

THE MANUFACTURE OF FANCY YARN.

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(Continued from December.)

3. Twisted gut yarn. This is obtained by twisting several cotton threads with the ordi-

the tie thread, 3, is twisted around them.

4. Barred twist. This thread is made by twisting two or more single barred threads with straight single threads. There is no special feature connected with the production of these effects, one of which is shown

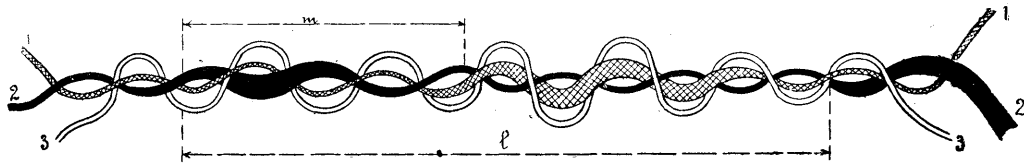


FIG. 35.

nary single thread. Fig. 36 shows such a novelty yarn consisting of a gut thread, 1 and

at Fig. 37. It consists of the two barred threads, 1 and 2. At Fig. 38, thread 2 only is barred. At Fig. 39, thread 3 is the only

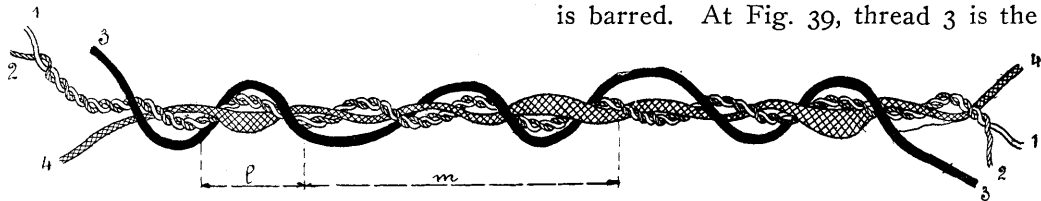


FIG. 36.

2, and a ply thread, 3. This yarn is made in the ordinary way and the process presents no

barred thread, but is very coarse in order to make it prominent. A very satisfactory result is obtained by hollowing out one roll in

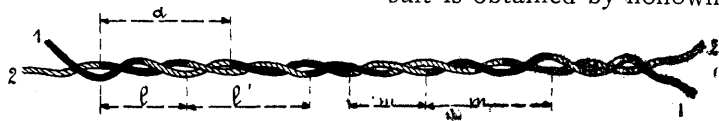


FIG. 27.

special difficulties. Fig. 36 is another example of this kind of yarn. The threads, 1

each pair of delivery rolls. One of these rolls is shown at Fig. 40; Fig. 41 is a sectional view. The different parts of which the

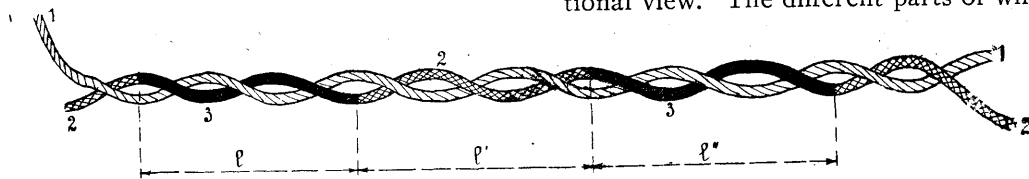


FIG. 38.

and 2, are first twisted together and then twisted with the gut thread, 4, after which

roll is composed are shown at Figs. 42 to 46. They are fastened to the shaft, D, and the

three irregular disks are held in place by two circular disks, E and F. Figs. 47, 48, show is again twisted with one or more other threads in a reverse direction and with less

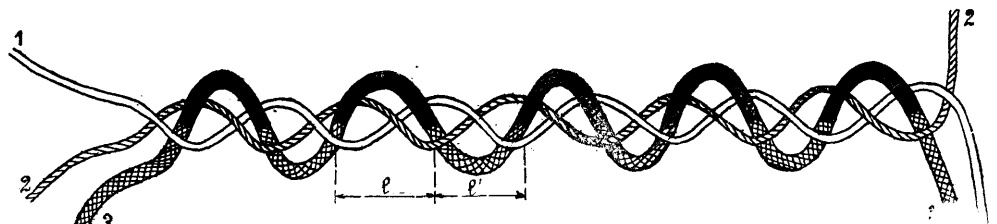


FIG. 39.

the working parts of a twister equipped with this kind of a roll. The roll is supported in the fork, J, Fig. 49, and rests on the solid turns to the inch. Fig. 50 shows a mouline twist composed of four strands. The effects shown in Figs. 51 and 52 are produced with

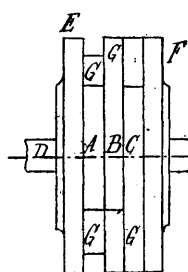


FIG. 40.

