

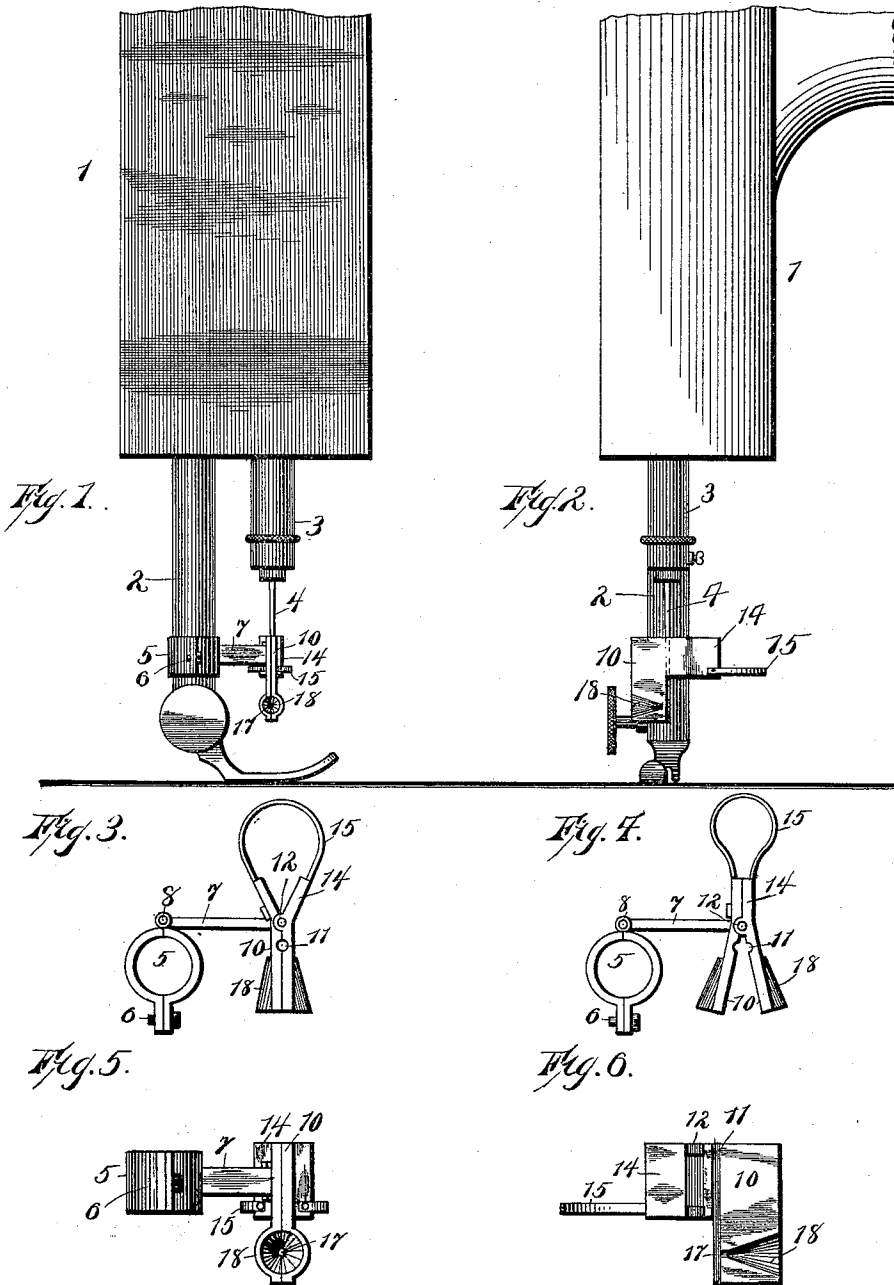
(No Model.)

G. B. WINDSOR.

NEEDLE THREADING ATTACHMENT FOR SEWING MACHINES.

No. 507,955.

Patented Oct. 31, 1893.



G. B. Windsor

Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE B. WINDSOR, OF NEW YORK, N. Y.

NEEDLE-THREADING ATTACHMENT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 507,955, dated October 31, 1893.

