

FRENCH WORSTED SPINNING.

BY LEON FAUX.

(A Series of Articles on French Worsted Spinning.)

S. A. C. M. INTERSECTING GILLS

There are 17 fallers in the upper set, P, Fig. 113, of this intersecting gill-box and twenty-one fallers in the lower set P'. The lower set P' has 15 fallers constantly in action on the fibers, their movement being horizontal from *a* to *c* and inclined upward from *c* to *o* for the purpose of increasing the compression on the fibers at the moment when the draft increases, the object being to maintain the echelon position of the short fibers until they are brought as near as possible to the drawing point.

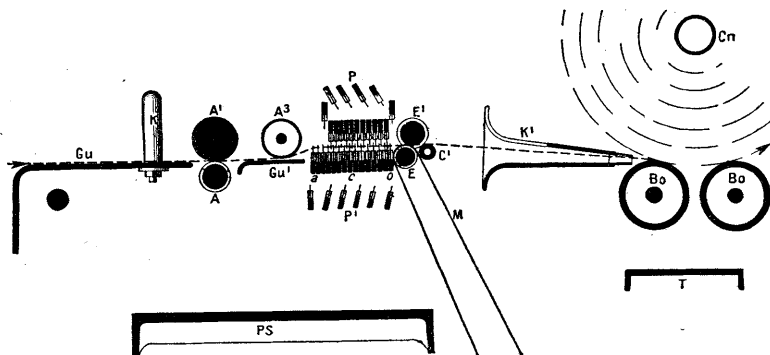


Fig. 113. S. A. C. M. Intersecting Gills.

The upper set P has 11 fallers constantly in action on the fibers and they penetrate the stock between the third and fourth fallers of the lower set P' so that the rows of pins in the two sets of fallers penetrate the wool successively. The movement of the upper set of fallers is horizontal.

The size of the fallers, profile and set of the pins are the same as in the other gill boxes, but the rows of pins are offset .08 in. on the face of the fallers.

O. P. S. STEP GILL-BOXES

Aside from the method of operating the fallers and the construction of the pins as previously explained, these gill-boxes are distinguished by the arrangement of the gilling zone P, Fig. 114, which consists of 24 fallers of which 15 are constantly in action on the fibers. The gilling zone consists therefore of (15×2) 30 rows of pins.

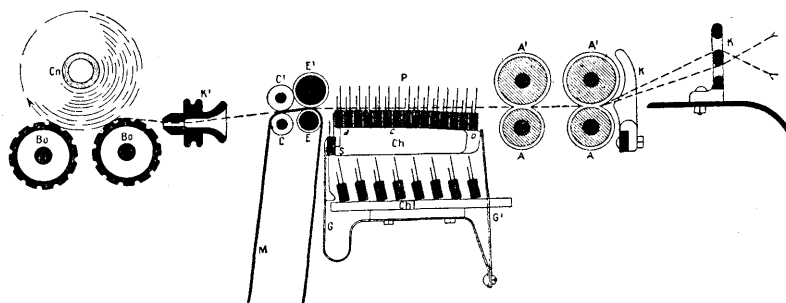


Fig. 114. O. P. S. Step Gill-Box.

From *o* to *c* the fallers rise on an incline in order to give a progressive penetration of the pins into the fibers; from *c* to *a* the fallers move in a horizontal line. The drawing point is about .08 in. above the faller bar, which enables the pins to hold the fibers for a longer time during the two steps in the drop of the fallers.

The slivers are delivered to the pins by two pairs of feed rolls AA. The arrangement of the drawing rolls is the same as in the Gruen intersecting gill-box, but the bottom roll is removable. The tube K' which condenses the stock into a sliver is revolved alternately in each direction as in the N S C and M G B gill-boxes. The sliver is wound in the spool by means of the two rollers Bo.