

(No Model.)

J. W. WATTLES.

SPINNING RING AND HOLDER THEREFOR.

No. 246,647.

Patented Sept. 6, 1881.

Fig. 1.

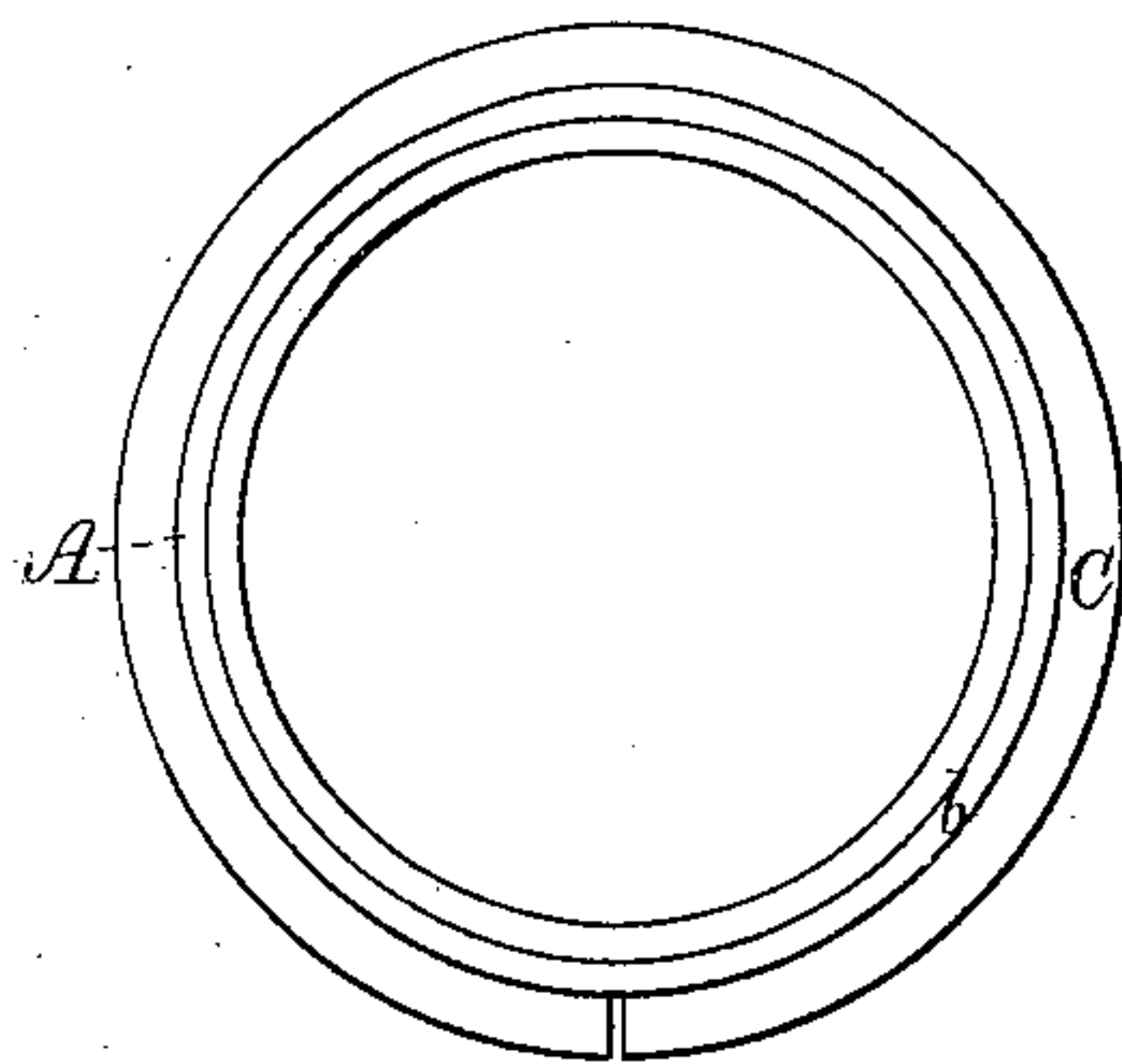


Fig. 2.

