

(No Model.)

J. F. FOLLETT.

YARN GUIDING DEVICE FOR SPINNING MACHINES.

No. 386,975.

Patented July 31, 1888.

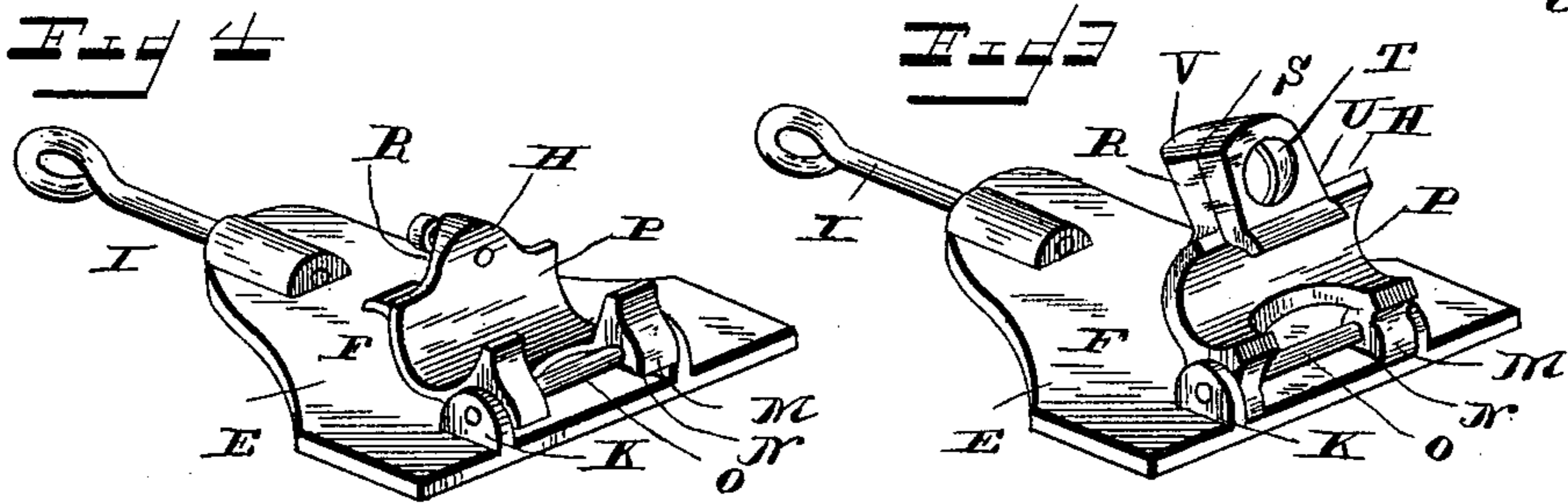
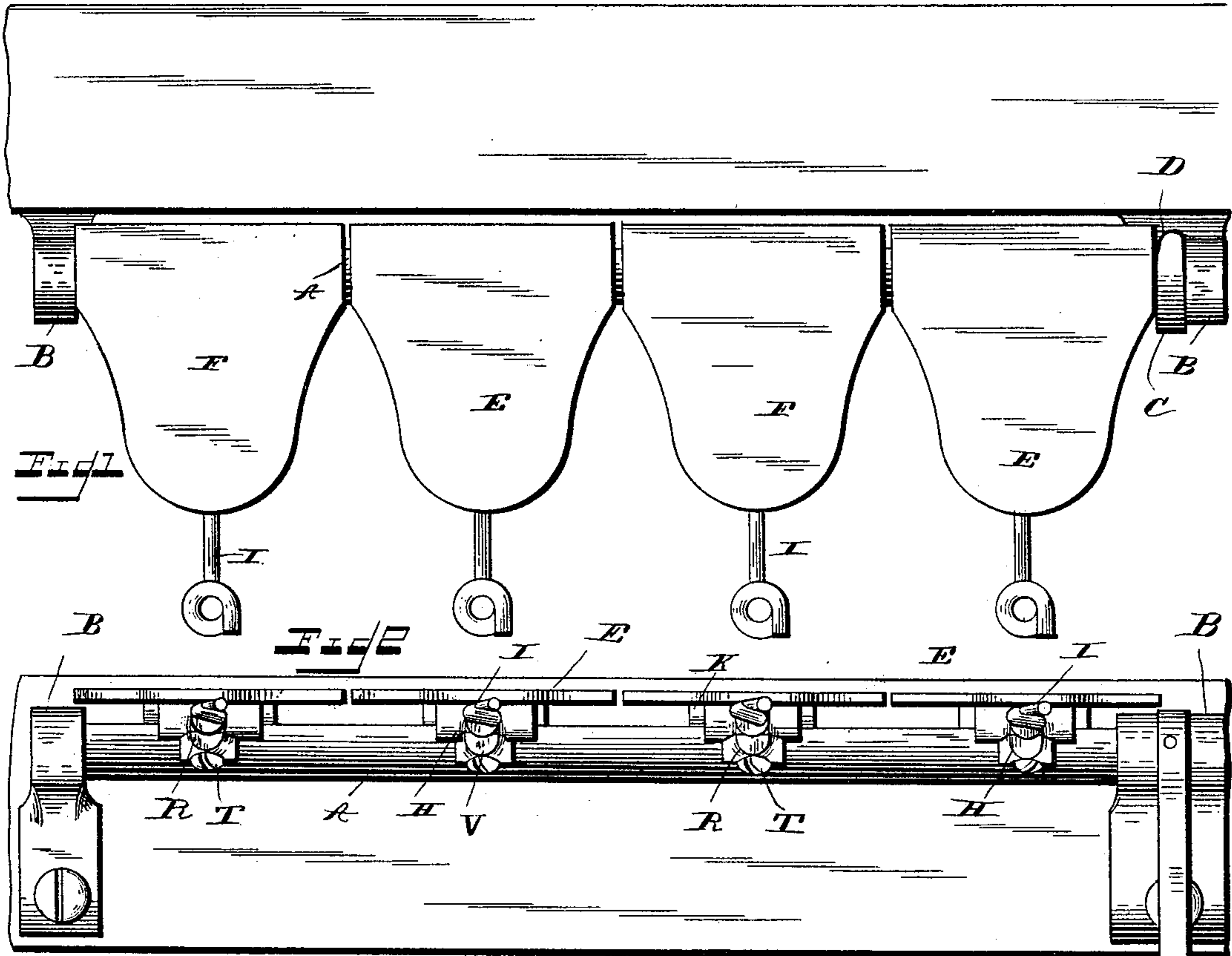
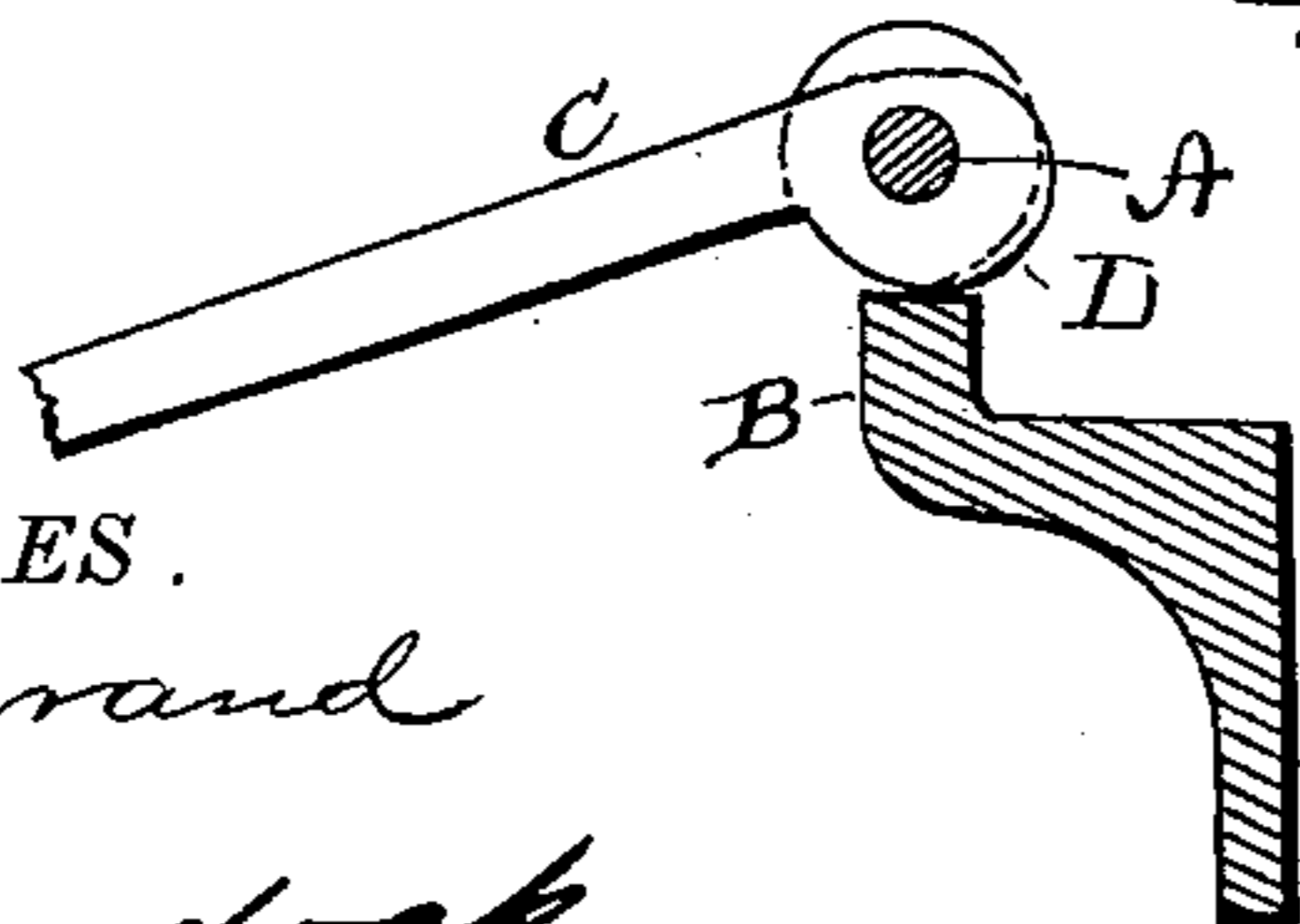


