THE ANCIENT TOWN AND BOROUGH

OF

CONGLETON,

Cheshire.

WITH AN APPENDIX,

CONTAINING A BRIEF HISTORY AND DESCRIPTION OF

Astbury Church,

AND BIOGRAPHICAL SKETCHES OF

EMINENT NATIVES.

COMPILED FROM THE MOST AUTHENTIC SOURCES,

BY SAMUEL YATES.

The first silk-mill, which is yet the largest and most conspicuous structure in Congleton, is built of brick, with a pediment, containing the dial plate of the clock in the centre. It is 240 feet long, twenty-four feet wide, and forty-eight feet high, consisting of five stories; and is lighted by 390 windows. Three of the rooms contain seventy-five winding engines, which perform 32,850 movements. Their office is to draw off or wind upon a small cylindrical block of wood, or bobbin, the raw silk, which is placed on an hexagonal wheel called the swift. The other two rooms contain the cleaning engines, and the spinning, doubling, and throwing mills. The cleaning engines wind the silk from the first set of bobbins on to another; in this part of the process many children are employed, whose nimble fingers are kept in continual exercise by tying the

threads that break. The cleaning engines are twenty-one in number, and perform 3,150 movements. The spinning and throwing mills were originally of a circular form, and were turned by upright shafts, passing through their centres, and communicating with shafts from the water-wheel; their diameter was between twelve and fourteen feet; and their height about nineteen feet. These were, a few years ago taken down, and replaced by machinery of a more modern construction, by means of which nearly double the quantity of silk can be spun in the same space. There are thrirty-eight spinning mills, which perform 39,520 movements. The spindles run in steps of glass, and the threads are conducted over glass rods from one bobbin to another. There are twenty-two doubling engines, which have 6,820 movements. There are likewise upwards of sixty women employed in doubling silk on single wheels. The throwing mills, which wind the silk from the bobbins upon reels, and form it again into skeins ready for the dyers, perform 11,076 movements. The total number of movements is 115,600, and the number of wheels is 21,116.

The whole of this elaborate machine, for one only it is, although distributed through five large rooms, is put in motion by a single water wheel

nineteen feet, six inches, in diameter, and five feet, six inches broad, situated in the centre of the building. The wheel is regulated to go and keep time with a clock, by a contrivance that admits more or less water upon the wheel, so as always to make the motion uniform. The time-piece, worked by means of the wheel, does not vary a minute, in the course of the day, from the common clock.

"An adequate idea of this complicated assemblage of wheels cannot be conveyed by words; to be distinctly conceived, it must be seen; and even then considerably more time is requisite to obtain a knowledge of its parts, and of their dependance on each other, than is generally allotted by a casual visitant. All is whirling and in motion, and appears as if directed and animated by some invisible power; yet mutually dependant as every part is, any one of them may be stopped and separated at pleasure. This arises from every movement being performed by two wheels, one of which is turned by the other; but when separated, the latter preserves its rotatory motion, while the other stops as the impelling power no longer operates.*"