

H. T. POTTER.  
RING TRAVELER FOR SPINNING.

No. 66,104.

Patented June 25, 1867.

Fig. 1

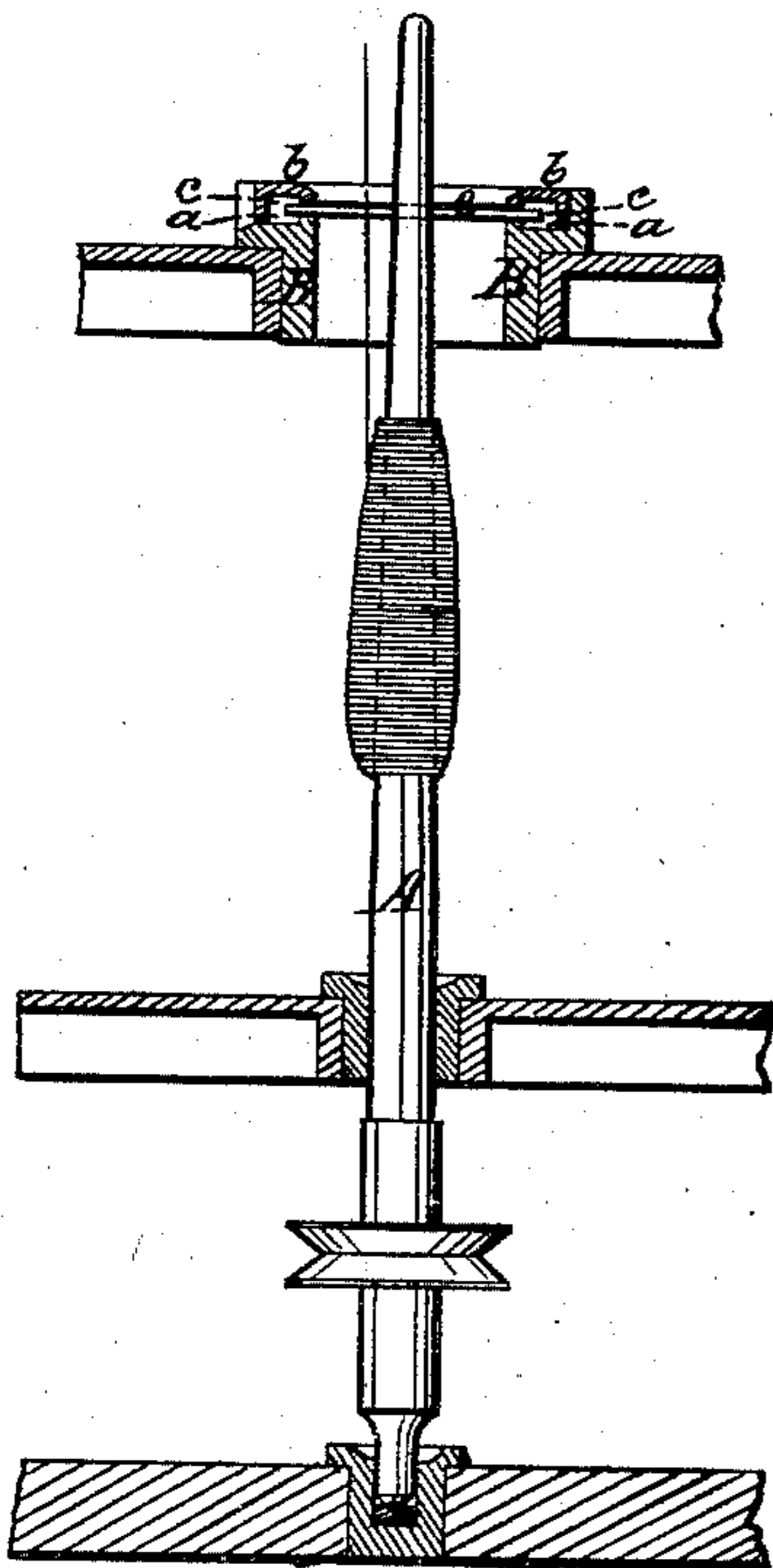


Fig. 2.

