

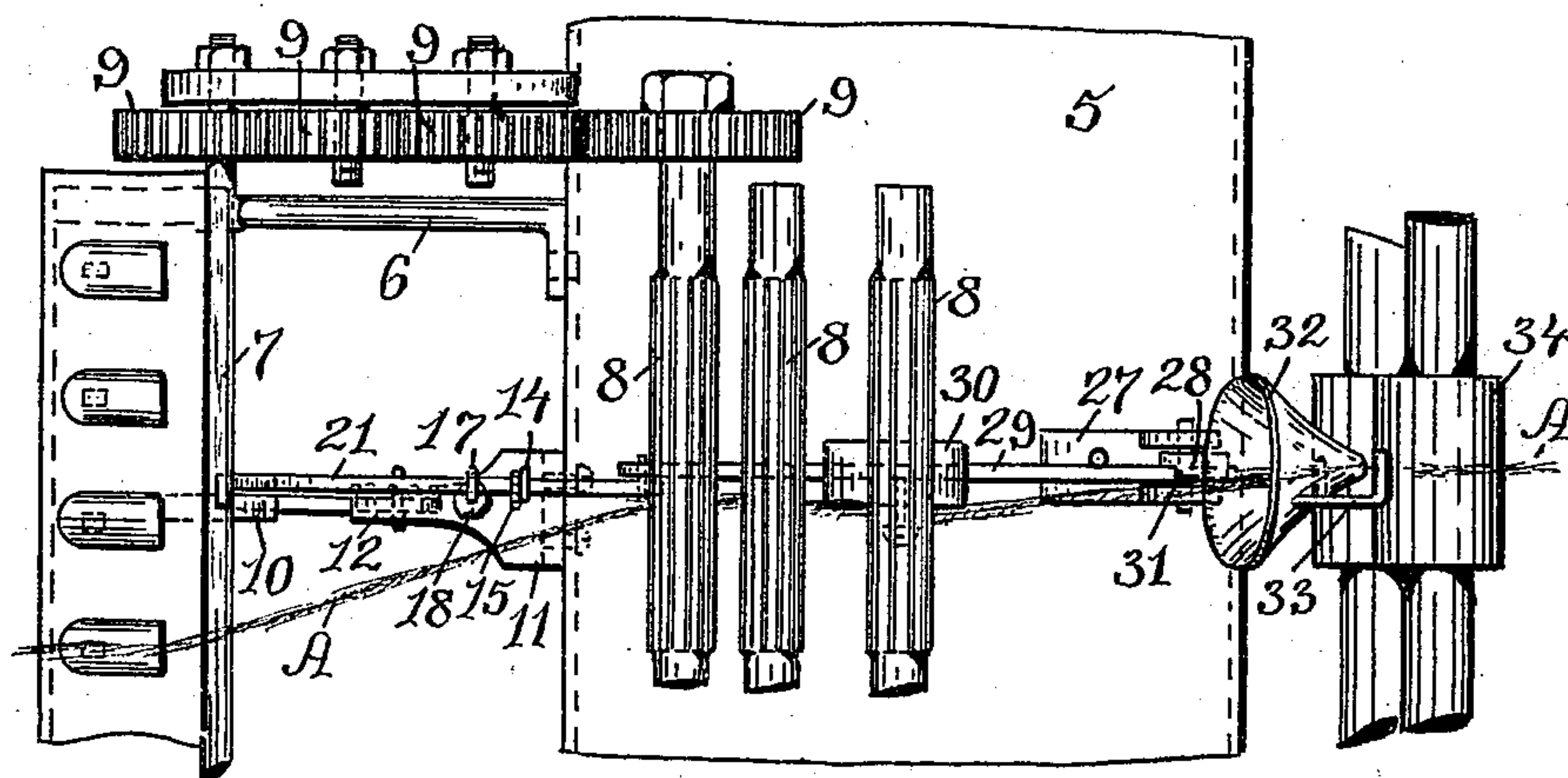
