

(No Model.)

E. PARKINSON.

BOBBIN WINDER.

No. 299,845.

Patented June 3, 1884.

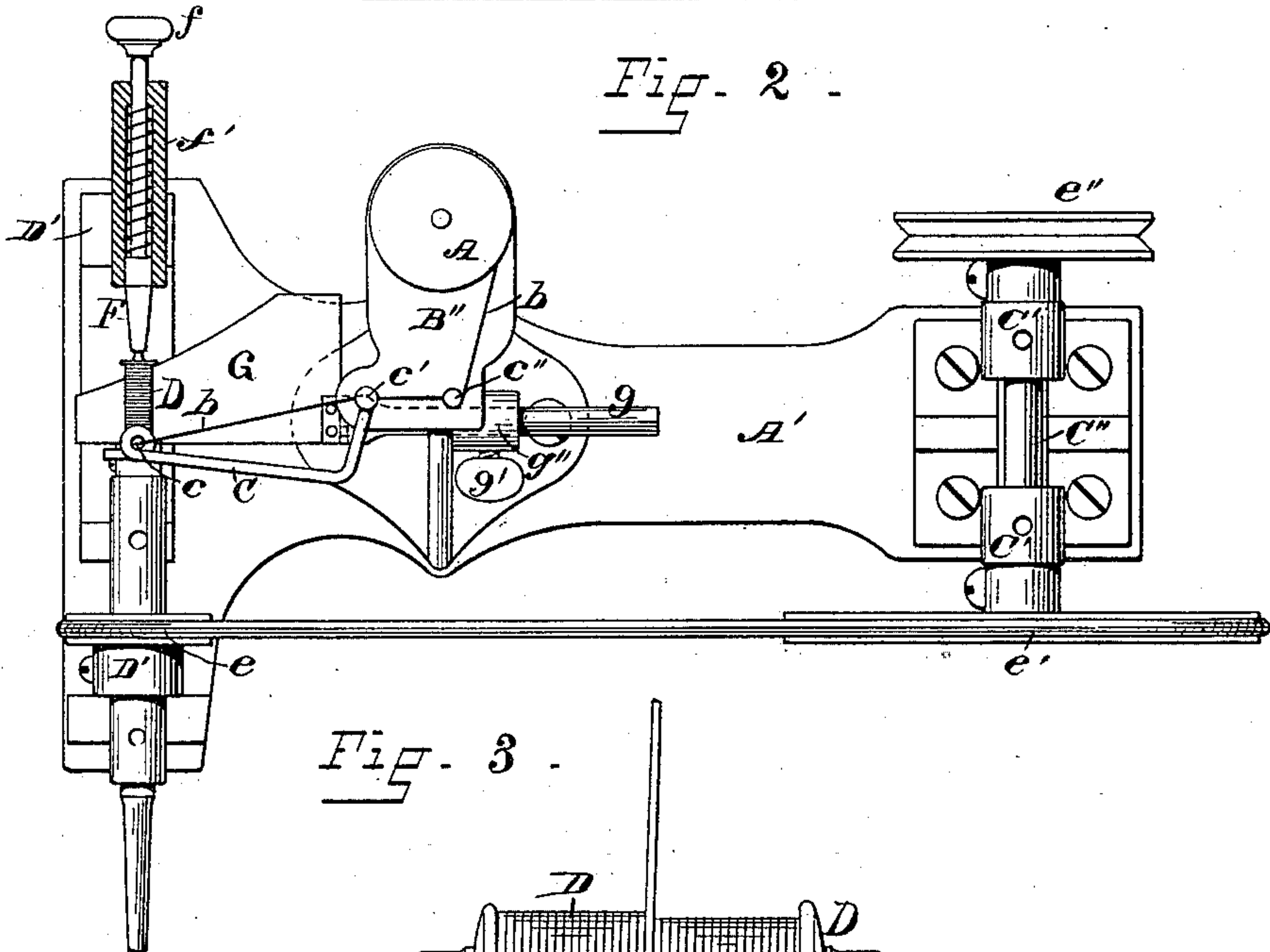
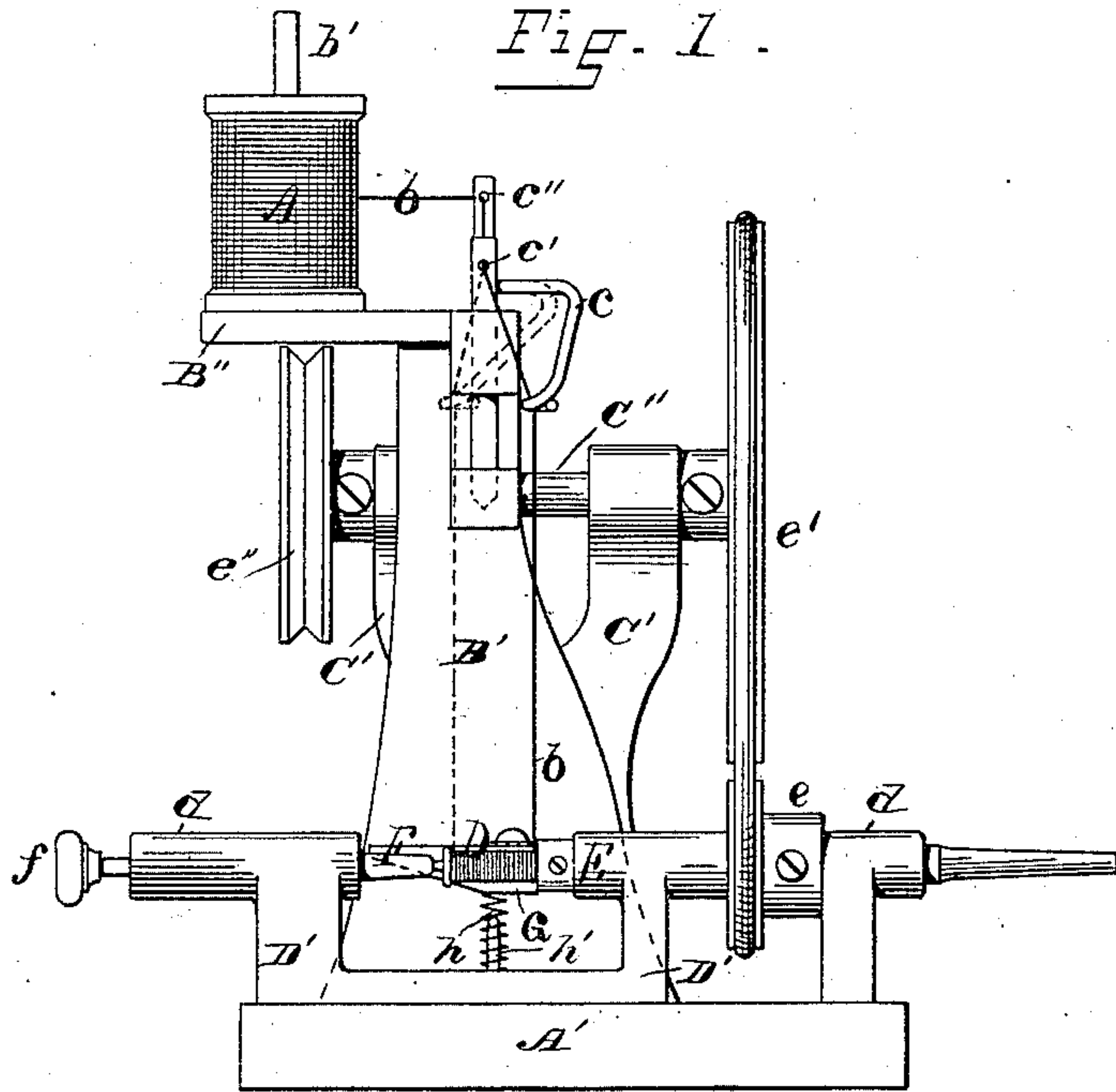
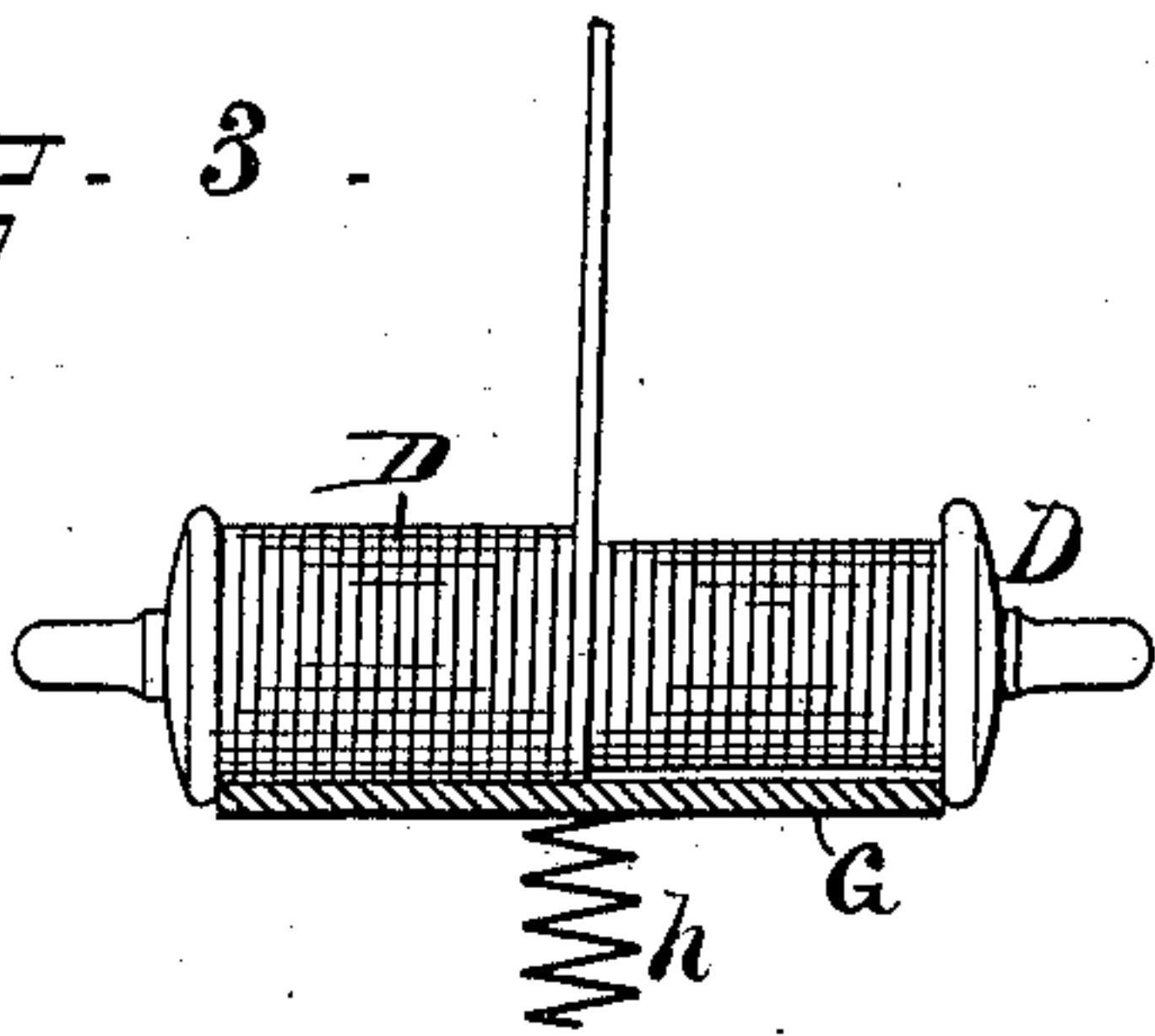


