

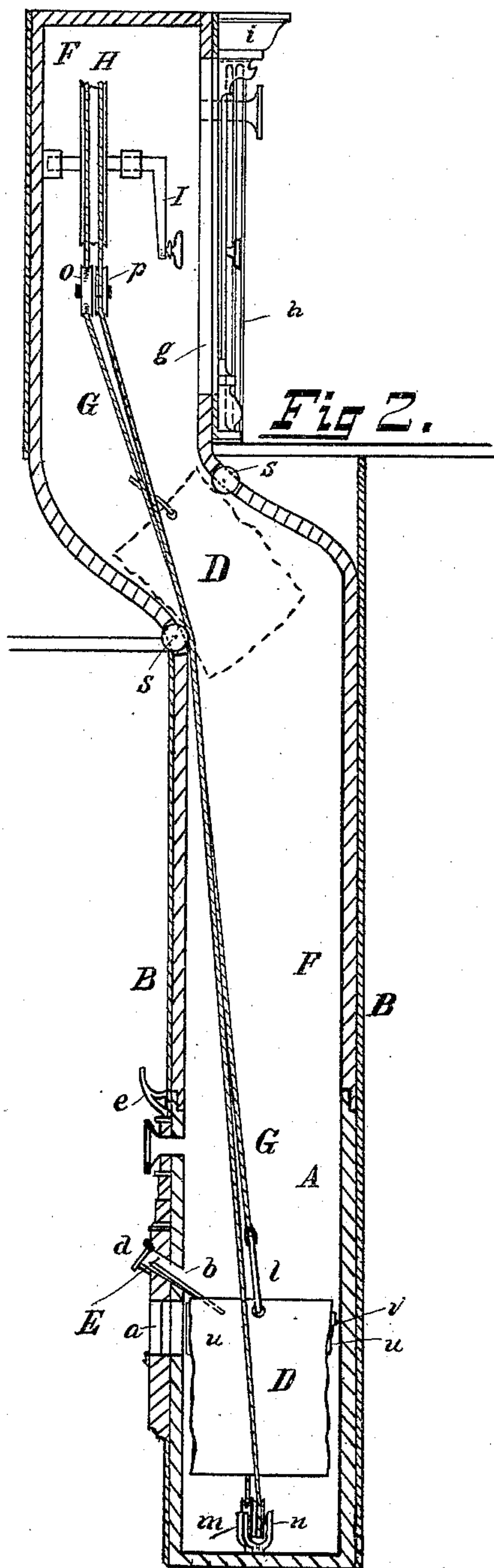
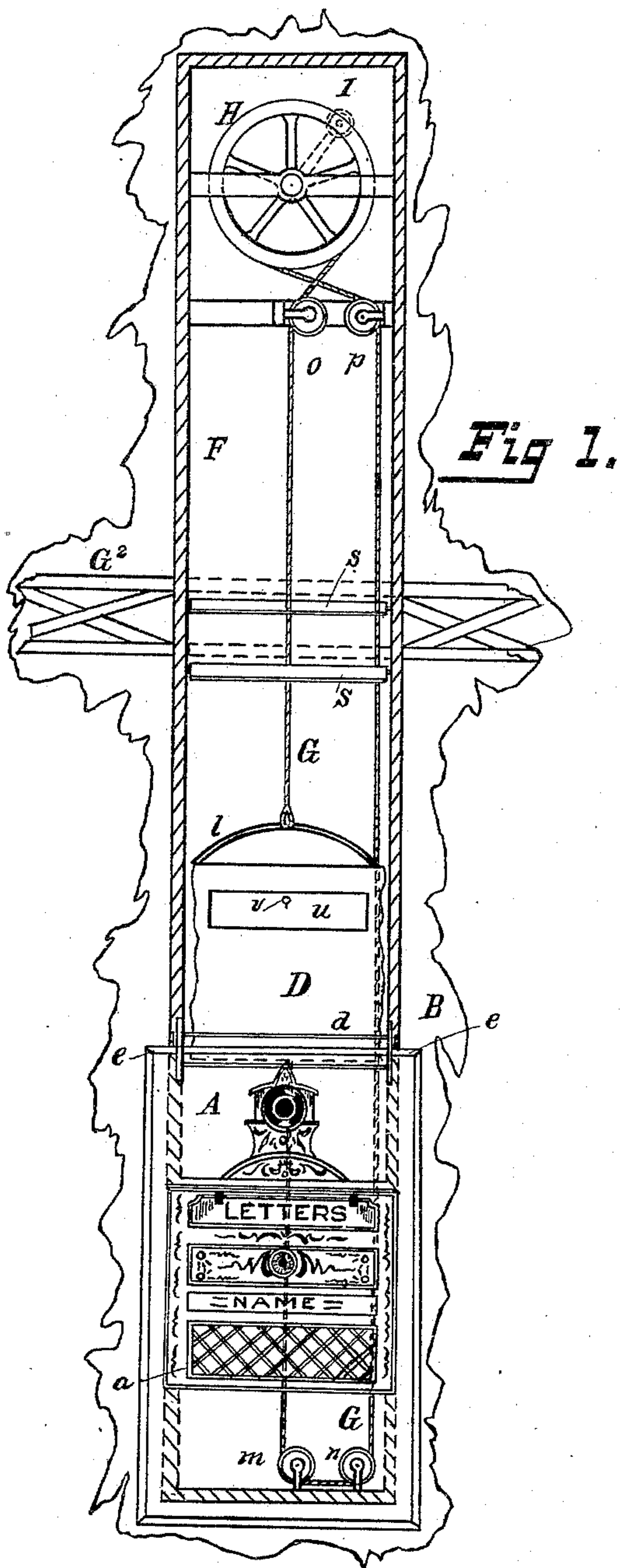
(No Model.)

