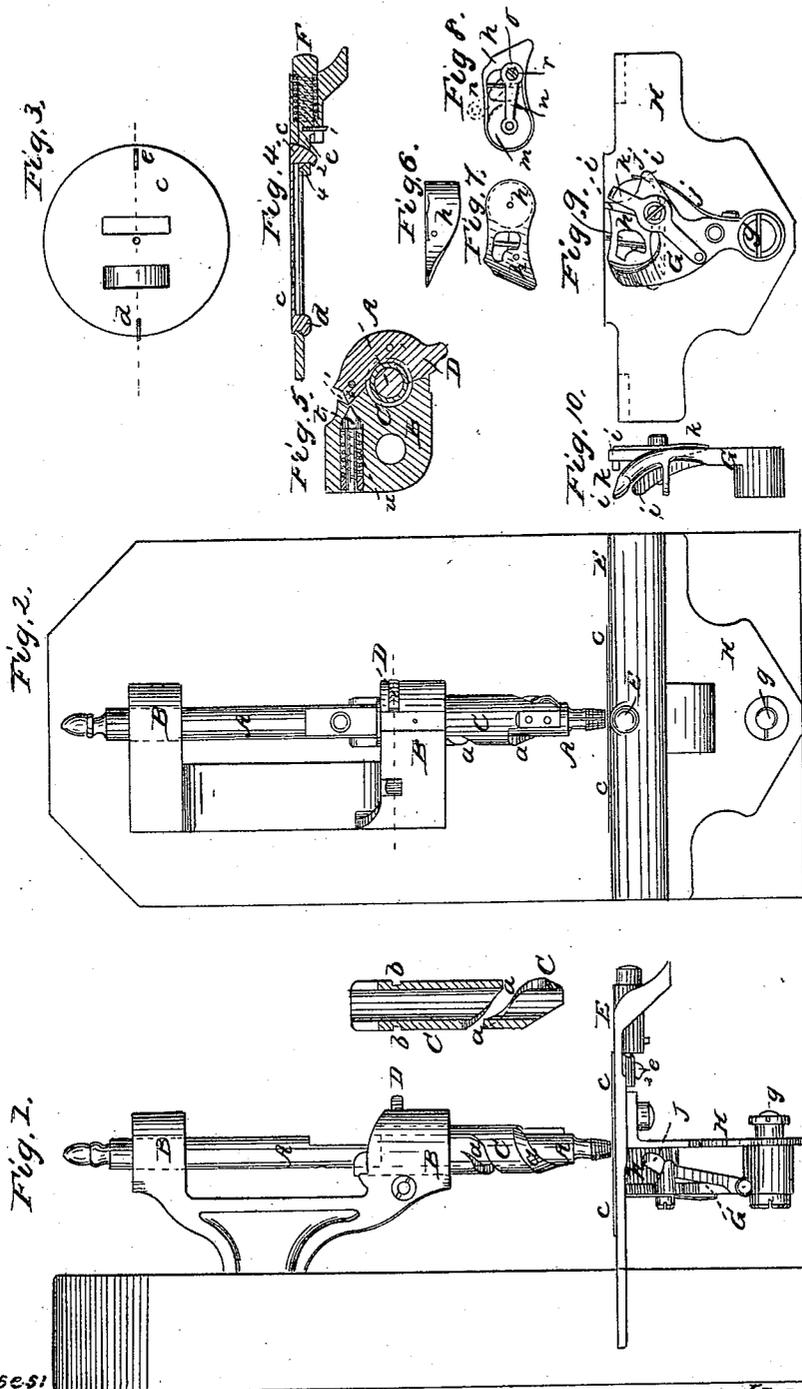


C. CHABOT.  
Sewing Machine.

No. 77,715.

Patented May 12, 1868.



Witnesses:

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# United States Patent Office.

C. CHABOT, OF PHILADELPHIA, PENNSYLVANIA.

Letters Patent No. 77,715, dated May 12, 1868.

## IMPROVEMENT IN SEWING-MACHINES.

The Schedule referred to in these Letters Patent and making part of the same.

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, C. CHABOT, of the city of Philadelphia, and State of Pennsylvania, have invented certain new and useful Improvements in Sewing-Machines; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents a side view of so much of a sewing-machine as will illustrate my invention.

Figure 2 represents a front view of the same.

Figures 3, 4, and 5 represent details, in connection with the throat-plate, and the devices for holding and releasing it.

Figures 6, 7, and 8 represent different views of the shuttle, and means of holding the bobbin therein.

Figures 9 and 10 represent the shuttle-carrier, and shuttle in place therein.

Similar letters of reference, where they occur in the several separate figures, denote like parts of the apparatus in all of the drawings.

My invention relates to the arrangement for holding, releasing, and changing the throat-plate, when necessary.

