

THE WATER-WHEELS AT CRESSBROOK

By J. W. BROOMHEAD

The first water-wheel was situated at the north end of Arkwright's mill (later known as "old mill"). It was placed in the position now occupied by the present Trent turbine. The wheel measured 24 ft. diam. by 12 ft. wide. Water was provided by building a small dam across the stream called Cressbrook. This dam, of earth and rubble, is still intact; parts of the underground culvert, goyt and the step serving the wheel can still be seen.

When the Wye mill (latterly called "big mill") was built (1814) a second wheel was installed close by, and on the same axis as the first wheel. This was powered by water from a dam on the Wye. Both wheels ran until the 1890s, when a vertical water-turbine was installed. Both water-wheels were driven by water from the Wye, when the Wye wheel was installed. Second wheel 24 ft. diam. by 24 ft. wide.

In 1823 Newton built a third mill at the south end of old mill, and at right angles to it. This was called Cressbrook mill. A third wheel was provided on the south side of this mill. Water for this wheel came from the Cressbrook stream. Newton carried out a major improvement to water reserves for this wheel by building a second dam across the Cressbrook, downstream from the Arkwright dam. This pool is now used as a trout breeding-pool.

Owing to the fluctuation of water in the Cressbrook, Newton later connected the 3 water-wheels together by means of cast-iron shafts and gears, thus avoiding standing time in the Cressbrook mill.