Aug. 24, 1937. J. W. PHILLIPS 2,090,807

KNITTING BAND

Filed April 22, 1935

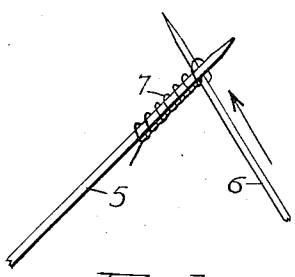


Fig. 1.

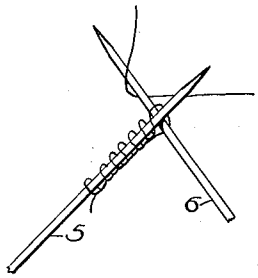


Fig. 2.

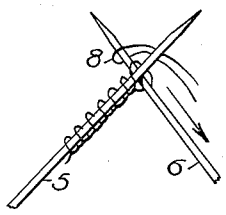


Fig. 3.

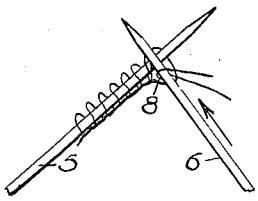


Fig. 4.

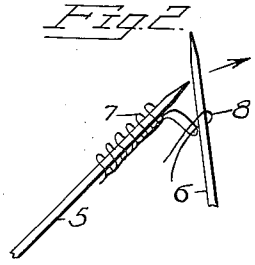


Fig. 5.

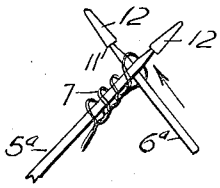


Fig. 6.

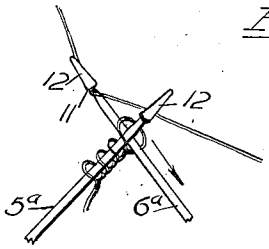


Fig. 7.

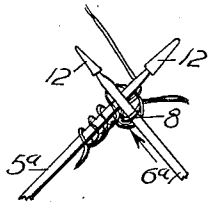


Fig. 8.

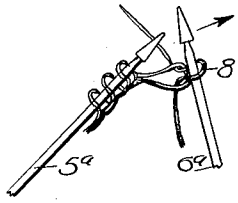


Fig. 9.

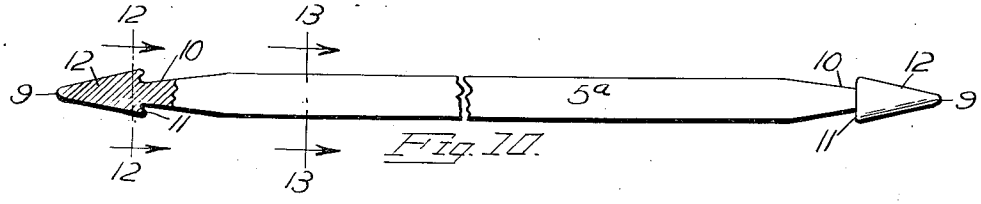


Fig. 10.

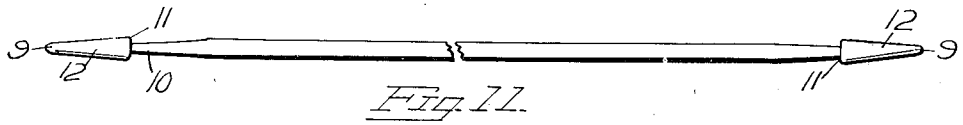


Fig. 11.

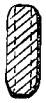


Fig. 12.



Fig. 13.



Fig. 14.

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KNITTING BAND

Julia W. Phillips, Denver, Colo.

Application April 22, 1935, Serial No. 17,554

6 Claims. (Cl. 66—117)

This invention relates to an improved method of knitting and to an improved band for practicing the method.

In the method of knitting as now practiced by the means of ordinary knitting needles, each loop requires five separate manipulations.

It is the object of this invention to produce a method of knitting in which a loop can be formed by four manipulaitons, or steps, and in which the thread can be held by the left hand.

Another object of this invention is to produce a knitting band which shall replace the ordinary knitting needle and which shall be so constructed that the thread can be caught thereby and pulled through the loop without the necessity of forming a bight in the thread.

A further object is to produce a knitting band of such construction that it may be employed with multiple threads to produce a tweed or a boucle fabric.

A still further object of this invention is to produce a knitting band of such cross sectional shape that the resistance to the sliding of the yarn will be greatly reduced.

The above and other objects that may appear as this description proceeds are attained by means of a knitting band whose construction and mode of operation will now be described in detail and for this purpose reference will be had to the accompanying drawing, in which the invention has been illustrated, and in which

Figures 1 to 5 inclusive designate the successive movements of the needle, or the steps, required for the formation of each loop by use of the ordinary knitting needle;

Figures 6 to 9 inclusive show the successive movements of the band, or steps, required for the formation of each loop when the improved knitting band that forms the subject of this invention is employed;

Figure 10 is a plan view of the improved knitting band, one end being shown in section to better illustrate the construction;

Figure 11 is a side elevation of the band shown in Figure 10;

Figure 12 is a cross section taken on line 12—12, Figure 10;

Figure 13 is a cross section taken on line 13—13, Figure 10; and

Figure 14 is a cross section, similar to that shown in Figure 13, but showing the yarn in place thereon.

