

No. 865,695.

PATENTED SEPT. 10, 1907.

C. E. GLADDING.
MAIL DELIVERY APPARATUS.

APPLICATION FILED MAR. 30, 1907.

2 SHEETS—SHEET 1.

Fig. 1.

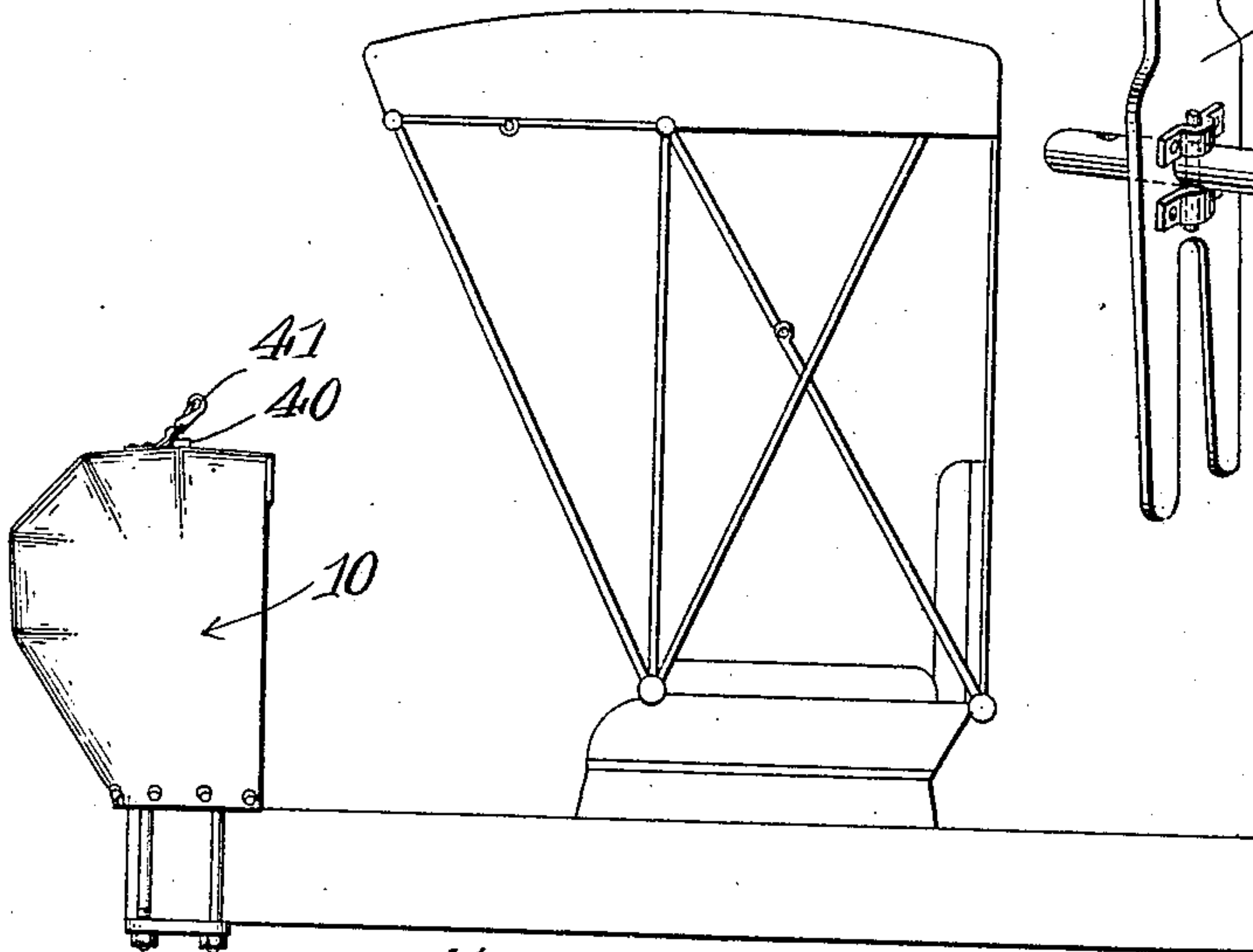


Fig. 7.

