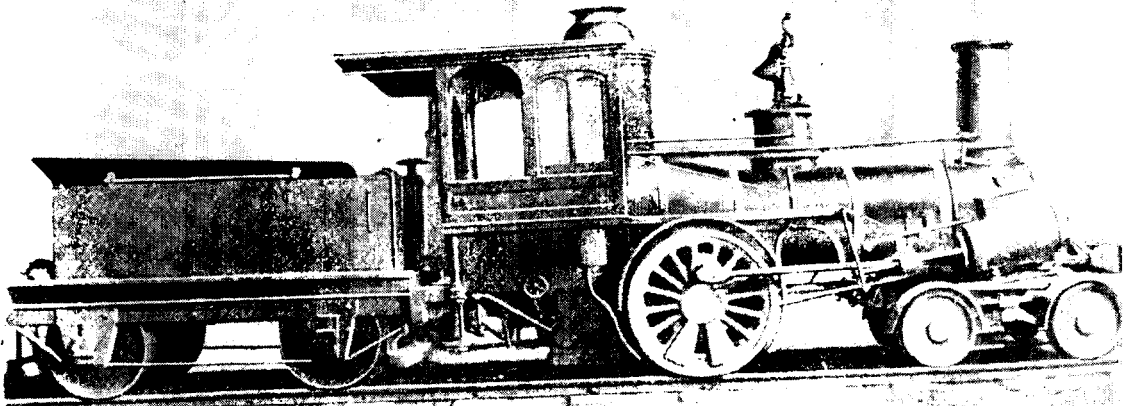
From 1846 to 1863, we come to a period we can only surmise as to what took place. In 1832, the Strasburg Rail Road was chartered, connecting with the P. & C. at Leaman Place, Pennsylvania, and running to the town of Strasburg. This Rail Road had many early troubles and for many years hauled freight by horsepower. In the 1840's (exact date unknown), it acquired by lease or purchase, "The William Penn." We know this is true for a Mr. Henry Frazer, a local man, reports in the September 1898 issue of "The Railroad and Locomotive Engineering" that he remembered this locomotive as far back as 1854. The engine was running on a little railroad in Lancaster County, Pennsylvania, which was called the Strasburg Rail Road, and was about four miles long, connecting Strasburg with Leaman Place, a station on the Pennsylvania Railroad. The name of the engine was "The William Penn." It was quite a grade up to Strasburg, and the writer "well remembers how they used to let her out on the main line of the Pennsylvania Railroad to get a run for the hill, with her little old four-wheel cars — two were her train — and I have seen her come back lots of times to get another run for the hill." At that time, she had an old balloon stack, two pumps, an old square sand box and a very dilapidated cab. Sometime, someone had put a cab on the engine.

In 1857, the P.R.R. bought out the Philadelphia and Columbia and

The "William Penn" as rebuilt by J. A. Norris, Lancaster, 1865. Sold to Western Pacific as "J" in 1866, to Central Pacific No. 175 about 1870, to Pacific Iron & Nail Co. in 1885.

Courtesy of Smithsonian Institution





Pacific Iron & Nail Co. locomotive at Oakland, California. Ex-Western Pacific "J" "William Penn". Acquired by Pacific Iron & Nail Co. December, 1885.

Courtesy of Gerald M. Best Collection

records show that several remaining 4-2-0's were then scrapped. Again the question arises, "How did 'The William Penn' escape?" The only answer can be because it was on the Strasburg Railroad, and the P.R.R. did not want to deprive a feeder railroad of its only motive power.

In 1859, the Strasburg Railroad reorganized and in 1863 purchased a locomotive from the Baldwin Locomotive Works. This released "The William Penn" from service on the Strasburg Railroad.

In 1863, James A. Norris reopened the Lancaster Locomotive Works, operating under his name. He built several locomotives, several for the Reading and Columbia, and in late 1864 received an order from the Western Pacific Railroad of Sacramento, California. Just what the circumstances were, we cannot be sure, nor are we certain what the order called for, however, five locomotives were delivered.

Why Norris built four new locomotives and rebuilt one is also unknown, and the greatest mystery is why "The William Penn"?

