

(No Model.)

M. L. RYDER.

ENTRANCE FOR REFUSE CONDUITS IN BUILDINGS.

No. 503,685.

Patented Aug. 22, 1893.

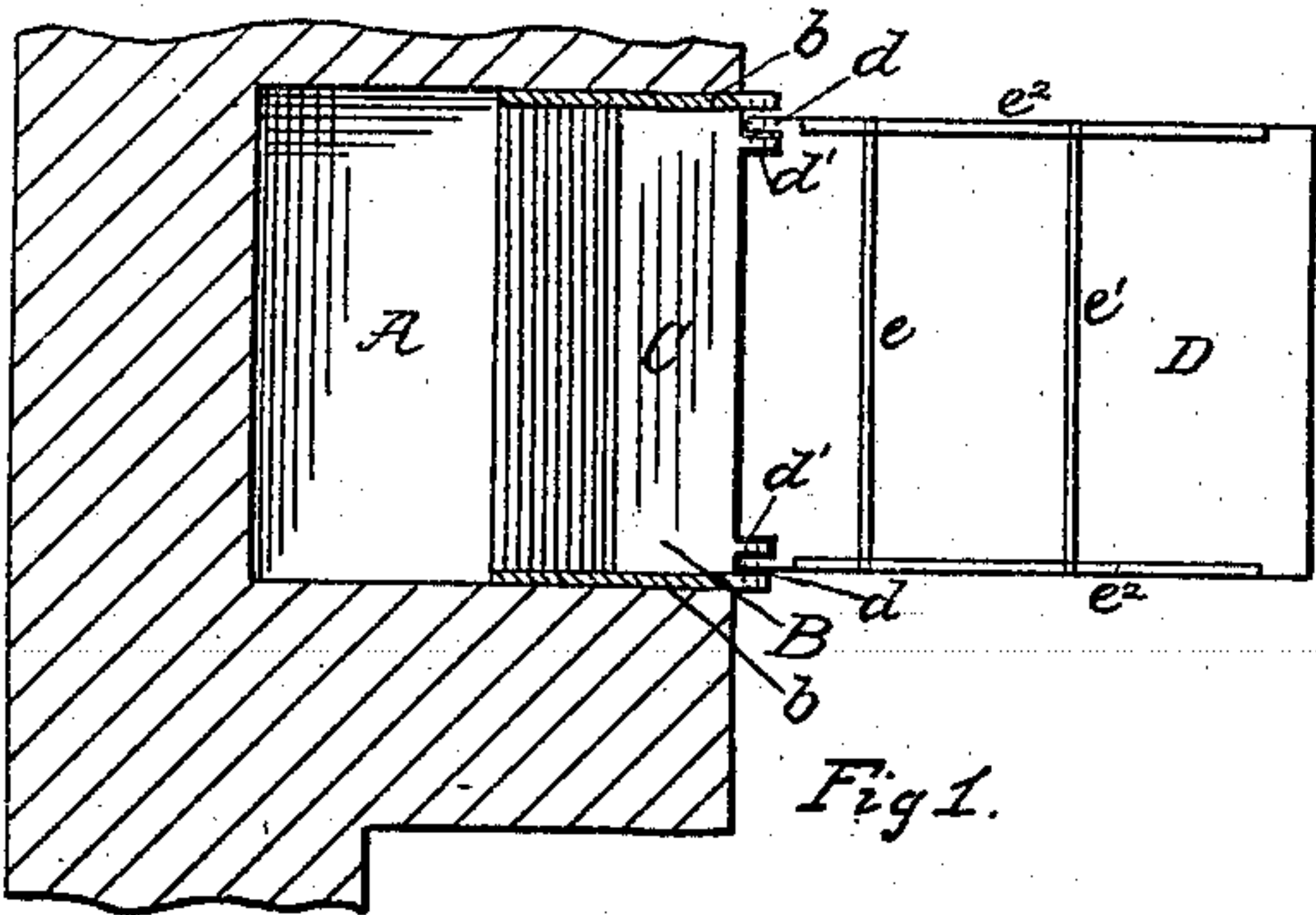


Fig. 1.