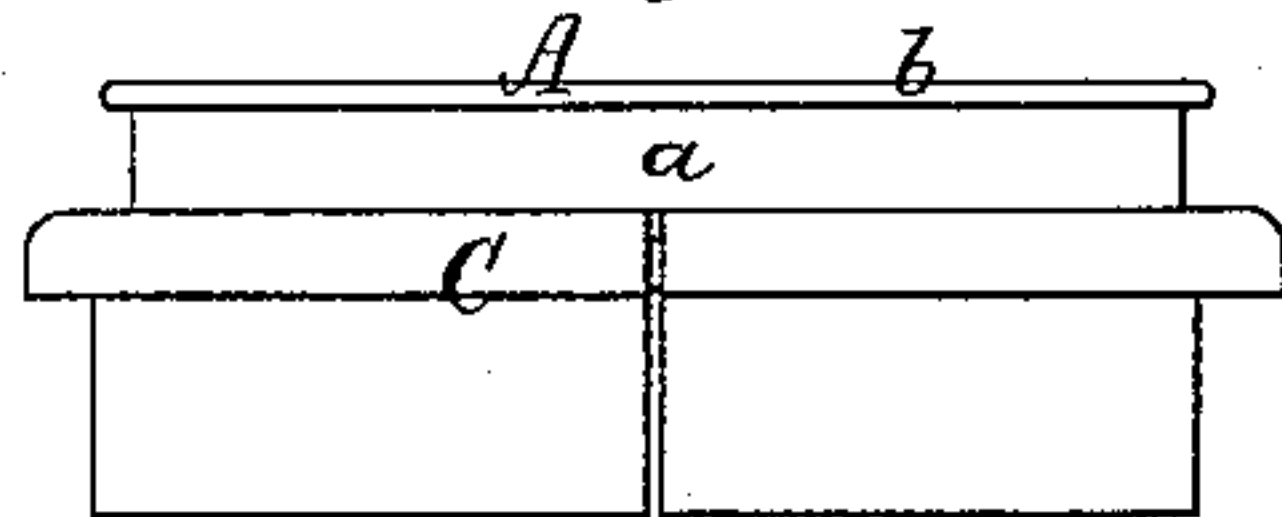


Fig. 3.

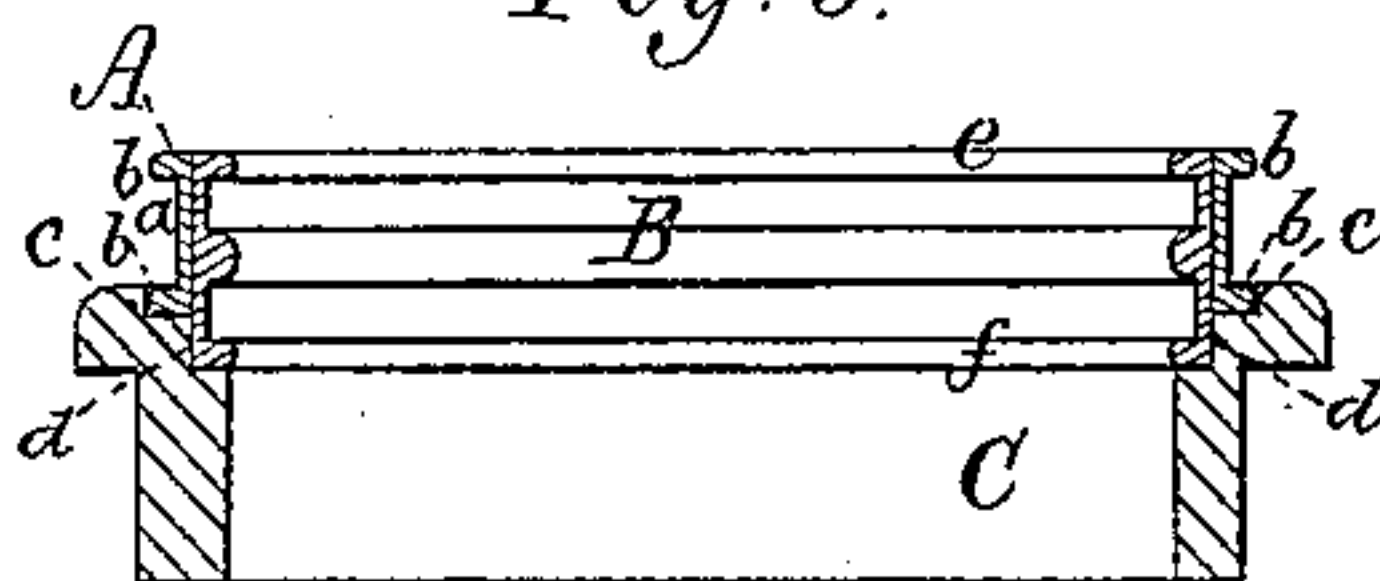


Fig. 4.

