

C. G. ARMSTRONG.
APPARATUS FOR HANDLING ASHES.
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904,916.

Patented Nov. 24, 1908.

Fig. 1.

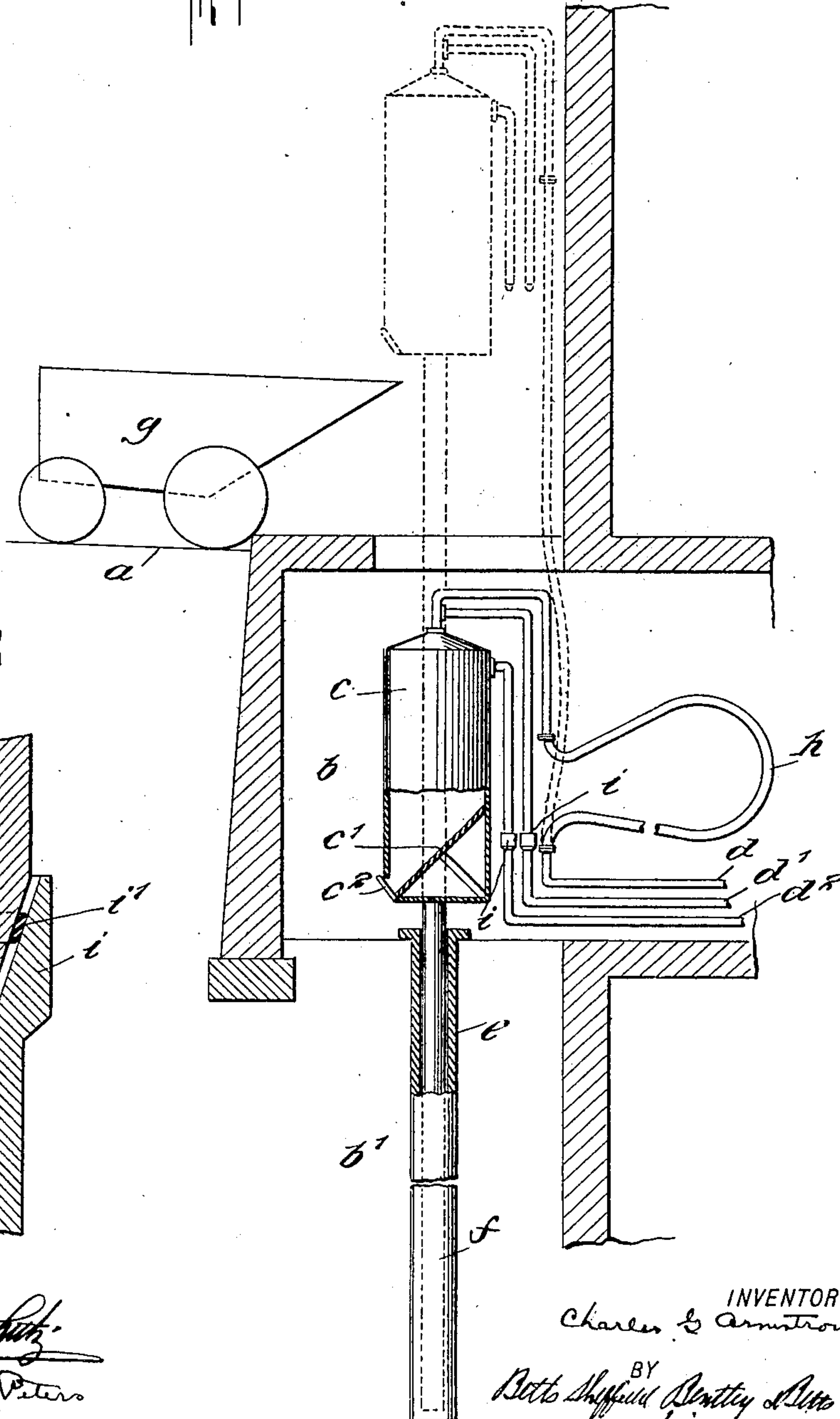
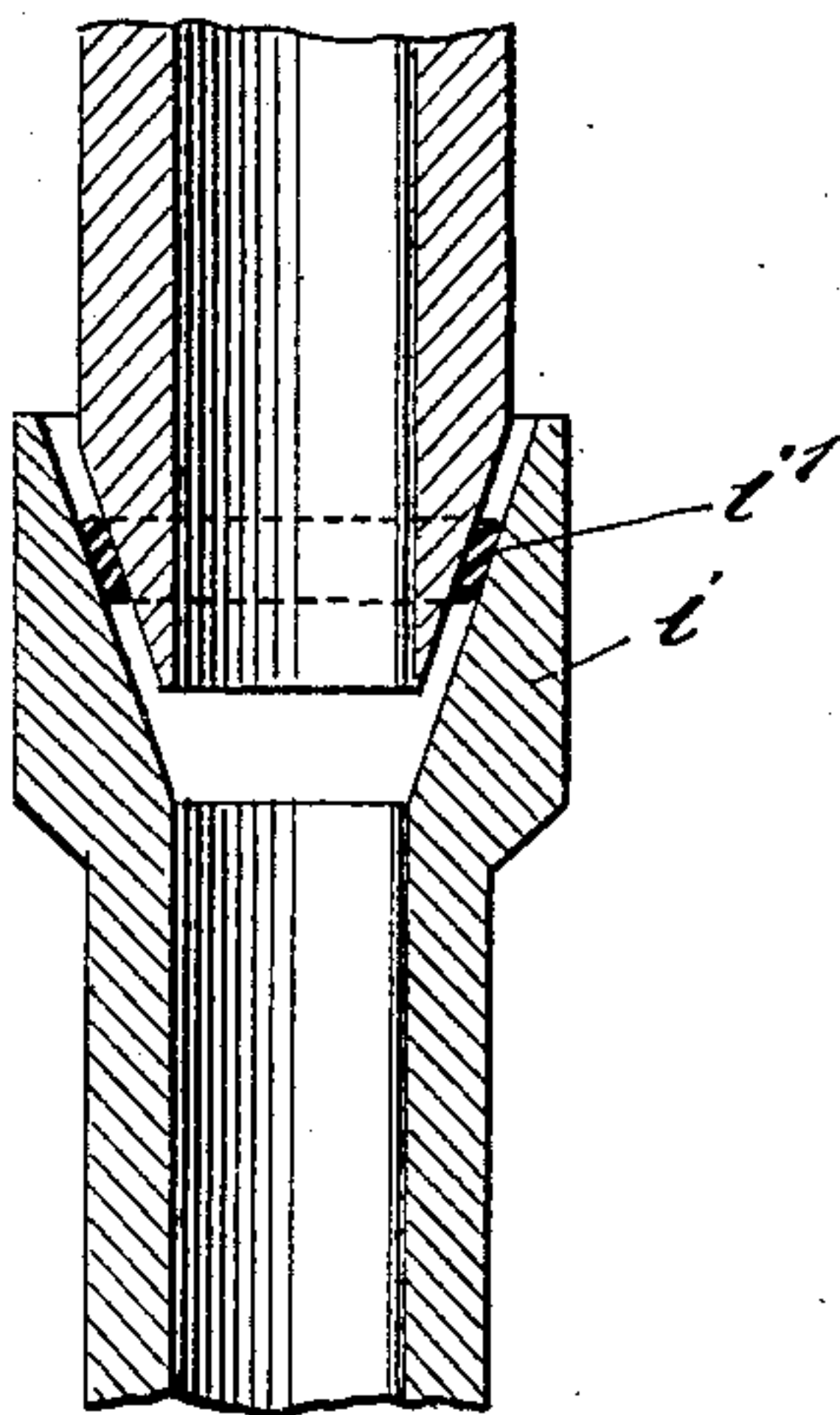