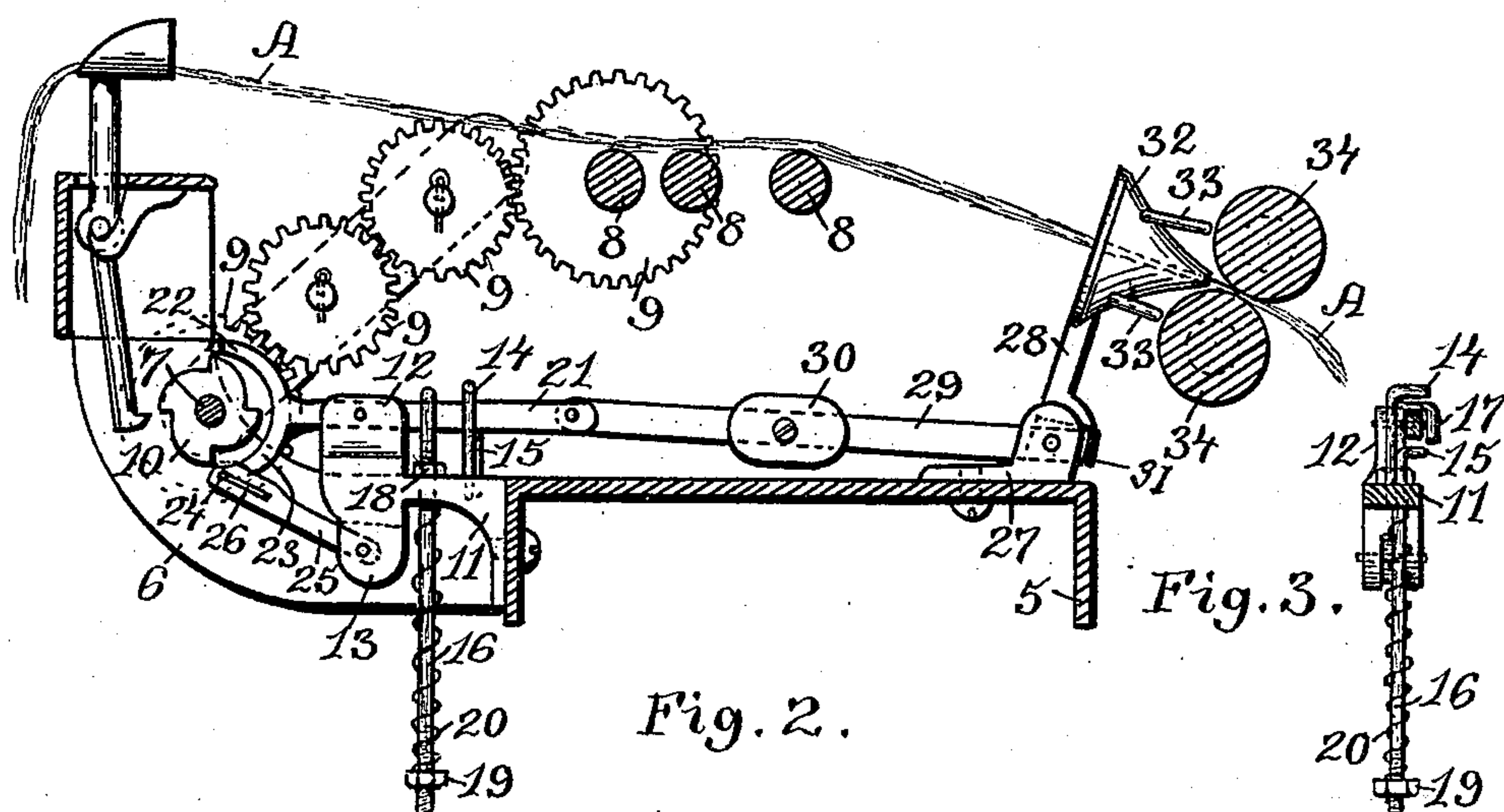
(No Model.)