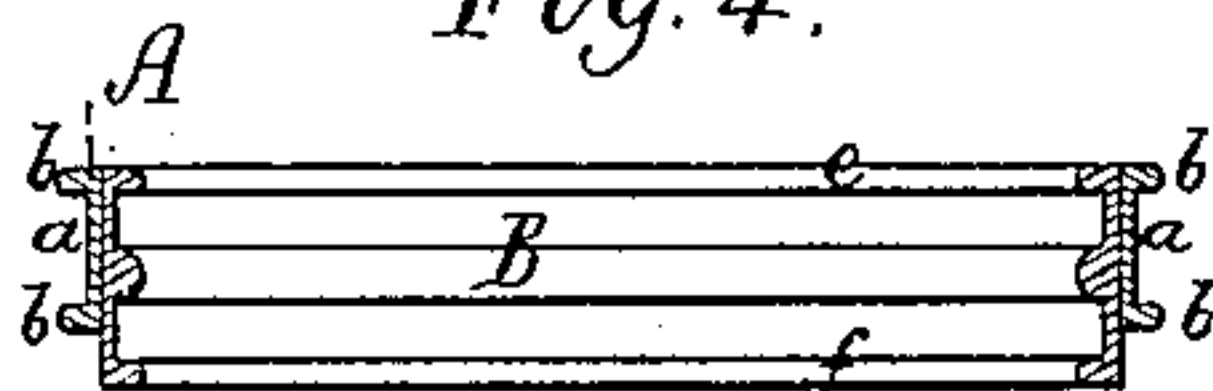


Fig. 5.