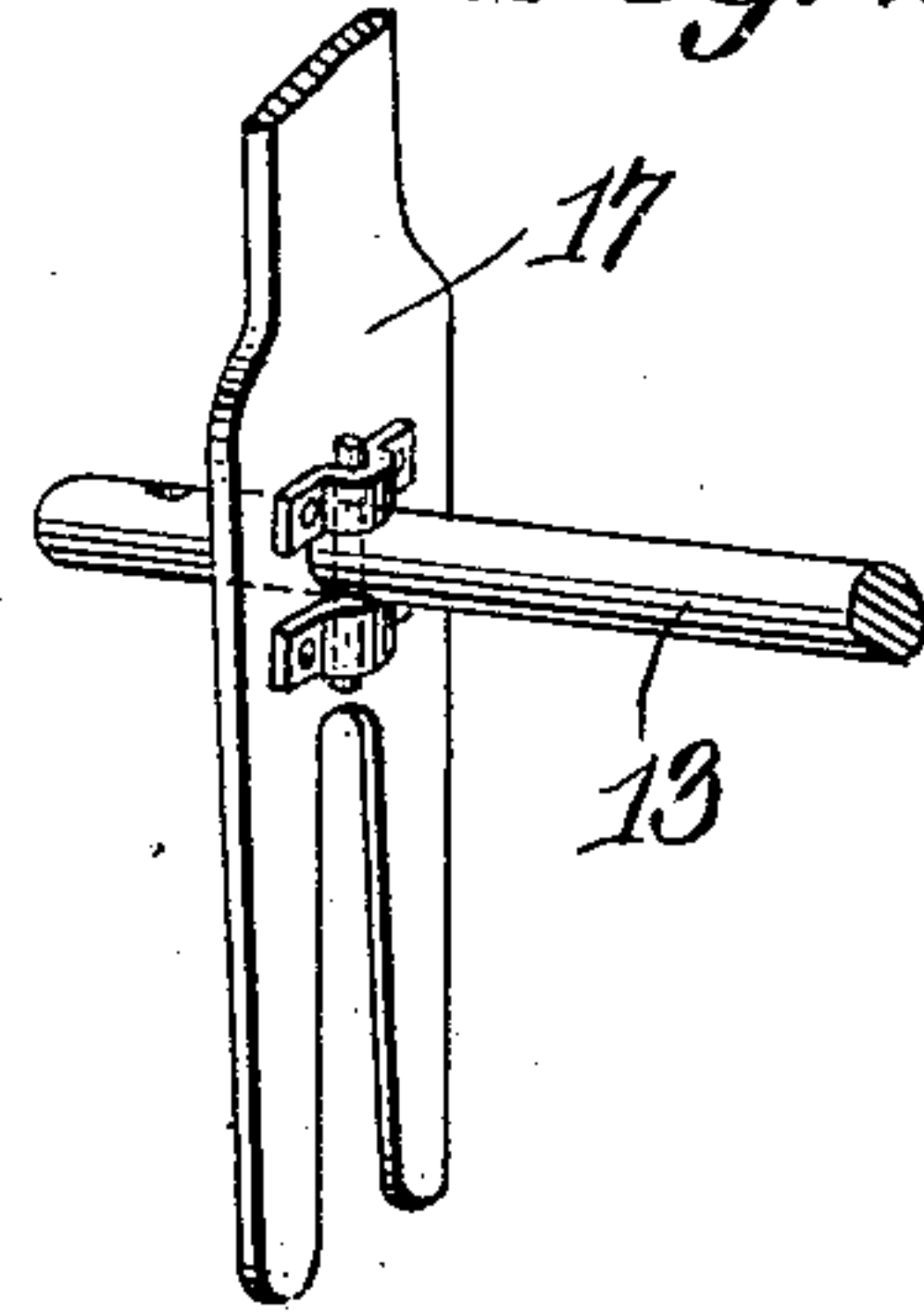
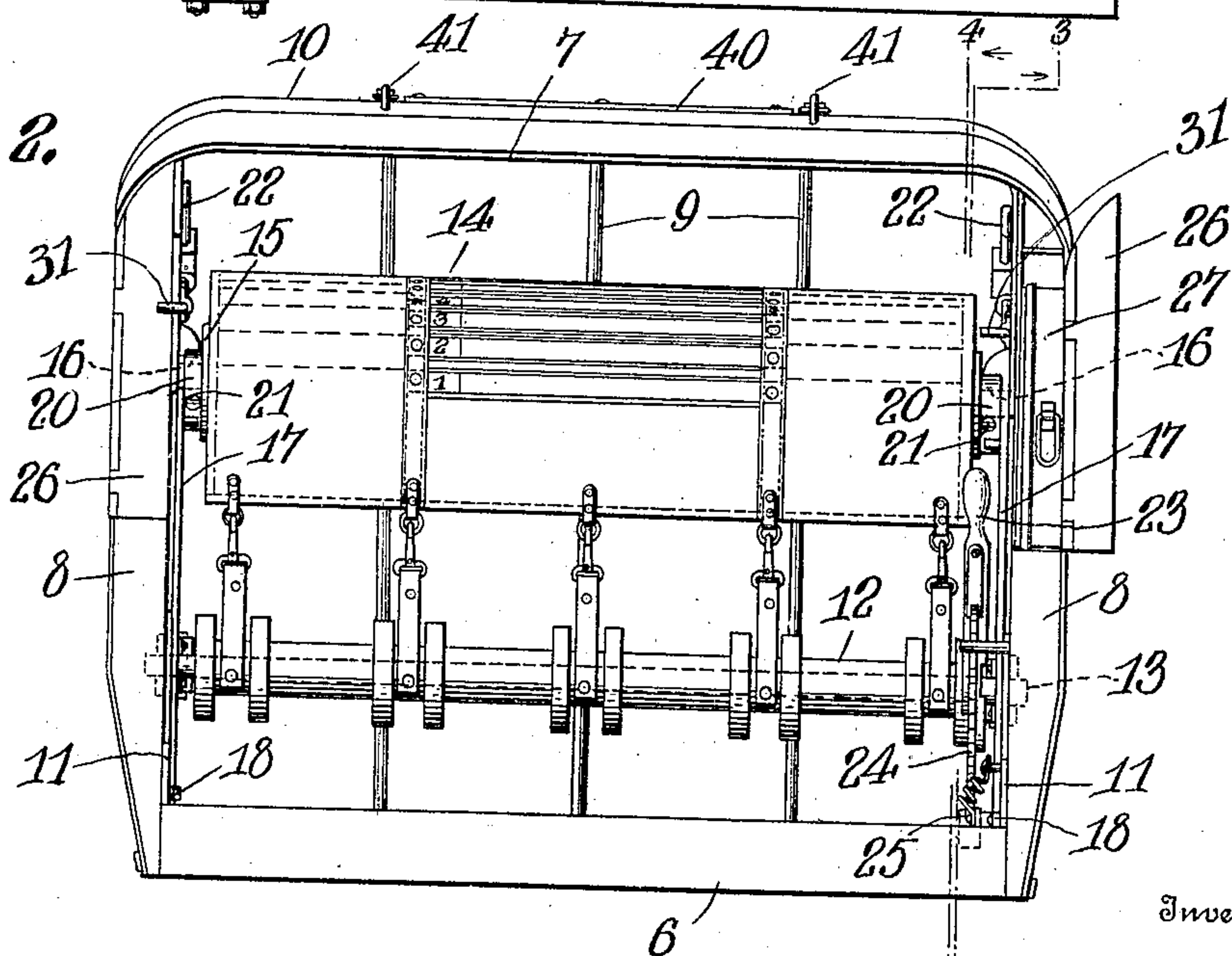


