

No. 799,142.

PATENTED SEPT. 12, 1905.

W. T. CARROLL.
SPINNING OR TWISTING APPARATUS.
APPLICATION FILED OCT. 13, 1904.

Fig. 1.

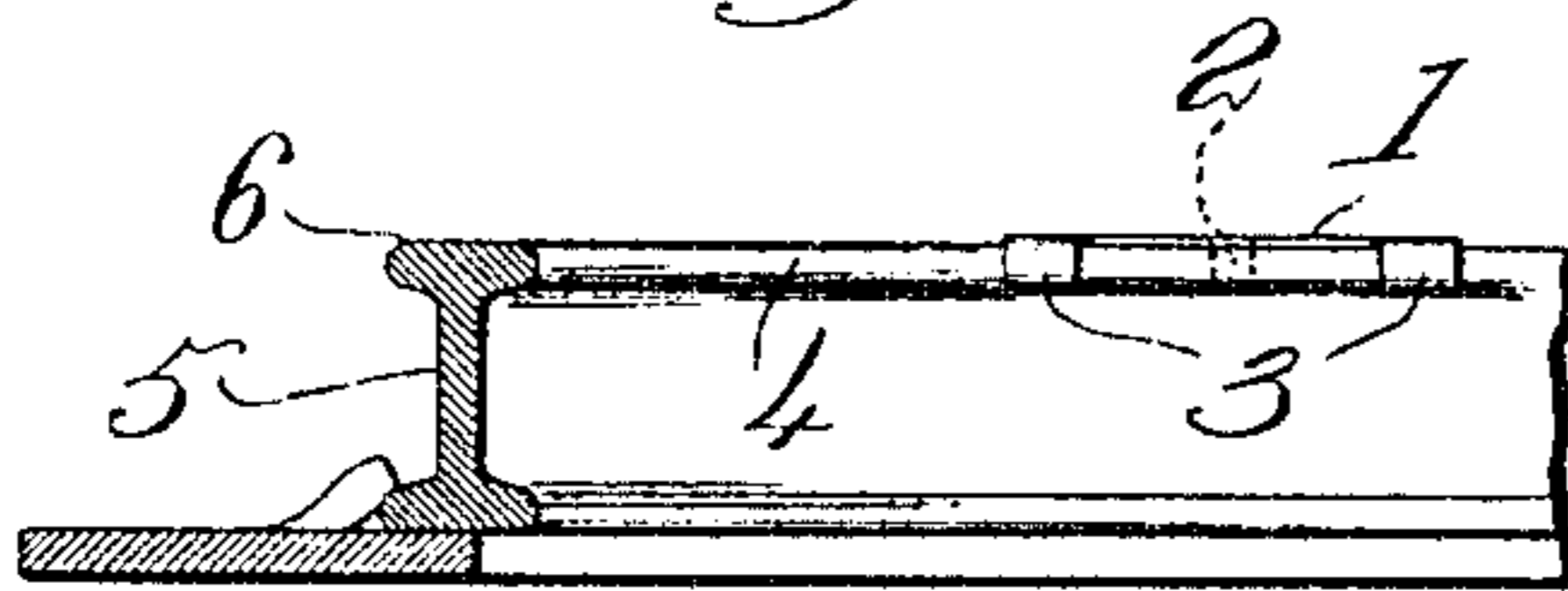


Fig. 2.