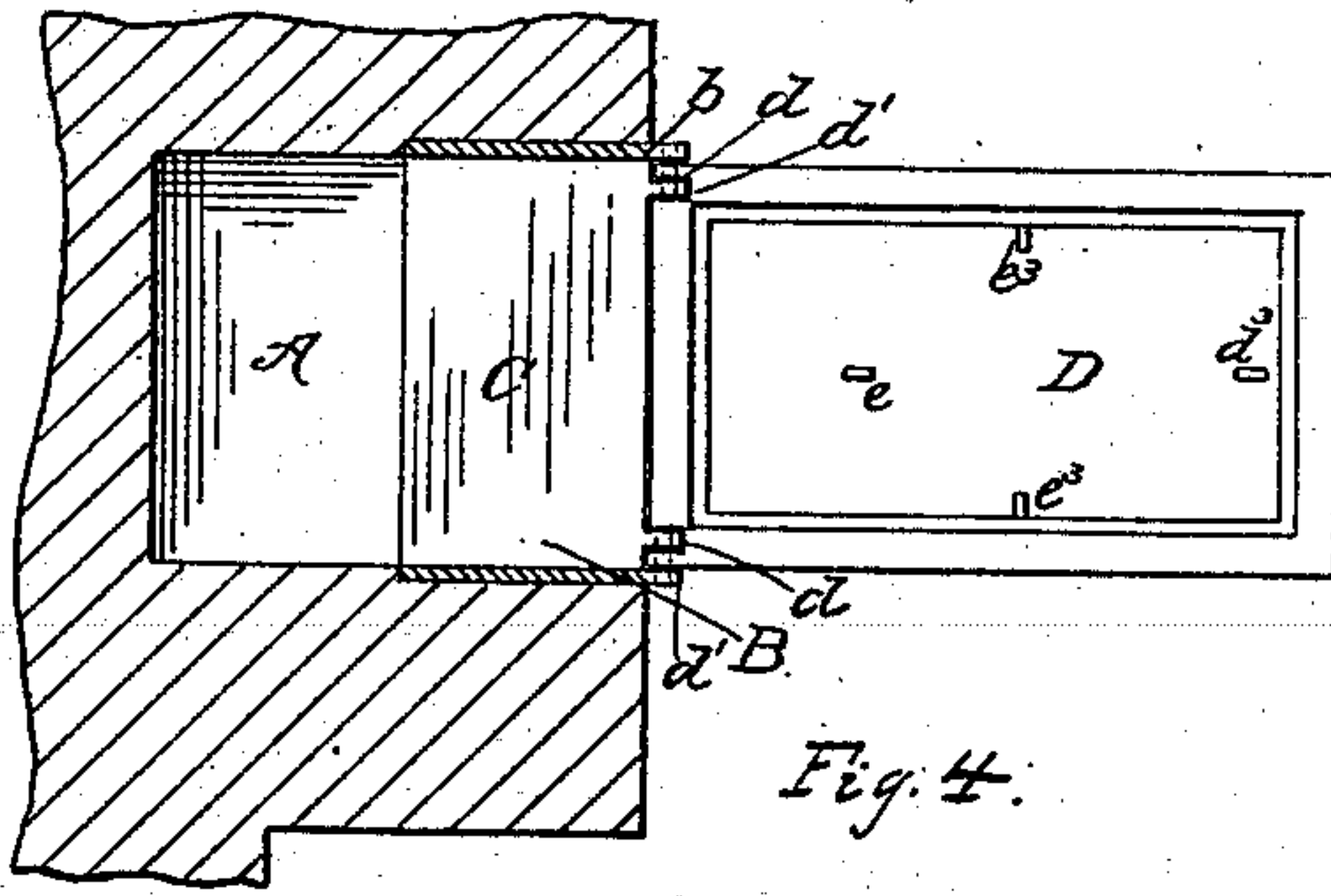


Fig. 4.

