

H. HALVORSON.  
Traveler for Spinning-Rings.

No. 168,739.

Patented Oct. 11, 1875.

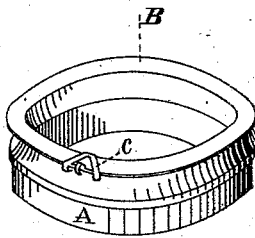


Fig. 1.

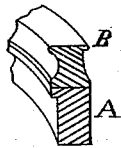


Fig. 3.

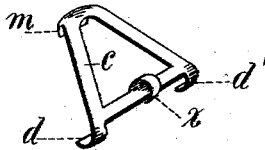


Fig. 2.

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# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN TRAVELERS FOR SPINNING-RINGS.

Specification forming part of Letters Patent No. 168,739, dated October 11, 1875; application filed February 10, 1875.

*To all whom it may concern:*

Be it known that I, HALVOR HALVORSON, of Cambridge, in the county of Middlesex, State of Massachusetts, have invented a certain new and useful Improvement in Travelers for Spinning-Rings, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which my invention appertains to make and use the same, reference being had to the accompanying drawing forming a part of this specification, in which—

Figure 1 is an isometrical perspective view, representing my improved traveler as applied to the ring; Fig. 2, an enlarged view of the same detached, and Fig. 3 a sectional view of the ring.

Like letters of reference indicate corresponding parts in the different figures of the drawing.

My invention relates to means for reducing friction and wear in the use of the traveler; and consists in a novel construction and arrangement of the parts, as hereinafter more fully set forth and claimed, by which better results are accomplished than are attainable with the travelers most usually employed.

It is well known that in the use of the ordinary traveler, as it passes around the ring, there is a tendency to "cramp," or to assume a diagonal position on the race, caused by the combined centrifugal force with which the traveler, as it revolves, seeks to fly off tangentially to the ring, and by the draft of the yarn, thereby greatly increasing the friction, necessitating the employment of more power to run the frame, and rapidly wearing out the inner flange of the race, as well as the traveler itself.

My improvement is designed to obviate these difficulties and objections; and to that end I construct the traveler triangular in form, the base of the triangle being arranged outwardly as the traveler is applied to the ring, and provided with hooks or lugs for confining it to the race, and with an eye or yarn-hook, as shown in the drawing, in which A is the ring; B, the race; C, the traveler; *d d'*, the outer hooks or lugs; *m*, the inner hook or lug, and *x* the yarn-

hook. The body of the traveler is cut out or perforated to render it as light as possible and maintain the requisite strength. The yarn-hook *x* is preferably located near the base or outer edge of the traveler, for the purpose of compensating for or overcoming the centrifugal force with which the traveler tends to fly from the ring, and to bring the bulk of resistance or wear upon the inner lug *m*. This compensation is effected by the tension or draft of the yarn, which is constantly exerted to draw the traveler inwardly or toward the center of the ring, when the yarn-hook is so disposed or located, thus acting to distribute the friction or wear upon all of the lugs equally.

It will be obvious that as the traveler passes around the ring it will be prevented from cramping or assuming a diagonal position on the race, not only by the action of the yarn, as described, but by its peculiar form, the hook *d* and parts contiguous tending to fly off by centrifugal force on one radial line from the center of the ring, while the hook *d'* and that portion of the traveler with which it is connected tend to be thrown off on another line, the two movements counteracting each other, and equalizing the pressure or friction of the hooks on the race.

It will also be obvious that the hook may be located in another position or disposed with altogether, the yarn being passed under the body of the traveler in the usual manner, without entirely departing from the spirit of my invention.

Having thus described my invention, what I claim is—

1. A spinning-ring traveler having a triangular body, and provided with the hooks or lugs *d d'* and *m*, substantially as and for the purpose specified.

2. In a spinning-ring traveler, constructed substantially as described, the yarn-hook *x*, arranged as shown and for the purpose specified.

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Witnesses:

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