

(No Model.)

J. RIERA Y HERNANDEZ.
CIGARETTE MACHINE.

No. 516,392.

Patented Mar. 13, 1894.

Fig. 1.

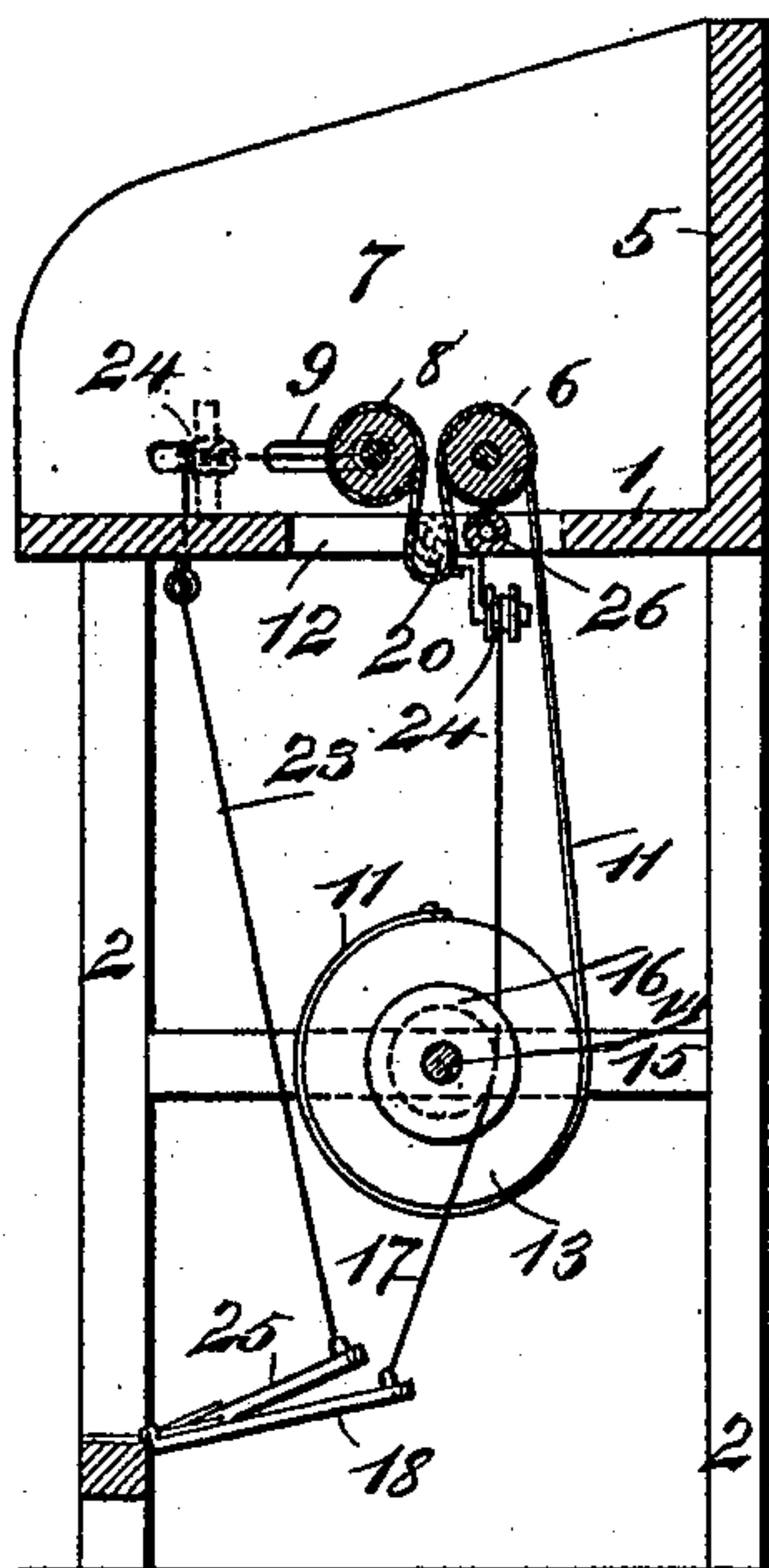


Fig. 3.