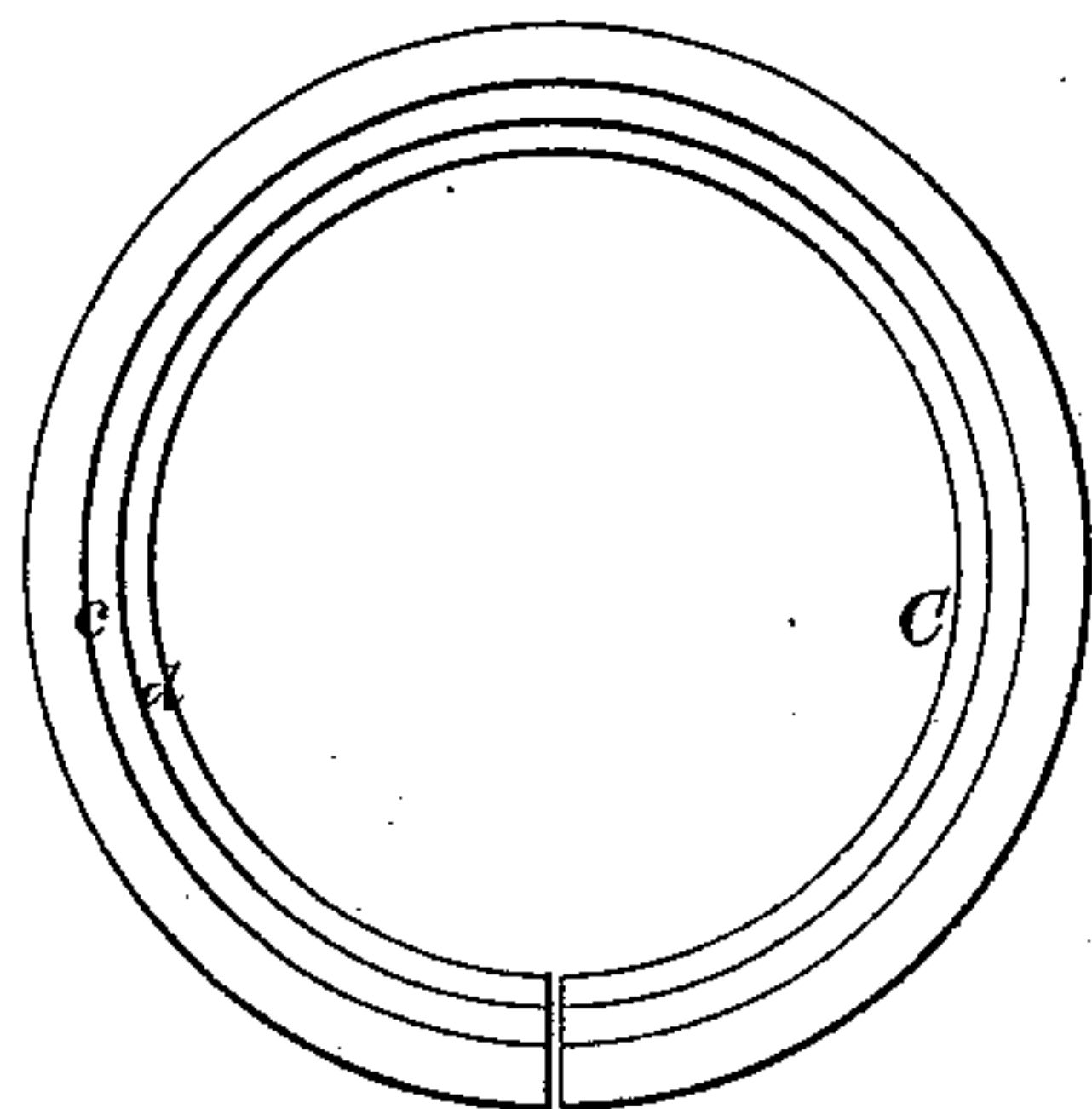
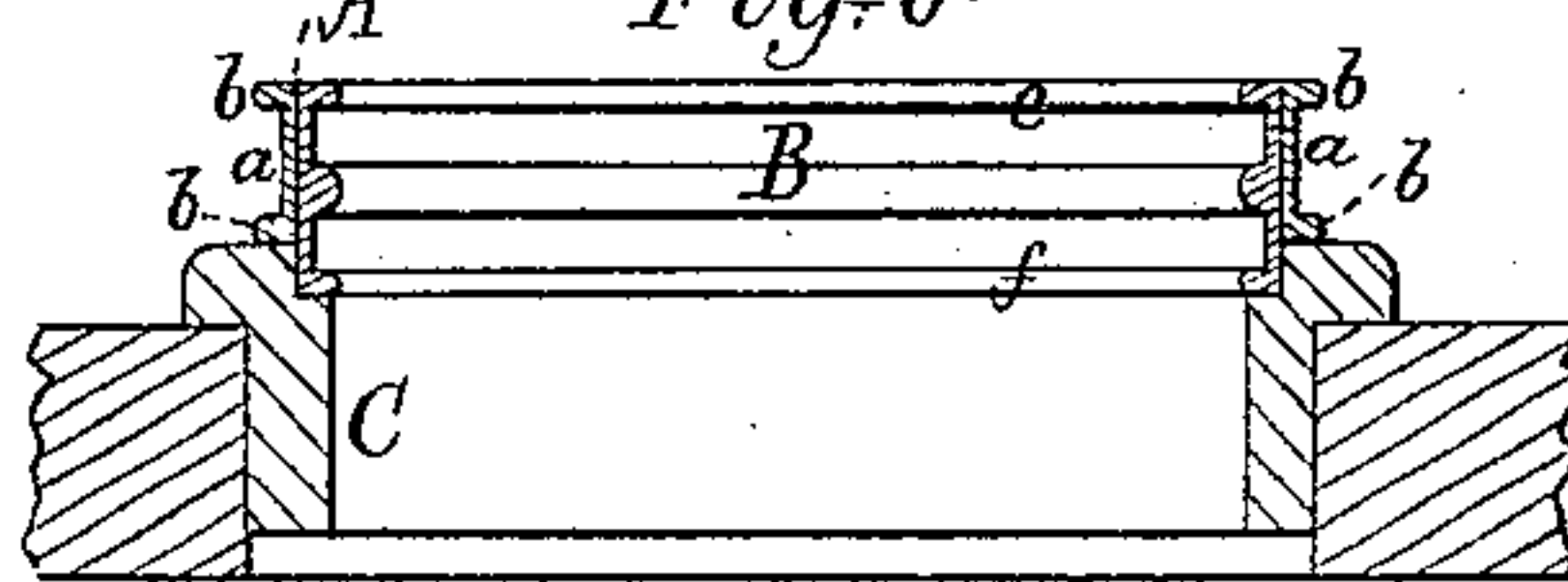


Fig. 6.



Witnesses.

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JOSEPH W. WATTLES, OF CANTON, MASSACHUSETTS.

SPINNING-RING AND HOLDER THEREFOR.

SPECIFICATION forming part of Letters Patent No. 246,647, dated September 6, 1881.

