

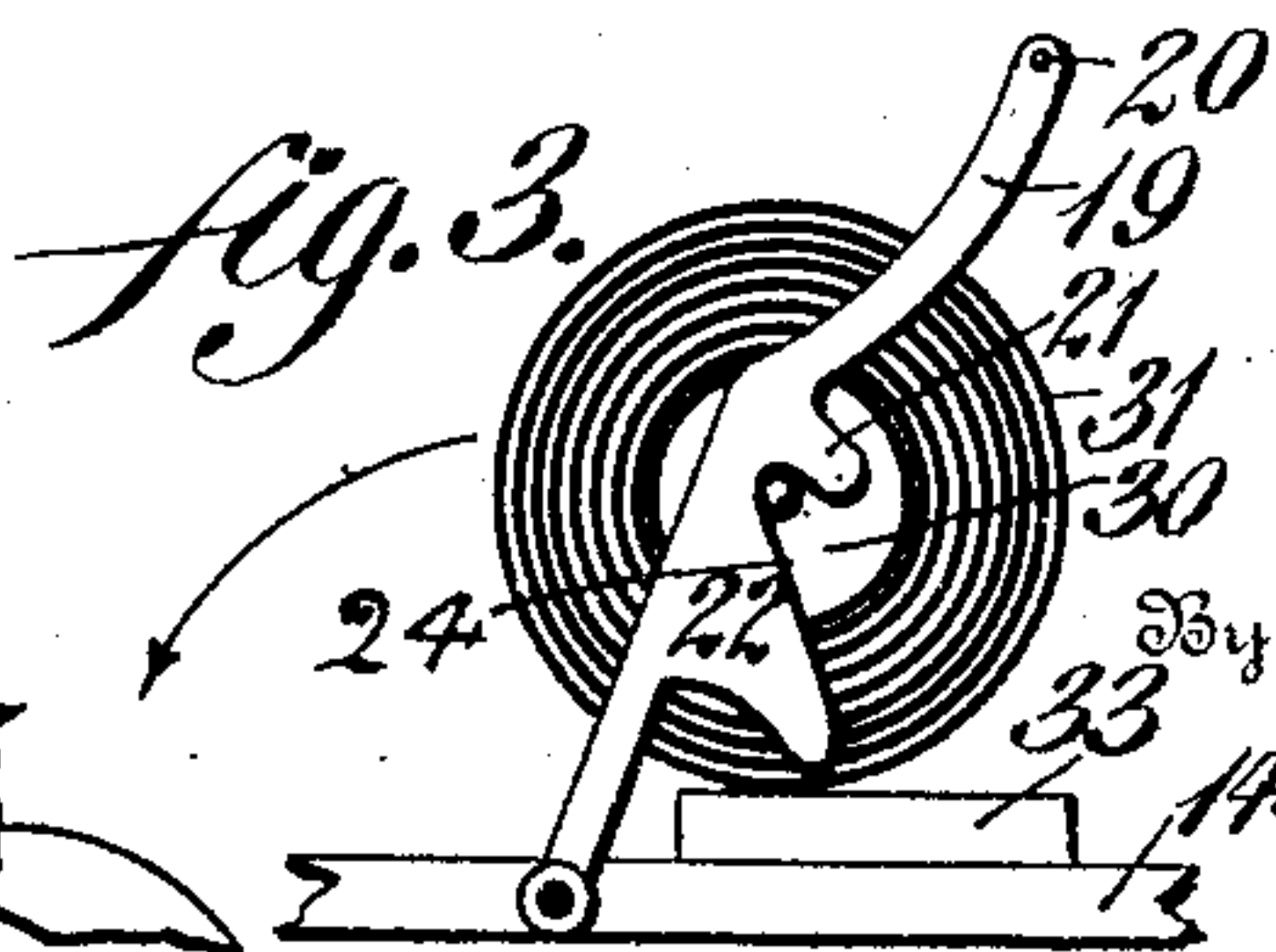