And it further relates to an embossed tension-spring, for holding the bobbin in the shuttle, and for allowing it to be released and changed, as also for regulating the tension of the thread.

And it further relates to the latch and concealed spring-bolt, for holding the latch in or out of action.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same with reference to the drawings.

A represents a needle-bar, supported in the arms or brackets, B, and in which it may be reciprocated by any of the well-known machinery for that purpose.

To the needle-bar may be attached a looper-bar or sleeve, C, furnished with a spiral groove, *a*, and a pin or stud passing through it and secured to the needle-bar, so that the vertical reciprocation of the needle-bar may give an oscillating rotating motion to the looper, and, to relieve friction, the stud, pin, or screw may have a friction-roll upon it. There is also a groove, *b*, in the upper part of the looper-bar, into which a spring-latch, D, pivoted to the lower bracket B, takes, to prevent the looper-bar from rising with the needle-bar. The spring-latch is held both in and out of action by its spring, as will be hereafter described, and to doubly secure it in action, a pin may pass into it through said lower bearing, which effectually prevents it from jumping out, under the rapid motion of the needle-bar.

E represents the table, on which the material to be sewn rests and is moved, and the opening through said table is covered by a throat-plate, *e*, which, for the convenience of being readily fastened or released, or removed, is operated by a peculiar contrivance, as follows: On the under side of the throat-plate (as more distinctly seen in fig. 4) there are two hooks or catches, *d e*, the former simple in construction, and catching under the table E. The other hook or catch *e* has two inclined planes, 1 and 2, upon it, which, in connection with the spring push-piece, F, and its planes or inclined surfaces 3 4, accomplish three purposes, viz, they fasten down the throat-plate, they release it, and when it is released it is raised and held up, so as to be readily seized by the fingers and removed. This is effected by or through the concealed spring, 5, around the push-piece, and the stud or stop *f*, as shown in said fig. 4, where the throat-plate *e* is shown as locked down.

To release the plate *e*, the push-piece F is pressed in or towards the plate, which moves the part 4 from the part 2, and at the same time the inclined surface 3, moving against the rounded portion 1 of the hook or lug *e*, raises up the plate *e*. Now, when the pressure upon the push-piece F is removed, the reaction of the concealed spring 5 draws it back, and the part 4 thereof passes under the portion 2 of the lug, and holds it, and the throat-plate, to which it is attached, up, so that it may be readily lifted off by the fingers, so that the hook or lug *e* and the push-piece F accomplish three purposes, viz, they lock the throat-plate *e* to the table, they release the throat-plate, and finally they hold up the throat-plate so that it may be caught and removed.

G is the shuttle-carrier, pivoted to the bearing-piece H at *g*, and operated in unison with the needle-bar, in any of the usual well-known ways.

The shuttle *k* lies in the arms *i i* of the shuttle-carrier, and is controlled therein by a spring, *j*, and a bent piece, *l*, so as not to drop out of the carrier, whilst it is free to pass the loop of the needle-thread.

*m* is the spool or bobbin, for holding the shuttle-thread. This bobbin is held in the shuttle by an embossed spring, *n*, pivoted at *o*, and so that the screw *r*, about which it turns, may serve to regulate the tension on the shuttle-thread, by increasing or diminishing the pressure of the spring upon the bobbin.

The spring *n*, at its free end, has a projection, *s*, stamped in or on it, which fits into a corresponding recess in the bobbin, or rather opening in the bobbin, and, by setting down the screw *r*, the pressure of the point of the spring upon the bobbin may be regulated, and consequently the tension of the bobbin-thread. When the spring *n* is moved around, as shown in dotted lines in fig. 8, the bobbin can be lifted off from the pin or journal on which it sits and turns. The embossing of the spring at its point forms the swell or projection *s*, and the embossing at the other end forms a recess for the head of the screw *r*, and by which the pressure of the spring is regulated.

In fig. 5, the spring-bolt *t* and its spring *u* are seen. This bolt or keeper is so made that the recoil of its spring tends to hold the latch D out or in, in whichever position it is moved, by bearing against the portion 6 of said latch when closed, as seen in said fig. 5, and by bearing against the portion 7 thereof when open. This bolt and spring are concealed in the bracket B, the head of the bolt being wedge-shaped, as shown in the drawing referred to.

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

In combination with a removable and replaceable throat-plate, a push-piece that fastens, unfastens, raises, and holds up said plate, substantially as and for the purpose described.

And I claim, in combination with the shuttle and its bobbin, the spring *z*, when pivoted to swing laterally, and embossed at both of its ends, for holding and allowing the bobbin to be removed by the side movement of the spring, as also for regulating the tension of the bobbin-thread by means of the set-screw *r*, substantially as described.

And I also claim, in combination with the latch D, the concealed spring-bolt *t*, for holding said latch in either position, that is, open or shut, substantially as described.

C. CHABOT.

Witnesses:

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