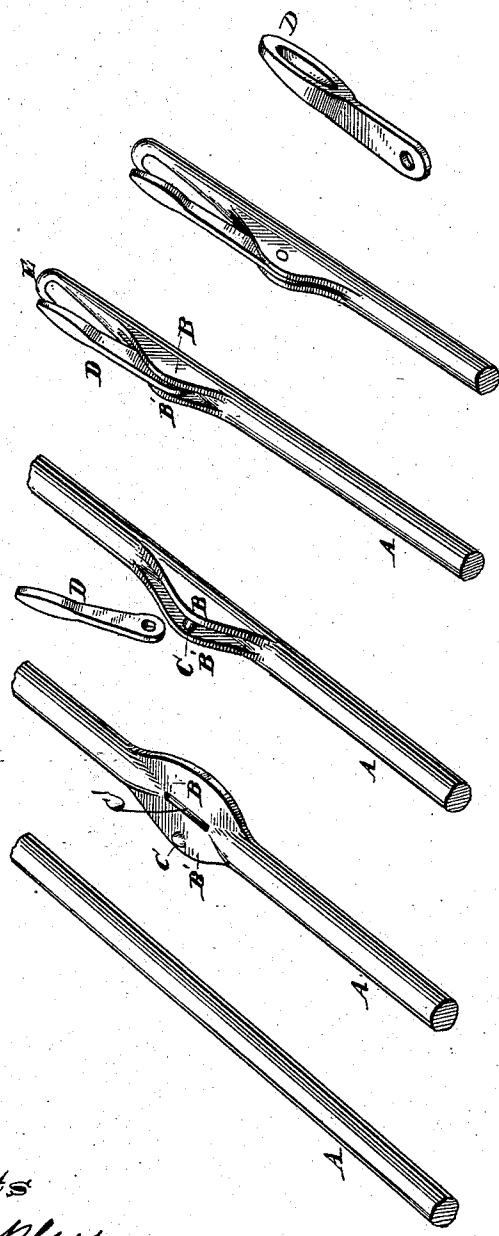
(No Model.)

S. PEBERDY.

MANUFACTURE OF KNITTING MACHINE NEEDLES.

No. 255,808. Patented Apr. 4, 1882.



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UNITED STATES PATENT OFFICE.

SAMUEL PEBERDY, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO THE PEBERDY LATCH NEEDLE COMPANY, OF NEW JERSEY.

MANUFACTURE OF KNITTING-MACHINE NEEDLES.

SPECIFICATION forming part of Letters Patent No. 255,808, dated April 4, 1882.

Application filed May 24, 1881. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL PEBERDY, of Philadelphia, Pennsylvania, have made a new and useful Improvement in the Manufacture of Knitting-Machine Needles; and I declare the following to be a full, clear, and exact description of the same, reference being had to the annexed drawings, making part hereof.

My invention consists of a needle for knitting-machines, known as the "latch-needle," having integral therewith the pin or pivot which pierces the eye of the latch, which pivot and the latch are set between two bent-up jaws, as will be more fully hereinafter set forth; also, of the process of forming such a knitting-machine needle by striking the pivot up upon the inner face of one of the flaps or jaws, between two of which it is to be held, then inserting the pivot through the eye or hole in the heel of the latch and bending up the flaps or jaws above referred to to hold the latch in place between them, whereby both ends of the pivot are protected from outside friction, all of which will be more fully set forth hereinafter.

Heretofore this latch has been hinged between the jaws or flaps of the needle by means of an ordinary rivet passed through the jaws and the hole in the heel of the latch. After some use this rivet would become slightly loosened and offer at its two heads, or at one of them, sharp or projecting edges, upon which edges the loop of yarn as it passed up and down on the needle would be more or less abraded or cut; and the object of my invention is to remove this defect and to permit the yarn-loop to traverse up and down the needle on a smooth surface.

In the drawings, Figure 1 represents a piece of wire out of which my needle is to be made, and Fig. 2 the wire after it has been stamped by the die, leaving the raised pivot. Fig. 3 represents the needle-bar with the flaps turned up, and also shows a detached view of the latch. Fig. 4 shows the latch in place in the needle, and also shows the hook on the end of the needle. Fig. 5 is an elevation of a needle having the latch secured in the old way. Fig. 6 is a detached view of the latch, showing the groove or depression in the face of the latch which fits upon the hook of the needle.

A is the body or shank of the needle. B is one of the flaps or jaws made by the impression of the die on the needle-bar; B′, the other flap, having upon its face the struck-up pivot C. Between the two flaps is a slit, C′. The pivot C is made by a hole in the face of the die as it is impressed on the wire A. The slit C′ is pierced through the wire by a projection upon the face of the die. D is the latch, and E is the hook. The manner of constructing the latter is well known to those skilled in the art, and the construction and operation of the latch and the operation and objects of the various parts of the needle are equally well known. The slit or opening C′ is to facilitate the removal of dirt accumulating between the jaws B B′.

The round body of the wire or bar A is first struck down and flattened out by the die at the points B B′. These flaps B B′ are then turned up, as shown in Fig. 3, after the latch D has been fitted onto the pivot C, which leaves the latch in place, as shown in Fig. 4.

It will be apparent that the pivot C should be as long as, or slightly longer than, the latch is thick, so that it will not only pivot the latch, but also serve as a brace or stay between the two jaws B B′, to prevent them being pushed so closely together as to jam the latch tightly between them. These jaws are turned up by means of pliers, pinchers, or other such convenient device as may suggest itself to the mind of the operator. Since the pivot is thus held between the jaws B B′ without piercing them, it is plain that the outer surfaces of these jaws will be smooth.

I am aware that a pivot for a needle-latch has heretofore been made by punching through the flap B′, or through flaps B and B′. This makes a thick hollow pivot, which I consider makes it objectionable. First flattening out the needle-bar and then turning up the jaws B B′ is preferable to cutting out with a saw the space between these jaws, as has been done

heretofore, because in the latter case there is a loss of metal and a consequent loss of strength, while by my process all the metal is retained.

I am well aware that rivets have been struck up upon the lower metallic part of shovel-handles for riveting thereto the blades of the shovels, and also that similar rivets have been struck up upon the lower part of spoon-handles to rivet thereto the bowls of the spoons; but I do not claim broadly the striking up of such rivets upon objects whereby other objects may be riveted to them. In the case last mentioned the rivets pass through the shell of the shovel-blade or spoon-bowl, and the heads of the rivets are exposed and flattened out in the ordinary manner. This exposure of the end or ends of the rivets is the objectionable feature of the old knitting-machine needle which I desire to overcome. This I accomplish by turning up the flaps, forming them into jaws, between which the latch is held upon the pivot. Although I have herein called this struck-up bar a "rivet," it is, strictly speaking, a pivotal bar upon which the latch is swung, neither of its ends passing through the jaws, whereby its ends are protected against outside friction by the two jaws acting as shields.

What I claim as new is—

1. The needle A, having integral therewith the pin or pivot C, and the bent-up jaws B B′, jointly with the latch D, substantially as set forth.

2. The process of forming a knitting machine needle by striking up the pivot C upon the inner face of the flap or jaw B′, inserting the pivot through the eye or hole in the heel of the latch, and bending up the flaps or jaws B B′ to hold the latch in place between them, whereby the end of the latch-pivot is protected from outside friction, substantially as described.

his
SAMUEL × PEBERDY.
mark

Witnesses:
J. G. SHOWAKER,
H. B. COBB.