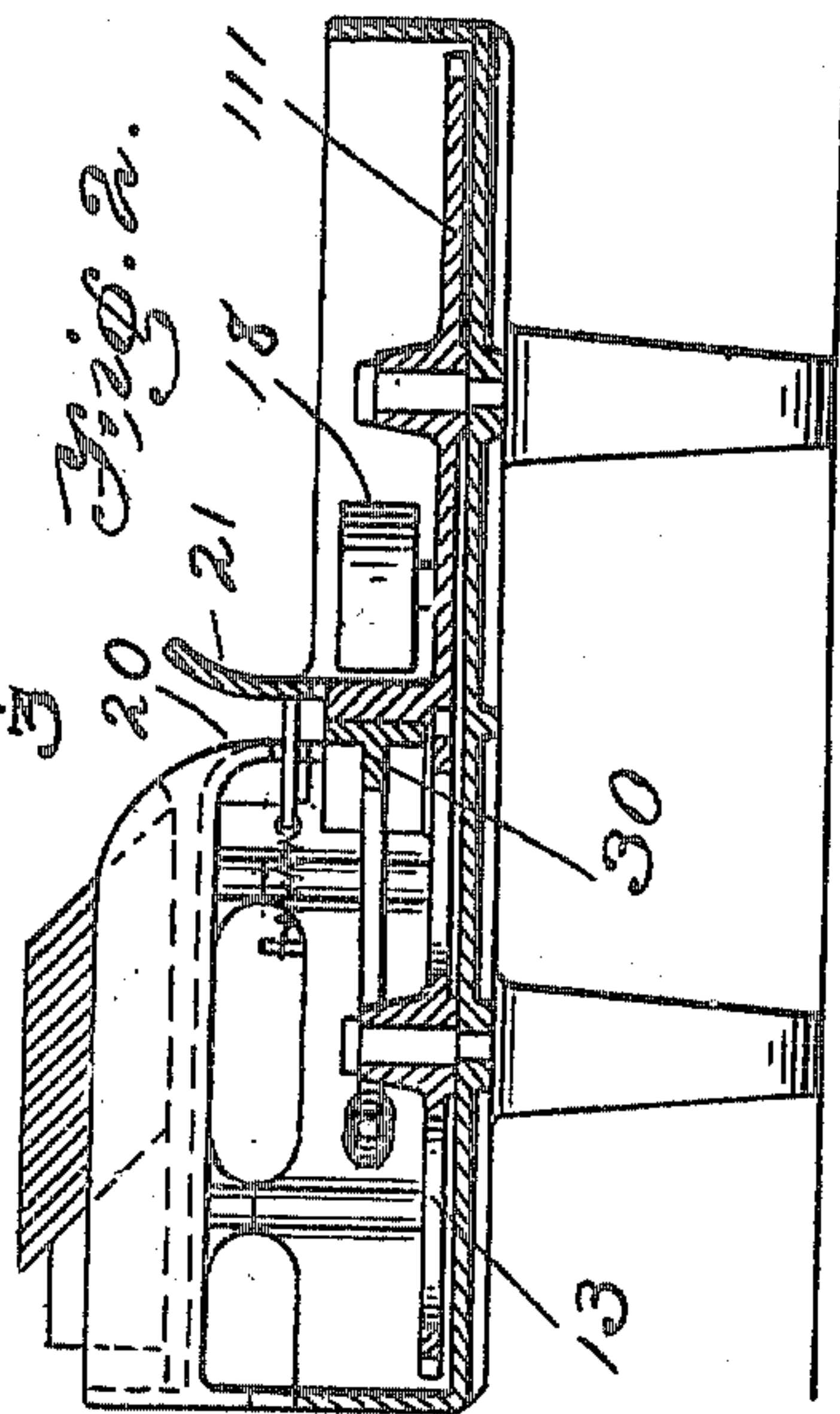