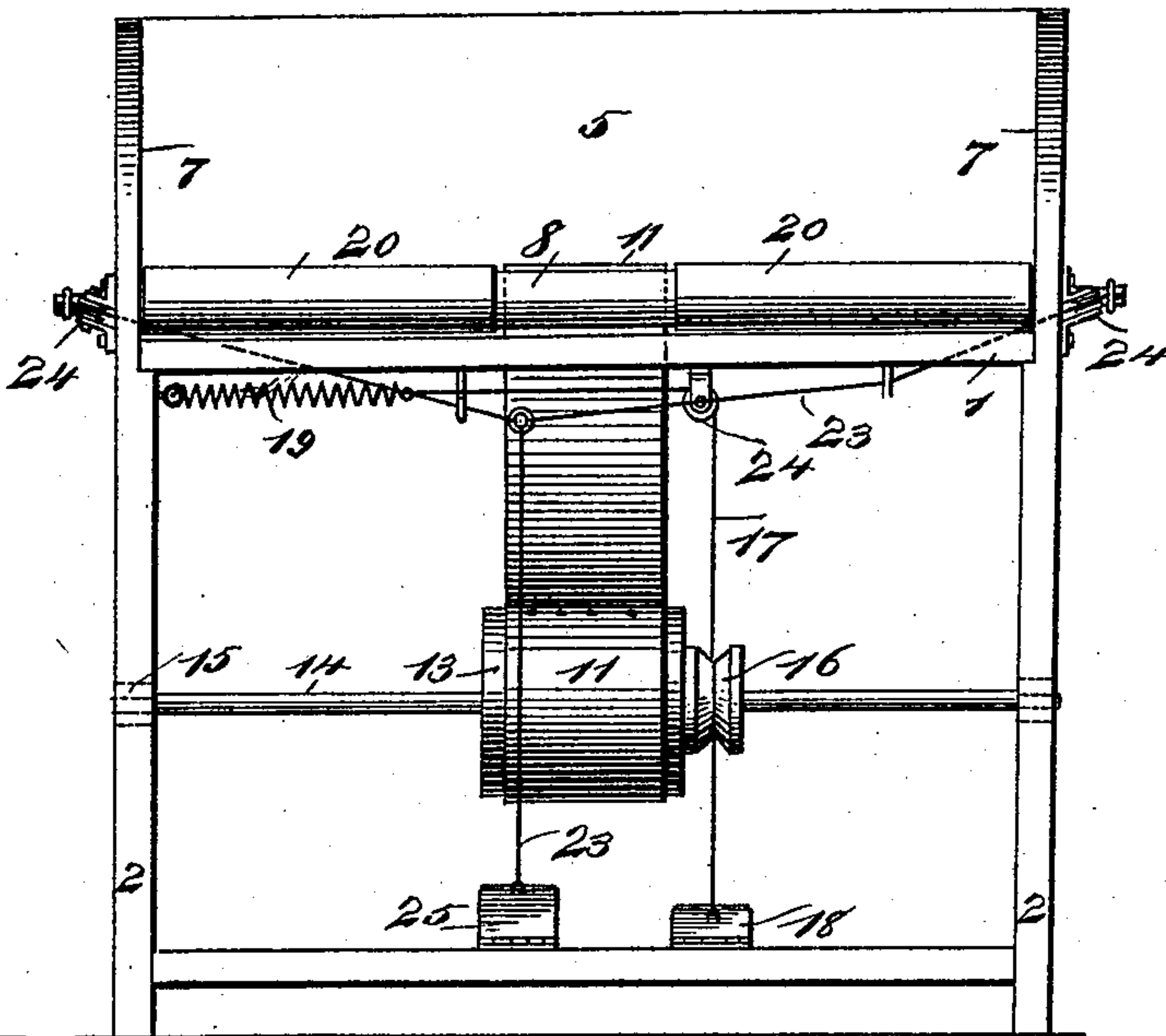


Fig. 2.