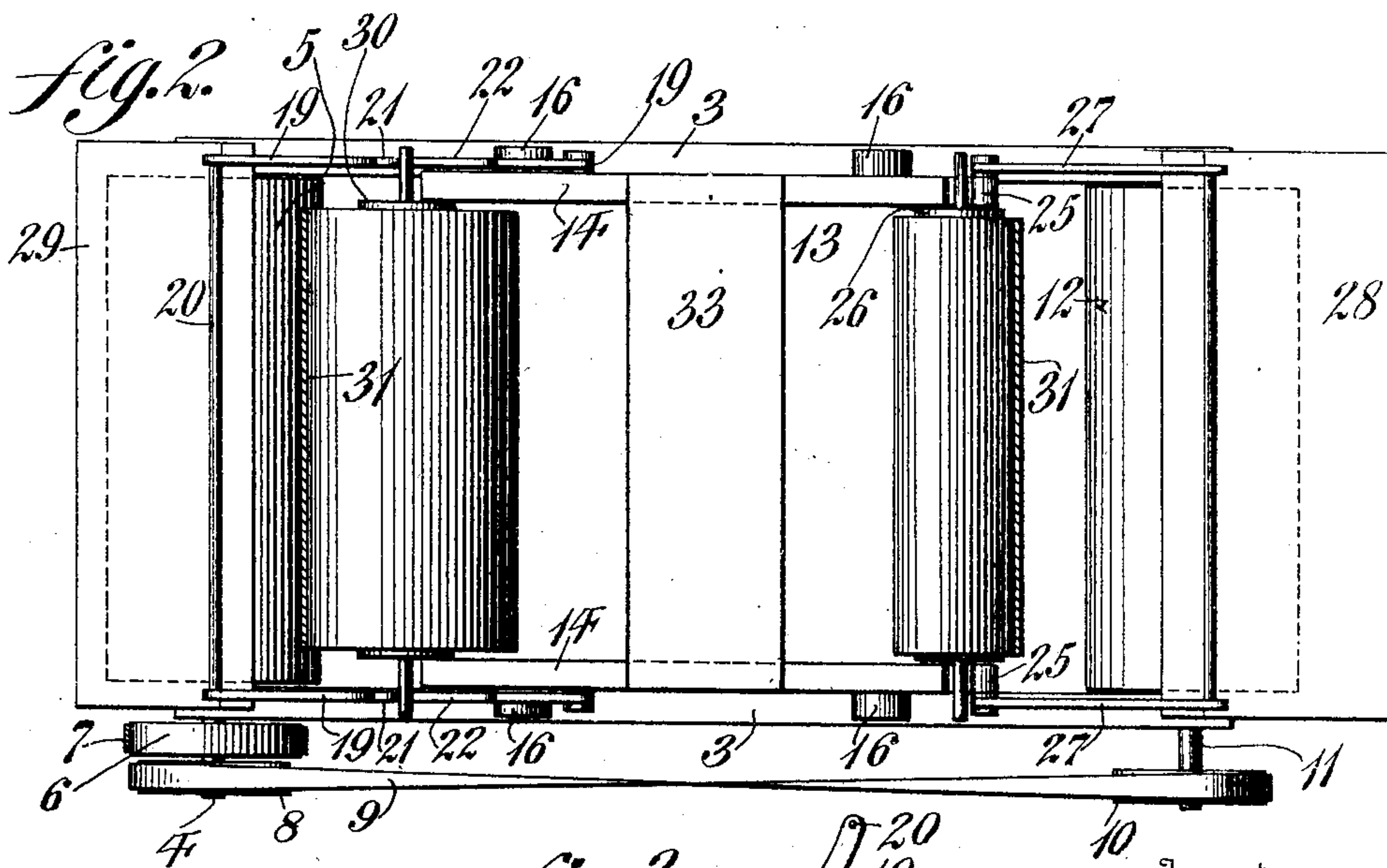