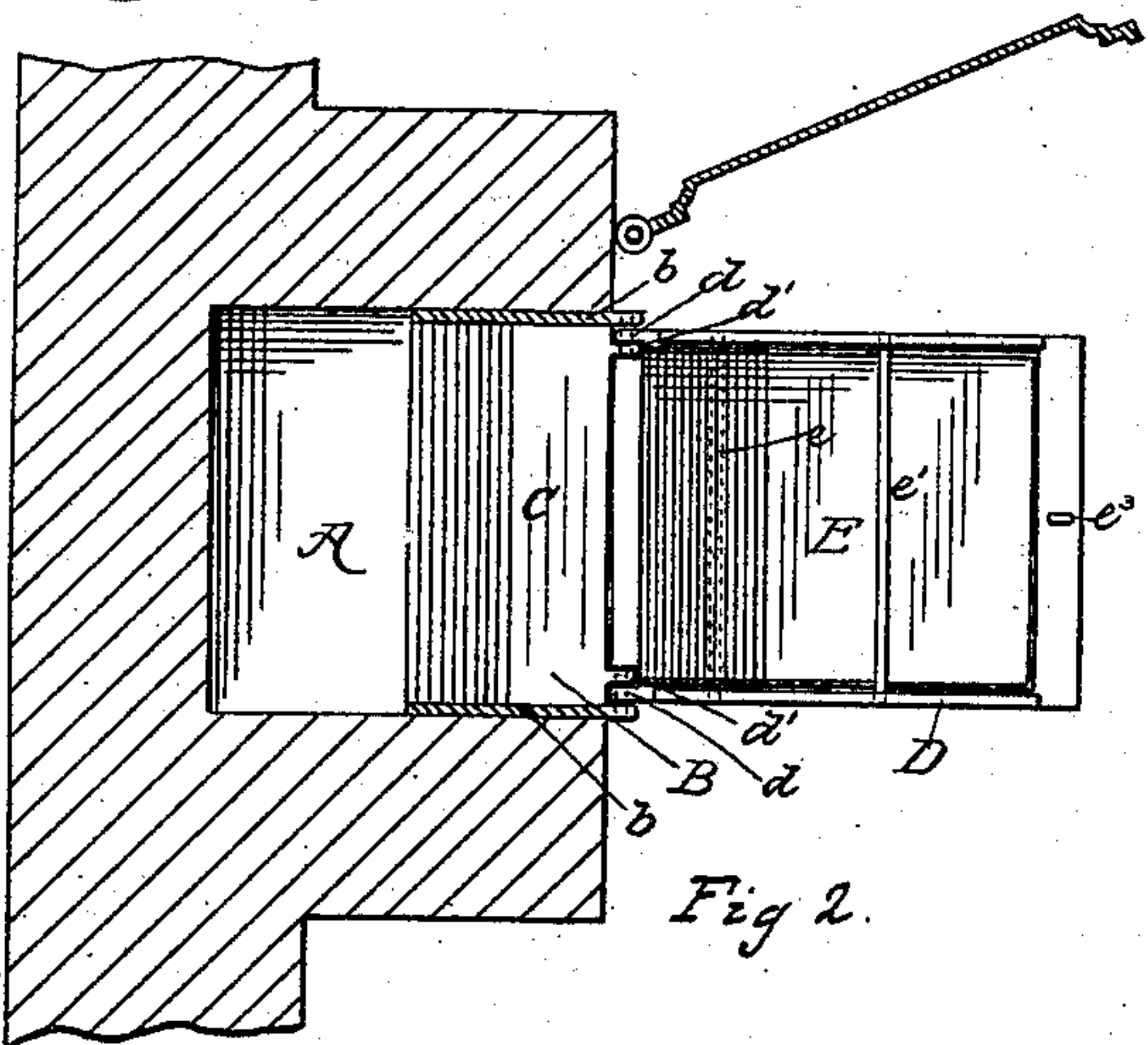


Fig. 2.

