

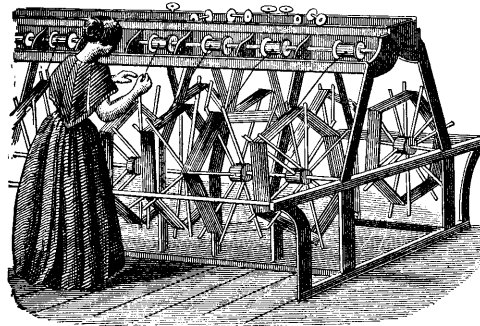
**Silk-winder.** (*Silk-manufacture.*) a. The reel on which silk is wound from the cocoons. See SILK-REEL.

b. The machine on which raw silk in the *hank* is transferred to bobbins preparatory to spinning.

Each hank is extended upon a light six-sided reel, called a *swift*, a number of which are arranged on axes on each side of a frame. The bobbins, one for each swift, are arranged above them.

The ends of the filaments on the swifts are connected to the bobbins, and the swifts are set in motion, causing the bobbins to turn and deliver the silk.

Fig. 5091.



*Silk-Winder.*

The swifts are adjustable to receive hanks of varying sizes, and have a friction device on the axis, to prevent them from turning faster than the bobbins can take the silk. The filaments pass through eyes on a rod having an endwise traversing motion, which lay them spirally and evenly upon the bobbins.

Fanshaw's silk-winder, English patent, 1827, was designed to avoid the breakage of the filament in winding the skein silk on to bobbins. Instead of mounting the skein on a reel, which is rotated by drawing upon the thread, the reel is made stationary, and a revolving flyer passes around and lifts the thread, which passes over a roller, thence to the center of rotation, and is then wound upon a bobbin.