

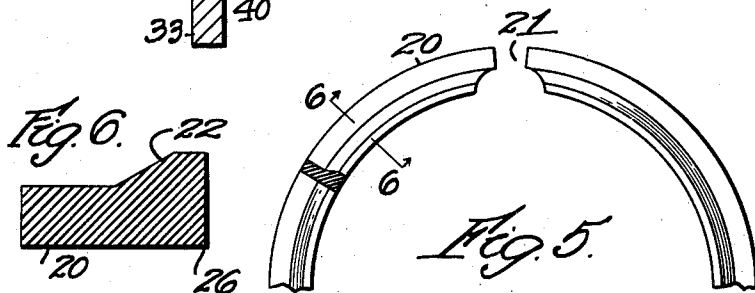
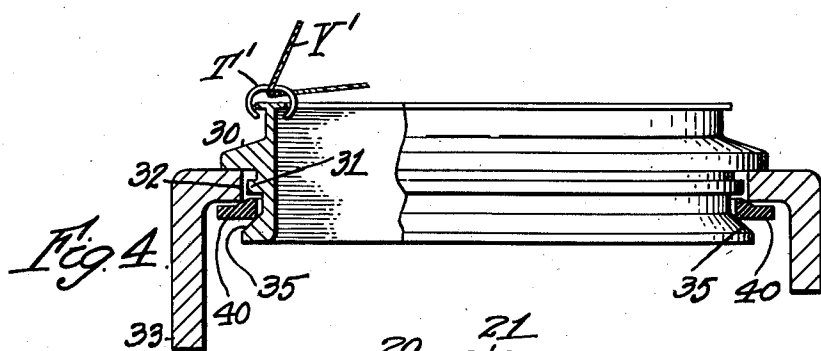
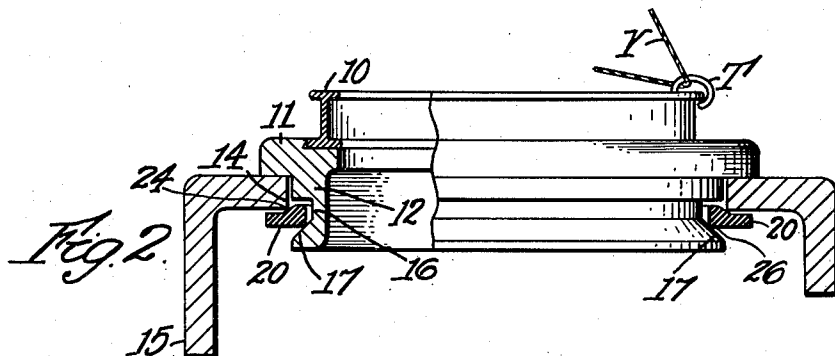
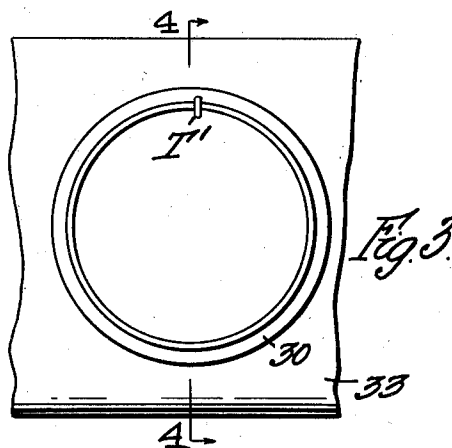
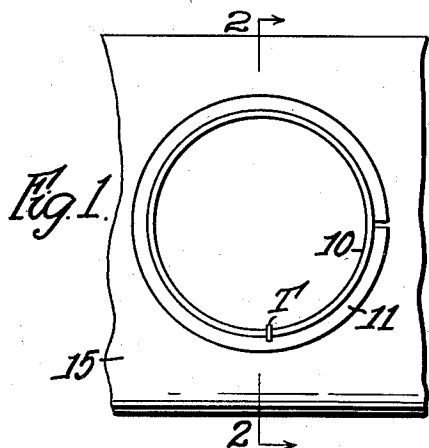
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SECURING DEVICE FOR SPINNING OR TWISTING RINGS

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SECURING DEVICE FOR SPINNING OR
TWISTING RINGS

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1 Claim. (Cl. 57—122)

This invention relates to improvements in devices for holding spinning or twisting rings or ring holders in a ring rail. The invention is of special value when applied to ring rails pressed from sheet metal and of limited thickness.