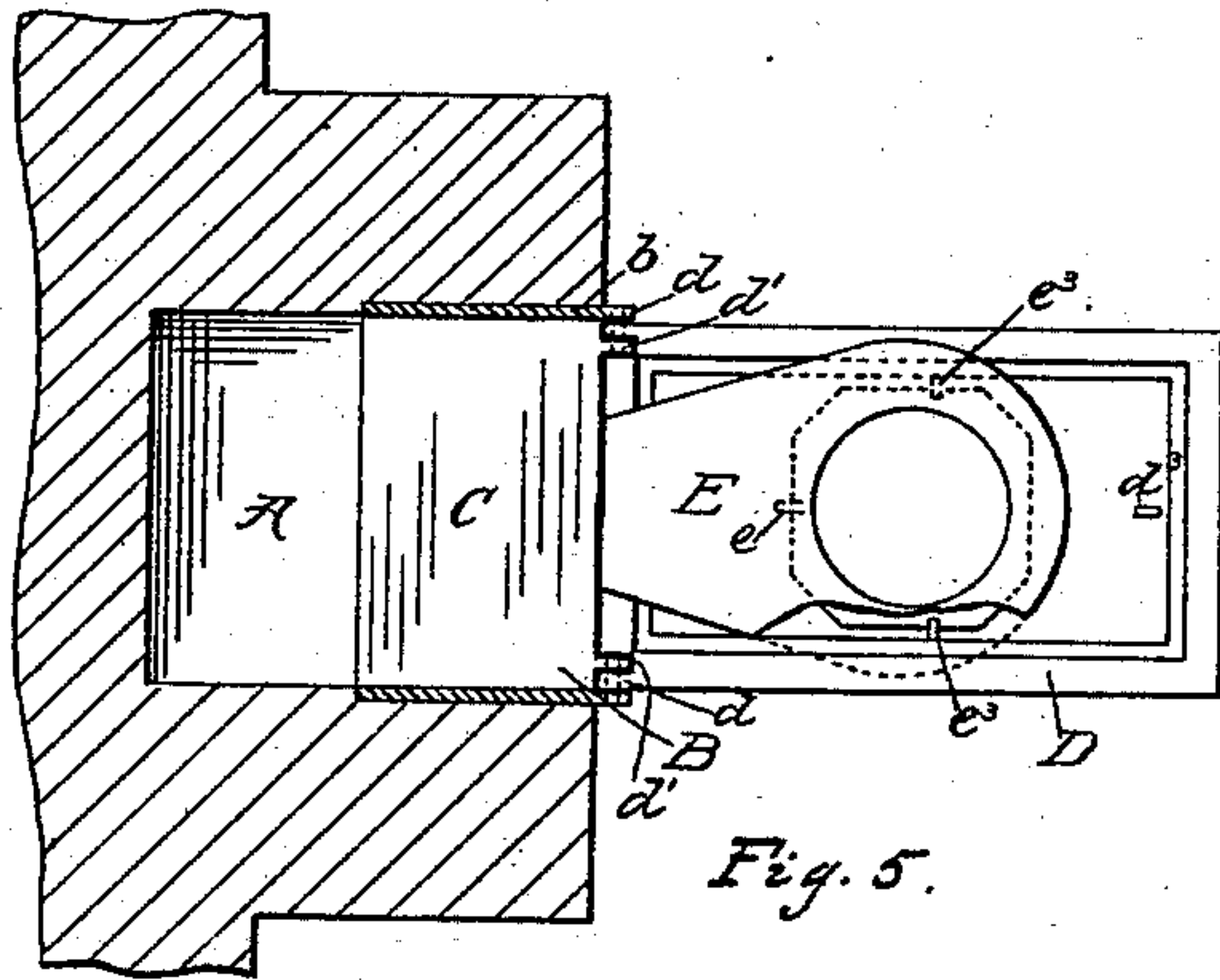


Fig. 5.

