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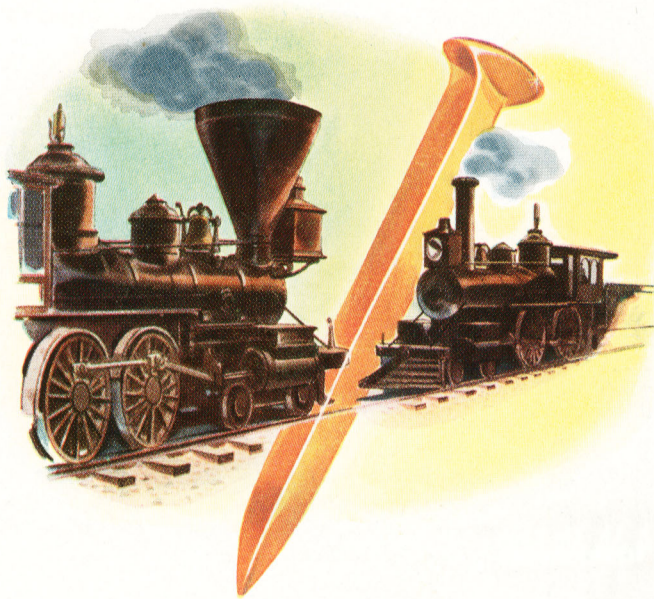
H O R S E



A P I C T U R E S T O R Y

THE RAILROAD LOCOMOTIVE

PIONEER AND PACEMAKER OF PROGRESS



NO POWER UNIT in existence has ever been the object of more human admiration and enthusiasm than the steam locomotive. Old and young alike thrill at the sight of the Iron Horse.

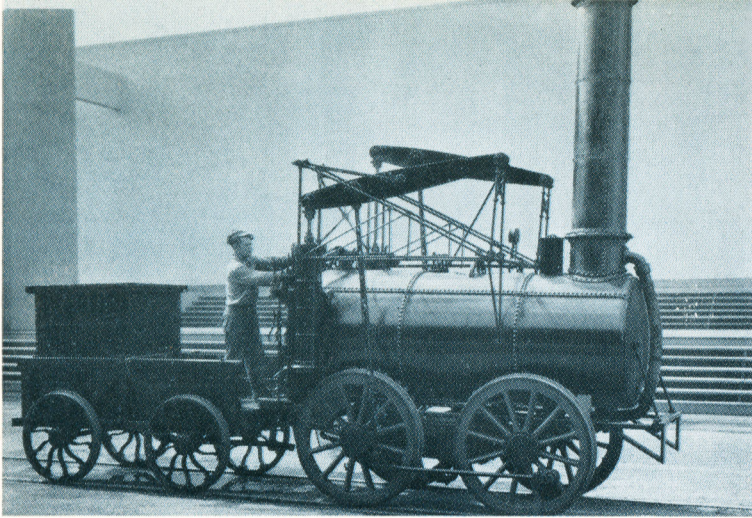
The evolution of the Iron Horse during the past century has been phenomenal, and our steam locomotives of today are a real tribute to the genius of American engineering. Improvement has been especially notable in recent years. Weight per horsepower has been cut in half. Thermal efficiency has been doubled. Higher boiler pressures, higher steam temperatures, greater fuel economy, ability to make longer daily runs—in these and many other ways the steam locomotive of today is vastly superior to engines built 15 to 20 years ago.

Hundreds of thousands of visitors at the Railroad Exhibit in the New York World's Fair have had the privilege of viewing many of the most famous locomotives in railroad history, from the earliest, down through the

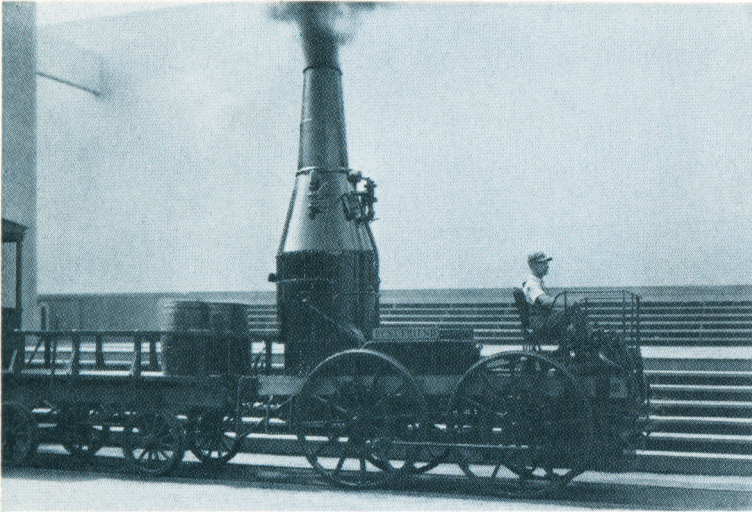
various periods of development, to our modern giants of steel. Critics have hailed "Railroads on Parade"—feature attraction of the Railroad Exhibit—as an outstanding event of the Fair. This magnificent spectacle records the progress of rail transportation in America for the past 110 years. Old-time coaches are drawn across a great outdoor stage by famous locomotives of history, operating under their own power. Famous moments in railroad history are enacted, and the spectacle reaches its climax when two giant streamlined locomotives of latest designs steam into view on the stage.

Gulf is proud to be playing an unseen role in this superb drama. Gulf railroad lubricants were selected to protect the moving parts of all the priceless equipment used in "Railroads on Parade." Through the courtesy of the Railroad Exhibit management, photographs of many of these locomotives appearing in the pageant and displayed on the grounds, are reproduced herewith. We count it a privilege to be able to give Gulf customers and friends this colorful panorama of locomotive development in America.