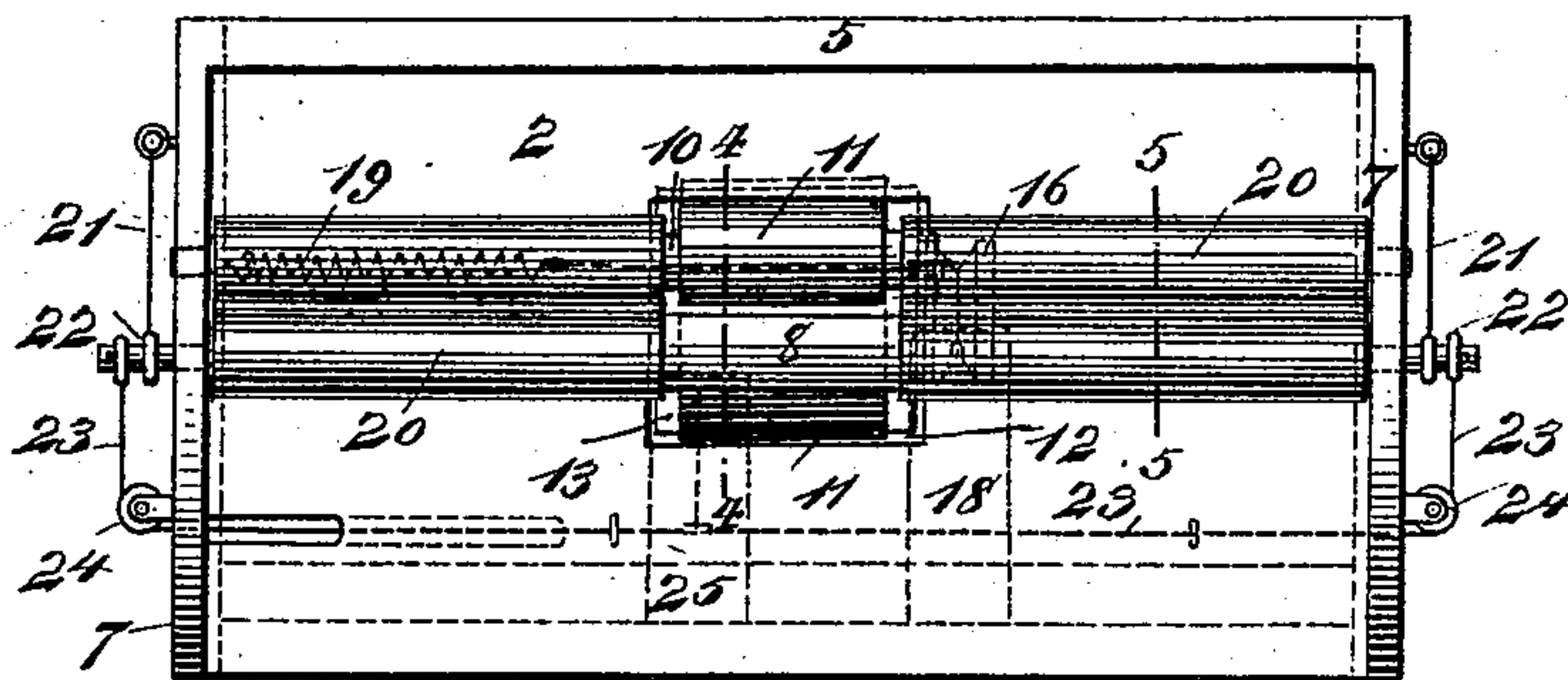


Fig. 4.