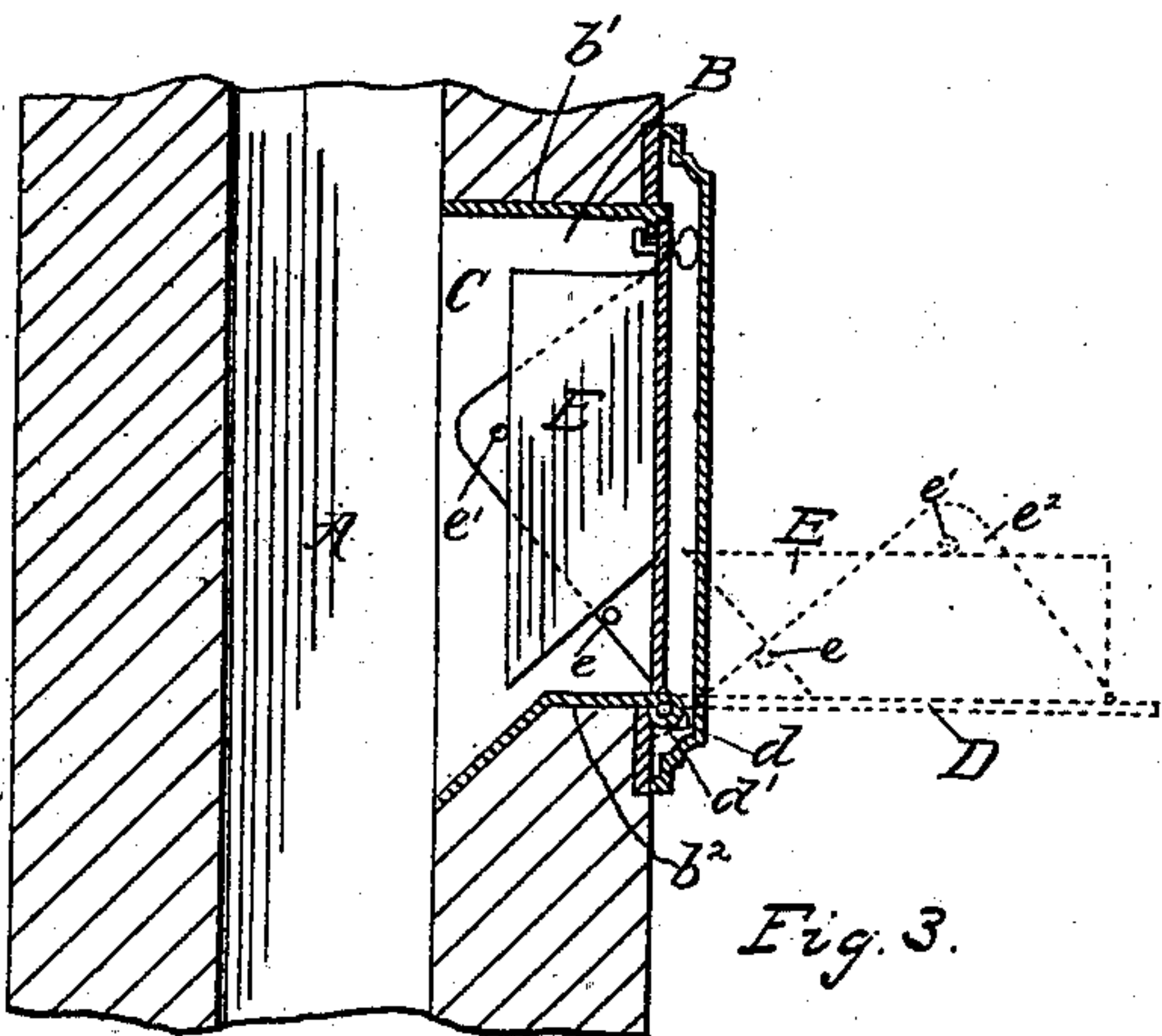


Fig. 3.