Fig. 2.



Inventor

Witnesses

C. E. Smith,
Geo. E. Tew

By

Charles E. Gladding
Milo B. Stevens

Attorneys

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2 SHEETS—SHEET 2.

Fig. 3.

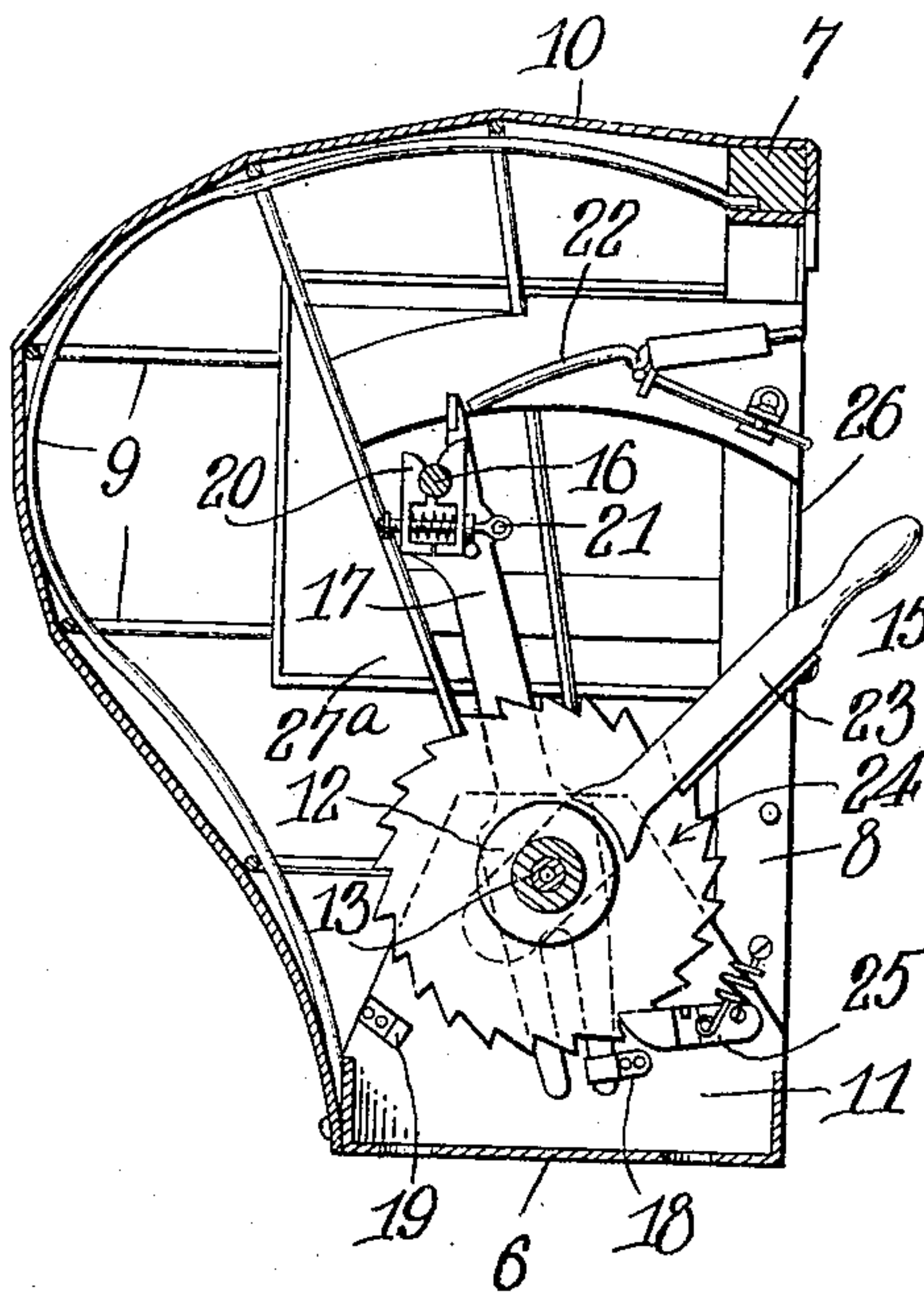


Fig. 4.