According to Henry C. Frazer, who served as an apprentice for Norris, "The William Penn" was brought to Lancaster and rebuilt. The driving wheels were made solid, (new drivers were purchased from A. Whitney & Son, Philadelphia) it received a square firebox and a cylindrical dome instead of the original horseshoe firebox and "Bury" haystack dome as built, the hook-motion valve gear was retained and certainly a new cab. An old photograph shows this engine with a saddle tank, but it is uncertain whether this is Norris or if it was added by Western Pacific.

These five locomotives, when completed, were loaded on a sailing ship and shipped around the "Horn" to the Western Pacific.

On arrival it was assigned the letter "J" and placed in service. When the Western Pacific was merged with the Central Pacific in 1868, "The William Penn" was assigned the number 175 about 1870. In the Central Pacific report of 1876, it is reported "out of service." At that time, the Central Pacific must have done some work on it for Frazer reported the engine was used for switching around the Sacramento car shop. This was short lived, for in 1883, the engine was in the "boneyard." About 1885, she was rebuilt about \$800 worth of work was done on it. Southern Pacific

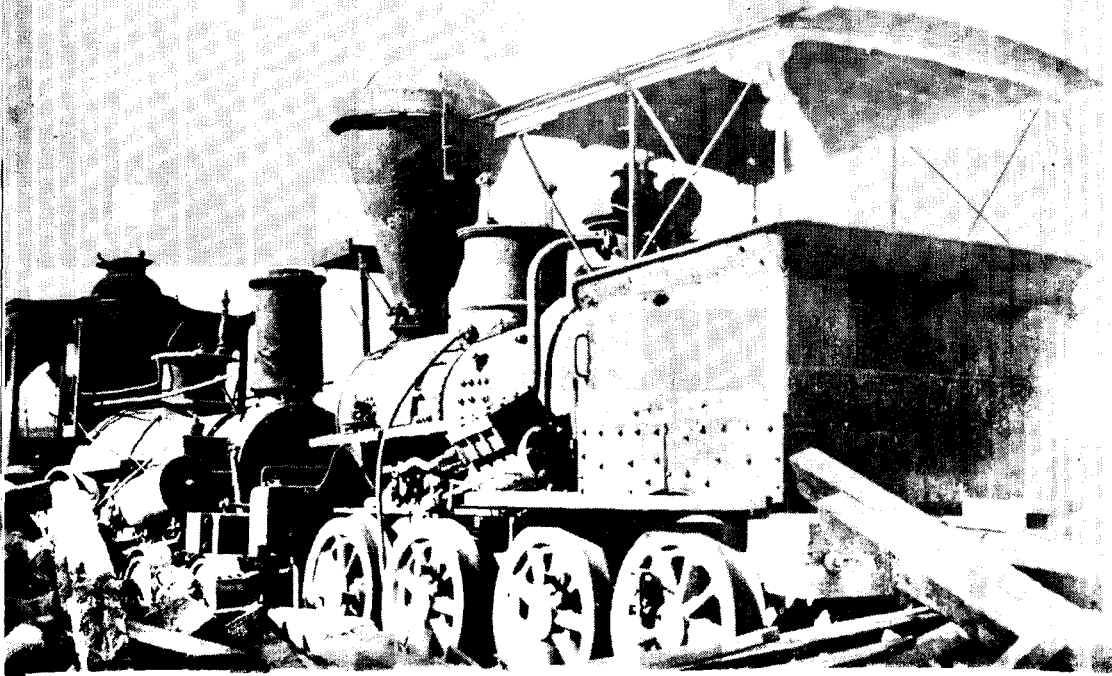


Photo taken by L. S. Slevin of Carmel, California in 1898 at an Alameda, California junkyard. The "William Penn" is at the far left.

Courtesy of Gerald M. Best Collection

reports states that in 1885 it was sold for \$1000 to the "Pacific Iron and Nail Co." Mr. A. J. Stevens had "taken the old square sand box and put on the present one with the bell on top, also put on a new cab, but left the balloon stack on and the injector on the left side. The straight stack shown was put on by the nail company. The name was changed to the "Dude." About one year ago the engine was fired up and moved about the yard, the smoke-arch door has on it "Rebuilt by Ed Norris, 1865, Lancaster, Pennsylvania."