In Figures 1 to 5 inclusive, reference numerals 5 and 6 represent two ordinary knitting needles of the type in common use, and numeral 7 designates the thread or yarn that is employed for producing the knitted fabric. The yarn is first looped about needle 5, which is held in the left hand, and the point of the needle 6 is inserted through the last loop by the movement indicated by the arrow in Figure 1. Needle 6, which is held in the right hand, is now held stationary while the thread is looped over the needle, as shown in Figure 2.

Needle 6 is now retracted, as indicated by the arrow in Figure 3, and simultaneously therewith the thread 7*a* is pulled back, forming a bight 8.

The needle 6 is now withdrawn from the loop, through which it is shown as inserted in Figure 1, and serves to pull the bight 8 through the loop in the manner shown in Figure 5, which completes one stitch, after which the operation, described above, is repeated.

By means of the ordinary knitting needle and method it is wholly impractical to employ a plurality of loose threads, as required for tweed fabric, or for boucle as some of the threads will invariably slip from the needle unless extreme care is exercised, which makes it too slow.

The continuous shoulder makes it practical to employ less tension on the threads than if the shoulder were discontinuous. It also prevents the loosening and separating of the threads from each other where a plurality of threads are employed. The continuous shoulder also reduces the likelihood of dropping stitches as well as the danger of splitting the threads when dropped stitches are recovered and as a result, the stitches are more uniform.

The improved band, as its name implies, is formed from a wide, flat, band of metal or any other material commonly employed for this purpose of an oblong or substantially rectangular cross section, such as is shown in Figures 13 and 14. The ends are tapered to a blunt point as indicated at 9 and the material of the band is reduced in cross section, as indicated by reference numeral 10, so as to form a shoulder 11. The ends of the band now have the form of an arrow head and have been designated by numeral 12. The shoulders 11 are S-shaped, as shown in Figure 10, and the portion of the band directly to the rear of the head is tapered, as shown in the drawing.

With the improved bands, which have been designated by reference characters 5*a* and 6*a* in Figures 6 to 9, the thread 7 is looped about the band 5*a*, as shown in Figure 6, and the end of

the band 6a is inserted through the last loop in the same manner as shown in Figure 1.

The bands 5a and 6a are held respectively in the right and the left hand of the operator, but the thread, is held in the left hand. The operator brings the end of the band into contact with the thread, and merely make a small bend in the latter as indicated in Figure 7. The thread or threads are caught by the shoulder 11, and are pulled through the loop, as shown in Figure 8, and the bight 8 of the thread forms the new loop, as shown in Figure 9.

It will be observed that the step corresponding to that required to get the parts from the position shown in Figure 2 to that shown in Figure 3 has been eliminated with a corresponding saving of time and effort, and as a result the knitting operation can be accomplished at a greater speed than when the ordinary needles are used.

Owing to the shape of the cross section, the yarn will slide more easily along the rectangular bands than it will along a round needle, as the yarn does not develop any appreciable friction except at the corners, because there is no pressure exerted by the yarn on the flat sides. (See Figure 14.)

The greatest cross-sectional areas of the arrow heads preferably are substantially the same as the corresponding dimension of the remainder of the band. It will be understood that each end may be of a different dimension where desired, but where the bands are of relatively small dimension it will be desirable to have the cross section of the shoulder not less or greater than the dimension of other portions of the band in order to get a sufficiently high shoulder.

The yarn shown in Figures 6 to 9 is intended to represent a plurality of independent threads such as must be used for tweed fabric.

The dimensions of the band have been purposely increased over the actual dimensions in Figures 10 to 14, for the purpose of facilitating the making of the drawing.

From the above description it will be apparent that by the use of the knitting band illustrated in the drawing, the operation of knitting can be simplified and that it becomes practicable to employ a plurality of threads, and it thereby makes it possible to knit fabrics that have heretofore been considered to be beyond the knitter's art.

It is to be understood that while the invention has been illustrated as applied to conventional type knitting, purling and various other stitches may be produced with equal facility within the spirit and scope of the invention.

Having described the invention, what is claimed as new is:

1. A knitting band of oblong cross section, having a pointed end of substantially oblong cross section, the band being tapered back of the pointed end to form a shoulder therewith extending around the band.

2. A knitting band of non-circular cross section, having a pointed end of non-circular cross section, the band being tapered back of the pointed end to form a shoulder the cross sectional area at the shoulder being greater than the remainder of the band.

3. A knitting band of oblong cross section, having a pointed end of substantially oblong cross section, the band being tapered back of the pointed end to form a shoulder therewith extending around the band, the shoulder being undercut at opposite edges of the band.

4. A knitting band of oblong cross section, having a peripherally shouldered end-portion of substantially oblong cross section in the form of a flattened arrow-head.

5. A knitting band of oblong cross section, having a peripherally shouldered end-portion of oblong cross section, the shoulder being undercut in an S curve at opposite edges of the band.

6. A knitting band of oblong cross section having a pointed end of substantially oblong cross section, the band progressively narrowing adjacent the pointed end to form a peripheral shoulder, and the cross sectional area at the shoulder adjoining the narrowed portion of the band being at least equal to the cross sectional area of other portions of the band.

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