

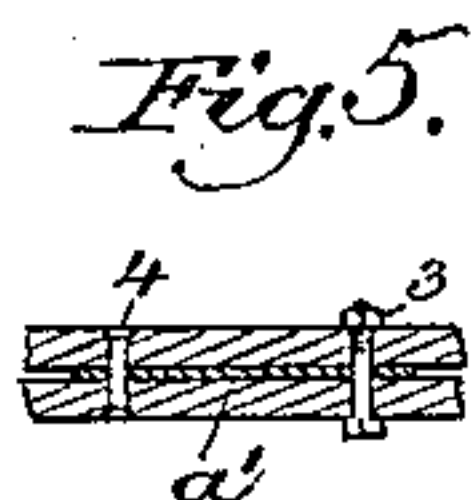
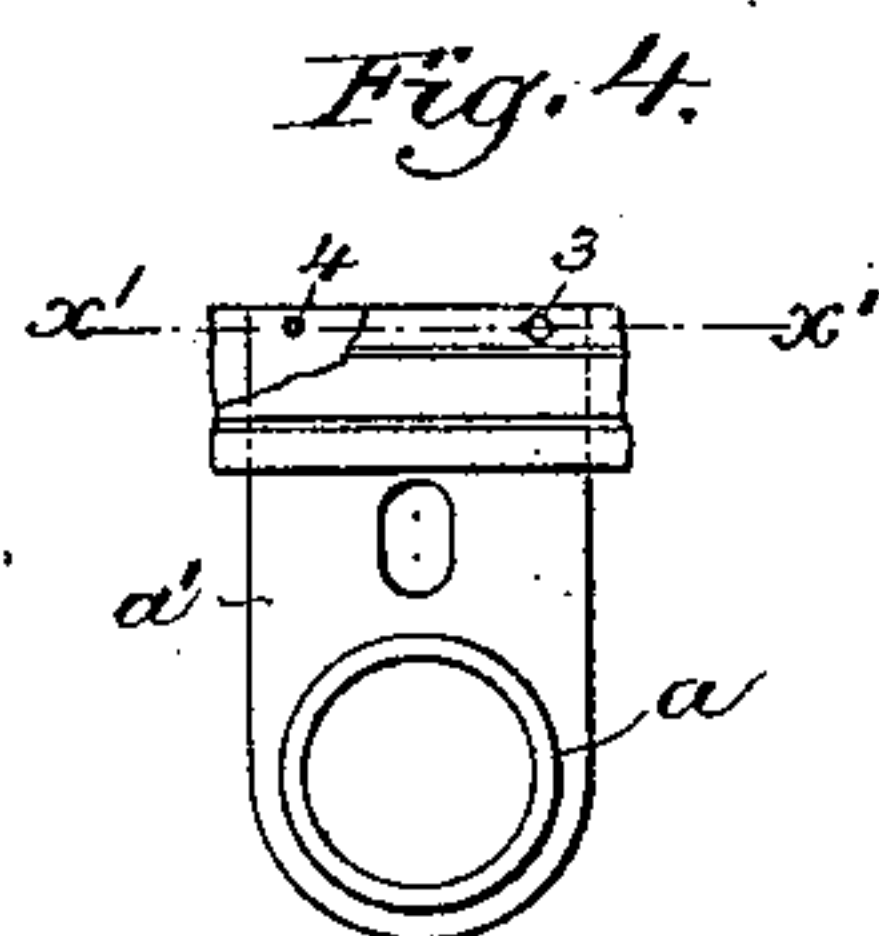
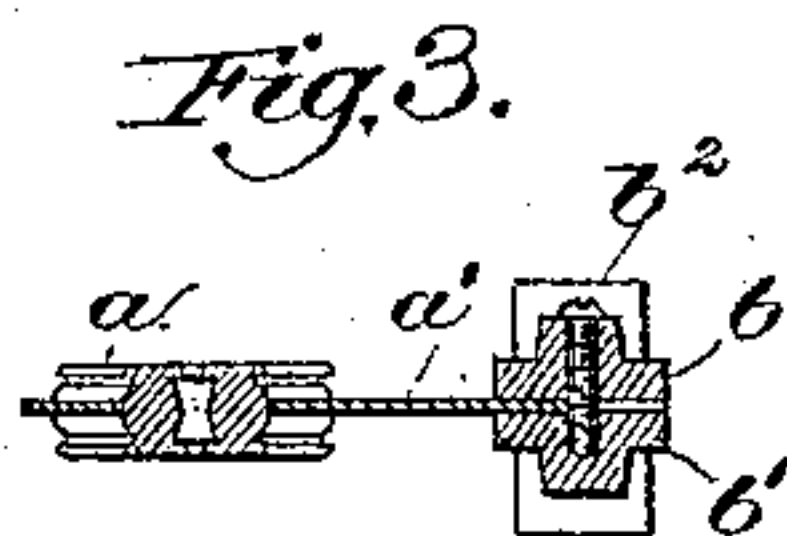