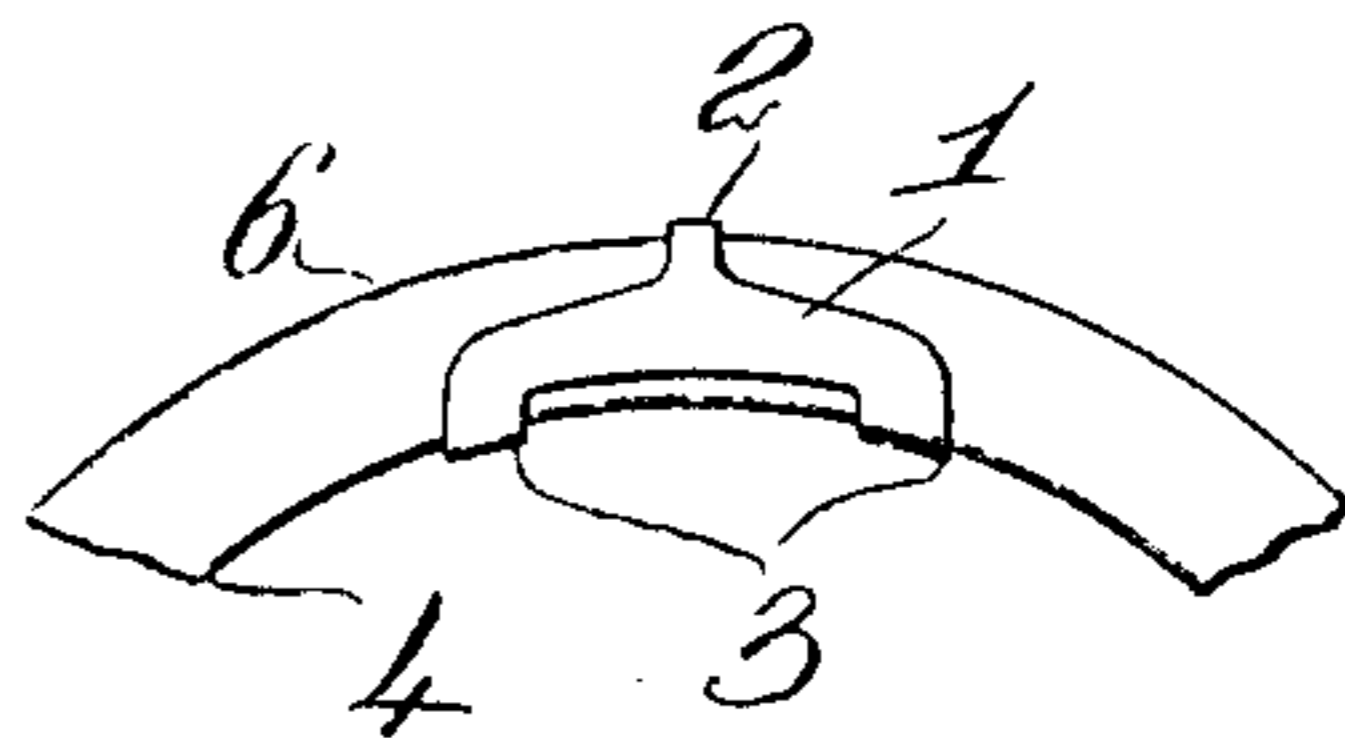


Fig. 3.

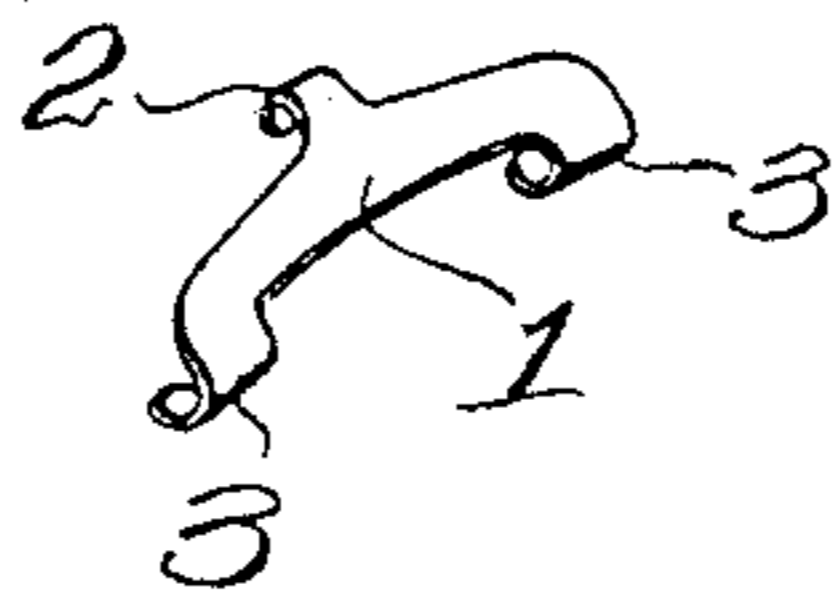


Fig. 4.