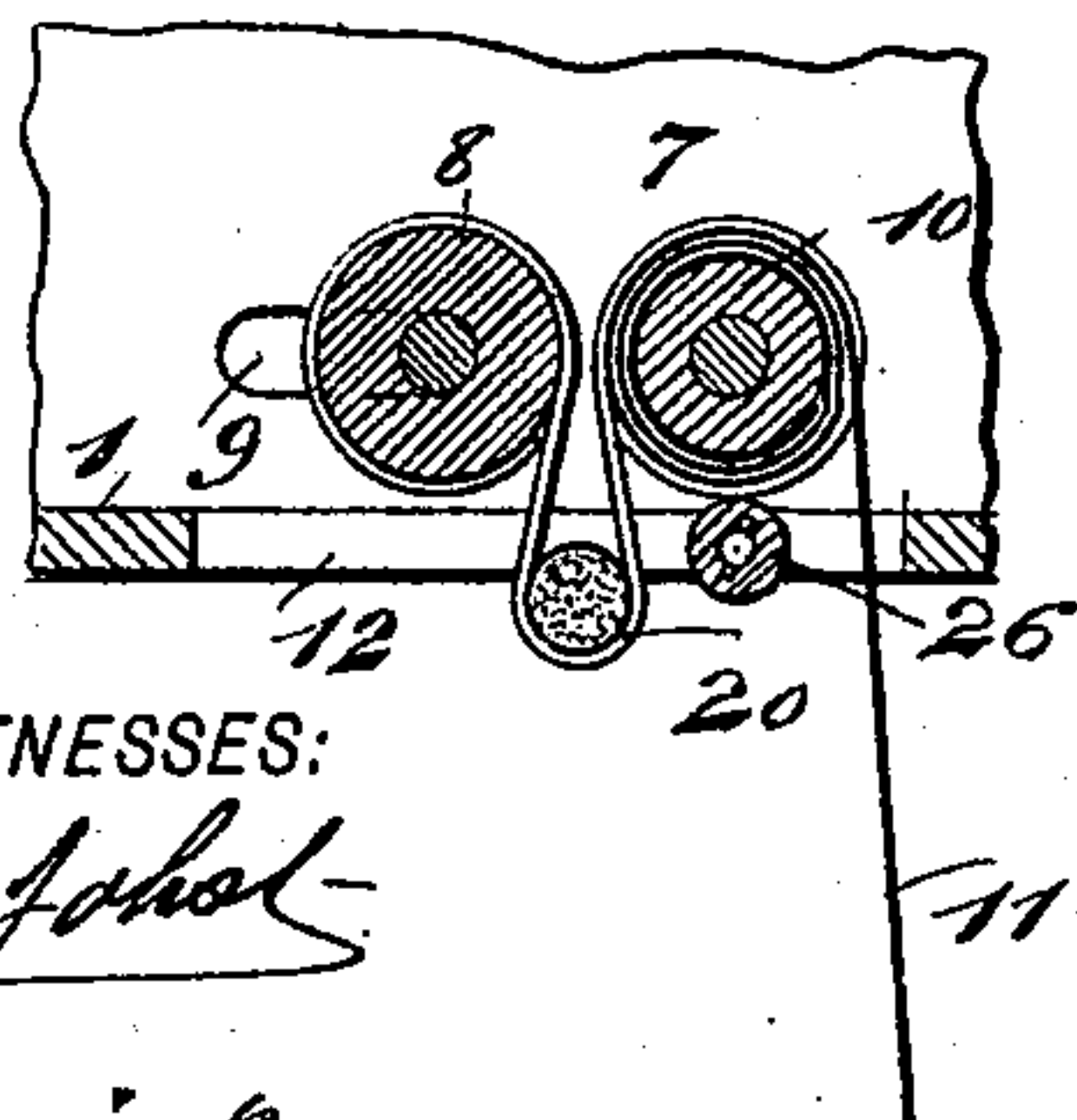
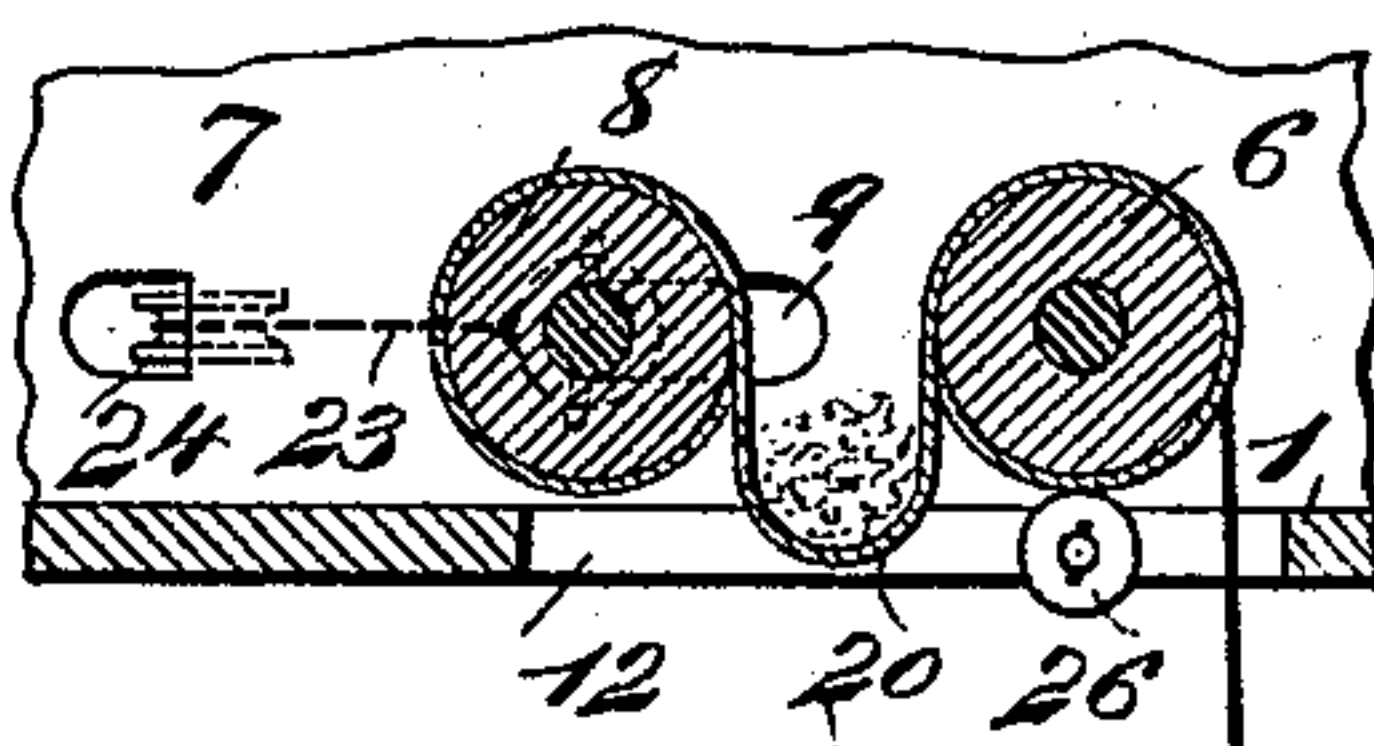