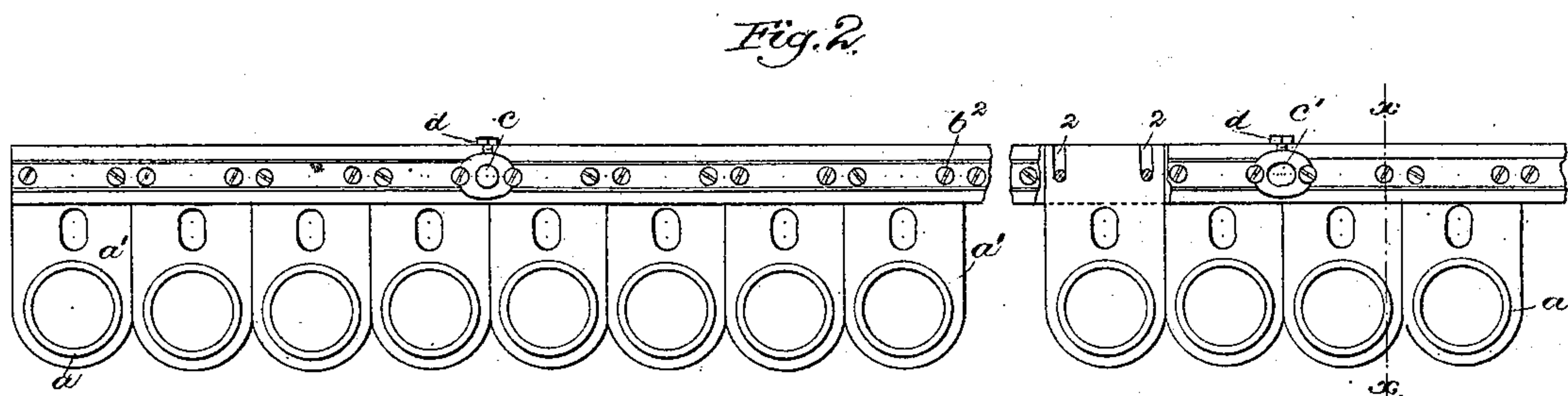
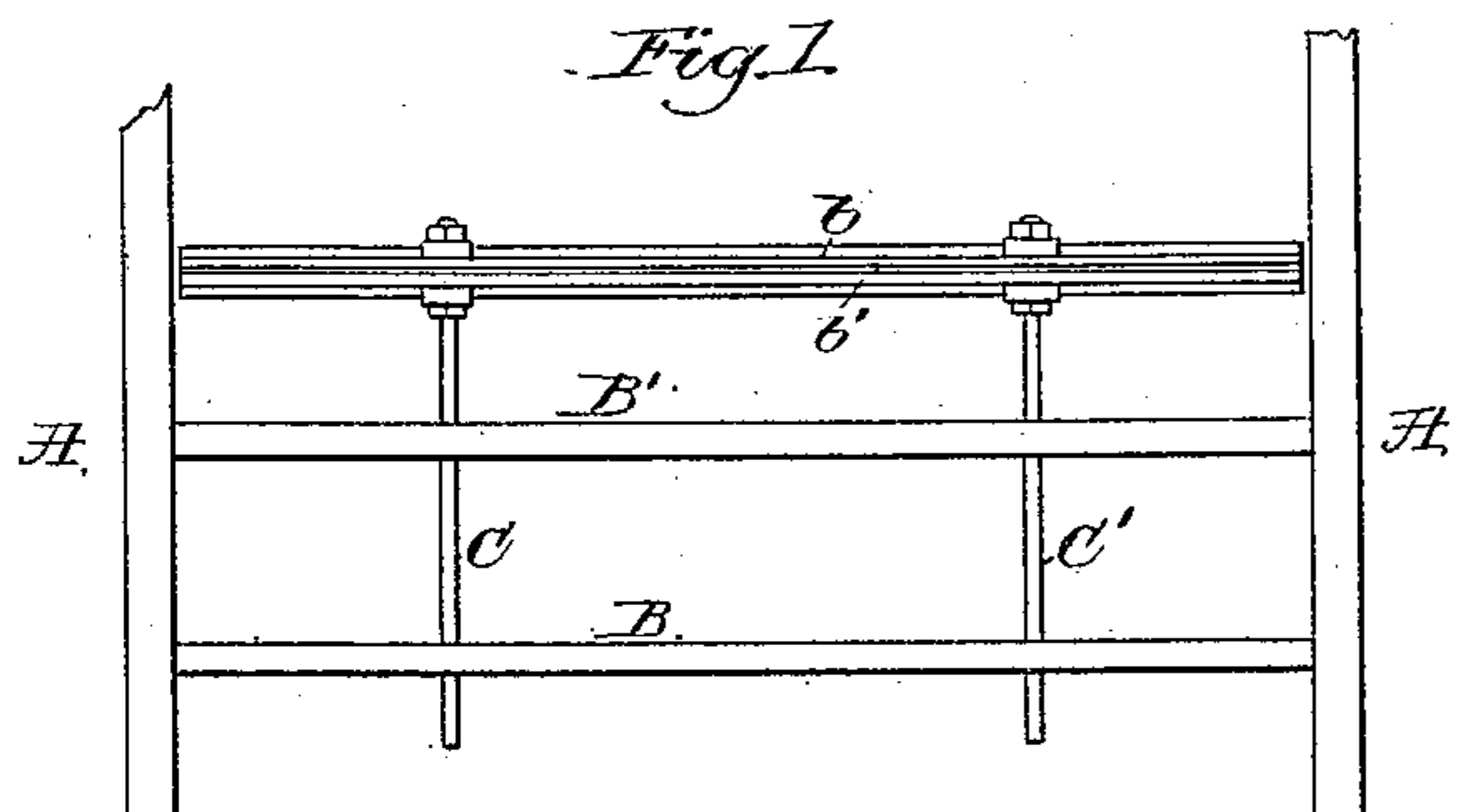
(No Model.)