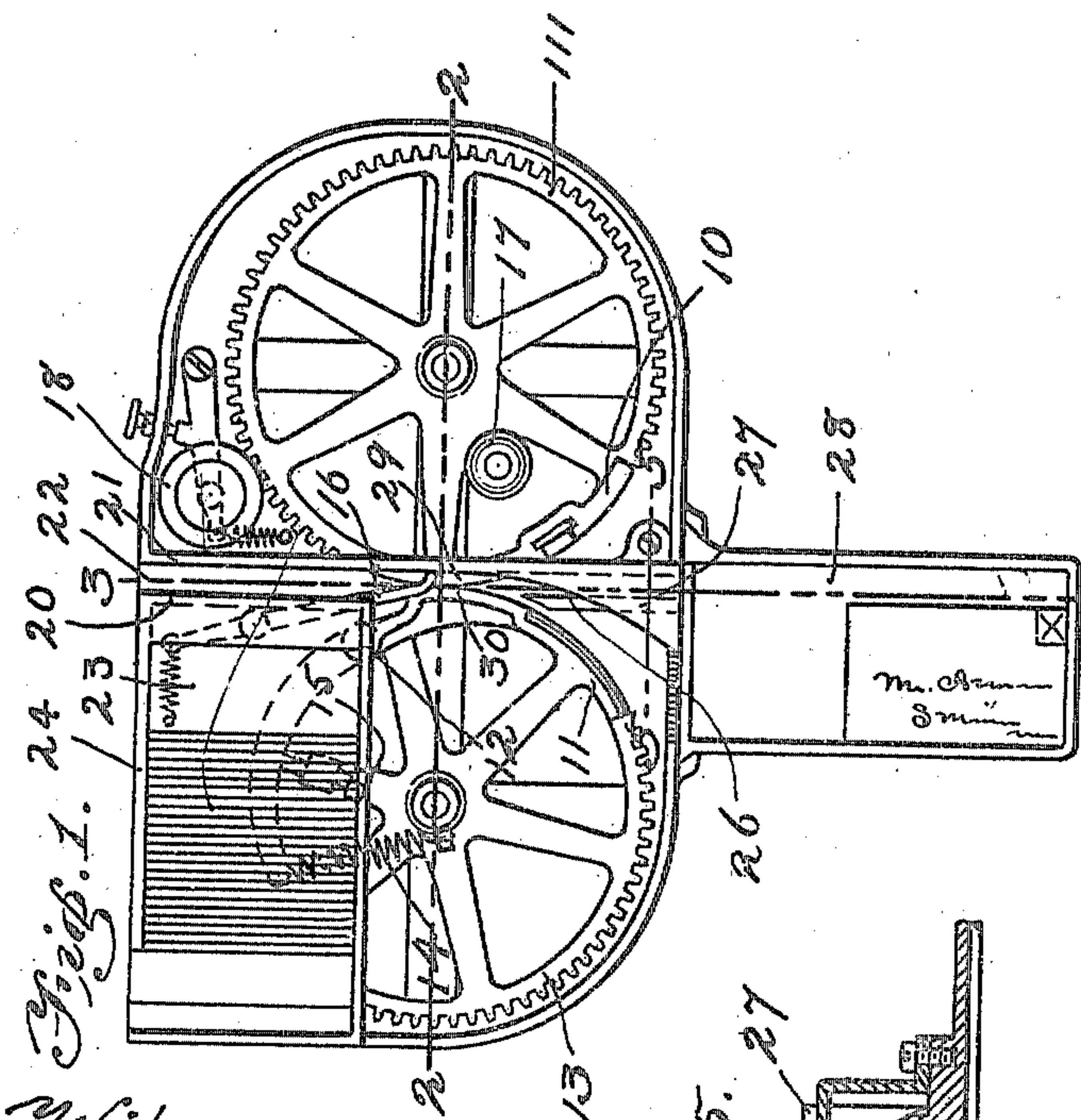
