

**Spin'ning-wheel.** A machine consisting of a large wheel, band, and spindle, and driven by foot or by hand.

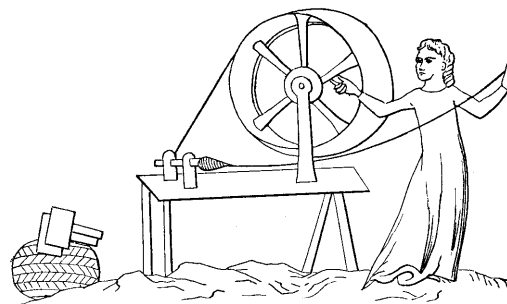
The wool is carded into rolls, which are twisted, drawn, and wound a length at a time, the wheel being turned periodically to twist the yarn. It was the first great improvement upon spinning by a distaff and spindle.

It appears to have been in use for many ages in Hindustan, but did not reach Europe before the sixteenth century. One account states that it was invented at Nuremberg about 1530: the statement is improbable.

The accompanying cut is taken from an illuminated manuscript of the fourteenth century, in the British Museum (M. S. Reg. 10 E. IV.), and represents a lady spinning at her wheel.

The spindle is rotated in horizontal bearings, having a spool, over which the band from the larger wheel passes. A roving,

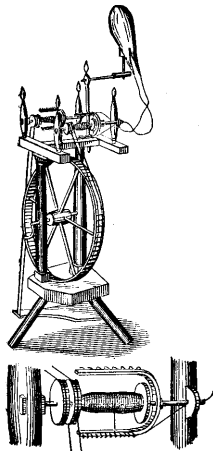
Fig. 5414.



Spinning-Wheel.

being attached to the end of the spindle, is twisted as the latter revolves, the roving being allowed to slip between the finger and thumb of the spinster, who also extends the roving by retracting the hand, or by retiring from the wheel, which continues its motion by the impetus acquired. The required length

Fig. 5415.



Spinning-Wheel.

and hardness of twist being obtained by this combined drawing and twisting operation, the yarn is disengaged from the point of the spindle and wound into a *cop*, the end of the yarn being attached to the end of the spindle, so as to project and allow another roving to be connected thereto.

Fig 5415 is an improved form of the old-fashioned hand-spinning wheel. It is set in motion by a treadle, which turns the large wheel, around which are bands passing over two pulleys near the ends of two horizontal spindles, which also carry flyers. The roll of fiber is placed on an upright pin, and the spinster, drawing out two thin slivers, attaches them to the two spindles, passes them between two of the teeth on each spindle, and imparts a rotary motion to the wheel, at the same time drawing out the slivers, which are thus elongated and twisted by the flyers to a degree proportionate to the velocity of the rotation. When the drawn-out sliver has been twisted sufficiently, the yarn is removed from between the teeth of the flyers and wound upon the spindles by reversing their motion, two

Fig. 5416.

other slivers are drawn out, and the operation proceeded with as before, and so, forming two continuous threads, until all the fiber in the roll is exhausted.