

905,030.

W. D. WALTON.

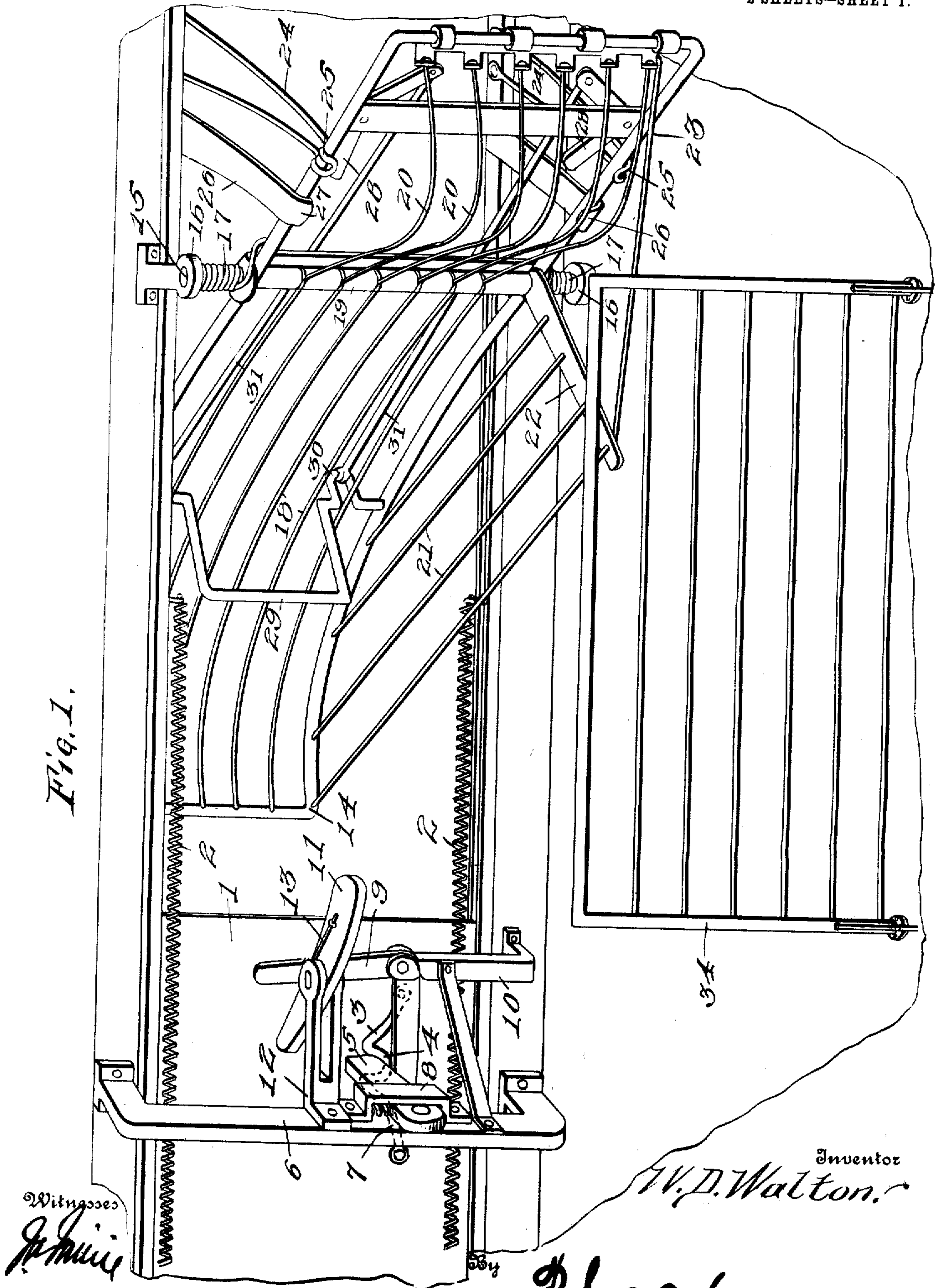
MAIL CATCHER.

APPLICATION FILED MAR. 30, 1908.

Patented Nov. 24, 1908.