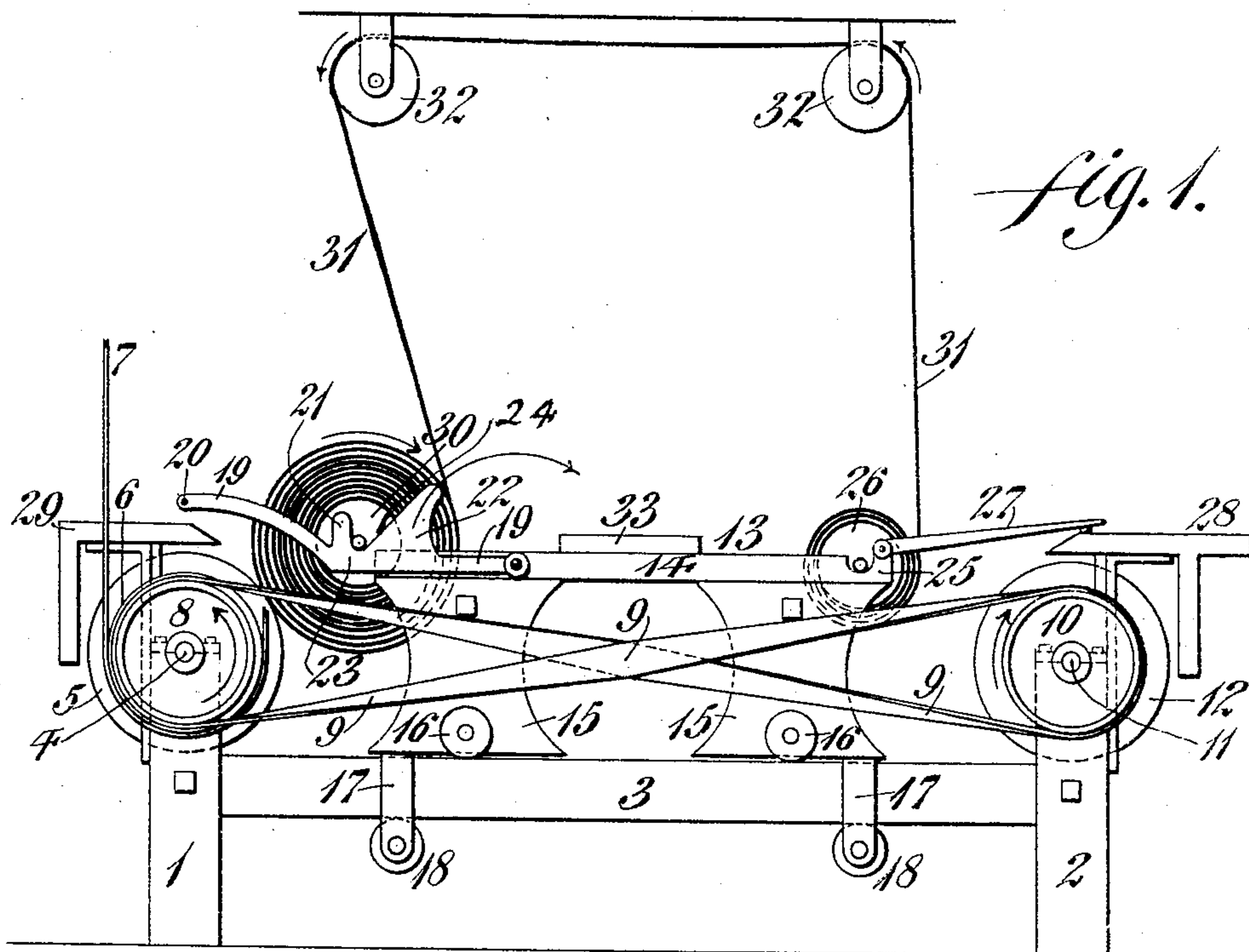
No. 805,820.

