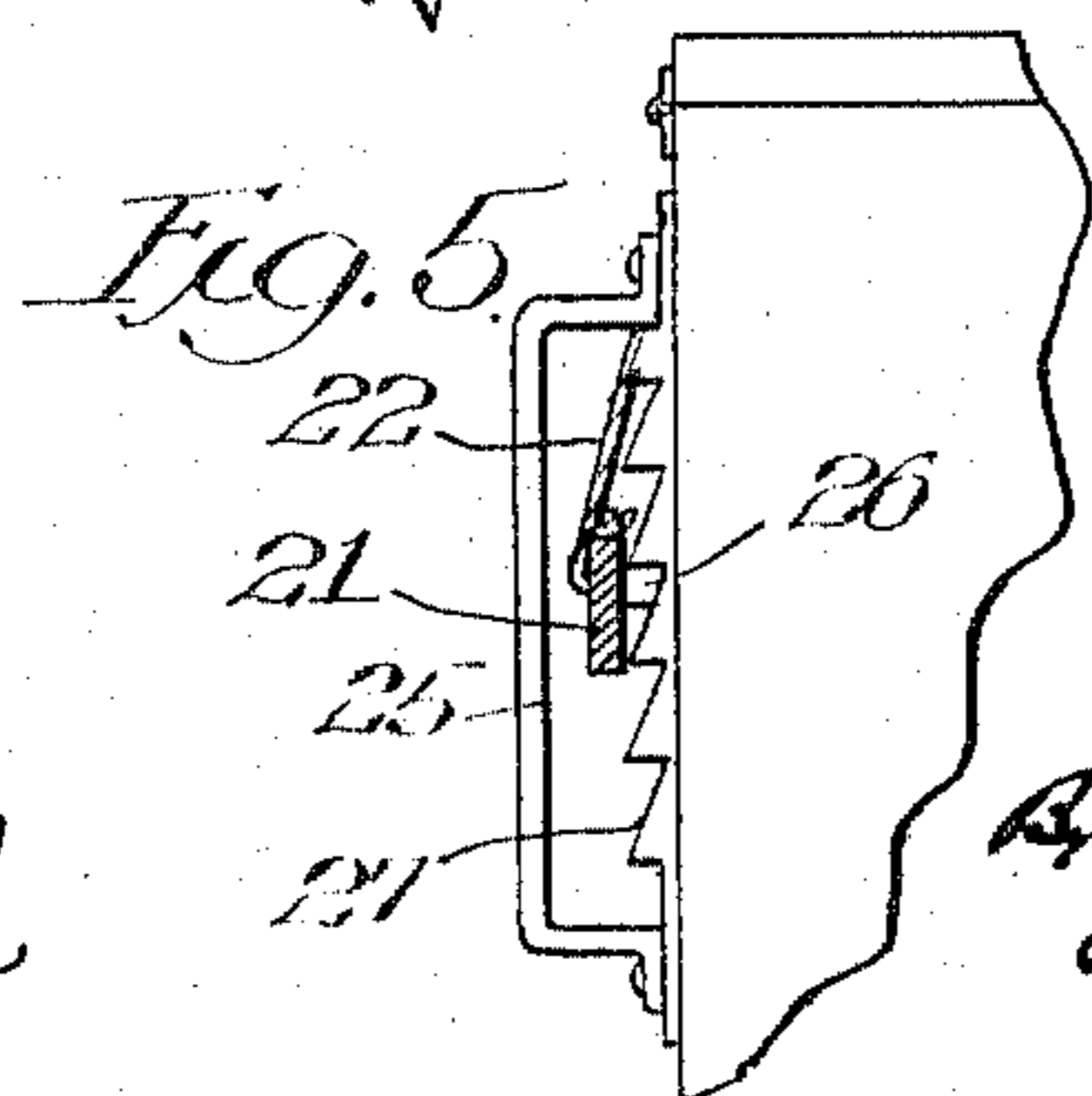
