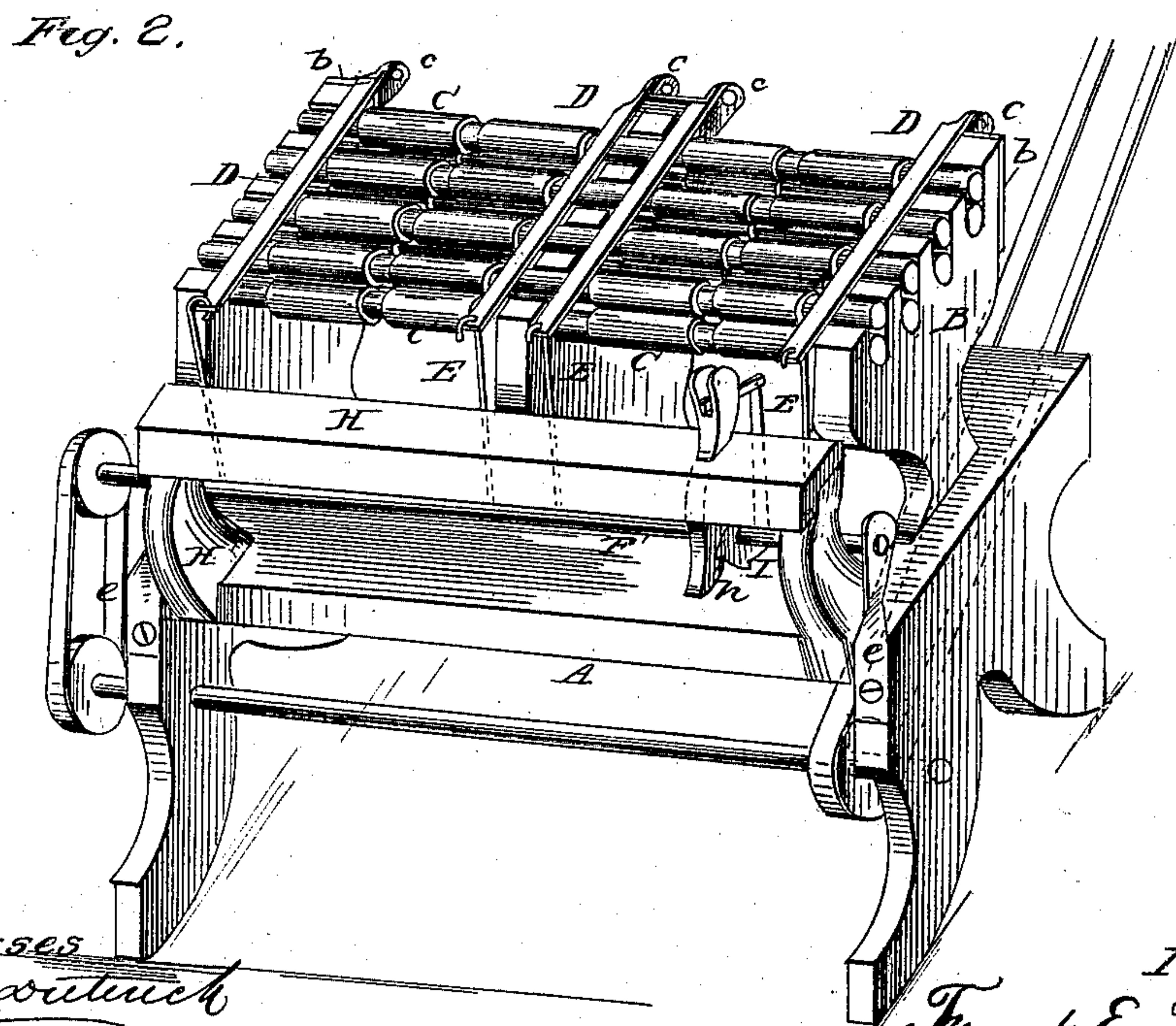
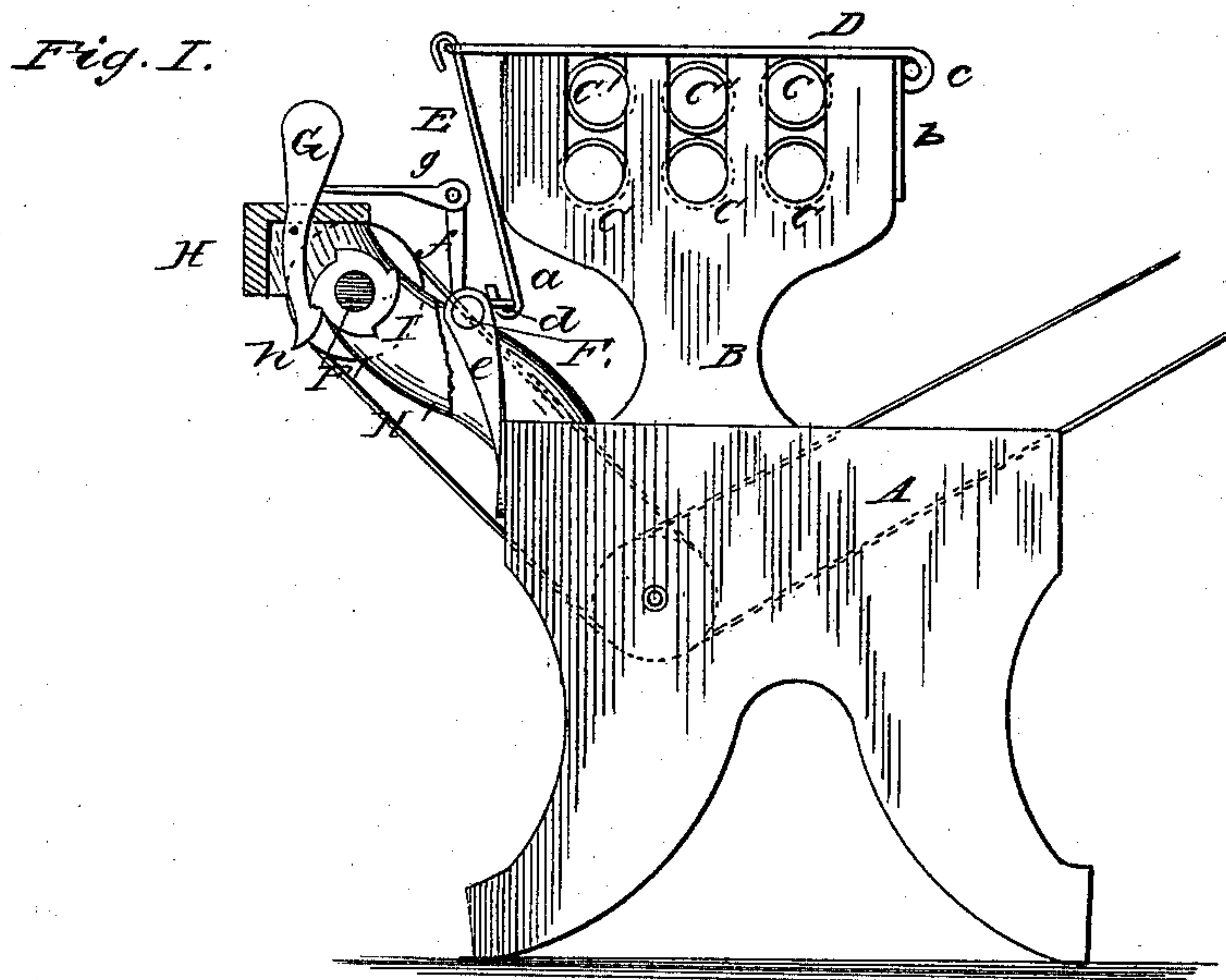


