

(No Model.)

W. B. DAVIS.
NEEDLE GUARD FOR SEWING MACHINES.

No. 586,838.

Patented July 20, 1897.

Fig. 1.

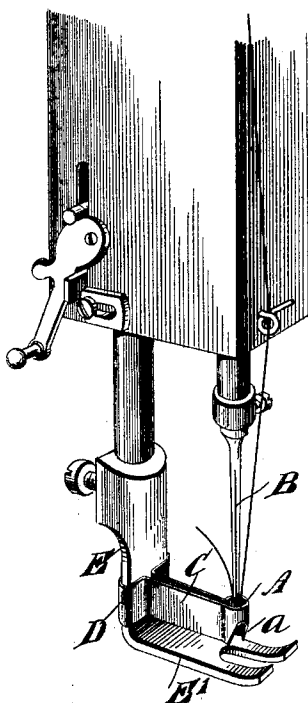


Fig. 2.

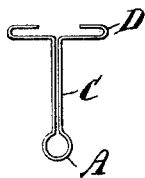


Fig. 3.

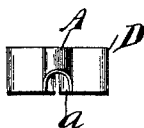
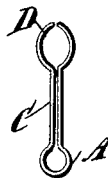


Fig. 4.



WITNESSES:

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WARREN B. DAVIS, OF BROOKLYN, NEW YORK.

NEEDLE-GUARD FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 586,838, dated July 20, 1897.

Application filed January 21, 1896. Serial No. 576,306. (No model.)

To all whom it may concern:

Be it known that I, WARREN B. DAVIS, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Needle-Guard for Sewing-Machines, of which the following is a full, clear, and exact description.

The object of the invention is to provide a guard for sewing-machine needles of simple, durable, and economic construction which may be expeditiously applied to any convenient support admitting of a portion of the guard being placed in the path of the needle.

A further object of the invention is to so construct and locate the guard that the point of the needle will be practically inclosed or protected and guarded therein when the needle-bar of the sewing-machine is at or near the end of its upward stroke, and while the eye of the said needle is accessible its point will be prevented from pricking the fingers or the hand of the operator when adjusting the work under the presser-foot or other attachment or during other operations carried on in the vicinity of the needle while the machine is at rest, the guard being independent of the working surface of the presser-foot or other attachment, to the shank of which the said guard may be applied. The guard will also serve to prevent the work should it bulge upward while being adjusted between the prongs of the presser-foot or other attachment coming in contact with the point of the needle.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of a portion of the head of a sewing-machine, the needle-bar, presser-foot, the presser-foot bar, and the guard attached to the presser-foot. Fig. 2 is a plan view of the guard removed from the presser-foot. Fig. 3 is a front elevation of the guard, and Fig. 4 is a plan view of a slightly-modified form of the guard.

The guard A is preferably circular in cross-section, although it may be given other shape,

and the said guard is open at the top and at the bottom and is of sufficient diameter to permit the sewing-machine needle B to readily pass through it without chafing the thread.

The guard is connected by a shank C with a clamp D, the said clamp being open at top and bottom and preferably at one of its sides. Ordinarily and preferably the entire attachment is made of spring metal—as, for example, spring-steel; but, as shown in the drawings, the entire attachment may be made of a single piece of material, and when so constructed the material is bent upon itself to form the guard A, a twin shank and arms at the ends of the members of the shank bent upon themselves to face each other forming the aforesaid clamp D, and the said shank may be elongated, as shown in Fig. 2, for adaptation to a polygonal shank E of a presser-foot E' or other sewing-machine attachment, or, as illustrated in Fig. 4, the arms of the clamp may be given a semicircular form, so as to clamp or embrace a circular shank.

When the clamp is constructed as shown in Fig. 4, a set-screw or its equivalent may be employed to engage with the shank of the attachment to which the guard is to be secured in order to prevent the guard from having lateral movement, and such a device, if necessary, may be provided for the elongated form of the device shown in Figs. 1 and 2.

As heretofore stated, the clamp D is made to embrace the shank of the presser-foot or other sewing-machine attachment, and the shank of the guard extends over the foot-section of the presser-foot or other attachment independent thereof, being removed a predetermined distance therefrom, the guard A being in the path of the needle, and in order that the progress of the work may be conveniently noted while the guard is in use the front lower portion of the guard has an opening a made therein, as shown in Figs. 1 and 3.

It will be observed that this guard is readily removed from and may be quickly attached to the intended support, and that it does not in any manner constitute a portion of the attachment to which it is to be applied. By so locating the guard the hand of the operator may be passed with impunity between the presser-foot and the guard when the ma-

chine is at rest and the needle is at or near the end of its upper stroke, since the needle at that time cannot come in engagement with the hand, and, furthermore, should the work
 5 bulge up above the foot-section of the presser-foot or other attachment it will not engage with the point of the needle, being held out of contact therewith, and therefore the needle will not be liable to become broken by such
 10 engagement or an unfortunate movement of the material to be operated upon.

The device is simple, it is economic, and it is durable, and it may be applied by a child or any one of ordinary intelligence.

15 Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A needle-guard, comprising an eye, and a shank projecting from the eye and formed
 20 with arms at its ends, said arms being bent outwardly and then inwardly toward each other to form a clamp for engaging the presser-foot shank, the said shank being of a length equal to the distance between the presser-foot
 25 shank and the needle, whereby the eye will be held in position for the passage of the needle therethrough, substantially as described.

2. A needle-guard, comprising an eye having its lower front portion recessed or cut away, a shank projecting from the eye, and
 30 a clamp on the end of the shank for engaging the presser-foot shank, substantially as described.

3. A needle-guard formed of a single piece of flat material bent upon itself to form an
 35 eye, a twin shank, and an arm at the end of each member of the shank, said arms being bent outwardly and then inwardly toward each other to form a clamp for engaging the presser-foot shank, substantially as herein
 40 shown and described.

4. A needle-guard formed from a single piece of flat material bent upon itself to form an eye, a twin shank of a length equal to the
 45 distance between the presser-foot shank and needle, and an arm at the end of each member of the shank to form a clamp, the lower front portion of the eye being provided with an opening, substantially as described.

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Witnesses:

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