

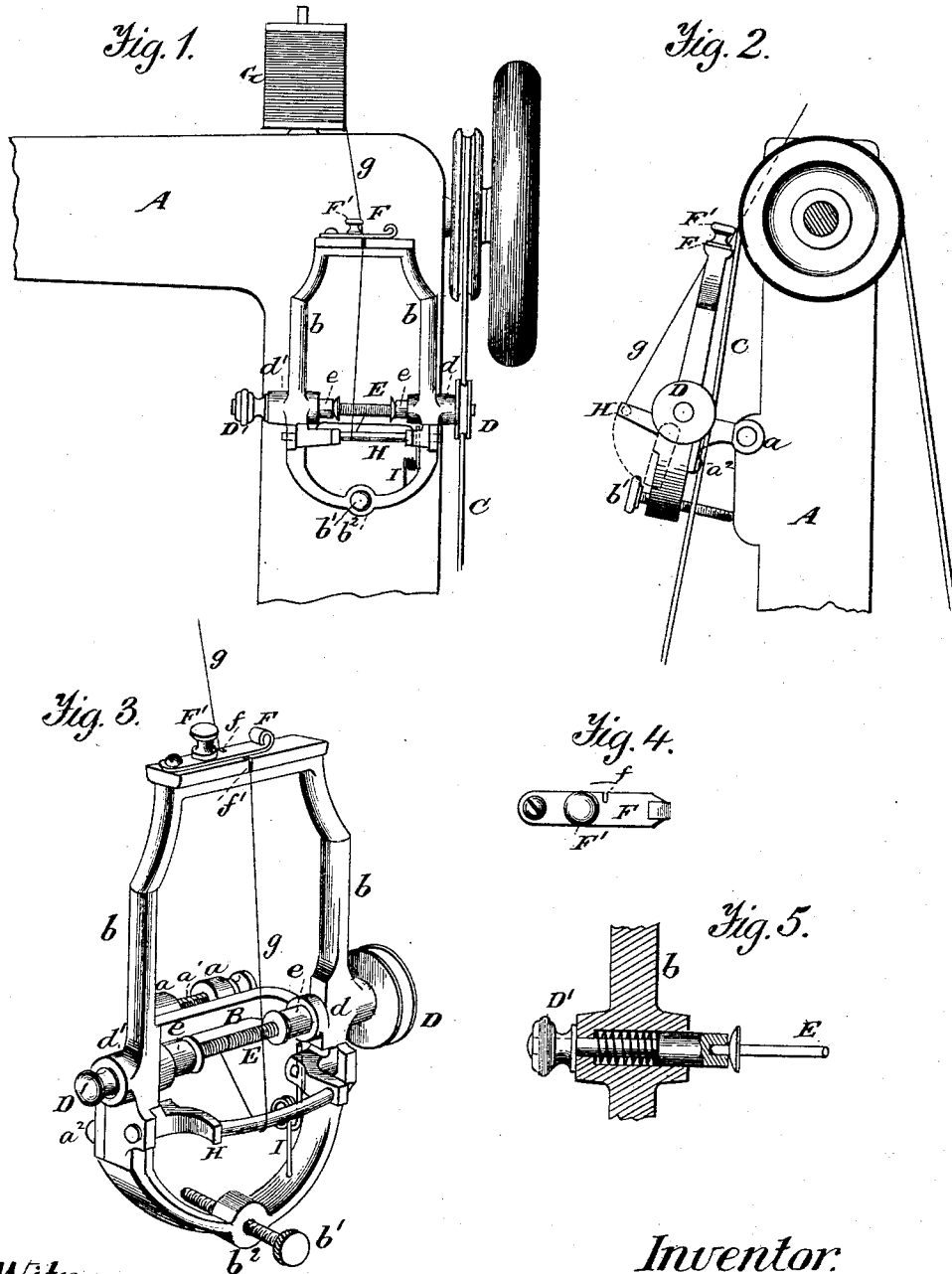
(No Model.)

W. H. REYNOLDS.

BOBBIN WINDER FOR SEWING MACHINES.

No. 348,638.

Patented Sept. 7, 1886.



Witnesses.
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UNITED STATES PATENT OFFICE.

WILLIE HARRISON REYNOLDS, OF ANTIOCH, ILLINOIS.

BOBBIN-WINDER FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 348,638, dated September 7, 1886.

Application filed January 18, 1886. Serial No. 189,002. (No model.)

To all whom it may concern:

Be it known that I, WILLIE HARRISON REYNOLDS, a citizen of the United States, residing at Antioch, in the county of Lake and State of Illinois, have invented certain new and useful Improvements in Bobbin-Winders; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

The invention will first be described in connection with the drawings and then pointed out in the claims.

Figure 1 of the drawings is a front elevation showing my bobbin-winder applied to a sewing-machine arm. Fig. 2 is a side elevation of the bobbin-winder. Fig. 3 is an elevation in perspective of my invention detached from the machine. Fig. 4 is a detail of the tension-plate and its clamp-screw. Fig. 5 is a sectional elevation showing the spring-bearing, which allows the bobbin-spindle to be entered or removed.

In the drawings, A represents the sewing-machine arm, to which the bracket B is secured by the ears *a a* and screw-pivot *a'*. This bracket is secured at *a''* to the frame *b*. *b'* is a screw working in a nut, *b''*, integral with said frame. By screwing this in or out the pulley D may be brought into contact with the drive-belt C, so as to be rotated, or may be moved out of contact with said belt. This pulley D is fast upon the spindle-bearing *e*, which rotates with it in the hollow guide *d* and in the end of the spring-bearing *D'*, which slides in guide *d'*. By this means the bobbin-spindle E is rotated so as to wind thread from the spool G upon the top of arm A. The thread *g* passes from said spool down through notch *f* in the tension-plate F, then between plane surfaces of the plate and frame *b*, and then through the groove *f'* in the frame *b*. Having passed through the tension, it is carried around the bar H to the bobbin-spindle, which, when rotated, winds the thread from the spool with great ease and convenience. The tilting-bar H is supported by two

pivots on frame *b*, its purpose being to guide the thread. By screwing down the clamp-screw F' more or less upon the plate F the tension may be regulated.

I am aware of the state of the art as shown and described in Patents No. 268,773, No. 298,554, and No. 282,412. By my invention I dispense with presser-plates resting on bobbin by arranging the tension on top of the frame, while the tilting, thread, or guide bar H being lower than the bobbin and projecting outward, with the back a little rounding or convexed, I cause the thread to be wound in successive layers without a presser-plate. The arrangement of the tension on the top of frame brings the thread in a direct line from the spool G to the thread-bar H, thus dispensing with extra turns of the thread. The top plate of my tension being fastened on frame by a small rivet or screw is sprung, so that as soon as the thumb-screw is loosened the top plate will rise up, thereby loosening the tension on the thread. By the arrangement of my thread-bar H and the disuse of a presser-plate the bobbin is brought into clear view, so that it can be seen at a glance when the bobbin is full. Moreover, it is less labor and cost to manufacture my thread-bar than a presser-plate. It is made to tilt so as to throw it out of the way when not in use.

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

1. The frame *b*, having the top slot, *f'*, the superposed plate F, having slot *f*, and the tension-screw F', in combination with the sewing-machine arm A, having thereon a thread-spool, G, the thread-guide H, and the bobbin-spindle E, all arranged substantially as shown and described.

2. The bracket B, having ears and pivot-screw, in combination with the frame *b*, having screw and nut *b' b''*, as and for the purpose specified.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIE HARRISON REYNOLDS.

Witnesses:

LEROY G. FAIRMAN,
JACOB SAVAGE.