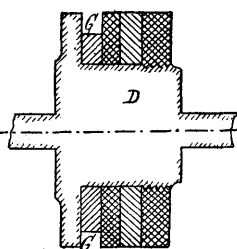


FIG. 41.

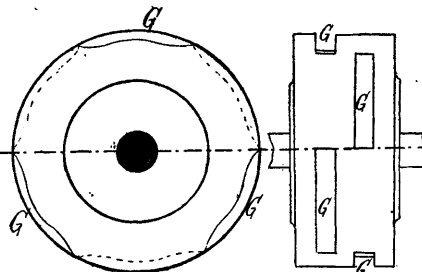


FIG. 42.

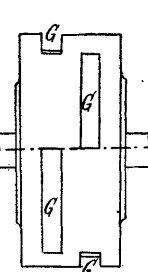


FIG. 43.

twisting roll, K. The threads pass between only three strands for each. Fig. 53 is a the two rolls and are then twisted together. 3-ply mouline twist in which the strand, 1, is

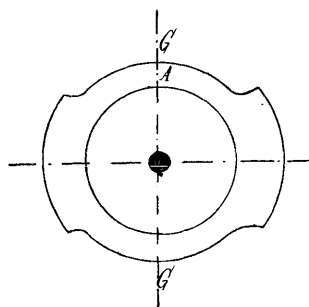


FIG. 44.

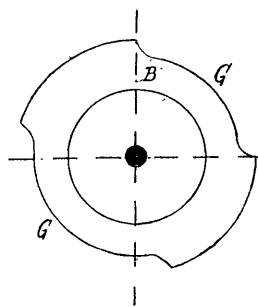


FIG. 45.

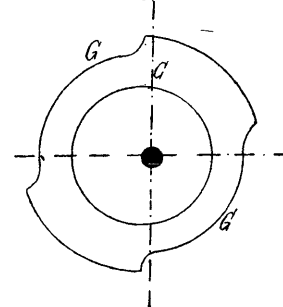


FIG. 46.

5. Mouline twist. This twist consists of coarser than the others. Fig. 54 is made by the ordinary straight ply yarn which has been twisting a 2-ply twist with one base thread,

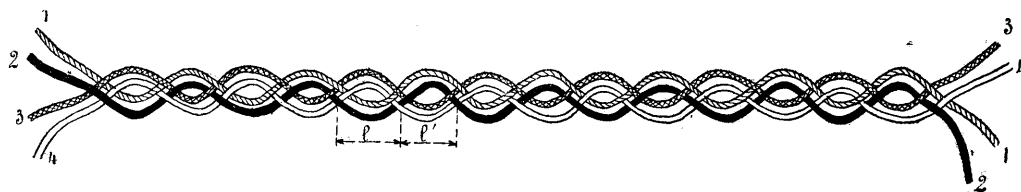


FIG. 50.

submitted to two or three twisting processes, producing a fancy effect in the finished thread. After the first operation the ply yarn 2, and then twisting a tie thread, 1, around the first three. The silk covered threads are sometimes

drawn direct from the cocoon. The base thread, consisting of either cotton or silk

The filaments pass over the edge of the tube to the base thread which they cover entirely. The twist is imparted by the spindle, and the fancy thread is then wound on the bobbin.

FIG. 47.

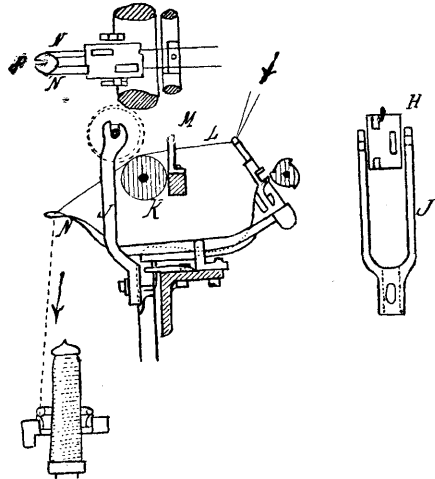


FIG. 48.

