(No Model.)

J. S. MACFARLANE.

INDICATOR FOR SPINNING OR WINDING MACHINES.

No. 454,957. Patented June 30, 1891.

Fig. 1.

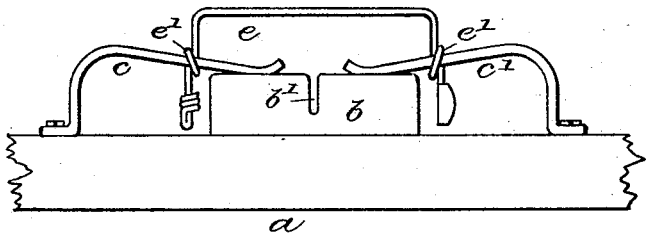


Fig. 2.

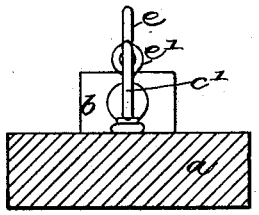


Fig. 3.

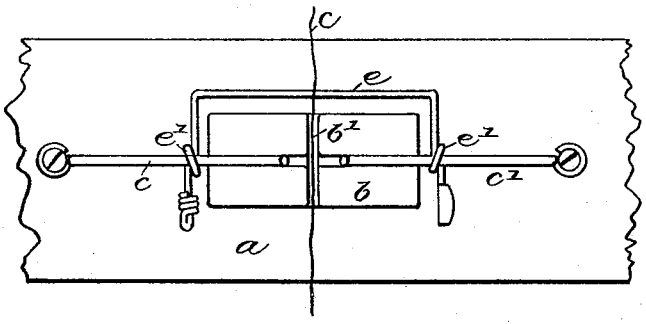
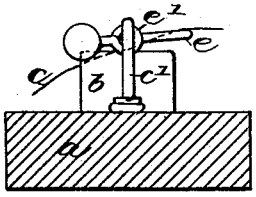


Fig. 4.



WITNESSES

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JAMES S. MACFARLANE, OF CHAPLIN, CONNECTICUT.

INDICATOR FOR SPINNING OR WINDING MACHINES.

SPECIFICATION forming part of Letters Patent No. 454,957, dated June 30, 1891.

Application filed March 21, 1891. Serial No. 385,852. (No model.)

To all whom it may concern.

Be it known that I, JAMES S. MACFARLANE, of Chaplin, in the county of Windham and State of Connecticut, have invented certain new and useful Improvements in Indicators for Spinning or Winding Machines, of which the following is a full, clear, and exact description, whereby any one skilled in the art can make and use the same.

My invention relates to the class of devices that are intended to indicate by means of a visual signal whenever a thread is broken; and it consists of details of the device and in the combination of the several parts of traverse-bar, guide, and signal, as more particularly hereinafter described, and pointed out in the claims.

Referring to the drawings, Figure 1 is a detail view, in front elevation, of a part of the traverse-bar of a spinning-frame, showing the location of my improved signal. Fig. 2 is a detail end view of the same. Fig. 3 is a detail top view of these parts, showing the position of the signal when the thread is whole. Fig. 4 is a detail view, in end elevation, of the same.

In the accompanying drawings, the letter *a* denotes the traverse-bar of a spinning-frame that may be of any ordinary construction. On this traverse-bar is arranged a thread-guide *b*, that is usually of porcelain, glass, or like material, having a groove *b'*, in which the thread *c* passes from bobbin to bobbin in the operation of spinning. In the form of guide shown it is held in place by the springs *c c'*, that are secured to the top of the traverse-bar on opposite sides of the guide-block and extend upward and then inward toward the thread-guide, (the block,) the free ends of the springs lying in grooves formed upon the upper surface of the block as a means of holding the parts in position, the downward pressure of the springs serving to prevent any accidental displacement of the guide that is capable of a lateral adjustment to a limited degree.

The signal device *e* is composed, preferably, of a piece of wire with the opposite ends bent about parallel to each other and having in these side parts loops *e'*, that serve as a means of pivoting the frame upon the springs *c c'*. The frame of this signal device is of a length that adapts the side parts to be located on opposite sides of the thread-guide *b* and adjacent to it, the main part of the frame of the signal device spanning and overarching the guide and extending an appreciable distance above it when the thread does not hold it in a horizontal or depressed position. The outer ends of the arms of this frame are provided with an added weight, either of lead or by turning back a length of wire and twisting it about the standing part, the weight of the counterpoise being sufficient to certainly hold the frame of the signal device in a vertical position, as shown in Figs. 1 and 2, except when the frame is kept in a horizontal position by the thread that is adapted to pass over it, as illustrated in Figs. 3 and 4 of the drawings. By locating the signal device on this traverse-bar it is in a position to enable the operator to tell at a glance from any position at or near the frame whether any of the threads are broken; and it has the further feature of not being in the least in the way of the operative in fitting up the frame with the bobbins or in removing them, or in the performance of any other duties about the frame.

The signal device is mounted in place by lifting the end of one of the springs *c*, slipping the loop *e* on one side of the signal-frame upon this spring and carrying it far enough along to enable the loop on the opposite part of the frame to be fitted upon the opposite spring *c'*. The frame is then slid to the proper position with the opposite end of the frame located upon opposite sides of the thread-guide, as shown in the drawings.

This device is particularly adapted for use upon a silk-spinning frame, but of course is equally usable upon other thread machinery in which the adjustable guide-block and supporting-springs are used.

I claim as my invention—

1. In combination with a traverse-bar, a thread-guide, the spring-retaining arms holding the thread-guide, and the signal device

composed of a counterpoised frame pivoted upon the springs, all substantially as described.

2. In combination with a traverse-bar, the adjustable thread-guide, the spring-arms secured to the traverse-bar and with their ends resting upon the thread-guides, and the counterpoised signal device composed of a wire frame bent to shape spanning the thread-guide and with its side parts pivoted upon the thread-guide springs, all substantially as described.

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Witnesses:
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