2 Sheets—Sheet 1.

C. H. VAUSE.
LETTER BOX.

No. 445,867.

Patented Feb. 3, 1891.



WITNESSES:

Mark Deeter
Edmund Wade Miller

INVENTOR

INVENTOR:
Charles H. Nause

BY *J F Bourne*
his ATTORNEY.

(No Model.)

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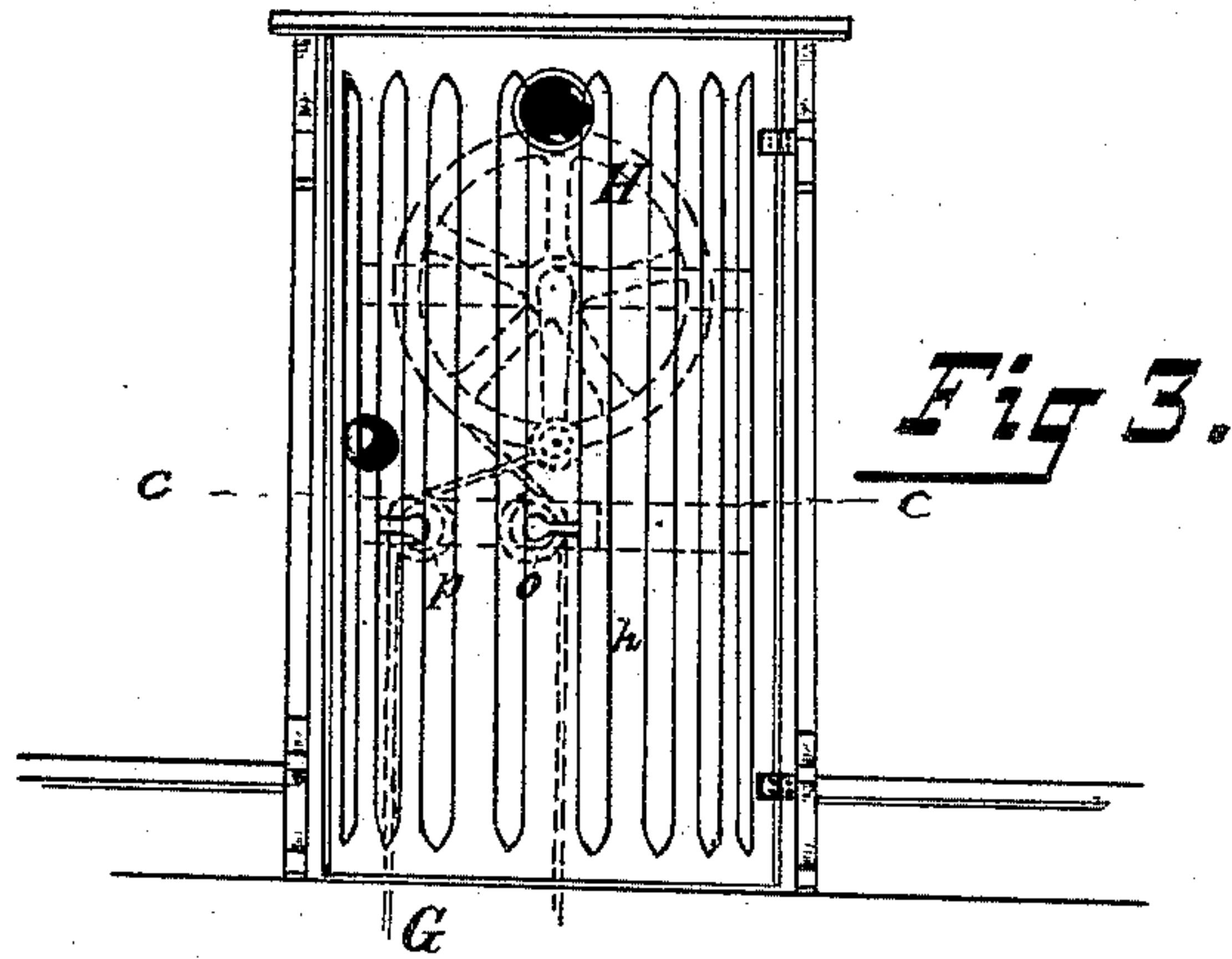


