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KNIT FABRIC HAVING ELASTIC SELVAGES.

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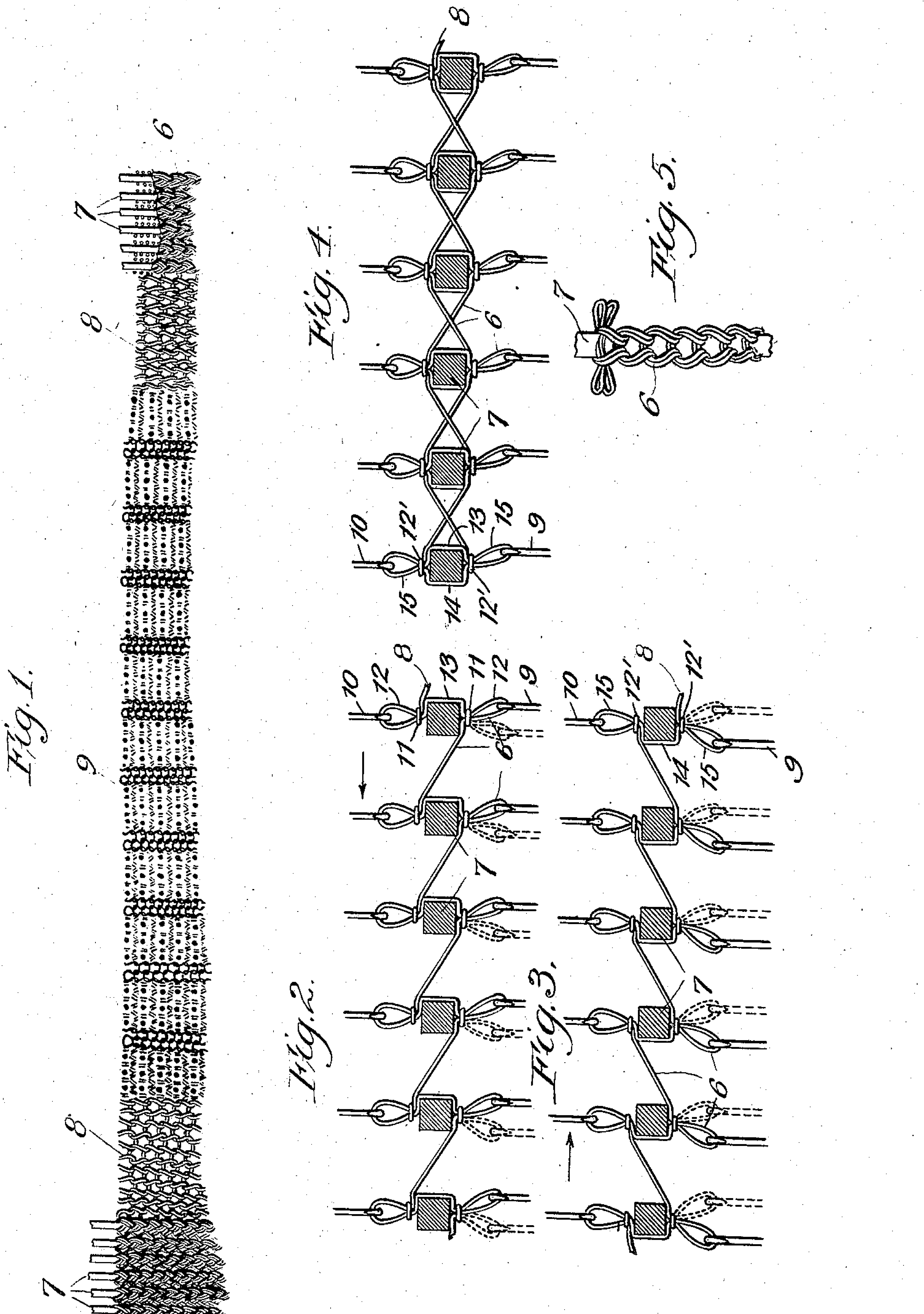
924,385. **Patented June 8, 1909.**



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UNITED STATES PATENT OFFICE.

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KNIT FABRIC HAVING ELASTIC SELVAGES.

No. 924,385. Specification of Letters Patent. Patented June 8, 1909.

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To all whom it may concern:

Be it known that I, HERBERT C. SHAW, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Knit Fabric Having Elastic Selvages, of which the following is a specification.

