

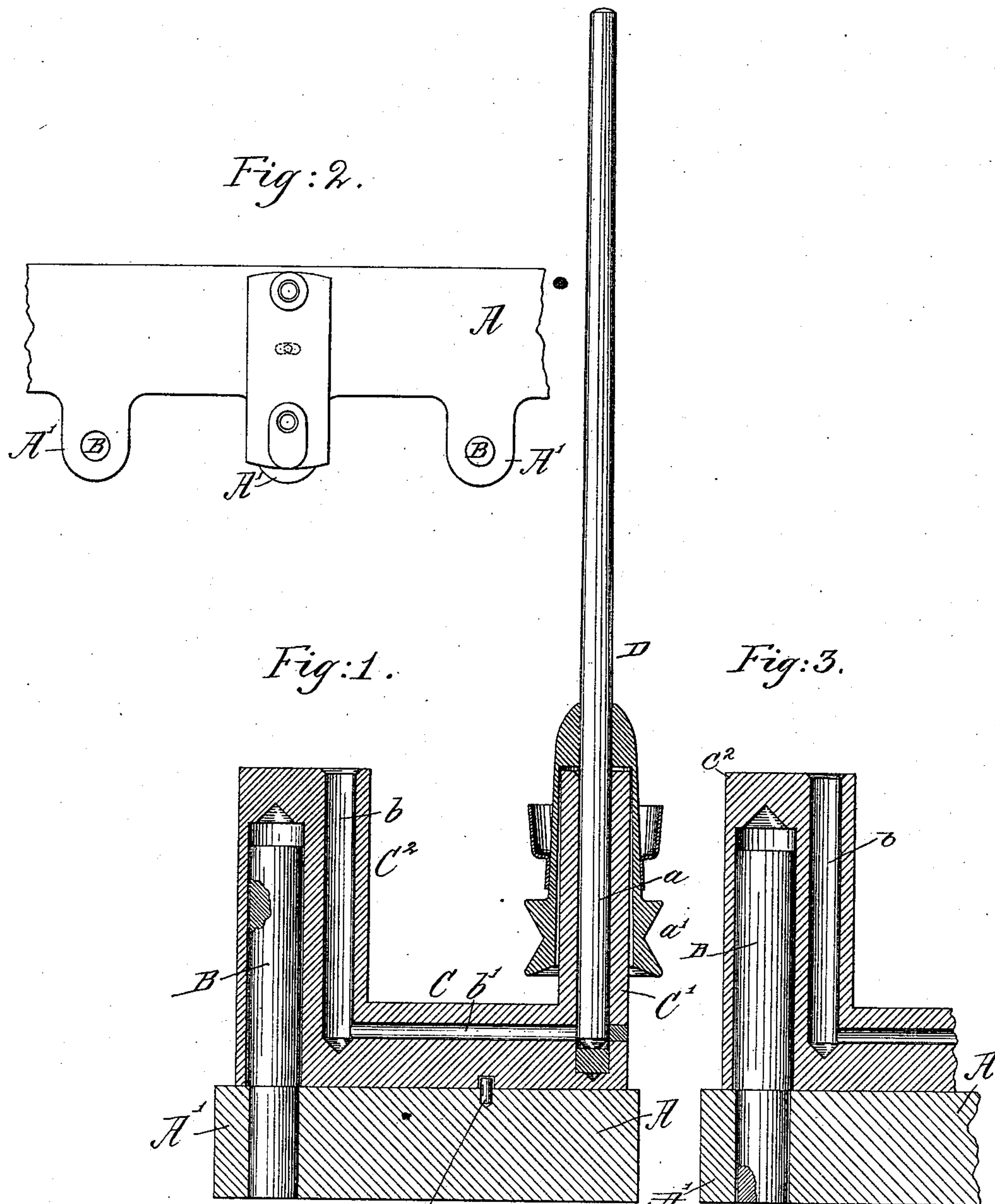
(No Model.)

W. T. CARROLL.

SPINDLE SUPPORT FOR SPINNING FRAMES.

No. 352,733.

Patented Nov. 16, 1886.



Witnesses.

Arthur Zipperlen.

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UNITED STATES PATENT OFFICE.

WILLIAM T. CARROLL, OF WORCESTER, ASSIGNOR TO GEORGE DRAPER & SONS, OF HOPEDALE, MASSACHUSETTS.

SPINDLE-SUPPORT FOR SPINNING-FRAMES.

SPECIFICATION forming part of Letters Patent No. 352,733, dated November 16, 1886.

Application filed May 28, 1886. Serial No. 203,519. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM T. CARROLL, of Worcester, county of Worcester, and State of Massachusetts, have invented an Improvement in Spindle-Supports for Spinning-Frames, 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 simplify and cheapen the construction of spinning-machines.