Fig. 3.



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UNITED STATES PATENT OFFICE.

EDWARD PARKINSON, OF PROVIDENCE, R. I., ASSIGNOR OF TWO-THIRDS TO
JABEZ E. WALCOTT AND FREDERICK I. MARCY, BOTH OF SAME PLACE.

BOBBIN-WINDER.

SPECIFICATION forming part of Letters Patent No. 299,845, dated June 3, 1884.

Application filed June 28, 1883. (No model.)

To all whom it may concern:

Be it known that I, EDWARD PARKINSON, of Providence, county of Providence, and State of Rhode Island, have invented a new and useful Improvement in Bobbin-Winders; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to mechanism for winding the bobbins of sewing-machines and other shuttle-machines; and the object of my invention is to provide an improved bobbin-winding mechanism which is capable of use either as an attachment to the particular machine the bobbins of which it may be employed to wind or as a separate and independent machine employed to wind the bobbins of any number of machines, in the former instance the winder being driven by the machine whose bobbins it is winding, and in the latter event the winder being driven by any suitable motor, which may also be the case where the machine is used as an attachment.

To the above ends my invention consists in certain details of construction and in certain combinations of the same, as hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a view of a bobbin-winder provided with my improved spring-guide. Fig. 2 is a top view of the same. Fig. 3 is an enlarged view of a bobbin bearing on the spring-pressed guide in the act of winding the thread on the bobbin.