FIG. 49.

FANCY TWIST.

Button or knotted yarn. In this yarn the button or knot is formed by twisting one thread around another at one spot on the latter. Sometimes a third or tie-thread is used. To make this fancy yarn on a twister it is necessary that each thread should be delivered by separate sets of rollers controlled independently of one another.

The base thread, a, Fig. 55, is delivered by the rollers, b, and the thread, d, forming the knot is delivered by the rollers, c. The knot is formed while the rollers, b, are stopped, the rollers, c, delivering the knotting thread, continuing in motion, and the yarn being wound in a bunch around the base thread, at f. There is a ring at f, through which the

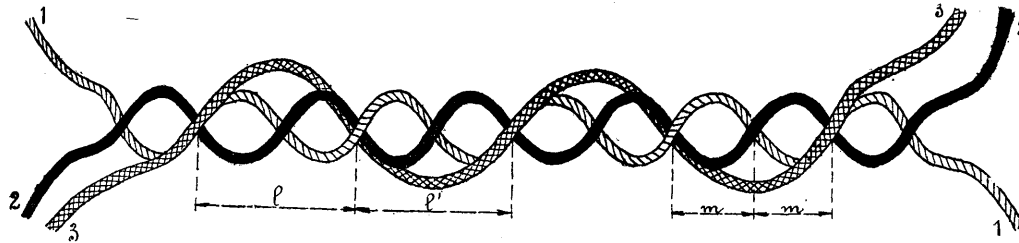


FIG. 51.

waste, is carried downward, passes into the bassines through a tube and to the spindle

knotted yarn passes and which serves to keep the two threads apart till they reach this

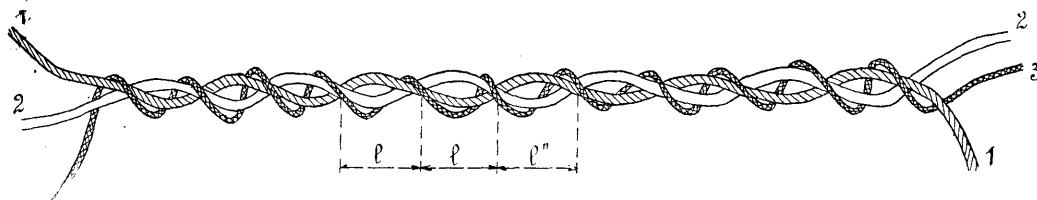


FIG. 52.

above. The cocoons are placed in the bassines and treated in the ordinary manner.

point, after which the twisted thread is wound on the bobbin.

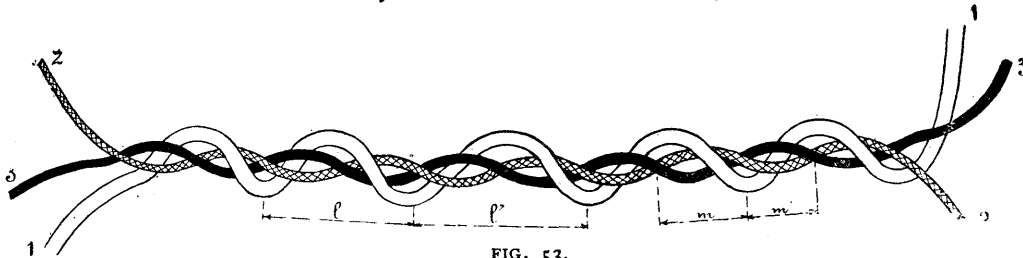


FIG. 53.