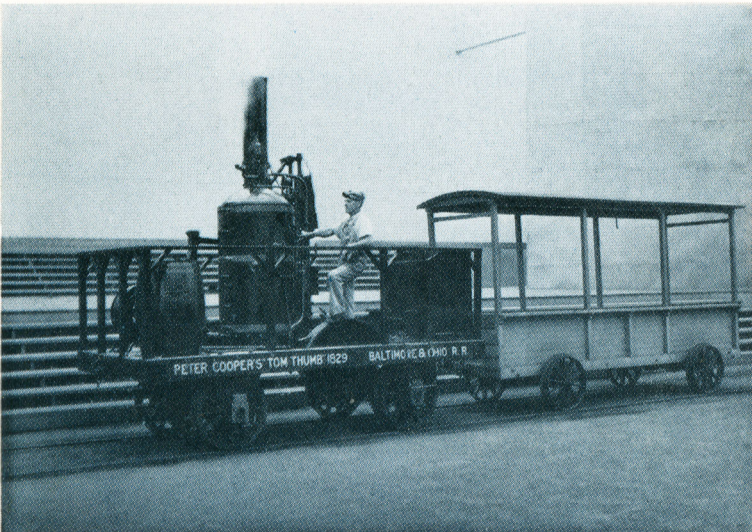
In 30 states from Maine to Texas, Gulf lubrication engineers are working with railroads and industrial plants, assisting operating men in attaining efficient lubrication and low costs for maintenance. No matter what type of machinery you operate, an experienced Gulf engineer is prepared to recommend oils and greases exactly suited to each moving part. The Gulf line of quality lubricants, consisting of more than 400 oils and greases, is quickly available to you through more than 1,100 Gulf warehouses. Write or 'phone your nearest distributing point.



STOURBRIDGE LION took to the rails in the hills of northern Pennsylvania in 1828. The engine was brought over from England by Horatio Allen—the first American engineer—for the Delaware and Hudson Canal Company. It had a horizontal boiler, vertical cylinders, and walking beams connecting two pairs of drivers.

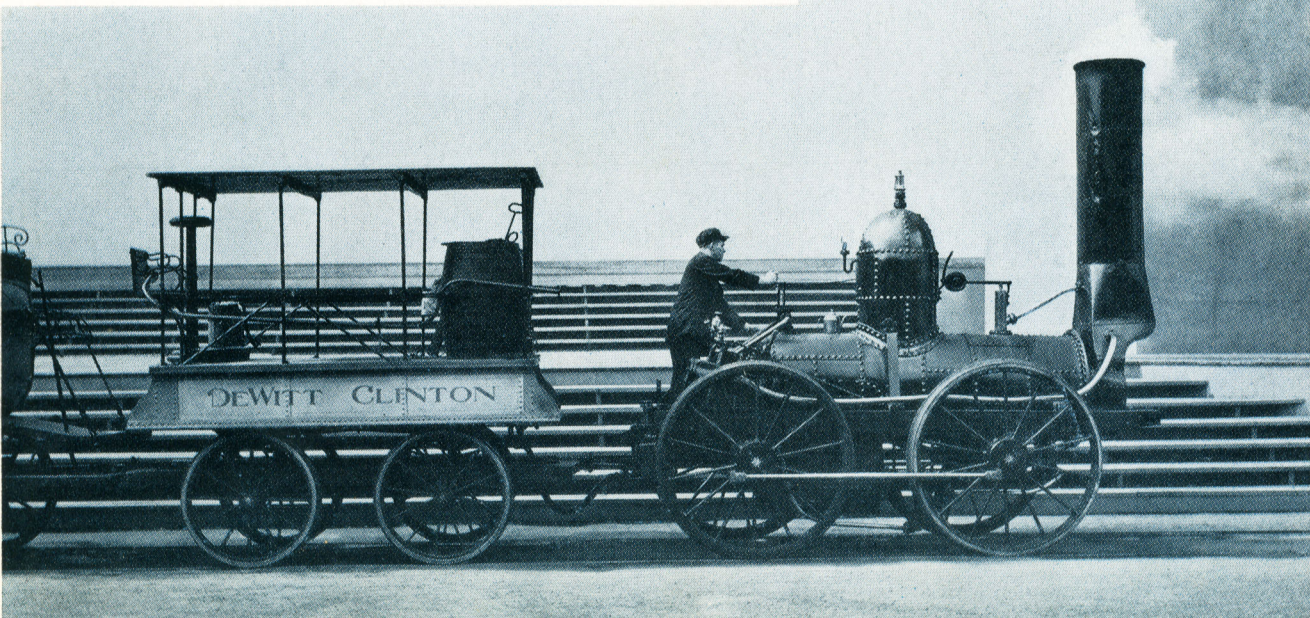


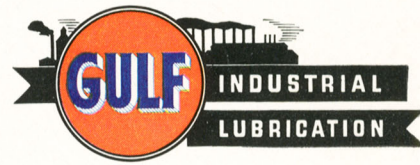
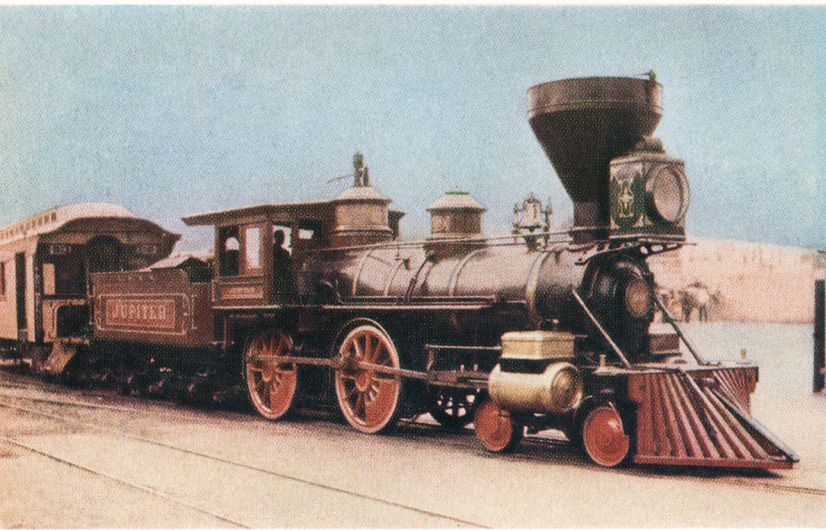
BEST FRIEND OF CHARLESTON was the first American-built locomotive. Built in the old West Point Foundry in New York, the Best Friend was shipped to Charleston by schooner in the fall of 1829 and went into service on the South Carolina Railroad in 1830.