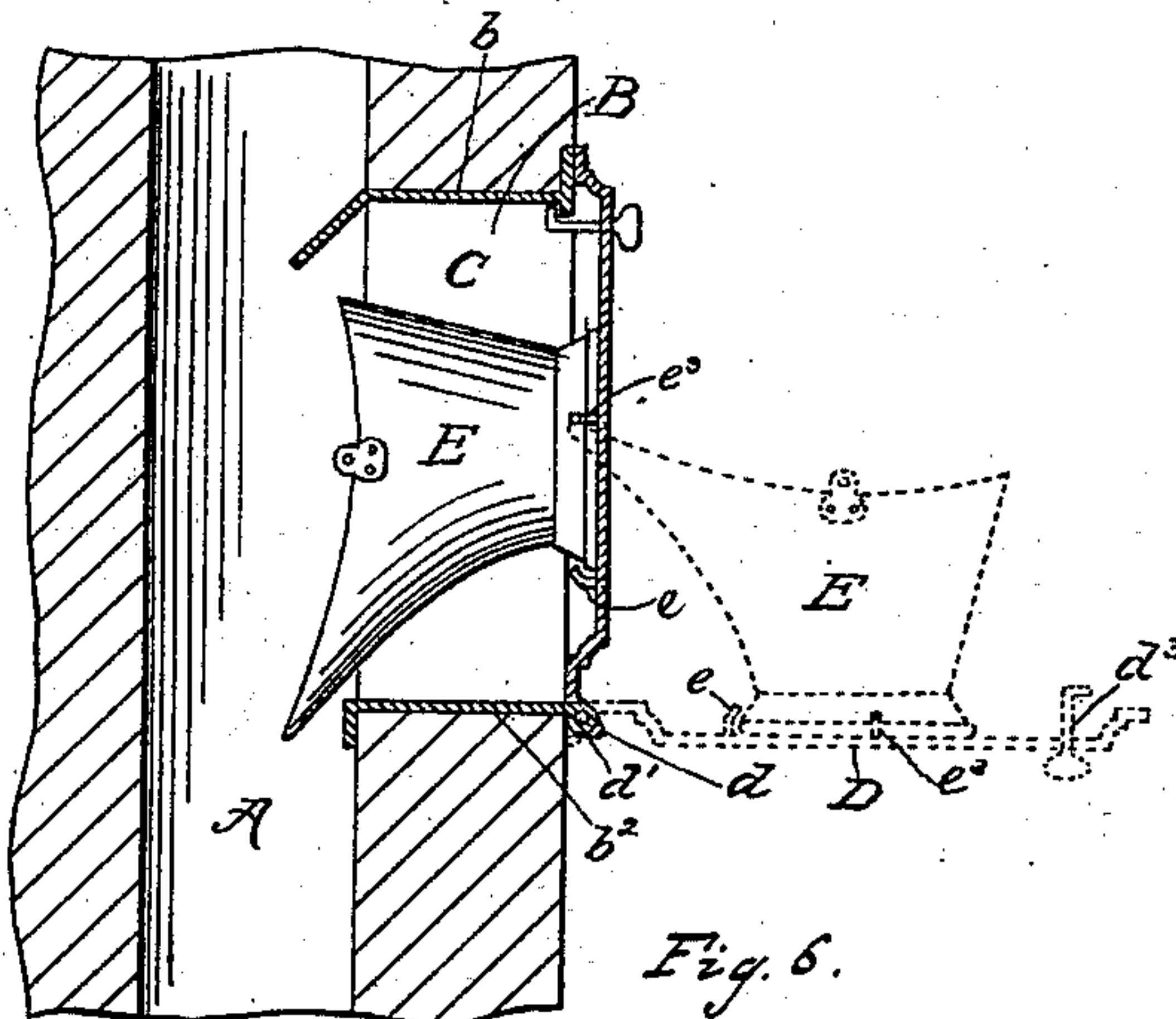


Fig. 6.

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# UNITED STATES PATENT OFFICE.

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## ENTRANCE FOR REFUSE-CONDUITS IN BUILDINGS.

SPECIFICATION forming part of Letters Patent No. 503,685, dated August 22, 1893.

Application filed December 17, 1892. Serial No. 455,488. (No model.)

*To all whom it may concern:*

Be it known that I, MORRIS L. RYDER, a citizen of the United States, residing at Albany, in the county of Albany and State of New York, have invented certain new and useful Improvements in Entrances for Refuse-Conduits in Buildings; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to entrances for refuse conduits of buildings; and it consists in the devices and combinations of devices and elements hereinafter described and specifically set forth in the claims.

The objects of my invention are, first, to provide at the entrance of ash conduits, doors which when opened may receive and hold in place an ash-pan of a stove or range, or a coal-hod containing ashes, or any other vessel containing refuse of any kind which may accumulate in dwellings, flats, hotels or other buildings, and will retain such vessels in place and be securely held with the said door, when it is turned up to close the entrance of the conduit, and tip the discharge side of the vessel downwardly for discharging the contents of the vessel into the conduit provided in the building or in the wall of the same; second to provide with conduits for conveying ashes and other refuse of dwellings, flats, hotels, and other buildings a vertically swinging platform which is capable of receiving and holding in place on it, a vessel containing ashes or other refuse, and be capable of being swung upwardly from a horizontal to a vertical position and so tilt the said vessel as to discharge the contents thereof into the said conduit, to be conveyed, by the latter, into a suitable receptacle in the cellar or basement of the building; and lastly to provide suitable combinations of devices and elements by which my invention may be put into practice in buildings already provided with conduits for ashes or other refuse. I attain these objects by the means illustrated in the accompanying drawings, forming a part of this specification, in which—

Figure 1, is a plan view of a conduit formed in the wall and illustrating an entrance to the same with a platform embodying my invention in a horizontal position. Fig. 2, is a plan

view of the same with a vessel containing refuse, in place and ready to be introduced into the conduit. Fig. 3, is a sectional elevation of a conduit, its entrance, and adjuncts of the same, and illustrating the vessel in situation and position for discharging the refuse into the conduit. Fig. 4, is a plan view, illustrating a modified form of parts which may be employed in the practice of my invention. Fig. 5, is a plan view of the same and illustrates a coal-hod in use as a refuse receiving vessel, and secured in place, ready for transferring the refuse to the conduit, and Fig. 6, is a sectional view of the same with the coal hod in situation and position for discharging the refuse into the conduit.

The same letters of reference refer to similar parts throughout the several views.

In the drawings A represents a conduit for receiving refuse of a dwelling, flats of a building, or rooms of a hotel or other building for conveying the same to the ground floor, basement, cellar, or an outhouse adjacent to the building in which the refuse is produced. This conduit may be made of sheet or cast iron, or other suitable material, or be formed in the wall, or walls, of the building as may be preferred. A single conduit may be employed, in an ordinary house or building, for receiving the ashes or other refuse from all the floors or stories of the building, by making it to extend from the upper floor, or flat, or story to past the lower one and to a suitable receptacle or receptacles provided for holding the refuse until removed.

