No. 889,754. PATENTED JUNE 2, 1908.

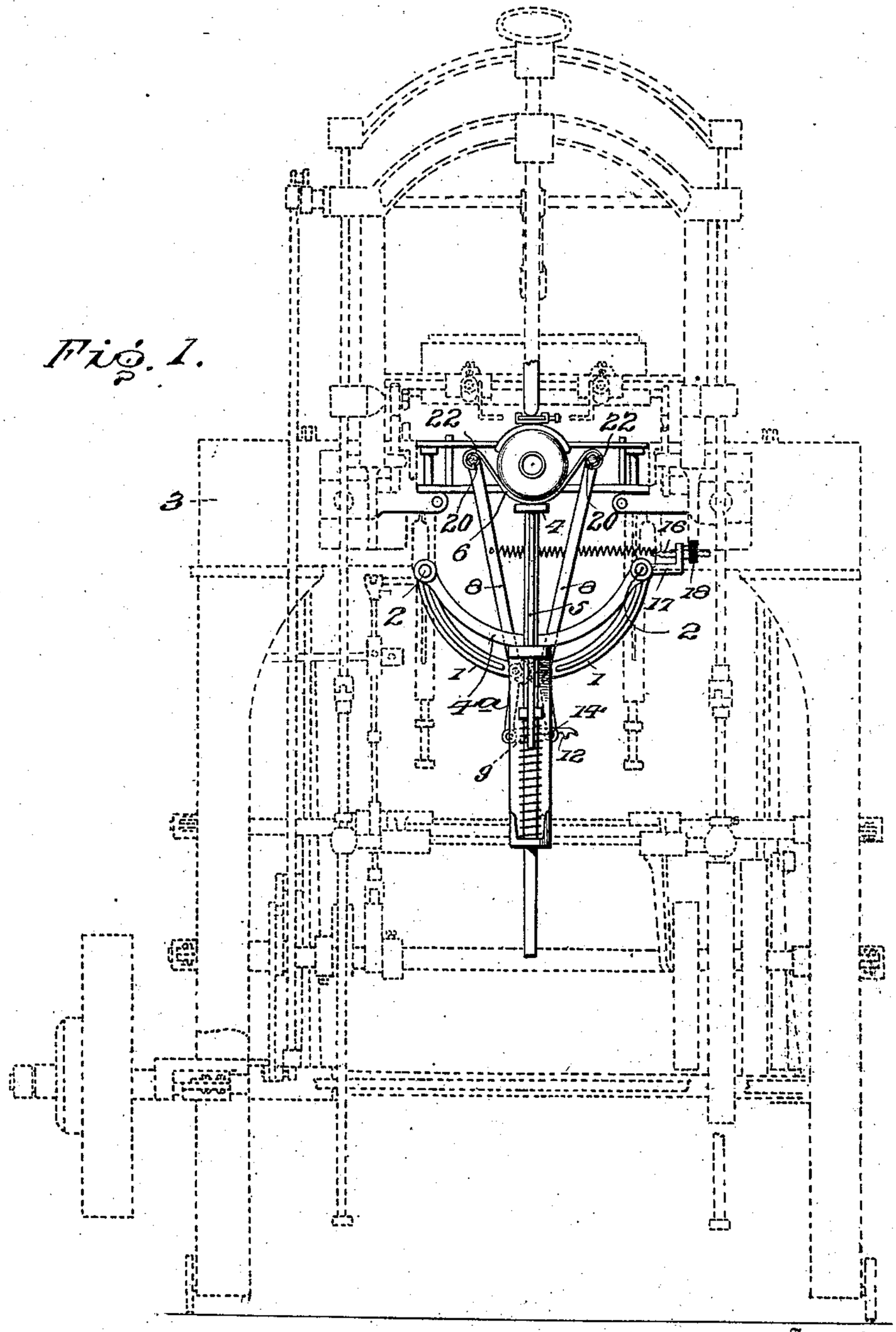
J. M. BROWN.

LABEL AFFIXING MACHINE.

APPLICATION FILED DEC. 23, 1907.

3 SHEETS—SHEET 1.

Fig. 1.



Witnesses

Inventor

By

Attorney

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3 SHEETS—SHEET 2.

Fig. 6.