A. F. JENKS.

RING RAIL FOR SPINNING MACHINES, &c.

No. 355,823.

Patented Jan. 11, 1887.



Witnesses.
John F. C. Printz
Fred L. Emery

Inventor.
Alvin E. Jenks
by Crosby & Gregory Attys.

UNITED STATES PATENT OFFICE.

ALVIN F. JENKS, OF PAWTUCKET, RHODE ISLAND, ASSIGNOR TO GEO. DRAPER & SONS, OF HOPEDALE, MASSACHUSETTS, AND THE FALES & JENKS MACHINE COMPANY, OF PAWTUCKET, RHODE ISLAND.

RING-RAIL FOR SPINNING-MACHINES, &c.

SPECIFICATION forming part of Letters Patent No. 355,823, dated January 11, 1887.

Application filed September 14, 1886. Serial No. 213,516. (No model.)

To all whom it may concern:

Be it known that I, ALVIN F. JENKS, of Pawtucket, county of Providence, and State of Rhode Island, have invented an Improvement in Ring-Rails for Spinning and Twisting Machines, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

10 This invention has for its object to improve, and at the same time simplify and cheapen, the construction of ring-rails for use in spinning and twisting frames, my improved rail, with its attached rings, being lighter in weight
15 than usual cast-metal flanged rails now commonly made.

Heretofore in the manufacture of spinning-machines great difficulty has been experienced in correctly mounting the ring-rail upon the
20 lifting-rods, such difficulty arising from the lack of true parallelism of the holes bored through the rail for the reception of the lifting-rods, or from the lifting-rods being out of true parallelism, owing to fault in their guides.

25 In practice the ring-rail must be moved uniformly at each end, and must be restrained from the possibility of either longitudinal or lateral movement when in operation, and the lifting-rods must be free to be moved without
30 binding or cramping in their guides.

