No. 849,734. PATENTED APR. 9, 1907.

J. HAYDEN, Jr.

RING SPINNING AND TWISTING APPARATUS.

APPLICATION FILED JAN. 27, 1906.

Fig. 1.

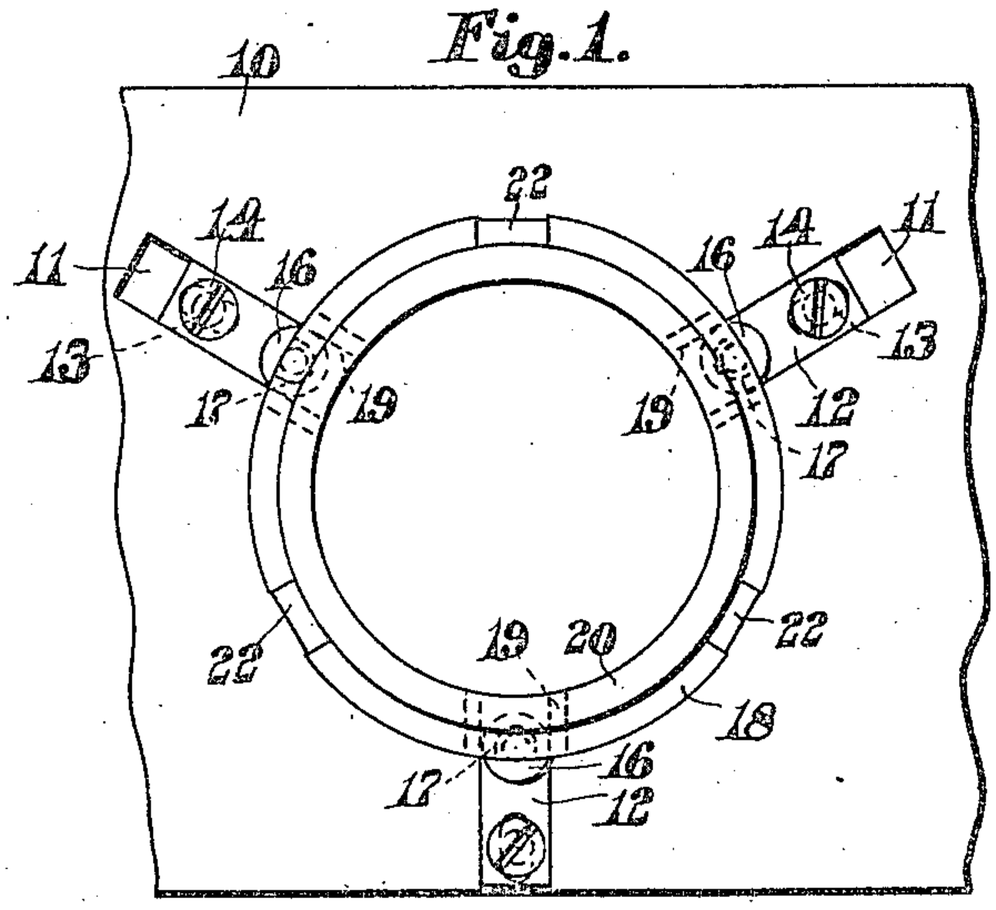


Fig. 2

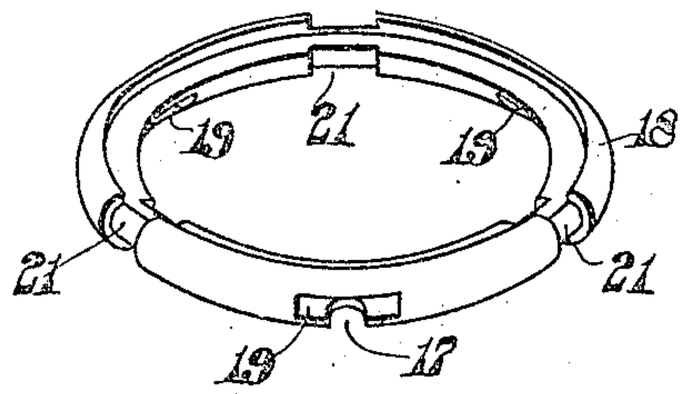


Fig. 3.

