(No Model.) 2 Sheets—Sheet 1.

J. F. SNEDIKER.

SEWING MACHINE.

No. 296,637. Patented Apr. 8, 1884.

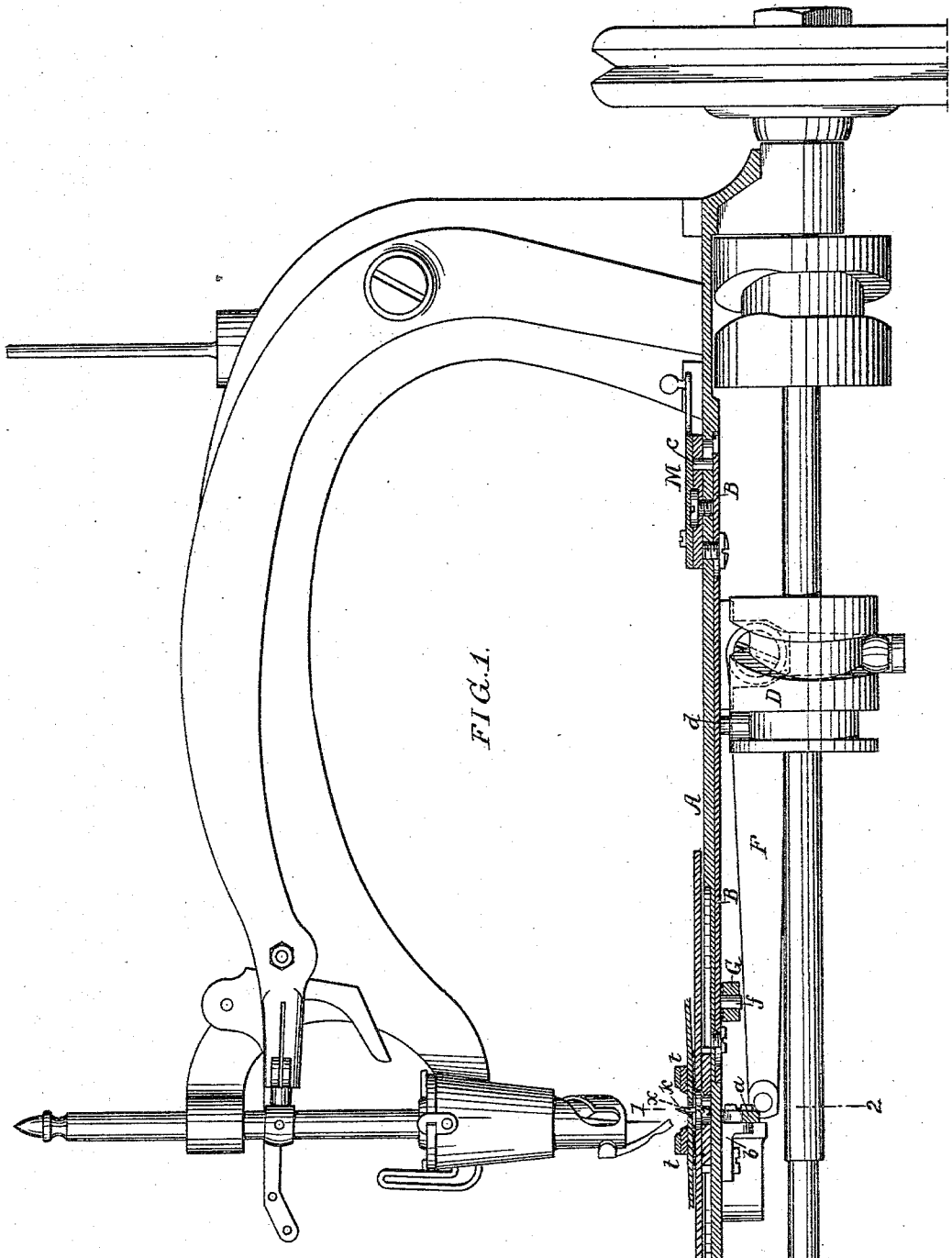

FIG. 1.

WITNESSES:
John E. Parker
James F. Jobin

INVENTOR:
James F. Snediker
by his Attorneys
Howson & Sons

(No Model.) 2 Sheets—Sheet 2.

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SEWING MACHINE.