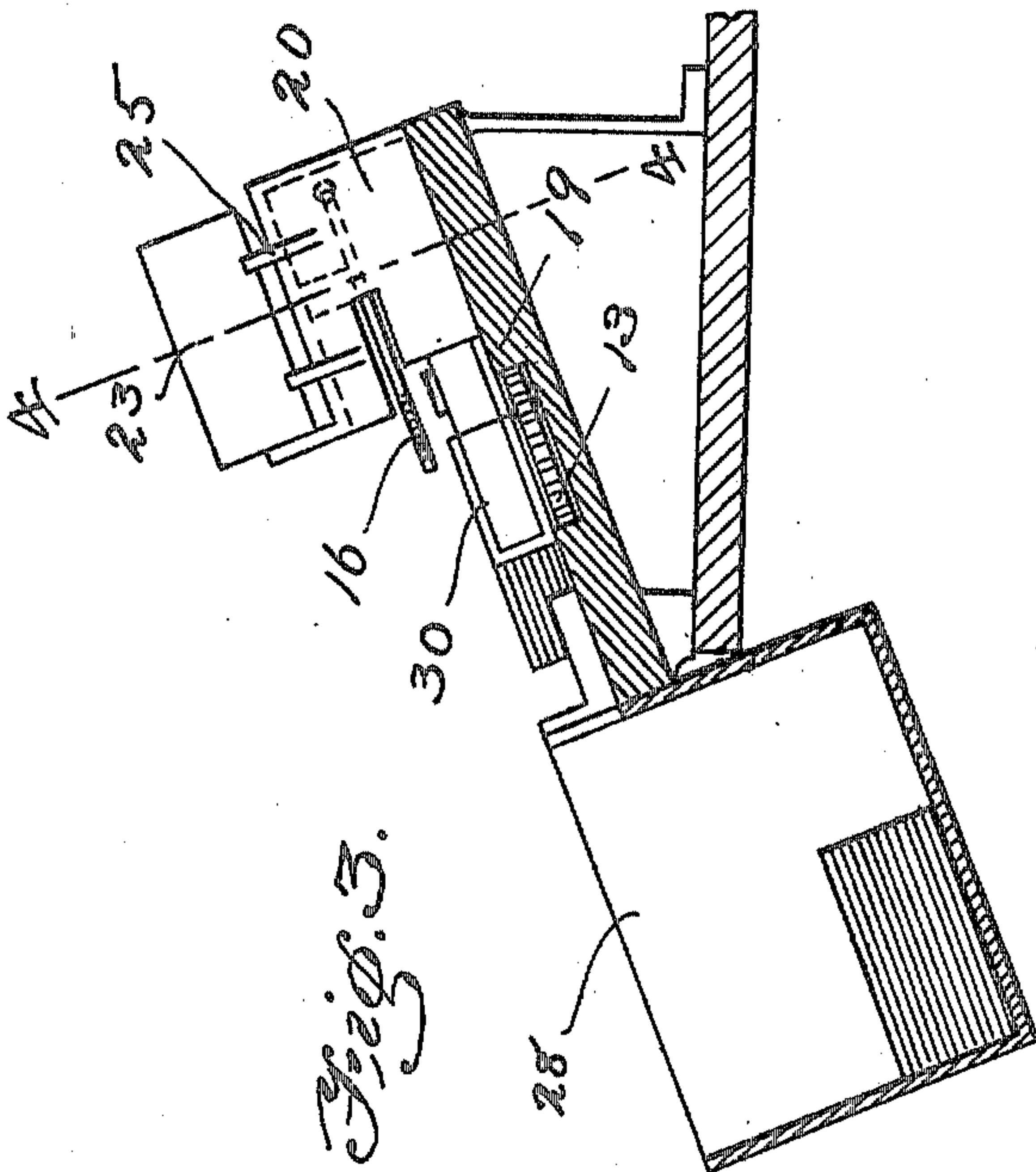