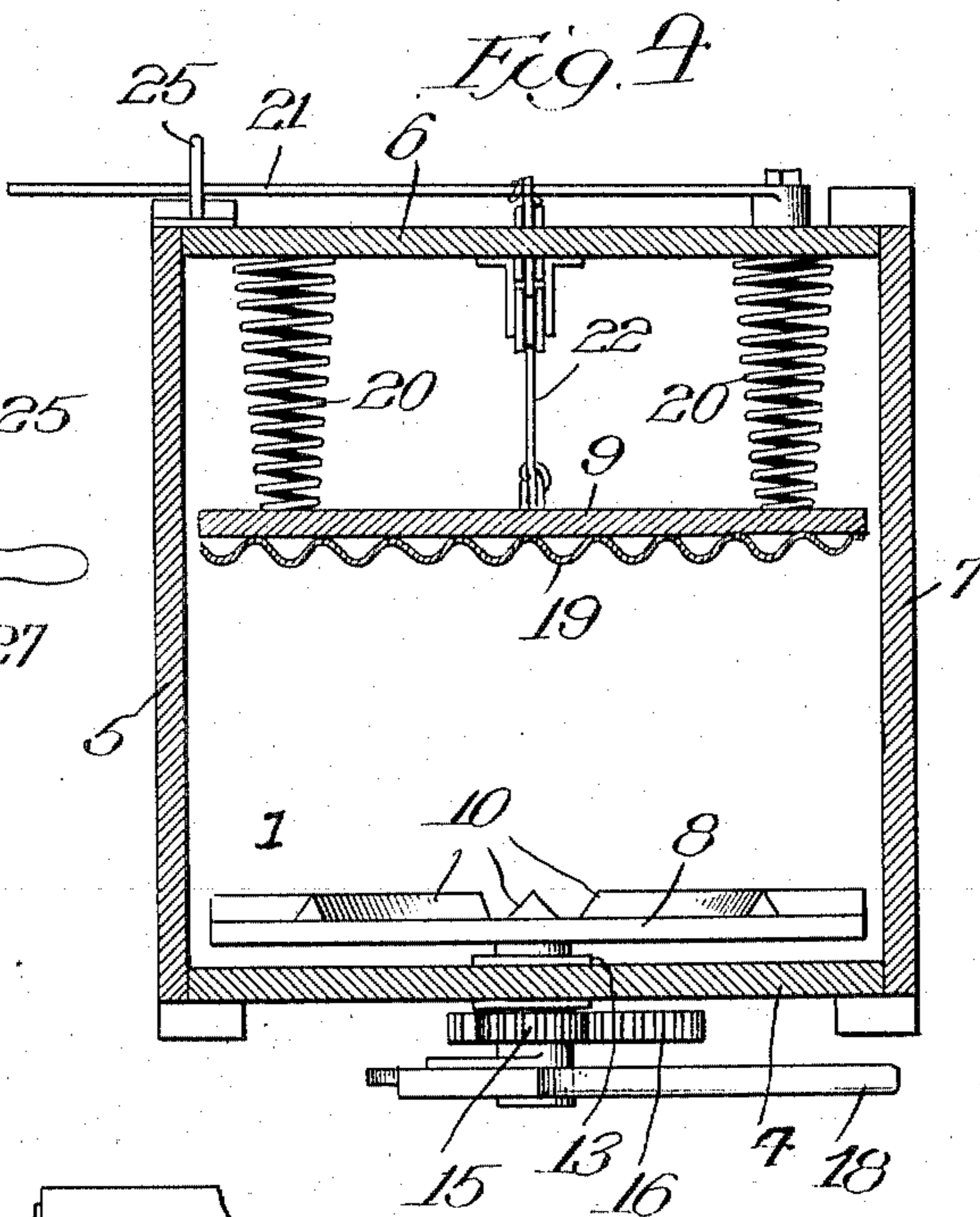
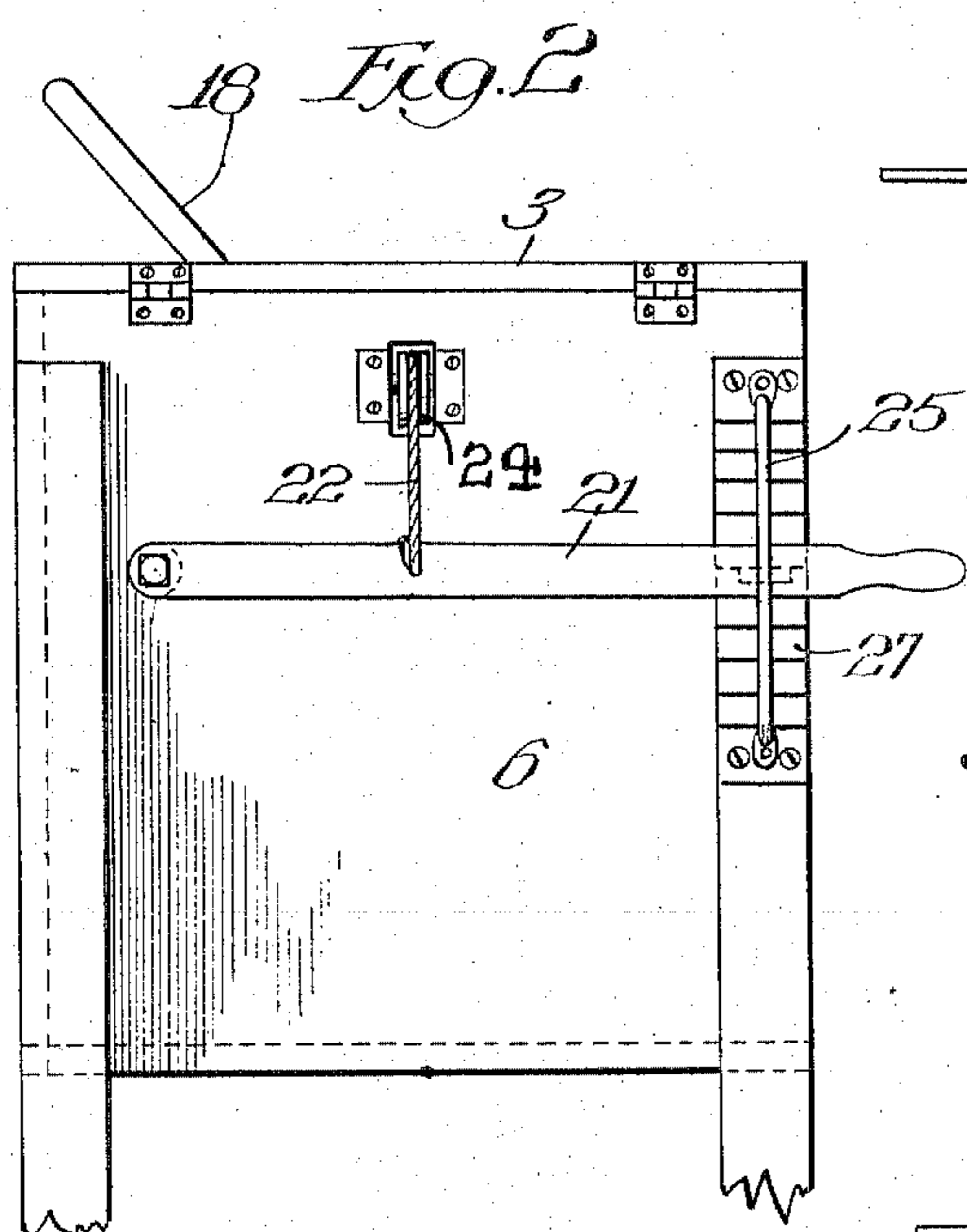