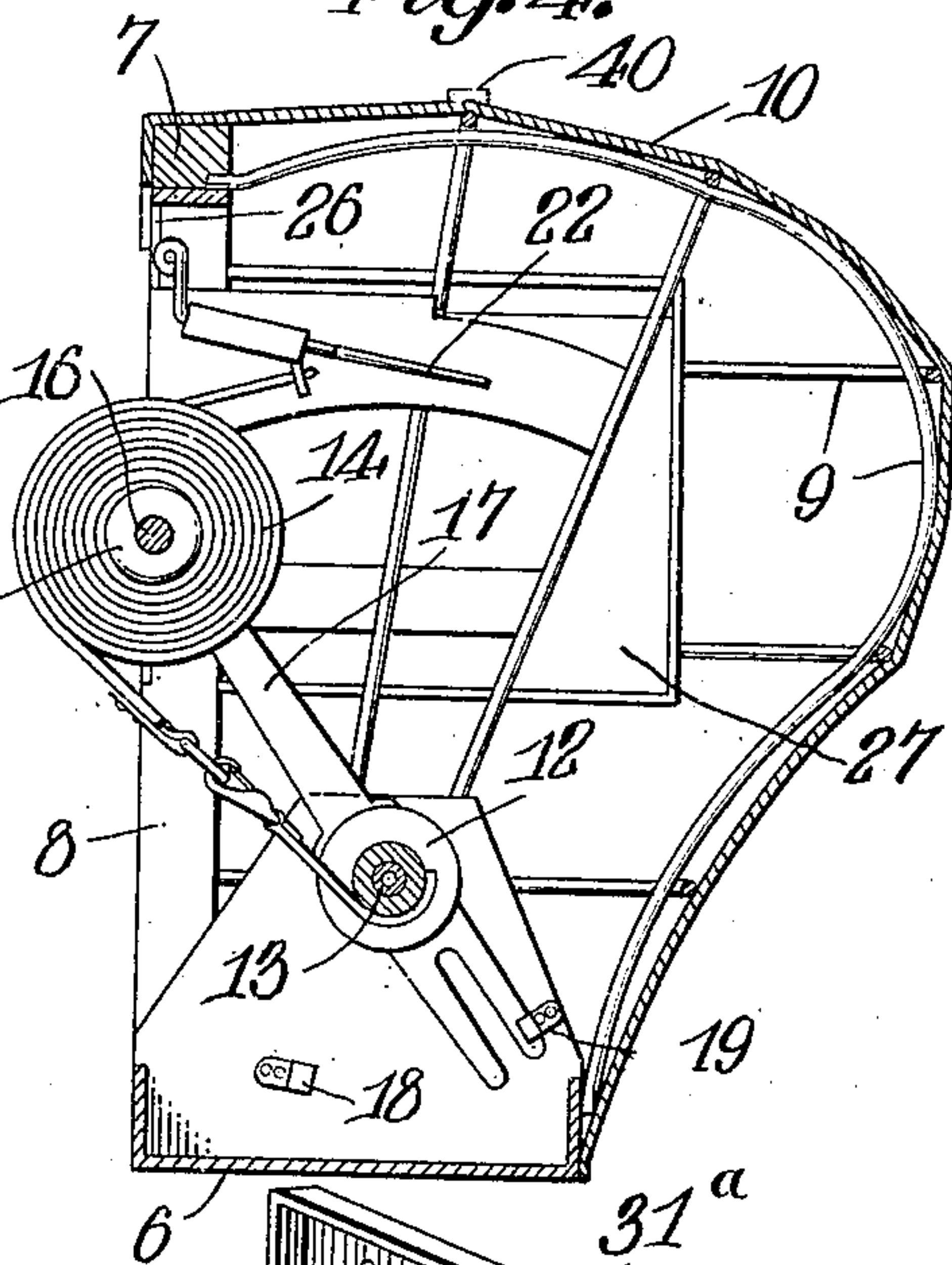


Fig. 5.

