O. F. TRIPP.

KNITTING-MACHINE NEEDLES.

No. 187,993. Patented March 6, 1877.

Fig. 1.

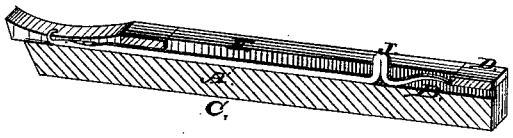


Fig. 2.

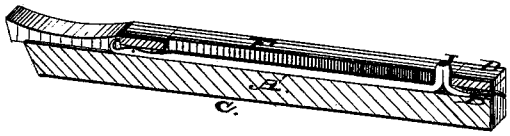
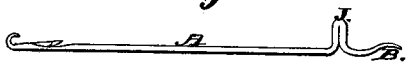


Fig. 3.



Witnesses.

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OTHNIEL F. TRIPP, OF BATTLE CREEK, MICHIGAN.

IMPROVEMENT IN KNITTING-MACHINE NEEDLES.

Specification forming part of Letters Patent No. **187,993**, dated March 6, 1877; application filed August 31, 1876.

To all whom it may concern:

Be it known that I, OTHNIEL F. TRIPP, of the city of Battle Creek, county of Calhoun, and State of Michigan, have invented an Improvement in Knitting-Machine Needles, of which the following is a specification:

The object of my invention is to provide a safe and desirable method of securing the needles of a knitting-machine from displacement when placed in and out of working position.

The improvement consists in the construction and operation of a self-securing needle, substantially as and for the purpose hereinafter described, reference being had to the accompanying drawings, forming a part of this specification, in which—

C C, Figures 1 and 2, give end views of a section of the bed-plate of a Lamb knitting-machine, showing the needle in two positions. Fig. 1 gives a view of the needle in working position, and Fig. 2 shows the needle out of working position. D, in Figs. 1 and 2, represents a portion of the needle-stop gib, and F shows a land of the bed-plate C. Fig. 3 gives a side view of the needle, in which A represents the forward or upper portion of the needle. J is the needle-shank, and B is the fastener or lower portion of the needle, by means of which the needle secures itself from displacement when placed in and out of working position. The fastener B consists of an extension or spring, having either a straight, notched, or bent form, and is joined to the needle A in such a manner as to be carried back and forth with it as it moves up and down the needle-race. In constructing the fastener the spring portion B and needle A may be made separate and the two joined together, or the wire of which the needle is made may be extended beyond the shank J, and so formed that its lower portion engages with and passes over or beneath a stationary stop when the needle is drawn out of working position.

In placing the needle out of working position it is drawn backward or downward, which forces the lower portion of the needle or fastener B beneath the needle-stop gib D, placed at or near the lower end of the needle-race, as shown in Fig. 2. When it is desired to place the needle again in a working position it is moved forward or upward until the lower portion of the needle or fastener B is released from the needle-stop gib and rests against its upper side or edge, as shown in Fig. 1.

I reserve the right to vary or modify the above devices, so long as I attain the same results by means substantially equivalent; for example, a stationary needle-stop may be used beneath the needle in such a manner that the lower end or extension of the needle springs upward, instead of downward, as the needle is moved out of working position.

I am aware that simply extending a knitting-machine needle beyond its shank portion is not new; but in my improvement the extension consists of a spring, which serves for the purpose of securing the needle, as set forth.

The advantages of this improvement are obvious, as these needles can be used in the Lamb and other straight knitters without any change in the construction of those machines or any additional friction of the needles, and is an effectual safeguard against the general breakage of needles, lands, cams, &c., which has so long been a source of unavoidable expense and discouragement to those using such machines.

Having thus fully set forth the nature of my improvement, I claim as my invention—

1. A knitting-machine needle provided with the spring B, substantially in the manner and for the purpose set forth.

2. The combination of a stationary needle-stop with a knitting-machine needle in such a manner that the lower end of the needle or extension B engages with and extends over or beneath the stop when the needle is moved out of working position, substantially as and for the purpose described.

OTHNIEL F. TRIPP.

Witnesses:
L. WELCH,
E. HOWARD.