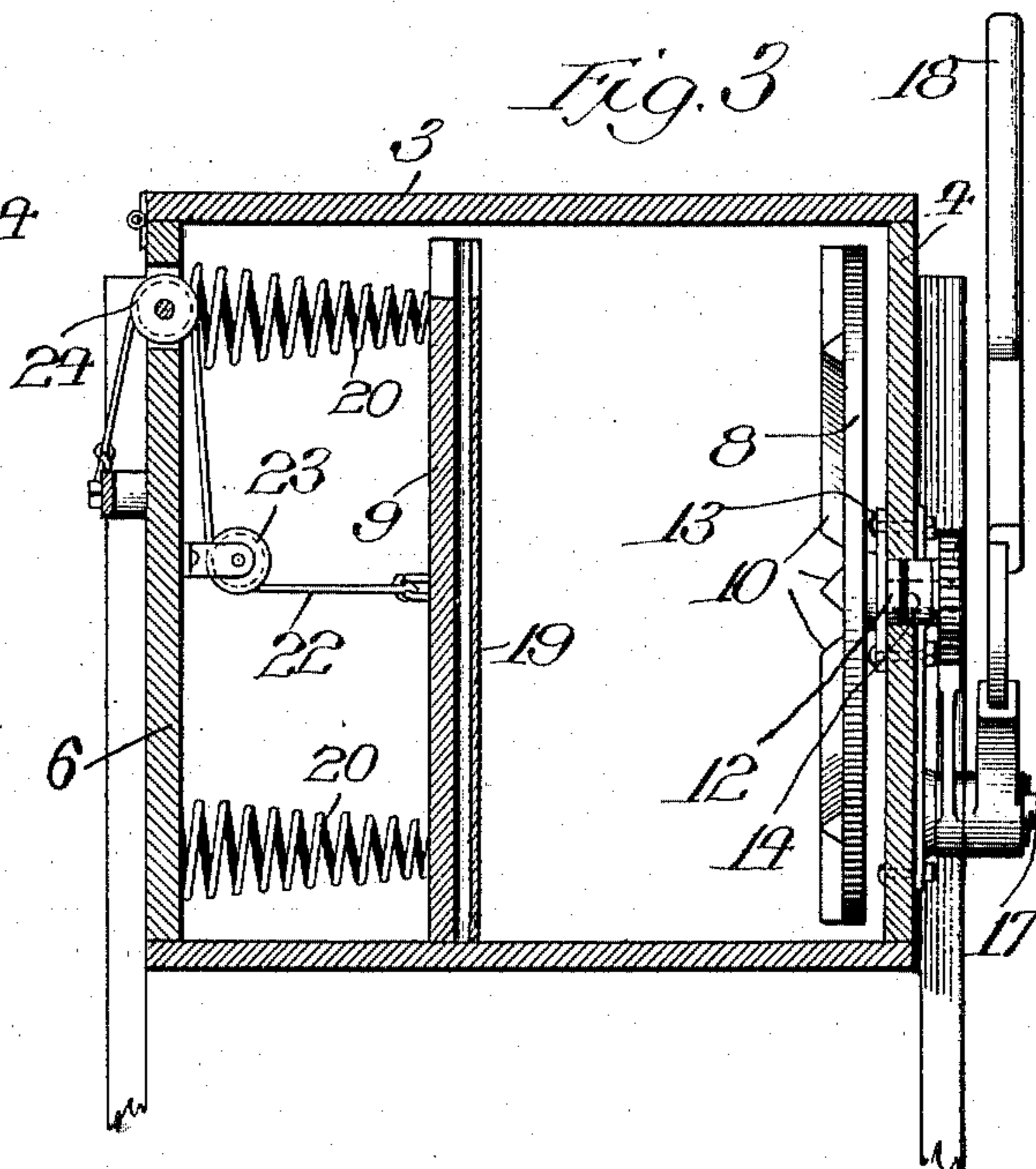
