

(No Model.)

D. W. ALLEN.

PRESSER FOOT LIFTING AND BRAKE MECHANISM FOR SEWING MACHINES.

No. 327,218.

Patented Sept. 29, 1885.

Fig:1.

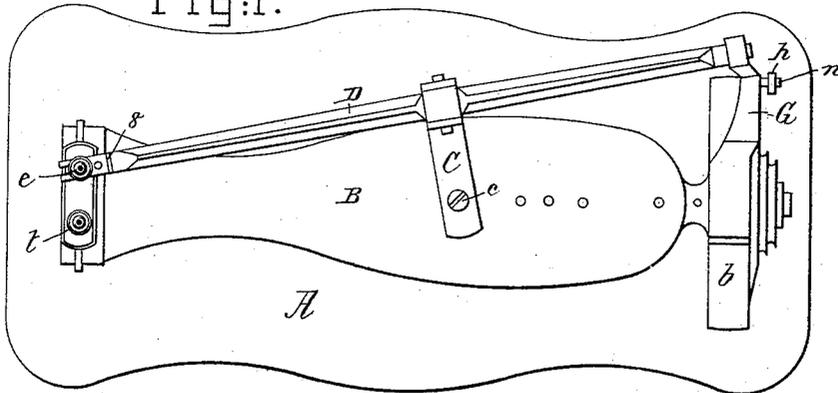


Fig:2.

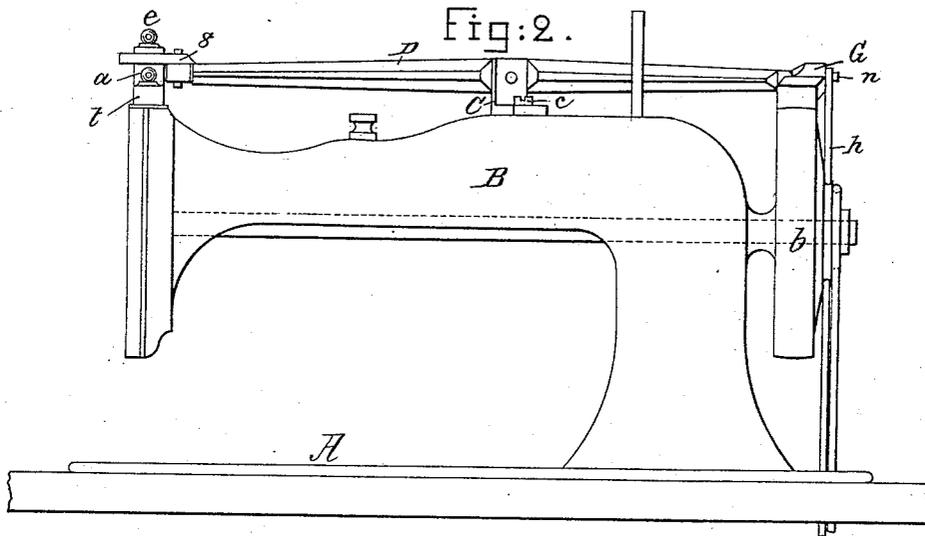
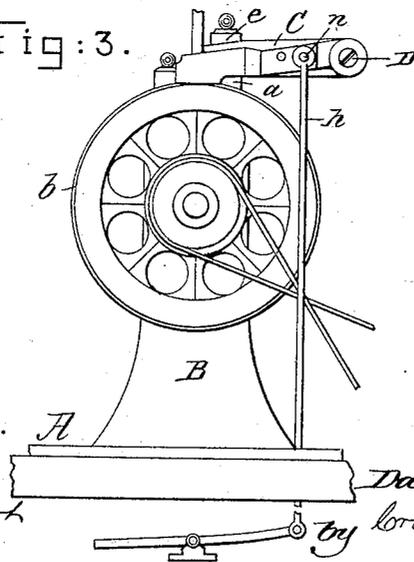


Fig:3.



Witnesses.

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PRESSER-FOOT-LIFTING AND BRAKE MECHANISM FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 327,218, dated September 29, 1885.

Application filed August 27, 1884. (No model.)