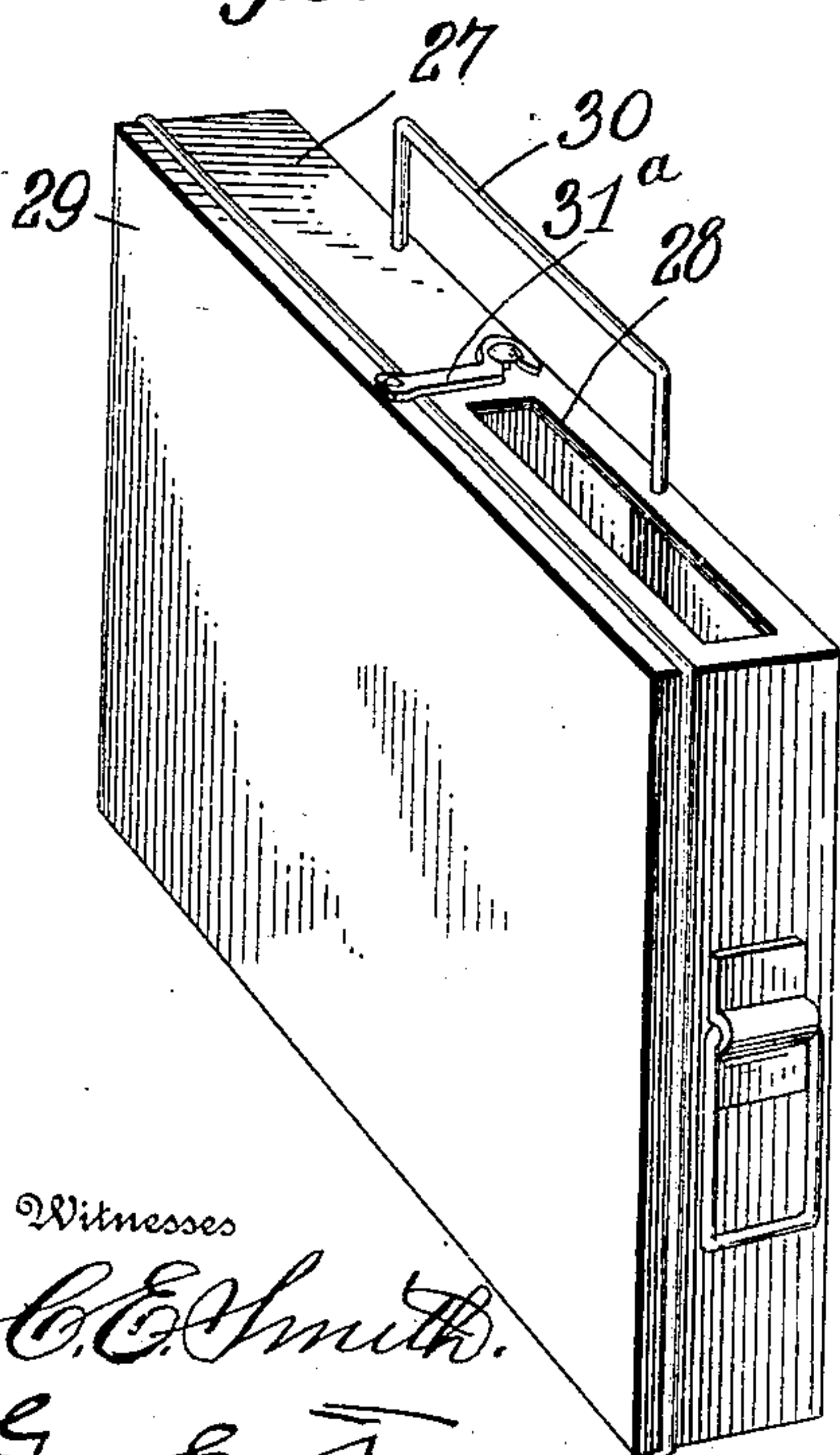
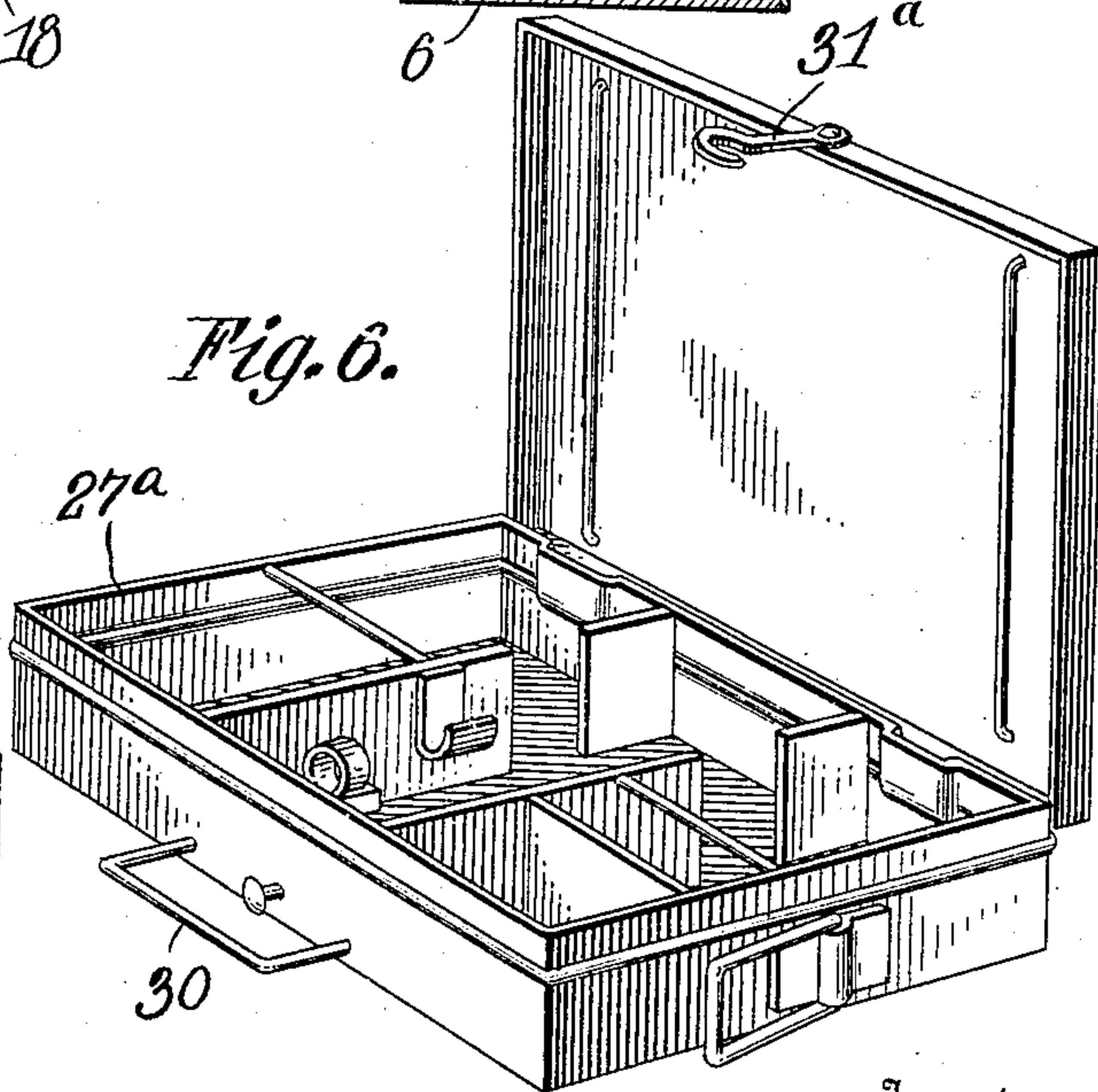


Fig. 6.



Inventor

Charles E. Gladding

By

Wm. B. Thomas

Attorney

Witnesses

C. E. Smith

Geo. E. Tew

UNITED STATES PATENT OFFICE.

CHARLES E. GLADDING, OF COLUMBIA CROSS ROADS, PENNSYLVANIA.

MAIL-DELIVERY APPARATUS.

No. 865,695.

Specification of Letters Patent.

Patented Sept. 10, 1907.

Application filed March 30, 1907. Serial No. 365,452.

To all whom it may concern:

Be it known that I, CHARLES E. GLADDING, a citizen of the United States, residing at Columbia Cross Roads, in the county of Bradford and State of Pennsylvania, have invented certain new and useful Improvements in Mail-Delivery Apparatus, of which the following is a specification.

