C. F. MARTINE.

NEEDLE SETTER AND THREADER.

No. 113,542. Patented Apr. 11, 1871.

Fig. 1.

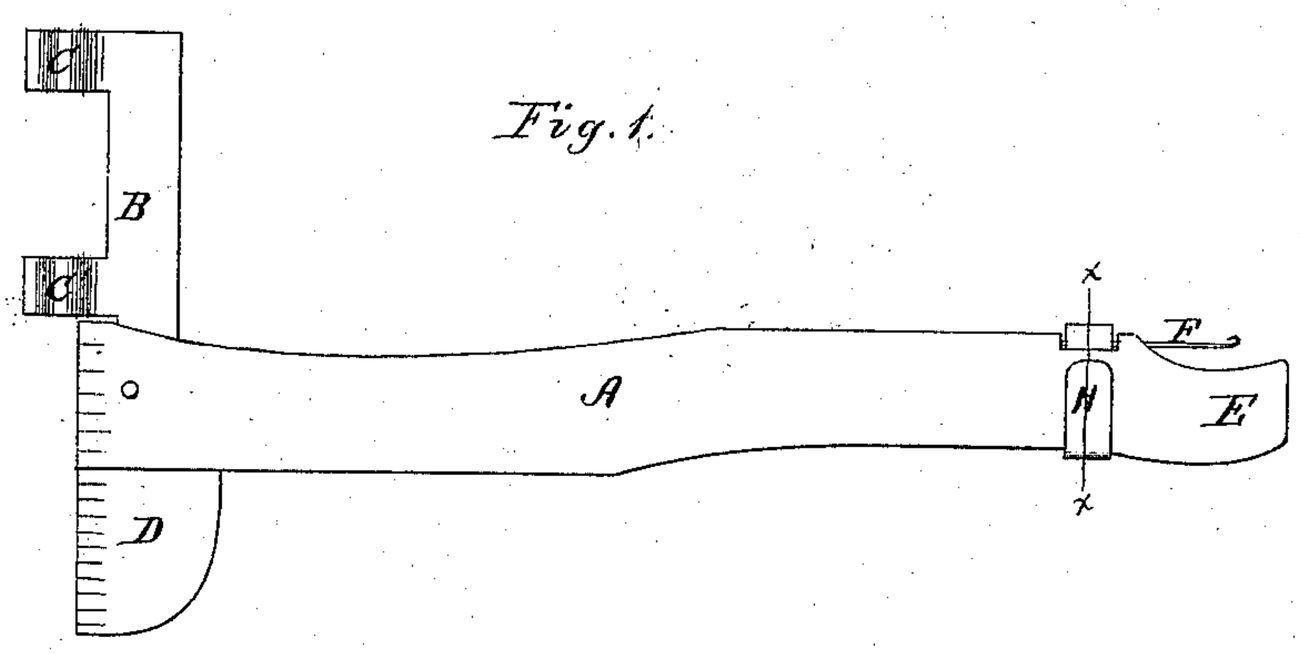


Fig. 2.

Fig. 3.

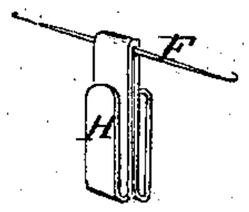
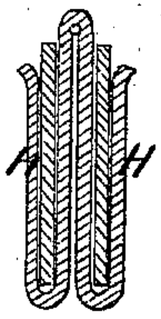


Fig. 4.

Fig. 5.



Witnesses.
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CHARLES F. MARTINE, OF BOSTON, MASSACHUSETTS.

Letters Patent No. 113,542, dated April 11, 1871.

IMPROVEMENT IN NEEDLE-SETTERS AND THREADERS.

The Schedule referred to in these Letters Patent and making part of the same.

I, CHARLES F. MARTINE, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain Improvements in Sewing-Machine Needle-Setters and Threaders, of which the following is a specification.

Figure 1 is a side elevation of my invention;

Figure 2 is an edge view;

Figures 3 and 4 are views of parts in detail; and

Figure 5, a section through line *x–x* fig. 1.

The object of this invention is to provide means for accurately adjusting a sewing-machine needle in the needle-arm, and for threading said needle; and

It consists mainly of an extensible gauge for adjusting, and a peculiar arrangement of hooks for threading the needle, as will hereinafter more fully appear.

In the drawing—

A represents a metallic plate bifurcated at both ends.

At one end of the plate A is pivoted the smaller plate B, which is provided with spring clamps C C′.

D represents a gauge-plate, pivoted to plate A at the same point as plate B.

The edge of plate D, when in the position shown in fig. 1, forms a line with the end of plate A, both of which are suitably marked in regular spaces.

Either of the plates B D may be closed into the plate A, between the bifurcations thereof, like the blade of a pocket-knife.

The opposite end of plate A is provided with bifurcations or flanges E, and an enlargement or recess, *e*, opening from its lower side, shown in fig. 3.

F represents a needle attached to the W-shaped spring H, and projecting on each side thereof, the ends of which needle are provided with hooks, which may be of different sizes, as shown in fig. 3.

The spring H, with needle F, are inserted into the recess *e* of plate A, one end of said needle being concealed within said recess, and the opposite end projecting slightly above and between flanges E, as shown in figs. 1 and 2.

The spring H bears against the sides of plate A and holds the needle F firmly in position, at the same time allowing it to be readily removed for reversing its position.

Operation.

The needle is held in the clamps C and adjusted so that its eye shall project as far from the upper edge of clamp C as it is desired to have it project from the bottom of the needle-arm when in position, the distance being indicated by the divisions on the plates A D. When the needle is thus adjusted the shank of the same is inserted in the socket of the needle-arm and confined by a set-screw in the usual manner, after which the clamps C C′ are removed.

The advantage of the pivoted gauge-plate D is, that, in machines where there is not sufficient space between the needle-arm and the plate of the machine, (as in the Weed and others,) the plate D may be closed into the plate A, as above described, and thus be out of the way; while in machines wherein the needle-arm is higher, (as in the Wheeler & Wilson,) the whole device may be employed.

The threading device is operated by inserting the hooked needle through the eye of the machine-needle and engaging said hook with the thread, and drawing the same through said eye, the flanges E guiding the hooks in the operation.

The reversible hooked needle F adapts the threading device to fine or coarse-eyed needles, as hooks of any desired size can be used on either end of the same; and in case of the breakage of one or both of the hooks, the whole can be removed and reversed or replaced without detriment to the plate A. If desired, the needle F may project from only one side of spring H.

Having thus fully described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

1. The plate A, in combination with the pivoted gauge-plate D and plate B, having clamps C C′, substantially as described.

2. The needle F, provided with one or two hooks, and attached to spring H, in combination with plate A, substantially as described.

3. The combination in one instrument of the reversible and adjustable needle F with its spring H, the pivoted plate B with its clamps C, and the pivoted gauge-plate D, all arranged and operating substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHAS. F. MARTINE.

Witnesses:

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