The above was written by Mr. Frazer in September 1898, who was an air brake inspector for the Westinghouse Air-Brake Co. in the San Francisco area in 1898. The mills of the Oakland Nail Works had burned in 1895 and "The William Penn" was awaiting disposition. "The William Penn" existed into the 1900's and then was scrapped.

It is amazing that so much history could be associated with five locomotives by such a small manufacturer; however, this has been thoroughly researched by men who are experts in their field.

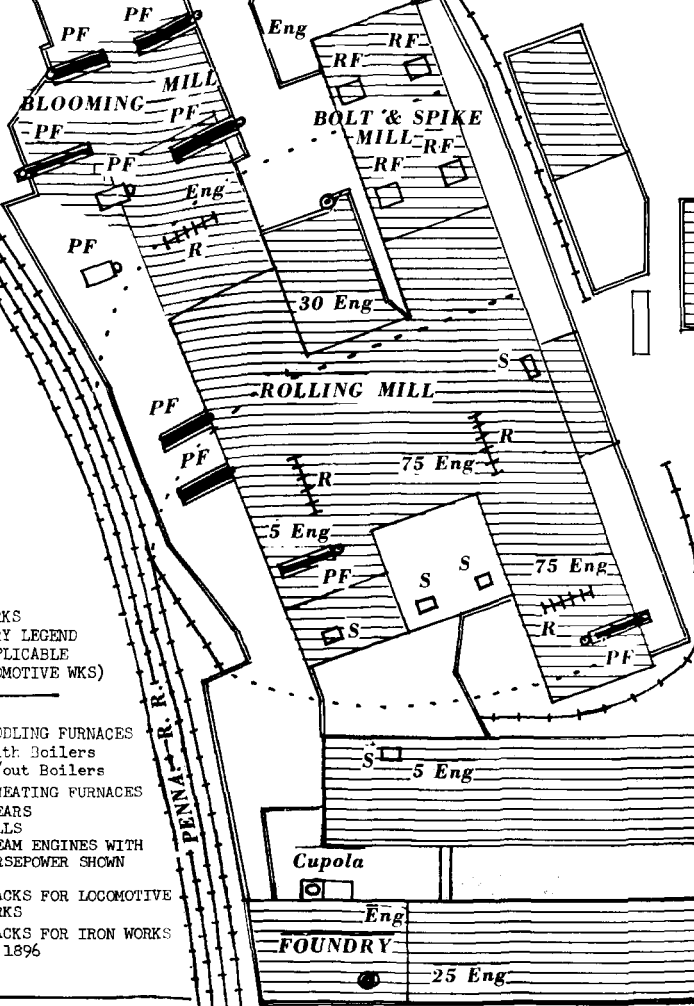
MAP SHOWING PENN IRON WORKS AFTER ITS CONVERSION FROM THE LANCASTER LOCOMOTIVE WORKS

Although no plan exists which shows the exact location and construction of the buildings of the locomotive works, we may obtain a relatively accurate plan by comparing old atlas locations with an insurance atlas of 1896. The shaded portion, the old works, was built largely of brick. Newer additions were of frame and corrugated iron.

50' 0 50'

NORTH ANN STREET

PENN IRON CO.
formerly
LANCASTER LOCOMOTIVE
WORKS
(shaded area)



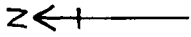
IRON WORKS
MACHINERY LEGEND
(NOT APPLICABLE
TO LOCOMOTIVE WKS)

- PF - PUDDLING FURNACES
 - With Boilers
 - W/out Boilers
- RF - REHEATING FURNACES
- S - SHEARS
- R - ROLLS
- E - STEAM ENGINES WITH HORSEPOWER SHOWN

- - - TRACKS FOR LOCOMOTIVE WORKS
- TRACKS FOR IRON WORKS IN 1896

EAST FULTON STREET

NORTH PLUM STREET



This is a complete summary of each locomotive.