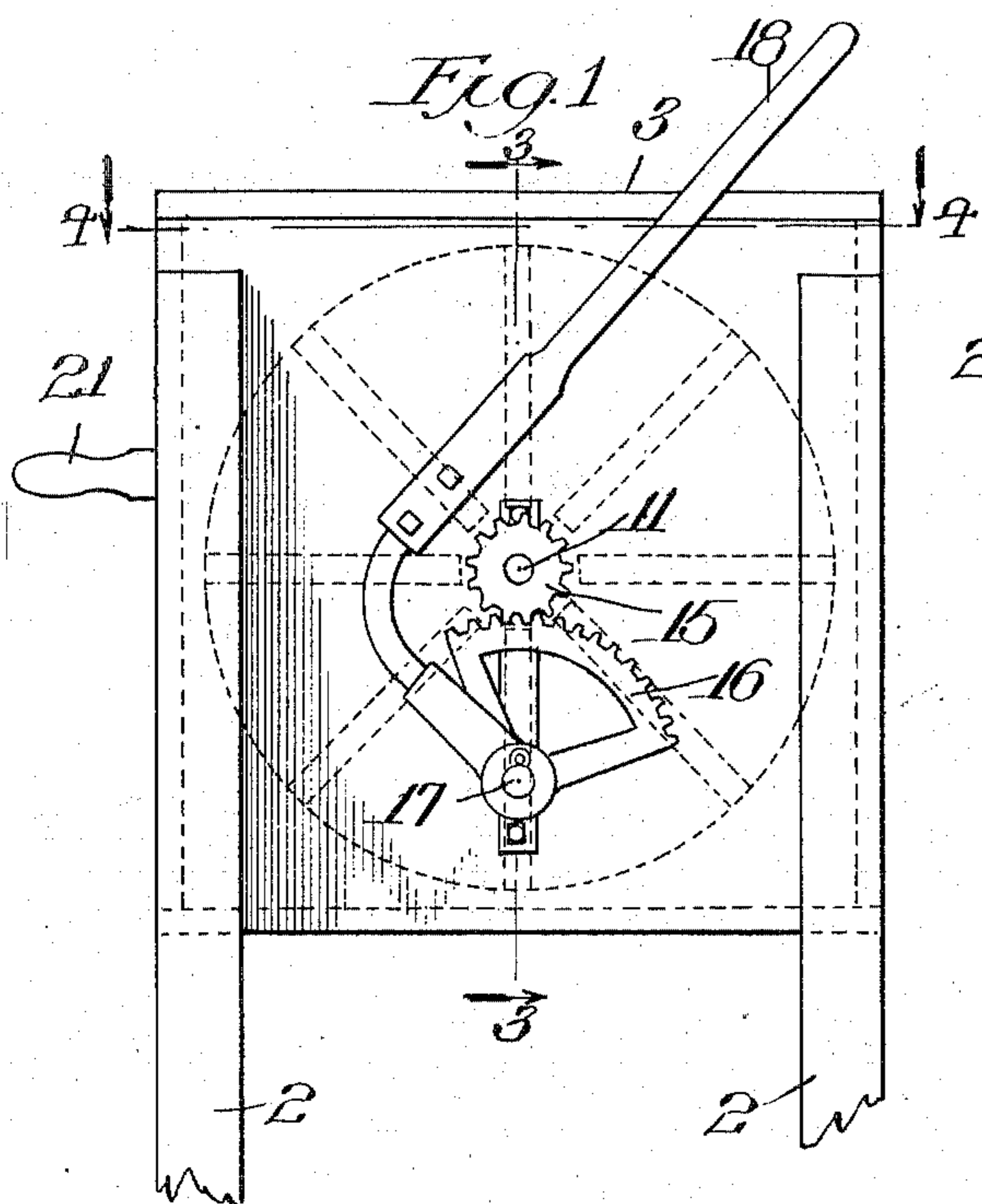