B is the casing of the entrance C to the conduit, from one of the floors, or stories of the building. This casing is preferably made of cast iron and formed by the side walls  $b b$  and top and bottom walls  $b' b^2$  and the opening, bounded by the said walls  $b b$ ,  $b'$  and  $b^2$ , constitutes the entrance C to the conduit. This entrance C is provided with a platform so constructed and arranged in reference to the said entrance as to be capable of being swung vertically, or away and down from the edges of the side walls of the casing, and from a vertical position to horizontal one, as illustrated, and receive on its inner side, when the platform is in a horizontal position an ash-pan, coal-hod or other suitable vessel containing ashes or other refuse. This platform D,



for receiving such a vessel, may be made of any suitable material but preferably of cast-iron. In Figs. 1, 2 and 3, this platform D is illustrated as being formed of a simple flat plate of metal, suitably hinged to the casing B, by any preferred form of hinge which will operate to hold its lower end jointed with the casing B, and sustain it in a horizontal position when required for receiving a vessel containing refuse substances. This platform may be provided with hinges, formed of knuckles  $d$  connected with said platform, and knuckles  $d'$  connected with the casing B, and may be provided with a suitable catching piece  $d^3$  by which the upper end of said platform may be secured in a vertical position as illustrated in Fig. 3, and be at will operated for releasing the said upper end of the platform and allow the same to be turned down to a horizontal position as shown by full lines in Figs. 1 and 2 indicated by dotted lines in Fig. 3. This vertically swinging platform D is provided with devices for securely holding the vessel E, containing refuse substances, fast to the upper side of the same while it is being swung from a horizontal position upwardly to a vertical one as from dotted lines to full lines in Fig. 3. These vessel holding devices may be made of any form of construction which will be suitable for holding with the form of vessel E employed to receive the ashes or other refuse.

In Figs. 2 and 3, the vessel E, for containing refuse matters, is shown to be in the form of an ash-pan of a stove or range, and the devices employed for holding said vessel in place, are shown to be the stop  $e$ , for preventing the vessel E from moving forwardly when the platform D is being turned vertically up to opposite the entrance C of the conduit, and the holding piece  $e'$  made in the form of a bar and having bearing on the upper side edges of said vessel E as shown in said Figs. 2 and 3, for holding it securely on the inner side of the said platform when the latter is in a vertical position. This holding piece may have its outer ends secured to side lugs  $e^2$  connected with the said platform, or be otherwise secured to the latter, at a distance above the plane of the inner side surface of the same sufficient to allow an operator to slide the said vessel beneath the said holding piece  $e$  as shown in Figs. 2 and 3.

In Figs. 4, 5 and 6, the platform D is shown to serve as a door for closing the entrance C to the conduit, and is provided with a stop  $e$  and holding pieces  $e^3$  for use for preventing a coal-hod E' from shifting its position in relation to the said platform when it is being turned from a horizontal position to a vertical one, as from position shown by dotted lines in Fig. 6, to that of full lines in the same figure. The stop  $e$  in Figs. 4, 5 and 6, operates to prevent the vessel E' from being moved forward, when being placed, past the place it is intended to occupy on the said platform or door, or moving downwardly

when the said platform is being turned upwardly. The holding pieces  $e^3$  may be of any suitable form for engaging with the base of the said vessel E or with an adjunct secured to said vessel, whereby it will be held down on the platform or door when the latter is in a vertical position closing the entrance of the conduit. These holding pieces  $e^3$  in Figs. 4, 5 and 6, are made in the form of inwardly projected lips which overlap the base edges of the hod so as to hold with the same when the hod is placed on the inner surface of said platform and between the said holding pieces and moved forward to the distance limited by stop  $e$  so that the lips of the said holding pieces are brought into engagement with the said hod.

Although the drawings illustrate the refuse holding vessels E as being, in one case, in the form of an ash pan of a stove, and in another case, as a coal-hod, yet it is evident that the refuse vessel may be made with any other suitable form, and that the stops and the holding pieces for retaining the vessel, in place, when the platform is being tilted, may be variously modified for adapting them to hold with such vessels as may be employed in connection with the platform D for transferring refuse substances to the conduit in a cleanly and convenient manner.

In Figs. 2 and 3, a door D' is shown for inclosing, or hiding from view, the platform D which receives and retains the refuse vessel E in place when the said platform is in a vertical position in the entrance of the conduit.

When the conduit A is extended from an upper story or flat of a building to or past the lower stories or flats of the same, an entrance C may be made to the same from each story or flat, so that the same conduit may be employed for conveying refuse substances from each story or flat to the place of their general deposit, in the cellar or other lower portion of the building. In such cases the casing B of the entrances will be made with such extension, both in horizontal and vertical directions as to receive the whole or major portion of the refuse vessel within it, with but little, if any portion, of the same projecting inwardly past the line of the side of the conduit in which entrances C are provided, so that the refuse from vessels dumped into the uppermost entrances from vessels therein, will fall clear of the vessels which may be shut in place within the lower entrances to the same conduit.

