

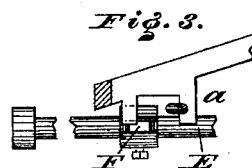
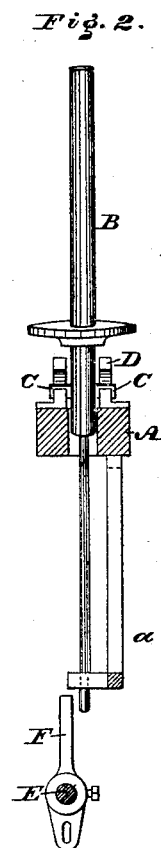
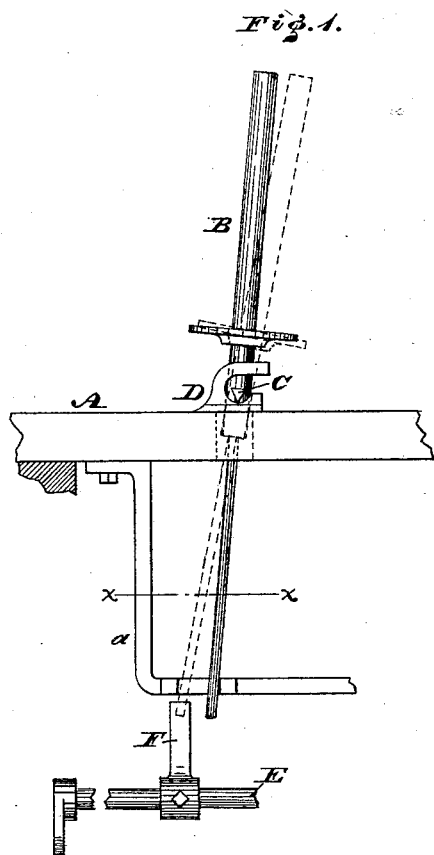
(No Model.)

C. F. ALEXANDER.

BOBBIN HOLDER FOR WINDING MACHINES.

No. 345,943.

Patented July 20, 1886.



WITNESSES:

L. Douville
H. F. Girardin

INVENTOR:

Charles F. Alexander.
BY John A. Giedersheim
ATTORNEY.

UNITED STATES PATENT OFFICE.

CHARLES F. ALEXANDER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR
OF THREE-FOURTHS TO S. B. FLEISHER, B. W. FLEISHER, AND M.
FLEISHER, ALL OF SAME PLACE.

BOBBIN-HOLDER FOR WINDING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 345,943, dated July 20, 1886.

Application filed September 6, 1884. Serial No. 142,367. (No model.)

To all whom it may concern:

Be it known that I, CHARLES F. ALEXANDER, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Bobbin-Holders for Winding-Machines, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figures 1 and 2 represent side elevations of a bobbin-holder embodying my invention, certain portions of the supporting-frame and connected mechanism being sectional. Fig. 3 represents a horizontal section in line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists of a bobbin, spool, quill, or other thread or yarn holder, formed of a balanced spindle, whereby when the holder is in use it is held in proper position by the tension of the yarn or thread, and when the latter breaks the holder is so disposed as to cause the operation of a device whereby stoppage of the machinery is effected.

Referring to the drawings, A represents a beam or part of a frame of a twister, spool-winder, or other machine for winding or unwinding thread or yarn, and B represents a vibrating holder for a bobbin, spool, quill, &c., the same having a suitable spindle or pin, which is provided with knife-edges or journals C, the same projecting laterally from the spindle below the bobbin, &c., and resting upon a bearing-piece, D, formed of a slotted piece having a recess, the lower portion of which is curved, the upper part of the said bearing-piece projecting beyond or overhanging the base portion thereof, so as to more securely retain the journal within the recess against upward displacement when the holder moves laterally, due to the breakage of the thread. The said bearing is secured to the beam A of the machine.

A form of device in connection with which the holder B may be used is shown in the application of C. F. Alexander, of same date herewith, and Serial No. 142,368, and the same not being claimed herein, and not being a part of this invention, is not fully shown in the drawings herewith, except the parts thereof which are in direct contact with the holder B, for which Letters Patent is now asked.

Supported on a proper part of the machine below the holder is a shaft or bar, E, which is designed to reach or be in connection with the shipper or stopping mechanism of said machine, said shaft or bar having an arm, F, projecting therefrom in proximity to the lower end of the spindle of the holder, but not coming in contact therewith when the holder is in its normal position, which may be slightly inclined, as shown in the full lines, Fig. 1, or perpendicular, if desired, the holder being retained in said position by the tension of the yarn or thread, limited by a stop, *a*, against which the bottom of the spindle abuts, said stop in the present case depending from the beam A. It will be seen that when the yarn or thread breaks, the holder is no longer controlled by the same, and said holder by the action of gravity vibrates into position for causing its lower end to be struck by the arm F, thus moving the shaft or bar E, and occasioning a stoppage of the machine. As soon as the yarn or thread is united, its tension restores the holder to proper position, and the latter leaves the arm F. The machine may then be started, and in the event of further breakage of the yarn or thread the holder is again operated, with a result similar to that hereinbefore stated.

It is evident that my invention is applicable generally to any machine from or upon which yarn or thread is wound and unwound, for detecting the absence of any one single thread, and stopping a certain portion of the machine, thereby preventing waste and producing perfect work.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A balanced holder with knife-edge journals, in combination with a bearing-piece having a projecting or overhanging upper portion, substantially as described.

2. A balanced holder with knife-edge journals, in combination with the bearing-piece D, having a projecting or overhanging upper portion and a recess with a curved lower portion, substantially as and for the purpose set forth.

CHARLES F. ALEXANDER.

Witnesses:

JOHN A. WIEDERSHEIM,
A. P. GRANT.