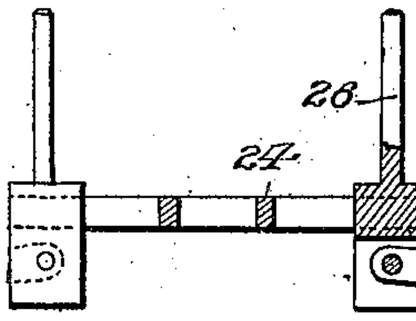


Fig. 5.

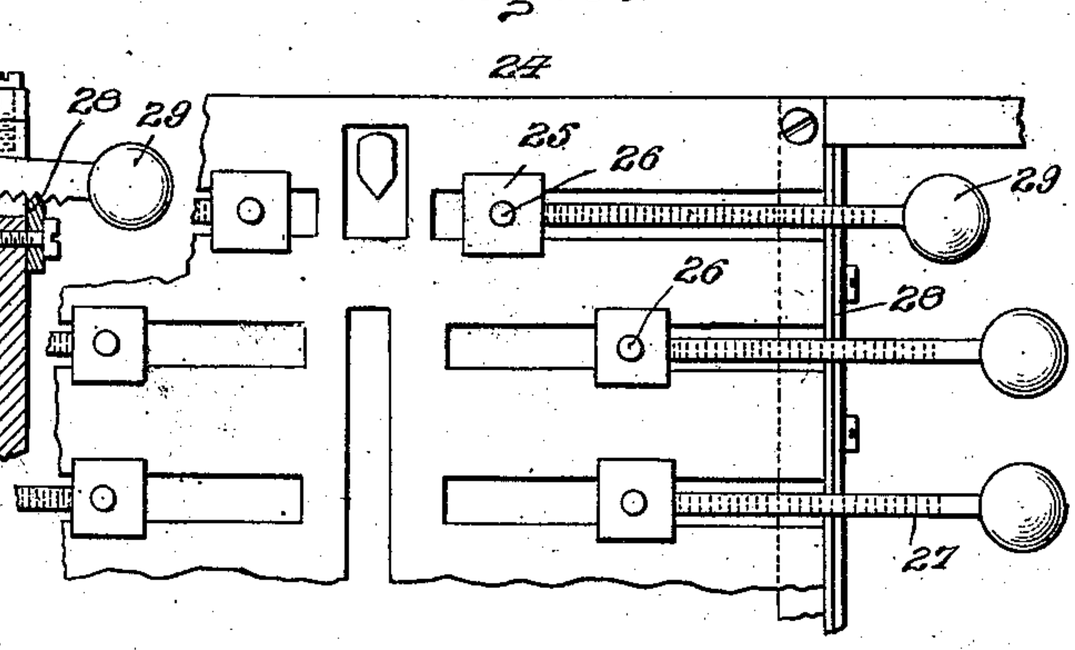
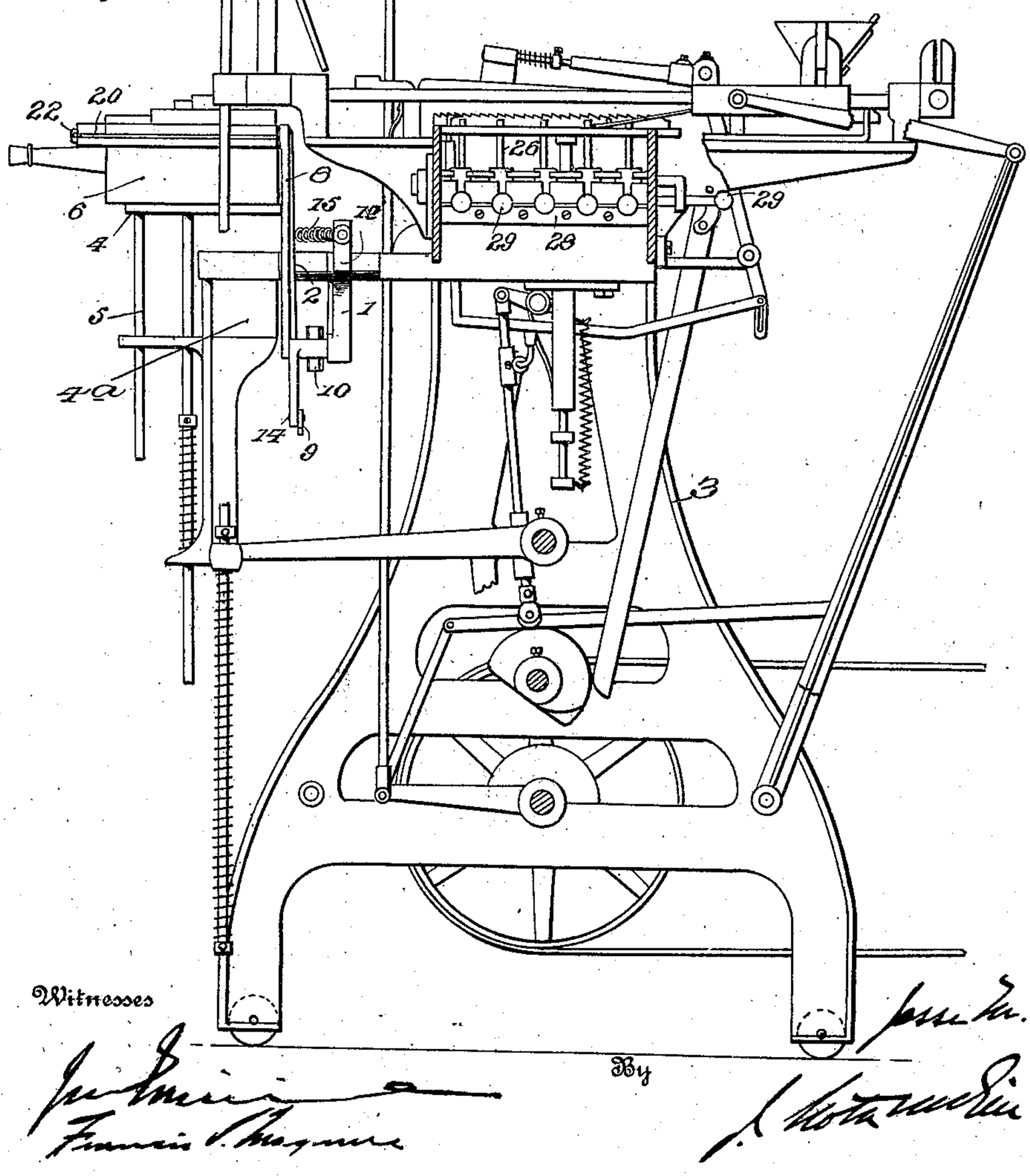