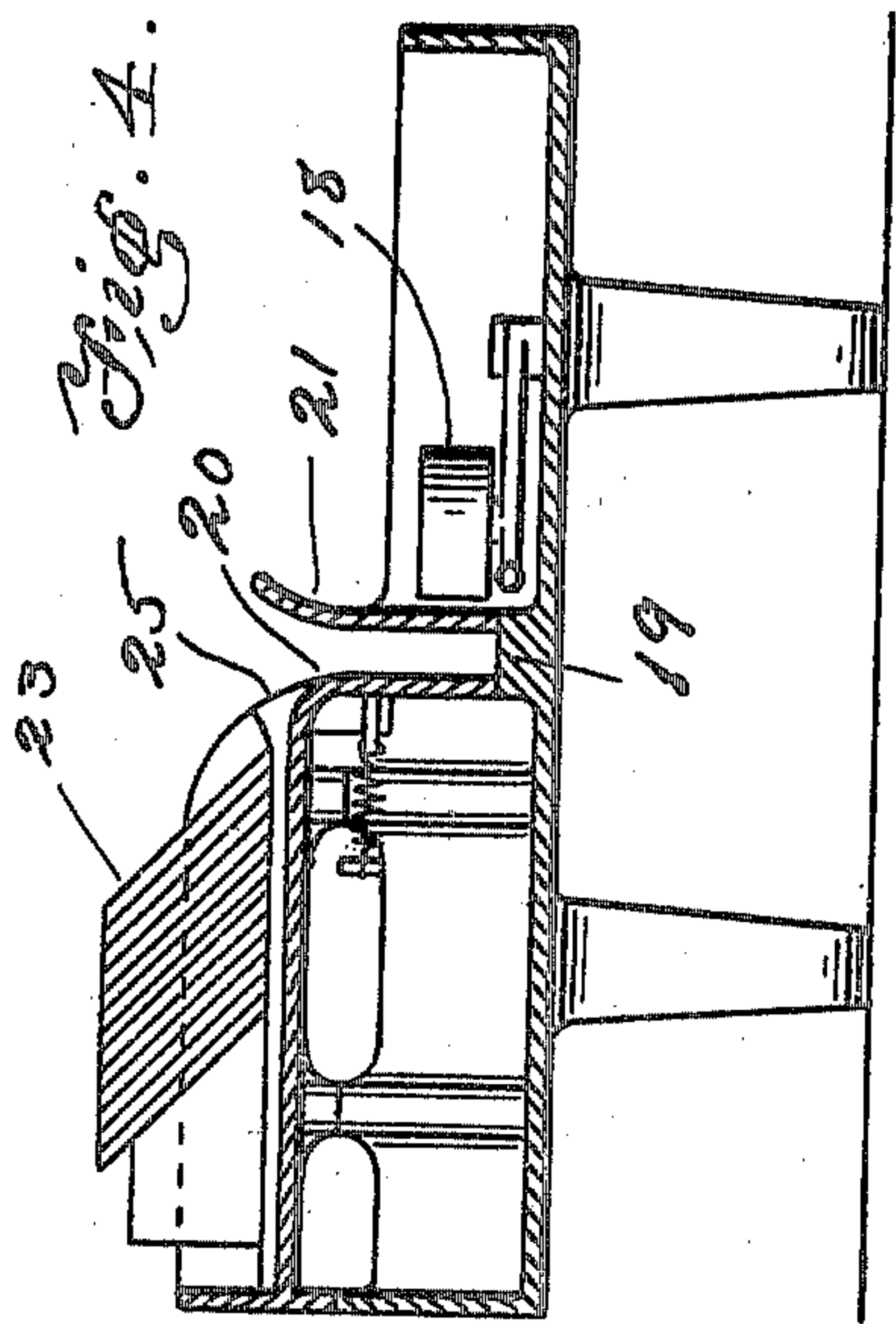