By this invention, ashes, garbage or other substances, may be introduced into the conduit A in a cleanly manner, and necessity of the operator holding the vessel while being tilted, is obviated, as the operator will be required only to turn the platform D down to a horizontal position and place the vessel E on the same and move it forward to the limit of stop  $e$ , when he will turn the said platform upwardly, when the vessel will be tilted downwardly for the full discharge of the refuse



substances therefrom, into the conduit, and be permitted to remain therein until the dust from the same has settled, or for such a length of time as the operator may allow it to remain within the entrance. To adapt the same platform D to be used with vessels of different forms of construction and sizes, the stops *e* and holding devices *e'* *e*<sup>3</sup> may be made adjustable in relation to the said platform, without involving any invention, so as to be capable of adjustment for operation with such vessels as families may have in use, and thereby obviate the necessity of providing vessels of specific form and dimensions. These improvements may be applied to the entrances of conduits into which ashes and garbage are now emptied by the hands of an operator when the door of the same is open and allows the dust of the ashes, blown by the up draft of the conduit, to enter into the room and they may be modified in their form of construction and arrangements of parts so as to adapt them for use in entrances of forms now in use with the conduits now in flats, hotels and other buildings, so that an operator will be required to only secure the vessel, containing the refuse substances to be disposed of, in place on the tilting platform and tilt the latter, which may be done in an instant while the door is, or is being closed, so that the discharge will be made in a cleanly manner, and the vessel be permitted to remain inclosed within the entrance until all dust from the refuse has settled, or to such other time as the operator desires to remove it, for reuse.

Having described my invention, what I claim is—

1. The combination with the device D, which is hinged to the casing of an entrance to a conduit leading to a receptacle below, and is capable of serving as a platform when turned to a horizontal position, of mechanism, described, for securing a removable vessel, at will, to said device when it is in situation as a horizontal platform, and serve as a tilting device whereby said removable vessel will be relieved of anything contained in the same, by turning said device from a horizontal position to a vertical one, substantially as and for the purposes set forth.

2. In combination with casing B of the entrance C to a conduit leading to a receptacle below, from a room above, of platform D hinged at its lower end with the lower end of said casing, and capable of being turned from a vertical position to a horizontal one, and the reverse, and mechanism, described, for securing an ash pan of a stove or furnace, a coal hod, or other removable vessel, at will, to the upper side of the said platform when the latter is in a horizontal position, so as to hold with the same when it is turned to a vertical position, substantially as and for the purposes set forth.

3. The combination with a casing of an entrance to a conduit leading to a receptacle below, a tilting device hinged at its lower end to said casing, and capable of being turned, at will, from a horizontal to a vertical situation, of an ash pan or other removable vessel E, of mechanism described for holding said vessel secure with said tilting device when in either a horizontal or vertical position, and capable of being released when in a horizontal position, substantially as and for the purposes set forth.

4. The combination with the tilting device or platform D, hinged by its lower end with the casing of an entrance to a conduit leading to a receptacle below, of an ash pan, coal hod, or other removable vessel, mechanism described, and provided with said tilting device or platform for holding the removable device secured to the same, and stop *e* for preventing the vessel from moving forward toward the hinged end of said tilting device or platform, substantially as and for the purposes set forth.

5. The combination with the casing B of an entrance to a conduit leading to a receptacle below, a device D, hinged by its lower end to said casing so as to be capable of being, at will, turned to a vertical position, to serve as a door for closing the said entrance, and turned also at will to a horizontal position to serve as a platform, located wholly outside the said casing, mechanism described, for temporarily holding securely with said hinged device D, a vessel E, described, containing refuse matters to be dumped into the conduit when said hinged device is being turned to a vertical position, for serving as a door to close said entrance, and readily permit the removal of said vessel for service for which it was originally intended, substantially as and for the purposes set forth.

6. The combination with casing B of an entrance C, to a conduit leading to a receptacle below, of the device D hinged by its lower end to the lower end of said casing, and capable of serving as a platform when turned to a horizontal position, and as a door to close the entrance when turned to a vertical position, mechanism, described, secured to said hinged device D, and capable of securely holding with the latter the vessel E, described, and so as to be removable at will, from a secure fastening with said hinged device D for service for which said vessel is intended when removed from said hinged device substantially as and for the purposes set forth.

In testimony that I claim the invention above set forth I affix my signature in presence of two witnesses.

MORRIS L. RYDER.

Witnesses:

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A. SELKIRK, Jr.