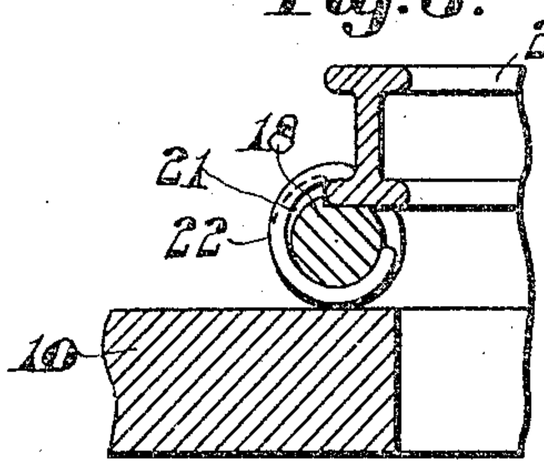
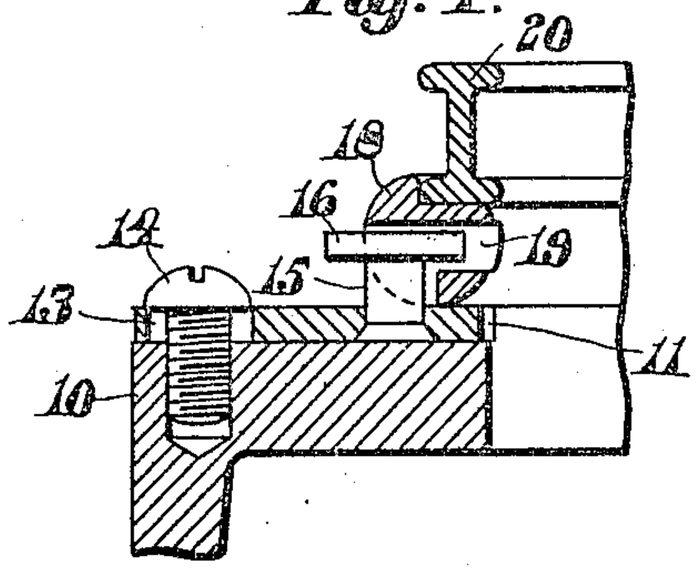


Fig. 4.



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UNITED STATES PATENT OFFICE.

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RING SPINNING AND TWISTING APPARATUS.

No. 849,734. Specification of Letters Patent. Patented April 9, 1907.

Application filed January 27, 1906. Serial No. 298,205.

To all whom it may concern:

Be it known that I, JOEL HAYDEN, Jr., a citizen of the United States of America, and a resident of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Ring Spinning and Twisting Apparatus, of which the following is a specification.

This invention relates to ring spinning and twisting apparatus, and particularly to that class of apparatus in which the rings are usually termed "stationary" rings, inasmuch as they have no continuous rotary movement, although they are capable of slight rotative movement.

It relates, moreover, to that class of rings which is provided with a weighted member securely attached thereto.

The invention is particularly designed to dispense with the ordinary ring-supporting plate or holder and to provide devices by which the ring may be attached directly to the ring-rail itself and centered with the spindle by means of said devices.

The invention consists in certain novel features of construction and arrangement of parts, which will be readily understood by reference to the description of the drawings and to the claims to be hereinafter given.

Of the drawings, Figure 1 represents a plan of a portion of the ring-rail with the ring embodying the features of this invention secured thereto. Fig. 2 represents a perspective view of a weighted member embodying the features of this invention. Fig. 3 represents an enlarged vertical section of a portion of the ring-rail, the ring, and weighted member, showing the means for clamping said ring to said weighted member; and Fig. 4 represents an enlarged vertical section of the same parts together with the adjustable ring-supporting device.