PATENTED NOV. 28, 1905.

A. L. ROBERTSHAW.
BURLING OR PERCHING MACHINE.

APPLICATION FILED MAY 19, 1905.

2 SHEETS—SHEET 1.



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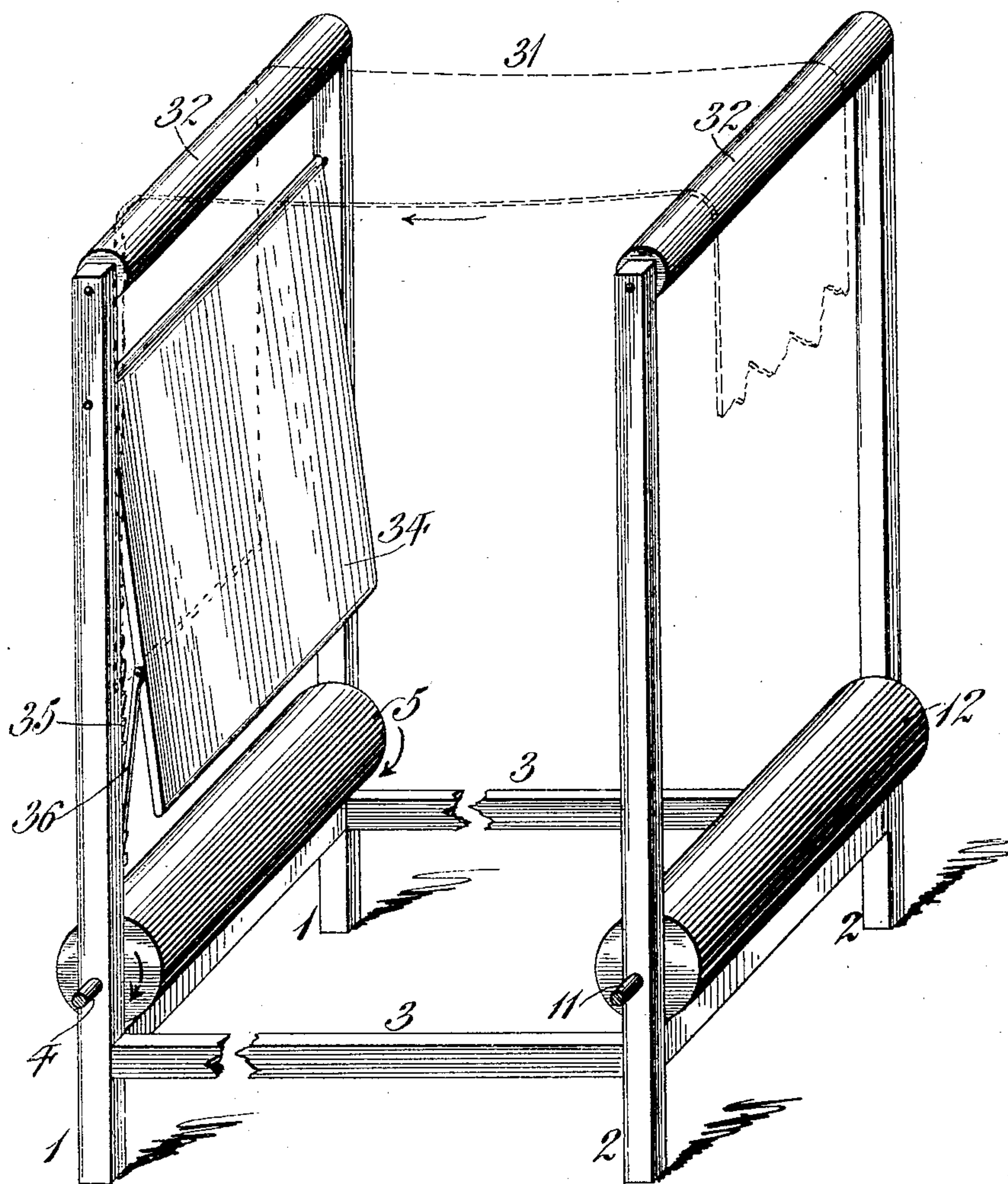
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fig. 4.



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UNITED STATES PATENT OFFICE.

ARTHUR L. ROBERTSHAW, OF PHILADELPHIA, PENNSYLVANIA.

BURLING OR PERCHING MACHINE.

No. 805,820.

Specification of Letters Patent.

Patented Nov. 28, 1905.

Application filed May 19, 1905. Serial No. 261,107.

To all whom it may concern:

Be it known that I, ARTHUR L. ROBERTSHAW, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Burling or Perching Machine, of which the following is a specification.

My invention consists of a new and useful burling or perching machine providing means for mechanically moving the web in either direction over the perch, whereby the operator is able to give full attention to the inspection of the cloth.

It further consists of means for traversing or changing the motion of the web.

It further consists of novel features of construction, all as will be hereinafter fully set forth.

Figure 1 represents a side elevation of a machine embodying my invention. Fig. 2 represents a plan view thereof. Fig. 3 represents a portion of the device, showing the parts in a different position from that shown in Fig. 1. Fig. 4 represents a view showing a portion of the machine with the perch attached thereto.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings, 1 and 2 designate the uprights of the frame of the machine, between which extend the side pieces 3, which form a track. Suitably journaled in the upright 1 is a shaft 4, on which is suitably mounted the front roller 5, a pulley 6 being also mounted on said shaft 4 and is adapted to receive motion from any suitable source, as by the belt 7. Also mounted on the shaft 4 is a pulley 8, which is adapted to receive a belt 9, which, as will be seen from the drawings, is passed around a second pulley 10, which is mounted upon the shaft 11, suitably journaled in the upright 2 of the machine, said shaft having also mounted thereon the rear driving-roller 12, it being seen that the said rollers 5 and 12 will rotate in opposite directions.

