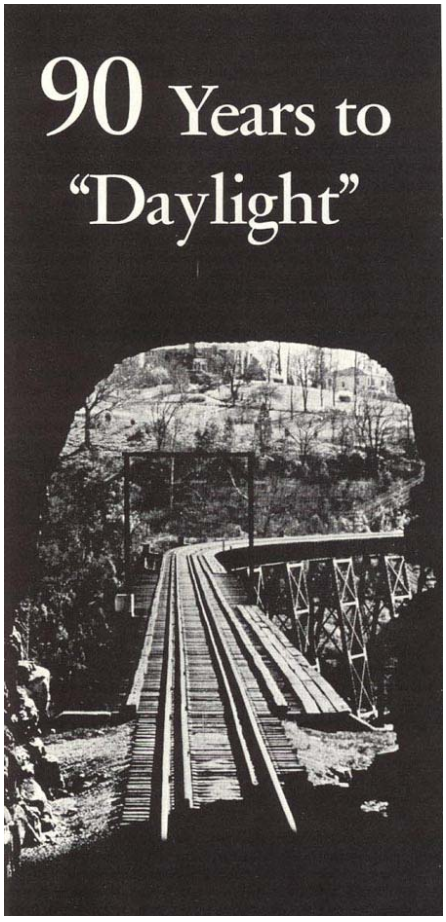
When all tunnel clearance restrictions were removed for all time on The Cincinnati, New Orleans & Texas Pacific Railway just after midnight on July 10, 1963, it marked more than the completion of one of the biggest railroad construction projects in this country in many years.

It was the culmination of 90 years of tunnel work on this heavily traveled line and foretold a decent burial for the old nickname "rathole division."



That nickname once aptly characterized the middle section of the CNO&TP, where 27 tunnels helped the line traverse 160 miles of rugged mountain country between Wilmore, Ky., and Emory Gap, Tenn., and kept an assortment of civil engineers busy almost from the day the line opened for traffic.

When the City of Cincinnati built the line during the 1870's the construction, appropriately enough, began and ended at tunnels.

The first construction contract called for the excavation of  **Kings Mountain Tunnel (tunnel No.2) and the first shovelful of earth was turned at the south end of that tunnel on December 23, 1873 and was finished in 1876.**

Six years later on December 10, 1879 the completed rails met within a few feet of the center of tunnel No.15 between New River and Robbins, Tenn.

Tunnels were numbered 1 through 27 (running from north to south). They ranged in length from 3,992 feet (Kings Mountain tunnel No.2) to 189 feet (tunnel No.6). Trains traveled underground for five miles through these 27 tunnels.

Tunnel openings were designed to be approximately 15* feet wide and 20 feet high at the top of the arch. Some of the arches appeared almost round, some resembled flat topped triangles, others were more jagged in appearance. The blasting techniques of the 1870's left something to be desired.

Some of the tunnels had been bored through solid limestone or sandstone and would never need lining. Tunnels in softer formations of rock, clay and shale were for the most part lined with heavy timbers for temporary protection but were intended to be relined with masonry. Even 12 inch by 12 inch timber supports and 3 inch and 6 inch thick planking would soon deteriorate in the tunnel dampness.

By the end of 1884, two tunnels had been completely lined with brick and stone and five others had partly finished interiors a total of almost 4,500 feet. The next eight years, saw supporting masonry

installed in another 11,000 feet of tuneling. By the time tunnel work came to a temporary halt in early 1893 (the CNO&TP went into receivership) all or part of 16 tunnels had arches and sidewalls of brick and stone

Four tunnels remained to be arched, but the engineers decided to get rid of two of them permanently instead. Tunnel No.6, the line's shortest at 189 feet, was "daylighted" into an open cut in 1901. A masonry lining proved impractical for tunnel No.27 (1,941 feet long and cut through clay, boulders, limestone and shale) so a new line to bypass the tunnel was completed in 1902 and placed in service in 1904. Lining of the two remaining tunnels (in 1902) completed all the tunnel masonry required by the lease.

Two more short tunnels were eliminated in 1907. Tunnel No.10 (270 feet) was "daylighted" into an open cut and tunnel No.19 (360 feet) was bypassed by a line change. Four down and 23 to go.

Double tracking of parts of the Cincinnati Chattanooga line in 1919 and 1920 led to the first wholesale elimination of tunnels. On the completion of 17 1/2 miles of double track through the mountains of Tennessee in the fall of 1920, six more tunnels were bypassed Nos. 13, 14, 17, 18, 20, and 21, a total of 3,180 feet. Now only 17 of the original tunnels remained and one of those (No.16) carried southbound traffic only.

Trains thundered through the tunnels for almost a decade before the next abandonment about 1930. This was tunnel No.1 and it too was bypassed as a result of installing double track, this time near Wilmore, Ky. Two more tunnels were crossed off the list in 1950. Tunnels 3 and 4 were two of the six tunnels originally driven through solid rock, never lined with either timber or masonry. The rugged south portal of tunnel No.4 presented probably the best known tunnel face on the entire line. It opened onto the old Cumberland River bridge.

When the federal government planned Wolf Creek Dam on the Cumberland River in Kentucky in the late 1940's it was apparent that the high water level in the new reservoir would be some 20 feet above the rails on Southern's existing bridge. Unless the railway planned to swap its diesels for submarines, a new and higher bridge was in order.

In constructing the new bridge, the builders relocated the line to bring it to the north bank of the Cumberland River through an 82 foot deep cut in solid rock. As a result, when the new line went into service on August 3, 1950, tunnels 3 and 4 were permanently abandoned.

Tunnel No.16 near Huffman, Tenn. on a line that carried only southbound traffic for years and finally was reduced to the status of passing siding was permanently abandoned in 1955 at the time Centralized Traffic Control was being installed on that section of the CNO&TP.

As the 1950's drew to a close, only 13 of the original tunnels remained . . . but these saddled increasing restrictions on modern railroad operation.

Tunnel openings that had seemed so roomy in 1881 applied an unwelcome clearance "squeeze" to the big, high capacity cars and high, wide loads that were helping create savings for shippers and greater traffic volume for the railroad the freight on which jobs depend. Even one small bore tunnel was too many on the busy CNO&TP. The bottleneck to progress couldn't be allowed to last longer.

In 1961 work began on the abandonment or enlarging of all the remaining tunnels on the line. Eighteen months and $32 million later, the "rathole division" had lost its old nickname for good.

Nine tunnels were bypassed outright by line changes - Nos. 2, 5, 7, 8, 9, 11, 12, 15 and 23. Tunnel No 2 at Kings Mountain was by passed by cutting a .9 of a mile cut through the mountain. The work

began in 1962 and finished in 1965. The cut runs from the South Fork community to Town of Kings Mountain

Three of the former tunnels (Nos. 22, 24 and 26) were bypassed through new tunnels, but these have openings twice as large as the old 20 feet wide and 30 feet high at the top of the arch. Tunnel No.25, the one remaining relic of the original tunnel work on the CNO&TP, has been enlarged to the same generous dimensions