Fig. 2.



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UNITED STATES PATENT OFFICE.

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APPARATUS FOR HANDLING ASHES.

No. 904,916.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES G. ARMSTRONG, of the city of Orange, county of Essex, and State of New Jersey, have
5 invented certain new and useful Improvements in Apparatus for Handling Ashes, of which the following is a full, clear, and exact specification, such as will enable
10 others skilled in the art to which it appertains to make and use the same.

My invention relates to apparatus for removing ashes and other similar granular material by fluid pressure and particularly to
15 apparatus for removing ashes from sub-cellars to the side walk.

The particular object of my present invention is to improve the means for lifting the ashes to the side walk.

The invention involves various other features of importance, all of which will be
20 fully set forth hereinafter and particularly pointed out in the claims.

Reference is had to the accompanying drawings, which illustrate, as an example,
25 one manner in which the various elements are embodied, in which drawings,

Figure 1 is a sectional elevation showing the invention installed in a building; and
30 Fig. 2 is a detail section of one of the pressure pipe connections.

In the drawing, *a* indicates the street line; *b* the cellar and *b'* the sub-cellar of a building.

c indicates the receiver into which the
35 ashes are discharged by fluid pressure, this receiver having an inclined bottom *c'* and gate *c''*, upon opening which the contents of the receiver may be allowed to flow by gravity from the same.

40 *d*, *d'* and *d''* indicate air or other fluid pressure pipes which pass from suitable connections with the place from which the ashes are caused to flow through one of the pipes into the receiver *c*, all of which will be fully
45 understood from the prior art.

The receiver *c* is mounted on or connected to a plunger *e* and this operates in a hydraulic or other fluid pressure cylinder *f* in
50 such a manner that by supplying pressure to said cylinder the receiver is raised above the side walk in the manner indicated by the broken lines in Fig. 1. In this raised position the gate *c''* may be opened and the contents of the receiver allowed to flow into a
55 cart *g* or other means on the street provided

for the reception of the ashes. For thus lifting the receiver, it will be necessary to allow for the motion of the ends of the pipes *d*, *d'* and *d''* which are connected to the receiver; and this may be effected by means of a flexible connection indicated at *h* in the drawing
60 or, if desired, the peculiar joint *i* may be employed. This joint is shown in detail in Fig. 2 and it consists in forming the pipe in sections having correspondingly flared and tapered ends which may be fitted within each
65 other as shown in Fig. 2, and on one of the pipe sections is arranged a gasket *i'* which is adapted to be engaged between the flared and tapered surfaces, forming a hermetic
70 connection. One of the pipe sections is held stationary while the other is attached to the receiver and moves with it. As the receiver moves upward the joint is broken and as the
75 receiver returns to its lower position in which the air pressure becomes active the flared and tapered ends of the pipes are engaged with each other and the gasket *i'* is compressed
80 between these surfaces, thus automatically effecting a hermetic connection between the pipe section and automatically restoring the parts to operative adjustment.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent of the United States is:

1. The combination of a receiver, means for charging the same by fluid pressure and an elevator for raising and lowering the receiver.

2. The combination of a receiver, means
90 for raising and lowering the same and means pressure pipes for charging the receiver, said pipes having connections allowing said movement of the receiver.

3. The combination of a receiver, means
95 for raising and lowering the same, and means for charging the receiver by fluid pressure including a fluid pressure pipe having a flexible hose connection for the purpose specified.

4. The combination of a receiver, means
100 for raising and lowering the same and means for charging the same by fluid pressure including pipe sections adapted to be automatically engaged with and disengaged from each other.

5. The combination of a receiver, means
105 for raising and lowering the same, and means for charging the receiver by fluid pressure, such means comprising a stationary pipe section with a flared end and a removable pipe
11.

section attached to the receiver and having a tapered end adapted when the receiver is in normal position to enter the flared end of the stationary section.

5 6. The combination of a receiver, means for raising and lowering the same, and means for charging the receiver by fluid pressure, such means comprising a stationary pipe section and a removable pipe section attached
10 to the receiver, one of said pipe sections having a flared end and the other pipe section having a tapered end adapted, when the receiver is in normal position, to enter the flared end section.

15 7. The combination of a receiver, means for moving the receiver vertically to a position above or below the street line when used in connection with a building, and

means for charging the receiver by fluid pressure when it is in its lowered position. 20

8. The combination of a receiver, means for removing the receiver vertically to a position above or below the street line when used in connection with a building, and means for charging the receiver by fluid pressure when it is in its lowered position, said receiver having an inclined bottom with a gate at the lower end thereof to facilitate the discharge of its contents. 25

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses. 30

CHAS. G. ARMSTRONG.

Witnesses:

MAHLON A. FREEMAN,
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