

G. L. PIERCE.
SPINNING RING HOLDER.
APPLICATION FILED OCT. 26, 1908.

1,031,086.

Patented July 2, 1912.

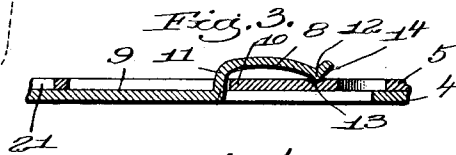
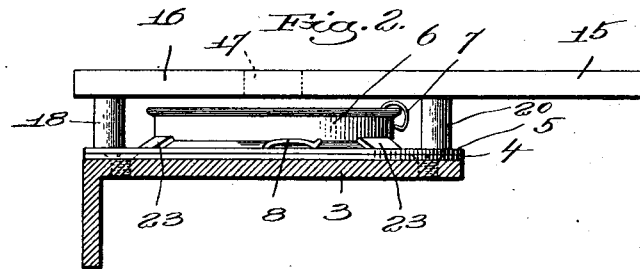
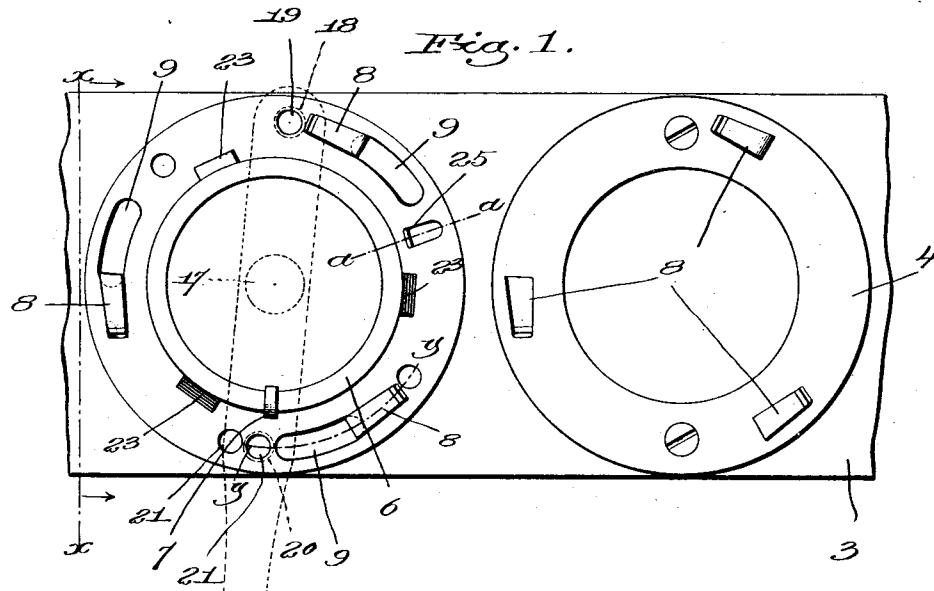
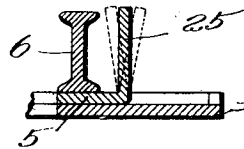


Fig. 4.



witnesses:
Fred S. Grunhof
Joseph M. Ward.

Inverton.
George L. Pierce,
by Wesley Gregory, atty.

UNITED STATES PATENT OFFICE.

GEORGE L. PIERCE, OF MANCHESTER, NEW HAMPSHIRE, ASSIGNOR TO PRESTO SPINNING RING HOLDER COMPANY, OF BOSTON, MASSACHUSETTS, A CORPORATION OF MAINE.

SPINNING-RING HOLDER.

1,031,086.

Specification of Letters Patent.

Patented July 2, 1912.

Application filed October 26, 1908. Serial No. 459,448.

To all whom it may concern:

Be it known that I, GEORGE L. PIERCE, a citizen of the United States, residing at Manchester, county of Hillsboro, and State of New Hampshire, have invented an Improvement in Spinning-Ring Holders, of which the following description, in connection with the accompanying drawing, is a specification, like letters on the drawing representing like parts.

This invention relates to spinning ring holders of that type which are held to the ring rail by holding devices adapted for permitting of a ready removal of the ring holder without the necessity of removing screws or other similar fastenings.

In my invention the holding devices are of such a construction that they may be engaged with the ring holder or disengaged therefrom by giving the ring holder a turning movement about its axis. These holding devices may conveniently be in the form of holding fingers which are adapted to engage the upper face of the ring holder, and in order to permit them to be brought into locking engagement with the upper face of the ring holder, said ring holder is provided with slots or openings through which the holding fingers may enter preparatory to their being brought into locking engagement with the upper face of the ring holder by a turning movement thereof. The inner edges of these slots or openings are preferably made concentric with the spinning ring and of such shape that they act as guiding edges for guiding the ring holder in its concentric turning movement.

The invention will be more fully herein-after set forth and then pointed out in the appended claims.

Referring to the drawings, Figure 1 is a top plan view of a ring rail showing a rail plate applied to one portion thereof and also showing a ring holder applied to another portion thereof; Fig. 2 is a section on the line $x-x$, Fig. 1, looking to the right; Fig. 3 is an enlarged section on the line $y-y$, Fig. 1; Fig. 4 is an enlarged section on the line $a-a$, Fig. 1.

3 designates the ring rail, 5 the ring holder, 6 the spinning ring, and 7 the traveler, said spinning ring being shown as secured to the ring holder in any suitable way as by means of holding lips 23.

