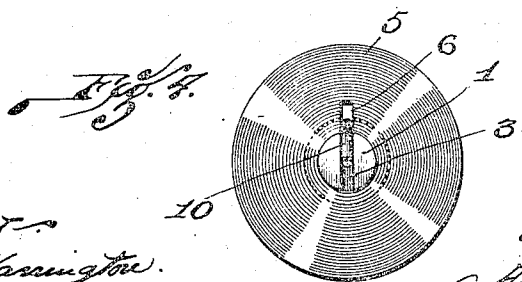
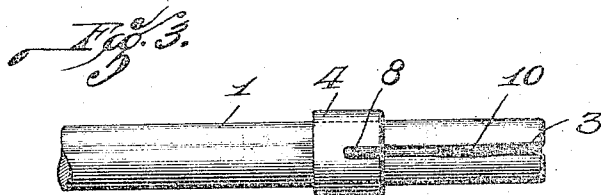
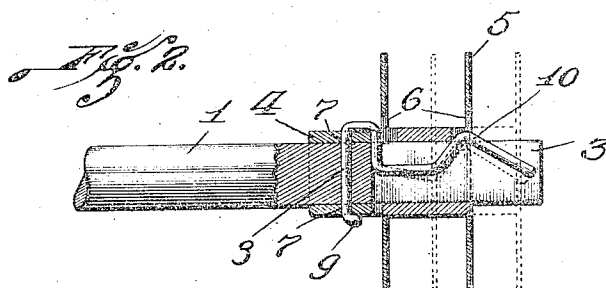
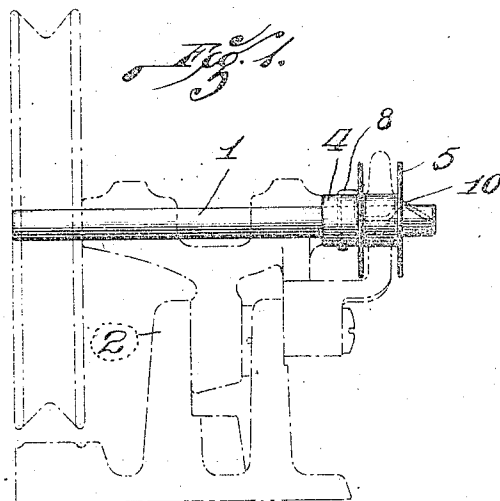


A. CARP.
BOBBIN RETAINER FOR BOBBIN WINDERS.
APPLICATION FILED SEPT. 26, 1912.

1,055,604.

Patented Mar. 11, 1913



Witness:
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INVENTOR:
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UNITED STATES PATENT OFFICE.

ARTHUR CARP, OF ST. LOUIS, MISSOURI.

BOBBIN-RETAINER FOR BOBBIN-WINDERS.

1,055,604.

Specification of Letters Patent.

Patented Mar. 11, 1913.

Application filed September 26, 1912. Serial No. 722,513.

To all whom it may concern:

Be it known that I, ARTHUR CARP, a subject of the Czar of Russia, and resident of St. Louis, Missouri, have invented certain new and useful Improvements in Bobbin-Retainers for Bobbin-Winders, of which the following is a specification containing a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to a bobbin-retainer for bobbin winders, and consists in the novel construction hereinafter described and specifically designated in the appended claim.

The object of my invention is to provide an improved sewing-machine bobbin retainer whereby the bobbin will be securely retained upon the winder shaft and the time of the operator will be economized in placing and removing the bobbin.

In the drawings: Figure 1 is a front elevation of a bobbin winder shaft having my invention applied thereto, the frame of the bobbin winder being shown in dotted lines; Fig. 2 is an enlarged sectional front elevation of a portion of the bobbin winder shaft having my invention applied thereto; Fig. 3 is an enlarged plan view of one end of the bobbin winder shaft having my invention applied thereto; and Fig. 4 is an enlarged side elevation of the parts shown in Fig. 2.

The numeral 1 indicates the usual bobbin winder shaft which is supported in the horizontal bearings of the usual bobbin winder frame 2. The said shaft 1 is provided with the usual slot 3 in its free end, and is provided with the usual stop-collar 4 to limit the inward movement of the bobbin when placed in position upon the said shaft.

The bobbin 5 is of the usual spool construction, having in its opposite ends the customary key-receiving slots or recesses 6, which extend radially from the bore of the bobbin.

Passing through registering apertures 7 in the said collar 4 and shaft 1 is a piece of spring wire 8, which has one of its ends 9 bent down upon the exterior of said collar and its opposite end bent at a right angle outwardly parallel with said shaft, and

thence inwardly to a position within said slot 3, and thence outwardly again, substantially on the axial line of said shaft and thence upwardly at an angle to form a normally projecting spring key 10, and thence downwardly at an acute angle, its free end terminating within said slot 3 at a point adjacent the outer end of the latter.

The operation is as follows: The bobbin 5 may be quickly placed in position upon the bobbin winder shaft 1, said bobbin first striking the projecting key 10 and depressing the key as indicated by the dotted lines in Fig. 2, until the movement of the bobbin is stopped by contact with the collar 4; then by rotating the bobbin 5 until its outer slot 6 registers with the slot 3 in the said shaft, the said key 10 will spring into said slot and lock the bobbin against further rotation on the shaft, and will also securely retain the bobbin upon the shaft.

When it is desired to remove the bobbin from the shaft, all that is necessary is for the operator to grasp the bobbin and quickly jerk it from the shaft, thereby depressing said key 10 and permitting the bobbin to be jerked off of the shaft.

I claim:

The improved sewing-machine bobbin-retainer, comprising a shaft having a slot, a stop-collar on said shaft, and a spring having one end inserted through registering apertures in said shaft and in said collar and the body of said spring being bent to occupy a position within said slot, and thence extending outwardly to a point normally beyond the periphery of said shaft to form thereat a spring locking-key, the said spring extending free at an angle from said key to a point adjacent the axis of said shaft; the opposite end of said spring being fixed against withdrawal from said registering apertures.

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

ARTHUR CARP.

Witnesses:

E. L. WALLACE,
JOHN C. HIGDON.