

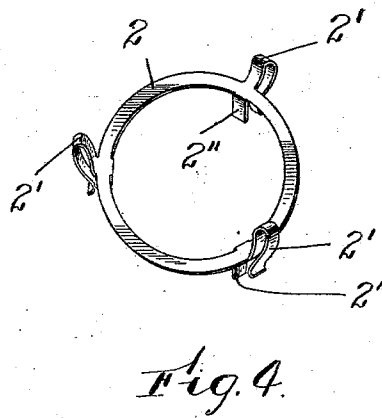
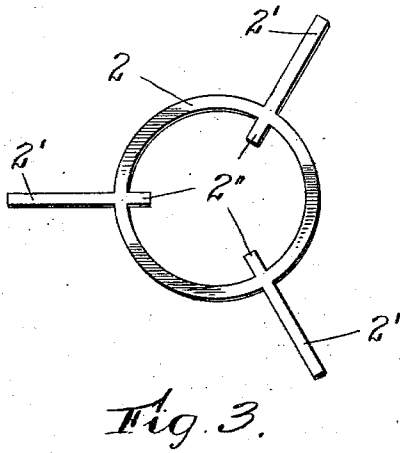
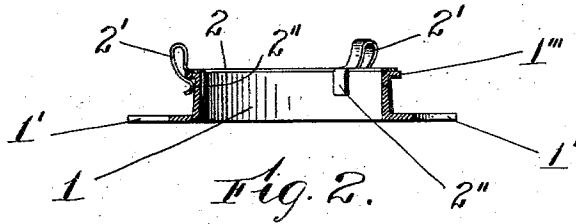
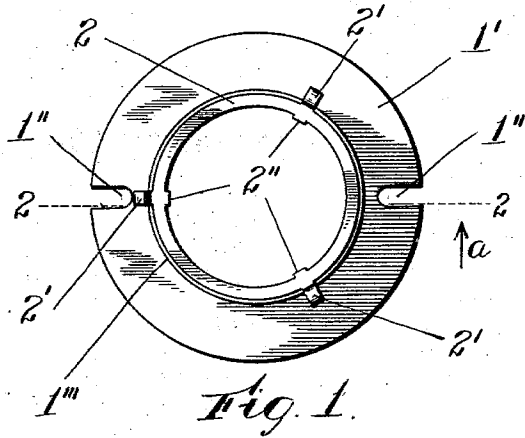
No. 757,748.

PATENTED APR. 19, 1904.

H. B. HOYLE.  
SPINNING RING.

APPLICATION FILED FEB. 20, 1904.

NO MODEL.



Witnesses:  
C. F. Mason,  
M. Haas.

Inventor:  
H. B. Hoyle.  
By his Attorney  
John C. Dewey.

# UNITED STATES PATENT OFFICE.

HARRISON B. HOYLE, OF WORCESTER, MASSACHUSETTS.

## SPINNING-RING.

SPECIFICATION forming part of Letters Patent No. 757,748, dated April 19, 1904.

Application filed February 20, 1904. Serial No. 194,479. (No model.)

*To all whom it may concern:*

Be it known that I, HARRISON B. HOYLE, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Spinning-Rings, of which the following is a specification.

My invention relates to spinning-rings, and more particularly to that class of spinning-rings in which a metal ring-traveler is used in connection with the ordinary spinning-ring.

The objects of my invention are to improve upon the construction of spinning-rings of the class referred to as ordinarily made and to increase the speed of the traveler-ring.

In my improvements I mount the metal ring-traveler upon the upper edge of the spinning-ring to rotate thereon and provide one or more external lips on the traveler to extend over the external flange on the upper edge of the spinning-ring and form an attachment for holding the traveler in position on the ring. I also preferably provide one or more internal projections on the traveler to extend over the inner surface of the spinning-ring at its upper edge and act as guides or bearing-points for the traveler, all as will be hereinafter fully described.

My invention consists in certain novel features of construction of my improvements, as will be hereinafter fully described.

Referring to the drawings, Figure 1 is a plan view of a spinning-ring and traveler embodying my improvements. Fig. 2 is a section on line 2 2, Fig. 1, looking in the direction of arrow *a*, same figure. Fig. 3 is a plan view of the blank traveler-ring before it is finished ready for use, and Fig. 4 is a perspective view of the traveler-ring shown in Fig. 3 after it is finished and ready for use.

In the accompanying drawings, 1 is the spinning-ring, in this instance made of metal in one piece with a flat flange 1' adapted to be secured to the rail of a spindle-frame (not shown) in the ordinary way by screws (not shown) extending through open-end slots 1'' in the opposite edges of the flange 1'.

The spinning-ring 1 has on its upper edge an external flange 1''' in the ordinary way.

The traveler-ring 2 is of metal and preferably of flat or sheet metal; but it may be round metal or wire. The size or diameter of the traveler-ring 2 is substantially the same as the size or diameter of the upper edge of the spinning-ring 1.

The traveler-ring 2 is preferably made or cut out in the form shown in Fig. 3, with one or more oppositely-extending attaching lips or arms 2' (in this instance three are shown) on its external edge and one or more corresponding internal lips or projections 2'' (in this instance three are shown) on its internal edge.

The external attaching-lips 2' are preferably bent into loop shape, as shown in Figs. 2 and 3, with their free ends bent inwardly and their extreme ends bent outwardly, so that they will extend under the external flange 1''' on the ring 1, as shown in Fig. 2, and act to hold the traveler 2 yieldingly on the upper edge of said ring and allow it to freely rotate thereon.

One of the loop-attaching arms or lips serves as a guide for the strand of yarn or thread.

The internal lips or projections 2'' on the traveler 2 are preferably used and are bent down at right angles to the plane of the traveler 2 to extend upon the inner side of the spinning-ring 1, at the upper edge thereof, and form bearing surfaces or guides for the traveler 2 upon the inside of the ring 1.

In my improved construction of a spinning-ring, with the traveler-ring constructed as shown and described and mounted and traveling on the upper edge of the spinning-ring, I am able to obtain a very steady movement of the traveler-ring and also very great speed.

It will be understood that the details of construction of my improvements may be varied, if desired. I prefer to use three attaching lips or arms 2' and three guide projections 2''; but one or more may be used, if preferred, and the projections 2'' may be dispensed with.

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

1. The combination with a spinning-ring having an external flange on its upper edge, of a traveler-ring mounted on the upper edge

of said ring, and having one or more attaching lips or arms which extend over and engage the external flange on said ring, substantially as shown and described.

5 2. The combination with a spinning-ring having an external flange on its upper edge, of a traveler-ring mounted on the upper edge of said ring, and having one or more attaching lips or arms which extend over and engage the  
10 external flange on said ring, and one or more lips or projections which extend within the upper edge of the ring, substantially as shown and described.

15 3. The combination with a spinning-ring having an external flange on its upper edge, of a traveler-ring mounted on the upper edge of said ring, and having one or more attaching lips or arms which extend over and engage the

external flange on said ring, and also extend above the plane of the traveler, substantially 20 as shown and described.

4. The combination with a spinning-ring having an external flange on its upper edge, of a traveler-ring mounted on the upper edge of said ring, and having one or more attaching  
25 lips or arms which extend over and engage the external flange on said ring, and also extend above the plane of the traveler, and one or more lips or projections which extend within the upper edge of the ring, substantially as  
30 shown and described.

HARRISON B. HOYLE.

Witnesses:

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