

T. Shanks,

Bobbin Winder.

No. 99,011.

Patented Jan. 18. 1870.

fig. 1.

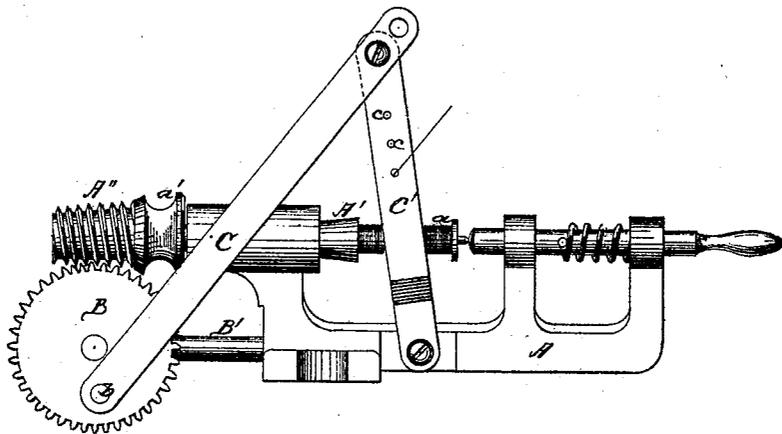
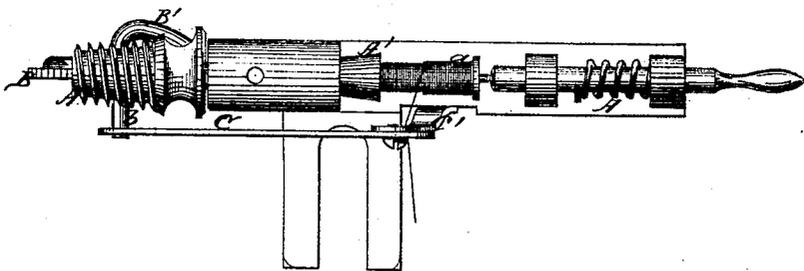


fig. 2.



Witnesses:

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# United States Patent Office.

THOMAS SHANKS, OF BALTIMORE, MARYLAND.

Letters Patent No. 99,011, dated January 18, 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 Self-Acting Thread-Guide for Bobbin-Winder for 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, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side elevation looking toward the compound lever, and

Figure 2, a plan view.

This invention consists of a mechanism to be attached to the ordinary apparatus for winding thread upon the shuttle bobbins of sewing-machines, for the purpose of laying the thread evenly upon the bobbin, said mechanism deriving its motion from the shaft that rotates the bobbin, and therefore moving always with a speed bearing the same proportion to the velocity of the bobbin, whether that be greater or less.

In the drawings—

A is the frame of the bobbin-winder, to be clamped in any convenient manner to the cloth-table of the machine.

A' is the shaft, that drives the bobbin *a*, said shaft bearing a pulley, *a'*, on which runs the driving-belt.

The shaft A' projects beyond the pulley, and such projecting part, A'', is threaded exteriorly, so as to form a screw, which drives the toothed wheel B, sustained on a bent arm, B', projecting from the frame A directly beneath the screw A'.

A crank-pin, *b*, projecting from the side of the wheel B, carries, in a circular path, the lower end of an arm, C; the upper end of which is pivoted to the upper extremity of a second arm, C', the lower extremity of which is jointed to the side of the frame A, opposite the bobbin *a*.

The arm C' receives from the arm C a vibratory motion parallel with the axis of the bobbin, and is provided with holes, *c*, through either of which the thread may pass from the spool, and thus be laid evenly on the bobbin.

The holes *c* are made in a series, lengthwise of the arm C', so that large-sized threads, which fill the bobbin faster than those of smaller size, may be passed through the upper holes, and receive more-rapid lateral motion.

The arms C C', deriving their movement from the same shaft that drives the bobbin, must always move with a speed bearing the same proportion to the speed of the latter, whether that be accelerated or retarded.

Having thus described my invention,

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

The combination of the screw A'', gear-wheel B, and arms C C', with the frame of a bobbin-winder, the whole constructed and arranged to operate in the manner and for the purpose described.

THOMAS SHANKS.

Witnesses:

J. N. MACKENHEIM,  
RICHARD NALLY.