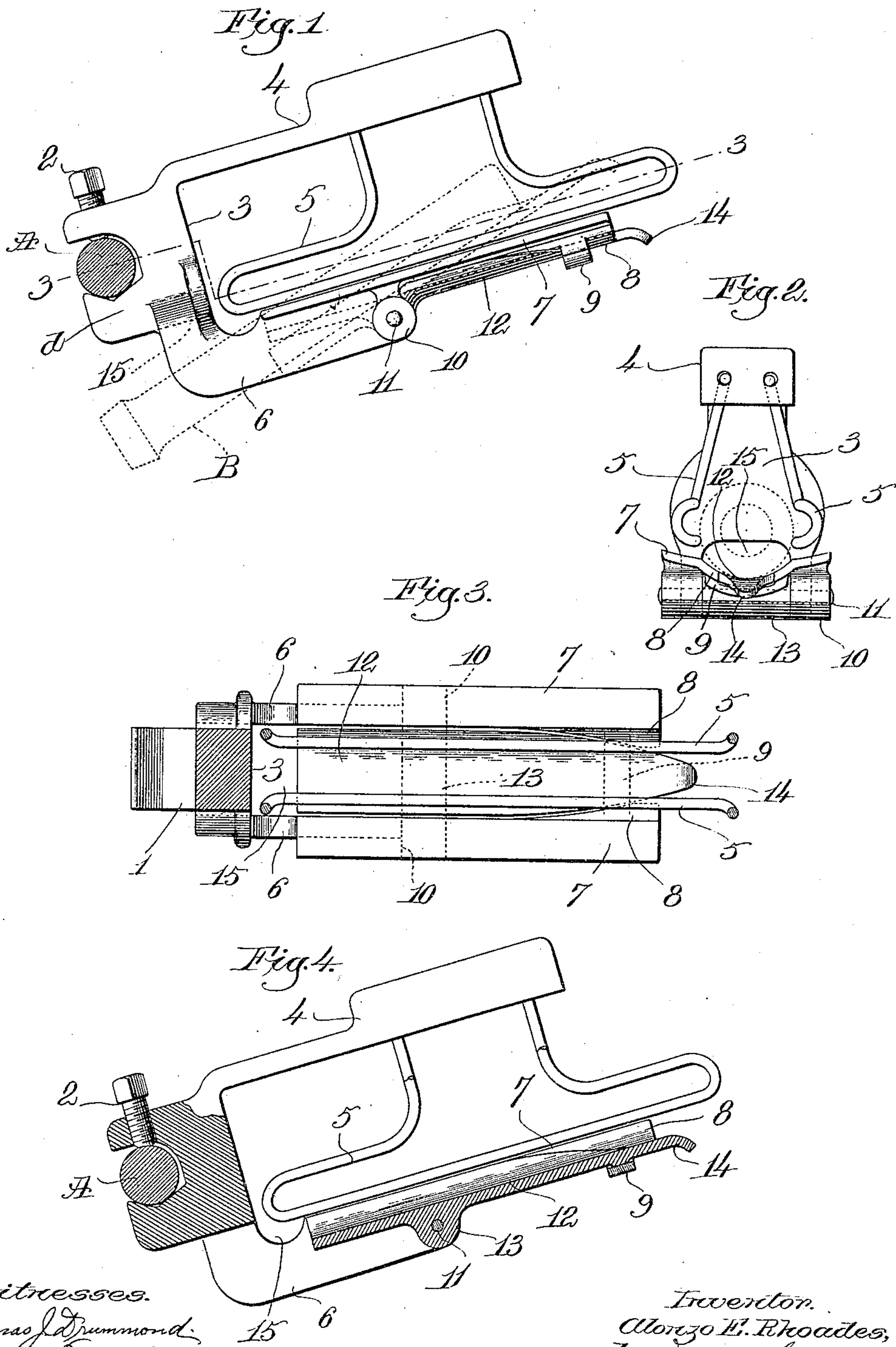


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A. E. RHOADES.
BOBBIN HOLDER.

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Witnesses.
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BOBBIN-HOLDER.

No. 816,502.

Specification of Letters Patent.

Patented March 27, 1906.

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To all whom it may concern:

Be it known that I, ALONZO E. RHOADES, a citizen of the United States, and a resident of Hopedale, county of Worcester, State of Massachusetts, have invented an Improvement in Bobbin-Holders, of which the following description, in connection with the accompanying drawings, is a specification, like characters on the drawings representing like parts.

This invention has for its object the production of a bobbin-holder provided with novel and simple means whereby a spent or empty bobbin can be instantly discharged or ejected from the inner end of the rest or support on which the bobbin is sustained during the unwinding of the yarn therefrom.

From the nature of my invention the yarn can be drawn off from either side of the bobbin without any possibility of premature ejection, the latter being effected only at the volition of the attendant and then by a slight touch of the finger.

The various novel features of my invention will be fully described in the subjoined specification, and particularly pointed out in the following claims.

Figure 1 is a side elevation of a bobbin-holder embodying one form of my invention, a spent bobbin being shown in dotted lines as being ejected. Fig. 2 is a front elevation of the bobbin-holder, a full bobbin being shown by dotted lines. Fig. 3 is a view mainly in plan showing the bobbin-rest and the ejector, taken on the irregular line 3 3, Fig. 1; and Fig. 4 is a longitudinal sectional view through the center of the ejector, the overhanging arm being in elevation.

