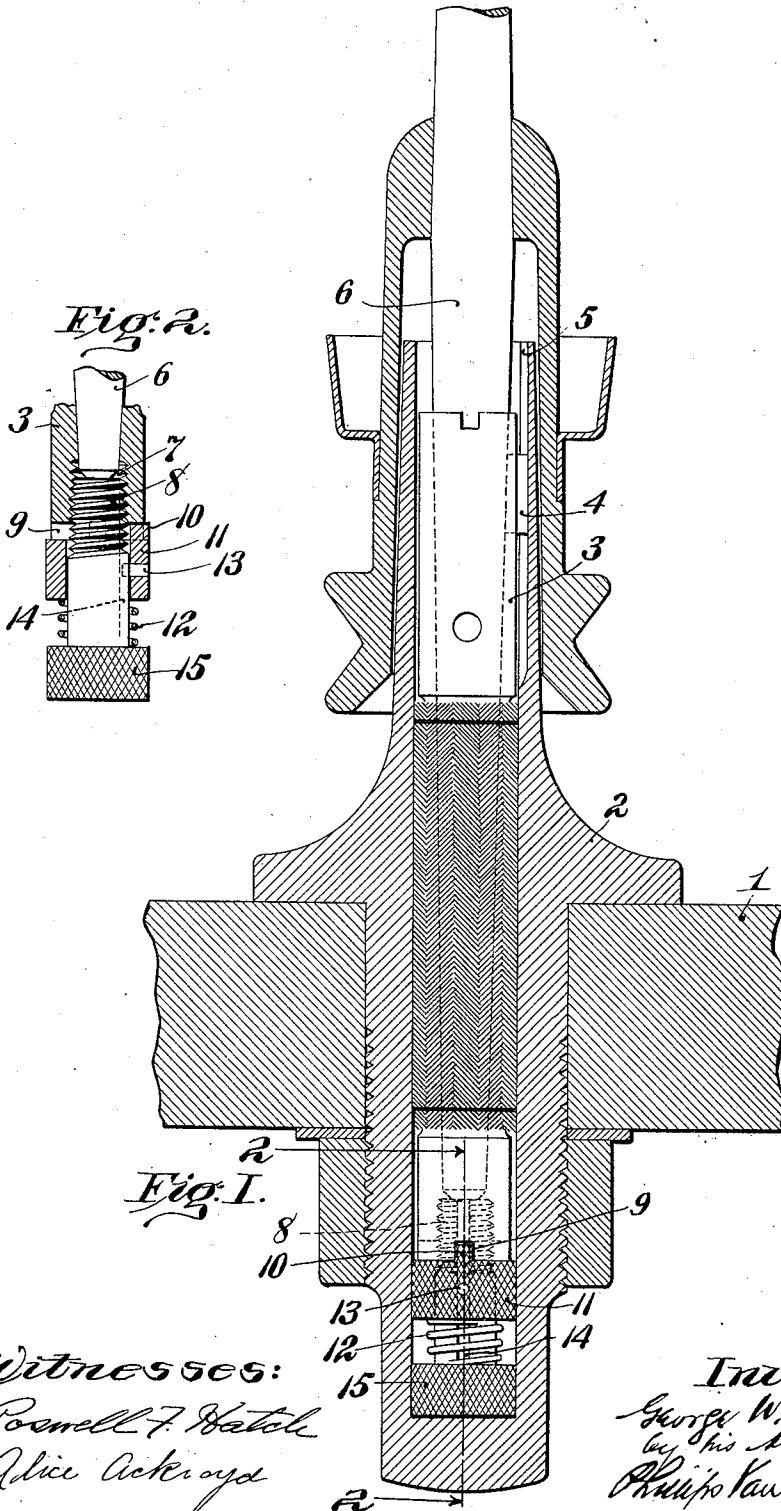


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 SPINDLE SUPPORT FOR SPINNING, TWISTING, AND LIKE MACHINES.
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1,047,189.

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UNITED STATES PATENT OFFICE.

