HELEN A. BLANCHARD.

Method of Uniting Knit Goods, &c.

No. 167,492. Patented Sept. 7, 1875.

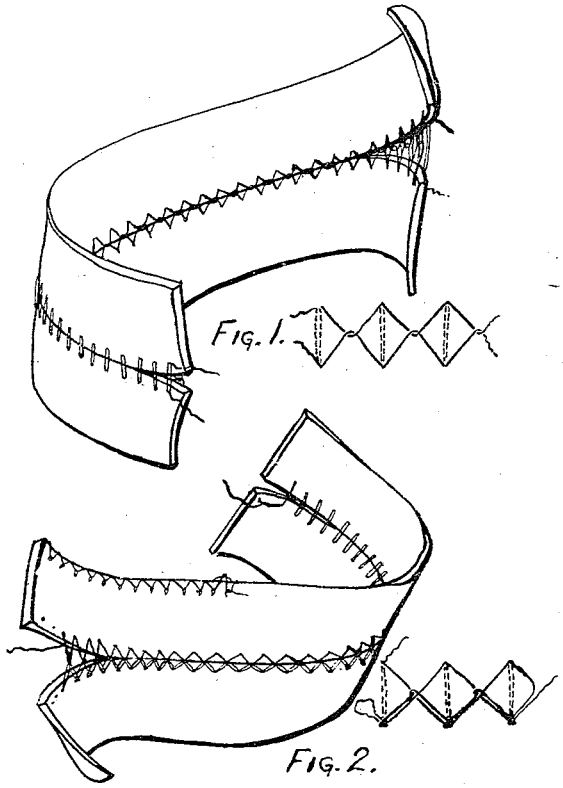

FIG. 1.

FIG. 2.

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by his Atty
Thos. Wm. Clarke

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H. H. Raymond } Witnesses.

UNITED STATES PATENT OFFICE.

HELEN A. BLANCHARD, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO JOHN BIGELOW, TRUSTEE, OF SAME PLACE.

IMPROVEMENT IN METHODS OF UNITING KNIT GOODS, &c.

Specification forming part of Letters Patent No. **167,492**, dated September 7, 1875; application filed March 11, 1875.

To all whom it may concern:

Be it known that I, HELEN A. BLANCHARD, of Boston, Massachusetts, have invented a certain new and Improved Method of Uniting the Edges of Knit or Hosiery Goods, of which the following is a specification:

The necessity for some adequate means of uniting the edges of knit and hosiery goods by an elastic stitch of non-elastic thread has long been felt. The general practice hitherto has been to do this work by hand, which is inconvenient on many accounts—notably on the score of delay and expense. Attempt has been made to sew this class of work by machinery. One instance of this is found in Arnold's patent of June 21, 1870, where it was essayed to apply to this purpose the American button-hole machine. This, however, produced a stitch too harsh and too little elastic to answer the purpose. Attempt, also, has been made to provide a more elastic bond of union; and to this end Kilbourn devised a method, the effectuating of which necessitates the use of the machine patented to him November 20, 1866. This method requires the edges of the goods to be provided with loops, which are hung on pins projecting from what may be termed a baster-plate, in the path of a curved vibratory needle, which travels along the row of loops. The thread by this operation was interwoven with the loops in a form resembling the diamond or overseaming stitch. The objections, however, to this method of joining knit goods are many. The operation is made dependent on selvage-loops, and the stitches, if they may be called stitches, are governed by the number of loops. Only straight seams can be formed, and these seams are necessarily of limited length, unless the machine be frequently stopped, and the work frequently removed from, and readjusted to, the pins. These, and other objections that might be noted, render the above method practically unavailable, except, perhaps, to a very limited degree, and as applied to a small and high-priced class of goods.

I purpose using what may be called the diamond overstitch-seam, which I apply in a manner altogether novel—that is to say, by sewing with a vertically-reciprocating needle directly through the two thicknesses of goods along their edges, placed upon a flat horizontal cloth-plate, and fed along under the needle progressively with formation of the stitches, (which in no sense are dependent upon selvage-loops,) said needle passing alternately directly through the goods and outside the same, so as to form the diamond overstitch-seam, uniting the edges in a fine compact seam, which, at the same time, possesses all needed flexibility and elasticity.

I will now more particularly describe my invention by the aid of the accompanying drawing, forming a part of this specification.

Figure 1 shows the elastic stitch *a*, as used in uniting the edges of knit goods and hosiery, and set by a double-thread machine. Fig. 2 shows the stitch as set by a single-thread machine for the same purpose.

The two pieces of goods are laid one on the other, having their edges that are to be united in line. The best seam is made with plain selvage or clean-cut edges. They are placed on the cloth-plate of the sewing-machine, and are then sewed together with an overstitch, the needle passing alternately directly through the two thicknesses of goods, and outside the same. The goods are fed along progressively with the formation of the stitches, the size of which is regulated in the usual way. The elasticity of the stitch is regulated by the extent of lateral throw in setting the stitch, and by the speed of the feed.

Any sewing-machine, with a few slight modifications which do not interfere with its ordinary work, can be used to carry my invention into effect. Any overseaming-machine capable of sewing a zigzag or irregular stitch may be used in uniting the edges by an alternate stitch inside and outside the goods, as aforesaid. One machine adapted for the purpose of my present invention will be found in my Letters Patent No. 141,987, August 19, 1873.

Under my invention the edges may be united with all the ease and rapidity attained in sewing with the ordinary sewing-machine.

My method is adapted to all classes of

goods, and its use results in a notable economy, both of money and time, withal producing better, more uniform, and more satisfactory work than has heretofore been practicable.

Having described my invention, I shall state my claim as follows:

The described improvement in the art of uniting the edges of knit goods and hosiery by an elastic seam, which consists in sewing the two thicknesses of goods directly together in the manner and by the means specified, with the diamond overstitch-seam formed by stitches passing alternately directly through the goods and outside of the same, as set forth.

HELEN A. BLANCHARD.

Witnesses:
JOHN BIGELOW,
F. F. RAYMOND.