The bobbin-holder is conveniently made as a casting, shaped to present a clamp 1, having a set-screw 2, the front of the clamp constituting a back-stop 3, and an overhanging arm 4 is extended from the top of the back-stop to pivotally support laterally-movable side guards 5 for the bobbin, said side guards being made of stout wire bent in a substantially well-known or usual form.

At its bottom the clamp portion 1 of the casting is branched and forwardly extended, as at 6, the extensions being prolonged and having flat tops 7, constituting a fixed rest or support for the bobbin, the tops being slightly inclined or sloped inwardly, as shown in Fig. 2, and at their outer ends the extensions are

gradually widened and dip downward, as at 8. Such widened portions are connected by a cross-bar 9, and nearer their inner ends the branches 6 are enlarged to form transverse bosses 10, through which is extended a fulcrum pin or rod 11, on which the movable member of the rest, constituting an ejector, is mounted to tilt. Said movable member or ejector 12 is shaped in plan as shown in Fig. 3, and it is concaved transversely, it being of such width for the greater portion of its length as to fit quite closely between the inner edges of the laterally-separated sides 7 of the rest.

A transverse boss 13 on its under side receives the fulcrum-pin 11, so that the ejector can be tilted in the direction of its length, the forward end of the ejector being tapered between the widened parts 8 of the extensions 7 and projecting beyond them to form a finger-piece 14.

The greater part of the weight of the ejector is disposed in front of the fulcrum 11, so that normally the front end of the ejector rests upon the cross-bar 9 and is thereby maintained in its operative position.

A discharge opening or outlet is provided at 15 between the branches 6 and below the back-stop 3 at the inner end of the rest.

In practice the bobbin-holder is secured to a supporting-rod A, Figs. 1 and 4, on the spooler or other frame by means of the clamp 1 and set-screw 2, so that the bobbin-holder extends outward in substantially the position shown in Figs. 1 and 4.

A full bobbin when inserted in the holder rests on the ejector 12 and on the bifurcated rests formed by the extensions 7, the guards 5 preventing any lateral displacement of the bobbin when the yarn is drawn off therefrom, while the back-stop 3 prevents rearward movement of the bobbin.

When it is desired to eject an empty or spent bobbin, the attendant tilts the ejector 12 by placing a finger under the tip or finger-piece 14 and lifting the same, thereby moving the ejector into dotted-line position, Fig. 1, depressing the inner end or butt of the bobbin B below the back-rest 3. The bobbin then slides rearwardly along the ejector and is discharged through the opening 15, gravity returning the ejector to normal position as soon as the attendant removes his hand from the finger-piece. As the ejector is tilted the

tapering end thereof passes between the guards and spreads them laterally, so that they present no obstacle to either the tilting of the ejector or the discharge of the spent bobbin.

The construction is very simple, the parts are few, and the device is cheaply made and will not get out of order and is very efficient and easily operated.

The construction may be varied or modified in details by those skilled in the art without departing from the spirit and scope of my invention, one practical embodiment being herein shown and described.

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

1. In a bobbin-holder, a stationary rest for the bobbin provided with a back-stop, and having a discharge-opening for a spent bobbin, and means to tilt the spent bobbin and eject it endwise through the discharge-opening.

2. In a bobbin-holder, in combination, a stationary rest for the bobbin, provided with a back-stop and having a discharge-opening for a spent bobbin, and a tilting ejector mounted on the rest and adapted to tilt the spent bobbin and effect its ejection endwise through the discharge-opening.

3. In a bobbin-holder, a bobbin-rest comprising stationary, laterally-separated sides, a tilting ejector pivotally mounted between them, and a back-stop, tilting of the ejector depressing the inner end of and effecting ejection of the spent bobbin beneath the back-stop.

4. A bobbin-holder having a rest for the bobbin, and means to tilt a spent bobbin in the direction of its length and thereby eject the same at the back of the rest.

5. A bobbin-holder having a rest for the bobbin, said rest comprising stationary and

tilting members, manual movement of the tilting member depressing the inner end of a spent bobbin and ejecting the same at the back of the rest, and means to normally prevent ejecting movement of the tilting member of the bobbin-rest.

6. A bobbin-holder having a fixed, bifurcated rest for the bobbin, a discharge-outlet for the ejection of a spent bobbin at the back of the rest, and a tilting ejector pivotally mounted in the bifurcated portion of said rest, to tilt a spent bobbin and eject it through the discharge-outlet.

7. In a bobbin-holder, a bobbin-rest comprising parallel, fixed side members, a central member fulcrumed on and adapted to tilt longitudinally between the side members, to eject a spent bobbin, and means to normally prevent such tilting of said central member of the rest.

8. In a bobbin-holder, a stationary, bifurcated rest for the bobbin, a back-stop adjacent the inner end of the rest, and an elongated, transversely-concave ejector tiltably mounted in the bifurcated rest and adapted when tilted to eject a spent bobbin from the back of the rest and below the back-stop.

9. A bobbin-holder having a stationary rest for the bobbin, and an overhanging arm, laterally-movable guards depending from the arm, a back-stop at the base of the latter, and a tilting ejector mounted centrally in the rest, to tilt and eject a spent bobbin under the back-rest, the outer end of the ejector when tilted engaging and separating the guards.

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

ALONZO E. RHOADES.

Witnesses:

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