No. 811,601.

PATENTED FEB. 6, 1906.

W. I. WALKER.  
WASHING MACHINE.  
APPLICATION FILED JUNE 2, 1905.



Witnesses;  
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# UNITED STATES PATENT OFFICE.

WILLIAM I. WALKER, OF COUNCIL BLUFFS, IOWA.

## WASHING-MACHINE.

No. 811,601.

Specification of Letters Patent.

Patented Feb. 6, 1906.

Application filed June 2, 1905. Serial No. 263,389.

*To all whom it may concern:*

Be it known that I, WILLIAM I. WALKER, a citizen of the United States, residing at Council Bluffs, in the county of Pottawattamie and State of Iowa, have invented certain new and useful Improvements in Washing-Machines, of which the following is a specification.

This invention relates to that type of washing-machines in which a rotatable rubbing-board and a non-rotatable yieldingly-mounted rubbing-board are employed for rubbing the articles to be washed; and the invention has for its object the general improvement of washing-machines of this character.

A special object of the invention is the production of means for adjusting the range of movement of the yieldingly-mounted rubbing-board and for locking said adjusting means.

Further objects of the invention will appear in the detailed description of the embodiment shown in the accompanying drawings.

In said drawings, Figure 1 is a front elevation of a washing-machine embodying the features of my invention. Fig. 2 is a rear side elevation thereof. Fig. 3 is a vertical central sectional view on the plane of dotted line 3 3 of Fig. 1. Fig. 4 is a horizontal section on dotted line 4 4 of Fig. 1. Fig. 5 is a fragmental detail view illustrating the means for securing the adjusting-lever in position.