The rollers, b, can be stopped and started in a variety of ways, one consisting in the use

speed as that of the rollers, c. During this time when both sets of rollers are in motion

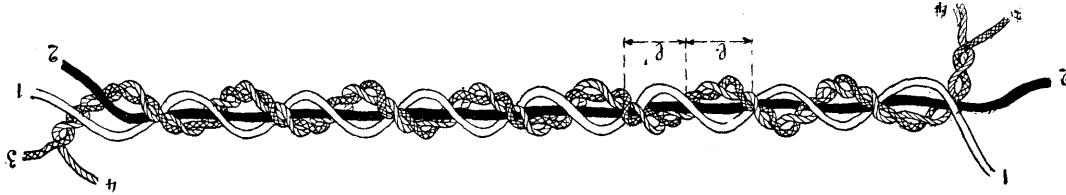


FIG. 54.

of gears from which the teeth have been removed at intervals. This method is shown

a straight twist is formed between the knots. The stopping and starting can be varied by changing the size of the gear, j, or by vary-

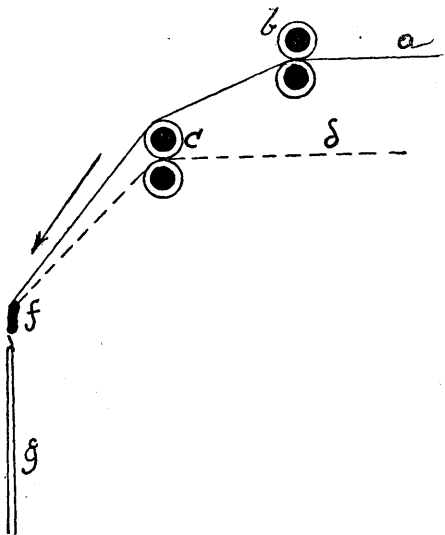


FIG. 55.

at Fig. 56. The power is supplied by the rollers, c, which supply the power to the rollers, b, by a series of gears. The teeth are removed from a section of the gear, h, so

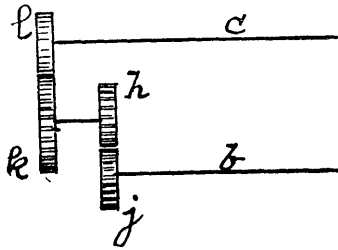


FIG. 56.

that when these blank spaces are reached the gear, j, and consequently the roller, b, connected with it, are stopped. In this way the knot is formed as already explained.

When the geared section is reached again the rollers, b, are set in motion at the same

varying the number of teeth removed from gear, h. Two or three successive knots of different sizes can thus be obtained. For example, the gear, h, may have 40 teeth; then 10 may be removed, 15 left, 5 removed, and the remainder, 10, left. By similar variations

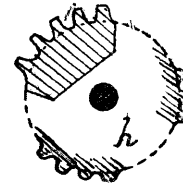


FIG. 57.

ing the order in which the teeth are removed from the gear, h. The size of the knot is varied by changing the gears, l and k, or by

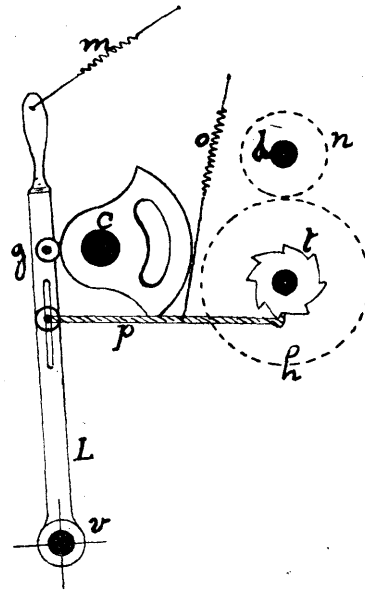


FIG. 58.

the size of and the distance separating the buttons are varied indefinitely. Fig. 57 shows a section of a gear used for such a purpose. Fortunately this gear can be run only at a moderate speed.

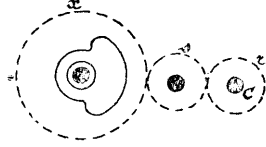


FIG. 59.

Another device for starting and stopping the rollers, b, is shown at Fig. 58. The roller, b, carries a pinion gear, m, engaging with the gear, h, the latter being connected with a ratchet, t. The rollers, c, carry a cam against which the roller, g, and the lever, T, rest. This lever swings on an axis, b. Connecting the lever to the ratchet is a hooked rod, p. Each time the cam, c, makes a revolution the lever, L, and rod, p, are vibrated, starting and stopping the ratchet, t, gears, h and m, and consequently the rollers, b. The distance between the knots can be varied by changing the gears, h and m, as well as the ratchet, t. To change the size of the knots it is necessary to place the cam on the intermediate pinion in order that the speed may be regulated as desired. This method of driving is shown at Fig. 59. The rollers, c, drive the cam by means of the gears, r and s.

(To be continued.)