

(No Model.)

R. C. FAY.

SUPPORT FOR SPINNING SPINDLES.

No. 373,650.

Patented Nov. 22, 1887.

Fig:1.

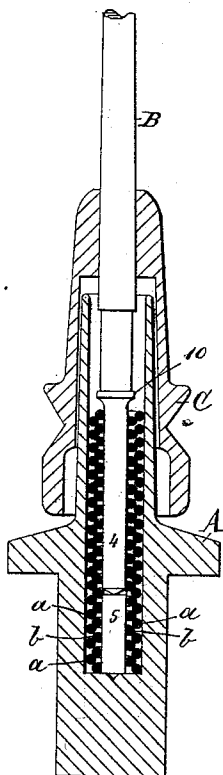
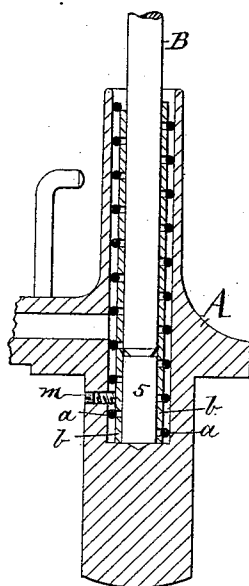


Fig:2.



Witnesses.  
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# UNITED STATES PATENT OFFICE.

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## SUPPORT FOR SPINNING-SPINDLES.

SPECIFICATION forming part of Letters Patent No. 373,650, dated November 22, 1887.

Application filed November 2, 1886. Serial No. 217,780. (No model.)

*To all whom it may concern:*

Be it known that I, RIMMON C. FAY, of Hopedale, county of Worcester, and State of Massachusetts, have invented an Improvement  
5 in Supports for Spinning-Spindles, 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 provide a spindle with a flexible support which will yield slightly in any direction with the spindle as the latter reaches its center of rotation under an unbalanced load.

15 My improved bolster is contained within a bolster-case closed at its lower end to constitute an oil-well, the bolster being interposed between the bolster-case and the pintle of the spindle.

20 My improved bolster is composed of spirally-wound metal in the form of a wire or flattened strip.

As my invention is herein embodied, two  
25 metal wires or strips are wound spirally and made to occupy such position with relation each to the other and with relation to the bolster-case and pintle of the spindle that the pintle of the spindle is free to move laterally or tip within the bolster-case and yet maintain proper contact with the bolster.

30 I am aware that prior to my invention a bolster open at the bottom has been provided with a bearing composed of wire coiled to form a closely-twisted spiral of a single uniform thickness, the exterior of the bearing so  
35 formed fitting the said bolster snugly, the interior of the bearing receiving closely within it the exterior spindle above the whirl.

Figure 1 shows in vertical section a sleeve-whirl, a bolster, and a bolster-case embodying  
40 my invention, the spindle and step being in elevation; and Fig. 2 is a like view of a modified form of my invention, the sleeve-whirl being omitted.

45 The bolster-case A, closed at its lower end to constitute an oil-well, will in practice be held in a bolster-rail in any usual manner. The spindle B and its attached sleeve-whirl are and may be of usual shape. The pintle

4 of the spindle runs on a step, 5, which is  
50 pushed down into the bolster, to be described.

The bolster herein represented as embodying my invention is composed of wires or strips *a b*, of metal, coiled to constitute a tube, and, as herein shown, the wires are made to  
55 occupy positions in different vertical planes, or they are so wound and arranged, as shown, as to form what may be denominated a "double" or "compound" spiral.

The wire or strip *b* next the pintle 4 of the  
60 spindle does not come in contact with the bolster-case, and in turn the wire or strip *a*, which comes in contact with the bolster-case, does not touch the said pintle 4; but the said  
55 wires *a b* are in contact, and occupy such position with relation each to the other and the bolster-case and pintle 4 that the said bolster yields and permits the lower end of the spindle to move as the spindle under an unbalanced load seeks its true center of rotation.

As herein shown, the vibration of the  
70 pintle 4 acts to compress the bolster in the direction of the thickness of its wall, and one wire or strip enters, as it were, an opening or space opposite it in the other wire or strip,  
75 with which it is in contact, the bolster at such time moving in a somewhat elongated space left for that purpose below the collar 10 on the pintle.

The wires or strips may be either round, or  
80 substantially so, in cross-section, as in Fig. 1, or one wire or strip may be flat, or nearly so, as shown by the wire or strip *b* in Fig. 2.

The bolster may be restrained from rotation with the spindle by means of a set-screw,  
85 *m*, the point of which is made to impinge against the bolster outside of the foot-step 5.

I claim—

1. The spindle, the bolster-case closed at its bottom to constitute an oil-well, and the step,  
90 combined with a spirally-wound bolster interposed between the interior of the bolster-case and the pintle of the spindle, the said spirally-wound bolster being free to yield to vibrations of the foot of the spindle, substantially as described.

2. The spindle, the bolster-case closed at its bottom to constitute an oil-well, and the step,

combined with a spirally-wound bolster composed of metal wires or strips, arranged substantially as described, the coils of one wire or strip being arranged to enter the spaces  
5 between the coils of the other wire or strip when the foot of the spindle moves laterally under an unbalanced load, substantially as described.

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

RIMMON C. FAY.

Witnesses:

F. J. DUTCHER,  
E. D. BANCROFT.