J. JAMIESON.

SEWING-MACHINE.

No. 183,678. Patented Oct. 24, 1876.

Fig. 1,

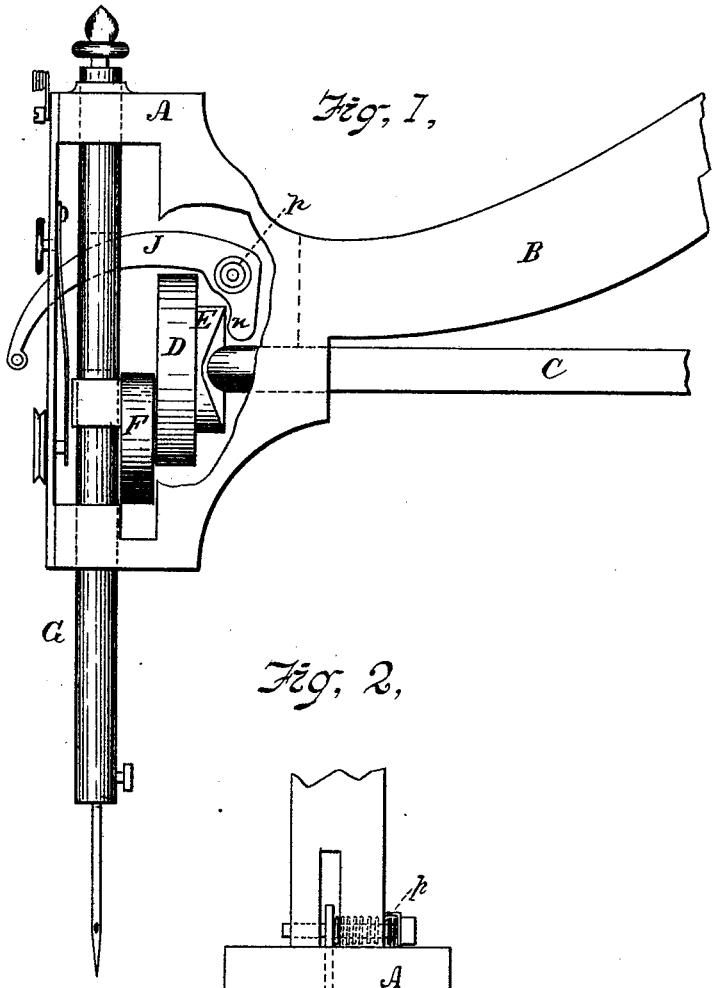
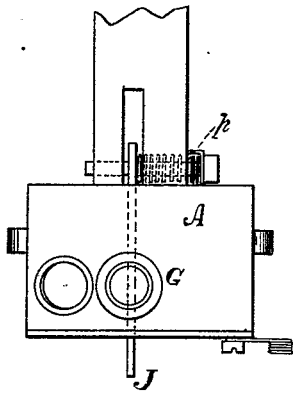


Fig. 2,



Witnesses:

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UNITED STATES PATENT OFFICE

JAMES JAMIESON, OF HAMILTON, ONTARIO, CANADA, ASSIGNOR TO RICHARD MOTT WANZER, OF SAME PLACE.

IMPROVEMENT IN SEWING-MACHINES.

Specification forming part of Letters Patent No. **183,678**, dated October 24, 1876; application filed December 23, 1874.

To all whom it may concern:

Be it known that I, JAMES JAMIESON, of the city of Hamilton, in the county of Wentworth, Province of Ontario, Dominion of Canada, have invented certain new and useful Improvements in Sewing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same.

This invention relates to an improved take-up for sewing-machines, its object being to dispense with the ordinary wire take-up devices, as heretofore constructed, which are operated entirely by the upward and downward motion of the needle-bar in conjunction with springs, and provide a take-up that is operated partially by a cam on the driving-shaft of the needle-bar, and partially by the motion of the needle-bar, whereby a more simple and effective take-up device is obtained.

The invention consists in a take-up lever, pivoted in the head of the standard in which the upper works of the sewing-machine operate by means of a spring-pivot, which gives said take-up a portion of its downward movement, in combination with a cam on the disk, which drives the needle-bar through the medium of the usual cam-plate, said take-up arm passing through a slot in said needle-bar, and being partly operated thereby on its upward and downward movement, as more fully hereinafter set forth.

In the drawings, Figure 1 represents a side elevation of a portion of the upper standard of a sewing-machine and the works supported thereby, and Fig. 2 a top view of the head of such standard.

The letter B represents the standard which carries the upper works of the sewing-machine, and C the driving-shaft of said upper works, having at one end a disk, D, provided with an eccentric for working in the cam-groove in the cam-plate F, secured to the needle-bar G, as usual. Upon the rear face of said disk or wheel D is formed a cam, E, against the face of which bears the arm *n* of the take-up lever J, which is pivoted in the head H by means of a pivot, *p*, surrounded by a spiral spring, which gives the downward movement to the take-up lever, as hereinafter described. The other arm of said lever extends through slots in the head and needle-bar, and is provided at its outer end with an eye, through which the head is passed on its way from the tension device to the needle.

The cam E is so shaped and arranged relatively to the needle-bar that on the return stroke of the needle-bar, after having been pushed fully down, the cam will operate on the inner arm of the take-up and elevate it a portion of its movement, the needle-bar, as it continues its motion, taking up the outer arm of said take-up, and continuing its motion until fully elevated. On the downward movement of the needle-bar the lever J is released, when the spring on the pivot *p* comes in play, forcing the outer end of the lever J downward in position to give slack of thread, so that the shuttle will pass between the thread and needle, the inner arm *n* of the take-up lever following the depression in the cam E on the disk D, which drives the needle-bar.

What I claim, and desire to secure by Letters Patent, is—

In combination with the take-up J, the cam E and slotted needle-bar G, the several parts being arranged as described, whereby the proper motion is imparted to the take-up, as and for the purpose set forth.

JAMES JAMIESON.

Signed in the presence of—

WM. BRUCE,

P. L. SCRIVEN.