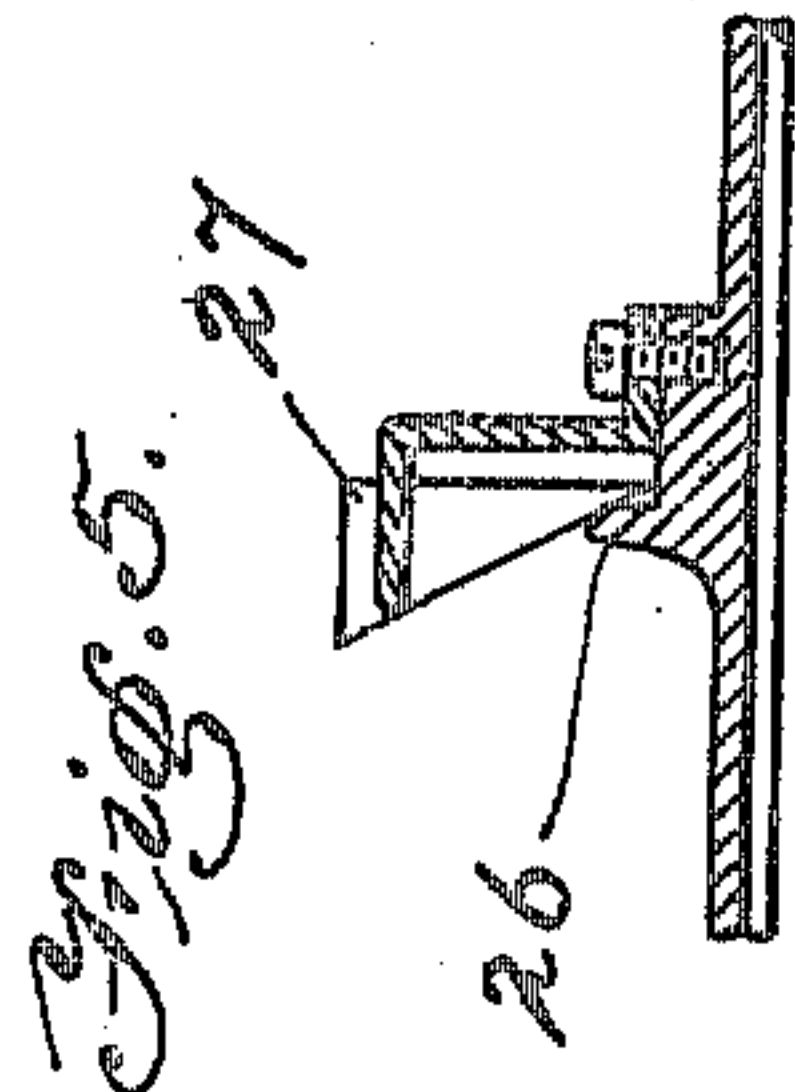
No. 811,976.