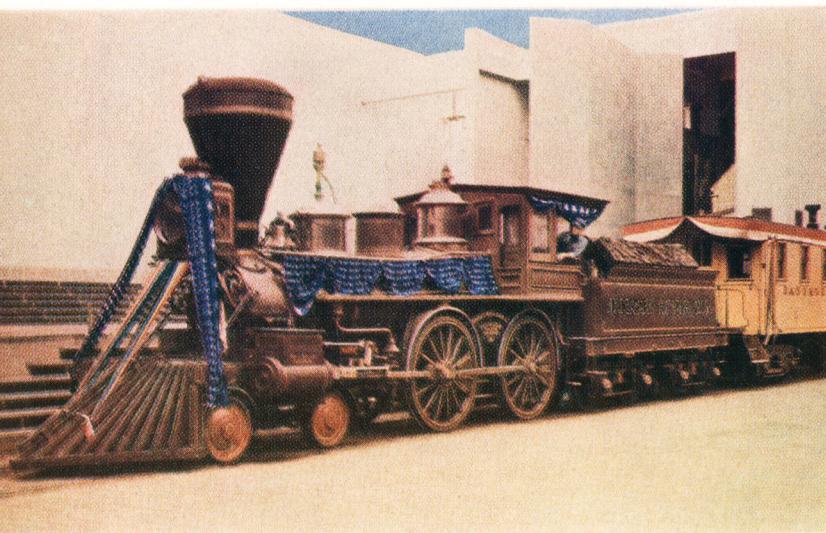
TOM THUMB was built by Peter Cooper, a New York merchant, who went to Baltimore in 1829 and fabricated this tiny locomotive with an upright boiler, using rifle barrels for its flues. He operated it so successfully that the directors of the Baltimore & Ohio abandoned the idea of horses as motive power.

DeWITT CLINTON, another West Point creation, was put into service in 1831 on the erstwhile Mohawk & Hudson Railroad, connecting Albany and Schenectady. The De Witt Clinton hauled a small train, its cars designed after the fashion of the stagecoaches of the period.



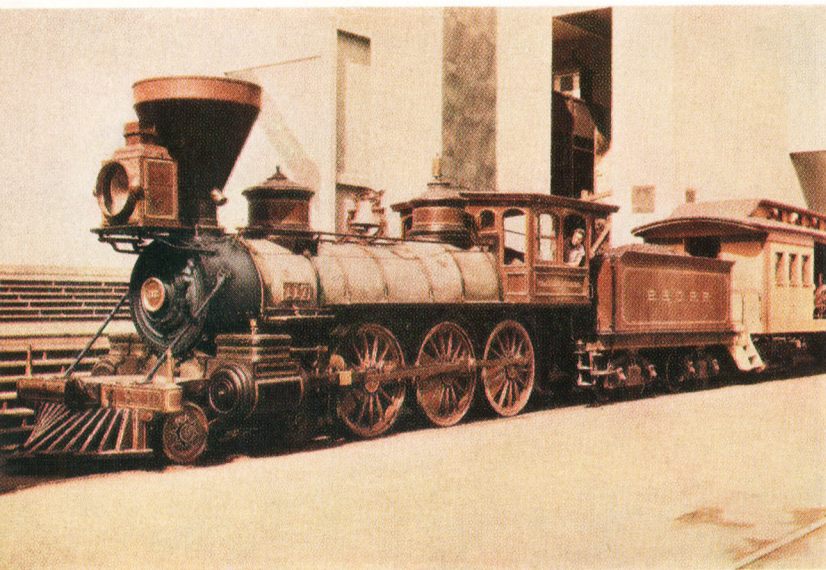


JUPITER was the Central Pacific locomotive which met the Pride of the Prairies, Union Pacific locomotive, at Promontory Point, Utah, May 10, 1869—the epic moment when the driving of the golden spike joined the East with the West.

