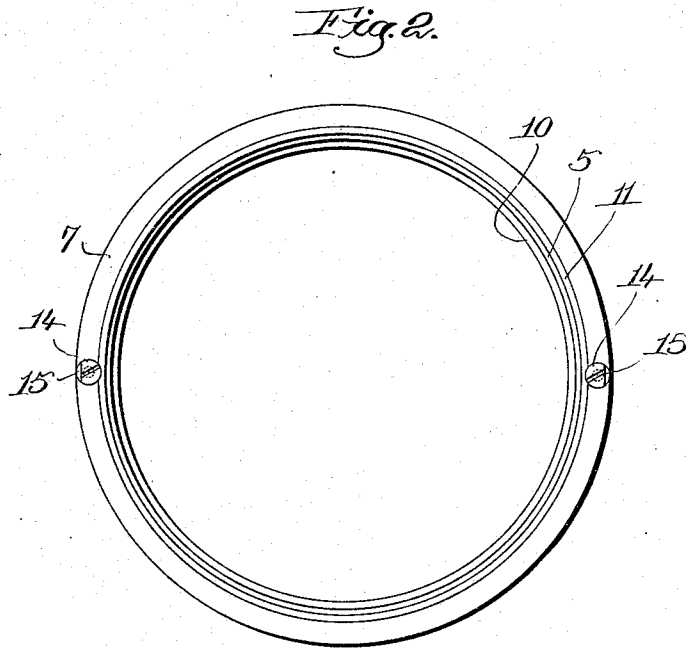
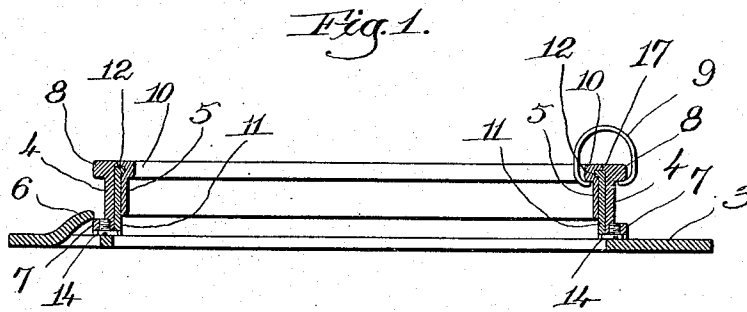


N. PAYMENT.
SPINNING RING.
APPLICATION FILED JUNE 8, 1908.

937,089.

Patented Oct. 19, 1909.



Witnesses.
Thomas J. Drummond.
Joseph M. Ward.

Inventor.
Napoleon Payment,
by Glenly & Son, attys.

UNITED STATES PATENT OFFICE.

NAPOLEON PAYMENT, OF MANCHESTER, NEW HAMPSHIRE.

SPINNING-RING.

937,089.

Specification of Letters Patent.

Patented Oct. 19, 1909.

Application filed June 3, 1908. Serial No. 436,335.

To all whom it may concern:

Be it known that I, NAPOLEON PAYMENT, a citizen of the United States, residing at Manchester, county of Hillsboro and State of New Hampshire, have invented an Improvement in Spinning-Rings, of which the following description, in connection with the accompanying drawing, is a specification, like numerals in the drawing representing like parts.

This invention relates to spinning rings of that type including an outer stationary section and an inner rotatable section concentric with the outer section, and the object of the invention is to provide a novel construction by which the inner rotatable section will have a self-lubricating bearing and will be held from vertical movement relative to the outer section.

The features wherein my invention resides will be more fully hereinafter described and then pointed out in the appended claims.

Referring now to the drawings wherein I have shown one embodiment of my invention, Figure 1 shows a spinning ring embodying the invention in vertical section; Fig. 2 is a bottom plan view of the spinning ring removed from the holder.

The spinning ring is shown as supported by a ring holder 3 which may have any suitable or usual construction and which in turn is commonly supported by a ring rail not shown.