PATENTED FEB. 6, 1906.

H. E. WAITE.  
HAND MAIL MARKING MACHINE.  
APPLICATION FILED NOV. 4, 1904.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

HENRY E. WAITE, OF NEWTON, MASSACHUSETTS.

## HAND MAIL-MARKING MACHINE.

No. 811,976.

Specification of Letters Patent.

Patented Feb. 6, 1906.

Application filed November 4, 1904. Serial No. 231,368.

*To all whom it may concern:*

Be it known that I, HENRY E. WAITE, of Newton, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Hand Mail-Marking Machines, of which the following is a specification.

This invention relates to machines for postmarking and stamp-canceling letters; and its object is mainly to provide a rotary canceler adapted to give an impression as good as or better than the power-machines at good speed, but with less complication of mechanism than is ordinarily found in power-machines, my improved machine being particularly adapted for running by hand, though not wholly restricted thereto. The machine is made without the usual automatic means under control of the letter for putting one of the impression members out of action when no letter is present, as I have found that with a hand-machine constructed in certain respects according to my invention the letters can be fed conformably with the rhythm of the machine, and if the attendant finds he is about to miss one cycle the construction, as will be seen, is such as can be readily stopped before the printing members come together.

This improved type of machine enables the letter to be started past a timing-stop by the coaction of the printing members, thus getting the clearest possible impression.

Further features of the invention are improved means for stacking without the use of the usual moving parts and means for holding a pack of unmarked letters in position to feed them by hand to the marking devices.

Of the accompanying drawings, Figure 1 represents a plan view of a hand mail-marking machine constructed according to my invention. Fig. 2 represents a section thereof on line 2 2 of Fig. 1. Fig. 3 represents a section on line 3 3 of Fig. 1, this view illustrating the inclined position of the letter-path. Fig. 4 represents a section on line 4 4 of Fig. 3. Fig. 5 represents a section on line 5 5 of Fig. 1.

The same reference characters indicate the same parts in all the figures.

In the drawings, 10 is the printing member fixed upon a gear 111 of relatively large diameter, and 11 is the impression member formed on an arm which is pivoted at 12 to a gear 13 of equal size to the gear 111. A spring 14, acting on the heel of the impression-arm, holds the latter against an adjust-

able screw-stop 15 and maintains the impression member yieldingly in its most projected position adapted for coaction with the printing member. It will be seen that there are no automatic devices controlling the impression member, and it therefore always comes into coöperation with the printing member if sufficiently revolved. This enables me to avoid the complication of automatic letter-controlled locking devices for the impression member and allows the letters to be started past the pivoted yielding stop 16 by the co-operation of the printing and impression members, thus securing the most accurate timing of the letter and location of the impression thereof, inasmuch as this impression always occurs at a predetermined distance from the forward edge of the letter and no slipping can occur after the letter has started.

A knob or handle 17 is provided on the gear 111, and as the latter intermeshes with gear 13 the two gears are rotated by said handle.

18 is an ink-roll for inking the printing member or die 10.

The bed 19 of the machine is located at an inclination from the horizontal such that it forms a chute for the lower edge of the letter inclined sufficiently to cause the letter to meet and rest against the timing-stop 16 by gravity when said letter is dropped onto the bed or floor. Guides 20 21 form the letter-supporting sides of the chute or stall, into which the letter is initially dropped and at the outer end of which is the stop 16. The stack of letters 23 is mounted upon a shelf or platform 24, forming an extension of the guide 20, and this shelf preferably has a projection or lip 25 near its front end to hold the lower edge of the foremost letter from falling into the stall 22, the letters being preferably stacked with their backs foremost and stamps uppermost, so that the attendant may place the fingers of his right hand against said back and his thumb under the lower edge of the first letter and reverse the letter as he draws it from the pack, dropping it into the chute with its top edge lowermost and stamp at the left.

In the throat between the gears 111 13, beyond the point of contact of the printing and impression members, there is located on one side of the path of the letter and slightly raised from the bed or runway a guide or projection 26, while on the opposite side of said path and extending laterally over said upper



projection is a deflecting-guide 27. These guides are located at the mouth of a rectangular receiving or stacking hopper or receptacle 28, having rectangular side and farther end walls and a floor inclined similarly to the floor 19 and below the plane thereof. As the letters are marked and leave the members 10 11 of the printing-couple their impetus thereon, aided by gravity, carries them past the guides 26 27, which deflect the letter from a vertical to a horizontal position, in which latter position it enters the hopper 28 and is stacked against the farther wall thereof, the stack being evened by gravity and the impetus of the letter, said hopper or receptacle being deep enough to hold as many letters as can afterward be taken out in a bunch. Each gear 11 13 is formed with a segmental carrying-surface 29 30, constituting, respectively, extensions of the printing and impression members 10 11 and adapted to continue to carry the letter after it has been marked. It will be noted that the printing and impression members and these carrying-surfaces occupy between one-sixth and one-fifth of their respective circles. I have found that unless these circles are so large that the printing and impression members occupy some such relatively small arc of their circumferences—the limit being approximately one-eighth to one-fifth of said circumference—there will not be sufficient interval during which the printing or impression and carrying surfaces are out of contact for a person to take up and feed a new letter from the pack after one has been marked. In other words, if the machine has substantially the construction described a person rotating the handle 17 with one hand (preferably the left) and feeding with the other hand (preferably the right) can catch the rhythm of the machine, so to speak, and feed letters at a quite rapid rate, one for each cycle of the machine, so that the impression member never gets inked.

