

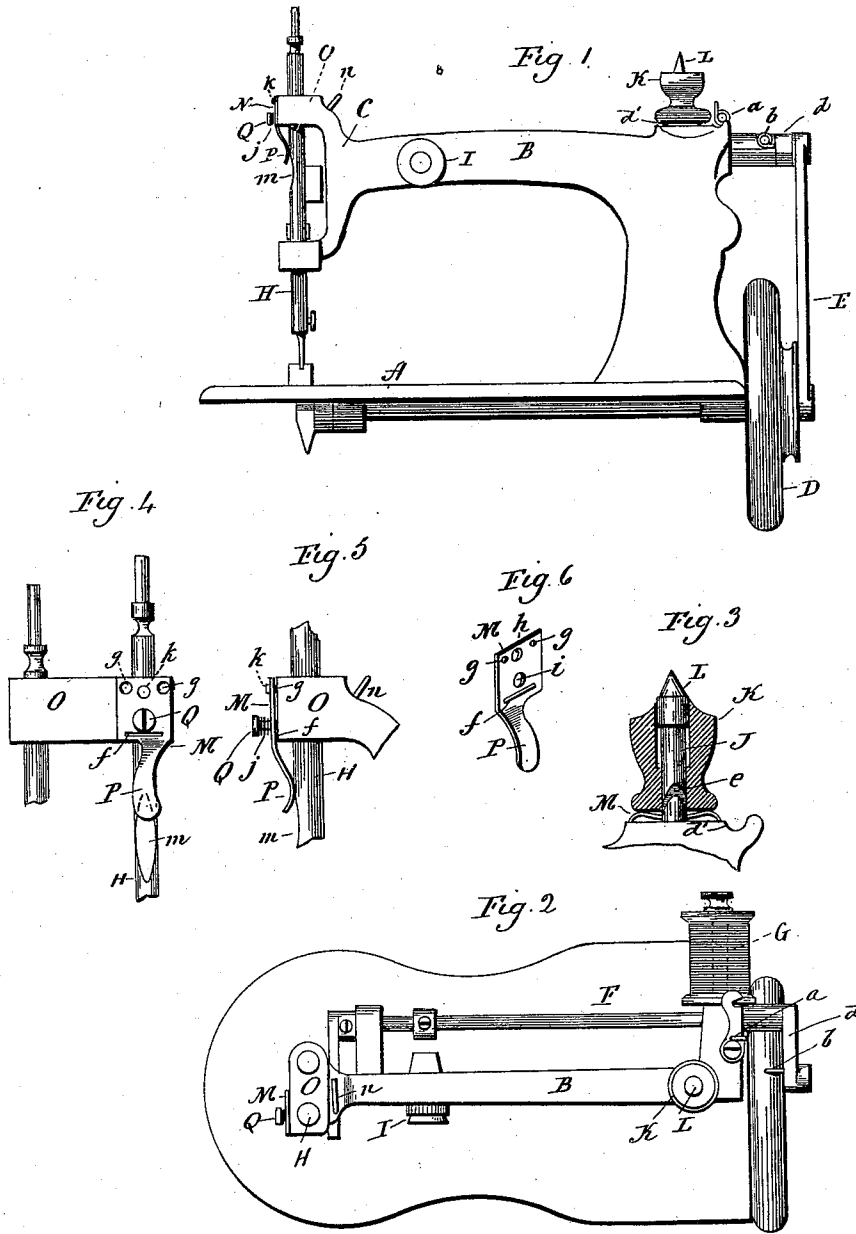
(No Model.)

D. W. GOODELL.

THREAD CONTROLLER FOR SEWING MACHINES.

No. 581,110.

Patented Apr. 20, 1897.



Witnesses
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UNITED STATES PATENT OFFICE.

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THREAD-CONTROLLER FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 581,110, dated April 20, 1897.

Application filed February 18, 1897. Serial No. 623,929. (No model.)

To all whom it may concern:

Be it known that I, DEXTER W. GOODELL, of Greenfield, in the county of Franklin and State of Massachusetts, have invented a new
5 Improvement in Sewing-Machines; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of
10 the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a front view of a sewing-machine constructed in accordance with my invention; Fig. 2, a top view of the same; Fig. 3, an enlarged view, partially in section, of one of the
15 thread-holders; Fig. 4, an end view of the upper arm of the frame-head, showing a plan view of the second thread-holder; Fig. 5, an edge view of the same; Fig. 6, a perspective
20 view of the thread-holding plate detached.

