

Dec. 15, 1936.

E. J. LOWNES, JR., ET AL

2,064,804

SILK YARN

Filed Dec. 20, 1934

Fig. 1.

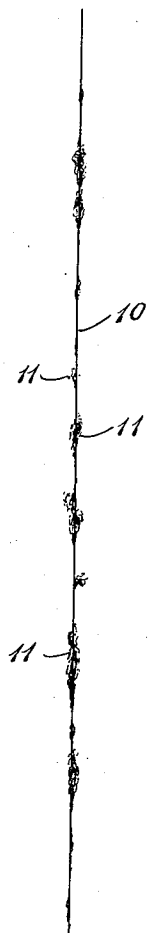
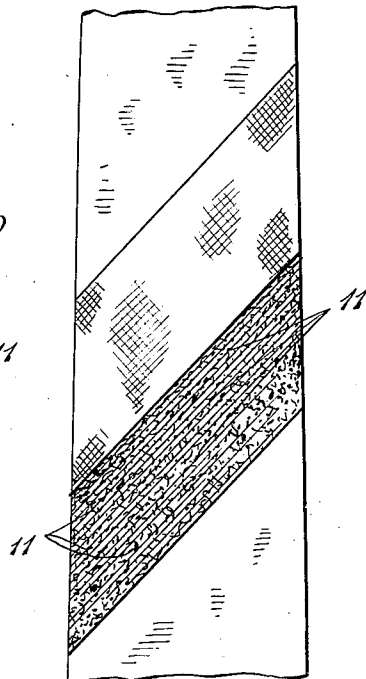


Fig. 2.



Fig. 3.



INVENTORS
EDGAR J. LOWNES, JR.
MILES O. GIBSON
BY
Richards & Geier
ATTORNEYS

UNITED STATES PATENT OFFICE

2,064,804

SILK YARN

Edgar J. Lownes, Jr., and Miles O. Gibson,
Providence, R. I.

Application December 20, 1934, Serial No. 758,351

10 Claims. (Cl. 117—52)

The present invention relates to a yarn, and particularly to a decorative silk yarn, and process for making the same.

An object of the present invention is to provide an improved yarn giving a varied structure and/or color effect which may be conveniently woven, knitted or otherwise processed to give yarns, fabrics and other textile materials of unusual designs.

Other objects will appear during the course of the following specification.

In accomplishing the above objects it has been found satisfactory to form a yarn of strands which are preferably intermingled and twisted together, the preferred yarn being formed of spun silk and including strands of different colors and structure.

In making up the strands to be twisted and/or spun together to form the novel yarn of the present application, it has been found desirable to use the residue from the dressing operation, which residue is termed long noil.

This long noil is washed and dyed and then is carded by a special operation which will not be described.

In carding the noils, the fiber treating elements of the carding machines are arranged in such a way that most of the fibers will be aligned, but a substantial number of the fibers of the noils will be coiled and not aligned together with the other fibers.

These curled and unstraightened fibers may be conveniently put in this position by special treating operations or in any other desired manner, so long as there is produced in the bands from the carding machine a series of fibers which are not aligned with the other fibers.

It is an important feature of the present invention that the blending of the colors does not take place during the carding operation, inasmuch as a more or less uniform color effect would be obtained, quite different from the variegated effect which it is desired to obtain.

After this carding operation has been performed in the manner described, the material is then subjected to several drawing operations, in which operations the group fibers are put through a rubbing procedure, during which rubbing procedure the fibers are brought together in close relationship with each other and conglomerated.

During this operation several colors are blended together if desired, and long-fibered dressed silk may be introduced at this point.

The amount of colors blended together and posi-

tion of the color is preferably according to a predetermined design, which it is desired to produce.

After this step the fibers are submitted to a roving process and then finally to a spinning process.

The spun silk so produced is of special construction and gives the appearance of a multi-colored thread of mottled appearance, with a large number of tufts sticking out of the sides of the thread at desirably spaced intervals.

The accompanying drawing shows the appearance of one type or specimen of the yarn prepared and a cloth which may be prepared therefrom.