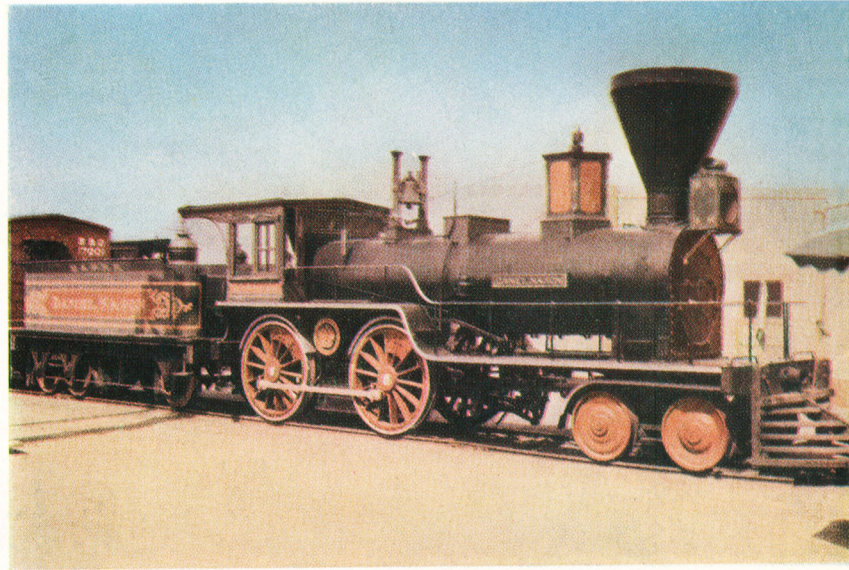


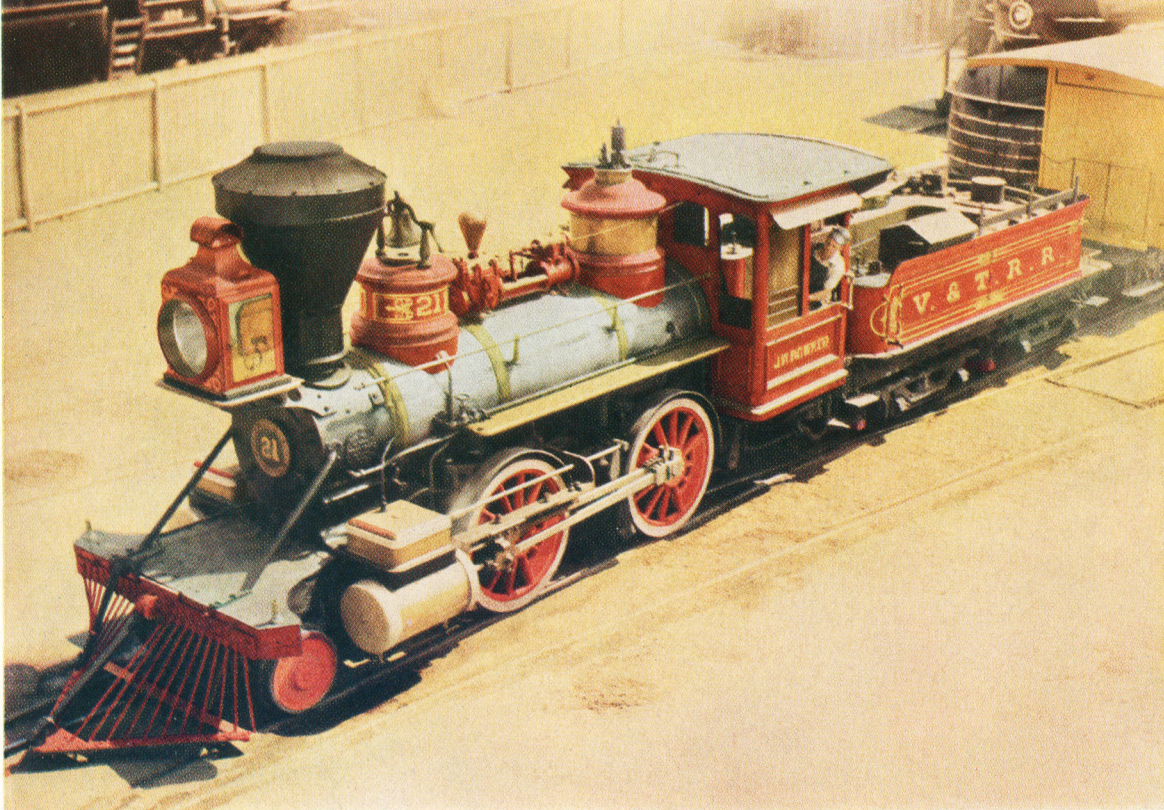
WILLIAM CROOKS, shown at the left, was built in 1861 in the shops of the New Jersey Locomotive Machine Works, Paterson, New Jersey. It was shipped by rail to La Crosse, Wisconsin, then taken by barge up the Mississippi to St. Paul. It made its initial run from St. Paul to St. Anthony (now Minneapolis) a distance of 10 miles, June 28, 1862.

THATCHER PERKINS (left, below) was built in 1863. A Baltimore & Ohio master mechanic of that name designed the third driving wheel to facilitate the drawing of heavier loads and to eliminate the necessity for using two locomotives for one haul over the road's heavy mountain grades. This locomotive was a coal burner, whereas most early locomotives burned wood.

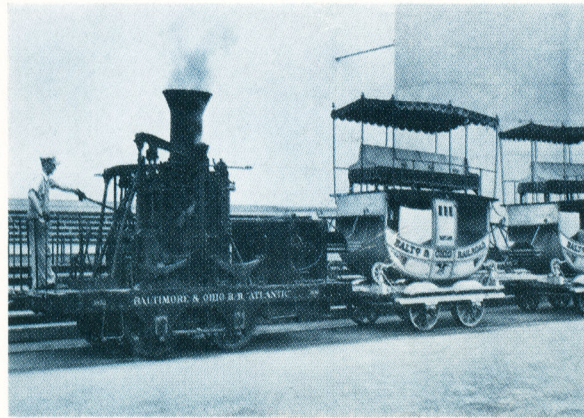


DANIEL NASON, shown below, is a curious and interesting old engine which was built in 1856 for the Boston & Providence Railroad and named for a famous Maine sea captain.