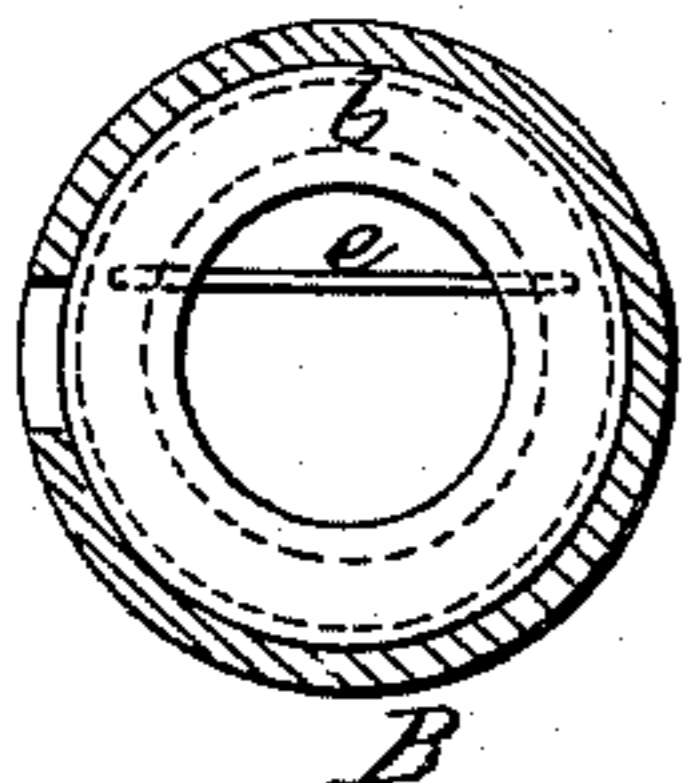


Fig. 3.

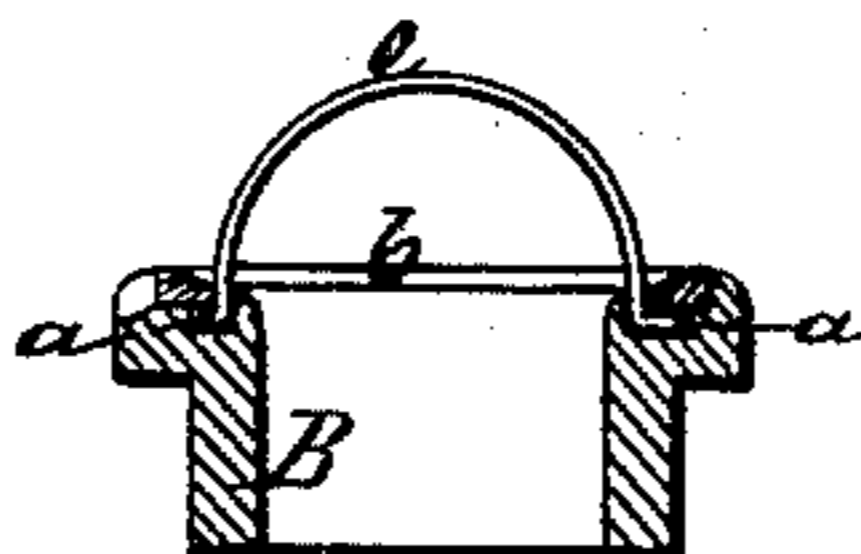
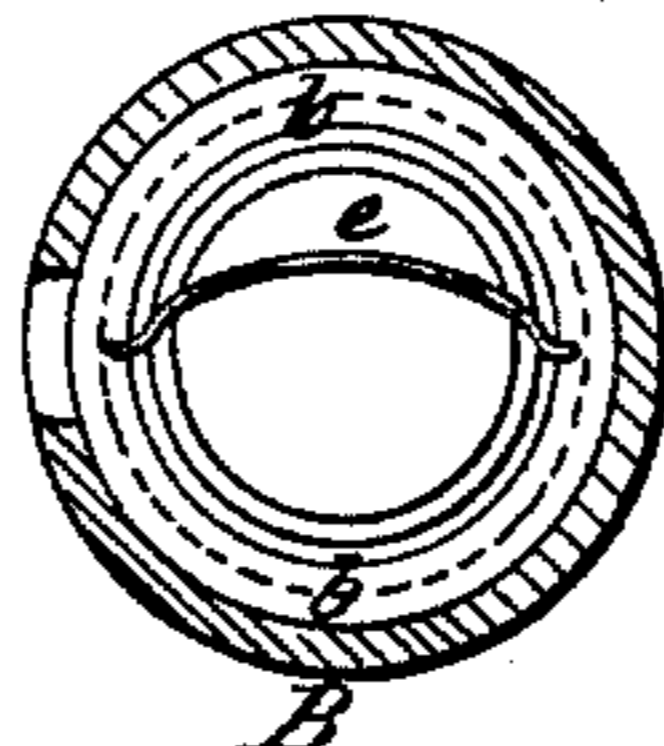


Fig. 4.