Fig. 2.



Witnesses

Francis C. Wagner

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3 SHEETS—SHEET 3.

Fig. 3.

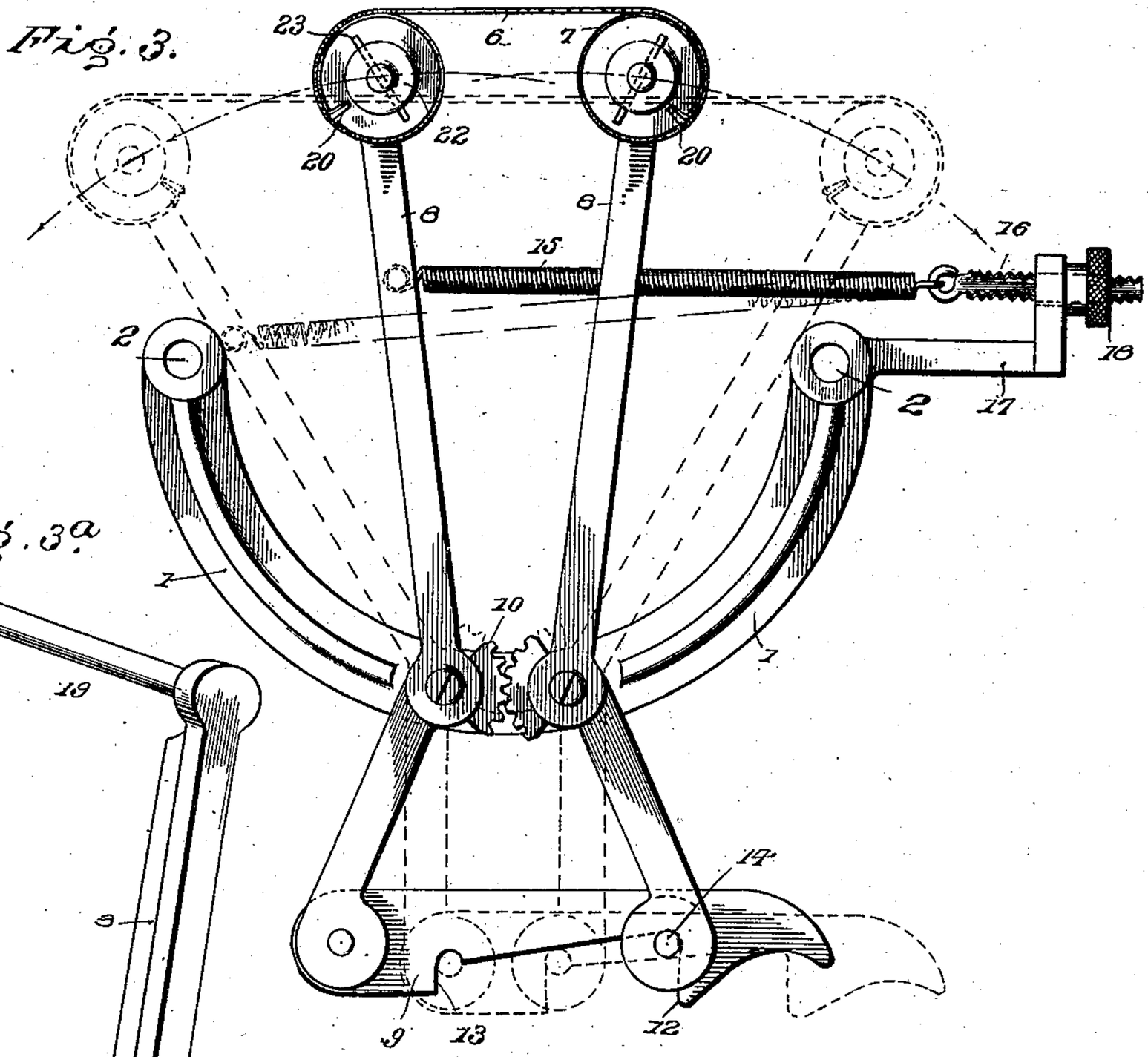


Fig. 3a.

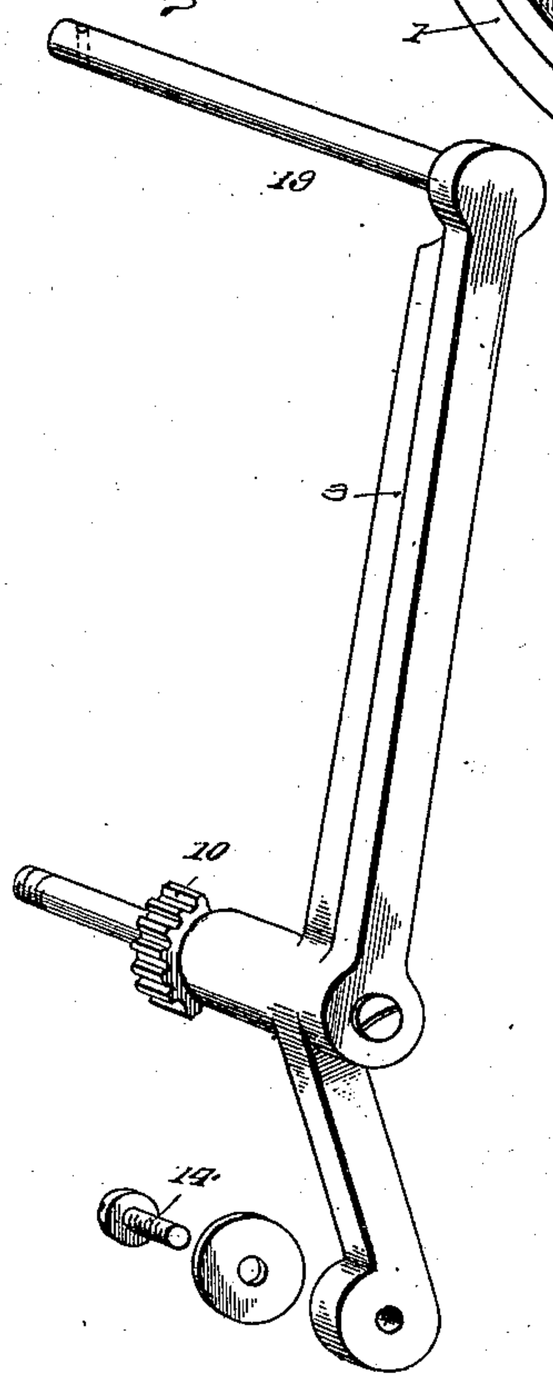
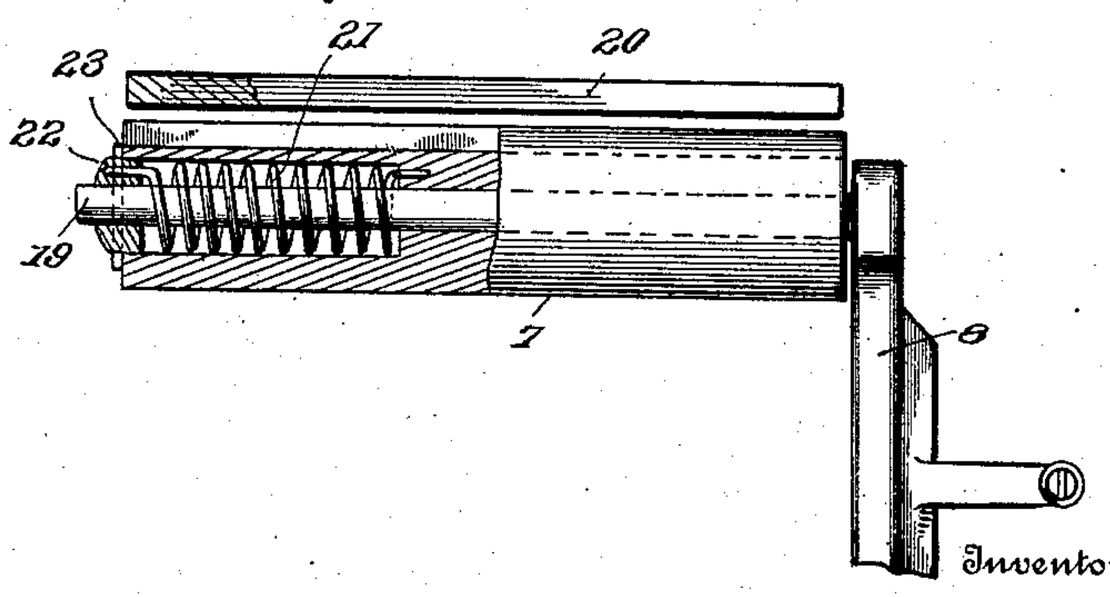


