(No Model.)

R. ROSSITER.

TENSION ATTACHMENT FOR SEWING MACHINES.

No. 332,753. Patented Dec. 22, 1885.

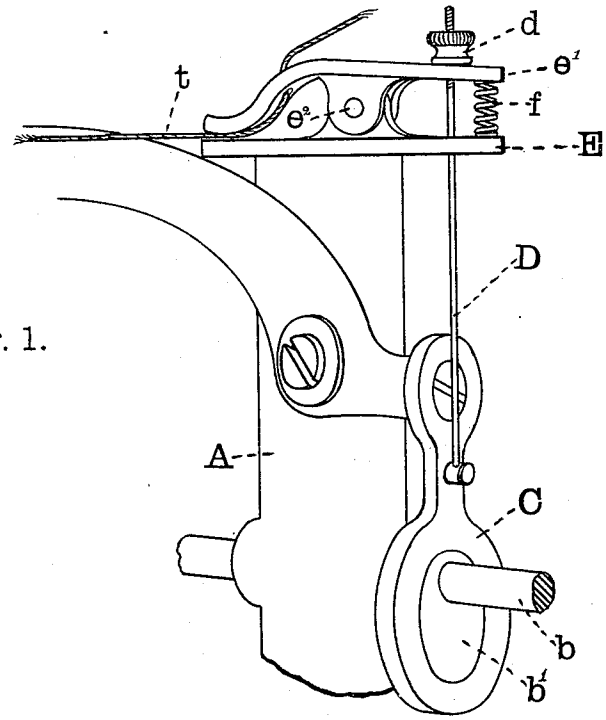

Fig. 1.

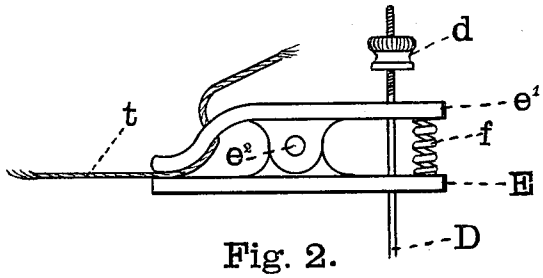

Fig. 2.

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RICHARD ROSSITER, OF LYNN, MASSACHUSETTS.

TENSION ATTACHMENT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 332,753, dated December 22, 1885.

Application filed March 18, 1885. Serial No. 159,258. (No model.)

To all whom it may concern:

Be it known that I, RICHARD ROSSITER, a citizen of the United States, residing at Lynn, county of Essex, and Commonwealth of Massachusetts, have invented a new and useful Tension Attachment for Sewing-Machines, of which the following is a specification.

My invention relates to tension attachments in which the thread is passed between two jaws, which are held in place by a spiral spring; and the object of my invention is to provide a tension attachment that will hold the thread firmly and loosen the thread at each stitch taken by the machine, so that it may be fed to the needle as fast as required. I attain this object by means of the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a view of a section of a sewing-machine having the tension attachment fastened to it, with the jaws loosened up so that the thread will pass through easily; and Fig. 2, a view of the tension attachment with the jaws closed tightly upon the thread.

Similar letters refer to similar parts throughout the several views of the device.

A is an upright section of the frame of a sewing-machine, to which is fastened the tension attachment proper. *b* is a shaft provided with an eccentric, *b'*, which, as the shaft revolves, raises and lowers the eccentric-strap C. The eccentric-strap C is attached to a lever which is connected with the needle-bar, (not shown,) so that as the eccentric-strap is raised the needle-bar is lowered, all of which is accomplished in an obvious and well-known manner.

The tension attachment consists of the rod D, jaws E and *e'*, pin e^2, spiral spring *f*, and nut *d*. The rod D passes through the jaws E and *e'*, the lower end being fastened to the eccentric-strap C, and the upper end provided with a nut, *d*. The upper jaw, *e'*, is pinned to the lower jaw, E, by the pin e^2, and between the two jaws at their rear end is the spiral spring *f*. When the eccentric-strap C is in its lowest position, the needle-bar will be raised, and the nut *d* on the rod D brought down against the upper jaw, *e'*, thus depressing the rear end of the jaw and raising the forward end, and allowing the thread to be fed between the jaws. When the eccentric-strap C is in its highest position, it will lower the needle-bar, raise the rod D and nut *d*, and the spiral spring *f* will throw the rear ends of the jaws apart, thus throwing the forward ends together, so as to firmly grasp the thread *t*. (See Fig. 2.)

I have alluded to the action of the eccentric-strap C on the needle-bar to illustrate how the tension attachment loosens its hold on the thread after every stitch taken by the machine.

The point at which the jaws E and *e'* shall loosen their hold upon the thread and the length of time they shall remain open can be regulated by the nut *d* on the rod D, the jaws opening quicker and remaining open longer when the nut is low on the rod than when it is higher. The inside faces of the jaws E and *e'*, where they come in contact with the thread, may be lined with glass or other hard substance, to prevent the thread from wearing into the surface.

Having fully described my invention, what I claim, and desire to secure by Letters Patent, is—

A tension attachment having the rod D, nut *d*, jaws E and *e'*, pin e^2, and spring F, and means, as strap C, for imparting an intermittent movement to rod D from the main shaft, all substantially as in the one shown and described.

Witness my hand.

RICHARD ROSSITER.

In presence of—

CHAS. ALLEN TABER,

WARREN B. HUTCHINSON.