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SPINDLE-SUPPORT FOR SPINNING, TWISTING, AND LIKE MACHINES.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, GEORGE W. FARNHAM, a citizen of the United States, residing at Lowell, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Spindle-Supports for Spinning, Twisting, and the Like Machines, (Case No. 5;) and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The present invention relates to an improvement in spindle supports for spinning, twisting and the like machines, and more particularly to spindle supports having a spindle provided with a tapered pintle, a bolster having a tapered bearing for receiving the spindle pintle, and a step bearing for supporting the spindle in proper position in the bolster to secure the proper running fit.

The object of the invention is to reorganize and improve such spindle supports, and to these ends, the present invention consists in the spindle support hereinafter described and particularly defined in the claim.

In the accompanying drawings illustrating the preferred form of the invention; Figure 1 is a sectional elevation of a spindle support; and Fig. 2 is a section on the line 2-2 of Fig. 1.

The spindle rail 1 carries the bolster case 2 wherein the bolster 3 is supported, being provided with a pin 4 which engages a slot 5 in the inside of the bolster case. The bolster is provided with a tapered bearing to receive a tapered pintle 6 of the spindle. The lower end of the bolster case, shown in section in Fig. 2, is provided with a screw-threaded axial step-receiving opening 7 into which is screwed the screw-threaded end 8 of the step. The step is the support for the end of the spindle pintle and it is adjusted up and down in the bolster by turning it in the opening in the bolster. The lower end of the bolster is also provided with a series of steep-sided notches 9 which are adapted to receive a steep-sided tongue or projection 10 from the upper side of the locking ring 11 which is normally pressed upward by the spring 12 and held from rotative movement upon the step by the pin 13 which

engages the longitudinal slot 14 in the step. When it is desired to adjust the step in the bolster, the locking ring 10 is depressed by the fingers against the pressure of the spring 12 until the projection 10 is withdrawn from the notch 9 in the lower end of the bolster. Then the step is turned in the bolster until it is adjusted to proper position to support the spindle in correct bearing relation to the bolster. The locking ring 11 is then released and the spring 12 forces it upward and it is engaged with an adjacent notch 9 thus holding the bolster and step from relative rotation in either direction. Practice has demonstrated that four notches are sufficient to secure the requisite nicety of adjustment of the step in the bolster. The head 15 of the step is knurled to afford a convenient portion of the step to be grasped by the fingers.

This invention is an improvement upon the construction illustrated in the patent to Draper No. 608,976, wherein a spring is employed to lock the bolster and step in adjusted position with relation to each other.

It is to be observed that the adjustment of the step in the bolster is secured with facility by simply holding the bolster in one hand and pressing the locking ring with the other until the projection thereof is disengaged from the notch in the bolster and thereupon turning the step with relation to the bolster through the medium of the locking ring connected to the step until the step is correctly adjusted with relation to the bolster, when the locking ring will be allowed to be pressed up against the bottom of the bolster and the step will be turned to bring the projection opposite a recess in the lower end of the bolster into which it will spring, this turning movement of the step necessary to bring the projection on the locking ring into engagement with a notch in the bolster being in the direction to cause the step to be screwed into the bolster a little farther, it being imperative that this final movement of the step should never be in a direction to cause a tighter fit between the spindle pintle and the bolster. The facility with which the adjustment of the step may be secured is of the greatest importance, as the adjustment of the bearings of the spindles of a frame is a time-consuming matter, and every con-

venience for the rapid adjustment of the bearings is of the greatest practical commercial importance.

Having thus described the invention, what is claimed is:—

A spindle support for spinning, twisting and the like machines having, in combination, a bolster case, a bolster provided with a steep-sided notch in its lower end, a step screw-threaded into the bottom of the bolster, a locking ring provided with a steep-sided projection on its upper side and lon-

gitudinally movable on the step and held from rotative movement with relation thereto and a spring normally pressing the locking ring in the direction to cause its projection to engage the notch in the bottom of the bolster, so as thereby to hold the step and bolster from relative rotation in either direction, substantially as described. 15

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."