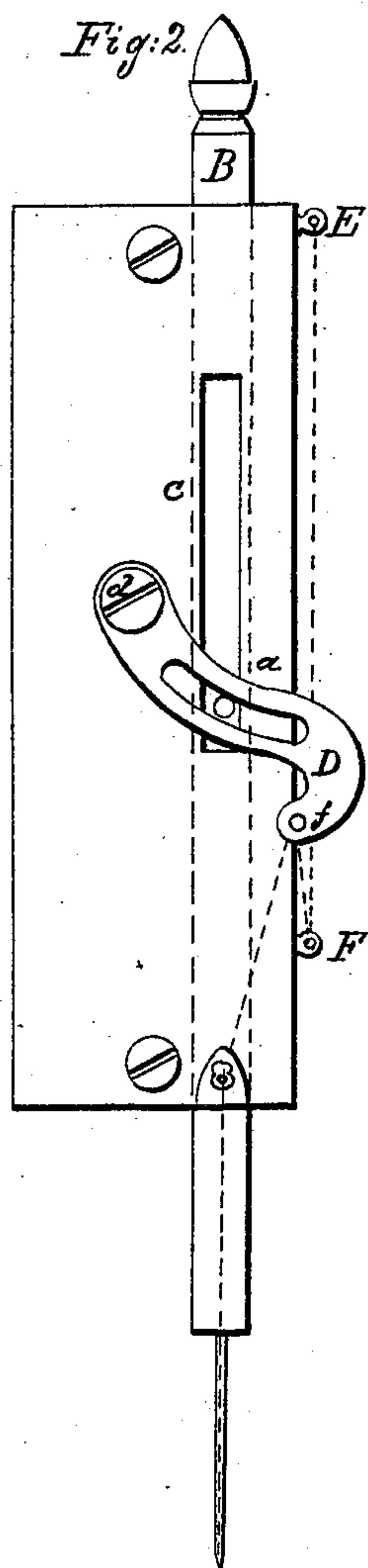
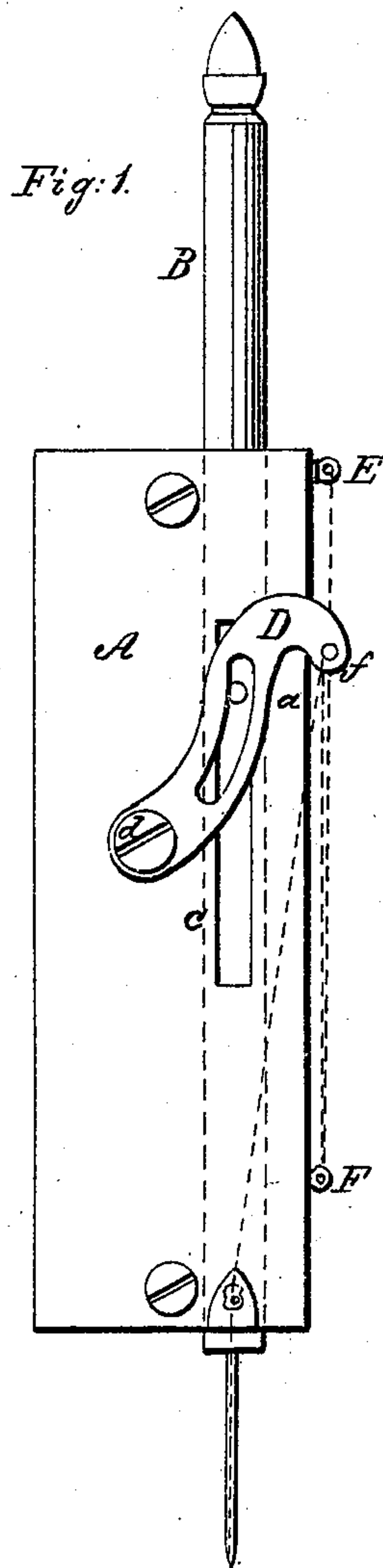


PRATT & MAYNARD.  
Sewing Machine.

No. 98,409.

Patented Dec. 28, 1869.



Witnesses:

*Wm. H. Summays*  
*A. J. Libbits*

Inventor:

*Geo. M. Pratt & L. E. Maynard*

*By their Attorney*

*Thos. Clark*

# UNITED STATES PATENT OFFICE.

GEORGE M. PRATT AND L. E. MAYNARD, OF MIDDLETOWN, CONN., ASSIGNORS  
TO THE FINKLE & LYON MANUFACTURING COMPANY, OF SAME PLACE.

## IMPROVEMENT IN THREAD-CONTROLLERS FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. 98,409, dated December 28, 1869.

*To all whom it may concern:*

Be it known that we, GEORGE M. PRATT and L. E. MAYNARD, of Middletown, in the county of Middlesex and State of Connecticut, have invented a new Improvement in Sewing-Machines; and we 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 the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a front view of the head with the take-up in its highest position; and in Fig. 2, the same with the take-up in its lowest position.

This invention relates to an improvement in sewing-machines in which a vertical needle-bar is arranged for the carrying of the needle, the object being to supply and take up the necessary slack for the looper or shuttle below the work-table; and the invention consists in the arrangement of a slotted lever operating transversely across the path of the needle-bar by connecting the slot of the said lever to the needle-bar and passing the thread through a fixed eye on the machine down to a fixed eye below the lowest extreme movement of the said lever, thence up through an eye formed in the end of the said lever, thence down to the needle, where it is arranged in the usual manner.

To enable others skilled in the art to construct and use our improvement, we will proceed to describe the same as illustrated in the accompanying drawings.

A is the head of the machine-arm; B, the needle-bar, of common and well-known construction. Through the head a slot, C, is formed in front of the needle-arm, and through this slot a stud, *a*, fixed on the needle-bar, works.

D is a lever pivoted at *d* onto the head, and slotted so as to connect with the stud *a*, and so that the movement of the needle-bar down and up will carry the said lever from one extreme to the other and return, as from the position in Fig. 1 to that in Fig. 2 and return, thus working transversely across the path of the needle-bar.

The thread (represented in broken lines) is first passed through an eye, E, fixed at any convenient point on the head, thence down to an eye, F, below the extreme movement of the lever, thence up through an eye, *f*, in the lever, thence down to the needle, where it is arranged for operation in the usual manner. By this construction—that is, doubling the thread by passing it through the lower eye, F—the quantity of thread slackened by the descent of the lever is three times the movement of the lever, and this may be timed to slack or take up relatively to the movement of the needle by forming the slot in the lever of such shape that its movement, combined with the movement of the needle, will slack or take up at the required time.

Having fully described our invention, what we claim as new and useful, and desire to secure by Letters Patent, is—

The slotted lever D, constructed as shown, and arranged transversely across the path of the needle, in combination with the pin *a* on the needle-bar and the fixed eyes E and F, all operating substantially in the manner and for the purpose herein set forth.

GEO. M. PRATT.  
L. E. MAYNARD.

Witnesses:

E. ACKLEY,  
JOHN L. S. ROBERTS.