In accordance with my invention the ring-rail, with rings attached, may be quickly applied to the usual lifting-rods without rereaming the holes, and the rods may be moved
35 freely.

My improved rail is composed of two narrow metallic bars secured together, one above the other, by means of screws or bolts and nuts in such manner as to leave between the said
40 rails a space in which to insert the ring-holding plates, the latter being clamped between the said bars and extended laterally therefrom, the said plates near their other ends being supplied with rings. The rings are clamped in
45 the said rail before it is applied to the frame, and to enable the rail, with its attached rings, to be applied to the machine with the rings in correct position with relation to the spindles, and at the same time enable the ring-rail to
50 be readily combined with or to be attached to

the usual lifting-rods, so that the latter may be moved freely and without any liability of being cramped or bound in their guides, I have provided my improved ring-rail with one round hole, which will be fitted snugly by
55 one of the lifting-rods, and with a second hole, oblong in shape and of enough greater area in cross-section than the lifting-rod as to enable the said lifting-rod to enter it loosely, such
60 construction enabling the ring-rail to be readily applied to any lifting-rods without re boring the rail or enlarging or rereaming the holes therein.

Providing the ring-rail with one round hole which is a fit for one of the lifting-rods, all liability of longitudinal movement of the rail is
65 obviated, while the oblong or larger hole near the opposite end of the rail passes readily down over the other co-operating lifting-rod.

If both of the holes in the rail were a fit to
70 the lifting-rods, the rail could not be so quickly applied.

Figure 1, in front elevation, shows part of a spinning-frame, its lifting-rods, and a ring-rail applied thereto. Fig. 2, in plan view, broken
75 out to shorten the figure, shows a ring-rail and attached holders and rings embodying my invention; Fig. 3, a section in the line *x* of Fig. 2; Fig. 4, a modification showing one ring and holder and part of a ring-rail, part of the rail
80 above the holder being broken out; and Fig. 5 is a section of Fig. 4 in the dotted line *x*.

The frame *A*, rails *B B'*, and lifting-rods *C C'*, having usual bearings, are and may be all as in United States Patent No. 222,330, or of
85 usual construction common to ring-spinning frames.

The rings *a*, herein shown as double rings, but which may be of any usual shape, are forced into or otherwise suitably held in hold-
90 ers *a'*, composed preferably of sheet-steel, slotted as at 2 2.

The rail is composed of two narrow metal bars, *b b'*, preferably of T shape in cross section (see Fig. 3) for sake of lightness, the
95 said bars being firmly clamped together to secure the holders between them by screws *b²*, preferably two screws for each holder, the said screws also passing through the slots 2 2 in the said holders. (See Fig. 2.) Instead of 100

these screws I may use bolts, as 3, or I may employ rivets, as 4, in Figs. 4 and 5, they entering holes in the holder.

Each rail has a round hole, *c*, near one end, 5 which is of a diameter to exactly fit the lifting-rod C, to which it is to be secured; but near its other end the said rail is provided with an oblong hole, *c'*, which is enough larger than the lifting-rod to fit over the other lifting-rod, C', 10 without touching it except at its front and rear sides, as shown in Fig. 2, in which condition the rail may be connected to the said lifting-rods by set-screws *d d*.

The oblong hole *c'* obviates any reaming or 15 re boring of the rail, or adjustment of the usual bearings for the lifting-rods C C'.

A ring-rail such as described, and provided with holes, as stated, may be readily applied to the lifting-rods of any spinning-frame of 20 substantially like capacity.

I do not claim a rail having two round holes or holes of the same area in cross section as the lifting-rods.

My improved rail may be sold with its rings and ring-holders attached, thus avoiding the 25 trouble in the mill of setting and adjusting the rings separately after applying the rail to the machine.

I claim—

A ring-rail composed of two bars, one above 30 the other, and provided with one hole, *c*, to fit one lifting-rod, and with another hole, *c'*, of greater area in cross-section than the lifting-rod to enter it, combined with a series of plate-like ring-holders extended from one side of 35 the said ring-rail, and with rings held by the said holders, substantially as described.

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

ALVIN F. JENKS.

Witnesses:

WM. H. C. SMITH,
ALONZO E. PIERCE.