(No Model.)

W. H. RIVERS & E. WRIGHT.

SPINNING MACHINE.

No. 355,210. Patented Dec. 28, 1886.

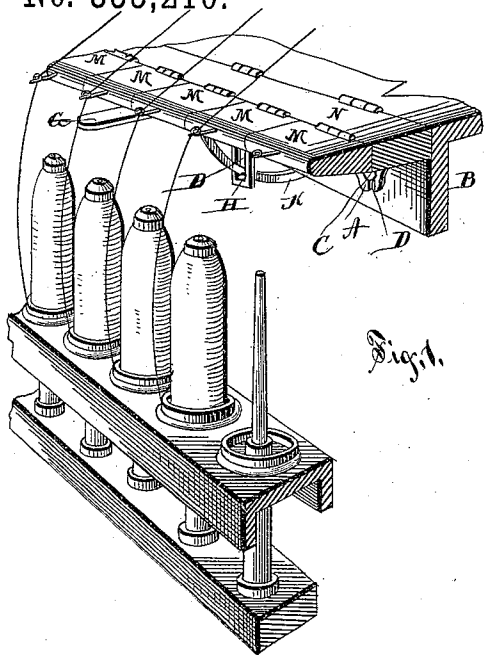


Fig. 1.

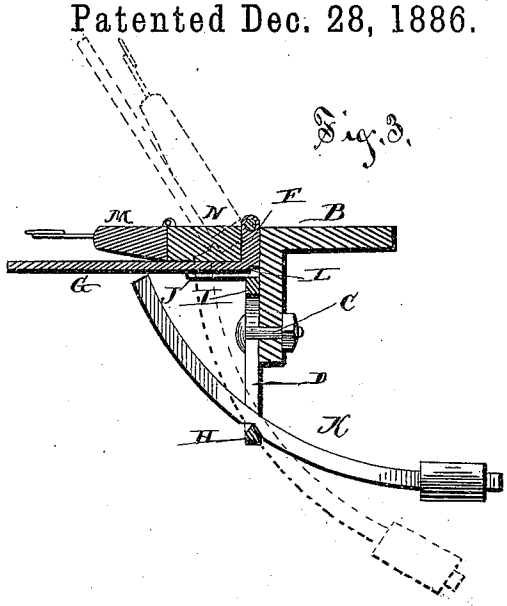
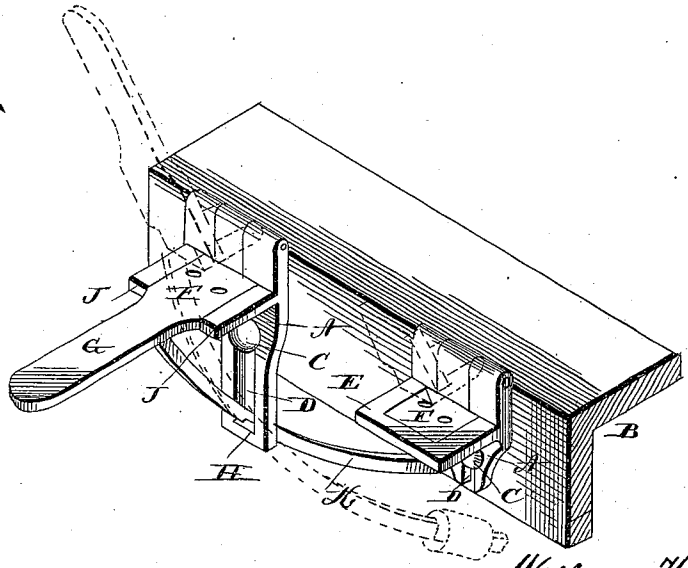


Fig. 3.

Fig. 2.



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WILLIAM H. RIVERS AND EDGAR WRIGHT, OF ADAMS, MASSACHUSETTS.

SPINNING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 355,210, dated December 28, 1886.

Application filed August 17, 1886. Serial No. 211,136. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM H. RIVERS and EDGAR WRIGHT, both citizens of the United States, and residents of Adams, in the county of Berkshire and State of Massachusetts, have invented certain new and useful Improvements in Spinning-Machines; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of so much of a spinning-machine as is necessary to illustrate the application of this invention. Fig. 2 is a perspective view of the roller-beam having attached thereto a combined hinge and rest, also a combined hinge, rest, handle, and brace, each device being shown closed in full lines and open in dotted lines; and Fig. 3 is a vertical transverse section through the middle of the combined hinge, rest, handle, and brace.

Like letters of reference indicate corresponding parts throughout the several figures.

