

(No Model.)

C. McCARTY.
SPINNING RING COUPLER.

No. 459,255.

Patented Sept. 8, 1891.

Fig: 1.

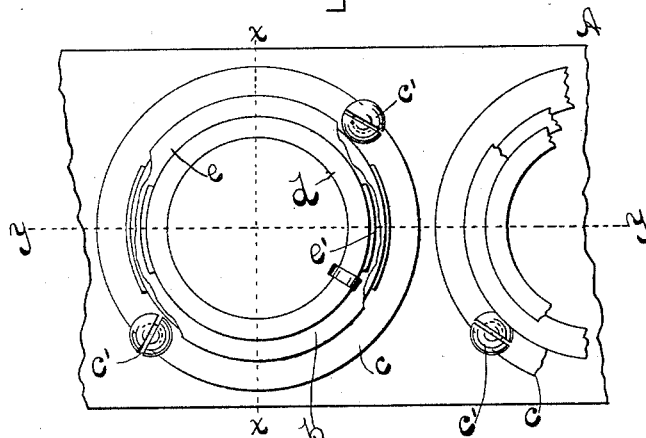


Fig: 2.

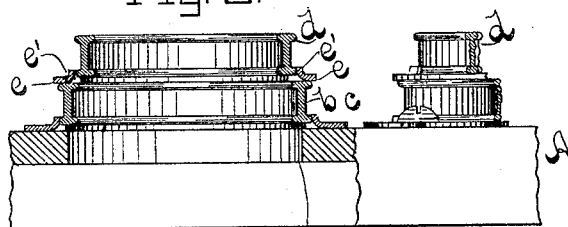


Fig: 3.

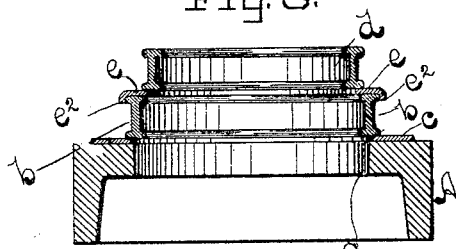


Fig: 4.

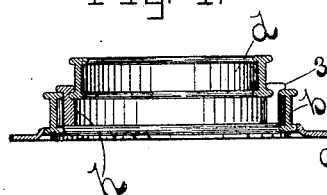
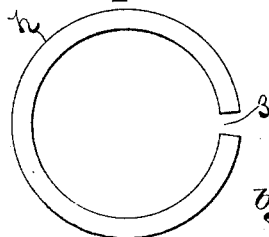


Fig: 5.



Witnesses:
Fred. S. Greenleaf.
Edward F. Allen.

Inventor.
Charles McCarty
by *Henry & Gregory* Attys.

UNITED STATES PATENT OFFICE.

CHARLES McCARTY, OF FALL RIVER, ASSIGNOR TO GEORGE DRAPER & SONS,
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SPINNING-RING COUPLER.

SPECIFICATION forming part of Letters Patent No. 459,255, dated September 8, 1891.

Application filed May 21, 1891. Serial No. 393,603. (No model.)

To all whom it may concern:

Be it known that I, CHARLES McCARTY, of Fall River, county of Bristol, State of Massachusetts, have invented an Improvement in Spinning-Ring Couplers, of which the following description, in connection with the accompanying drawings, is a specification, like letters and figures on the drawings representing like parts.

When changing a spinning-frame from warp to weft yarn, it is necessary to employ smaller rings. When this change is to be effected, it is customary to take the rings and their holders from the rail and substitute a new set of rings of smaller diameter, they being held in holders adapted to fit the rail. These new rings have to be adjusted to the spindles, the whole process consuming much labor and keeping the frame unproductive. To avoid this waste of time in taking off rings and applying and adjusting others is the object of this invention; and to enable the frame to be changed from warp to filling winding quickly I have devised a coupling adapted to embrace or engage and hold the lower race of the ring to be applied and also to be engaged and be supported by the upper end or race of the ring then connected with the rail, the ring so added being superimposed upon the former ring, the superimposed ring being of smaller diameter.

Figure 1, in top view, shows part of a ring-rail with my invention added. Fig. 2 shows the rings at the left in Fig. 1 in section in the dotted line *y*, the rings at the right being in elevation. Fig. 3 is a section in the line *x*, Fig. 1. Fig. 4 is a section of a modified form of coupling shown as holding two rings, and Fig. 5 shows the coupling in plan view detached.

The rail *A* has a series of holes *a*, adapted for rings *b*, which are retained in place by holders *c*, secured to the rail by screws *c'*, all as usual. Now let it be supposed that the rings *b* are being used and the frame operated to wind bobbins for warp and that it is desired to alter the frame to wind filling. To do this, instead of taking off the rings *b* by detaching their holders from the rail I

take a series of smaller rings *d* and by means of a coupling secure the said rings to the rings *b*.

The coupling represented in Figs. 1, 2, and 3 is composed of a sheet-metal ring *e*, having portions of its inner edge struck up to form lips *e'* (see Fig. 2) and portions of its outer edge to form lips *e''*. (See Figs. 1 and 3.) A coupling of this kind may be made to embrace or hold part of the lower race of the ring *d* by the lips *e'*, while the lips *e''* embrace the upper end of the flange or race of the ring *b*.

In the modification, Fig. 4, instead of employing a sheet-metal coupling having its opposite side edges overturned to form lips I employ a coupling *h*, made as a ring split at one side, the said coupling having two like lips 3 at one end, one of which overlaps one flange of the lower race of the ring *d* and the other the inner flange of the ring *b*, which is supposed to be fast upon the rail. This ring-like coupling is shown separately in Fig. 5 and is adapted to be crowded down within the ring *b*.

It is not intended to limit this invention to the exact construction shown for the ring-coupling, as prior to my invention I am not aware that any provision has ever been made to enable a ring of one diameter to be operatively supported upon a ring of another diameter to thus enable a spinning-frame to be changed to wind at times warp and at other times weft bobbins.

I claim—

1. A coupling for spinning-rings of different diameter, consisting of a ring having inwardly-turned lips upon portions of its inner edge and oppositely-turned lips upon portions of its outer edge adapted to engage flanges of two superimposed rings, respectively, and unite them operatively, substantially as described.

2. The rings *d* and *b*, combined with a ring-coupling having lips to engage the upper flange of ring *b* and the lower flange of ring *d* to thus unite the said rings, as and for the purpose set forth.

3. A ring-rail, a spinning-ring of one diameter connected thereto, and a superimposed ring of a different diameter, combined with a coupling to unite one of said rings to the other
5 of said rings, to operate substantially as described.

In testimony whereof I have signed my

name to this specification in the presence of two subscribing witnesses.

CHARLES McCARTY.

Witnesses:

GEORGE E. BAMFORD,
FRANK B. CAMPBELL.