It is the general object of my invention to provide a securing device which will be self-centering, so that the ring or holder need not fit closely in the opening in the ring rail.

More specifically, my improved securing device comprises a split resilient ring having a beveled upper surface engaging the lower edge of the ring rail opening, and also having a lower portion which engages a beveled upper surface on the ring or holder. The securing device thus centers itself in the rail opening and also centers the spinning or twisting ring or holder in the securing device.

My invention further relates to arrangements and combinations of parts which will be hereinafter described and more particularly pointed out in the appended claim.

Two applications of the invention are shown in the drawing, in which

Fig. 1 is a plan view of a double flange spinning ring, a ring holder and a portion of a ring rail to which my invention is applied;

Fig. 2 is a sectional side elevation, taken along the line 2—2 in Fig. 1;

Fig. 3 is a plan view of a single flange spinning or twister ring and a portion of a ring rail to which my invention is applied;

Fig. 4 is a sectional side elevation, taken along the line 4—4 in Fig. 3;

Fig. 5 is a partial plan view of the split ring, with the section indicated thereon; and

Fig. 6 is an enlarged sectional elevation, taken along the line 6—6 in Fig. 5.

Referring to Figs. 1 and 2, I have shown a spinning ring 10 mounted in a split ring holder 11 and secured thereon by the natural resilience of the holder, as is customary in the art.

I have also shown the holder as having a downwardly projecting portion 12 loosely received in an opening 14 in a ring rail 15. In its lower portion, the holder 12 is recessed as indicated at 16 and is provided with a beveled upper surface 17.

A resilient securing device or ring 20 is snapped into the recess 16 of the holder 11 after the holder and ring have been inserted in the opening 14. The ring 20 is split at one point in its periphery, as indicated at 21 in Fig. 5, and is provided with a beveled upper surface 22 (Fig. 6) which engages the lower edge 24 (Fig. 2) of the opening 14 in the ring rail, when the parts are in assembled relation.

At the same time, the lower inner corner 26 of the ring 20 engages the beveled upper surface 17 of the ring holder 11, with the result that the securing device 20 centers itself on the ring holder 11 and also centers itself in the opening 14, thus making it unnecessary to provide a close fit between the ring holder projection 12 and the opening 14.

In the construction shown in Figs. 3 and 4, I have shown the invention as applied to a single flange ring 30 having a projection 31 loosely fitting in an opening 32 in a ring rail 33. The ring 30 has a beveled upper surface 35 corresponding to the surface 17 of the ring holder 11 and coacting with the split ring or securing device 40 as previously described. The ring 40 will be of a construction identical with that shown in Figs. 5 and 6 and previously described, and will have the same self-centering characteristics.

A traveler T (Figs. 1 and 2) or T' (Figs. 3 and 4) will guide the yarn Y or Y' in the usual manner to a spool or bobbin not shown.

Having described my improved securing device, it will be seen that it is extremely easy in application and that it has the very substantial advantage of being self-centering, thus avoiding the necessity for a close fit between the downward projection of the ring or ring holder and the opening in the sheet metal ring rail.

Having thus described my invention and the advantages thereof, I do not wish to be limited to the details herein disclosed, otherwise than as set forth in the claim, but what I claim is:

In a spinning or twisting frame, a ring rail having a circular opening therein, a ring supported on said ring rail and having an associated depending annular portion extending downward through said ring rail opening and loosely fitting said opening laterally, said depending annular portion being recessed below said ring rail and having a beveled surface forming the lower end wall of said recess, and a split resilient annular securing device encircling said downwardly extended portion and positioned in said recess, said securing device having a lower inner corner engaging the beveled wall surface of said depending annular portion and having a beveled upper surface engaging the lower edge of said opening in said ring rail, whereby said ring and securing device are firmly held in said ring rail, and whereby said securing device yieldingly centers said ring in said securing device, and whereby said securing device self-centers itself and said ring in said opening.

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