J. B. PRICE.
Bobbin-Winder.

No. 198,153. Patented Dec. 11, 1877

Fig: 1.

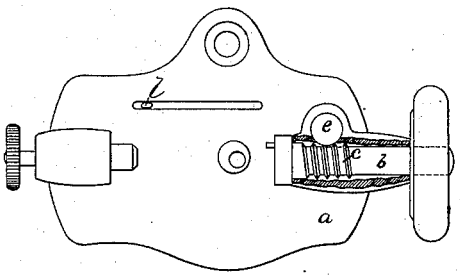


Fig: 2.

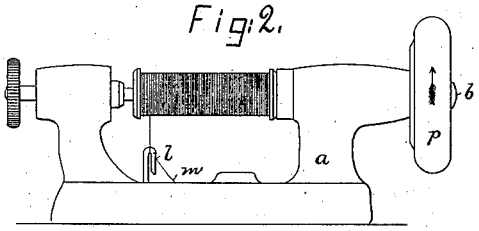


Fig: 3.

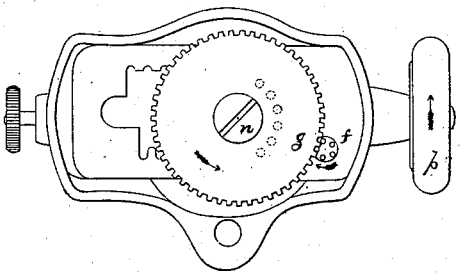


Fig: 4.

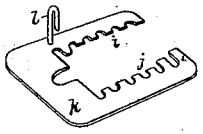


Fig: 6.

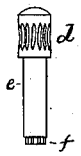
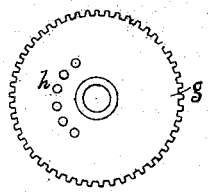


Fig: 5.



Witnesses.

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UNITED STATES PATENT OFFICE.

JOHN B. PRICE, OF THOMPSONVILLE, CONNECTICUT, ASSIGNOR TO WEED SEWING MACHINE COMPANY.

IMPROVEMENT IN BOBBIN-WINDERS.

Specification forming part of Letters Patent No. **198,153**, dated December 11, 1877; application filed September 8, 1877.

To all whom it may concern:

Be it known that I, JOHN B. PRICE, of Thompsonville, in the county of Hartford and State of Connecticut, have invented an Improved Bobbin-Winder, of which the following is a specification:

This invention relates to bobbin-winders for sewing-machines, and has special reference to the combination, with a rack and thread-guide, of a pinion adapted to reciprocate such rack and thread-guide alternately in opposite directions, to present thread to the bobbin.

Figure 1 represents, in top view, a bobbin-winder provided with my invention; Fig. 2, a side elevation, and Fig. 3 an under-side view thereof; Fig. 4, a detail showing the rack and thread-guide; Fig. 5, a detail of the pinion to move the rack, and Fig. 6 a view of the connecting worm-shaft.

The frame *a*, the bobbin, and the devices to sustain and rotate it are substantially as in other winders. I provide the shaft *b* with worm-teeth *c*, to engage a worm, *d*, on an upright connecting-shaft, *e*, having at bottom a lantern-wheel or other suitable pinion, *f*, which rotates a pinion, *g*, having, in connection with it, teeth *h*, that, by their engagement with the teeth *i j* of the rack-bar *k*, reciprocate the rack-bar and its thread-guide *l* alternately in opposite directions, in order to present the thread to the bobbin from end to end between its heads.

The segmental series of teeth *h* (shown as composed of pins projecting from the wheel *g*) engage the row of teeth *j*, and then the row of teeth *i* of the double rack-bar, and reciprocate it and its attached thread-guide horizontally in a line with the axis of the bobbin, whereby the thread is delivered more evenly and regularly than would be the case if the thread-guide moved in the arc of a circle. The rack-bar is seated in the under side of the frame, and is held in place by the pinion *g*, which is supported by the screw-stud *n*.

I claim—

1. In a bobbin-winder, the combination, with the horizontally-reciprocating rack, provided with two rows of teeth, *i j*, and thread-guide, of a series of segmentally-arranged teeth placed between the rows of teeth of the rack-bar, and adapted to engage first one and then the other row of teeth, to reciprocate horizontally the rack and thread-guide alternately in opposite directions, substantially as and for the purpose described.

2. The worm-shaft *b*, the connecting-shaft *e*, provided with worm-gear *d* and pinion *f*, and the pinion *g*, provided with teeth *h*, in combination with the rack-bar, having a double row of teeth and a thread-guide, substantially as and for the purpose described.

3. In a bobbin-winder, the combination, with the shaft *b* and its worm, of the vertical connecting-shaft, provided with a worm-gear and pinion, to operate a thread-guide, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN B. PRICE.

Witnesses:
G. W. GREGORY,
W. J. PRATT.