2 SHEETS—SHEET 1.

Fig. 1.



Witnesses
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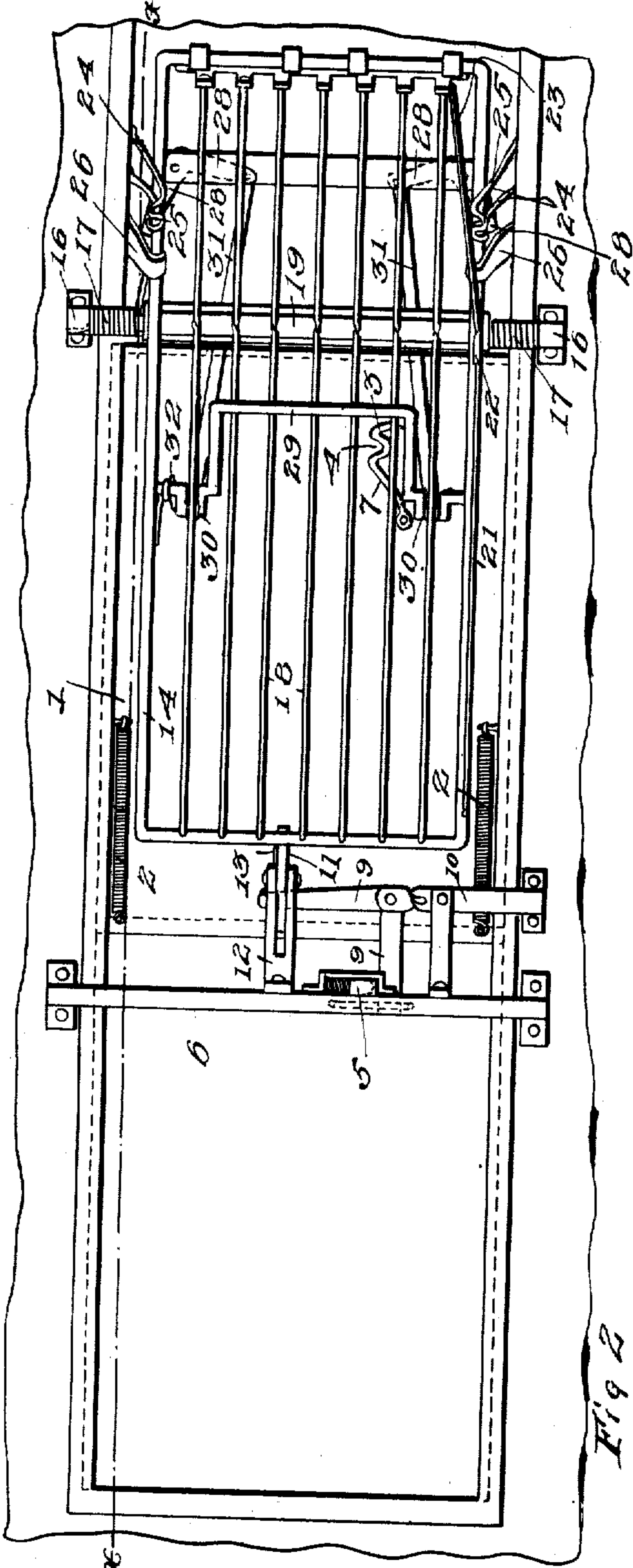