It is to be understood, of course, that the stop 16 crosses the path of the letters as they move down the chute at a point that will temporarily arrest each letter in such position that as the printing and impression members come around the latter will grasp and feed the letter, the said letter displacing the yieldable stop. In other words, the printing and impression members are mounted in such position relatively to the position of the stop that the engaging faces of said members during their rotation will come into gripping relation with some part of a letter that is held by said stop. There is therefore no necessity for any complicated cam or other device for either actuating the stop or for drawing a letter into position to be operated upon by the printing member. Briefly stated, the two members grip each letter and force it past the yielding stop. It will also be observed that the feeding or gripping surfaces travel in the

same plane as the printing and impression surfaces, and therefore there is no possibility of any twisting action upon a letter or failure to feed it, thereby providing for clean-cut marking free from all blurring.

I claim—

1. A hand mail-marking machine comprising an inclined chute for the letters, cooperating rotary impelling and printing segments, and a yieldable stop free to be displaced by a letter that is actuated by said segments and normally crossing the path of a letter beyond the point where the said segments first contact with a letter, whereby said stop will temporarily hold a letter in proper position during the travel of the segments prior to their taking hold of the letter, the path of the letters to said stop being entirely unobstructed.

2. A mail-marking machine comprising a rotary printing member and a rotary impression member, and a yieldable stop crossing the path of the letters beyond the point where said members first contact with a letter, whereby a letter will be arrested in position to be actuated by said members, the path of the letters to said stop being entirely unobstructed, said stop being free to be displaced by a letter that is actuated by said members.

3. A mail-marking machine comprising a rotary printing member and a rotary impression member, one of said members being yieldable relatively to the other, and a yieldable stop crossing the path of the letters beyond the point where said members first contact with a letter, whereby a letter will be arrested in position to be actuated by said members, the path of the letters to said stop being entirely unobstructed, said stop being free to be displaced by a letter that is actuated by said members.

4. A mail-marking machine comprising an inclined letter-chute, a yieldable stop crossing said chute and free to be displaced by a letter that is pushed down the chute, and rotary cooperating printing and impression members mounted in positions that will bring their coacting printing and impression faces during rotation into gripping relation with a letter held by said stop, whereby the letter is fed directly by said faces.

5. In a mail-marking machine, the combination of means for supporting a stack of letters in position for feeding by one hand of the operator, and a pair of revoluble marking and carrying devices having a handle for their rotation by the other hand, said devices cooperating through an arc of substantially from one-seventh to one-fifth of the circle of their travel, and means being provided for insuring rotation of said devices in peripheral unison.

6. A hand mail-marking machine comprising revolving feeding-grippers having printing impression and carrying surfaces, one of said surfaces being yieldable, and a yieldable



stop crossing the path of a letter at a point beyond the point of coöperation of said grippers, a hopper or receptacle below the plane of the path of the letters and means for deflecting letters in a straight path from an upright to a prone position as they drop into said receptacle.

7. A mail-marking machine comprising intermeshing gears, one carrying a printing member and the other carrying an impression member, said members having gripping printing and impression surfaces in one plane,

and a stop for holding a letter in position to be directly grasped by the faces of said members, said stop being free to be displaced by a letter that is actuated by said surfaces, the path of the letters to said stop being entirely unobstructed. 15

In testimony whereof I have affixed my signature in presence of two witnesses.

HENRY E. WAITE.

Witnesses:

C. F. BROWN,

E. BATCHELDER.