F. E. TABOR.  
 Stop-Motion for Railway Drawing-Heads.  
 No. 203,389.                      Patented May 7, 1878.



*Witnesses*  
*Edw. G. Smith*  
*Jno. P. Brooks*

*Invent.*  
*Frank E. Tabor,*  
*pr. C. A. Snow & Co.*  
*Attorneys.*



# UNITED STATES PATENT OFFICE.

FRANK E. TABOR, OF ROCKVILLE, RHODE ISLAND.

IMPROVEMENT IN STOP-MOTIONS FOR RAILWAY DRAWING-HEADS.

Specification forming part of Letters Patent No. 203,389, dated May 7, 1878; application filed March 28, 1878.

*To all whom it may concern:*

Be it known that I, FRANK E. TABOR, of Rockville, in the county of Washington and State of Rhode Island, have invented certain new and useful Improvements in Stop-Motions for Railway Drawing-Heads; and I do hereby declare that the following is a full, clear, and exact description thereof, 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 side elevation, partly in section; and Fig. 2 is a perspective rear view of a drawing-head having my improved stop mechanism.

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

My invention relates to the mechanism for stopping automatically the operation of the compact rollers of a so-called "drawing-head" when the roving breaks; and it consists in an improved construction and combination of parts, substantially as and for the purpose hereinafter more fully described.

In the drawing, A is the table or bed of the machine, and B the standards, in which the rollers C C' are hung. Secured to the front side of each of the standards B is a plate, b, having a projecting lug, c, in which is pivoted one end of a lever-arm, D, which rests loosely upon the upper rollers C'. To the other end of each of the lever-arms D is hung a rod, E, which reaches downward, terminating in a hook, a, which is inserted into an eye or bail, d, projecting from the horizontal shaft F, which is journaled in bearings in the brackets e e, one at each end of the machine. Upon shaft F is secured a vertical arm, f, to the upper end of which is pivoted an arm, g, the other end of which bears against the head of the pivoted catch G, which has its fulcrum in a slot or recess in the shelf H. The lower end of catch G forms a hook, h, directly opposite to which, on the shaft F', is placed a ratchet-wheel, I. Shaft F' is journaled in boxes in the side brackets H', and has secured upon it the drums and gears by which motion is imparted to the operative parts of the machine. As these may be of any suitable construction, and form no part of my invention, they are not shown in the drawing.

From the foregoing description, taken in connection with the drawing, the operation of my invention will be readily understood. Whenever the roving breaks in passing through the machine, it will be wound round one of the upper rollers, which is thereby raised, raising at the same time the levers D, that again, through their connection with the rock-shaft, F through rods E, will tilt this and the vertical arm f, so that arm g will push against catch G, and thereby force hook h into one of the notches of the ratchet-wheel I, which will stop the rotation of shaft F', and consequently stop the operation of the machine.

By the arrangement of the operating-levers D in sets, as shown, the machine will be stopped no matter where or between what rollers the breakage occurs; and the construction and combination of the several operating parts are such as to insure not only great strength and durability of the machine, but perfect and immediate action of the stopping mechanism.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The combination, substantially as described, of the compact rollers C' C', levers D D D D, rods E E E E, and rock-shaft F, having the upright f and trigger g working against the notched catch G, whereby the rock-shaft F is turned and its arm tilted so as to operate the stop-catch G and stop the machine when the roving breaks, substantially as and for the purpose set forth.

2. In combination with the operating-shaft F', having ratchet-wheel I, the stop mechanism herein shown and described, consisting of levers D D D D, rods E E E E, rock-shaft F, having upright f, trigger g, and catch G, all constructed and combined to operate substantially as and for the purpose herein shown and set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

FRANK E. TABOR.

Witnesses:

NATHAN L. RICHMOND,  
LOVINA RICHMOND.