T. PEDDEN.

Bobbin-Winders for Sewing-Machines.

No. 141,663. Patented August 12, 1873.

Fig 1.

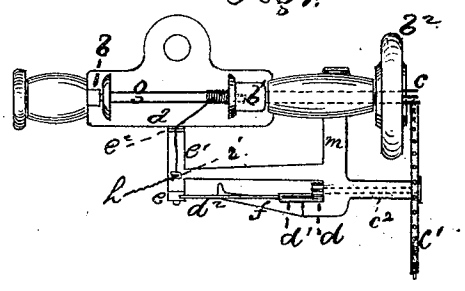


Fig. 2.

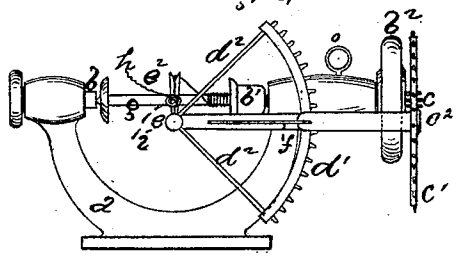
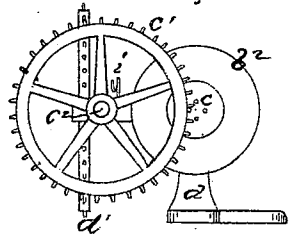


Fig. 3



WITNESSES.

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THOMAS PEDDEN, OF MIDDLETOWN, CONNECTICUT.

IMPROVEMENT IN BOBBIN-WINDERS FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. **141,663**, dated August 12, 1873; application filed February 28, 1873.

To all whom it may concern:

Be it known that I, THOMAS PEDDEN, of Middletown, in the county of Middlesex and State of Connecticut, have invented an Improved Bobbin-Winder for Sewing-Machines, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a top view of the invention. Fig. 2 is a side view of the same. Fig. 3 is an end view of the same.

This invention refers to a sewing-machine attachment for winding thread upon bobbins.

I have in the drawings shown my invention as applied to the bobbin-winder of the so-called "Weed" sewing-machine.

The letter *a* indicates the frame of the Weed bobbin-winder; *b*, the spring-shaft which holds one end of the bobbin; b^1, the shaft which holds the other end of the bobbin, and b^2 the rubber wheel upon such shaft, which is pressed against the driving or balance wheel, which is above the sewing-machine table, in order to revolve the bobbin.

These parts are all old, so far as this present invention is concerned. I will now describe my attachment for this bobbin-winder.

On the outer end of the shaft b^1 is a small pinion, *c*, meshing into and driving the gear c^1, which is fast upon the shaft c^2, on the inner end of which shaft is the small pinion *d*, meshing into the reciprocating section-gear d^1, which is attached by spring-arms d^2 to the shaft *e*, which runs through the sleeve e^1. On the inner end of the shaft *e* is a thread-guide arm, e^2. The pinion *d* always runs in one direction; but it causes the section-gear d^1 to reciprocate back and forth. The action of the spring-arms d^2 causes the section-gear to press against the pinion *d* when the section-gear is upon either side of the pinion. This section-gear runs up on one and down on the other side of the pinion. It is the action of the spring-arms d^2 that causes the section-gear to shift from one side of the pinion to the other when the section-gear arrives at the ends of its play. The action of the spring *f* assists this change. When the section-gear arrives at or near either end of its play, one of the arms d^2 strikes upon the spring *f*, and this spring thereby presses the section-gear back in the direction opposite to that it has just been traveling, and thereby insures that the gear does not part company with the pinion. By the action of the section-gear and this pinion, the guide-arm e^2 is made to reciprocate back and forth in front of the revolving bobbin *g*. This movement is so timed as to lay the thread *h*, which comes from a properly-placed spool through the guide *i* and over the arm e^2, in even layers upon the bobbin.

The apparatus can be adjusted for winding different-sized thread by making the arm e^2 project more or less from the shaft *e*, this arm running through the shaft for the purpose of permitting this adjustment.

My device is attached to the common spooling device by making the end of the body-piece *m* project through the frame *a*, and putting in a pin, *o*, on the other side.

I claim as my invention—

1. The combination of the section-gear d^1, provided with spring-arms d^2 attached to the shaft *e*, and the pinion *d*, when constructed and operating substantially as set forth.

2. The combination of the section-gear d^1, having spring-arms d^2 running to the shaft *e*, the pinion *d*, and the spring *f*, when constructed, arranged, and designed to operate substantially as set forth.

3. The combination of the bobbin-shaft b^1, having the pinion *c*, the gear c^1 fast upon the shaft c^2, the pinion *d*, the section-gear d^1 set upon the shaft *e*, and the guide-arm e^2, all constructed, arranged, and designed to operate substantially as and for the purpose set forth.

THOMAS PEDDEN.

Witnesses:

WM. E. SIMONDS,

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