Fig. 4.



Inventor

Witnesses

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By Jesse M. Brown,

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Attorney

UNITED STATES PATENT OFFICE.

JESSE M. BROWN, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO BOSTON BOTTLE WIRING & LABELING COMPANY, OF BOSTON, MASSACHUSETTS, A CORPORATION OF MAINE.

LABEL-AFFIXING MACHINE.

No. 889,754. Specification of Letters Patent. Patented June 2, 1908.

Application filed December 23, 1907. Serial No. 407,776.

To all whom it may concern:

Be it known that I, JESSE M. BROWN, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Label-Affixing Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention contemplates certain new and useful improvements in label-affixing machines, and particularly comprehends improvements upon the machine shown and described in my application for patent filed April 24, 1907, Serial No. 369,930. The primary object of the present invention is to simplify and improve certain features of the machine embraced by such application, such improvements relating, first, to the means for affixing the pasted labels directly to bottles, and secondly to the means for adjusting the pins of the label-bed or hopper. By the first of these improvements I am enabled to apply greater and evenly-distributed pressure to all parts of the pasted label. By the second of these improvements a quick and simple adjustment of the hopper pins is secured.

The invention will be hereinafter fully set forth and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in front elevation, showing the general outline of the label affixing machine embraced by my before noted application for patent, but embodying my present improvements. Fig. 2 is an enlarged view, partly in section, at right angles to Fig. 1. Fig. 3 is an enlarged view of the apron attachment. Fig. 3ª is a view of one of the apron supporting arms. Fig. 4 shows details of one of the apron rollers. Fig. 5 is a plan view, and Fig. 6 a side elevation, of portions of the label bed or hopper, the latter figure showing one of the pins and its adjusting means.

In describing this invention I shall refer to only so much of the machine embraced by my before noted application for patent as may be necessary for a clear understanding of the improvements.

Referring to the drawings, 1 designates a bracket hung on rods 2 extending from the front of the supporting frame or stand 3; and 4 is a spring-pressed follower having a depending rod 5 guided by a bracket 4ª also hung on rods 2.