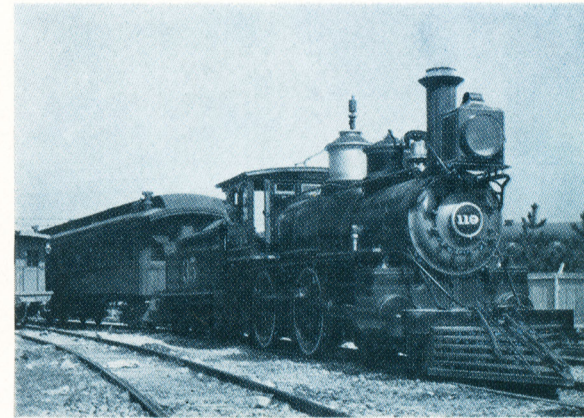




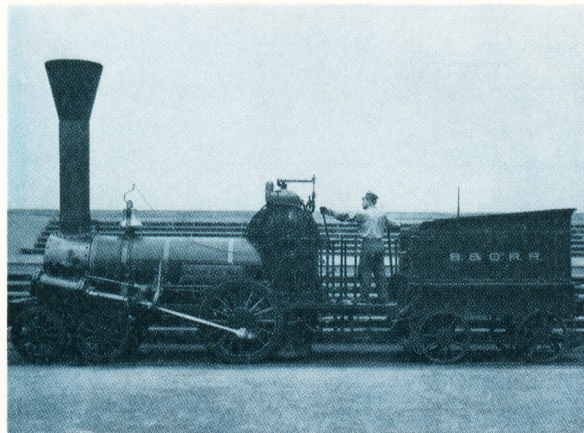
J. W. BOWKER was built for the Virginia & Truckee Railroad of western Nevada in 1875. During the 70's this famous locomotive hauled millions of dollars worth of gold from the Comstock Lode at Virginia City to Reno, its northern terminus on the Union Pacific.



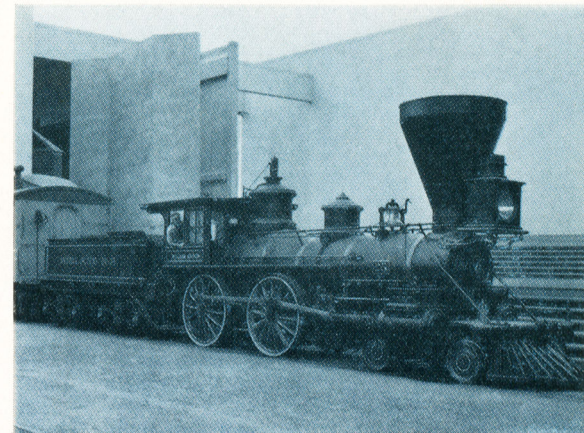
ATLANTIC won great fame by being the first steam locomotive to enter Washington City, in 1832. The two big levers on the top of the cylinders seesawed, giving it the appearance of a grasshopper propelling the engine on the track—hence it was known as a "grasshopper" type.



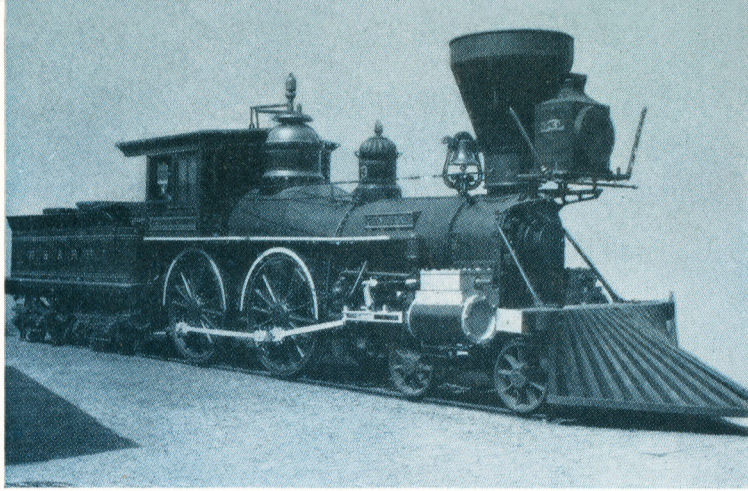
PRIDE OF THE PRAIRIES was built in 1882 for the Burlington & Missouri River Railroad. It is now the property of the Chicago Burlington & Quincy, carefully preserved as a relic of that time.



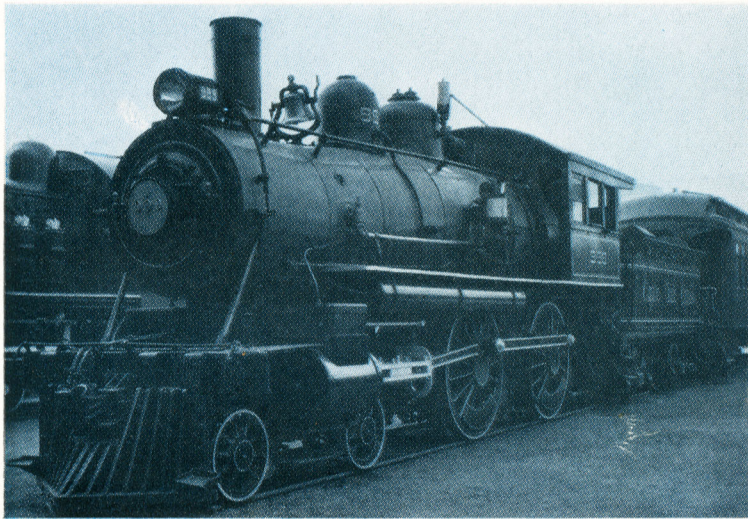
WILLIAM GALLOWAY was the first locomotive with a horizontal boiler and with smokestack and cylinders in the fore, minus the "cow-catcher." It was built in 1837 and will still perform gallantly under steam. The fireman and engineer stood in the open and braved the elements.



WILLIAM MASON represents the period 1856 when locomotive style was standardized to what was known as "The American Type." They were first called "4-4-0's" and used for all classes of hauling, but heavier locomotives were built later to haul freight.

