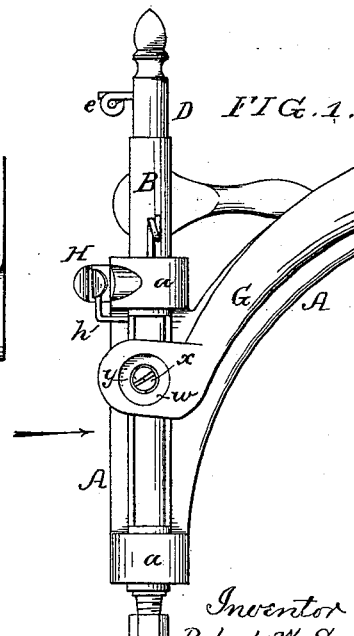
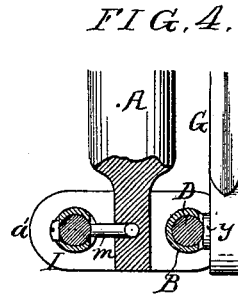
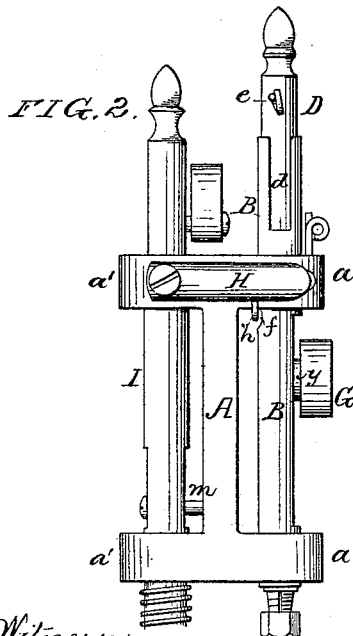
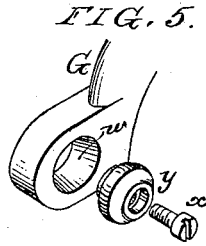
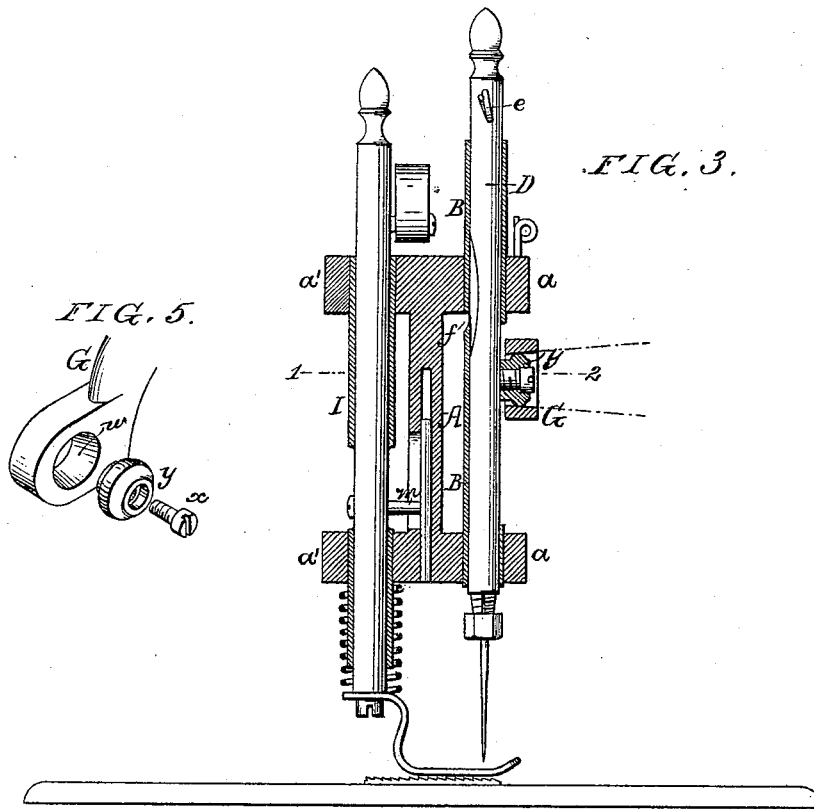


(No Model.)

R. W. SCOTT.
SEWING MACHINE.

No. 262,134.

Patented Aug. 1, 1882.



Witnesses:
James F. Jobin
Hamilton D. Turner

Inventor:
Robert W. Scott.
by his Attorneys
Howson and Fox

UNITED STATES PATENT OFFICE.

ROBERT W. SCOTT, OF PHILADELPHIA, PENNSYLVANIA.

SEWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 262,134, dated August 1, 1882.

Application filed April 15, 1882. (No model.)

To all whom it may concern:

Be it known that I, ROBERT W. SCOTT, a citizen of the United States, and a resident of Philadelphia, Pennsylvania, have invented certain Improvements in Sewing-Machines, of which the following is a specification.

My invention consists of certain improvements, fully described hereinafter, in sewing-machines of the Willcox & Gibbs type, and in other sewing-machines in which the guides for the needle-bar and presser-bar are of limited extent, and are consequently liable to be rapidly worn when the machine is driven at a high speed; and the objects of my invention are to afford longer guides and more extended guiding-surfaces for the needle and presser bar.

In the accompanying drawings, Figure 1 is a side view of sufficient of a Willcox & Gibbs sewing-machine to illustrate my invention; Fig. 2, a view of Fig. 1 looking in the direction of the arrow; Fig. 3, the same as Fig. 2, partly in section; Fig. 4, a sectional plan on the line 1 2, Fig. 3; and Fig. 5, a perspective view, illustrating part of the machine.

In the Willcox & Gibbs sewing-machine the stationary arm A has at the outer end lateral projections *a a*, serving as guides for the needle-bar, and similar lateral projections *a' a'*, serving as guides for the presser-bar.

When machines of this class are driven at a high speed, which is generally the case in manufactories, both the presser-bar and needle-bar, and especially the latter, and the guides in which they reciprocate, become rapidly worn, owing to the limited guiding-surfaces within the projections *a a'*, and the machine for this reason soon becomes so defective that it must be discarded or repaired. In order to remedy this defect, I use, in connection with the needle-bar D, a sleeve or tubular guide, B, which extends through the projections *a a* of the stationary arm, and is secured in any suitable manner to one or both of the said projections, the needle-bar fitting snugly but so as to reciprocate freely in the sleeve, which is carried upward above the highest of the projections *a* to about the extent shown in the drawings. While it is not necessary that the guiding-sleeve should extend entirely through the lower projection *a*

of the stationary arm, I prefer that it should do so. By combining the sleeve with the needle-bar and stationary arm such an extended guiding surface is presented for the said bar that the machine can operate a long time without any appearance of the wearing, either of the bar or guide. The guiding-sleeve has a vertically-elongated slot to permit the free movement of the pin by which the end of the vibrating needle-lever G of the machine is connected to the needle-bar. The sleeve is also slotted at *d* to admit the thread-guide *e* on the needle-bar, and has an opening at *f* to admit the pin *h* of the tension device H to the groove in the needle-bar. These slots in the sleeves, however, do not detract from the extent of guiding-surface or durability of the sleeve. In some cases the sleeve need not extend above the upper projection *a*, and in machines having a different form of tension device from that shown the opening *f* may be dispensed with.

A guiding-sleeve, I, is combined with the presser-bar, and with the projections *a' a'* of the stationary arm, the sleeve passing through the projections and being secured in any suitable manner to one or both of the same, and being vertically slotted where the usual guide-rod, *m*, is connected to the presser-bar.

One of the advantages of my invention is the facility with which an old machine of this class, the ordinary guides of which have become worn, can be altered by the application of the guiding-sleeves, which render the machine more durable than a new machine as now manufactured, so far as the guiding of the needle-bar and presser-bar is concerned. The opening *w* in the vibrating needle-arm is made tapering, and larger on the outer than on the inner side of the arm. (See dotted lines in Fig. 3.) A ring, *y*, having a curved periphery, is adapted to the opening *w* in the needle-arm, and a threaded pin, *x*, passes freely through this ring and screws into the needle-bar, the head of the pin being contained, or partly contained, in a recess in the ring. When this device is first made the ring *y* does not extend far into the tapering opening *w* of the needle-arm; but as the ring wears the screw is turned so as to cause the ring to pass farther into the opening, and this may be continued until the

ring is so worn that farther setting up is out of the question, when the ring may be discarded to make way for a new ring.

I claim as my invention—

5 1. The combination of the stationary arm of a sewing-machine and its projections *a a*, and the needle-bar and needle-arm, with the sleeve B, applied to the said projections and slotted to permit the free movement of the pin which
10 connects the needle-arm to the needle-bar, all substantially as set forth.

2. The combination of the presser-bar and

its rod or pin *m*, and the stationary arm and projections *a' a'* of the same, with the guiding-sleeve I, adapted to the said projections 15 and slotted to admit the pin *m*, substantially as specified.

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

ROBT. W. SCOTT.

Witnesses:

HARRY DRURY,

HARRY SMITH.