Fig 4.

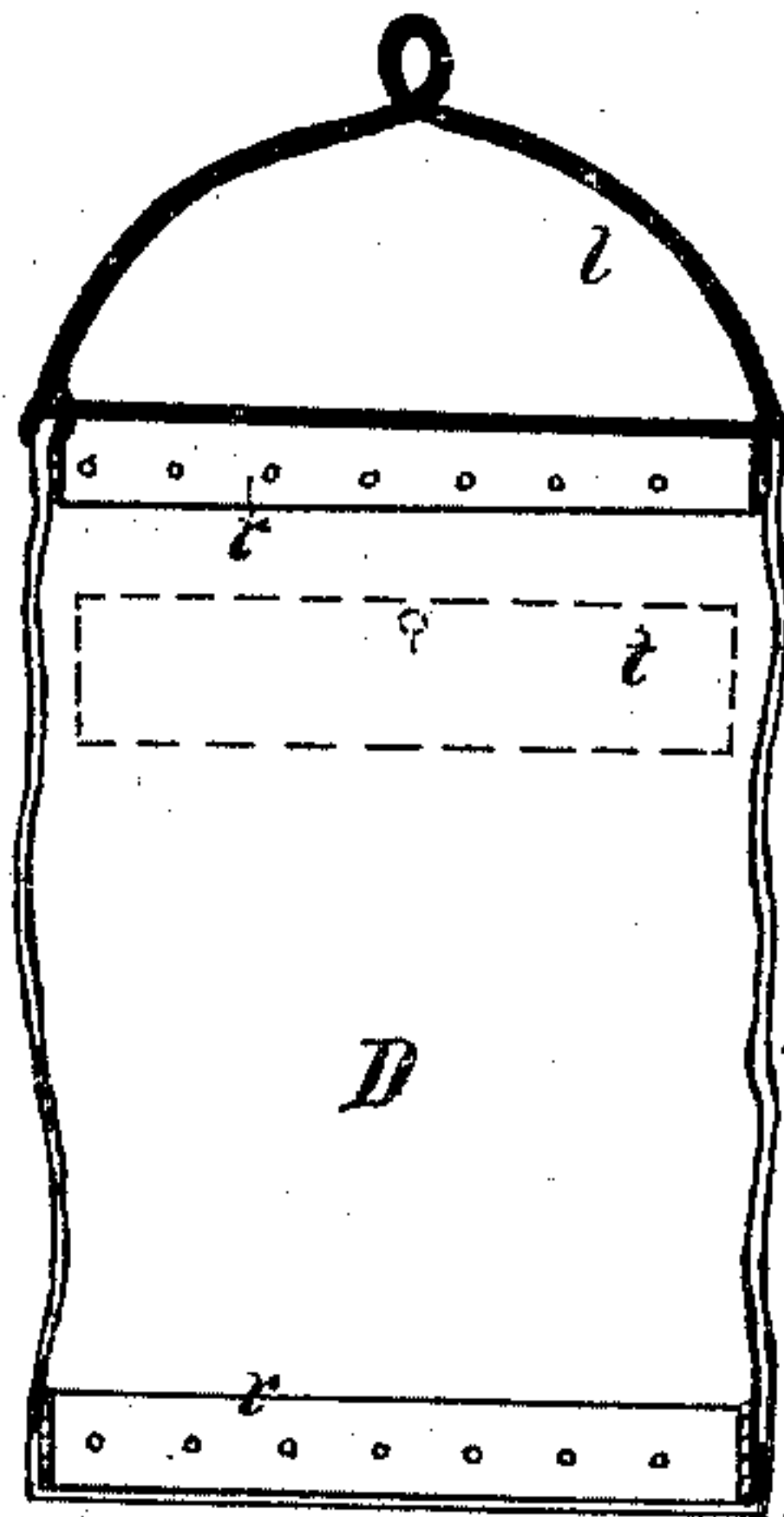


Fig 5.

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UNITED STATES PATENT OFFICE.

CHARLES H. VAUSE, OF NEW YORK, N. Y.

LETTER-BOX.

SPECIFICATION forming part of Letters Patent No. 445,867, dated February 3, 1891.

Application filed February 5, 1890. Serial No. 339,362. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. VAUSE, residing in New York city, county and State of New York, have invented certain new and useful Improvements in Letter-Boxes, of which the following is a specification.

The object of my invention is to provide means for carrying letters, &c., from the letter-boxes on the first floor (say the vestibule) of buildings and houses to the floors above, so as to overcome the necessity of going down stairs to extract letters, &c., from the post-box.

The invention consists in the novel details of improvement and the combinations of parts that will be more fully hereinafter set forth, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming part of this specification, wherein—

Figure 1 is a partly sectional face view of my improvements as applied to a building. Fig. 2 is a vertical cross-section of the same. Fig. 3 is a face view of the door for closing the upper opening of the elevator-conduit. Figs. 4 and 5 are detail views of the receptacle or bag for elevating the letters, &c.; and Fig. 6 is a horizontal section on the line *c c*, Fig. 3, showing the outline of said conduit-door.

Referring now to the accompanying drawings, the letter *F* indicates a tube or conduit, the lower part *A* of which corresponds to a letter-box, and it is to be placed in a convenient position, say in the wall *B* of a vestibule or hallway. Within the conduit *F* a letter receptacle or bag *D* is adapted to travel. (See Fig. 2.) The lower part *A* of the conduit *F* is shown provided in front with a door *a* and with a slot *b* to permit the entry of letters *E*, &c. Said slot may be kept closed by a flap *d*. (See Fig. 2.) The lower part *A* of the conduit may also carry brackets *e*, that are connected by a cross-bar *f*, by which newspapers and packages can be supported in front of the box *A*. The conduit or tube *F* passes upward within the walls *B* of the building. The conduit or tube *F* may extend to the first floor *G*² or to any other floor of the building, and at its upper end it will open into one of the rooms of an apartment. (See Fig. 2.) The opening *g* at the upper end of the tube

or conduit *F* should be closed by a door or the like *h*, which may be ornamental, as shown. I have shown it in the form of a fluted column, surmounted by a crown or cap *i*, upon which ornaments may be placed. The crown *i* is to be secured to the wall, while the door *h* swings beneath it.

Any desired number of conduits or tubes *F* may be placed side by side, each conduit leading to a certain floor above, so that the letters from one conduit will not reach a wrong apartment.

In double-apartment houses, where the wall dividing two apartments on one floor comes about over the middle of the vestibule, the tubes or conduits *F* will be curved from the side wall of the vestibule to reach the central wall above. The above is clearly illustrated in Fig. 2. In said figure is shown how the side opening at the lower part of the conduit is on one side, and the opening *g* at the upper part is on the opposite side of the tube or conduit *F*, which thereby leads into the room above.

The receptacle or bag *D* is adapted to pass through the conduit or tube *F* and through the open top of the letter-box *A* into the same beneath the slot *b*, as in Fig. 2.