"F" MERCED—Norris—Lancaster, C/N 27 [27-37?], built 1864—67" drivers—16 by 24 cylinders, weight 60,250 lbs. Renumbered C.P. 172, S.P. 1284, S.P. 1522, scrapped 1-24-1910.

"G" MARIPOSA—Norris—Lancaster, built 1865—63" drivers, 16 by 22 cylinders, C/N 12, weight 62,000 lbs. Renumbered C.P. 2 and 31, C.P. 1193, then 2nd 1215; C.P. 1488; sold to Stockton Terminal and Eastern 1909, given to Traveltown, Los Angeles in 1953. It is still in existence.

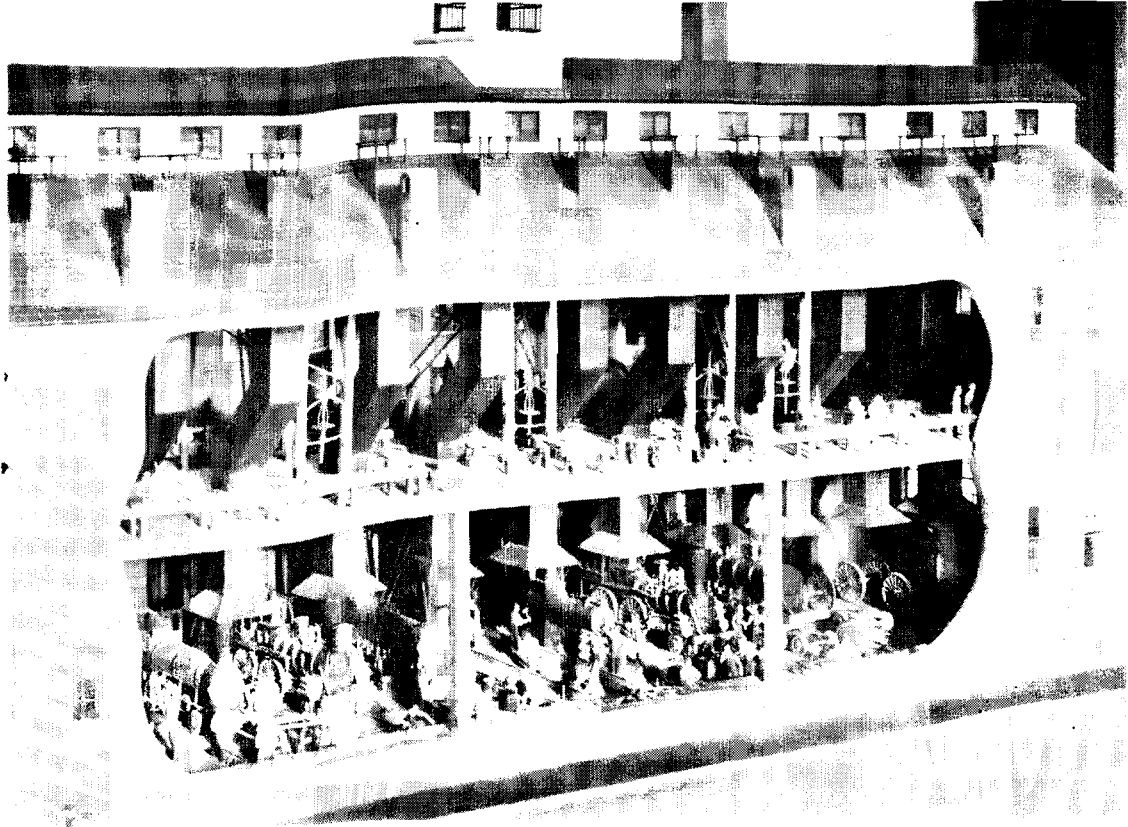
"H" SONOMA—Norris—Lancaster, C/N 13, built 1864, 57" drivers, 16 by 24 cylinders, weight 66,250 lbs., renumbered C.P. 173, S.P. 1285, S.P. 1523, scrapped December 18, 1909.

"I" INDUSTRY—Norris—Lancaster, C/N 14, built 1864, 60" drivers, 16 by 22 cylinders; weight 60,100 lbs., became C.P. 2nd #25, existed until 1878, no record of disposal.