To all whom it may concern:

Be it known that I, DANIEL W. ALLEN, of Abington, county of Plymouth, State of Massachusetts, have invented an Improvement in Presser-Foot-Lifting and Brake Mechanisms for Sewing-Machines, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

10 This improvement in sewing-machines has for its object to provide mechanism whereby, upon depressing a treadle during the operation of the machine, a brake will be applied to the hand-wheel to slacken the speed of the stitching mechanism, and at the same time a lever will be operated to lift or raise the presser-foot to enable the position of the fabric being stitched to be changed when desired. To this end I provide a lever pivoted upon a bracket projecting from the arm of the sewing-machine, the lever being connected at its forward end with the presser-foot bar and receiving at its other end a counter or brake lever which is provided with a brake-shoe adapted to be applied to the periphery of the hand-wheel of the machine.

One end of a connecting-rod is attached to the brake-lever, while its other end is secured to a suitable treadle adapted to be operated by the foot or otherwise.

The nature of my invention is fully described in the following description, and is particularly pointed out in the claims.

Figure 1 shows in plan view a sewing-machine embodying my improvements. Fig. 2 is an elevation thereof, and Fig. 3 is a rear end view.

The bed-plate A, arm B, the needle-bar operating-shaft having a hand-wheel, *b*, needle-bar *t*, and presser-foot bar *a* are and may be of usual construction.

A bracket, C, firmly secured to the top of the arm at a point between the presser-foot bar and hand-wheel, serves to sustain the fulcrum or pivot for the lever D, having a bifurcated plate, *f*, attached to its front end, the bifurcation being provided to permit the plate to pass under the head or top *e* of the presser-foot bar, and thereby engage the same in such manner as to enable it to be lifted, as will presently be described.

The other or rear end of the lever D is reduced to serve as a pivot for the brake-lever G, arranged nearly at right angles to the lever D, and being provided at its free end with a brake-shoe adapted to fit the peripheral surface of the hand-wheel *b*, as clearly illustrated in the drawings.

A connecting-rod, *h*, is suitably joined in this instance by a pin, *n*, to the brake-lever at a point between its pivotal end and the brake-shoe, the said rod being attached to a treadle, I, arranged in suitable position near the ordinary treadle of a sewing-machine, so that the operator may readily remove the foot from the ordinary treadle and apply it to the treadle I, to draw the connecting-rod downward.

When the connecting-rod is so depressed, the brake-shoe is caused at the outset to bear or press on the hand-wheel to serve as a brake and check the rotation thereof, the pivotal end of the brake-lever serving as the fulcrum; but as the downward pressure on the brake-lever is increased, such increased pressure becomes sufficient to cause the end of the brake-lever to serve as a fulcrum, when the end connected with the lever D will be lowered, thereby moving the lever D on its fulcrum and elevating its front end, thus lifting the presser-foot bar and its attached foot, as will be clearly understood by reference to the drawings.

As shown in Fig. 3, the brake-lever may be provided with several holes for the reception of the pin *n*, whereby, with a given pressure on the treadle I, the brake may be applied to the hand-wheel with greater or less force, as may be desired.

I claim—

1. The presser-foot, the presser-bar, the needle-actuating shaft, its attached hand-wheel, and the pivoted presser-bar lifting-lever D, arranged lengthwise of the machine and having its front end in engagement with the said presser-bar, combined with the brake-lever mounted loosely upon the rear end of the said presser-bar lifting-lever, the combination being and operating substantially as described.

2. In a sewing-machine, the combination, with the presser-foot bar, hand wheel, and

bracket, as specified, of a lever pivoted upon
the bracket and having its front end connect-
ed with the presser-foot bar and provided at
its rear end with a brake-lever pivoted thereto,
5 and having a shoe adapted to fit the periph-
eral surface of the hand-wheel, and means to
operate the brake-lever, substantially as speci-
fied.

In testimony whereof I have signed my
name to this specification in the presence of 10
two subscribing witnesses.

DANIEL W. ALLEN.

Witnesses:

ALBERT M. NASH,
OTIS W. SOULE.