This invention relates to rural mail delivery apparatus, and is designed or intended as an improvement on the apparatus shown and described in my U. S. Patent No. 789,420, dated May 9, 1905. In said patent there is shown a casing having a movable hood or cover, which swings open to allow a roll containing a mail bag to be put in or taken from the casing on the platform of the vehicle.

In the present invention a stationary or fixed casing is provided, and the roll is carried by swinging arms which can be swung forward to allow the mail bag to be put in place or removed at the front of the casing.

A further object of the invention is to simplify the construction with respect to the means for supporting and operating the take-up and let-off rolls on which the box is carried.

A further object of the invention is to provide convenient cases or compartments to contain boxes for the collection of mail and for the carriage of a stock of envelopes, stamps, and other articles for sale, said boxes being in convenient position for access by the carrier.

The invention is illustrated in the accompanying drawings, in which

Figure 1 is a side elevation showing the apparatus applied to the carriage. Fig. 2 is a front elevation. Fig. 3 is a vertical sectional view on the line 3—3 of Fig. 2. Fig. 4 is a similar view with the arms which carry the roll swung forward in position for placing or removing the mail bag. Fig. 5 is a perspective view of one of the boxes removed from the casing. Fig. 6 is a perspective view of the other, removed and opened. Fig. 7 is a detail in perspective showing the connection between the swinging arms and the axle of the lower roller.

Referring specifically to the drawings, the casing has a base 6 which may be attached to the bottom or bed of the carriage body by bolts or in any other suitable manner, in front of the seat, and conveniently in the place of the dashboard. Extending upwardly from this base is a bow 7 having standards 8 mounted on the ends of the base at the front edge thereof. The bow and standards may be made of angle metal, wood or other material, and in connection with the base form a support for a frame of crossed wires 9 which are secured at their ends to the said parts and are bent to the shape of a hood or canopy of proper size to inclose the rollers and mail bags. The wires are soldered to each other where they cross, and a waterproof fabric cover 10 is provided which can be stretched over the frame when

desired. It is within the scope of the invention to make the hood of sheet metal such as aluminium or galvanized iron. The sides 11 of the base extend upwardly a sufficient distance to support bearings for the opposite ends of the axle 13 of the lower roller 12, which roller is provided with snap hooks and straps to connect with the ends of the mail bag 14. This mail bag is substantially identical with the mail bag shown and described in my said patent, and requires no extended description, being provided with multiple pockets corresponding to the boxes or families on the route, into which pockets the mail is distributed before the carrier starts.

The bag is connected at its upper end to the upper roller 15, the shaft 16 of which is carried at the upper end of arms 17 which swing in or out, being pivotally mounted upon the axle 13 of the lower roller. The lower ends of the arms are extended to strike against stops 18 and 19 fixed to the sides of the frame, to limit the forward or backward swing of the arms. The shaft 16 of the upper roller fits in forks 20 at the top of the arms, the sides of the forks being movable and held by a set screw 21 which serves to hold the shaft in place and also to form a tight bearing or brake which prevents unnecessary or objectionable turn of the shaft and roller. By loosening the set screws the movable parts of the forks can be backed off to allow the upper roller and shaft to be lifted out when the arms are swung forward as indicated in Fig. 4. The arms work close beside the ends of the case and may be swung forward or back by pull or pressure on the roller. In order to hold them in proper position when swung back latches 22 are provided which may be turned down in front of said arms when they are swung back.

The bag, after being filled with mail, is rolled on the upper roller, which is then put in its bearings in the arms and pushed back into the hood, and then connected at its exposed end to the hooks of the lower roller. It may then be taken up on the lower roller by means of a lever and pawl 23 engaging a ratchet wheel 24 fixed to the lower roller. Back slip is prevented by a spring pawl 25 pivoted to the side of the casing. The pawls may be thrown out of action if desired, to let the lower roller run free, as in rewinding the bag on the upper roller at the end of the route.

The standards 8 and sides of the casing contain recesses or compartments which open at the front and have doors 26. Each of these compartments receives a box, indicated respectively at 27 and 27^a, which may be slid in or out through the doorway. The box 27 has a slot 28 in the top, near the front end thereof, through which slot mail collected may be deposited into the box. The cover 29 of the box is hinged so that by pulling same out of the compartment the box may be opened and the mail emptied therefrom. Each box is also provided with an extensible handle

30 so that it can be conveniently carried. The other box 27^a may be used to carry envelops, stamps and the like, for sale, as well as money order books, account slips, and such other material as may be desirable. Latches 31 hold the doors 26 closed and hooks 31^a hold the box covers.

The device may be arranged or adapted to fit on any carriage or vehicle box, and it is preferably mounted so that the base of the casing will rest upon the upper edges of the sides of the box, with bolts extending down on the outside of the box, and through a cross piece under the box. Or the bolts may be fastened directly to the floor of the vehicle body.

