= Rogers Locomotive and Machine Works =

Rogers Locomotive and Machine Works was a 19th @-@ century manufacturer of railroad steam locomotives based in Paterson , in Passaic County , New Jersey , in the United States . It built more than six thousand steam locomotives for railroads around the world . Most railroads in 19th @-@ century United States rostered at least one Rogers @-@ built locomotive . The company 's most famous product was a locomotive named The General , built in December 1855 , which was one of the principals of the Great Locomotive Chase of the American Civil War .

The company was founded by Thomas Rogers in an 1832 partnership with Morris Ketchum and Jasper Grosvenor as Rogers , Ketchum and Grosvenor . Rogers remained president until his death in 1856 when his son , Jacob S. Rogers , took the position and reorganized the company as Rogers Locomotive and Machine Works . The younger Rogers led the company until he retired in 1893 . Robert S. Hughes then became president and reorganized the company as Rogers Locomotive Company , which he led until his death in 1900 .

Rogers avoided the American Locomotive Company (ALCO) merger in 1901 through closing and reopening as Rogers Locomotive Works . The company remained independent until 1905 , when ALCO purchased it ; ALCO continued building new steam locomotives at the Rogers plant until 1913 . ALCO used the Rogers facilities through the 1920s as a parts storage facility and warehouse , but eventually sold the property to private investors . Today , several Rogers @-@ built locomotives exist in railroad museums around the world , and the plant 's erecting shop is preserved as the Thomas Rogers Building ; it is the current location of the Paterson Museum , whose mission is to preserve and display Paterson 's industrial history .

= = 1831 to 1856 : Thomas Rogers era = =

The firm that was to become Rogers Locomotive Works began in 1831 . Thomas Rogers had been designing and building machinery for textile manufacturing for nearly 20 years when he sold his interest in Godwin , Rogers & Company (of which he was the Rogers part of the name) in June of that year . Rogers set out on his own with a new company called Jefferson Works in Paterson , New Jersey . The Jefferson Works built textile and agricultural machinery for a year before Rogers met the two men who would help transform the company into a major locomotive manufacturer .

In 1832 , Rogers partnered with two investors from New York City , Morris Ketchum and Jasper Grosvenor . Jefferson Works was renamed Rogers , Ketchum & Grosvenor , and the company began to diversify into the railroad industry . The company soon manufactured springs , axles and other small parts for railroad use .

The first locomotive that Rogers ' company assembled was actually built by Robert Stephenson and Company of England in 1835 . This locomotive was the McNeil for the Paterson and Hudson River Railroad . It took another two years before Rogers received its first order for a complete locomotive . In 1837 , the Mad River and Lake Erie Railroad ordered two locomotives from Rogers to form the beginning of the railroad 's roster . The first of these two locomotives was the Sandusky , which became the first locomotive to cross the Allegheny Mountains (albeit by canal boat and not by rail) , and the first locomotive to operate in Ohio .

Sandusky included features designed by Thomas Rogers that had not been seen in locomotive construction to date . It was also the first locomotive to use cast iron driving wheels , and the wheels included built @-@ in counterweights to reduce the amount of wear on the track caused by the weight of the driving rod and wheel all coming down at once during the wheels ' rotations . Before Sandusky 's construction , driving wheels were typically built with wooden spokes , much like wagon wheels . Some accounts also state that Sandusky was the first locomotive to feature a whistle , but this has since been proven false .

Rogers was not working completely alone in American locomotive manufacturing . In 1837 , in addition to building the company 's first locomotive , Rogers also filled orders from fellow locomotive builders Matthias W. Baldwin (founder of Baldwin Locomotive Works) and William Norris (founder of Norris Locomotive Works) for locomotive tires of various sizes . Once Rogers started working on

his own locomotives , however , no further orders from either Baldwin or Norris were forthcoming .

Within Rogers ' own shop , William Swinburne worked as the shop foreman until he moved on to form his own locomotive manufacturing company , Swinburne , Smith and Company in 1845 . After Swinburne left Rogers , John Cooke also worked at the Rogers plant . Like Swinburne , Cooke later went on to form his own locomotive manufacturing firm , Danforth , Cooke & Company . Another engineer who worked at Rogers was Zerah Colburn , the well known locomotive engineer and , later editor and publisher . Colburn was , around 1854 , " superintendent and / or consultant " at the works where he introduced a number of improvements in locomotive design . His assistant was William S. Hudson who succeeded Rogers after he died in 1856 , and was responsible for further engineering enhancement .

Rogers locomotives were , from very early in the company 's history , seen as powerful , capable engines on American railroads . The Uncle Sam , serial number 11 , a 4 @-@ 2 @-@ 0 (a locomotive with two unpowered axles in front , followed by one powered axle) built in 1839 for the New Jersey Railroad and Transportation Company , was noted by American Railroad Journal for hauling a 24 @-@ car train up a grade of 26 feet per mile (4 @.@ 9 m / km) or 0 @.@ 49 % at 24 @.@ 5 mph (39 @.@ 4 km / h) . In 1846 , Rogers built what is referred to as the largest 6 @-@ wheel truck engine (4 @-@ 2 @-@ 0) in the United States ; the Licking , serial number 92 , built for the Mansfield and Sandusky Railroad , generated 110 psi (760 kPa) of steam pressure and could pull a 380 @-@ short @-@ ton (345 t ; 339 @-@ long @-@ ton) train up a grade of 16 feet per mile (3 m / km) or 0 @.@ 3 % .