Fig. 5.



WITNESSES.

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YARN-GUIDING DEVICE FOR SPINNING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 386,975, dated July 31, 1888.

Application filed December 7, 1887. Serial No. 257,203. (No model.)

To all whom it may concern:

Be it known that I, JOHN F. FOLLETT, a citizen of the United States, and a resident of Central Falls, county of Providence, State of Rhode Island, have invented new and useful Improvements in Yarn Guiding Devices for Spinning-Machines, of which the following is a full and exact description, reference being had to the accompanying drawings, making part of this specification.

This invention relates to improvements in spinning-machines, and more particularly to the guide-plates thereof, and has for its objects to provide guide-plates which may be independently adjusted with rapidity and ease, and to mount the same on a rocking shaft in such a way as to be raised or lowered simultaneously by the rotation of the shaft, and to provide a means for retaining the shaft in the position in which the plates are raised.

To these ends it consists in the construction and combination of the parts described and claimed in the following specification.

In the drawings, Figure 1 is a plan view of the invention attached to the roller-beam of a spinning-machine. Fig. 2 is a front elevation of the same. Fig. 3 is a detailed view of one of the guide-plates. Fig. 4 is a perspective view of a modified form. Fig. 5 is a detail view of the handle controlling the shaft and the bearings in which it is mounted.

The letter A designates the rocking shaft, to which the guide-plates are attached. The said shaft is extended the entire length of the roller-beam, and is mounted in bearings B B, as may be required, at intervals on the roller-beam. Attached firmly to the said shaft is the doffing-handle C. The said handle is provided upon the under surface with a cam, D, which, when the said handle is raised to a horizontal position, binds upon the bearing B, in which the said handle is mounted, holding the shaft A in position to allow for doffing. The said handle may be mounted at the end of the shaft A or in the center of the same, the latter construction being preferable when the said shaft is long.