This invention relates to an improvement in spinning-machines; and it consists in the improved construction and combination of parts constituting said improvement, as will be hereinafter fully set forth.

The object of this invention is to provide a ready and effective means for simultaneously raising all the guide-wire blocks of a ring-spinning frame by tilting and automatically bracing the thread-board, to the front edge of which said blocks are hinged; also, at the same time, to provide for vertically adjusting said thread-board. The means which are employed in accomplishing this object consist of two devices, one of which is an elaboration of the other.

The first device consists, as shown in the accompanying drawings, of a hinge-leaf, A, which is adjustably secured to the roller-beam B by a screw-bolt, C, passed through a slot, D, in said hinge-leaf and a hole in the roller-beam. From the front of this hinge-leaf a rest, E, projects horizontally. The rest is formed of a rectangular frame, into the center portion of which fits one end of the other hinge-leaf, F, when the hinge is closed. The leaf F has one portion formed at right angles to the other, the portion fitting into the rest being wider than the other portion, and serving for attachment to the thread-board N. The narrower portion has the hinge-pintle passed through its end, and rests in the upper part of the slot in the hinge-leaf A when the hinge is closed. This rest aids in rigidly supporting the thread-board in its operative position, and prevents undue strain upon the hinges of the same when it is lowered after changing the bobbins.

The second device, which is the more important part of the invention, is produced through transforming the first by cutting away the front part of the rest E and extending the broad portion of the hinge-leaf F into the handle G, which projects out in front of the guide-wire blocks and their guide-wires. By means of this handle the thread-board can be raised, and with it all the blocks M, which are separately secured to its front edge by means of hinges. The transformation also extends to the lower part of the other hinge-leaf, which is prolonged, and its slot closed at the bottom by the cross-piece H and spanned by another cross-piece, I, near the junction of said leaf and the rest, said rest in its transformed shape consisting of the two arms J. The strengthening function of the broken-away part of the rest is supplied by the cross-piece I, which, together with the lower cross-piece, keeps the parts at the sides of the slot D from spreading apart. Then a lever-brace, K, is added, provided with a notch in its lower edge, by which it is fulcrumed upon the cross-piece H. The inner end of the lever-brace is shaped to engage a notch, L, formed in the outer angle between the handle and the inner end of the leaf F, and the outer end is weighted, so as to cause the upper end to readily fall into said notch immediately upon raising the thread-board. The lever holds the thread-board up till the bobbins have been changed. Then the weighted end of the lever is raised and the thread-board lowered into operative position.

These devices can be readily applied to any of the ordinary spinning-machines without drilling any new holes in the roller-beam, since the bolts C can be passed through the holes formed for the bolts which hold the old form

of rests or braces under the thread-board. The slots in said devices provide for their ready attachment to a beam, in which the old holes may be at variable distances from the upper edge thereof, and also for vertically adjusting the thread-board upon its beam.

Having thus fully described our invention, we claim—

1. The combination, with the thread-board and roller-beam, of a slotted hinge-leaf provided with a rest projecting horizontally from its front and a hinge-leaf in which the attaching portion is formed at right angles to the portion through which the hinge-pintle passes.

2. The combination of the thread-board and the roller-beam with the hinge-leaf provided with a rest projecting horizontally from its front and a hinge-leaf in which the attaching portion is prolonged into a handle and formed at right angles to the portion through which the hinge-pintle passes.

3. The combination, with the thread-board and roller-beam, of a slotted hinge-leaf provided with rests projecting horizontally from its front and a hinge-leaf in which the attaching portion is prolonged into a handle formed at right angles to the portion through which the hinge-pintle passes, the inner end of the handle portion fitting between the rests, and the other portion fitting into the upper division of said slot.

4. The combination, with the thread-board and roller-beam, of a hinge-leaf secured to said thread-board, a slotted hinge-leaf secured to the roller-beam, a single bolt passed through said slot, and a lever-brace pivoted in the lower end of the slot.

5. The combination, with a thread-board and roller-beam, of a hinge-leaf secured to said thread-board, a slotted hinge-leaf secured to said roller-beam and provided with a cross-piece at the lower end of the slot, and a weighted lever-brace provided with a notch in its under edge by which it is pivoted upon said cross-piece.

In testimony that we claim the foregoing as our own we have hereunto affixed our signatures in presence of two witnesses.

WILLIAM H. RIVERS.
EDGAR WRIGHT.

Witnesses as to signature of William H. Rivers:

LOUIS BAGGER,
WM. LECHER.

Witnesses as to signature of Edgar Wright:

GEORGE KOLP,
A. M. BAILEY.