13 designates a carriage which is adapted to travel on the rails 3, said carriage consisting of the bars 14 and the supports 15, the latter having the wheels 16, suitably mounted thereon and which are adapted to travel on the upper side of the rails 3, while depending from the supports 15 are the arms 17, which carry the wheels 18, which are adapted to contact with the lower portion of the rails 3, whereby it will be understood that the carriage is prevented from upsetting when the

weight is unequally balanced and serves to hold the same always in proper position.

19 designates levers which are pivotally attached at a suitable point to the carriage and which are connected at a suitable portion with the bar 20, which serves as a handle for operating the said levers. 21 designates a lug extending from each of said levers 19, which, with the nose 22, which extends from the said levers, forms a bracket 23, the upper edge of said nose 22 forming a track for a purpose to be hereinafter described.

25 designates a bracket in the rear portion of the carriage, which serves to hold the rear roll 26, while hinged to said bracket at each side are the levers 27, which are adapted to extend from said bracket to the table 28, which is also situated as to form a protector for the rear driving-roll 12. 29 designates a similar table suitably mounted and serves as a protector for the other driving-roll 5.

30 designates the front roll, which is adapted to receive the cloth 31, which latter is adapted to pass from the rear roll 26 to the front roll 30 over any ordinary perch, such as is now used and which is indicated by the rolls 32.

33 designates a table suitably supported on the carriage between the ends thereof.

The operation is as follows: The roll 26, upon which the cloth 31 is wound, is placed on the table 28 and in such a position that each end of the roll is in line with the levers 27, and a slight impulse will cause the roll to run down the levers 27 into the bracket 25, where it is held or journaled, and the cloth 31 is passed over the perch above and down in the front of the carriage. The carriage 13 is then drawn close to the front driving-roller 5 and the cloth laid over the table 29, an empty roller 30 being placed over the cloth, with its shafts seated in the socket or bracket 23 of the levers 19, the said roll 30 being brought into substantial contact with the front driving-roller 5. Motion now being imparted to the device, the roller 5 rotates in the direction indicated by the arrow in Fig. 1, which imparts motion through the belt 9 to the rear roller 12 in the direction indicated by the arrow thereon, Fig. 1. The front or empty roll being brought into contact with the front roller 5 causes the same to rotate and pulls the cloth off the roll 26, winding itself on the roller 30. The cloth can be carefully inspected, and if for any reason it is desired to stop

the movement thereof by moving the carriage 13 a slight distance the roll 30 is removed from contact with the front driving-roller 5 and movement is stopped. If it is desired to reverse the movement of the cloth, the carriage is pushed back to cause the roll 26 or cloth thereon to contact with the rear driving-roller 12, when the motion imparted to the cloth is reversed and the cloth is rewound on the roll 26. After the rear roll is empty the front roll can be quickly removed from the machine by raising the levers 19 in the position seen in Fig. 3, when the sides of the roll will travel along the track 24 of the nose 22 and be received on the table 33, from which it can be easily moved by a slight impulse to the table 28 by passing over the levers 27, and the machine is ready for the next operation.

In machines heretofore in use it has been found impracticable to use the same owing to the various conditions which are met with. For example, in machines where the full roll is placed on the one driving-roll and the empty roll on the other driving-roll and which are run at the same speed, each connected by an endless belt of some kind, the movement of the cloth from one roll to the other is imperfect on account of the inability to deal with stretching of the cloth and the different tensions used in putting the cloth on the roll, which variations cause slackness and uneven winding, which are not only troublesome to the operator, but in some cases render it impossible to reverse the winding. By the construction just described each roll works independently and all the above-mentioned difficulties are overcome. It will be understood that the carriage which supports the rolls is of such size that there is sufficient room between the two driving-rollers, so that when the front roll touches the front driving-roller the back roll is clear of the back driving-roller, and vice versa, and as the front and back driving-rollers are running all the time in different directions all that is necessary for the operator to do is to move the carriage against the roller in which direction he wishes to drive the cloth, and he is thus not troubled with any starting or stopping motion.

Another advantage derived from the use of this machine is the ease with which the roll can be handled by reason of the movable levers which support the front roll and the track for removing the full roll from the carriage or supplying it with a new full roll. It will be apparent that the machine is simple in its operation and is adapted for use with any of the well-known perches, all that is being necessary to do is to place the machine beneath the perch.