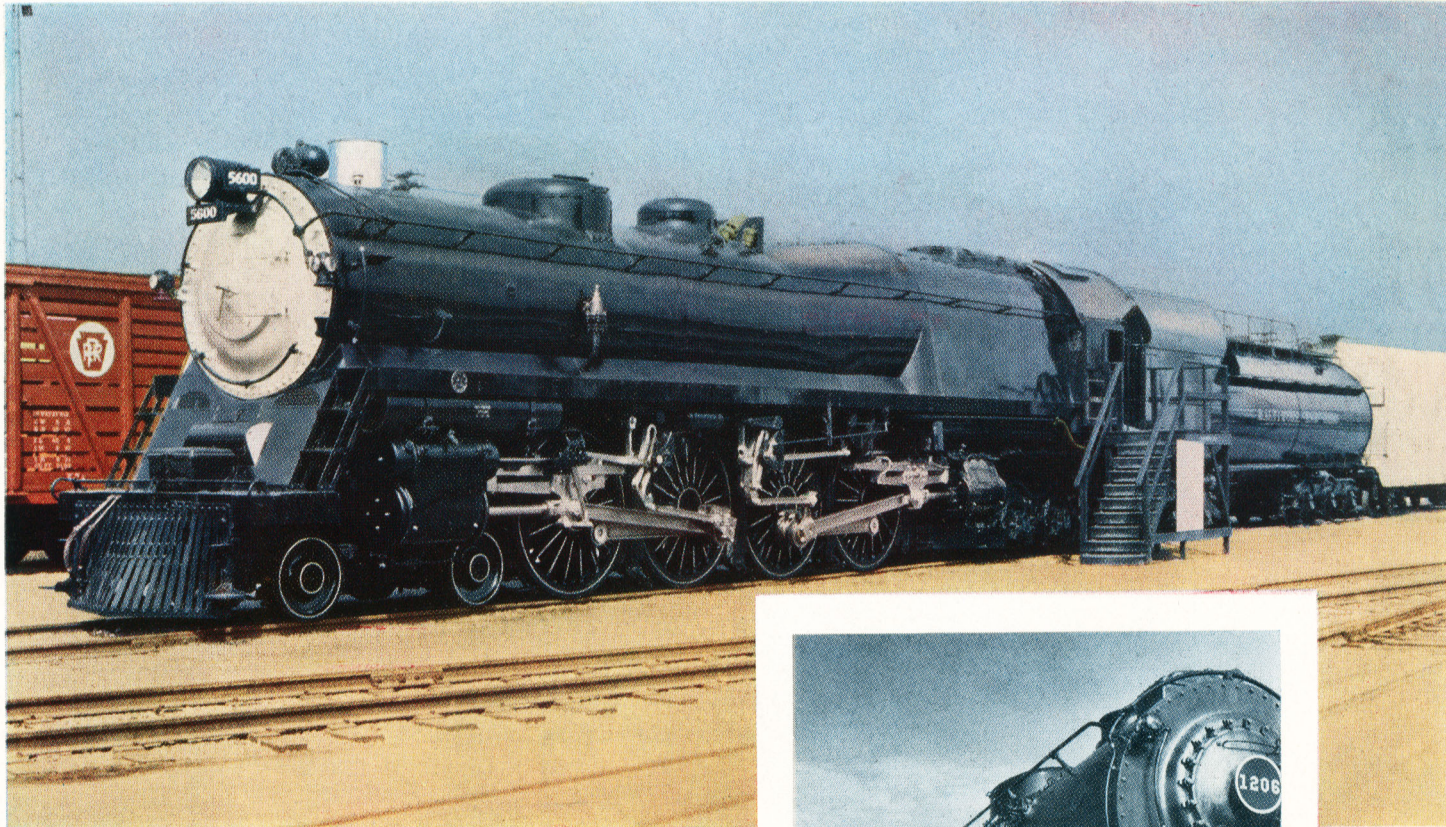


GENERAL is a famous Civil War locomotive of the old Western and Atlantic Railroad. In 1862 it was captured from the Confederate forces by Andrew's Raiders of the Union Army at Big Shanty and run toward Chattanooga. Hard pressed, the raiders abandoned it near Graysville and it was re-taken by the Confederate Forces.

