

No. 871,694.

PATENTED NOV. 19, 1907.

J. HAYDEN, JR.
RING SPINNING AND TWISTING APPARATUS.
APPLICATION FILED APR. 3, 1906.

Fig. 1.

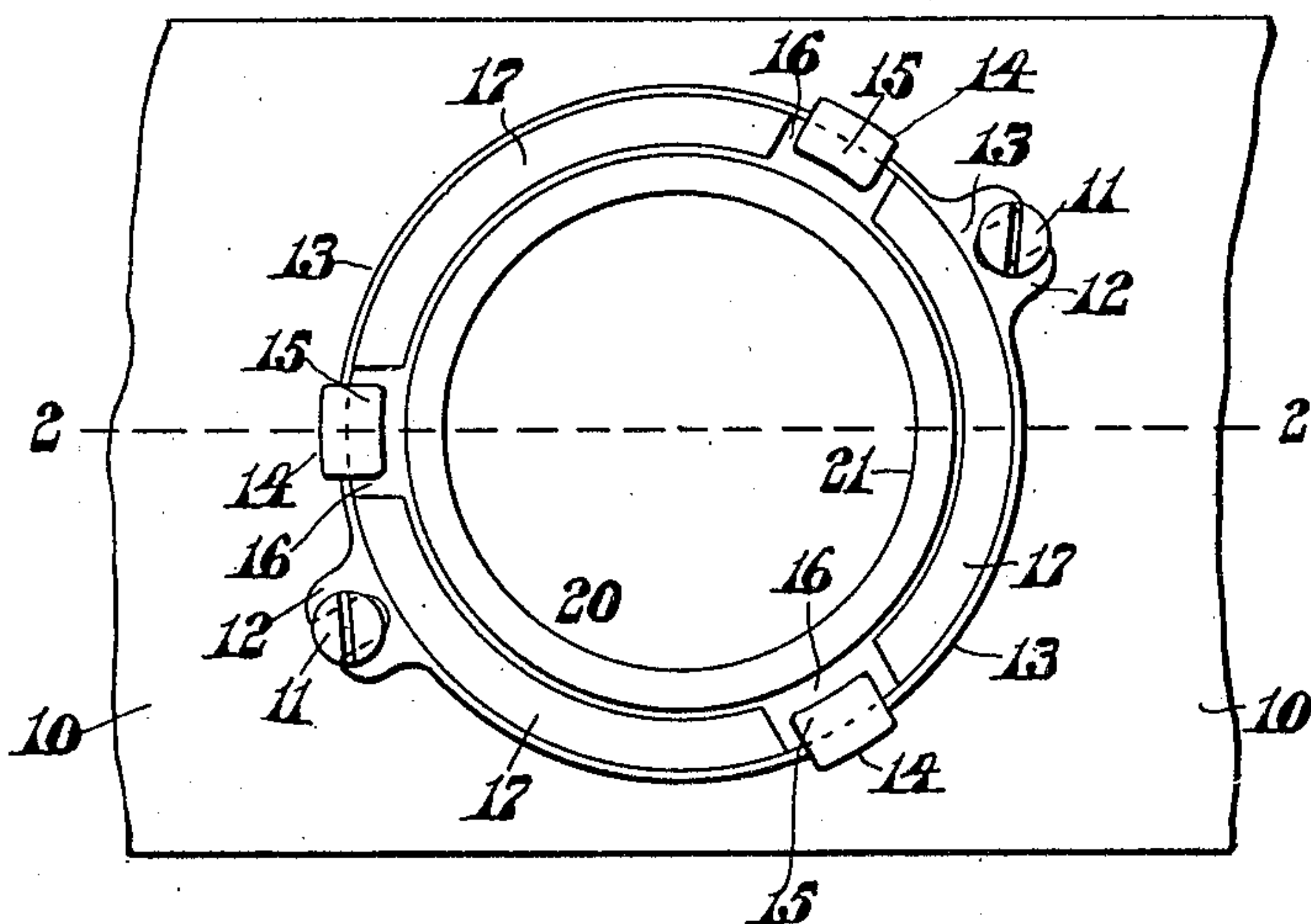


Fig. 2.