"J" WM. PENN—Norris, Philadelphia 1835, sold to the Philadelphia and Columbia R.R. Oct. 1835; P.R.R. #1, 1846; sold or leased to the Strasburg Railroad 1849-63 [?]. Rebuilt Ed. Norris, Lancaster, Pa., 1865, sold to Western Pacific in 1864. "J" Western Pacific; then C.P. 175; sold to the Pacific Iron and Nail Co. in 1885; scrapped early 1900's.

J. A. Norris died May 1864 after which the works were managed by Edward S. Norris. This explains why engines F,G,H and I are credited to J. A. Norris and the William Penn (J) is attributed to Edward Norris. The William Penn was among the first hundred locomotives built in the United States.

The Lancaster Locomotive and Machine Works which the Norris brothers operated from 1863 until October 1868 was located along East Fulton Street, between North Ann and North Plum streets, and adjacent to the main line of the Pennsylvania Railroad. The appearance of the buildings apparently was similar to that of other locomotive works of that day. Although the plant ceased making motive power for railroads, the buildings survived until World War I, being used as a rolling mill for many years. The old foundry and pattern shop still remain, and are used by A. B. Rote and Son structural steel erection firm. These buildings are along North Plum Street, and are little changed. Original locomotive works structures were brick. Their general outline can be seen by reference to the accompanying map. The shaded areas are the locomotive works, and the unshaded areas are the buildings, mostly frame and sheet-iron clad, erected for the Lancaster Manufacturing Company and its successor, Penn Iron Company.



Model of Norris Locomotive Works, Philadelphia, on display in Smithsonian Institution, Museum of History and Technology.

Courtesy of Smithsonian Institution

The Smithsonian Institution's new Museum of History and Technology includes a model of the Norris Brothers Locomotive Works at Philadelphia. It would appear the Philadelphia plant was similar to the Lancaster works, both having parallel shops separated by a transfer table. Whereas the Philadelphia works model shows two-story buildings, the Lancaster works were only one-story with clerestory. Both had foundries in separate buildings.

The main portion of the works included the erecting shop where the major components were assembled unto the locomotive frames. Along Plum Street, now the works of A. B. Rote, were the foundry and finishing shop. Next to it were the small blacksmith shop with nine fires and the tank shop. A larger smithy with seventeen fires was adjacent to the erecting shop. Other shops were provided for forging, boiler-making, wood-working, pattern-making, painting, and draughting.



Model of Norris Locomotive Works, Philadelphia, on display in Smithsonian Institution. Structure at left is the foundry. Buildings at right include erecting shop, machine shop, finishing shop, and boiler shop.

Courtesy of Smithsonian Institution

SOURCES FOR INFORMATION

- Mr. Charles E. Fisher, President, Railway & Locomotive Society.
- Mr. Gerald M. Best, Vice President, Railway & Locomotive Society.
- Mr. George B. Abdill, Roseburg, Oregon, Historian and Author.
- Mr. Donald Duke, San Marino, California, Publisher.
- Mr. Edmund P. Alexander, Yardly Pa. Historian and Author.
- Mr. Thomas T. Taber III, Muncy, Pa. Historian and Author.

The following publications and historical institutions were used as sources of material:

- Lancaster County Historical Society Papers #XLIV—No. 1.
- Railway & Locomotive Historical Society Bulletin No. 79.
- Railroadians of America, Book #2.
- Railroad Gazette, August 24, 1906.
- Railway & Locomotive Engineering, September, 1899.
- Franklin Institute, Philadelphia.
- Smithsonian Institution, Washington, D. C.

ABOUT THE CONTRIBUTOR

Benjamin Franklin Good Kline, Jr. is a native of Manor Township, and was graduated from the Penn Manor High School in 1946. The author's uncle was a railroader, and the source of inspiration which started Mr. Kline's hobby at the tender age of five. Employed as a die builder by the Packaging Corporation of America, Mr. Kline spends his spare hours working on the railroad — the Strasburg Rail Road, that is. He is superintendent of the car shops.