The receptacle or bag *D* is elevated and lowered as follows: *G* is a cord, chain, or other connection, which is secured at one end to the receptacle or bag *D* or to a bail *l*, carried by the same, and said cord or connection passes within the conduit *F* and over or around a roller or wheel *H*, that is suitably journaled within or at the upper part of the conduit *F*, said cord being given a double turn around the wheel *H* (see Fig. 2) to cause it to bind tightly on the wheel *H* to draw the receptacle in opposite directions. The cord or connection *G* thence passes to the lower end of the conduit *F* over suitable rollers *m n*, and is connected to the lower end of the receptacle or bag *D*, said bag thereby virtually forming part of the connection *G*. The connection or cord *G* may also be guided over rollers *o p* at the upper part of the conduit *F*. The wheel *H* may be actuated by a suitable crank *I*, connected to it. When the wheel *H* is turned in one direction, the receptacle or bag *D* will be elevated to bring it up

to the opening *g* to permit letters to be taken from it, and when the wheel is turned in the opposite direction the bag will be drawn down into the lower part A of the conduit to receive
 5 letters. By this means the receptacle D will be carried or forced through the curved part of the conduit without being caught in the same. If gravity were depended on, the receptacle would not descend through the
 10 curved part of the conduit, but would stick at that part. It is essential, therefore, to draw the receptacle in both directions.

In order that the receptacle or bag D may pass easily within the letter-box A and the
 15 conduit F, and also pass freely through the curved part of the conduit, I prefer to make said receptacle flexible, as indicated in the drawings. The receptacle D in the drawings consists of a bag of flexible material open on
 20 top, and provided at the top and bottom with a band or frame *r*, of brass or other suitable material, which keeps the bag distended. Said bag will be kept extended, because the connections G draw upon it in opposite direc-
 25 tions. Otherwise it would collapse in the conduit.

To reduce the friction on the receptacle or bag D in passing the curved part of the conduit F, and to prevent it from sticking at said
 30 points, I place in said conduit at its curves or corners rollers *s*, which project slightly into the conduit. (See Fig. 2.) They also serve to reduce the friction on the cord G as it works within the curved part of the conduit F.
 35 Otherwise the cord would be quickly worn through at said points.

To permit letters, &c., to be easily taken from the receptacle or bag D when it is within the letter-box A, I provide an opening *t* in
 40 one or both sides of said bag and close the same by a flap *u*, which may be held closed by a button *v*.

The receptacle or bag D is to be normally kept lowered and within the part A of the
 45 conduit. When a letter E is passed through the slot *b*, it will fall into the receptacle D. A person upstairs now opens the door *h* and turns the wheel H, which elevates the receptacle and letter to the proper floor or room
 50 and the letter can be taken from the receptacle D. Said receptacle is then drawn down, forced through the curved part of the conduit to the lower part thereof ready to receive another letter.

55 With my improvements a great deal of trouble and annoyance are overcome, because instead of being obliged to descend the stairs to obtain a letter it is merely necessary for a

person to turn a wheel in the room and the letter will be brought upstairs. 60

Of course the receptacle or bag D can be elevated by cords or the like otherwise arranged than that shown.

In double-apartment houses one tube or conduit F can be used for both apartments 65 on one floor. If the conduit were not curved, it would pass from the vestibule into the room above in double-apartment houses and in some single-apartment houses, and would therefore be impracticable; but by curving 70 the conduit it can pass between the walls and flooring, and thus be kept out of sight and not interfere with the use of the rooms above. It can also be carried for any distance within the floor to join a vertical wall at any point. 75

Having now described my invention, what I claim is—

1. The combination of a conduit curved through a part of its length, a flexible receptacle, a cord connected to the top and bottom 80 of said receptacle, two pairs of guide-pulleys, one of each pair being located near the axis of the conduit and the other near the side, and two rollers extending across the conduit, one being located at the lower part of the un- 85 der side of the curve in the conduit and in the path of the cord and receptacle and the other at the upper part of the top of the curve of the conduit in the path of the receptacle, substantially as set forth. 90

2. A conduit having a part located in or behind a wall and below a partition on the floor above and a part located in or behind said partition, these two parts being connect- 95 ed by a curve situated between the ceiling and floor, and said conduit having doors on opposite sides near its ends, in combination with a receptacle having openings on opposite sides and doors or flaps to close the same and means for raising and lowering the re- 100 ceptacle, substantially as set forth.

3. A conduit having a part located in or behind a wall and below a partition on the floor above and a part located in or behind said partition, these two parts being con- 105 nected by a curve situated between the ceiling and floor, and said conduit having doors on opposite sides near its ends, in combination with a receptacle and means for raising and lowering the receptacle, substantially 110 as set forth.

CHARLES H. VAUSE.

Witnesses:

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 T. F. BOURNE.