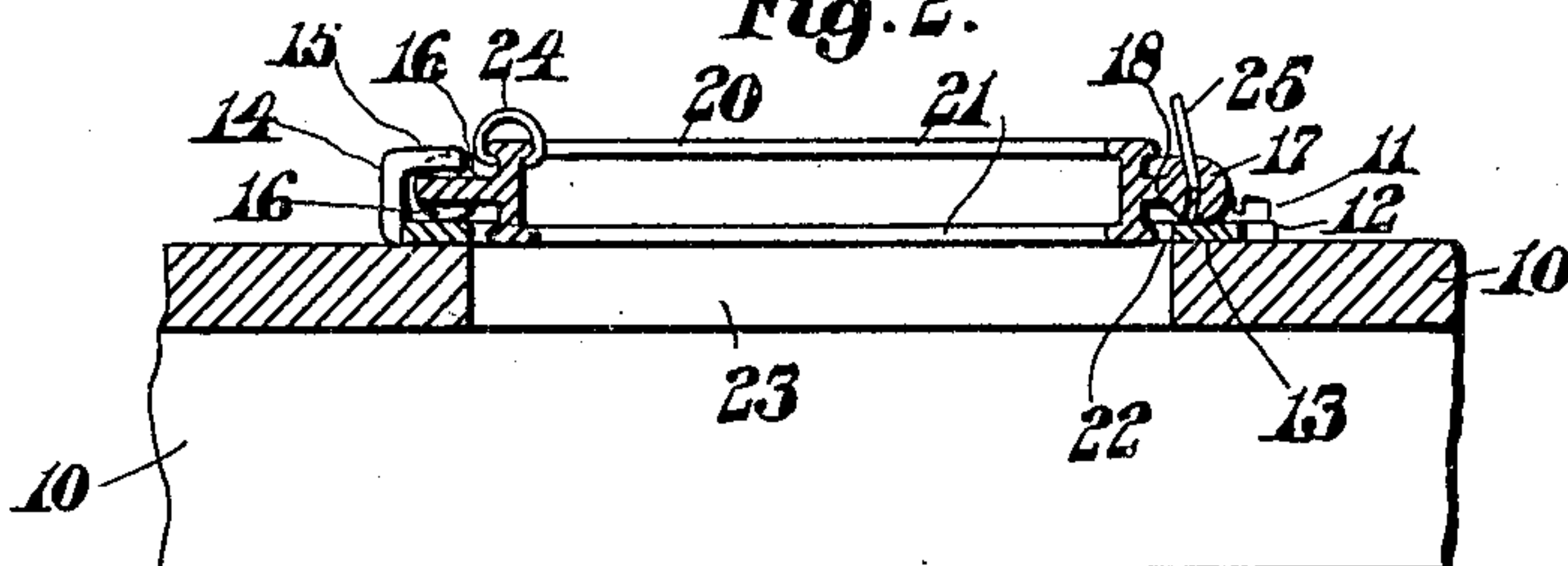


Fig. 4.

