C. H. WILLCOX.

Sewing Machine.

No. 42,036. Patented March 22, 1864.

Fig. 1

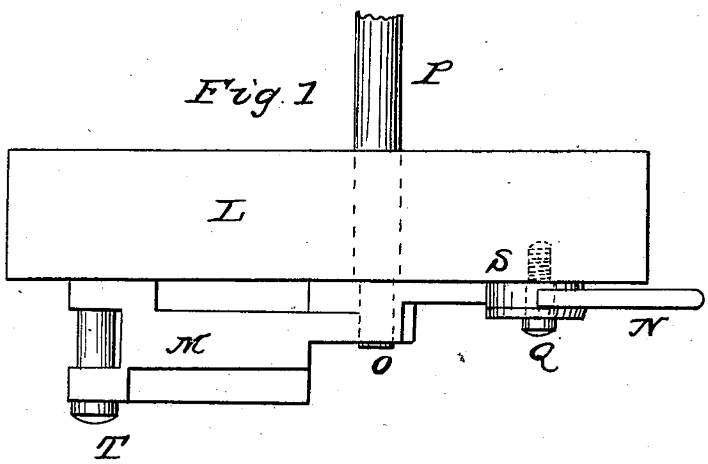


Fig. 3

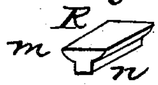


Fig. 4

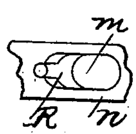
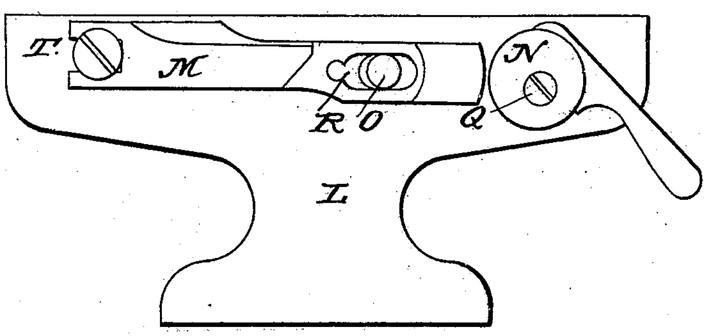


Fig. 2



WITNESSES

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UNITED STATES PATENT OFFICE.

CHARLES H. WILLCOX, OF NEW YORK, N. Y., ASSIGNOR TO JAMES WILLCOX, OF SAME PLACE.

IMPROVEMENT IN SEWING-MACHINES.

Specification forming part of Letters Patent No. **42,036**, dated March 22, 1864.

To all whom it may concern:

Be it known that I, CHARLES H. WILLCOX, of New York, in the county and State of New York, have invented certain new and useful Improvements in Sewing-Machines; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figures 1 and 2 represent a plan and front elevation of a part of a sewing-machine to which my improvement is applied, and Figs. 3 and 4 are detail views.

In sewing-machines in which the cloth or material to be sewed is moved along the sewing-table or cloth-plate by means of a reciprocating feed mechanism known as the "Wilson feed," and in other sewing-machines in which the feed is effected by a mechanism vibratory in its character, the noise attendant on the operation of such machines is frequently a source of great annoyance, particularly, however, in family sewing-machines intended to be run in homes, where the clatter of the machine at work often disturbs the sleep of children or the repose of the sick.

This invention has for its object obviating the noise attendant upon the working of sewing-machines; and it consists in the application of leather or other suitable soft material between the feed-bar and adjustable stop and the feed-actuating cam or eccentric, so as to prevent such metallic surfaces from coming in contact when at work, and thereby obviating the noise attendant upon the working of sewing-machines.

To enable others to make and use this invention, I shall now proceed to describe the manner in which the same is or may be carried into effect.

Referring to the accompanying drawings, L represents part of a frame of a sewing-machine, through which passes the shaft P, on the end of which is turned the eccentric-pin O, fitting into the slot in the feed-bar M. In this slot is fitted a buffer or pad, R, of leather or other suitable material, to receive the forward thrust of the eccentric-pin O.

S is a circular washer, of leather or other suitable material, attached attached to the handle N by means of the screw Q, which passes eccentrically through a hole in both into the frame, and binds the washer between the handle N and the face of the frame L, producing sufficient friction to prevent it being turned by the action of the feed-bar M, which in the course of the revolution of the eccentric-pin O is forced back by a spring against the adjustable stop just referred to.

The buffer or pad I make by first cutting long strips of leather of the form shown in isometrical perspective view in Fig. 3, and by then cutting the same into sections in width equal to the thickness of that part of the feed-bar in which it is to be inserted, or of a lesser width, sufficient, however, to produce the desired effect. One of these strip-sections is then introduced into the cavity or recess upon the left-hand side of the eccentric O by bending the edges *m* and *n* and forcing it home, as indicated in Fig. 4. The peculiar shape of the strip-sections and the mode of introducing them will produce the requisite curvature and surface of contact with the eccentric.

The operation of the feeding mechanism is the same as in those heretofore constructed—that is to say, the feed-bar M has a vibratory up-and-down and back-and-forth motion upon the spindle or pin T. The feed-bar, on advancing, in order to elevate the feeding-surface above the cloth-table, strikes against the washer S, the object of which is to limit the stroke and consequently to regulate the length of stitches. The feed-bar is caused to recede and to depress the feeding-surface below the cloth-plate by the eccentric O working against the pad R. The feed bar is therefore vibrated between two points which are padded with leather, as herein shown and described.

Having now fully described the nature of my invention, I claim—

1. The application and use of leather or other sound-deadening material interposed between those parts of the feed mechanism of sewing-machines which strike against or come in contact with each other when at work with a view to the prevention of noise, as hereinbefore described.

2. The method herein described of forming the pad or buffer R by cutting strips of the form described and introducing the same into the feed-bar slot, substantially as set forth.

In testimony whereof I have signed my name to this specification before two subscribing witnesses.

CHAS. H. WILLCOX.

Witnesses:
E. P. HATCH,
JAMES KILNER.