Mounted upon the shaft A, at intervals regulated by the spindles, are the guide-plates E. The said plates consist of a flat body, F, the guide-rod I, and the clamp H. The said body is constructed of thin metal, so that the action

of the same will be light. At the forward end it is provided with a guide-rod, I, extending from a perforated lug upon its under surface, and at the rear end with the hinge-wings K K. The said guide-rod consists of a piece of stiff wire bent to a complete coil at the end, forming an eye for the thread to pass through, and is provided at the other end with a screw-thread adapted to engage the thread in the perforation of the lug upon the body F, wherein it is screwed rigidly, extending out beyond the said body.

The clamp H is provided with the hinge-wings M, which fit between the wings K K upon the body F, and are provided with the shoulders N at the rear, which prevent the said body from turning completely over. The said clamp is attached to the body by passing the rod O through a perforation provided in the said wings M and K. In the under surface of the said clamp is formed the curve P, which conforms to the curve of the shaft A and fits the same snugly. At the rear of the said curve the clamp is provided with the shoulder R, having at the end the upturned point V, upon which the body F normally rests. The shoulder R is provided with a threaded perforation, by means of which the clamping-jaw S is secured thereto by the screw T. The said clamping-jaw fits flush with the under face of the said shoulder, and is provided with the curved extension U. The said extension is mounted over the curved shaft, and is adapted to impinge upon the shaft A when screwed down upon the shoulder R.

In mounting the guide-plates upon the shaft A the screw T is turned so as to free the said clamping-jaw S, allowing the said shaft to be placed in the curve P. The extension U is then brought over the said shaft and forced down upon the same by the screw T, binding the said shaft between the curve P and the extension U, thus fixing the plates firmly upon the shaft. To remove the same the operation is reversed.

When the parts herein described are mounted as shown in the drawings, they may be operated for doffing the spindle by catching the handle C and raising the same. This throws the clamp H around with the said shaft, which raises the guide-plates E, allowing the spindles to be doffed. In this position the shaft A is

held firmly, with the guide-plates raised, by the cam D of the handle C binding upon the bearing B, as hereinbefore described. The said guide-plates are so constructed that when
 5 raised upon the shaft in the position just described they are balanced thereon, and need but little force to retain them in position when so raised.

When the spindles have been doffed and the
 10 bobbins replaced thereon, the said guide-plates are brought into position by lowering the handle C and moving the said guide-plates off their balance, when they fall to the horizontal position shown in Figs. 1 and 2 of drawings, where
 15 they rest upon the points V of the clamp H, and the frame is then ready for operation.

When the ends of the thread break, as they frequently do when spinning, by means of this construction the guide-plates can be raised by
 20 the operator singly, allowing thereby the removal of the spool to piece up the end, and when so pieced the spool may be replaced and the operation resumed by allowing the guide-plate to fall into position. This it must do, as
 25 it cannot be raised enough to balance when the shaft A is in position to throw the said plates over the spools, being prevented from so doing by the shoulder N of the clamp H.

In the modified form shown at Fig. 4 of
 30 drawings I have built upon the lower side of the shoulder R so as to extend it below the shaft A. Through this part I have provided

a threaded perforation on a line slightly below the center of the said shaft. In this perforation I have mounted a screw, which en-
 35 gages the threads in the perforation in the shoulder R and impinges upon the shaft A. The guide-plates, when provided with this modification, are secured by placing the clamp over the shaft A and driving the end of the
 40 screw against it, which holds them firmly in position.

What I claim is—

1. A guide-plate provided with the clamp H, having the groove P, the shoulder R, the
 45 clamping jaw S, provided with the extension U, adapted to impinge upon a shaft fitted in the groove P, and the screw T, passing through a perforation in the shoulder R, substantially
 50 as described.

2. The combination of the shaft A, the handle C, provided with the cam D and the bearing B, with the clamps H, engaging rigidly the
 55 said shaft, and the guide-plates E, pivotally connected to the said clamp and provided with the guide rod I, extending out from the same, substantially as described.

In testimony whereof I have hereunto set my hand this 29th day of October, A. D. 1887.

JOHN F. FOLLETT.

Witnesses:

JAMES E. BOWEN,
 B. FRANK BOWEN.