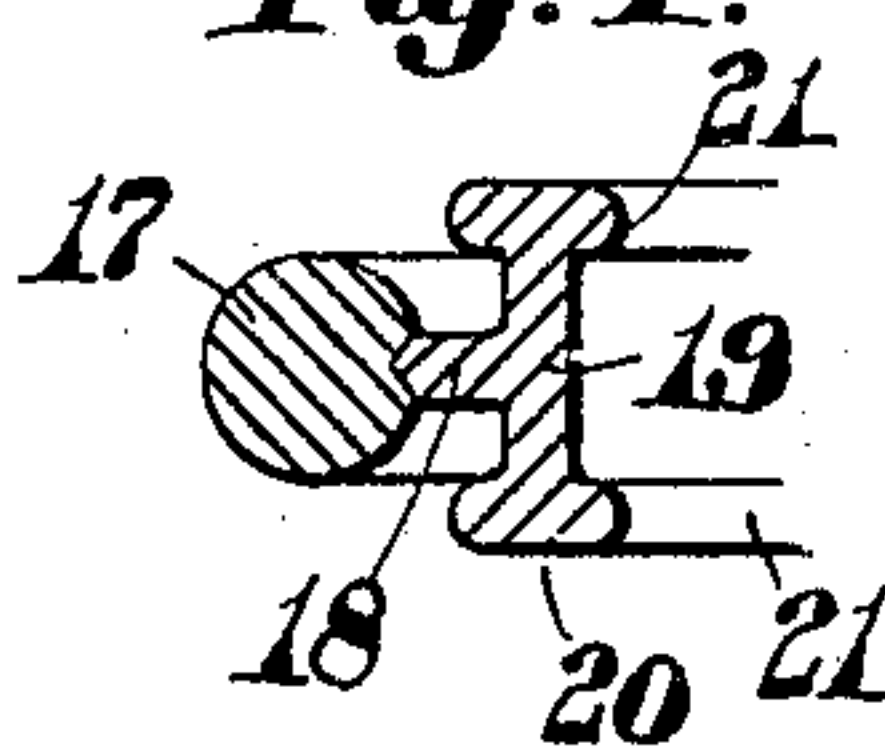


Fig. 5.

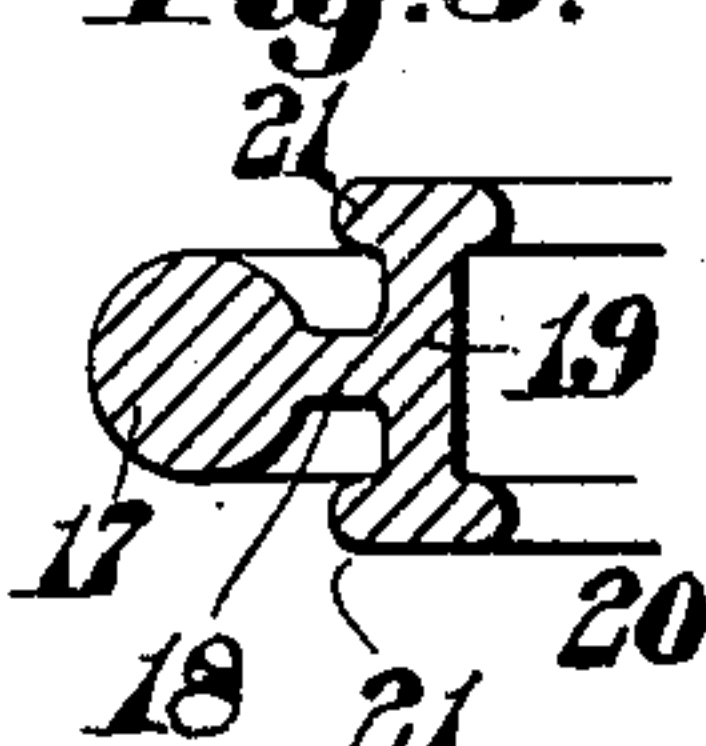
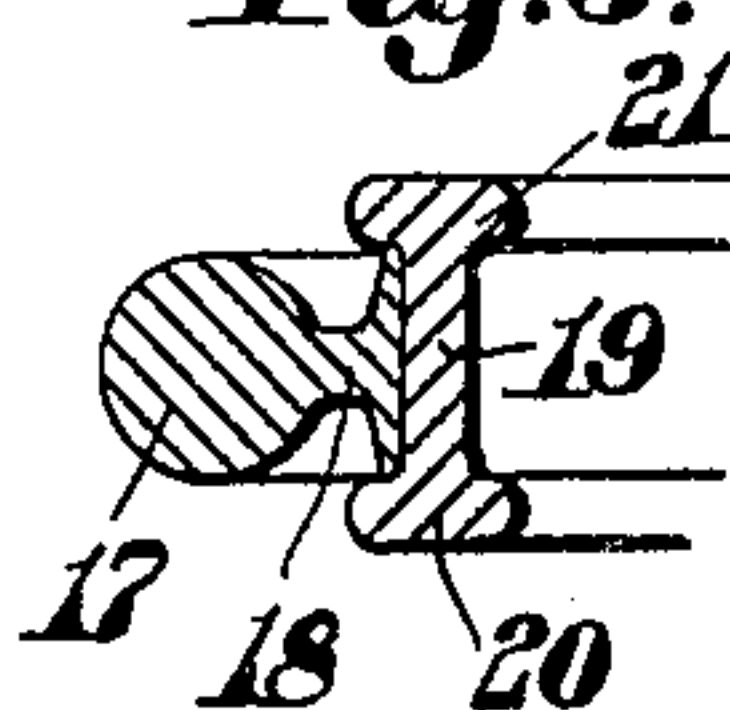


Fig. 5.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOEL HAYDEN, JR., OF BOSTON, MASSACHUSETTS.