Application filed July 9, 1881. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH W. WATTLES, of Canton, of the county of Norfolk and State of Massachusetts, have invented a new and useful Improvement in Spinning-Rings and Holders therefor; and I do hereby declare the same to be described in the following specification, and represented in the accompanying drawings, of which—

10 Figure 1 is a top view, Fig. 2 a side elevation, and Fig. 3 a transverse section, of a spinning-frame ring and its holder provided with my invention. Fig. 4 is a transverse section of the ring and its movable annular bushing. 15 Fig. 5 is a top view of the ring-holder.

With spinning-frame rings the wear of the race by the traveler is mostly if not entirely confined to the inner flange of the race, such being due to the centrifugal force generated 20 in the traveler while in rapid revolution around the race. A ring after having become too much worn or so reduced was generally considered as useless, or as so much waste material, until I made the invention described in 25 the United States Patent No. 199,604, dated January 22, 1878.

My present improvement has reference to that of the said patent—that is, to a spinning-frame ring constructed with a stationary partial or semi race, and provided with a removable bushing provided with either one or two partial or semi races—the nature of my invention being duly set forth in the claims herein- 30 after presented.

35 The ring shown at A is a short cylindrical annulus, *a*, provided with two partial or semi races, *b b*, extending from its opposite ends and outer periphery, in manner as represented. It may, however, have but one of such partial 40 or semi races. Within the said ring A is the annular bushing B, whose external periphery is cylindrical and corresponds in diameter with the internal diameter of the ring A, the bushing being adapted to closely fit the ring 45 A and be capable of being slid up and down within it. The said bushing has a depth greater than that of the ring by about one-half thereof, and it is provided with two partial or semi races, *e f*, which, arranged at its ends, project 50 inward from it, in manner as represented. From the above it will be seen that when either

semi-race of the bushing is even with one of those of the ring the bushing will project beyond the ring a short distance.

The ring-holder C, as shown in the afore- 55 said Figs. 3 and 5, is a flanged and cross-cut annulus, having within its upper part two circular rabbets, *c d*, arranged in manner as represented, the upper of them being to receive the lower semi-race or portion of the ring, 60 and the lower of them being to receive that part of the bushing which may project below the ring, the depth of the said lower rabbet corresponding to that of the projection of the bushing from the ring. From this it will be 65 seen that the lower rabbet answers as a gage to enable a person to readily bring the upper semi-race of the bushing precisely even with the upper semi-race of the ring. In case of the inner semi-race of the bushing becoming 70 too much worn by the traveler the ring and bushing have only to be turned upside down and pressed into the holder, the bushing at the same time being forced down within the ring and into the lower rabbet to the bottom there- 75 of, in which case the fresh or unworn semi-race of the bushing will be brought even with the semi-race of the ring.

By having the movable bushing deeper than the ring and to project below it into a rabbet 80 of the holder the bushing and ring are supported to better advantage by the holder, as the bushing answers the purpose of a shank to the ring to aid in sustaining it in the holder, the upper rabbet being to receive the lower 85 semi-race of the ring and answer as a protection therefor from injury while the ring may be in place. In reality there need be but one rabbet in the holder, as the ring may rest directly upon the top of the holder, the bushing 90 only sustaining the holder, such being as shown in Fig. 6; but there are advantages in having two rabbets to support the ring and the bushing, for the upper rabbet not only affords an additional support, but, as before mentioned, 95 it serves, when the ring has a lower semi-race, as a protection of such semi-race from injury, as becoming accidentally nicked or indented. On the holder being inserted in its socket in the ring-rail, and compressed or contracted by 100 a screw screwed into the rail and against the outer periphery of the neck or part of the holder

within the socket, the flanged annulus A will not only be held in place in and by the holder, but the latter will be secured in the rail. When the annulus A rests simply on the top of the holder, as shown in Fig. 6, without extending into a rabbet in said holder, the holder, on being contracted by the clamp-screw in the rail, will be compressed against the annulus B, the annulus A being held in place by the annulus B.

10 What I claim as my invention is as follows, viz:

1. The combination of the ring having one or two partial or semi races, as described, with the annular bushing having two of such par-

tial or semi races, and a depth greater than that of the ring, such bushing being fitted to slide within the ring, as set forth.

2. The combination of the ring-holder, rabbeted as described, with the ring having one or two partial or semi races, and with the bushing provided with the two partial or semi races and fitted to slide within and constructed deeper than the ring, so as to enter and fit a rabbet in the holder, all being substantially as set forth.

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Witnesses:

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