

T. Shanks,
Bobbin Winder.

No 102,164.

Patented Apr. 19. 1870.

fig. 1.

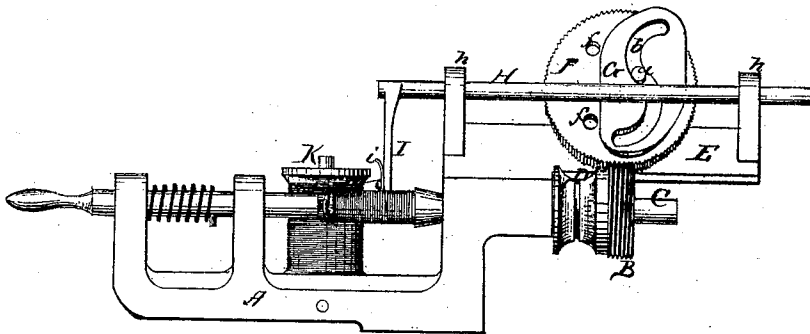
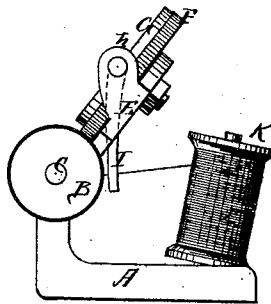


fig. 2.



Witnesses:

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United States Patent Office.

THOMAS SHANKS, OF BALTIMORE, MARYLAND.

Letters Patent No. 102,164, dated April 19, 1870.

IMPROVEMENT IN BOBBIN-WINDERS FOR SEWING-MACHINES.

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, THOMAS SHANKS, of the city and county of Baltimore and State of Maryland, have invented a new and improved Bobbin-Winder for Sewing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings making a part of this specification, in which—

Figure 1 is a side elevation, and

Figure 2 is a plan view.

This invention has for its object to lay thread evenly on the bobbins of sewing-machines when the same are removed from the shuttles for the purpose of being filled.

The invention consists in combining with a worm on the live spindle of the bobbin-winder a toothed wheel, from one side of which a pin projects into an S-shaped slot in a plate rigidly attached to a bar bearing the thread-guide, in such manner that the rotation of the worm effects the revolution of the wheel, which, through the instrumentality of the pin and slotted plate, causes the thread-guide to travel slowly back and forth along the bobbin.

In the drawings—

A is the stock, which is screwed to the cloth-plate of the machine when a bobbin is to be filled.

B is a worm on the live spindle C.

D is a groove for the band from the fly-wheel, which works the spindle.

E is a plate projecting from the head stock past the worm B, and parallel with the spindle.

F is a toothed wheel mounted in an inclined position on the plate E.

a is a pin projecting from the upper face of the wheel F.

G is a plate, in which is made an S-shaped groove, b, into which the pin a projects.

H is a bar securely fastened to the plate G, and passing loosely through lugs h h, extending upward from the ends of the plate E.

I is an arm of the bar H, bearing a spring plate, i, near its outer end, which spring plate is the immediate thread-guide.

K is the spool and holder.

The rotation of the worm by the band causes the wheel F to revolve. The revolution of the wheel moves the pin a in the slot b. The movement of the pin causes the bar H and thread-guide i to travel slowly to and fro and lay the thread evenly on the bobbin. The plate i also serves as a tension-spring.

The wheel F has a number of holes, f, made through it at different distances from the center, such holes being for the reception of the pin a, which may be transferred from one to the other.

The speed of the bar H is greater the farther the pin a is from the center of the wheel. In laying on coarse thread the speed of the guide should be greater than when fine thread is running. Hence, the pin a is changed to suit the number of the thread.

Having thus described my invention,

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

1. The shaft H, fitted in bearings h h near its ends, and having attached to it, between its bearings, the plate G, provided with an S-shaped slot, in combination with the worm-wheel F, pin a, worm B, and spindle C, the two latter being arranged beneath the former, and all operating in the manner and for the purpose set forth.

2. The combination of the plate G, provided with an S-shaped slot, the pin a, worm B, and the worm-wheel F, when the latter is provided with holes at different distances from the center, in either of which the pin may be inserted, substantially as described.

THOMAS SHANKS.

Witnesses:

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