A further advantageous feature of the invention is that the operating lever 23, by which the rolls are operated, as well as the pawl and ratchet mechanism, are located inside the casing or hood, and consequently are not exposed to the weather nor to mud cast up by the wheels. The cover 10 is provided on the top with a strip of leather 40, which serves as a wear strip for the reins to pass over, so that the cover will not wear out from the constant rubbing of the reins. The cover is also provided with two snap hooks 41 to which the boot may be attached, thereby inclosing the whole front of the apparatus and allowing the carrier to work beneath the boot, without exposing the contents of the apparatus nor the person of the carrier, to rain or snow.

The box 27^a, as shown in Fig. 6, has a series of partitions which divide the body thereof into spaces sufficient to hold envelops, postal cards, stamps and the like, money order and registry receipt books, as well as to hold the pocketbook of the carrier, pencil, paper, etc. This will be found a great convenience for carriers and will relieve them of the necessity of unbuttoning their coats in cold weather, to make change or for similar purposes. The post-master can put supplies of a known amount in the box before the driver starts on his route. On his return, the box will be re-delivered to the postmaster, who can check up the cash and count the returned supplies. The convenient location of the box, at the side of the casing, allows it to be pulled out whenever it is needed to make a sale, and opened to give quick access to the various kinds of supplies, and also to the pocketbook for making change. When the upper roll is swung to forward position, a crank can be applied to the end of its shaft for the purpose of rewinding the mail bag on the upper roller. The filled mail bag will be wound on the roller within the post-office, and then the whole roll carried to the vehicle and put in place and connected to the lower roller for the purpose of delivering the mail to the boxes on the route as they are reached; and as fast as the pockets in the mail bag are emptied it is wound off onto the lower roller.

The pockets in the mail bag are numbered, and it is my intention to have the numbers correspond to the houses on the route. In case a house is vacated the use of the pocket can be omitted until the house is re-occupied. This is preferable to having the pockets correspond to the boxes in actual use or to the names of the householders, because new boxes are frequently

erected, or occupants of houses changed, whereas by having the pockets correspond to the houses themselves no change need be made, except a new house be built.

It is desirable or necessary that the arms 17 be connected so as to swing both at the same time, otherwise a pull on one end of the roller might result in skewing or jamming the same. Therefore the arms are fixed to the axle 13 by the means illustrated in Fig. 7, consisting of pins held to the arms by straps and extending through holes in the axle. Consequently when one arm is swung the axle turns and swings the other, and no special care is taken in swinging the roller in or out.

I claim:

1. The combination of a casing, rollers therein, a mail bag connected to the rollers, and swinging arms mounted in the casing and carrying one of the rollers and arranged to swing the same into or out of the casing.

2. The combination of a casing, swinging arms pivoted at opposite ends thereof, a roller mounted between the arms and arranged to swing therewith into or out of the casing, and a mail bag wound upon the roller.

3. The combination of a casing open at the front, swinging arms pivoted to opposite ends thereof and extending upwardly within the same and having bearings at the top, a roller removably mounted in said bearings, and arranged to swing with the arms to and from the front of the casing, and a mail bag wound upon the roller.

4. The combination of a casing having ends with vertically-elongated recesses therein and a large space between the ends adapted to receive a mail bag, and removable boxes slidable edgewise in said recesses.

5. The combination of an inclosing frame having standards at each end of the front, and recesses extending through said standards and into the ends of the frame, and boxes fitting in said recesses and removable therefrom.

6. The combination of a casing open at the front, supports at opposite ends thereof, movable toward or from the said front, a roller mounted to turn in said supports and movable therewith back and forth in the casing, a lower roller within the casing, and a mail bag detachably connected between the rollers.

7. The combination of a casing, a pair of arms pivoted at their lower ends to the ends of the casing and arranged to swing toward and from the front thereof, bearings at the upper ends of the arms, said bearings being openable, a roller removably held in said bearings, another roller journaled in the lower part of the casing, and a mail bag connected to the rollers at opposite ends and arranged to be wound from one to the other.

8. The combination of a casing, a pair of arms pivoted at their lower ends to the ends of the casing and arranged to swing to and from the front thereof, stops for the arms, projecting from the ends of the casing, to limit the swing thereof, a roller carried in bearings at the upper ends of the arms, and a mail bag wound on the roller.

9. The combination of a casing, an axle extending across within the same and having a lower roller loose thereon, a pair of arms fixed at their lower ends to the axle and projecting upwardly therefrom and arranged to swing back and forth in the casing, an upper roller mounted on the upper ends of the arms, and a mail bag connected between the rollers.

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

CHARLES E. GLADDING.

Witnesses:

M. R. KIMSMAN.
GEO. E. TEW.