In spinning-frames as now commonly made the bolster or step rails are provided at suitable intervals apart with holes to receive the lower ends of the bolster-cases, in which are placed the usual bolsters; the said cases being usually provided with screw-threads to receive a nut at the lower side of the rail, the bolster-case having a shoulder to rest upon the surface of the said rail. In some instances the reduced lower end of the bolster or step case has been acted upon by set-screws. To obviate the employment of nuts and screws, and of a loose bolster in a bolster-case, I have directly combined with the bolster or step rail, at suitable intervals apart, vertical pins or studs which serve as the pivots for the spindle-supports, the latter serving both as bolsters and steps, the spindle-supports, as herein shown, being made as blocks, each block having an upright tube or sleeve to receive the pintle of the spindle, each block being pivoted loosely with relation to the step-rail at one side of the upright tube or sleeve in which the pintle of the spindle is made to enter and rotate, the upright tube constituting the entire lateral bearing for the pintle of the spindle.

40 Figure 1 represents a spindle-support or bolster-bearing and step-rail embodying my invention, the sleeve-whirl, spindle-support, and rail being in section. Fig. 2 is a plan or top view, on a smaller scale, of a part of a bolster or step rail with one of my improved spindle-supports set loosely on the said rail, and Fig. 3 is a modification to be referred to.

45 The step-rail A is herein shown as a narrow plain rail, having at its edge projections or lugs A', which, as herein shown, receive and hold pins or studs B, which serve as the piv-

ots for the spindle-supports. Each spindle-support is composed of a block, C, having at one end a tubular or sleeve-like upright, C', to receive the pintle *a* of the spindle D, herein shown as provided with a sleeve-whirl, *a'*, of usual construction, the said block at its other end having an upright, C², provided with a socket to be entered loosely (see Fig. 1) by a pin or stud, B, the diameter of the socket in the said upright portion C² being enough larger in diameter than the diameter of the pin or stud B to constitute a loose fit of one with relation to the other, so that the block may move laterally for a slight extent in any direction on the rail A, as the foot of the spindle moves or tips, owing to high speed or unequal loading of the spindle. The upright C² and the main part of the block C are bored or provided with communicating channels for the passage of oil into the interior of the upright C', in which the pintle of the spindle rotates.

In Fig. 1 I have shown the pin or stud B as fixed to the rail A, and entering loosely a socket in the spindle-support C; but it is obvious that the same effect would be gained by providing the rail with a hole and fixing the pin or stud to the spindle-support, as in Fig. 3, at one side of the sleeve or tube C', in which the pintle of the spindle rotates, the said pin or stud entering loosely a hole in the rail.

My invention will not be departed from if the pin or stud B referred to were surrounded in the socket or hole in which it enters with a piece of elastic tubular packing or other equivalent cushion.

The spindle-support herein described is intended to hold the pintle of a top spindle in a yielding manner, and to obviate the employment of usual bolster-cases having in them loose bolsters surrounded by elastic packing, or by oil, to act as a cushion, as heretofore commonly used.

The spindle-support is restrained from rotating to too great extent by a suitable pin or projection, 12, herein shown as fixed in the rail and entering loosely a hole in the support; but the pin or projection may be carried by the support and enter loosely a hole in the rail.

I do not broadly claim a spindle-support pivoted on a pin or post erected in a block resting upon the upper side of the rail.

I claim—

5 1. A spindle, a bolster or step rail, and a pin or stud, one end of which enters a hole in the said rail, while its other end terminates above the said rail, combined with a spindle-support consisting of a block having not only
o an upright sleeve to receive the pintle of the spindle, but also a socket to surround the said pin or stud loosely, thereby permitting the block to move to a limited extent above the surface of the said rail with the pintle or lower
5 end of the spindle, substantially as described.

2. A spindle and a bolster or step rail having an attached vertical pin or stud, combined with a spindle-support consisting of a block having an upright sleeve to receive the pintle
o of the spindle, and provided with a socket to surround the said pin or stud loosely, thereby permitting the block to move above the sur-

face of the said rail with the pintle or lower end of the spindle, the said block having communicating passages for oil, substantially as 25 described.

3. The combination, substantially as described, of the bolster or step rail, the spindle, the spindle-support having at one end a sleeve or tube to receive the pintle of the spin- 30 dle, and a pin or stud directly but loosely connecting the said support and rail, and located out of line with or at one side of the center of rotation of the spindle, the said pin or stud serving to hold the said spindle-support loosely 35 on or with relation to the step-rail.

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

WILLIAM T. CARROLL.

Witnesses:

E. D. BANCROFT,
ARTHUR W. BEARDSSELL.