It will of course be understood that in place of having the perch attached to a stationary point and placing the machine beneath I may, if desired, connect the perch directly with the

machine, and I have illustrated this construction in Fig. 4, in which I have shown the uprights 1 and 2 extended upwardly a sufficient distance to form journals for the perches 32, which are suitably mounted therein and over which the cloth 31 can pass, as previously described. The operating portions of the machine have been omitted in this figure for the sake of clearness. In addition I may attach an adjustable board 34 to the uprights, said board forming a solid background for the cloth and in some instances affording means for examination of the cloth and also serving to permit marking of the same, if desired. The said table may be adjusted in any desired manner, and in the drawings I have shown the rack 35, attached to the standard, and a suitable pawl or duct 36, connected to the table for holding the same in adjusted position.

It will be evident that various changes may be made by those skilled in the art, which may come within the scope of my invention, and I do not, therefore, desire to be limited in every instance to the exact construction herein shown and described.

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

1. In a device of the character described, cloth-rolls, longitudinally-movable supporting means and front and rear driving means between which said supporting means is adapted to be moved in one position to drive the rolls in one direction and in another position to drive them in the opposite direction and in its intermediate position no motion being imparted.

2. In a device of the character described, cloth-rolls, a movable carriage for supporting the cloth-rolls and means for rotating the rolls in one direction or the other depending upon the position of the carriage.

3. In a device of the character described, cloth-rolls, a movable carriage for supporting the cloth-rolls, means for rotating said rolls in one direction and means for rotating the rolls in the opposite direction, said means being brought into operative relation with the rolls by movement of the carriage.

4. In a device of the character described, a movable carriage, means for supporting the cloth-rolls thereon, a front driving-roller adapted to rotate the rolls in one direction when the carriage is moved to its forward position and a rear driving-roller adapted to rotate the rolls in the opposite direction when the carriage is moved to its rearmost position.

5. In a device of the character described, a movable carriage, means for supporting the cloth-rolls thereon, a front driving-roller, a rear driving-roller and means for rotating said rollers continuously in opposite directions.

6. In a device of the character described, a movable carriage, a track upon which said carriage travels, front and rear driving-roll-

ers situated adjacent the ends of said track and cloth-rolls carried by said carriage and adapted to be rotated forwardly or backwardly depending upon the position of the carriage.

7. In a device of the character described, a movable carriage, cloth-rolls adapted to be carried thereby, front and rear driving-rollers, and tables adapted to protect said driving-rollers.

8. In a device of the character described, a movable carriage, cloth-rolls adapted to be carried thereby, front and rear driving-rollers, a table protecting each of said rollers, and pivoted levers on said carriage and serving as a track from said carriage to one of said tables.

9. In a device of the character described, a movable carriage, cloth-rolls adapted to be carried thereby, front and rear driving-rollers adapted to actuate said rolls, and a pivoted bracket on said carriage for one of said cloth-rolls and adapted to be elevated for the removal of the roll.

10. In a device of the character described, a movable carriage, a track on which said carriage moves, means for guiding and balancing said carriage and front and rear driving-rollers for actuating said cloth-rolls.

11. In a device of the character described, a movable carriage, a track for said carriage, means for guiding said carriage on said track, front and rear driving-rollers adjacent the ends of said track, means for rotating said rollers in opposite directions, tables for protecting said rollers, devices pivoted to said carriage and serving as a track to one of said

tables, a pivoted bracket on said carriage and cloth-rolls adapted to be carried by said carriage and to be rotated by one of said driving-rollers in a direction depending on the rollers in contact.

12. In a device of the character described, cloth-rolls, longitudinally-movable supporting means, front and rear driving means between which said supporting means is adapted to move in order to drive the rolls in different directions as desired, and perches over which the cloth is adapted to pass from one roll to the other.

13. In a device of the character described, cloth-rolls, longitudinally-movable supporting means, front and rear driving means between which said supporting means is adapted to be moved in order to drive the rolls in either direction as desired, perches over which the cloth is adapted to pass from one roll to the other, and an adjustable board suitably supported.

14. In a device of the character described, cloth-rolls, longitudinally-movable supporting means, front and rear driving means between which said supporting means is adapted to be moved in order to drive the rolls in either direction as desired, perches over which the cloth is adapted to pass from one roll to the other, an adjustable board suitably supported, and means for supporting said board in its adjusted position.

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