Fig. 5.



WITNESSES:

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JOSÉ RIERA Y HERNANDEZ, OF HAVANA, CUBA.

CIGARETTE-MACHINE.

SPECIFICATION forming part of Letters Patent No. 516,392, dated March 13, 1894.

Application filed September 15, 1893. Serial No. 485,542. (No model.)

To all whom it may concern:

Be it known that I, JOSÉ RIERA Y HERNANDEZ, a subject of the King of Spain, and a resident of Havana, in the Island of Cuba, have invented certain new and useful Improvements in Cigarette-Machines, of which the following is a full, clear, and exact specification.

The object of my invention is to provide a simple, durable, and economic machine for making cigarettes.

The invention consists of certain features of construction, and combinations of the same, as will be fully described hereinafter and pointed out in the claims.

Reference is to be had to the accompanying drawings, in which like numerals indicate corresponding parts throughout the several views.

Figure 1, is a sectional elevation of the machine taken on line 1—1 of Fig. 2. Fig. 2, is a plan view of the machine. Fig. 3, is a front elevation of the same. Fig. 4, is a detail cross-sectional view on line 4—4 of Fig. 2, showing the rollers 6 and 8 in their normal position, and Fig. 5 is a detail cross-sectional view on line 5—5 of Fig. 2 showing the rollers 6 and 8 separated from each other.

The improved machine consists of a table 1 supported on suitable legs or standards 2, the table being preferably provided with a rear wall 5, and side walls 7. A cylindrical bar or roller 6 is journaled in the side walls 7 of the table, and in front of the roller 6 another cylindrical roller 8 is likewise journaled in the side walls 7, the journals or trunnions of the front roller 8 being movable in slots 9 that extend toward the front end of the table, so that the front roller 8 can be moved toward and from the rear roller 6. The rear roller is provided with a reduced portion 10 in its center, and to this reduced portion is secured one end of a belt 11, which passes downward through an opening 12 in the table 1 and winds on a pulley or drum 13, to which the other end of the belt is fastened. The drum 13 is mounted on a shaft 14, journaled in cross bars 15, and on the same shaft is also secured a pulley 16, on which is wound the central portion of a cord 17. The lower end of the cord is secured to a pedal 18, pivoted to the legs or frame of the machine, while the upper end of the cord is connected

to a spring 19 or an equivalent device serving to bring the pedal 18 back to its normal elevated position. Aprons of canvas or other suitable fabric 20, are secured to the rollers 6 and 8 respectively and normally hang down between the same, as is shown in Fig. 1. Elastic bands or cords 21, or their equivalent, are secured at one end to the side walls 7 of the table and at the other end to rings 22 or like devices engaging with the trunnions of the front roller 8. To the same rings 22, or to similar rings located adjacent thereto, are secured the ends of cords 23 which extend forwardly, *i. e.*, in the opposite direction to the elastic cords 21, and pass over guide pulleys 24 to a pedal 25, pivoted to the frame of the machine. A guide or supporting roller 26 may be located adjacent to the central portion of the rear roller 6 to prevent the said roller from being bent down.

