

C. S. FORBES.
SPINNING RING.
APPLICATION FILED FEB. 29, 1908.

957,759.

Patented May 10, 1910.

Fig. 1.

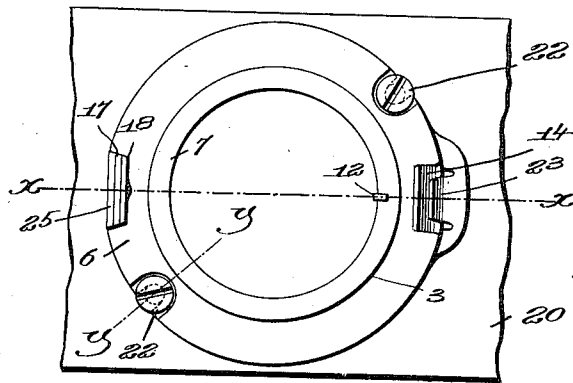


Fig. 2.

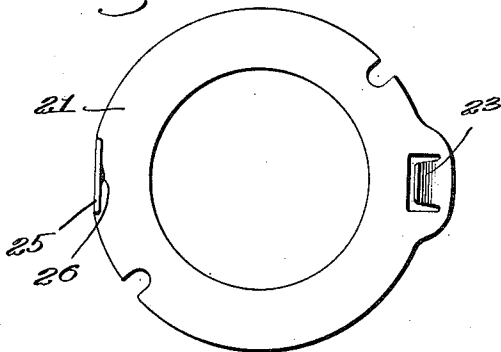


Fig. 3.

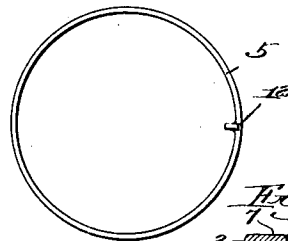


Fig. 8.

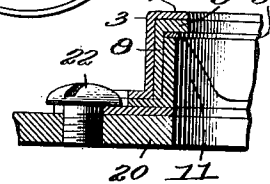


Fig. 5.

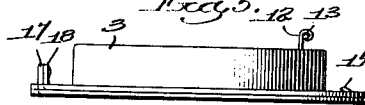


Fig. 4.

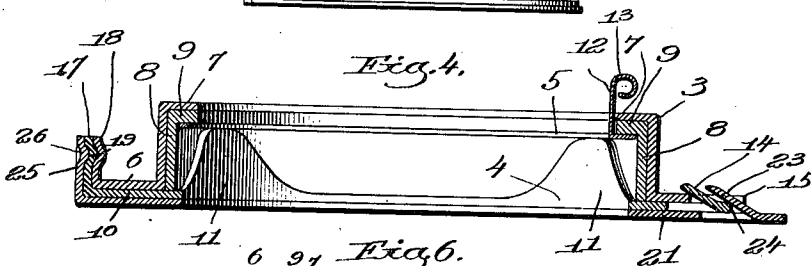


Fig. 6.

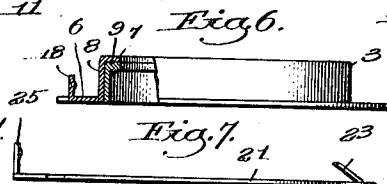


Fig. 7.

Witnesses:

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UNITED STATES PATENT OFFICE.

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SPINNING-RING.

957,759.

Specification of Letters Patent.

Patented May 10, 1910.

Application filed February 29, 1908. Serial No. 418,465.

To all whom it may concern:

Be it known that I, CHARLES S. FORBES, a citizen of the United States, residing at Boston, county of Suffolk, and State of Massachusetts, have invented an Improvement in Spinning-Rings, of which the following description, in connection with the accompanying drawing, is a specification, like numerals on the drawing representing like parts.

This invention relates to spinning rings and has for one of its objects to provide a novel construction whereby the spinning ring can be detachably secured to a ring rail without the use of screws, and for another object to provide a novel construction of spinning ring of that class wherein an annular traveler is received between an outer and an inner shell.

In a spinning ring of this class it is often desirable to change the traveler and to accomplish this necessitates the separation of the inner and outer members. To permit this to be readily done, I have provided means as hereinafter described for frictionally holding the members together so that the outer member can be easily removed from the inner member to expose the traveler without the necessity of removing screws or other similar fastening devices. Moreover in the preferred embodiment of my invention the means for frictionally holding the spinning ring to the rail-plate is such that said ring can be removed from the rail-plate without disconnecting the inner and outer members so that it is possible to remove the ring as an entirety from the rail-plate. Furthermore the means for frictionally holding the inner and outer members together is preferably of such a construction that the outer member can be removed from the inner member without removing the inner member from the rail-plate.

Other objects and features of my invention will be more fully hereinafter described and the novel points of the invention will be pointed out in the claims at the end of the specification.

The drawings disclose one embodiment of

my invention which is illustrative of the principle thereof.

Figure 1 is a plan view of a spinning ring embodying my invention; Fig. 2 is a plan view of the rail-plate; Fig. 3 is a plan view of the traveler; Fig. 4 is an enlarged section on the line $x-x$, Fig. 1; Fig. 5 is a side view of the spinning ring detached from the rail-plate or ring-rail; Fig. 6 is a side view of the outer member of the spinning ring with a portion thereof broken out; Fig. 7 is a side view of the rail-plate; Fig. 8 is a section on the line $y-y$, Fig. 1.