Fig. 2

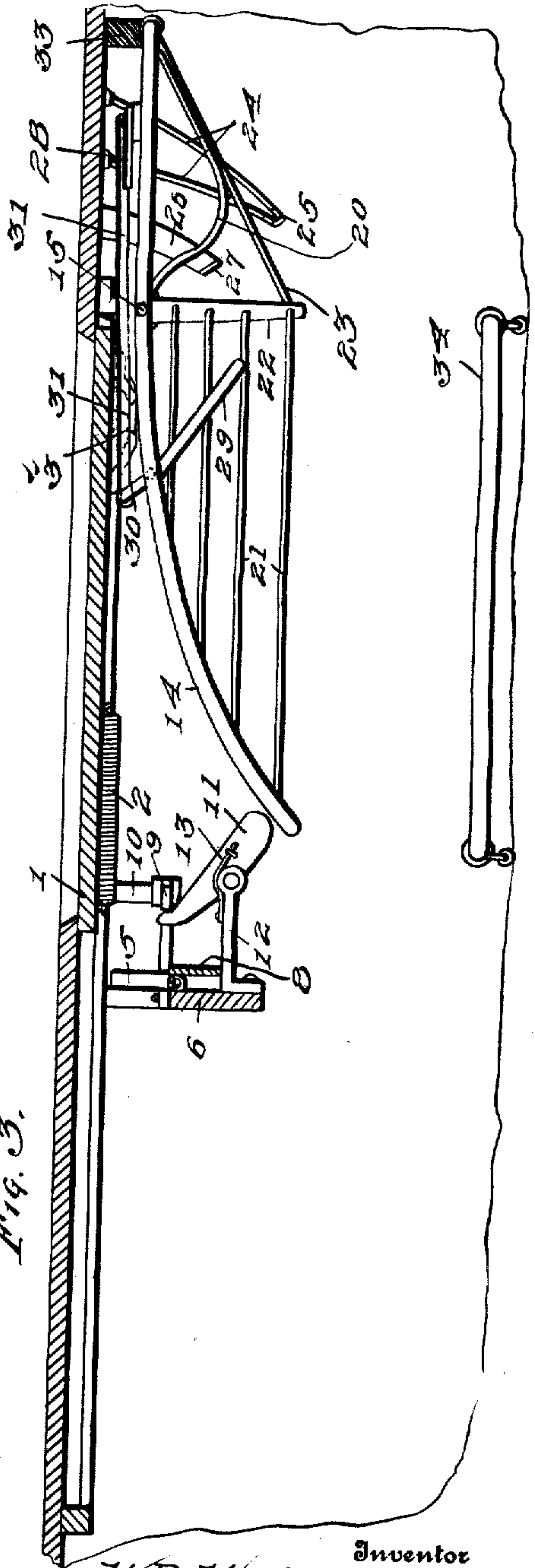


Fig. 3.

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UNITED STATES PATENT OFFICE.

WILLIAM D. WALTON, OF ST. JOSEPH, MISSOURI.

MAIL-CATCHER.

No. 905,030.

Specification of Letters Patent.

Patented Nov. 24, 1908.

Application filed March 30, 1908. Serial No. 424,285.

To all whom it may concern:

Be it known that I, WILLIAM D. WALTON, citizen of the United States, residing at St. Joseph, in the county of Buchanan and State of Missouri, have invented certain new and useful Improvements in Mail-Catchers, of which the following is a specification.

The present invention has for its object to devise means for taking up mail by moving trains without subjecting the sacks or containers to the strain and wear incident to similar devices generally provided for this purpose.

The invention contemplates a catcher which shoots the mail into the car, said catcher being so arranged as to automatically move within the car and to trip an automatically closing door which shuts the opening through which the mail enters.

For a full understanding of the invention and the merits thereof and also to acquire a knowledge of the details of construction and the means for effecting the result, reference is to be had to the following description and accompanying drawings.

While the invention may be adapted to different forms and conditions by changes in the structure and minor details without departing from the spirit or essential features thereof, still the preferred embodiment is shown in the accompanying drawings, in which:

Figure 1 is a perspective view of the invention. Fig. 2 is a view of the appliance as seen from the inner side of the car. Fig. 3 is a horizontal section on the line $x-x$ of Fig. 2.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The mail car is provided in a side with an opening adapted to be closed by means of a door 1 which is automatic in operation and adapted to be held open by suitable means which are tripped when the catcher is actuated to permit the door to close. The door 1 is mounted to slide and is normally held closed by means of springs 2 which are of the coil type, two springs being employed and arranged so as to prevent binding of the door in its guides. A keeper 3 is provided upon the inner side of the door near its outer end and has a notch or depression 4 to receive the projecting end of a latch 5 which is pivoted to a post 6. The inner end of the

keeper inclines, as shown at 7, for the projecting end of the latch 5 to ride upon in the opening of the door, said latch entering the notch or depression 4 after clearing the inclined part 7 of the keeper and holding the door open against the tension of the springs 2. A keeper 8 is secured to the post 6 and holds the latch in place and directs the same in its movements. A bell crank 9 is pivoted to a post 10 or other suitable support and its horizontal arm extends beneath the latch 5, whereas its vertical arm projects across the path of a lever 11 pivoted to an arm 12 secured to the post 6, or in any other convenient way.