Application filed December 22, 1892. Serial No. 456,046. (No model.)

To all whom it may concern:

Be it known that I, GEORGE B. WINDSOR, of New York, in the county of New York, State of New York, have invented certain new and useful Improvements in Machine-Needle Threaders, of which the following is a specification, reference being had to the accompanying drawings.

The object of my invention is to produce a simple, light and convenient device for readily threading the eye of a sewing machine needle, and it consists in the construction and arrangements of parts hereinafter described in detail in the specification and distinctly stated in the appended claims.

In the accompanying drawings: Figure 1 is a front view of a section of the head of a sewing machine, showing my threader attached. Fig. 2 is a side view of the same. Fig. 3 is a top plan view of my threader detached, showing the threader proper closed. Fig. 4 is a similar view, showing the threader open and ready for the reception of the needle. Fig. 5 is a front view of the threader detached; and Fig. 6 is a view of one half thereof detached.

Referring to the figures on the drawings: 1 indicates the head of any ordinary sewing machine, 2 the presser foot bar thereof and 3 the needle bar.

4 indicates the needle carried as usual upon the needle bar in proximity to the presser foot.

The parts above referred to may be of any usual and ordinary construction.

5 indicates a split collar of suitable dimensions to encircle the presser foot bar and clasp it tightly.

6 indicates a screw, by which the collar may be secured firmly upon the presser foot bar.

7 indicates an arm, hinged, as indicated at 8, to the collar, and to the threader proper. This threader consists of two plates 10, each having semi-circular grooves 11, for the reception of the needle. They are hinged together, as indicated at 12, and are provided at one side of the hinge, with angle plates 14, which serve to limit their movement in one direction upon the hinge 12, when the threader is open and, when closed, to afford convenient means of opening it. The threader is

kept normally closed by a spring 15, of any suitable and ordinary construction, secured to the angle plates.

17 indicates an angular recess in the lower side of the threader plates proper. The side of this recess constitutes, in effect, a continuation of the semi-circular grooves 11, so that when a needle is clasped between the threader plates in that groove the lower part of the needle will extend downwardly in close proximity to this side of the angular recess.

18 indicates a funnel-shaped threader opening, which is formed half in one of the threader plates and half in the other, the funnel being completed when the threader is closed. In practice, the small opening in the funnel comes exactly opposite to the eye of the needle to be threaded, so that a thread inserted into the funnel will be readily and certainly guided through the eye of the needle.

In practice, when the collar upon the presser bar has been adjusted to the proper height, to bring the small end of the funnel opposite to the eye of the needle, the threader is opened by pressing upon the angle plates, so that by swinging the arm upon its hinge, the needle can be entered in the semi-cylindrical grooves 11 in the threader, when, upon the release of the angle bars, the threader plates will close, by the action of the spring 15 around the needle, to hold the parts in position ready for use, in the manner above explained.

When the needle is threaded, all that is necessary for the operator to do is to pinch the angle plates together, swing the threader upon its arm out of the way, and the machine is ready for use at once.

What I claim is—

1. In a machine needle threader, the combination with the presser foot bar, of a collar vertically adjustable thereon, an arm hinged to said collar, a threader consisting of a pair of plates, each provided with a semi-cylindrical groove and with the half of a funnel said threader being hinged at the other end of the bar, said bar being adapted to be swung laterally and thereby bring the threader into or out of operative relation with the needle, substantially as specified.

2. In a machine needle threader, the com-

10 bination with a threader consisting of a pair of plates each provided with a semi-cylindrical groove, and with the half of a funnel at right angles thereto, angle plates a hinge
5 connecting the angle plates, and a spring secured at its opposite ends to the rear ends of the angle plates, of an arm hinged to the threader and to the vertically adjustable collar supported upon the presser foot bar, said
10 threader being adapted when in use to close

upon the needle and to be opened against the action of the spring and swung laterally out of the way when desired, substantially as specified.

In testimony of all which I have hereunto 15 subscribed my name.

GEORGE B. WINDSOR.

Witnesses:

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