RING SPINNING AND TWISTING APPARATUS.

No. 871,694.

Specification of Letters Patent.

Patented Nov. 19, 1907.

Application filed April 3, 1906. Serial No. 309,667.

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 object of the present invention is to provide a ring in which the weighted member may be attached intermediate of the end flanges thereof and be provided with a seat therefor in such a manner as to prevent the flanges of the ring from contacting with the ring holder.

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 a ring rail with the ring embodying the features of this invention secured thereto. Fig. 2 represents a vertical section on line 2—2 on Fig. 1. Fig. 3 represents a section through one side of a ring embodying the features of this invention, and Figs. 4 and 5 represent modifications whereby the weighted member may be made separate from and secured to the ring.

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 to which is secured, by means of screws 11, cooperating with slotted ears 12, the ring holder or plate 13. The plate 13 is provided with a plurality of ears or projections 14, the free ends 15 of which are bent horizontally and project into the radial grooves or recesses 16 in a weighted member 17, formed upon or secured to the periphery of an extension 18, projecting from the web 19 of a spinning ring 20 intermediate of its end flanges 21.

The weighted member 17 is provided with

a plurality of grooves 16 on either side thereof so that the ring 20 may be reversed when desired and the clips 15 engage the grooves or recesses 16 in the upper side of said weighted member. Preferably the ring is constructed as shown in Fig. 3 with the extension 18 and the weighted member 17 integral with the ring but it is obvious that the extension may be made integral with the ring as shown in Fig. 4, the weighted member being secured to the periphery thereof in any well-known manner while another construction shown in Fig. 5 is also obvious in which the extension 18 and weighted member 17 are made integral and secured in position against the outer face of the web 19 intermediate of the flanges 21.

The supporting plate 13 is provided with a central opening 22 of greater diameter than the outer diameter of the flanges 21 so that the ring may extend downwardly into the opening in said holder and move slightly horizontally in either direction without permitting the flanges thereof to contact with the holder or the walls of the opening 23 in the ring rail 10. The weighted member 17 is provided with a seat upon the ring holder 13 and is adapted to be moved slightly in a horizontal direction thereon in order to center the ring with the spindle with which it is cooperating.

The ring is provided with the ordinary traveler 24 and the clearer 25. This arrangement prevents the flanges of the ring from being worn by contacting with immovable parts so that they are maintained always in good condition for the operation of the traveler 24. The construction furthermore reduces to a minimum the number of parts necessary to secure an effective operation of the spinning which it is obvious is of considerable advantage.

It is believed that from the foregoing description the operation of the invention will be thoroughly understood.

Claims.

1. The combination with a spinning ring having a flange at each end and an annular extension extending outwardly therefrom intermediate the same, of a ring holder supporting the outer end of said extension and provided with clips engaging therewith to permit slight horizontal movement of the ring.

2. The combination with a spinning ring having a flange at each end and an annular extension weighted at its periphery extend-

ing outwardly therefrom intermediate the same, of a ring holder supporting the outer end of said extension and provided with clips engaging therewith to permit slight horizontal movement of the ring.

3. The combination with a spinning ring having a flange at each end and an annular extension extending outwardly therefrom intermediate its end flanges and a weighted member at the periphery thereof having radial grooves therein, of a ring holder adapted to support said weighted member provided with clips engaging said grooves.

4. The combination with a spinning ring having a flange at each end and an annular extension extending outwardly therefrom intermediate its end flanges and a weighted member at the periphery thereof, of a ring holder adapted to support said weighted

member and provided with clips engaging therewith and permitting slight horizontal movement of said member upon the upper face of said holder.

5. The combination with a spinning ring having a flange at each end and an annular extension extending outwardly therefrom intermediate its end flanges and a weighted member at the periphery thereof having radial grooves therein on either side of said weighted member, of a ring holder provided with clips adapted to engage the grooves on one side of said member.

Signed by me at Boston, Massachusetts, this 2d day of April, 1906.

JOEL HAYDEN, JR.

Witnesses:

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