S. B. WESTCOTT.
STOP MOTION.

No. 519,463.

Patented May 8, 1894.

Fig. 1.



Witnesses.

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UNITED STATES PATENT OFFICE.

SAMUEL B. WESTCOTT, OF HILL'S GROVE, RHODE ISLAND.

STOP-MOTION.

SPECIFICATION forming part of Letters Patent No. 519,463, dated May 8, 1894.

Application filed September 4, 1893. Serial No. 484,724. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL B. WESTCOTT, of Hill's Grove, in the county of Kent and State of Rhode Island, have invented certain new and useful Improvements in Stop-Motions; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

This invention has reference to improvements in stop-motions for drawing-frames.

The object of the invention is to provide means whereby the lapping of the fiber around the delivery-rolls will tend to operate the trumpet.

Another object is to so construct a stop-motion that the constant chattering of the levers, connecting the trumpet with the stopping-fork, will be prevented by the use of a tension device normally inoperative but adapted to exert a strain on the levers when the vibration of the same becomes excessive.

The invention consists in the peculiar and novel construction of the stop-motion mechanism, the tension-devices and their novel combination, as will hereinafter be more fully described and pointed out in the claim.

Figure 1 represents a side elevation of the improved stop-motion attached to a drawing-frame. Fig. 2 represents a plan view of the same. Fig. 3 represents one of the tension devices in detail showing its combination with the stopping-lever and the guard-pins.

Similar numbers of reference designate corresponding parts throughout.

In the drawings 5 indicates the table top of a drawing-frame.

6 is one of the rearwardly-extending brackets secured to the frame of the machine, and 7 is a drive-shaft, journaled in the brackets, by the rotation of which the drawing-rolls 8—8 are driven through a system of gears 9—9 suitably journaled. On the shaft 7 is mounted the wiper 10.

Extending from the rear of the drawing-frame opposite the wiper 10 is a bracket 11 having the upwardly-extending plate 12 and the depending-plate 13. This bracket 11 is vertically perforated and is provided with the guard-pins 14 and 15 having bent ends. Vertically movable through the perforation of

the bracket is the bolt 16 having the bent end 17 and provided above the bracket with an adjustable nut 18. At the lower end of this rod is also an adjustable nut 19 and between this latter nut and the lower surface of the bracket 11 is the spring 20 the open coils of which encircle the bolt, the ends of the spring bearing against the lower surface of the bracket and against the nut 19. Pivoted to the plate 12 of the bracket 11 is the stopping-lever 21 having the curved arms 22 and 23 provided with stops one of which is adapted to engage with the steps of the wiper 10, when the rear end of this lever is sufficiently elevated or depressed, to stop the rotation of the shaft 7. On the lower arm 23 is a transverse pin 24, and pivoted to the depending-plate 13 is a connecting-rod 25 having a slot 26 in which the pin 24 moves, the length of the slot assisting in limiting the vibration of the rear portion of the lever 21, the movement of the forward portion being likewise limited by the guard-pins 14 and 15 while the bent end 17 of the tension-rod 16, after a certain amount of upward movement of the lever 21, bears against the same and the spring 20 tends to resist a further movement.

At the forward portion of the table-top 5 is located the bracket 27 between the ears of which the base of the trumpet 28 is pivoted. Between these ears is also pivoted the forward end of the lever 29, the rear end of which is pivoted to the forward end of the stopping-lever 21, and on the lever 29 is mounted the adjustable-weight 30. The lower end of the trumpet-base has a shoulder 31, indicated in Fig. 2, which, when the trumpet is thrown backward or forward, bears on the upper edge of the lever 29 just above the bracket-pivot and moves the rear end of the lever up or down. To the conical surface of the trumpet 32 are secured the detector arms 33—33 which extend toward the delivery-rolls 34—34. When the fiber A becomes lapped around either of these rolls it bears against the ends of these detector-arms and tends to press the same backward, thus operating the stop-motion in practically the same manner as when the fiber breaks and the trumpet falls backward.

The peculiar construction and arrangement of the spring-tension device is of great serv-

ice, for, while it is ready to act the moment the lever 21 rises unduly, no tension is exerted on this lever under normal conditions.

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

The combination with the table-top 5, brackets, as 6, extending rearwardly therefrom, the drive-shaft 7 journaled in the brackets, the
10 wiper 10 mounted on the shaft, the bracket 11 also extending from the rear of the table, the lever 21, having arms 22 and 23, pivoted to the upper portion of the bracket 11, the pin 24 extending from the arm 23, the connecting-rod 25 having the slot 26 pivoted to
15 the lower portion of the bracket, the slot being engaged with the pin 24, the rod 16, having the bent end 17, extending through a per-

foration in the bracket 11, the nuts 18 and 19 adjustable on the rod, and the spring 20 20 encircling the rod, of the bracket 27 mounted on the forward portion of the table, the lever 29 pivoted at one end to the lever 21 and at the other in the bracket 27, the weight 30 adjustable on this lever, the trumpet-base 28 25 also pivoted in the bracket 27 and adapted to operate the lever 29, and the trumpet 32, having the detectors 33—33, mounted at the upper portion of the base 28, as and for the purpose described. 30

In witness whereof I have hereunto set my hand.

SAMUEL B. WESTCOTT.

Witnesses:

HENRY J. MILLER,

JOSEPH A. MILLER, Jr.