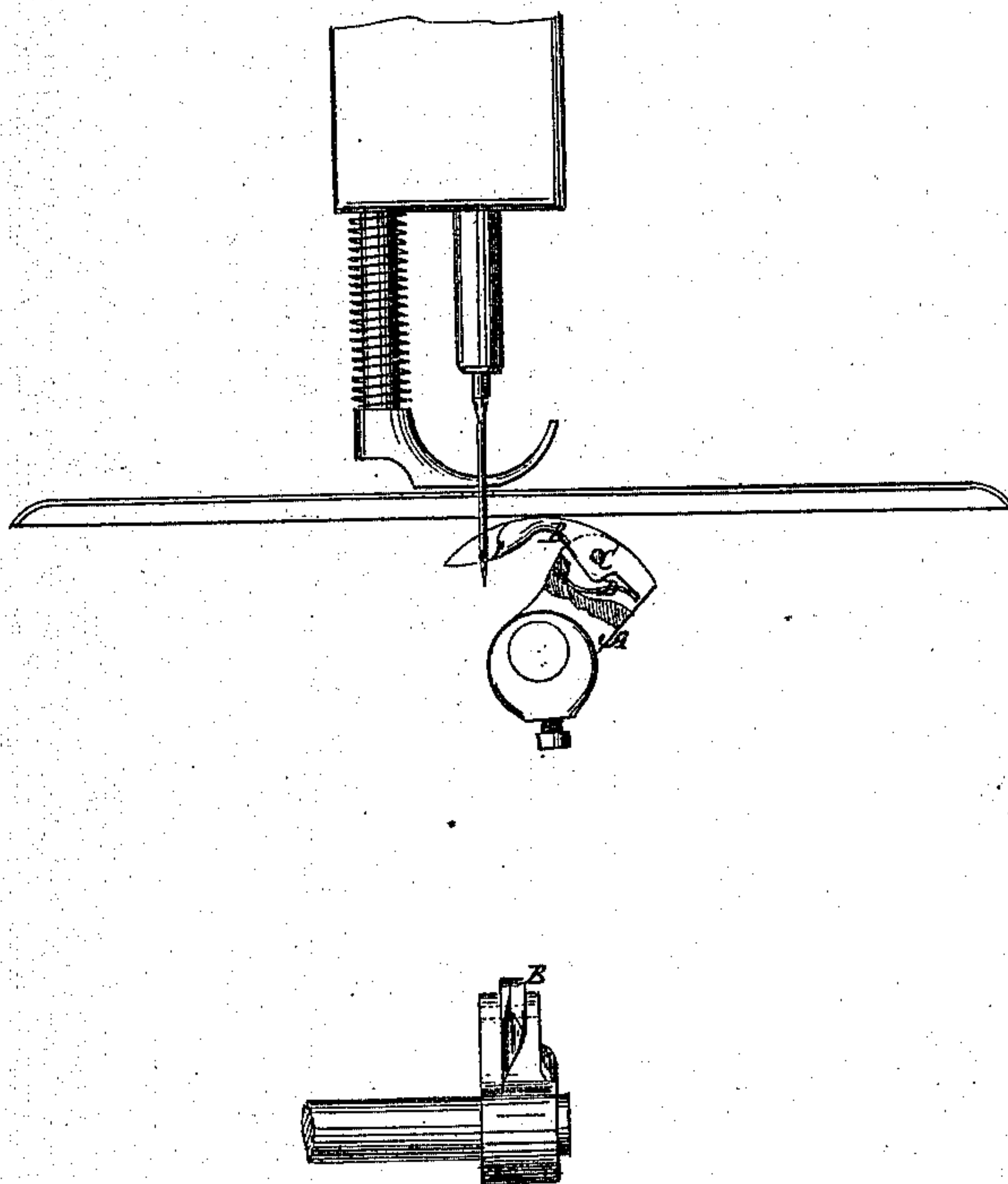


M. A. KEABLES.

Sewing Machine.

No. 103,050.

Patented May 17, 1870.



Witnesses:

Chas. Viola
J. S. Mabee

Inventor:

M. A. Keables
PER *[Signature]*
Attorneys.

UNITED STATES PATENT OFFICE.

MICHAEL ASH KEABLES, OF BRATTLEBOROUGH, VERMONT.

IMPROVEMENT IN LOOPING-HOOKS FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. **103,050**, dated May 17, 1870.

To all whom it may concern:

Be it known that I, MICHAEL ASH KEABLES, of the town of Brattleborough, in the county of Windham and State of Vermont, now temporarily residing at Guelph, Canada, have invented a new and useful Improvement in Looping-Hooks for Sewing-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to improvements in looping-hooks; and it consists in attaching them to the arm of the oscillating shaft, by which they are worked, on a pivot, so that they can vibrate thereon in a vertical plane to allow the point to be raised by the action of the thread at the moment of the escape of the loop, and in providing a spring to restore it afterward to the required position and hold it there.

Figure 1 is an elevation of a part of the operating devices of a sewing-machine and a section of the table, showing the attachment of the hook according to my improvement. Fig. 2 is a front elevation of the hook.

The swinging arm A, which carries the hook B, has a slot in which a part of the hook, commonly rigidly connected to the said arm, is pivoted at c, and a spring, D, is introduced between the end of the hook projecting rearward of the pivot and the bottom of the slot, to sup-

port the said rear end at the required point to maintain the point in the true working position, and to yield and allow the thread to draw the point upward at the time the loop is escaping at the moment the point moves back to the needle to facilitate and insure the escape of the loop.

Any suitable stop may be provided to prevent the spring from forcing the point of the hook down too low.

The spring may be attached in a different way. For instance, it may be attached to the arm at the bottom of the slot and connected to the hook at the front of the pivot, so as to draw it downward thereat, or a spiral spring may be substituted for it, and placed either side of the pivot, in the one case forcing upward and in the other pulling downward. I prefer, however, the arrangement which I have shown.

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

The looping-hook, constructed as described, pivoted to the rocking arm and arranged to swing up at the point to facilitate the escape of the loop, and provided with a restoring and retaining spring, as specified.

MICHAEL ASH KEABLES.

Witnesses:

J. McROBERTS,
Of Guelph, Law Clerk.

THOMAS REAUGH,
Of Guelph, Article 1 Clerk.