(No Model.)

A. H. SAWTELL.

SEWING MACHINE.

No. 434,996. Patented Aug. 26, 1890.

Fig: 1.

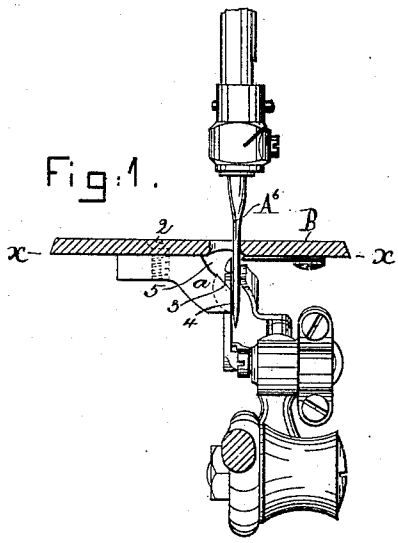


Fig: 2.

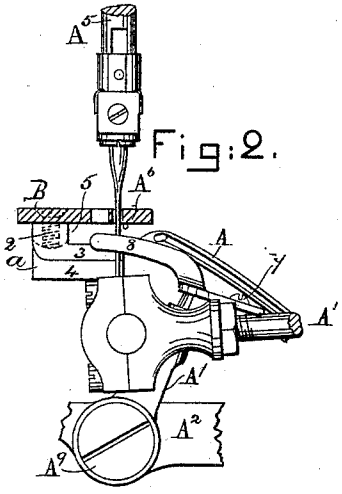


Fig: 3.

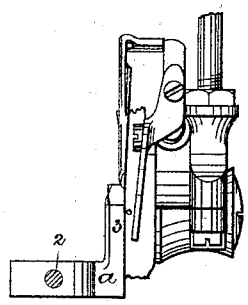


Fig: 4.

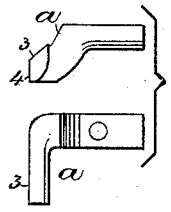
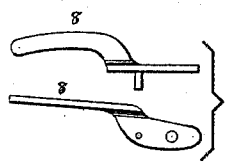


Fig: 5.



Witnesses.
Fred. S. Gunnell,
Frederick L. Emery

Inventor.
Albert H. Sawtell,
by Lemby & Gregory
Attys.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ALBERT H. SAWTELL, OF LYNN, MASSACHUSETTS, ASSIGNOR TO THE UNION SPECIAL SEWING MACHINE COMPANY, OF CHICAGO, ILLINOIS.

SEWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 434,996, dated August 26, 1890.

Application filed May 20, 1890. Serial No. 352,483. (No model.)

To all whom it may concern:

Be it known that I, ALBERT H. SAWTELL, of Lynn, county of Essex, State of Massachusetts, have invented an Improvement in Sewing-Machines, of which the following description, in connection with the accompanying drawings, is a specification, like letters and figures on the drawings representing like parts.

This invention relates to sewing-machines of the class using an eye-pointed needle and an under-thread-carrying eye-pointed looper, I having illustrated my invention as embodied in connection with a looper of the class shown in United States Patent No. 299,568.

The object of my present invention is to provide means whereby the skipping of stitches may be obviated, and to do this I have combined with the needle and looper a stationary needle-guard, against which one side of the needle bears if at all sprung out of true position, and I have provided the looper-carrier with a finger to contact with the needle at its opposite side just before the looper is to enter the loop of needle-thread, the said finger acting not only to deflect the needle into the proper position with relation to the point of the advancing looper, but to also aid in throwing out the loop of thread from the eye of the needle, so as to be entered by the point of the looper.

Figure 1 is a sectional detail of a sufficient part of a sewing-machine to enable my invention to be understood; Fig. 2, a right-hand side view of the parts shown in Fig. 1; Fig. 3, a top or plan view of the parts shown in Fig. 1 below the dotted line *x*. Fig. 4 shows two different views of the needle-guard, which is attached to the under side of the cloth-plate next the short grooved side of the needle; and Fig. 5 shows the finger detached.

The cloth-plate B, the needle-bar A^5, the eye-pointed needle A^6, the looper-carrier A^7, pivoted at A^9 and having attached to it a looper A, and the rod A′, connected to the looper-carrier, are and may be all as in United States Patent No. 299,568, which shows means for actuating the said needle-bar and rod; and it will be understood in practice that in connection with the parts herein shown there will be employed feeding mechanism, tension mechanism, take-up, &c., as provided for in the machine described in the said patent.

In accordance with my invention I have attached to the under side of the cloth-plate by screw 2 a needle-guard *a*, it having an arm beveled at one side, as at 3, to aid in deflecting the needle into proper position, if out of such position, and a face 4, close to or against which the short grooved side of the needle bears when in its lowest position, as shown in Fig. 1, the said arm being carried down below the cloth-plate sufficiently to leave a space 5, in which may play the looper A as it enters the loop between the cloth or other material on the cloth-plate and the eye of the needle. Should the needle be too far to the right, viewing Fig. 1, it must be pushed in the opposite direction, so as to be in proper position with relation to the looper, and to insure this I have attached to the looper-carrier A^7 by a screw 7 a finger or presser 8, preferably a thin finger of steel, which is longer than the looper, the said finger contacting with the needle at its long grooved side before the needle completes its ascent and while the looper is approaching the needle, the said finger, besides putting the needle in proper place with relation to the point of the looper, also aiding in forming the loop of needle-thread and keeping it in position to be entered by the looper, as will be understood.

I am aware that needle-guards of many different shapes have been secured to the cloth-plate; but prior to my invention I am not aware that with a stationary guard there has ever been employed a movable guard-finger moving in unison with the looper.

I claim—

The cloth-plate, its attached needle-guard, the looper-carrier A^7, and the finger 8, combined with the needle-bar, the eye-pointed needle, and the eye-pointed under-thread-carrying looper, the said needle-guard being

located next the short grooved side of the needle, and the said finger acting on the long grooved side of the needle in advance of the arrival of the point of the looper next the short grooved side of the needle to enter the loop of needle-thread, substantially as described.

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

ALBERT H. SAWTELL.

Witnesses:

GEO. W. GREGORY,

EMMA J. BENNETT.