The embodiment herein shown of this invention comprises a suds-box 1, suitably supported upon legs 2 and provided with a hinged cover 3. The box 1 is substantially rectangular and comprises the side walls 4, 5, 6, and 7. It is adapted to contain the hot water and the clothes or other articles to be washed, and within it is located the means for rubbing, rolling, and squeezing the clothes, to be next described.

The means just referred to comprises a rotatable rubbing-board 8 and a non-rotatable yieldingly-mounted rubbing-board 9, adapted to hold the clothes in contact with said rotatable board. The board 8 is circular in outline and is provided upon its working face with radial ribs 10. Said board is fixed upon a short shaft 11, lying within a two-part bearing 12, secured in the wall 4 by means of the bolts 13. Suitable packing 14 is placed between the two parts of said bearing to make the bearing water-tight. The outer end of the shaft 11 bears a pinion 15, adapted

to mesh with a segment-gear 16, said segment-gear being rotatably mounted upon a stud 17, formed upon an extension of one of the parts of the bearing 12. An operating-arm 18 is fixed with relation to said segment-gear and provides means for oscillating said gear to rotate the board 8 first in one direction and then in the other.

The rubbing-board 9 is substantially rectangular in outline, its upper edge, however, being cut away centrally of the board to permit the passage of water from one side of said board to the other. Its working face is corrugated or ribbed and may consist of a sheet of corrugated metal 19, secured to said board. The board 19, the lower edge of which rests upon the bottom of the box 1 and is free to slide thereon, is pressed toward the board 8 by coiled springs 20, secured in any suitable manner to said board 9 and to the adjacent parallel side wall 6 of the box 1. The extent to which said springs can push the board 9 toward the board 8 is regulated, according to the amount of clothes being operated upon, by means of an adjusting-lever 21, pivotally mounted upon the outer side of the wall 6 and connected with said board 9 by means of the cord or wire cable 22, said cable running over the guide-sheaves 23 and 24, mounted in and upon said wall. The free end of the adjusting-lever 21 lies within a standing loop 25. The lever 21 is secured in any adjusted position by means of a stud 26 on the inner side of said lever, adapted to engage the teeth of a locking-bar 27, fixed to the wall 6.

In operation the cover 3 is opened, a suitable quantity of hot soapy water placed in the suds-box 1, and the clothes or other articles to be cleaned placed between the boards 8 and 9. The cover 3 is then replaced and the operating-lever 18 oscillated to rotate the board 8. The articles to be washed being held against said board 8 by the board 9 are rubbed and squeezed and rolled between said boards until all parts of said articles have been thoroughly acted upon by the radial ribs 10 on the board 8 and the ribbed face 19 of the board 9. If the board 9 holds the goods too tightly against the board 8, the adjusting-lever 21 is moved to draw said board 9 rearwardly away from the rotatable board 8 a suitable distance, thus diminishing the pressure upon the clothes and permitting an easier action of the operating-lever 18.

When the clothes have been sufficiently

rubbed, the adjusting-lever 21 is pressed downward to withdraw the board 9 to its rearmost position. Oscillating the operating-lever once or twice will then loosen the clothes, so that they can be easily taken out of the suds-box.

I claim as my invention—

1. In a washing-machine, in combination, two rubbing-boards; means for causing a rubbing action between said boards, one of said boards being yieldingly mounted; means for adjusting the range of movement of said yieldingly-mounted board; and means for locking said adjusting means.

2. In a washing-machine, in combination, a rotatable rubbing-board; means for rotating said board alternately in opposite directions; a yieldingly-mounted rubbing-board; means for adjusting the range of movement of said yieldingly-mounted board; and means for locking said adjusting means.

3. In a washing-machine, in combination,

a rotatable rubbing-board; means for rotating said board; a yieldingly-mounted rubbing-board; means for adjusting the range of movement of said yieldingly-mounted board; a pivoted lever; a flexible connection between said lever and said yieldingly-mounted rubbing-board; and means for locking said lever in a predetermined position.

4. In a washing-machine, in combination, a suds-box; a rotatable rubbing-board; means for rotating said board; a rubbing-board slidably supported upon the bottom of said suds-box; a plurality of springs tending to move said last-mentioned rubbing-board toward said rotatable rubbing-board; and means for adjusting the range of movement of said spring-pressed rubbing-board.

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Witnesses:

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