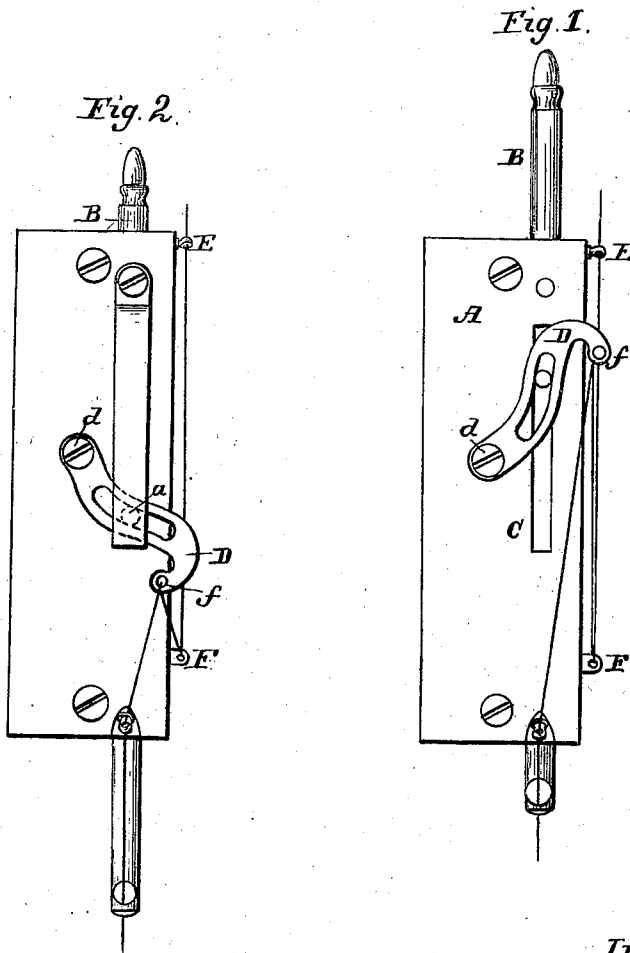


W. WENDELL.

Sewing-Machine Attachment.

No. 103,949.

Patented June 7, 1870.



Witnesses:
D. H. Shumway
A. J. Tibbitts

Inventor:
Washington Wendell
Assign to *Smith & Lyon Mfg. Co.*
By *Attorney*
John E. Earle

United States Patent Office.

WASHINGTON WENDELL, OF MILWAUKEE, WISCONSIN, ASSIGNOR TO THE FINKLE & LYON MANUFACTURING COMPANY, OF MIDDLETOWN, CONNECTICUT.

Letters Patent No. 103,949, dated June 7, 1870.

IMPROVEMENT IN THREAD-CONTROLLER FOR SEWING-MACHINE.

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, WASHINGTON WENDELL, of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented a new 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 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

Figure 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.

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.

I claim as my invention—

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.

WASHINGTON WENDELL.

Witnesses:

L. B. GREGG,
R. H. WRIGHT.