No. 296,637. Patented Apr. 8, 1884.

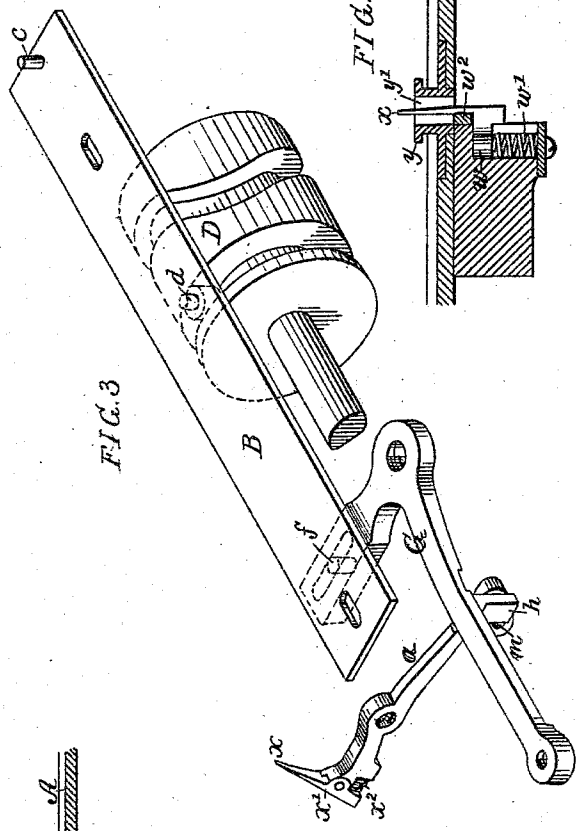

FIG. 3.

FIG. 6.

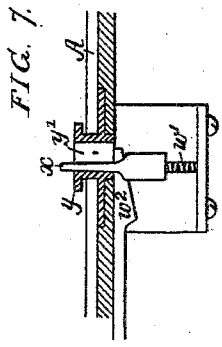

FIG. 7.

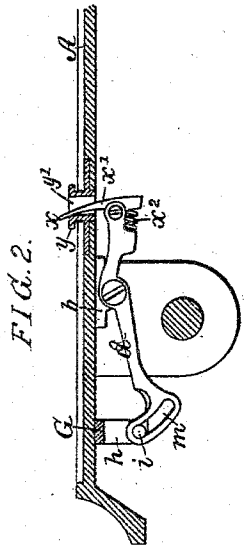

FIG. 2.

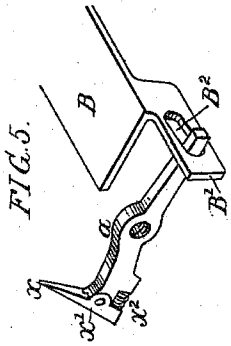

FIG. 5.

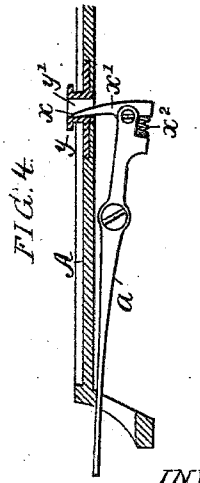

FIG. 4.

WITNESSES:
John E. Parker
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UNITED STATES PATENT OFFICE.

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

SEWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 296,637, dated April 8, 1884.

Application filed November 8, 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 certain Improvements in Button-Hole Sewing-Machines, of which the following is a specification.

My invention relates to that class of button-hole sewing-machines in which a clamping device is used to feed the fabric, the object of my invention being to permit the ready application of the fabric to and its ready removal from said clamping device when the latter is used in connection with a machine having a horn or guide-pin entering the button-hole and projecting above the table or bed.

In the accompanying drawings, Figure 1, Sheet 1, is a longitudinal section of sufficient of the machine to illustrate my invention; Fig. 2, Sheet 2, a transverse section on the line 1 2; Fig. 3, a perspective view of the mechanism for depressing the horn; and Figs. 4, 5, 6, and 7, views of modifications.

In some button-hole sewing-machines—the "American" machine, for instance—a horn or guide-pin, *x*, projects above the table or bed, this horn entering the button-hole and remaining in the same while the stitches are being formed.