This invention relates to an improvement in sewing-machines, and is an improvement on the machine shown and described in an application filed by me February 3, 1886, Serial
25 No. 190,701, and while applicable to various styles of machines is particularly intended for low-price machines, in which it is necessary that the attachments and parts thereof shall be of the simplest character.

The object of the present invention is to provide devices for holding the thread under slight tension between the spool-support and the tension device and between the tension device and the needle, and so that during the
35 feeding operation and when the automatic or regular tension is released the thread will not "run;" and the invention consists in the construction as hereinafter described, and particularly recited in the claims.

The bed-plate A, frame B, head C, driving-wheel D, pitman E, rock-shaft F, spool-support G, needle-bar H, and tension device I are shown in the same manner as in the applica-
40 tion above referred to and may be of any preferred construction. In the said application the thread was run from the spool mounted on the spool-support through an eye *a*, mounted on the frame, and an eye *b*, mounted on the crank *d* of the rock-shaft F, and from there
45 over a thread-seat *d'* to the tension device I. In order to avoid the thread "running" when

the tension device is released, I mount a weight K on the upper edge of the frame B adjacent to the thread-seat *d'*, formed with a vertical central opening which is enlarged at its up-
55 per end, and this weight is held in position by a post J, which extends through into an opening formed in the frame, where it may be secured in any desired manner. The post is formed with a downwardly-inclined slot *e*
60 near its lower end and with a head L at its upper end, which enters the recess in the upper end of the weight and prevents the removal of the weight, yet permits it to be moved vertically thereon to expose or cover
65 the slot *e*.

Surrounding the post and resting upon the frame is a washer M, between which and the lower face of the weight the thread passes, and the thread is properly located by lifting
70 the weight K to expose the slot E, when the thread may be placed therein, and the weight descending lightly clamps the same between the weight and the washer M and prevents
75 running. To prevent running between the tension device I and the needle, I arrange a plate upon the outer face of the upper arm O of the head C.

The plate N is rectangular and formed with a depending inwardly-curved finger P and
80 with a transverse inwardly-projecting rib *f* and an inwardly-extending stud *g* in each corner at the upper end. It is also formed with perforations *h* and *i*, arranged one above the other in a vertical line. The plate is held in
85 position by a screw Q, extending through the opening *i* into the arm O, and between the plate and the head of the screw is a spring *j*, the tendency of which is to force the plate inward against the arm O. Extending outward
90 from the arm O and through the opening *h* is a guide-pin *k*. The finger P, which extends downward, bears against the needle-bar, which is formed with a recess *m*, in position to receive the finger when the needle-bar is lifted
95 to the limit of its upward movement, and so that when it moves downward it forces the finger outward, and hence the plate, against the outer face of the arm O. The thread is
100 passed from the tension device through the usual guide-eye *n*, through the upper end of the needle-bar H, downward between the plate

M and the face of the arm O to the needle, and so that as the needle-bar rises to draw the stitch the thread will be free to draw upward between the plate M and the arm O, but when
5 the needle-bar descends in forming the next stitch the thread will be lightly clamped between the said plate and arm and prevented from running too freely between the tension device and the needle, and so as to prevent the
10 thread from becoming entangled with the looper.

It will be seen that the devices described are applicable to various forms of sewing-machines, are exceedingly simple in construction, and effective in operation.
15

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

1. In a sewing-machine, the combination
20 with the frame thereof, of a thread-holder mounted on the frame between the tension device and spool-support, and consisting of an upwardly-extending pin formed with a slot extending inwardly and downwardly in one
25 side, and a weight surrounding said pin, and adapted to pass over and close said slot, substantially as described.

2. In a sewing-machine, the combination
30 with the frame and head thereof, of a needle-bar formed with a recess in one side, and a

clamping-plate formed with a downwardly-extending, inwardly-curved finger, and with inwardly-extending ribs and studs, said plate secured to said arm by a screw, and a spring
35 between the head of said screw and the outer face of said plate, substantially as described.

3. In a sewing-machine having a frame, a head, a spool-support and a needle-bar, a tension device mounted between said spool-support and head, the combination therewith of
40 a thread-holder arranged between said spool-support and tension device, and consisting of an upwardly-extending post formed with a slot extending inwardly and downwardly from one side, a weight mounted on said post and
45 adapted to move up and down thereon to close said slot, and a plate arranged upon the outer face of the upper arm of the head, formed with a downwardly and inwardly extending arm,
50 with an inwardly-extending rib and with one or more studs, said plate secured by a screw encircled by a spring, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing
55 witnesses.

D. W. GOODELL.

Witnesses:

PAYTON WASHINGTON,
GEORGE E. WOOD.