In the said drawings, A' designates the base-plate of the machine, which supports the working parts, and by means of which the mechanism is either permanently secured as an attachment to the frame of a shuttle-machine, or by means of which the mechanism is set upon any convenient object when the mechanism is used as a separate machine. At one end of the bed-plate is placed a U-shaped standard, the vertical arms of which support the spindle of the bobbin holder and turner hereinafter described. At the opposite end of the bed-plate from the standard D' is a vertical bifurcated standard, C', the arms of which support a horizontal driving-shaft, C''. Midway between the two standards D' and C' is a third vertical standard, B', which terminates at its upper

end in a bracket, B'', from which latter rises a vertical spindle, b', which is designed to pass through the eye of a thread-spool.

A is the thread-spool, from which the thread is taken to be wound on the bobbin. b is the thread, which passes from the spool A through the guides c'' c' to the arm C, on the end of which a guide-eye, c, is formed, said arm C being so mounted as to swing upon the standard B'.

D is the bobbin on which the thread is wound. It is supported in the mandrel E, which is rotated in its bearings by the band-wheels e and e', to which motion is imparted by a band passing around the pulley e'' on the driving-shaft C'', which band leads either from a band-wheel of the machine to which the winding mechanism is attached or from a band-wheel of any suitable motor by which the winding-machine, acting independently, may be driven.

F is the spindle-bearing for the opposite end of the bobbin D. This spindle is provided with the handle f and surrounded with a coiled spring, f', so that it can adjust itself to the varying lengths of spools.

G is the pattern or guide, narrow on one end and wide on the other. It is secured to the stem g, which is clamped in a standard, g'', by the clamp-screw g', so that it can be adjusted to fit the width of the bobbin. This pattern G is held against the bobbin by the coiled spring h, which surrounds and is held in normal position by a post, h', upon the base-plate A'; but sufficient spring may be given to the pattern to hold the same firmly against the spool.

The operation of the bobbin-winder is as follows: One end of a bobbin is placed in the arbor E. The spindle F is allowed to bear against the other end. The pattern G is now adjusted to fit the width of the spool. The thread is passed once around the bobbin, or the end secured thereto, and the bobbin is now rotated with the arbor E. As the pattern bears firmly against the bobbin the thread is held between the spool and the pattern, and is fed laterally by the spiral formed in winding the same on the bobbin, thus laying the thread closely—one spiral against the other—until the end of the bobbin is reached, when

the thread, being restrained by the flange of the bobbin, rises above the first layer and winds a second layer of spirals back to the first flange, thus continuing until the bobbin is
 5 filled. By the use of this spring-pressed pattern G any kind of bobbin can be closely and evenly wound without any other mechanism for controlling or guiding the thread, and the pattern can be applied to all kinds of bobbin-
 10 winders now in use.

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

1. In a bobbin-winder, the combination, with the bed-plate A', having the standards
 15 C', B', and D', of the driving-shaft C'', mounted upon the standard C', thread-guides and a swinging arm mounted on the standard B', the arbor E and spindle F, constituting a bobbin holder and turner, mounted on the standard
 20 D', band-wheels e' e'', mounted on the shaft C'', and the band-wheel e, mounted on the arbor E, as and for the purpose described.

2. The combination, with the bed-plate A', the standard C', mounted thereon, and carry-
 25 ing the shaft C'', having the band-wheels e' e'', and the standard B', carrying the thread-guides and swinging arm, of the standard D', carrying the spindle E, provided with the band-wheel e, and the spindle F, having the

handle f and spring f', arranged and operat- 30
 ing as described.

3. The combination, with the bed-plate A' and the standards C' B', mounted thereon, carrying, respectively, the driving-shaft and the
 35 swinging arm and thread-guides, of the standard D', carrying the spindle and arbor, the pattern G, mounted on the stem g, and the standard g'', arranged to receive the stem, and provided with the clamp-screw g', as and for
 40 the purposes set forth.

4. The combination, with the bed-plate A', having the standards C' and D', carrying, re-
 45 spectively, the driving-shaft and the bobbin holder and turner, of the standard B', provided with the bracket B'', spindle b', thread-guides e' e'', and swinging arm C, provided
 50 with guide-eye e, and the pattern G, with its stem g, mounted in the standard g'', the coiled spring h, located beneath the said pattern, and the post h', for retaining said spring in its op-
 erative position, substantially as described.

In witness whereof I have hereunto set my hand.

EDWARD PARKINSON.

Witnesses:

J. A. MILLER, Jr.,
 M. F. BLIGH.