

J. W. WATTLES.
Rings for Spinning Frames.

No. 166,909.

Patented Aug. 17, 1875.

Fig. 1.

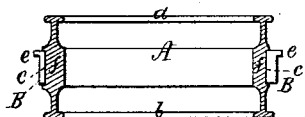


Fig. 2.

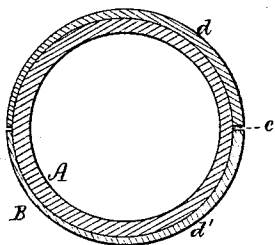


Fig. 5.

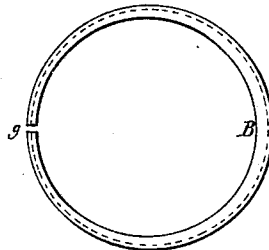


Fig. 3.

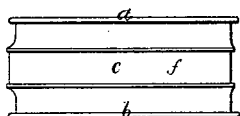


Fig. 6.

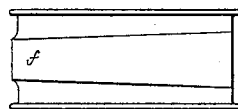


Fig. 4.

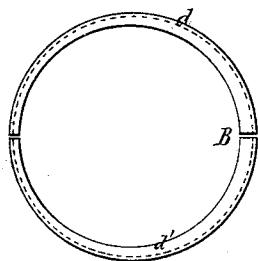
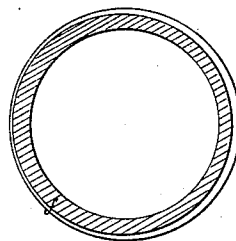


Fig. 7.



Witnesses

S. W. Piper

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UNITED STATES PATENT OFFICE.

JOSEPH W. WATTLES, OF CANTON, MASSACHUSETTS.

IMPROVEMENT IN RINGS FOR SPINNING-FRAMES.

Specification forming part of Letters Patent No. **166,909**, dated August 17, 1875; application filed March 24, 1875.

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 made a new and useful invention having reference to the Rings of what are termed Ring Spinning-Frames; and do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figure 1 denotes a transverse section, and Fig. 2 a horizontal section, of a duplex race-ring and its supporter in accordance with my invention. Fig. 3 is a side elevation of the duplex race-ring provided with an eccentric groove; Fig. 4, a top view of the supporter. Fig. 5 is a top view of another form of supporter, Fig. 6 being a side elevation, and Fig. 7 a horizontal section, of the ring to be used therewith.

In carrying out my invention, I construct the ring A with two races, *a b*, and an intermediate eccentric or eccentric groove, *c*, all arranged as shown. The supporter B, which is to fit and enter the receiving-hole or socket of the ring-rail, consists of an annulus made with a flange, *e*, and in two or more sections, *d d'*, as represented in Figs. 1, 2, 3, 4, or as one made with such flange, and as a split ring, as shown in Fig. 5. The part *f* of the duplex race-ring, constituting the bottom of the groove *c*, is cylindrical, and eccentric to the common axis of the races. So the outer cylindrical surface of the supporter that is to go into the ring-rail is made eccentric to the inner curved surface of such supporter.

By making the bottom of the groove eccentric to the axis of the races, and by constructing the ring-supporter with its inner and outer curved cylindrical surfaces eccentric with each other, the ring and the supporter may be turned around, so as to adjust the races into concentricity with the spindle. I prefer to make the duplex race-ring with the groove, but it may have the eccentric *f* only.

The supporter is to be held in place in the

socket of the ring-rail by one or more clamp-screws.

By making the supporter in sections of a ring, or as an elastic ring, split as shown at *g* in Fig. 5, it can be readily inserted in or removed from the groove, or be applied to or removed from the eccentric of the double-race ring.

By having the ring with two races, and an eccentric or an eccentric groove, as shown, between them, and using a supporter, as described, either race may be used upward, and therefore, should one become worn, so as to be more or less unserviceable, the other may be made available, and in this way much expense in rings be saved with reference to single-race rings. Furthermore, adjustment of the ring into concentricity with the spindle can readily be effected, whichever race may be upward.

I do not herein claim a ring provided with two races and otherwise constructed, as shown in either of the United States Patents Nos. 112,655 and 115,160. Nor do I herein claim the combination of a single-race spinning-ring and a holder or supporter, constructed as represented in my Patent No. 3,165 of reissues.

I claim as my invention as follows, viz:

1. A spinning-frame ring provided with the two races *a b*, and the intermediate groove *c* entirely encircling it, and arranged as described.

2. A spinning-frame ring provided with two races, *a b*, and an eccentric, *f*, arranged therewith as specified.

3. The combination of a split or sectional annulus or ring-holder, B, with a spinning-frame ring, A, provided with two races, and an intermediate groove, *c*, or eccentric *f*, or with both groove and eccentric, all being substantially as and to operate as specified.

JOSEPH W. WATTLES.

Witnesses:

R. H. EDDY,
J. R. SNOW.