When it is desired to use on a machine of this class an automatic feeding device—such, for instance, as that shown in my Patent No. 265,167, September 26, 1882—the horn interferes with the ready application of the fabric to and its removal from the clamp-plates *t t*, forming part of said feeding device. In order to remove this horn when it is desired to apply or remove the fabric, I provide said horn with a yielding support. Thus, as shown in Figs. 1 to 3, the horn is carried by a lever, *a*, pivoted to a stud, *b*, on the under side of the table or bed A of the machine, whereby said lever can be so adjusted as to cause the projection of the horn *x* above the stud *y* on the bed-plate, as shown in Fig. 2, or the retraction of the horn within said stud, as shown in Fig. 4.

The means employed for adjusting the lever may be varied in many ways without departing from the spirit of my invention. For instance, the long arm of the lever may project in front of the table, as shown in Fig. 4, so as to be directly manipulated; but I prefer the arrangement shown in Figs. 1, 2, and 3, whereby the retraction of the horn is effected simultaneously with the retraction of the looper usually employed in this class of machines.

In a patent, No. 261,399, granted to my assignees on the 18th day of July, 1882, is described and claimed mechanism for effecting the retraction of said looper, this mechanism comprising a cam-lever, M, which acts upon a pin, *c*, on a plate, B, guided on the bed A of the machine, and having a pin, *d*, adapted to a groove in the cam D, which acts upon the looper-arm F, so that by sliding the plate B the cam D is moved longitudinally upon the driving-shaft, and the looper-arm is vibrated in such a manner as to advance or retract the looper. In the present instance the sliding plate B has a pin, *f*, which is adapted to a slot, *g*, in the short arm of a bell-crank lever, G, hung to a pin on the bed A, the long arm of said lever having a lug, *h*, a pin, *i*, on which is adapted to an inclined slot, *m*, in the long arm of the lever *a*, so that on moving the slide B longitudinally a transverse movement will be imparted to the long arm of the lever G, and the lever *a* will be vibrated, so as to advance or retract the horn *x*. The long arm of the lever G is in the present instance extended beyond the lever *a*, being intended for connection to the cut-off plate described in said Patent No. 265,167, whereby the feed mechanism is thrown in and out of gear. If desired, however, the lever *a* may be actuated directly by means of a plate, B′, secured to or forming part of the plate B, and having an inclined slot, B^2, for the reception of the long arm of the lever, as shown in Fig. 5, for instance.

The horn *x*, in the present instance, forms part of one arm of a short lever, *x′*, pivoted to the end of the lever *a*, the other arm of said lever *x′* being acted upon by a spring, x^2, so that the upper end of the horn will not move in the arc of a circle, but will always be held against the side of the opening *y′* in the stud *y* and prevented from coming into the path of the looper *k*, which also works in the opening *y′*.

It is not necessary that the horn should be carried by a lever, *a*. For instance, in Figs. 6 and 7, I have shown a modification in which a projection, *w*, on the horn is adapted to a re-

cess in the under side of the bed-plate, and is free to slide therein under control of a spring, w', a sliding wedge, w^2, acting on a projection on the horn, and serving, when properly adjusted, to depress the horn, the spring restoring the same to its normal position on the retraction of the wedge. The horn x serves to prevent the fabric from pressing upon the looper-needle when the latter is raised, and also aids in directing the fabric under control of the clamp, especially during the turning movement at the ends of the button-hole, when it serves as a pivot for the fabric.

I claim as my invention—.

1. The combination of the sewing mechanism of a button-hole sewing-machine with a horn, x, having a yielding support, and with mechanism whereby said horn can be elevated or depressed, as set forth.

2. The combination of the sewing mechanism, the table or bed, the horn x, and the lever a, carrying said horn, as set forth.

3. The combination of the sewing mechanism, the table or bed, the horn x, the lever a, carrying the same, the slide B, and means, substantially as described, whereby the reciprocation of the slide is caused to effect the vibration of the lever, as set forth.

4. The combination of the sewing mechanism, the table or bed, the horn x, the lever a, carrying the same, and having an inclined slot, m, the slide B, and the bell-crank lever G, having a pin, i, adapted to the slot m, as set forth.

5. The combination of the table or bed having an opening, y', lever a, and the horn x, forming part of a lever, x', hung to the lever a, and acted upon by a spring, x^2, 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.