

N. F. PALMER.

Improvement in Brake for Sewing Machines.

No. 123,043.

Patented Jan. 23, 1872.

Fig. 1.

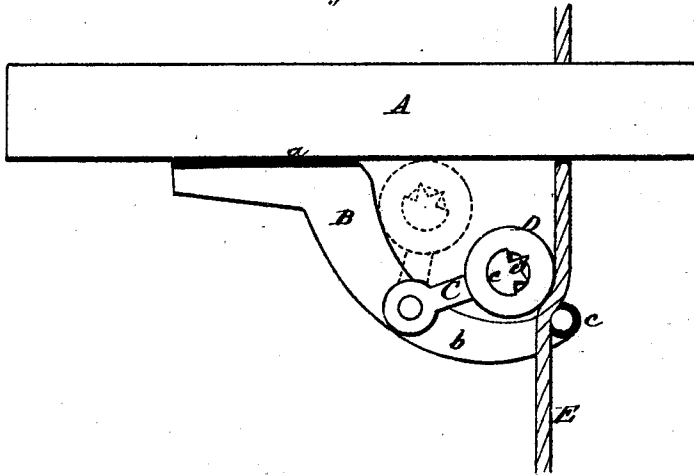


Fig. 2.

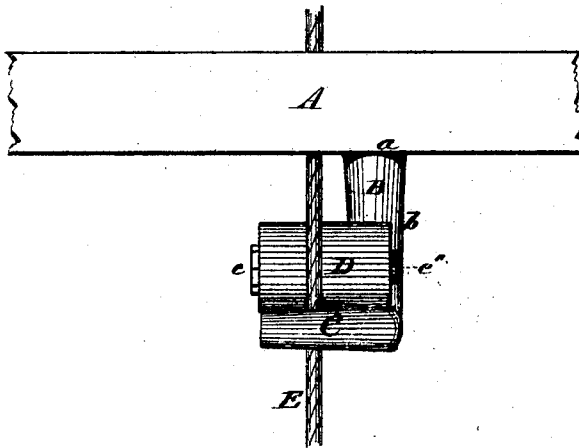


Fig. 3.

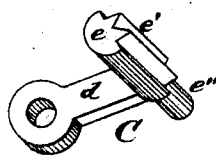
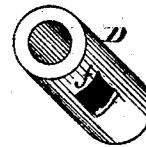


Fig. 4.



Witnesses.

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UNITED STATES PATENT OFFICE.

NOYES F. PALMER, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN BRAKES FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. 123,043, dated January 23, 1872.

To all whom it may concern:

Be it known that I, NOYES F. PALMER, of Brooklyn, in the county of Kings and in the State of New York, have invented certain new and useful Improvements in Automatic Belt-Brakes; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a side view of my device; Fig. 2, a front view of the same; Fig. 3, a separate view of the lever with the India-rubber cushion removed; and Fig. 4, a separate view of the rubber cushion.

Like letters of like kinds designate corresponding parts in each figure.

My device belongs to that class of automatic belt-brakes intended to prevent motion of the driving-wheel in the wrong direction, and also to retard motion of the same in the proper direction when desired; and my invention therein consists in the peculiar construction, combination, and arrangement of the several operative parts, all as more fully hereinafter described.

In the drawing, A represents a portion of a sewing-machine table, to the under side of which the brake-frame B is secured by any proper means. This frame (of the form shown in Fig. 1) has an upper plane or flat surface, *a*, suitable for fastening a downward and outwardly curved body, *b*, and an outer arm, *c*, extending at right angles laterally from said body. To the side of the body *b*, from which extends the arm *c*, the lever C is pivoted, whose form is shown particularly in Fig. 3, and which is composed of a body, *d*, and a cross-head, *e*, attached near its center, and having the outer surface *e'* of one portion of it serrated, as shown in Fig. 3, and the other portion *e''* cylindrical in form. Upon this cross-head the India-rubber cushion D, which is a tube, as shown in Fig. 4, is placed by springing it over said cross-head, the portion *e'* of which is first inserted in the opening *f* in one side of said cushion, and then the cushion stretched, so that said opening will extend over the end of the cylindrical portion of the

cross-head. The frame B and the lever C may each be cast in one piece of any suitable metal. The belt E, which may be round, flat, or angular, completes the enumeration of parts.

In the operation of my device, when intended to act as a brake to prevent revolution of the driving-wheel in the wrong direction, the cushion, falling by its own weight into place, is drawn by the descending movement of the belt E so that it presses said belt with increasing force against the outer arm *c* of the frame until it prevents its further movement in that direction, as shown in Fig. 1. When it is intended to use it to check the motion in the right direction, the hand of the operator is placed upon the cushion and it is pressed down until the desired result is attained. When it is wished to use the machine without the brake, as is frequently the case with skilled operatives, the cushion is turned up against the under side of the table A, as shown in dotted lines in Fig. 1, where it remains in place by its own elasticity.

As the rubber cushion, when placed on a cylindrical body, stretches very much in a rotary direction by the traction of the belt when it is pressed by it, whereby the motion of the belt is not checked with sufficient speed, and the cushion itself soon becomes torn, inelastic, and worthless, the serrated portion *e'* of the cross-head prevents such bad results and makes a very simple and effective brake, which will not wedge or bind the belt.

The advantages of my device consist in its cheapness, simplicity, and effectiveness in operation upon any kind of a belt.

Having thus described its construction, method of operation, and some of its advantages, what I claim as new therein is—

The automatic belt-brake, composed of the frame B, the lever C, and cushion D, substantially as described and shown.

In testimony that I claim the foregoing I have hereunto set my hand this 14th day of December, 1871.

NOYES F. PALMER.

Witnesses:

N. G. PALMER,
F. P. PERSON.