A spring 13 coöperates with the lever 11 to hold it in a normal position, which is with its outer end in the path of the catcher so as to be operated thereby when the catcher moves within the car after being tripped by the impact of the mail received thereby. The bell crank 9 and lever 11 constitute a trip mechanism for effecting release of the door to permit the automatic closing thereof. The catcher consists of an oblong frame 14 pivoted intermediate of its ends to a side of the car near the jamb of the door opening against which the door 1 closes. A rod 15 passed through openings in the upper and lower bars of the frame 14, has its projecting end portions mounted in plates 16 secured to the upper and lower timbers of the car. Springs 17 mounted upon the projecting ends of the rod 15 have one end in engagement with the frame 14 and the opposite end in engagement with the respective plates 16 and normally serve to swing the receiving end of the catcher into the car. A series of stout wires or rods 18 extend lengthwise of the frame 14 and are spaced apart and have connection at their extremities with the end bars of said frame and intermediate of their ends with the rod 15. The elements 18 close the space formed between the upper and lower bars of the frame 14 and receive the impact of the bag or other container holding the mail to be taken up by the moving car. The wires or rods 18 are bent about the rod 15 and are held separated by spacing sleeves 19 slipped upon said rod 15. The portion of the catcher in front of the rod 15 curves longitudinally, whereas the end portion in the rear of the rod 15 is straight. The end portions of the wires or rods 18, in the rear of the rod 15, are inwardly humped, as shown at 20, to form an abutment to arrest

the momentum of the mail bag and direct the same into the center of the car.

To prevent the mail bag, or container, dropping after being taken up by the catcher, a support is provided about in the plane of the lower edge of the front portion of the catcher, said support consisting of a series of wires or rods 21 having connection at their front ends with the front portion of the lower bar of the frame 14, and having connection at their rear ends with a bar 22 projected inward from the catcher frame and having its outer end connected by a stay 23 to the inner or rear end of the catcher. The catcher, when not adjusted to receive mail from a station, lies close against the inner side of the car so as to be out of the way. When positioned to receive mail, the catcher inclines to the side of the car with its front portion projected through the door opening and is maintained in this position by means of holders 24 which consist of spring arms connected at one end to the upper and lower timbers of the car and having hooks 25 at their free ends to engage with the inner end of the catcher. Brackets 26 attached to the upper and lower timbers of the car, have their outer ends bent, as shown at 27, to form stops to engage with the inner portion of the catcher and limit the turning thereof when moving the same into operative position. The bent ends or stops 27 also sustain the shock incident to the impact of the mail with the catcher. Bell cranks 28 are pivoted to the inner portion of the catcher and their horizontal arms extend across the path of the holders 24 so as to effect disengagement thereof from the catcher. A trip is provided upon the front portion of the catcher to be engaged by the mail bag or container, said trip consisting of a shaft having an inner crank portion 29 and outer crank portions 30. Rods 31 connect the crank portions 30 of the trip or crank shaft with the vertical members of the bell cranks 28. The trip or crank shaft normally stands with the crank portion 29 away from the catcher and across the path of the mail to be engaged thereby so as to operate the bell cranks 28 and effect disengagement of the holders 24 from the catcher, which latter is swung inward by means of the springs 17 in the manner stated. A spring 32 cooperates with the trip or crank shaft and normally holds it in a given position.

