The New Castle and Frenchtown Turnpike and Railroad - 1831 – 1838

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Prototype History

The New Castle and Frenchtown Turnpike and Railroad was one of the first railroads in the United States and invented a number of railroad related items such as the ball signal. Like many early railroads, its reason for being was made obsolete very quickly. The NC&F only lasted as a main line for a few years and was abandoned in 1858, but a few remnants of the road remain.

The New Castle and Frenchtown Turnpike Company between New Castle, Delaware, which is on Delaware Bay, to Frenchtown, Maryland to the west, at the top of the Chesapeake Bay was the middle leg of travel between Philadelphia and Baltimore. Steamboats were used for the other legs. The railroad was intended to increase the comfort and speed of traveling the 16 miles across the Delmarva Peninsula. All of this business ended when a railroad connection between these two cities was completed in 1837.

The Layout

This point to point HO layout replicates this very early railroad. In my limited time researching this road I have uncovered a later map of New Castle that shows the tracks still in place. I used this as my guide for the track plan here. I also found a written description of the railroad that described the number of tracks, which match the later map well. I have not found any maps of Frenchtown so it is based on the New Castle wharf. The main line was single track of the iron strap design. I have included a passing siding at Glasgow, De., as well as a spur. I have not found any reference to a passing siding but I can imagine one was in use somewhere along the line. The team track spur at Glasgow was added for operational interest, but did not exist on the prototype. I also included an interchange with the New Castle & Wilmington Railroad at New Castle. This interchange did exists, but came after the modeled period. It was included, again to increase operational interest. Both the interchange and the passing siding are locations where ball signals would be appropriate. Little of the NC&F still exists, but the original ticket booth has been restored and is on display near its original location in New Castle. Much of the roadbed can be identified and several original stone bridges have been restored in the last decade or so. Both the ticket booth and some of these cut stone bridges are placed in the layout design.

In planning this layout I used Fast Tracks #4 turnouts, but if one were actually hand laying their track I would suggest ordering a custom jig with #2.5 or #3 stub turnouts instead of pointed #4s.

Modeling Considerations

Due to model track using the prototype design of iron strap & wood rails bolted to stone sleepers being unavailable commercially, the modeler will need to decide on using more modern track design with wood ties or to create their own track that better matches the prototype. One thing to make things a little easier is the prototype used standard gauge from the start.

These earliest of railroads are often ignored, but as more information becomes digitized and available online, along with 3D printing technology becoming more common and widespread, modeling them may become more accepted in the future. The New Castle and Frenchtown is a railroad that was built by the company that also owned the adjacent toll road as a means to increase speed and efficiency. The rapid purchase of additional locomotives show that business in these brief final years of the trade route was brisk indeed. The fact that all 6 locomotives, including the last two constructed locally, are all "Planet" types, lending support that the design was dependable and efficient.

For these reasons as well as the historic firsts mentioned earlier, I think that the New Castle & Frenchtown deserves a closer look by modelers.

The Locomotives of the New Castle & Frenchtown Railroad – 1831 - 1838

Number & Name	Weight	Horsepower	Year Built	Date in Service
#1 – Delaware	8 tons	38	1831	August, 1832
#2 – Pennsylvania	9 tons	40	1832	November, 1832
#3 – Virginia	9 tons	40	1833	August, 1833
#4 – Phoenix	8 tons	38	1832	February, 1833
#5 – Newcastle	9 tons	40	1834	May, 1834
#6 – Comet	8 tons	38	1835	1835

All 6 of the New Castle & Frenchtown locomotives where of Stephenson's "Planet" design, with the first 4 being built by him in Newcastle, England. The other 2 were built by the railroad at their shop in New Castle, Delaware.

A description of the first locomotive, Delaware, which was probably similar to the other five, showed it had a boiler that was 78 inches long and had a diameter of 36 inches. This boiler contained 97 tubes, which feed cylinders that were 11 inches in diameter with a 16 inch stroke. Finally the forward wheels were 37 inches in diameter while the rear wheels were 60 inches in diameter.

These locomotives are well represented by Bachmann's De Witt Clinton locomotives, which are readily available on eBay and elsewhere. The passenger coaches used by the NC&F were similar to the ones offered by Bachmann as well, so these sets could be used as the basis for the locomotives and some of the rolling stock, at least to start. The modeler will certainly be scratch building other rolling stick, which will mostly be four wheel flat cars with a few four wheel box cars. John H. White Jr's book The American Railroad Freight Car covers wooden cars from the very beginning of railroading in the US and has several suitable car drawings for the period.