Similar characters designate like parts throughout the several figures of the drawings.

In the drawings, 10 represents a ring-rail of any well-known construction, with a plurality of radial grooves 11, in which are mounted the slidable members 12, each being provided with a slot 13, through which extends a bolt 14, threaded to the ring-rail 10 and adapted to clamp the slidable member 12 in any desired adjusted position. The member 12 is provided with an upwardly-projecting member 15, the upper end of which is provided with a flanged head 16. The shank of the upwardly-projecting member 15 extends into a slot 17 in the under surface of the weighted member 18, and the flanged head 16 extends into the recess 19 in said member, the under face of said flange being removed slightly from the lower face of the recess 19, thereby permitting a slight vertical or inclined movement of said weighted member 18 in relation to said adjustable member 12 and the ring-rail to which said adjustable member is secured. The weighted member 18 is provided with a depression in its upper face adapted to receive the ring 20 of any well-known construction, and the weighted member is provided with a plurality of grooves 21, each of which is adapted to receive a spring-clip 22. This clip 22 is arranged to be moved about said member 18 to engage or disengage the upper end thereof from the lower flange of the spinning-ring 20, as shown in Fig. 3, in which position the ring 20 is shown securely clamped, by means of said clips, to the weighted member 18 to prevent any accidental rotary movement being imparted to said ring.

It is obvious that the shanks 15 will cooperate with the slots 17 to permit slight horizontal movement of the weighted member upon the ring-rail to facilitate the centering of the ring with the spindle. It is also obvious that the flanged head 16 will coöperate with the recess 19 in said weighted member to permit of a slight vertical or inclined movement to said weighted member to still further facilitate the correct coöperation of the ring with the spindle during the operation of the spinning,

It is believed that from the foregoing explanation of the invention the operation will be fully understood without any further description.

I claim—

1. The combination of a spinning-ring, a ring-rail, a weighted member secured to said ring and provided with recesses therein, and a plurality of members adjustably secured to said ring-rail so as to be adjustable toward and from the axis of said ring and coöperating with said recesses to prevent the continu-

ous rotation of said member while permitting to it limited horizontal movement.

2. The combination of a spinning-ring, a ring-rail, a weighted member secured to said ring and provided with recesses therein, and a plurality of members adjustably secured to said ring-rail so as to be adjustable toward and from the axis of said ring and coöperating with said recesses to prevent the continuous rotation of said member while permitting to it limited axial movement.

3. The combination of a spinning-ring, a ring-rail, a weighted member secured to said ring and provided with recesses therein, and a plurality of members adjustably secured to said ring-rail so as to be adjustable toward and from the axis of said ring and coöperating with said recesses to prevent the continuous rotation of said member while permitting to it limited horizontal and axial movement.

4. The combination of a spinning-ring, a ring-rail, a weighted member secured to said ring and provided with shouldered recesses therein, and a plurality of shouldered members coöperating with said recesses to prevent the continuous rotation of said member while permitting to it limited axial movement.

5. The combination of a spinning-ring, a weighted member secured to said ring and provided with a plurality of shouldered recesses, a ring-rail provided with a plurality of radial grooves, a slidable member in each groove provided with a shouldered head adapted to coöperate with said shouldered recesses, and means for securing said slidable members in adjusted position.

6. The combination of a spinning-ring, a weighted member secured to said ring and provided with a plurality of recesses, a ring-rail provided with a plurality of radial grooves, a slidable member in each groove provided with a head adapted to coöperate with said recesses, and means for securing said slidable members in adjusted position.

7. The combination of a spinning-ring, a weighted member having a plurality of radial grooves therein, and a plurality of clips secured within said grooves and adapted to engage said spinning-ring.

Signed by me at Boston, Massachusetts, this 23d day of January, 1906.

JOEL HAYDEN, Jr.

Witnesses:

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