Witnesses.

McComby.  
Geo. Reed.

Inventor.

H. T. Potter  
per Brown Combs & Co

# United States Patent Office.

HENRY T. POTTER, OF NORWICHTOWN, CONNECTICUT.

*Letters Patent No. 66,104, dated June 25, 1867.*

## IMPROVEMENT IN RING-TRAVELLERS FOR SPINNING.

The Schedule referred to in these Letters Patent and making part of the same.

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, HENRY T. POTTER, of Norwichtown, in the county of New London, and State of Connecticut, have invented certain new and useful Improvements in Ring-Travellers for Spinning Machinery; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a portion of this specification, in which—

Figure 1 is a central vertical section of a ring-frame furnished with a traveller, constructed according to my invention.

Figure 2 is a plan view of the ring and traveller of the same.

Figure 3 is a central vertical section, showing a modified form of my invention.

Figure 4 is a plan view of the same.

Similar letters of reference indicate corresponding parts in all the figures.

Much difficulty has been experienced with the ring-travellers hitherto devised, from the unequal tension exerted upon the yarn in passing to the spindle, the said inequalities in the tension not only rendering the yarn extremely liable to be broken in starting the spindle, but also causing material variations in the size thereof. This invention is designed to remedy these objections, and it consists in a transverse bar so combined with the ring and spindle of the ring-frame as to rotate freely within the said ring, and in contact with the spindle or the yarn thereon; whereby the yarn is caused to pass to the spindle at a uniform angle, and consequently be kept at a uniform tension, thus effectually securing the desired result. The invention further consists in a novel arrangement of parts, whereby the aforesaid transverse bar is securely retained in place at the same time that its free movement around the spindle is provided for.

To enable others to understand the construction and operation of my invention, I will proceed to describe it with reference to the drawings.

The rotating spindle A may be of any ordinary or suitable form and construction, and extends through the ring in the usual manner. The said ring, shown at B, is formed at its upper side with an internal rebate, *a*, in which is fitted an annular plate, *b*, which is hollowed out, at its inner and under side, in such manner that an annular groove, *c*, is provided in the interior of the ring thus formed, the said groove receiving, at nearly opposite points, the two ends of a transverse bar, *e*, which extends across the central opening of the ring B, and is designed to be kept in contact with the spindle A, or the yarn wound thereon, as hereafter presently set forth.

The yarn passing over the bar *e* to the spindle, as shown in red outline in fig. 1, is twisted and wound upon the said spindle, the yarn as it passes thereto holding the bar against the same, or against the yarn wound thereon; and inasmuch as the bar *e*, as it is carried around with the spindle by the rotation of the same, is always kept in a position tangential to the circumference of the said spindle, it follows that the yarn, in passing to the spindle over the aforesaid bar *e*, will be always kept at the same angle to such circumference, and drawing, as a consequence, with a uniform degree of force upon the bar *e*, is subjected to a uniform tension, the tension being, of course, proportional to the weight of the bar *e* and the friction of the ends thereof in the annular groove *c*, in which they traverse, as the bar is carried around by the rotation of the spindle, as hereinbefore explained. Not only is a more uniform tension upon the thread secured by this means, but inasmuch as the dragging action which produces such tension is exerted upon the thread at a point much nearer the spindle than is the case with the ordinary ring-traveller, it follows that this tendency of the tension to draw the fibres apart, when the said point is at a greater distance from the spindle than the length of the fibres, is effectually counteracted. In the modification represented in figs. 3 and 4, the bar *e*, instead of being made straight, as shown in figs. 1 and 2, is made semicircular or arc-shaped, with its extremities placed in a groove, formed in the ring B, in a manner substantially the same as when the straight bar is employed, the operation of the semicircular bar being substantially the same as that of the said straight one.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The transverse bar *e*, in combination with the ring and spindle, substantially as and for the purpose specified.
2. The annular plate *b*, arranged in relation with the transverse bar *e*, the ring, and the spindle, substantially as and for the purpose specified.

HENRY T. POTTER.

Witnesses:

EDWARD DE WOLF,  
WEBSTER PARK.