

UNITED STATES PATENT OFFICE.

JAMES F. SNEDIKER, OF PHILADELPHIA, PA., ASSIGNOR TO THE NATIONAL SEWING MACHINE COMPANY, (LIMITED,) OF SAME PLACE.

SEWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 296,638, dated April 8, 1884.

Application filed November 26, 1883. (No model.)

To all whom it may concern:

Be it known that I, JAMES F. SNEDIKER, a citizen of the United States, and a resident of Philadelphia, Pennsylvania, have invented
5 Improvements in Sewing-Machines, of which the following is a specification.

The main object of my invention is to permit vertical movement of the needle of a sewing-machine independently of the devices
10 whereby the same is reciprocated in the ordinary working of the machine, my invention having especial reference to that class of machines in which a looping-needle is employed in connection with the main needle for making an overseam-stitch, and in which automatic devices having clamps for the fabric are used, as described hereinafter.

In the accompanying drawings, Figure 1 is a side view, partly in section, of sufficient of a sewing-machine to illustrate my invention;
20 Fig. 2, a detached perspective view of a portion of the same, and Fig. 3 a modification.

A is the table or bed of the machine; B, the head or stock; D, the needle-bar; E, the vibrating lever for actuating the same; F, the looper-arm; G, the driving-shaft, and H and I the cams for operating the lever E and arm F, respectively. These parts are all common to an ordinary overseam-sewing machine, the bar D carrying the main needle *a* and the arm F a looper-needle, *b*, and the parts being so timed that when the needle *a* is raised the looper-needle *b* is also projected above the table A, the needle *a* descending as the needle *b* is retracted. In consequence of this it is difficult to apply to or remove from the machine the fabric which is being sewed, especially when button-holes are being made and automatic feeding devices having cloth-clamps are employed. In order to overcome this objection,
40 I discard the usual plan of connecting the lever E directly to the needle-bar, and fit the latter to a sleeve, J, which is connected to the lever E and is free to reciprocate vertically in the bearings in the stock of the machine, the sleeve being furnished with the usual pin adapted to a scroll-slot in the sleeve K, which

carries the looper-hook *d*, so that the latter will be vibrated as the sleeve is reciprocated. By this means the needle-bar can be elevated
50 or depressed without necessitating any operation of the other parts of the machine, and when the looping-needle *b* is retracted the needle *a* can be drawn up above the table A, so as not to interfere with the ready application or removal of the fabric, and can then be restored to its proper position in respect to the looper-needle before starting the machine.

Various means may be employed for locking the needle-bar to the sleeve J, so as to permit the ready release of the bar therefrom when necessary. In the present instance, a pin, *f*, on the bar is adapted to a right-angled slot, *g*, in the sleeve, the pin occupying
65 a position in the horizontal portion of the slot when the bar is locked to the sleeve, and being moved into the vertical portion of the slot when it is desired to elevate the bar. A spring-clip, *h*, is in the present instance used to prevent the accidental turning of the needle-bar,
70 so as to unlock it from the sleeve; but this is not absolutely essential, as the needle-bar may fit the sleeve so snugly that the friction between the two will be sufficient to prevent accidental turning of the bar.

An inclined slot—such as shown in Fig. 3—may be used in place of the right-angled slot, if desired, the turning and elevation of the needle-bar in this case being simultaneous;
80 and the independently-adjustable needle-bar may be used in sewing-machines generally as well as in the particular form of machine shown and described.

I claim as my invention—

85 1. The combination of the sleeve J, having a slot, *g*, means for guiding and for reciprocating said sleeve, and a needle-bar, D, capable of being turned and moved vertically in the sleeve, and having a pin, *f*, adapted to the slot *g*, as set forth.

2. The combination of the sleeve J, having a right-angled slot, *g*, means for reciprocating and for guiding said sleeve, a needle-bar, D,

capable of being turned and moved vertically in the sleeve, and having a pin, *f*, adapted to the slot *g*, and the retainer *h*, as set forth.

3. The combination of the lower looping-
5 needle, *b*, and its operating mechanism, the upper sewing-needle, *a*, and its bar D, the sleeve J, in which the said bar D can be moved vertically, and means for guiding and for reciprocating said sleeve, as set forth.

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

JAMES F. SNEDIKER.

Witnesses:

JOHN M. CLAYTON,
HARRY SMITH.