The above and other objects will appear more clearly from the following detailed description when taken in connection with the accompanying drawing which illustrates a preferred embodiment of the inventive idea.

In the drawing:

Figure 1 shows one specimen of the yarn upon a relatively small scale.

Figure 2 shows a portion of Fig. 1 upon a much enlarged scale, and

Figure 3 shows the fabric made from the yarn of Figs. 1 and 2.

In the drawing, the body of the yarn is designated by the numeral 10 and the tufts are designated by the numeral 11. The maximum twist of the yarn is at the non-tufted portions 10 where a plurality of strands may be twisted together fairly tightly and closely. At the tufted portions 11 the non-straightened fibers above-described are held together by the twisted together lengths of fibers constituting the body 10.

During the spinning the twist is taken up, for the most part, by the portions 10 of the yarn.

A particular feature of the present invention is the fact that no fillers, oil or other materials are used to hold the fibers together.

What is claimed is:

1. A spun silk yarn having a multi-colored mottled appearance consisting of strands of colored long-fiber dressed silk, and a strand of colored partly carded silk noils, said strands being twisted together and the uncarded part presenting tufts sticking out at spaced intervals.

2. The method of making a novel spun silk yarn consisting in carding silk noils until a silk noil strand is provided presenting tuft portions and interlocked substantially straight fibers, blending long-fiber dressed silk with said strand of silk noils, and finally spinning said silk noil strand and said long-fiber dressed silk until a finished yarn is provided with the uncarded part

of the silk noils projecting as tufts at spaced intervals.

3. A novel spun yarn consisting of a partly carded noil strand and long-fiber strand twisted together with the long-fiber strand and part of the noil strand forming the body of the yarn and the uncarded part of the noil strand forming projecting tufts at spaced intervals.

4. The method of making a novel spun silk yarn consisting in partly carding silk noils to form a silk noil strand having tufts formed from the uncarded portion of the noils and interlocked substantially straight fibers, blending long-fiber dressed silk with the silk noil strand by subjecting the silk noil strand and the long-fiber dressed silk at the same time to several drawing operations, subjecting the blended silk noil strand and long-fiber dressed silk to a roving machine, and finally spinning the roved material.

5. A spun yarn formed of a plurality of fiber strands, at least one of said strands being a sliver of noils, the product of a carding machine wherein the noils are carded sufficiently to have part of the fibers thereof substantially straight and part forming tufts and at least one other of said strands being formed of long-fibers, said tufts projecting at spaced intervals along the yarn.

6. A non-filled novel spun silk yarn consisting of a plurality of strands of colored long-fiber dressed silk, and a strand of silk noils twisted together to form a single yarn, some of the fibers of said noil strand being uncarded and out of alignment so that they will project as tufts along the length of the finished yarn.

7. A composite yarn composed of a plurality of

different colored strands arranged in close relationship so that the final yarn will have a multi-colored mottled appearance having a large number of tufts sticking out at spaced intervals, at least one of said strands being composed of partly uncarded silk noils, said uncarded silk noils forming said tufts.

8. A composite nib or nub yarn composed of a plurality of different colored strands including a silk noil strand which have been subjected to several drawing operations together in making the final yarn, the noils of said noil strand being partly uncarded whereby a multi-colored yarn is presented having a number of tufts of the noil strand sticking out at spaced intervals, said uncarded silk noils forming said tufts.

9. An article of the character described composed of colored long-fiber dressed silk, and a strand of colored silk noils, the silk noil strand and the long-fiber dressed silk being in close relationship for their full length, the noils of said noil strand being partly uncarded and the uncarded part projecting at spaced intervals in the finished article.

10. A composite yarn composed of a plurality of different colored strands including at least one silk noil strand, said strands having been subject to several drawing operations, the noils of said noil strand being partly uncarded with the uncarded part projecting at spaced intervals whereby certain of said strands will be distinguishable in the final yarn.

EDGAR J. LOWNES, JR.
MILES O. GIBSON.