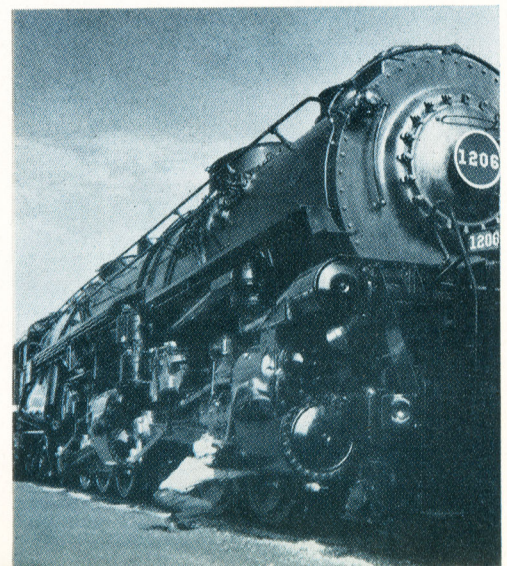


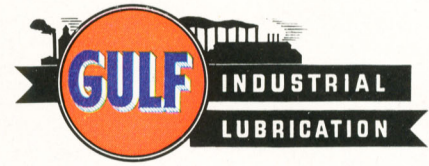
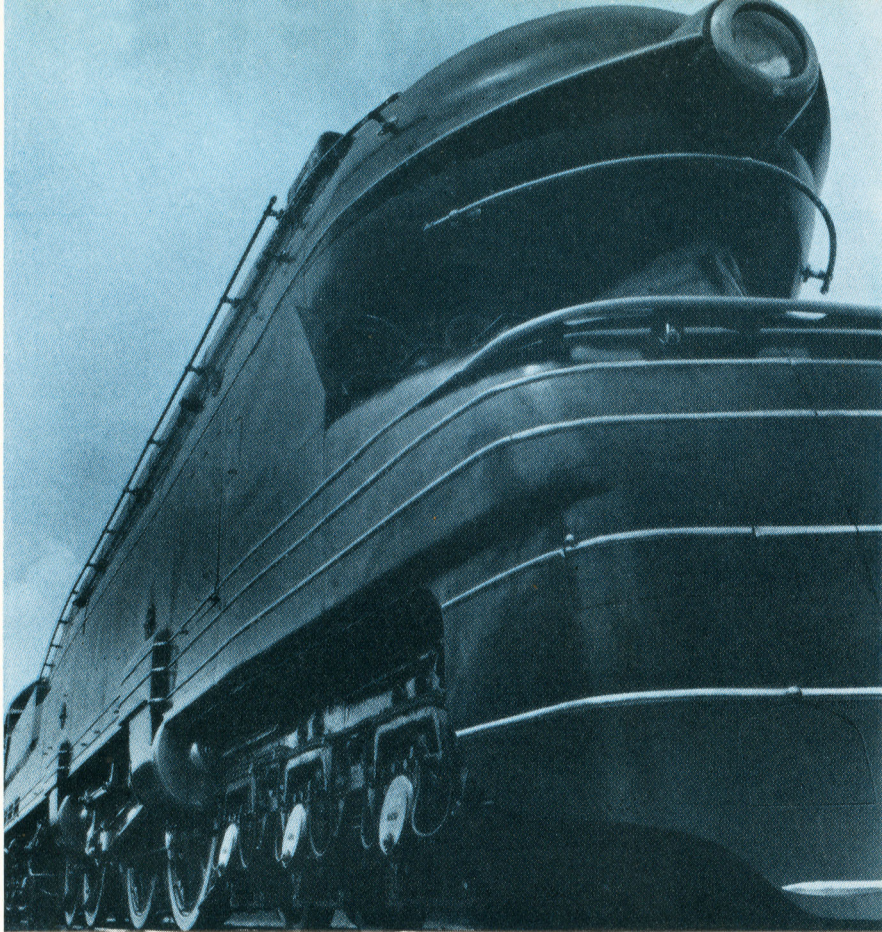
"999" was the most celebrated locomotive of the Gay 90's. It was designed by William Buchanan of the New York Central and built in 1893. This locomotive hauled the Empire State Express at the record speed of 112½ miles an hour on its famous run on May 10, 1893, west of Batavia, New York. The "999" cost \$13,000 to build. A modern Hudson-type locomotive costs \$86,000.

GEORGE EMERSON (below) is the latest creation of the Baltimore & Ohio shops, with two sets of driving wheels and cylinder mounted on a rigid base. It is high speed with tremendous power and easy on the rails. A special feature of the Emerson is the water tube fire-box that permits a working pressure of 350 pounds per square inch.



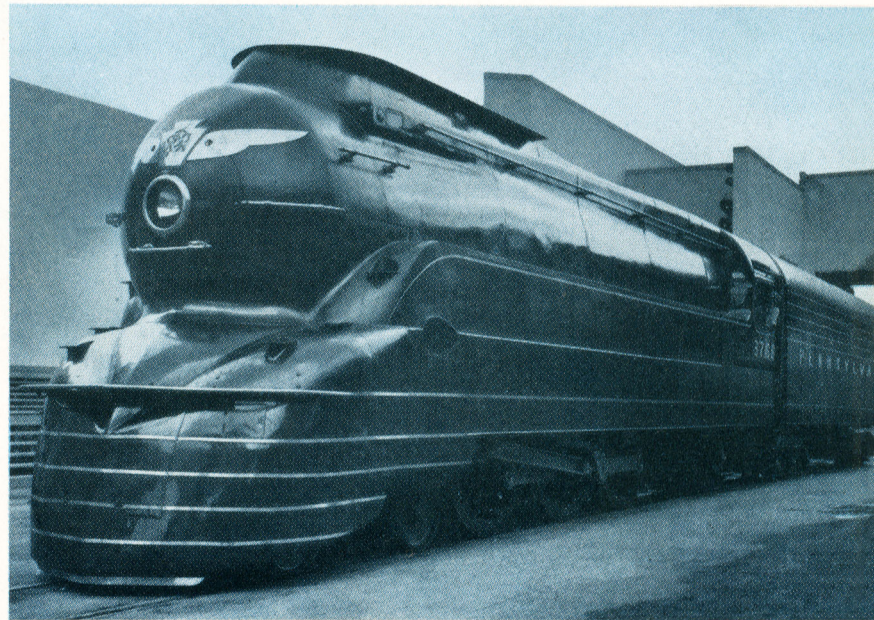
The giant **NORFOLK & WESTERN** mallet at the right is a late development for heavy freight trains. It is, in fact, two locomotives with one boiler.



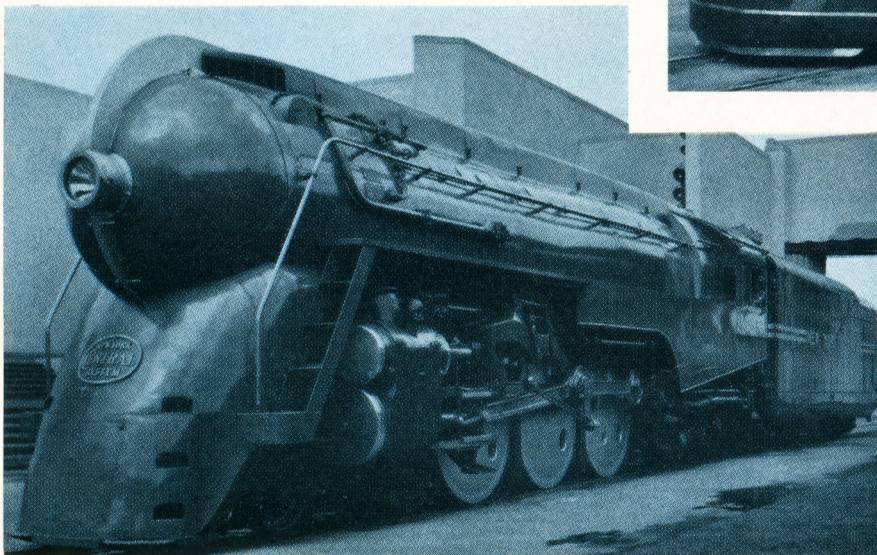


The "6100," shown at the left, is the largest steam passenger locomotive of its type in the world, 140 ft. in length and weighing 526 tons. Its 6,500 h.p. pulls 14 coaches on 100 m.p.h. schedules—at economical cost per mile.