When the door 1 is open the springs 2 are stretched or subjected to tension, said door being held in open position by means of the latch 5 and keeper 3 in the manner stated. The catcher is turned upon the rod 15 which forms an axis therefor so that its front portion projects through the door opening. As the catcher is swung outward, it engages with the end of the lever 11 facing the door

opening, said lever moving to permit the catcher to clear the same without operating the bell crank 9. The movement of the catcher is limited by the stops or bent ends 27 of the brackets 26 and at this instant the hooked ends 25 of the holders 24 engage therewith and hold the catcher in operative position. The mail to be delivered to the passing train is adapted to be suspended from a crane at one side of the track in a manner well understood, and in position to be engaged by the projecting end of said catcher. As the train passes the station, the catcher takes up the mail which slides along the catcher and operates the inner crank 29 of the trip, which in turn releases the holders 24 and permits the catcher to swing inward out of the way. As the catcher moves inward, it comes in contact with the lever 11 and the latter in turn operates the bell crank 9 and releases the latch 5 from the keeper 3, thereby permitting the door to automatically close by the action of the springs 2 in the manner stated. Rubber blocks 33 are arranged near the inner side of the car for the inner or rear end of the catcher to strike and thereby relieve the shock incident to the return of the same to normal position.

To prevent the mail bag, package or the like shooting across the car when taken up by the catcher, a fender 34 is located opposite the door opening and a short distance therefrom. This fender consists of a frame and a filling of rods or bars, said frame being firmly secured to the floor of the car about as indicated.

Having thus described the invention, what is claimed as new is:

1. In means for receiving mail, the combination of a movable catcher, an automatically closing door, a latch for holding said door open, and a trip mechanism actuated by the said catcher to effect release of the door to permit the same to close.

2. In means applied to a car for receiving mail, the combination of a movable catcher, an automatically closing door, a latch for holding said door open, a bell crank having one member extended across the path of said latch, and a lever arranged to engage with the other member of said bell crank and adapted to be actuated by the said catcher to effect release of the door and permit the same to close.

3. In means for receiving mail, a catcher comprising an oblong frame having its receiving portion longitudinally curved and the opposite end portion approximately straight, spaced wires connected at their extremities to the end portions of the catcher frame and having the end portions corresponding to the receiving end of the catcher longitudinally curved, and the opposite end portions corresponding to the straight portion of the catcher frame humped.

4. In means for receiving mail, the combination of an oblong frame having its front portion curved and its rear portion straight, a rod supported near its ends in the upper and lower bars of said frame, longitudinal wires having their extremities connected to the end bars of the frame and bent intermediate of their ends into eyes to receive the aforesaid rod, and sleeves slipped upon the said rod and between the wires to properly place the same.

5. In combination with a mail car, a catcher pivoted thereto between its ends, and stops connected with the car and adapted to engage with the rear portion of the catcher to limit the movement of the same when thrown outward into operative position and to sustain the inward impact of the mail when received by said catcher.

6. In combination with a mail car, a pivoted catcher, and holders connected with the car and adapted to engage with opposite edge portions of the catcher to secure the same when moved into operative position.

7. In combination, a pivoted catcher, upper and lower holders for fixing the position of the catcher when in operative position, a trip mounted upon the catcher and adapted to be actuated by the mail when taken up by the catcher, and connections between the trip and said upper and lower holders to effect simultaneous disengagement of the said holders from the catcher.

8. In combination, a pivoted catcher, upper and lower stops to engage with and limit the movement of the catcher when swung

into operative position, upper and lower holders for securing the catcher against movement in either direction when in operative position, a trip mounted upon the catcher and adapted to be actuated by the mail taken up thereby, and connections between said trip and holders to effect simultaneous disengagement of the holders from the catcher.

9. In combination, a pivoted catcher, spring means for holding said catcher in normal position, holding means for securing the catcher in operative position against the action of the aforesaid spring means, a bell crank for effecting release of the catcher, and a trip adapted to be actuated by the mail delivered to the catcher to effect release of the latter.

10. In combination, a pivoted catcher, spring means for holding the same in normal position, upper and lower holders for fixing the position of the catcher when thrown into operative position, upper and lower bell cranks, and a trip mounted upon the catcher and consisting of an inner crank portion to be engaged by the mail delivered to the catcher, and outer crank portions having connection with the aforesaid bell cranks to operate the same and effect release of the holders from the catcher.

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

WILLIAM D. WALTON. [L. s.]

Witnesses:

FRED L. FOSTER,
MANTFORD M. PRICE.