In accordance with my invention I pro-

vide the holding fingers 8 which are rigid with the rail plate 3 and which are adapted to frictionally engage the upper surface of the ring holder 5. These holding fingers 8 may conveniently be formed on a rail plate 4 which in turn is secured to the ring rail. This, however, is not essential, although it is a convenient way of supporting the holding fingers. Where the holding fingers are formed on the rail plate 4, they can be conveniently and inexpensively made by striking up a portion of the rail plate and giving to the struck-up portion the proper shape.

The ring holder 5 is provided with a plurality of slots or openings of a shape to receive the holding fingers 8, and in the present embodiment of my invention, these slots are designated 9 and are closed slots, although it would still be within the invention if they were open slots. The holding fingers herein shown are arranged to extend tangentially and accordingly the slots 9 are arranged concentrically, each slot being of a length substantially equal to that of the corresponding holding fingers.

In applying the ring holder to the rail plate, the holder is first dropped into place in such a position that the holding fingers 8 project through the slots or openings 9, and then the ring holder is turned on its axis into the position shown in Figs. 1 and 3 so as to bring the end 10 of the slot 9 up against the shank or upright portion 11 of the holding fingers. The body of the holding fingers 8 preferably extends substantially parallel with the rail plate, and said fingers are of such a shape that they have frictional engagement with the upper surface of the ring holder, such frictional engagement being sufficient to retain the ring holder in its position. If desired I may make the end of each holding finger with a projection 12 on its under face, which projection is adapted to fit into a recess 13 formed in the upper face of the ring holder. While this construction is not necessary, yet it is a preferable one because the entering of the projections 12 into the recesses 13 serves to more securely lock the ring holder in place. The ends of the holding fingers 8 are preferably inclined upwardly, as at 14, so as to permit the body of the ring holder to more easily enter under the finger when the ring holder is turned. When it is de-

sired to remove the ring holder from the rail plate, the ring holder will be turned in a direction toward the ends of the fingers 8 until said fingers stand over the slots 9 when said ring holder can be lifted off from the rail plate as will be obvious. During the turning movement of the ring holder, one or the other or both edges of the slots or openings 9 serve to guide said ring holder and give it the desired concentric movement.

For turning the ring holder in one direction or the other, I propose to use a tool 15 such as shown in dotted lines Fig. 1, and in full lines Fig. 2. This tool has a head 16 provided with an aperture 17, see Fig. 1, for the reception of the spindle and also provided with two projections 18 and 20 adapted to enter apertures 19 and 21 formed in the flange of the ring holder. I will preferably make the ring holder with one aperture 19 on one side and the two adjacent apertures 21 on the opposite side, as shown best in Fig. 1. In applying the tool 15, it is placed down over the spindle so that the latter will project through the opening 17, and the pin 18 is entered into the aperture 19 and then the handle of the tool is moved about said pin 18 as a fulcrum until the pin 20 enters one of the apertures 21. The ring holder may then be turned into the proper position for removing it from the holding fingers 8 by pressure on the handle of the tool. The tool also affords a convenient means for placing the ring holder in position on the rail plate.

The spinning ring 6 is secured to the ring holder in any suitable way, as by means of the holding lips 23.

I have shown at 25 a traveler clearer which is formed by bending or striking up a portion of the metal of the ring holder. This traveler clearer is not claimed herein, however, as it forms the subject of another application Se. No. 583,545, filed by me September 24, 1910.

While I have shown the holding fingers 8 herein as sustained by a rail plate, yet this is not essential to my invention, it only being necessary for said fingers to be rigid with the ring rail. It is, however, more convenient to make the fingers on a rail plate which is in turn attached to the ring rail, but the invention is not limited to such a construction.

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

1. In a spinning ring, the combination with a ring rail and a ring holder having a flat upper surface of a plurality of resilient holding fingers carried by the ring rail and adapted to be brought into engagement with the upper surface of the ring holder by a concentric movement of the latter.

2. The combination with a ring rail, of a plurality of resilient holding fingers rigid therewith, and a ring holder provided with slots or openings to receive the holding fingers, the latter being brought into holding engagement with the upper face of the ring holder by a movement of the latter about its own axis.

3. In a spinning ring holder, the combination with a rail plate having struck up therefrom a plurality of holding fingers, each provided with an extended portion occupying a plane substantially parallel to the body of the rail plate, of a ring holder having a plurality of concentric slots through which said fingers may enter whereby after said fingers have entered the slots concentric movement of the ring holder will bring the fingers into engagement with the upper face thereof.

4. In a spinning ring, the combination with a ring rail, of a plurality of resilient holding fingers extending substantially parallel thereto, and a ring holder provided with openings or slots to receive said holding fingers, said fingers being adapted to be brought into frictional engagement with the upper surface of the ring holder by a turning movement of the latter about its axis.

5. In a spinning ring, the combination with a rail plate having struck up therefrom a plurality of holding fingers, each provided with an extended portion occupying a plane substantially parallel to the body of the rail plate and each provided at its end with a projection 12, of a ring holder having a plurality of concentric slots through which said fingers may enter, said ring holder having recesses in its upper face adapted to be engaged by the projections on the fingers when the ring holder is turned concentrically.

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

GEORGE L. PIERCE.

Witnesses:

CHARLES A. PERKINS,
JOHN E. JOHNSON.