The modern, streamlined high-speed passenger locomotive at the right is used on the Pennsylvania Railroad to haul its deluxe trains and is known as the K-4.

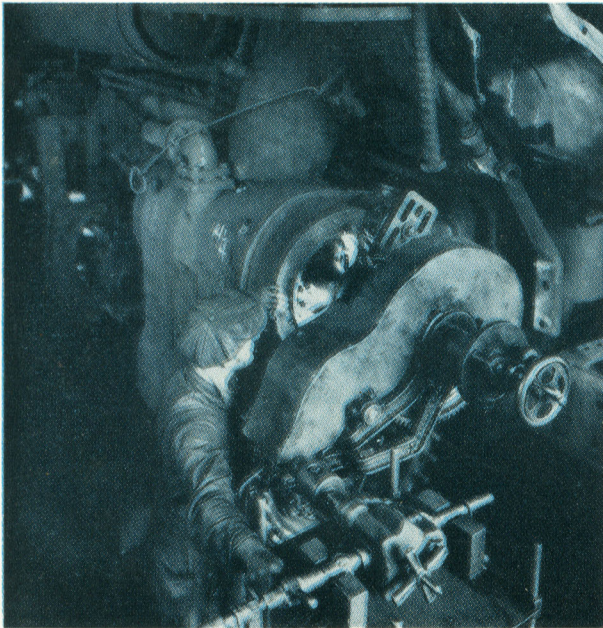


The "Hudson type" passenger locomotive shown below represents the latest development in modern streamline design and is used by the New York Central.

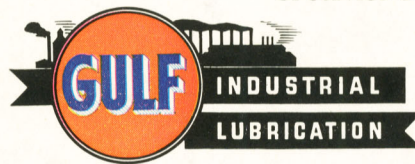


DON'T MISS "RAILROADS ON PARADE" WHEN YOU VISIT THE NEW YORK WORLD'S FAIR

176 RAILROADS IN THE U.S. USE GULF'S HIGHER QUALITY LUBRICANTS



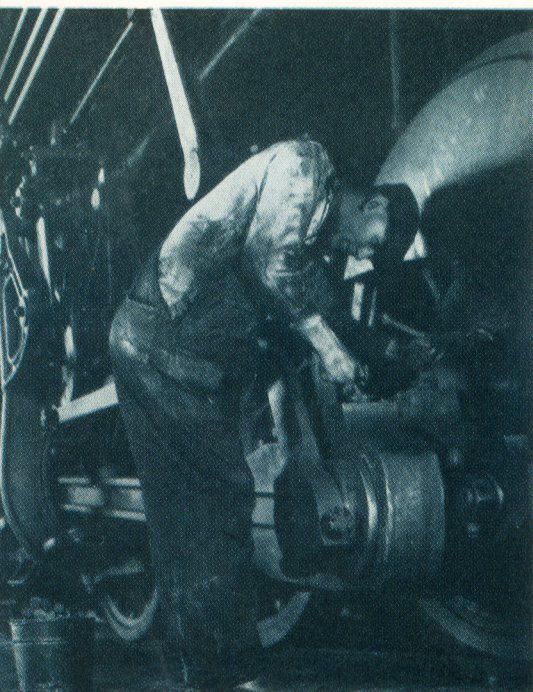
Re-boring of valve and cylinder bushings of steam locomotives—an expensive operation which takes locomotives out of service—is needed less frequently when a valve oil with the proper characteristics is used. Gulf supplies a special oil for valve and cylinder lubrication which minimizes wear and saves time-out-of-service.



To provide for the wide range of lubrication requirements for 176 American railroads, Gulf manufactures and stocks in 1,100 warehouses in 30 states from Maine to Texas a complete line of oils and greases for locomotives and all other railroad equipment.

Included in this group are such special lubricants as valve oil for superheated locomotives, locomotive driving journal compound, locomotive rod cup grease, locomotive car and engine oil, airbrake cylinder compound, booster crankcase oils, center plate lubricants, pressure gun greases, flange oils, Diesel engine lubricants, automotive oils and greases, air compressor oils, turbine oils, transformer oils, switch and signal lubricants, roller bearing oils and greases, and a complete line of shop lubricants.

Leading railroads report fewer delays, less time-out-of-service and lower costs for maintenance when the proper Gulf oils and greases are applied as recommended by an experienced Gulf lubrication engineer.



Locomotive rod cup grease must feed uniformly with minimum consumption at all operating temperatures. Gulf Rod Cup Grease is scientifically prepared to meet these requirements, and leading railroads report lower pin temperatures when this quality lubricant is used.



Longer life and lower replacement costs for Diesels in railroad service accompany the use of Gulf Diesel Engine Lubricating Oils. These specially refined oils prove their endurance and resistance to decomposition under severe operating conditions, providing maximum protection for cylinder walls, piston rings, and bearings—with low consumption.



Leading railroads report lower costs for reconditioning driving axles and renewing crown brasses after Gulf Locomotive Driving Journal Compound has been placed in service. This special lubricant is consumed at a lower rate and therefore gives more hours of service.