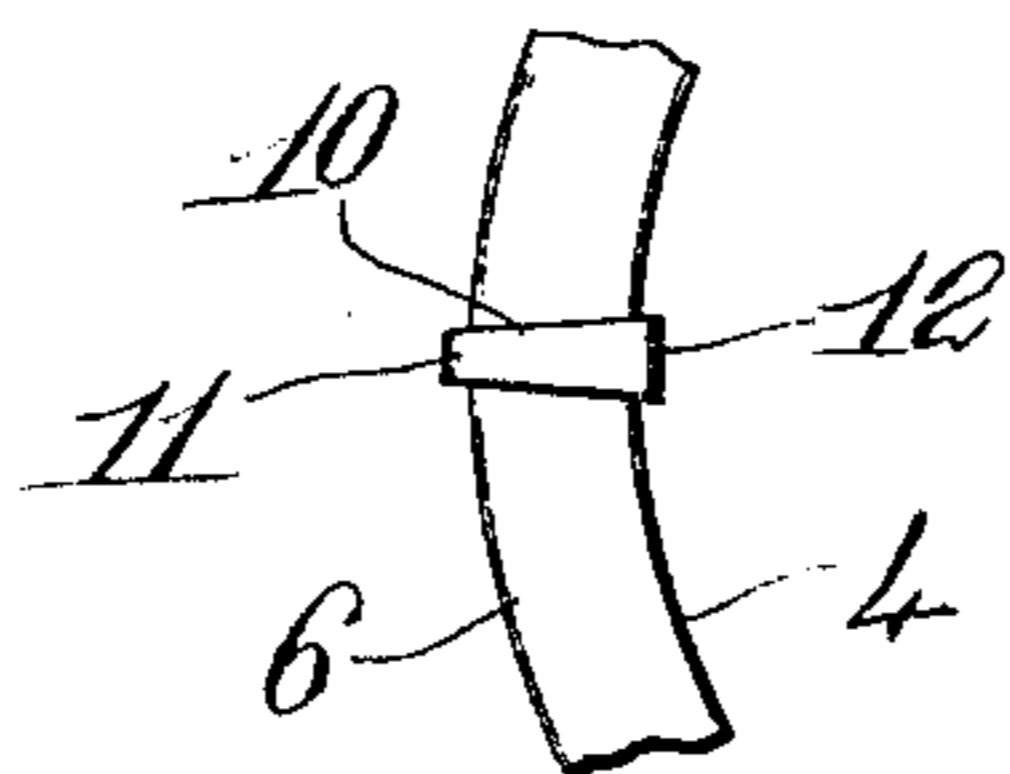


Fig. 5.



Witnesses.
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UNITED STATES PATENT OFFICE.

WILLIAM T. CARROLL, OF WORCESTER, MASSACHUSETTS, ASSIGNOR TO
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SPINNING OR TWISTING APPARATUS.

No. 799,142.

Specification of Letters Patent.

Patented Sept. 12, 1905.

Application filed October 13, 1904. Serial No. 228,263.

To all whom it may concern:

Be it known that I, WILLIAM T. CARROLL, a citizen of the United States, and a resident of Worcester, county of Worcester, State of Massachusetts, have invented an Improve-
ment in Spinning or Twisting Apparatus, of which the following description, in connection with the accompanying drawings, is a specification, like figures on the drawings representing like parts.

This invention relates to ring spinning or twisting apparatus wherein a traveler loosely cooperating with the flanged head of the ring is revolved thereupon by the pull of the yarn as it passes to the bobbin. In such apparatus the centrifugal action throws the traveler with great force against the inner edge or flange of the ring-head, so that the inner end of the traveler wears rapidly and soon causes destruction of the traveler, particularly if high spindle speed is attempted.

My present invention has for its object the production of a novel and improved form of traveler wherein the wear-resisting and bearing surface at the inner end of the traveler is materially increased, resulting in much longer life for the traveler.

My improved construction also serves to steady the traveler in action, and in actual practice I have found that a traveler embodying my invention may be made at least twice as heavy as the ordinary traveler without increasing the tension on the yarn.

The various novel features of my invention will be fully described in the subjoined specification and particularly pointed out in the claims.

Figure 1 is a transverse sectional detail of a spinning or twisting ring, showing thereon a traveler embodying my invention. Fig. 2 is a plan view of the traveler on the ring. Fig. 3 is an enlarged perspective view of the traveler shown in Figs. 1 and 2. Fig. 4 is a top or plan view of yet another form of my improved traveler on a ring, and Fig. 5 is an enlarged perspective view of such traveler.

Referring to Figs. 1, 2, and 3, the traveler is therein shown as made of thin sheet metal and comprises an elongated portion 1, having at its center a projecting portion 2, bent down or hooked and forming the outer end of the traveler. At its ends the part 1 is provided

with prolongations which are bent down and under, as at 3, and constituting enlarged wear-resisting and bearing portions. The latter are shown as symmetrically located with relation to the outer end 2, the weight of the traveler being so distributed by the construction described that the bearing-surface is increased at the inner end or part which cooperates with the inner edge or flange 4 of the ring 5, Figs. 1 and 2, the outer end 2 of the traveler cooperating with the outer edge or flange 6 of the ring. When in use, the traveler loosely embraces the head of the ring, as shown, the part 1, connecting the inner and outer ends of the traveler, moving over the top of the head. The centrifugal force throws the enlarged or broadened bearing portions 3 against the flange 4 of the ring, and by virtue of such increase in the bearing-surface the life of the traveler is very greatly increased. The construction described also serves to steady the traveler in its action, and the traveler may be made much heavier than usual without increasing the tension on the yarn.

The traveler shown in Figs. 4 and 5 is made of thin sheet metal and comprises a bowed part 10 to span the head of the ring, the said part increasing in width from its outer end, which is bent down and intumed at 11, to its inner end, where it is bent down and outward at 12, forming thereat a broad bearing and wear-resisting surface to cooperate with the inner edge of the head of the ring.

In the forms of traveler shown it will be seen that the same is shaped to loosely embrace the flanged head of the ring and that the inner end of the traveler is shaped to present an increased wear-resisting and bearing portion to cooperate with the inner edge or flange of the ring-head.

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

1. In spinning or twisting apparatus, a ring having a flanged head, combined with a traveler, bowed to loosely embrace the same and having at its inner end a broadened wear-resisting and bearing portion symmetrical with relation to the outer end and adapted to cooperate with the inner edge of the flanged head.

2. In spinning or twisting apparatus, a ring

having a flanged head, combined with a traveler loosely embracing the same and having at its inner end a plurality of bearing portions to coöperate with the inner edge of the head,
5 said bearing portions being symmetrically located with relation to the outer end of the traveler.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM T. CARROLL.

Witnesses:

MARY C. MADDEN,
FRANK B. HALL.