Thomas Speer McNair (1824-1901), the scion of a “temporarily-embarrassed” Scotch-Irish family gave up study at Williams College to carve out his own way, first teaching public school and then apprenticing on the North Branch Division of the Pennsylvania Canal, where he acquired his first knowledge of practical engineering.

He became the Chief Engineer on the Delaware Canal, responsible for the re-survey of that waterway in 1869 and for the monumental maps and peerless field-notes which came out of it.

From canal engineering he went on to engineering on the Lehigh Valley Railroad, from railroad engineering to mining engineering, to many important jobs in mining, and to a succession of executive positions in mining and power companies.
T. S. McNair invented the zinc mine lamp and replaceable tips for surveying rods; and one of his more notable achievements was the development of the inclined standard mine transit. Only a handful of mining transits with inclined standards (the McNair Style) are known to exist, and each one is a prized possession held by a long-term owner. The one pictured here sold for +$8000.

The transit was made to his order to accomplish the surveying work required to build the 15,000 foot-long Jeddo Mine Drainage Tunnel, which was built by McNair and his boss, John Markle (A.I.M.E. Honorary Membership in 1929.)

From 1891 to 1893 he was chief engineer of the Jeddo Mine Tunnel, considered at the time an “Engineering Marvel.”