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APPARATUS FOR MAKING NOVELTY YARN

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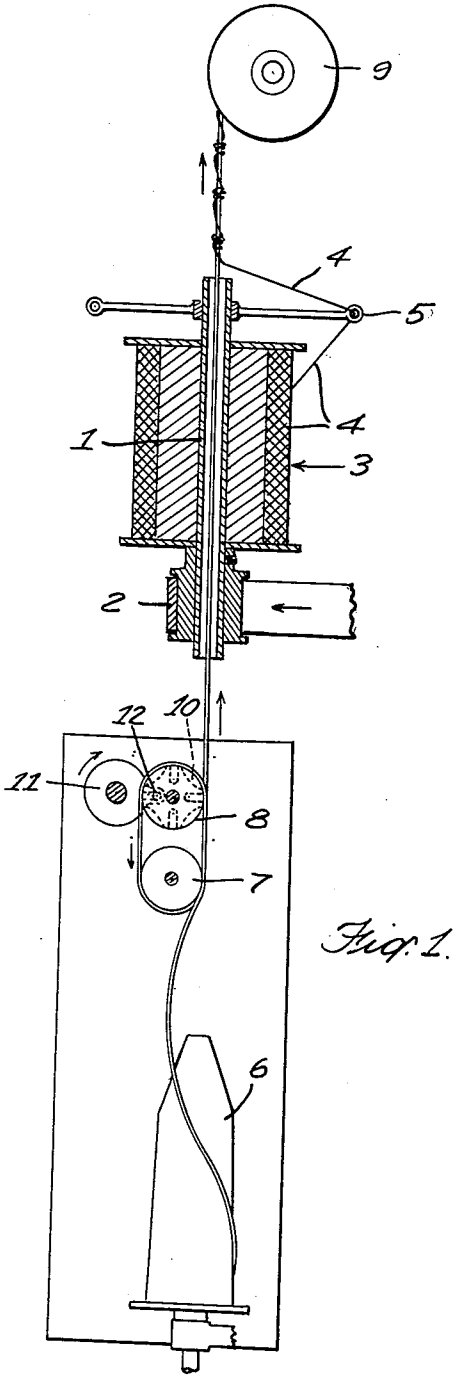


Fig. 1.

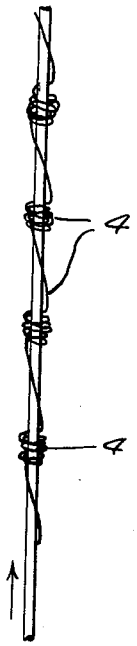


Fig. 2.

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APPARATUS FOR MAKING NOVELTY YARN

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1 Claim. (Cl. 57—18)

This invention relates to novelty yarns and more particularly to a yarn having loops or ribs spaced therealong.

It is known to produce novelty yarns by winding a cover yarn around a core yarn. The cover yarn is unwound from a bobbin mounted on a hollow spindle, and a core yarn is fed through the hollow interior of the spindle. The cover yarn winds on to the core yarn as the latter advances.

According to the present invention, a loop yarn can be obtained by a very simple means based upon the above method. The method consists in imparting an intermittent advance of very short period to the core yarn.

The said intermittent advance can be obtained in many ways, by intermittent drive of the feed device taking the yarn from a feed cop, or by the use of recessed feed members, or feed members comprising escapement mechanism.

A convenient means consists in the use of a Geneva drive similar to that employed in motion picture cameras and projectors, to control the yarn feed members. At each stoppage of the core yarn, a loop is formed.

Various effects can be obtained by the choice of the core yarns and of the cover yarns. The two yarns may be of like or dissimilar nature and natural, artificial or synthetic textile yarns may be employed, or even glass yarns or yarns of other materials. The deniers of the various yarns may differ.

The core and the cover may be of contrasting colors. Plied yarns or other novelty yarns may also be employed.

The nature of the invention will be better understood by referring to the following description, taken in connection with the accompanying drawing wherein a specific embodiment has been set forth for purposes of illustration.

In the drawing:

FIGURE 1 is a diagrammatic representation of an apparatus for carrying out the invention; and

FIG. 2 is a detail view illustrating the novelty yarn produced by the apparatus of FIGURE 1.

Referring to the drawing more in detail a bobbin 3 carrying a package of cover yarn 4 is shown as mounted

on a hollow spindle 1 carrying a whorl 2. This package is unwound endwise by means of a guide 5. A second package 6, for example, a cop carrying the core yarn, is disposed below the hollow spindle 1. The core yarn is unwound by slightly crossed feed rolls 7 and 8, one of which is driven. The core yarn makes a number of turns around the rolls 7 and 8 so as to be fed thereby. One of these rolls, for example the roll 8, is intermittently driven by suitable drive means shown as a Geneva gear in the form of a star wheel 10 mounted to rotate with the feed roll 8 and a continuously driven disc 11 carrying a pin 12 engaging slots in the star wheel 10 for effecting an intermittent drive.

The core yarn fed by the rolls 7 and 8 passes through the hollow spindle 1 and is plied with the cover yarn at the outlet end of the spindle. The plied yarn is wound on to the bobbin 9, which is driven synchronously with the driving roll 8.

In operation the guide 5 is continuously rotated so as to wind the cover yarn 4 about the core yarn as the latter advances. Due to the intermittent feed of the core yarn the cover yarn 4 will be wound around the core yarn in a loop when the core yarn s stationary and will extend along the core yarn in helical form between loops in the areas where the core yarn is advanced by the drive mechanism as shown in FIG. 2. In this way a spaced loop effect is obtained.

What is claimed is:

In an apparatus for making a novelty yarn, including a hollow spindle, means for feeding a core yarn axially through said hollow spindle, a cover yarn package disposed on said spindle, means for withdrawing said cover yarn from said package and for plying said cover yarn, and means for continuously rotating said spindle at a uniform rate to cause said cover yarn to wrap around said core yarn in successive turns, the improvement which comprises a Geneva drive for actuating the core yarn feeding means to feed said core yarn through said hollow spindle with an intermittent movement between periods of dwell.

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