6 designates the band by which the labels are pressed against the bottles. This band is bung on bearings 7 mounted on two upright arms 8 journaled on bracket 1 and designed to be locked together at their lower ends by a latch plate 9. These arms at their journals are connected by intermeshing segmental gears 10 so that the arms will move in unison. Latch 9 is pivoted to one of the arms and is formed with two cut-outs, 12 and 13, for taking-in a pin 14 of the other arm. When the lower ends of the latter are drawn closer together, so as to place pin 14 in the inner cut-out 13, the upper ends of the arms are thown apart, while the reverse is the case when the pin 14 is in engagement with the outer cut-out 12. A coil spring 15 secured at one end to one of the arms 8, and at its other end to an adjusting screw 16 mounted in an arm 17 projected from bracket 1, serves to securely hold both arms 8 in either of their two positions, and instantly bring their upper ends in closer relation when latch 9 is moved to disengage the inner cut-out 13 from pin 14. By turning a nut 18 screw 16 may be worked back and forth to regulate the tension of spring 15.

In the present instance, the bearings 7 for the apron are in the form of spring-rollers mounted on studs 19 projecting forwardly from the upper ends of arms 8. Each of these rollers has a longitudinal cut-out wherein one end of the apron is secured, preferably by a wedge 20. The springs 21 are located within the rollers and are secured to the latter as well as to the studs, being held by caps 22 and pins 23.

The spring-pressed follower 4 normally occupies the position directly beneath that portion of the apron extending over the space between the two arms. When a bottle is forced against a pasted label located above the apron, as described in my before noted application for patent, the follower 4 will be forced downwardly, the apron unwinding uniformly from its roller bearings. In this way greater pressure is applied to all parts of the label, and as the apron moves downwardly with the bottle, the pressure is applied evenly, much more so in fact than if the give of the apron were dependent upon

the swing of the supporting arms. As soon as the bottle is removed the apron is automatically re-wound on its bearings.

The second feature of my present invention is more clearly shown in Figs. 5 and 6. The label bed plate 24 is formed with slots to accommodate base blocks 25 of hopper pins 26, such blocks being capable of being moved longitudinally of the slots so that the pins may be adjusted to accommodate labels of different sizes. To the block 25 of each label pin is pivotally connected one end of a rack bar 27 located beneath the label bed plate and projected beyond the side of the latter so as to engage a plate 28, the upper edge of which is doubly beveled. When the rack bars 27 are in engagement with their respective plates 28 the pins will be securely held, but by disengaging the rack bars from such plates the pins may be readily and easily adjusted. The outer ends of the rack bars are slightly weighted by knobs 29 which serve as handles.

The present improvements add very materially to the advantages of the label machine shown, described and claimed in my before noted application for patent, and serve not only to simplify the operation of the machine so far as concerns its ready adaptation to labels of different sizes, but also to insure the even application of the labels to bottles by the uniform application of pressure to all parts of the pasted label.

I claim as my invention:

1. In a label-affixing machine, an apron against which a bottle and pasted label are designed to be pressed, roller bearings for such apron, and fixed supports for such bearings.

2. In a label-affixing machine, an apron against which a bottle and pasted label are designed to be pressed, roller bearings for such apron, fixed supports for such bearings, and means for adjusting such supports so as to place said bearings closer to or farther from each other.

3. In a label-affixing machine, an apron against which a bottle and pasted label are designed to be pressed, spring-actuated rollers to which said apron is secured, and fixed supports for such rollers.

4. In a label-affixing machine, an apron against which a bottle and pasted label are designed to be pressed, spring-actuated rollers to which said apron is secured, fixed supports for such rollers, and means for adjusting said supports so as to place said rollers closer to or farther from each other.

5. In a label-affixing machine, an apron against which a bottle and a pasted label are designed to be pressed, spring-actuated rollers to which said apron is secured, supports for such rollers comprising two pivoted arms, means tending to draw said arms toward each other, and a latch for holding said arms in fixed relation to each other.

6. In a label-affixing machine, an apron against which a bottle and a pasted label are designed to be pressed, spring-actuated rollers to which said apron is secured, and supports for said rollers comprising two pivoted arms, a latch uniting said arms at their lower ends to hold them in fixed relation, intermeshing segmental racks carried by said arms, and a spring tension device secured to one of said arms tending to draw the upper ends thereof toward each other.

7. In a label-affixing machine having a label bed plate formed with slots and hopper pins movable in said slots, rack bars secured to said hopper pins, and means with which said rack bars are designed to detachably engage for holding the hopper pins in different positions.

8. In a label-affixing machine having a label bed plate formed with slots and hopper pins movable in said slots, bars pivoted to said hopper pins and having racks on their undersides, and plates with which said racks are designed to engage for holding the hopper pins in different positions.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

JESSE M. BROWN.

Witnesses:

CHARLES J. MADDEN,

MARY KANE.