Arguably , the most famous locomotive to come out of the Rogers shops was built in 1855 . Rogers built a 4 @-@ 4 @-@ 0 , serial number 631 , in December of that year for the Western and Atlantic Railroad . The railroad named the locomotive The General . This locomotive , best known for being at the heart of an American Civil War incident , is now on display at the Southern Museum of Civil War and Locomotive History (the Big Shanty Museum) in Kennesaw , Georgia .

Not only were Rogers locomotives known in the industry for their power , but they were also known for their endurance . It is estimated that one locomotive , Illinois Central Railroad 4 @-@ 4 @-@ 0 number 23 , serial number 449 , built in December 1853 , operated over one million miles (1 @.@ 6 × 106 km) in its thirty @-@ year career on the Illinois Central .

= = 1856 to 1905 : Reorganization and decline = =

When Thomas Rogers died in 1856 , his son Jacob S. Rogers reorganized RK & G , with Ketchum and Grosvenor remaining as investors , as the Rogers Locomotive & Machine Works . Rogers built their first 2 @-@ 6 @-@ 0 , which is sometimes referred to as the first 2 @-@ 6 @-@ 0 built in the United States , in 1863 for the New Jersey Railroad and Transportation Company . The company continued manufacturing both locomotives and textile machinery for nearly another 20 years .

In November 1868 Rogers delivered five identical coal @-@ burning 4 @-@ 4 @-@ 0 steam locomotives (assigned Nos. 116 ? 120) to the Union Pacific Railroad , which were subsequently placed into freight service in western Wyoming and Utah . Union Pacific No. 119 would gain fame on May 10 , 1869 , when it took part in the " Golden Spike " ceremony at Promontory , Utah , to celebrate the completion of the First Transcontinental Railroad . The unit was rebuilt in the early 1880s , and redesignated as road No. 343 in 1885 . No. 119 was retired and sent to the scrapyard after nearly 35 years of service in April 1903 . A full @-@ scale , operating replica was completed in 1979 , and now is part of an operational display at the Golden Spike National Historic Site .

In the mid @-@ 1870s , Rogers ended production of textile machinery and began concentrating solely on locomotive manufacturing . Rogers customers of the mid @-@ 19th century continued purchasing their locomotives . The Louisville and Nashville Railroad (L & N) purchased so many locomotives from Rogers that Rogers gave the L & N a free locomotive as a thank @-@ you bonus in 1879 .

Reuben Wells was appointed as shop superintendent in 1887 . Jacob Rogers , now in his late 70s , gradually passed more and more responsibility to Wells until Rogers resigned the presidency in 1893 . After just over 60 years , the Rogers company would no longer be run by a member of the

Rogers family . The company reorganized under its former treasurer and new president , Robert S. Hughes , as the Rogers Locomotive Company ; Jacob Rogers remained the company 's principal investor . Hughes led the company until his own death in 1900 . A year later , Jacob Rogers closed the Rogers Locomotive Company plant .

In 1901 , the year that Jacob Rogers died and the same year that the American Locomotive Company (ALCO) was formed through the merger of eight other locomotive manufacturers , the company reopened as the Rogers Locomotive Works . Reuben Wells was again the shop superintendent . But Rogers was at a competitive disadvantage . Not enough capital investment was made to purchase new equipment or in research and development . ALCO and Baldwin , the two companies that were at the time the largest locomotive manufacturers in North America , held too much of a lead in manufacturing and selling their own locomotives for Rogers to keep up . Compounding Rogers ' troubles was the greater city of Paterson that had grown up around the shop . There was not any room for Rogers to expand .

= = 1905 to present : absorbed into ALCO = =

Faced with stiff competition and an inability to increase its own capacity , Rogers Locomotive Works was purchased by ALCO in 1905 . Rogers ' last independently built locomotive was serial number 6271 , a 0 @-@ 6 @-@ 0 tank locomotive built for W. R. Grace & Company in February 1905 . ALCO continued building locomotives at the Rogers plant until 1913 when manufacturing at the plant ceased permanently . Locomotives built at the Rogers plant under ALCO are generally referred to as locomotives built by ALCO @-@ Rogers . ALCO used the Rogers plant buildings as warehouses well into the 1920s , but eventually sold off all of the property . The original Rogers erecting shop was converted into office space and was still in use in that manner as late as 1992 .

The erecting shop building has since been renamed the " Thomas Rogers Building " and is now the home of the Paterson Museum . The museum preserves and displays artifacts of Paterson 's industrial history . A 2 @-@ 6 @-@ 0 locomotive that was used in the construction of the Panama Canal is on display outside the museum , but it is one that was built by ALCO @-@ Cooke (the former Cooke Locomotive and Machine Works plant , also located in Paterson) and not by Rogers .

= = Preserved Rogers locomotives = =

The following locomotives (in serial number order) built by Rogers , before ALCO 's acquisition of the company , have been preserved . Where multiple railroads and road numbers are listed , they are given in chronological order for the locomotives ; all locations are in the United States unless noted .