

Cop; Cop'pin. 1. (*Spinning.*) A conical ball of thread wound upon a spindle or tube in a spinning-machine, and removable by slipping therefrom.

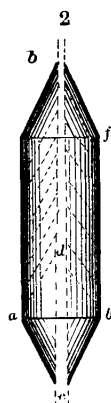
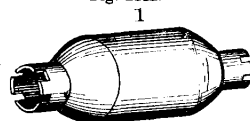
The *copping-reel* is the means of distributing the roving or yarn up and down on the bobbin, so as to wind it into the form required. The form (1, Fig. 1442) is the result of a scheme for giving each layer an equal length of yarn, so that the length of the layer on the bobbin shall decrease as its diameter increases.

The increase in diameter renders necessary a decrease in speed, in order that it may wind equal yarn in equal times. This is accomplished by a device called a *conepulley* (which see).

The *cop* (2, Fig. 1442) made on the spindles of the mule is of a different form, the yarn being wound in a double cone as a foundation *a b c d*, upon which the rest is built upward in successive layers, which are easily unwound, either by the reel or in the shuttle. The conical *spindle-form* with conical ends is preserved (*a b c e f*), as being the most compact and self-sustaining, consideration being had to the form of the shuttle in which it is to lie.

2. A tube, also known as a *quill*, for winding silk upon in given lengths for market; a substitute for skeins. Being hollow, it may be placed on the spindle or skewer of any winding-machine. The silk end is secured in a slit, as in the case of spools.

Fig. 1442.



Bobbin and Cop.