The spinning ring herein illustrated is of that type comprising an outer member and an inner member which form between them an annular groove in which is received an annular traveler. The outer member is designated by 3, the inner member by 4, and the traveler by 5. The outer member has the outwardly-extending base flange 6 at its lower edge and the inwardly-extending retaining flange 7 at its upper end. Said member is lined by a lining 8 of some self-lubricating material, such, for instance, as wood which has been treated in oil or otherwise to render it self-lubricating, and the lining is shown as having the inwardly-extending flange 9 at its upper edge which underlies and lines the flange 7. The inner member 4 is constructed with the outwardly-extending base flange 10 and with the vertically-extending flange 11 which are received within the vertical walls of the outer member 3 and the lining 8. The flange 11 is situated beneath the flanges 7 and 9 and extends nearly to the flange 9 of the lining, the space between the upper edge of said flange 11 and said flange 9 being sufficient to receive the traveler 5. The traveler is annular in shape, as shown in Fig. 3, and is provided with the upturned stem 12 having a guide-eye 13 at its upper end. The flange 11 is shown as cut away at places so as to form separated rests on which the traveler is sustained. This is not essential to the invention however.

For holding the inner and outer members 3 and 4 together, I have in the present embodiment of my invention provided the base

flange 10 of the inner member 4 with an upturned lug 14 which is adapted to be received in a positioning notch 15 formed in the flange 6 of the outer member 3, and said flange 10 of the inner member 4 is also provided with an upturned resilient locking lug 17 which is adapted to have frictional engagement with a similar upturned locking lug 18 extending from the flange 6 of the outer member. One of the locking lugs may have a recess formed in one side in which is adapted to fit a projection 19 formed on the other lug. Owing to the resiliency of the locking lugs, the inner and outer members of the ring can be frictionally secured together by merely inserting the notch 15 over the positioning lug 14 and then forcing the outer member into position, the resiliency of the locking lugs 17 and 18 permitting them to come into locking engagement, as shown in Fig. 5. The inner and outer members can be readily separated by inserting a suitable implement between the flanges thereof and prying them apart. For securing the parts thus assembled to the ring-rail 20, I have herein provided a rail-plate 21 which is adapted to be permanently secured to the ring-rail by means of suitable screws 22 and which is constructed so that the spinning ring can be detachably and frictionally sustained thereby.

In the embodiment of the invention herein shown the rail-plate is provided with the upturned positioning lug 23 which is adapted to fit in a positioning notch 24 formed in the flange 10 of the inner member 3, and said rail-plate is also provided with the upturned resilient locking lug 25 which is adapted to cooperate with a similar locking lug extending upwardly from the flange 10 of the inner member 3. For convenience, I place the locking lug 25 so that it cooperates with the locking lug 17 and may make said lug with the locking projection 26 which is adapted to enter a recess formed in the locking lug 17. With this arrangement the spinning ring as an entirety (consisting of the inner and outer members connected together and the traveler confined between them) can be readily removed from the rail-plate by inserting a suitable implement between the flange 10 of the inner member and the rail-plate and prying said inner member from the rail-plate, and similarly the spinning ring can be replaced on the ring-rail by simply inserting the notch 24 over the positioning lug 23 and then snapping the ring into place with the locking lugs 17 and 25 in engagement. The rail-plate thus serves as a means for always positioning the spinning ring and since the locking means for holding the two parts of the in-

ner and outer members of the spinning ring together are separate from the means for holding the spinning ring to the rail-plate, it is possible to remove the ring as an entirety without disturbing the position of the rail-plate, and it is further possible to remove the outer member from the inner member without removing the latter from the rail-plate.

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

1. The combination with a rail plate adapted to be confined to the top of a ring rail and having near the outer edge thereof a positioning device and a locking device, of a spinning ring including in its construction a member having a plate to overlie the rail plate and provided with a notch in its outer edge to cooperate with said positioning device and also having a lug to cooperate with said locking device.

2. The combination with a rail plate adapted to be confined to the top of a ring rail and having near its outer edge a positioning device and a locking device, of a spinning ring including an outer member, an inner member and an annular traveler confined between said members, one of said members having a plate to overlie the ring rail and provided at its outer edge with a positioning notch to receive said positioning device, and a locking lug to engage the above-mentioned locking device.

3. A sheet metal rail-plate having two lugs or uprights, combined with a spinning-ring comprising an inner and outer member and an annular traveler between said members, said inner member having a notch and an upright, the notch of the inner member embracing one of the uprights of the rail-plate, the other upright of the rail-plate and the upright of the said member being adapted to engage one the other frictionally to hold the spinning-ring seated operatively upon the rail-plate.

4. In a spinning ring, the combination with a rail-plate, of a two-part shell provided with a base, an anti-friction annulus and a traveler, and resilient means carried by said rail-plate between which said base may be snapped or held frictionally to confine the two-part shell to the rail-plate.

5. A ring holder comprising a two-part shell, one part having a resilient positioning member to engage the other part, an inclosed anti-friction annulus, and a traveler.

6. In a spinning ring, a holder comprising a rail plate adapted to be confined to the top of a ring rail and having a positioning device and a locking device, a ring-sustaining or receiving plate having a lip, and a de-

vice co-acting with the locking member of the rail plate, an inclosed anti-friction annulus, and a traveler.

5 7. A spinning ring comprising an inner member, an outer member and a traveler inclosed between said members, one of said members having a positioning lug and a resilient locking device, and the other member having a positioning notch to engage the

positioning lug and a co-acting locking device. 10

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

CHARLES S. FORBES.

Witnesses:

MARGARET A. DUNN,
LOUIS C. SMITH.