The operation of the machine is as follows: The operator standing at the front of the machine depresses the pedal 25 and thereby causes the front roller 8 to separate from the rear roller 6. A suitable quantity of tobacco is then placed on the aprons 20, and the wrappers which may be made of paper or of tobacco leaves are put on top of the tobacco with their gummed edges uppermost. The operator thereupon depresses the pedal 18 to rotate the drum 13 and the roller 6, and at the same time he holds preferably the roller 8 with his hands to regulate the length of apron which is paid off by the said roller. It will be understood that the rotation of the roller 6 will cause the aprons 20 to wind on the said roller, and according to the resistance opposed by the roller 8 to the unwinding of the aprons therefrom, the said roller 8 will pay off the same length of apron that is taken up by roller 6, or a smaller length. In the latter case the filling and the wrapper will not only be rotated, but compressed to a certain extent. It will be obvious that the operator by holding the roller 8 with greater or less force, will be able to regulate the resistance of the roller 8 and the degree of pressure to which the filling is subjected. Thus the machine can be used for making cigarettes of different diameters. It will be observed that the pedal is depressed but once at each operation of rotating the fillings and wrappers. The rollers

6 and 8 are then again separated and the cylindrical unfinished cigarettes are removed from the two pieces of canvas 20 and cut into cigarettes of the desired length. If the cigarettes are to be made prismatic, they will be placed in a suitable press after being formed on the machine as described.

I do not restrict myself to the particular mechanical devices illustrated by the drawings, as it will be obvious that the details may be varied to a considerable extent without departing from the spirit of my invention.

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

1. In a cigarette-making machine, two parallel rollers journaled in the frame of the machine, one of the rollers being stationary and the other displaceable therefrom, a pliable apron secured to the rollers and adapted to normally hang between them, means for separating the movable roller from the stationary one to allow of a cigarette wrapper and fillings being placed on the said pliable apron, elastic connections for drawing the movable roller toward the stationary roller, and means for rotating the stationary roller as and for the purpose set forth.

2. In a cigarette-making machine, two parallel rollers journaled in the frame of the machine, one of the rollers being stationary and the other displaceable in relation thereto, a driving mechanism connected with the central portion of the stationary roller, and aprons secured to the rollers on each side of their central portions, substantially as described.

3. In a cigarette-making machine, the combination, with the frame, the stationary roller journaled therein and provided with a reduced central portion, and a belt engaging with the reduced portion for rotating said roller, of a roller likewise journaled in the frame of the machine and adapted to be moved

toward and from the stationary roller, pliable aprons secured to the rollers on each side of the reduced portion of the stationary roller, means for separating the movable roller from the stationary one, and means for drawing the movable roller toward the stationary roller, substantially as and for the purpose set forth.

4. In a cigarette-making machine, two parallel rollers journaled in the frame of the machine, one of the rollers being stationary and the other displaceable in relation thereto, an apron secured to the rollers, a pedal operatively connected with the stationary roller to rotate the same, a tension device for drawing the movable roller toward the stationary roller, and another pedal operatively connected with the movable roller to separate it from the stationary one, substantially as described.

5. In a cigarette-making machine, a stationary roller journaled in the frame and provided with a reduced central portion, a belt engaging with the reduced portion of the said roller, a drum to which one end of the belt is secured, a shaft on which said drum is fastened, a pulley likewise held to rotate with the shaft, a cord engaging with the said pulley, a pedal connected with one end of the cord, a tension device connected with the opposite end thereof, another roller, likewise journaled in the frame of the machine yet capable of being moved toward and from the stationary roller, pliable aprons secured to the rollers on each side of the reduced portion of the stationary roller, a pedal having an operative connection with the movable roller to separate the same from the stationary roller, and a tension device connected with the said movable roller for drawing the same toward the stationary roller, as and for the purpose set forth.

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Witnesses:

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