The sacks of some suspensory bandages are made of a knitted fabric strip provided at its side edges with elastic cords and this fabric has heretofore been made in strips knitted crosswise from one side edge to the other, each strip being about twenty-four inches long, as wide as the ordinary machine will knit. Ordinarily about six cords are incorporated, side by side, in each side edge of the strip. When the machine starts to produce a strip the stitches inclose the cord which will form one edge thereof and then proceed in the usual way to inclose the other cords and make the intermediate part of the fabric and finally inclose five of the other cords, leaving a raw edge. It has been customary to pick up by hand each stitch at this raw edge with a needle threaded with one of the elastic cords which forms the outer edge of the strip, thereby finishing the strip and preventing the raw edge from running down. This is a slow and laborious process and adds greatly to the expense of manufacture.

It is my object to make a fabric which has an elastic cord inclosed therein at both side edges by stitching in the knitting machine and also to knit the fabric in strips of desired widths from end to end, instead of from side to side, and of any length required, thereby dispensing with the hand work heretofore necessary and producing a fabric for this purpose with smooth and soft edges which will not run down if the yarn should accidentally be broken.

In the accompanying drawings illustrating one embodiment of the invention Figure 1 is a plan view showing a portion of a strip of fabric embodying my invention, with the elastic cords somewhat extended to show more plainly their location. Figs. 2, 3 and 4 are diagrammatic views, with the elastic cords in section, showing the formation of the stitch. Fig. 5 is a detail enlarged edge view of the strip showing the outer cord and the way in which it is inclosed by the stitches of the fabric.

The fabric is preferably made with an elastic border 6 at each edge, and this border comprises a plurality of elastic cords 7 arranged in parallel relation and inclosed by the stitching. The fabric between the elastic borders may be made entirely with a plain stitch, or entirely with a rib stitch, or it can be made with a combination of plain and rib zig-zag stitch.

In Fig. 1 I have shown the fabric made with a plain stitch section 8, adjacent to each of the elastic borders, and an intermediate rib stitch section 9. The elastic cords are covered with a rib stitch like the section 9.

In Figs. 2, 3 and 4 I have shown diagrammatically the formation of the rib stitch which incloses one set of elastic cords, Fig. 2 showing the first step, Fig. 3 the second step and Fig. 4 the third step.

Referring to Fig. 2 a course is run in the direction of the arrow from right to left and the needles are operated in the usual way in pairs, a front needle 9 and a back needle 10 in each pair, to engage the thread and pull it through the loops formed in the previous course and which now becomes the stitches 11. The thread is pulled through the stitches 11 into loops 12 which become stitches 12′ in the next course (Fig. 3). At the end of this first course the front needles are shogged to the position indicated in broken lines (Fig. 2) and the next course is run from left to right (Fig. 3) forming the loops 15. It will be observed that the front needles 9 are located in Fig. 2 at the right of the back needles 10 and in Fig. 3 the front needles having been shogged are located at the left of the back needles. Thus in running the course from right to left (Fig. 2) that portion 13 of the thread between the stitches lies against the right side of the cord 7 and in running the course from left to right (Fig. 3) that portion 14 of the thread lies against the left side of the cord so that each cord is surrounded and inclosed by the thread in the knitting operation. This is clearly shown in Fig. 4 which illustrates the two courses shown in Figs. 2 and 3 laid one above the other, the loops 12 of the first course (Fig. 2) having become the stitches 12′ of the second course (Fig. 3). At the end of the second course the front needles are shogged to the right, as shown in broken lines in Fig. 3 and in full lines in Fig. 4. I make no claim specifically to the rib stitch for that is old

and well known in the art, but it has never to my knowledge been used before in this way to inclose elastic cords in the manner and for the purpose herein set forth.

Fig. 5 shows clearly the formation of the stitch over the outer edge of the outer cords at the side edges of the fabric and by reference to Figs. 5, 1 and 4 it will be seen that these outer cords are entirely inclosed in the knitting, thus making a smooth, neat, soft edge which is of great importance in this particular article.

Another important advantage of my invention is the substantial character of the fabric for the stitching will not run down if the outer edges of the elastic border become worn and broken, whereas when the fabric is made in the old way stitched from side edge to side edge a break in the stitching will quickly run down and spoil the sack. While a fabric embodying my invention is especially adapted for making sacks for suspensory bandages it will be obvious to those skilled in the art that it can be used for a great many other purposes.

I prefer to use cotton covered elastic cord in the manufacture of the fabric but any kind of elastic cord may be used.

What I claim and desire to secure by Letters Patent is:

1. A fabric strip knitted from end to end with one thread and having an elastic cord inclosed by the stitches at the side edge thereof, said stitches being in surrounding engagement with said cord and said strip being elastic both lengthwise and transversely.

2. A fabric strip knitted from end to end with one thread and comprising a rib stitch section, plain stitch sections at the side edges of said rib stitch section, rib stitch sections at the outer side edges of the plain stitch sections, and a plurality of elastic cords inclosed by the stitches in said outside rib stitch sections.

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