My improved spinning ring comprises the outer section 4 and the inner section 5, these two sections being circular and concentric with each other. The outer section 4 is stationary and is secured to the ring holder 3 in any usual way as by making said ring holder with the holding projections 6 which engage the lower flange 7 formed on the outer section. The outer section 4 is also provided at its upper edge with the outwardly-directed flange 8 which is embraced by the traveler 9. The inner section 5 is provided at its upper edge with the inwardly-directed flange 10 which forms with the flange 8 the head or portion of the spinning ring which is embraced by the traveler 9 in usual fashion. The inner section 5 is loosely mounted within the outer section and is capable of rotation therewithin.

In order to reduce friction between the two sections I preferably interpose between them a lining or bushing 11 of some self-

lubricating material, such, for instance, as wood properly treated in oil or some other lubricant to render it self-lubricating. This bushing when used forms the bearing for the inner section 5 and permits said inner section to revolve freely with very little or no friction. The bushing 11 when used may be held in place in any suitable way. I have herein shown it as provided at its upper edge with an annular flange 12 which enters a corresponding groove formed in the inner section, which construction secures it to the inner section; and I have also shown it as being held to the outer section by means of a plurality of screws 14 which are screwed into the flange 7 of said outer section. The screws are so situated that their heads overlie the bottom edge of the bushing and thus hold it in place as clearly shown in Fig. 2. The heads of the screws, however, are slabbed off, as at 15, so that by turning the screws half way around from the position shown in Fig. 2, the slabbed-off portion comes opposite the lower edge of the bushing 11 and when the screws are in this position the bushing with the inner section attached can be readily removed from the outer section. Before this can be done, however, the spinning ring as an entirety must be removed from the ring holder 3.

The outer section 4 is provided with the annular lip 17 which overlies the top edge of the bushing 11 and which prevents the bushing from being forced out through the top of the ring. The interlocking engagement of the bushing and the inner section secured by the flange 12 operates to hold the inner section from being displaced through the top of the ring.

When the spinning ring is in operation the friction of the traveler on the inner section 5 causes said section to revolve relative to the outer section 4 whereby the relative speed between the inner section and the traveler is considerably less than that between the traveler and the outer section. The most wear between the traveler and the spinning ring comes at the point where the traveler engages the inside of the spinning ring and by making the spinning ring with this inner section which is capable of turning within the outer section, the life of the spinning ring is very much lengthened and the traveler can be made to rotate at a much greater speed without producing any overheating of the parts.

The invention is not limited to the particular construction herein shown.

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

1. In a spinning ring, the combination with an inner and an outer section concentric with each other, of a bushing of self-lubricating material situated between said sections, means to secure said bushing to one section, said bushing having a shape to interlock with the other section to prevent vertical movement thereof while freely permitting said section to rotate, and a traveler embracing both sections.

2. In a spinning ring, the combination with an inner and an outer section concentric with each other, of means to secure one section from movement, a bushing of self-lubricating material situated between said sections, means to prevent vertical movement of said bushing with relation to one section, said bushing being shaped to interlock with the other section to prevent vertical movement thereof while permitting it to rotate freely.

3. In a spinning ring, the combination with a stationary outer section, of a freely-rotatable inner section having an exterior groove, a bushing of self-lubricating material secured to the outer section and having

a flange received in the groove of the inner section.

4. In a spinning ring, the combination with a stationary outer section having an inwardly-directed flange at its upper edge, of a freely-rotatable inner section situated within the outer section and provided with an outwardly-directed flange which fits within the flange of the outer section, and a lining of self-lubricating material secured to one of the sections and fitting the other section.

5. In a spinning ring, the combination with a stationary outer section having an inwardly-directed flange at its upper edge, of a freely-rotatable inner section situated within the outer section and provided with a flange fitting within the flange of the outer section and having a groove in its exterior surface beneath the flange, and a bushing of self-lubricating material secured to the outer section, fitting the exterior of the inner section and having a flange received within the groove of the inner section.

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

NAPOLEON PAYMENT.

Witnesses:

WARREN PROVENCHER,
TIMOTHY F. O'CONNER.