T. COULTHARD.

Spinning-Ring Holder and Clearer.

No. 218,236. **Patented Aug. 5, 1879.**

Fig. 1.

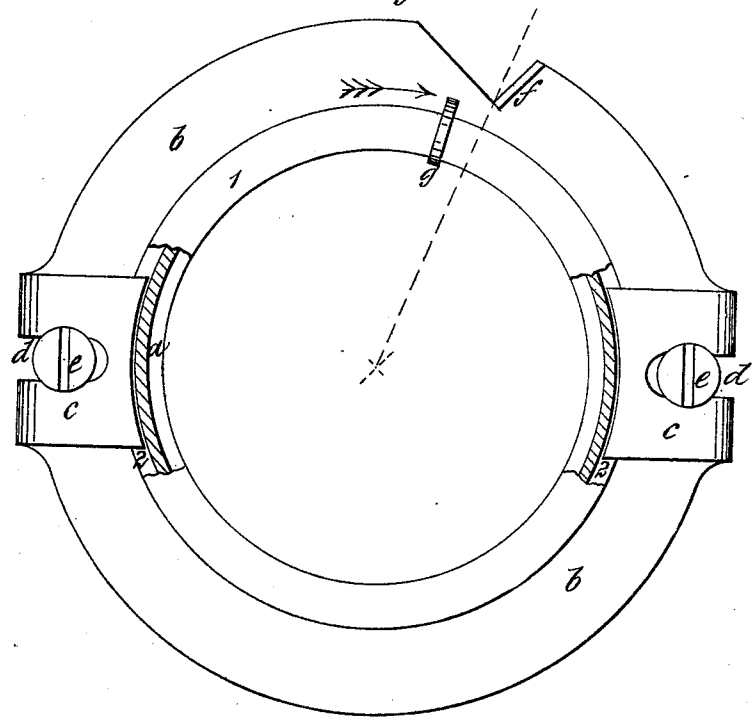


Fig. 2.

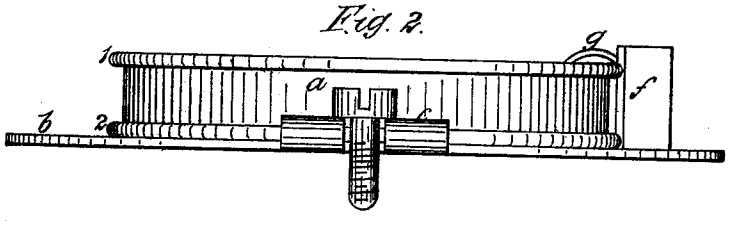
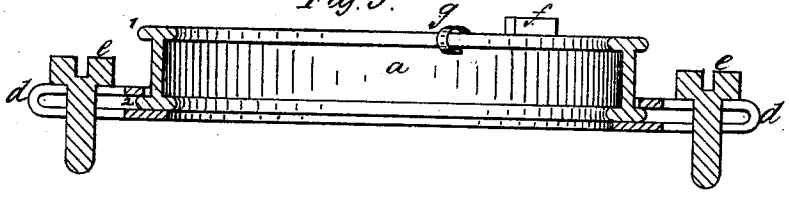


Fig. 3.



Witnesses:
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UNITED STATES PATENT OFFICE.

THOMAS COULTHARD, OF PRESTON, COUNTY OF LANCASTER, GREAT BRITAIN.

IMPROVEMENT IN SPINNING-RING HOLDERS AND CLEARERS.

Specification forming part of Letters Patent No. **218,236**, dated August 5, 1879; application filed May 28, 1878; patented in Great Britain, April 20, 1878.

To all whom it may concern:

Be it known that I, THOMAS COULTHARD, of Preston, in the county of Lancaster, Kingdom of Great Britain and Ireland, machinist, have invented certain Improvements relating to Ring Holders and Clearers for Ring-Spinning or Doubling Machines, of which the following is a specification.

This invention consists in a ring-holder of sheet-metal, with wings or lips folded upon themselves, and slotted to receive confining-screws, in combination with a ring having a flange embraced between the body and the folded wings or lips; and, also, in a ring-holder with bent slotted wings or lips, and a clearer made in one piece with the holder, in combination with a flanged ring and its traveler, as hereinafter set forth.

Of the accompanying drawings, Figure 1 is a plan; Fig. 2, an end view; and Fig. 3, a sectional elevation, showing the construction of this combined ring-holder and clearer.

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

a is a double ring—that is to say, a ring having two flanges or races, 1 and 2. *b* is the holder, provided with lips or wings *c*, resting upon the lower flange, 2, of the double ring *a*. The lips or wings *c* are slotted at *d*, and holding-down screws *e* secure the holder and ring to the ring-rail by the same operation. The openings *d* are of such a width and length, relatively, to the size of the screws *e* as to permit of the holder and ring being adjusted to a position concentric with the spindle.

f is a lip constituting the clearer. It is formed by cutting the outer portion of the sheet-metal holder, and bending it upward to a vertical position. The inner edge of the lip or clearer *f* is at such a distance from the ring *a* as to permit of the traveler *g* passing clear of the lip, but near enough thereto to catch and thereby remove loose fibers which the traveler may have caught up.

The upper edge of the lip *f* may be in a line, or at any desirable angle, with a radial line passing from the center of the ring. I prefer the angle represented—about twenty degrees. I find this sufficient to induce the desired tendency of the clearer to seize and convey away the fiber by its obliquity, and the current of air induced.

By combining the clearer with the adjustable ring-holder, it will be evident that the space or distance between the clearer and the ring will remain unchanged, although the position of the latter may be altered for the purpose of adjustment or removal.

It will be understood that I can employ any ordinary or suitable construction of ring-rail. All the parts not represented may be of the ordinary character.

Although I have shown and described my two improvements as being used in combination, it will be evident that ring-holders, as described, may be made without the clearer, and that my improved clearer may be combined with forms of sheet-metal ring-holders differing from that I have shown and described The device could obviously be employed in doubling.

I claim as my invention—

1. A ring-holder of sheet metal having wings or lips slotted and folded upon themselves, and adapted to be used with confining-screws inserted in the slots, in combination with a ring having a flange embraced between the body and the folded wings, substantially as herein specified.

2. The ring-holder *b*, having the bent slotted wings or lips *c* and clearer *f*, made in one piece with the holder, in combination with the ring *a*, having the flanges 1 2 and the traveler *g*, as herein specified.

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