

(No Model.)

I. W. HEYSINGER.

METHOD OF AND APPLIANCE FOR DISPOSING OF DEAD BODIES.

No. 285,034.

Patented Sept. 18, 1883.

Fig. 1.

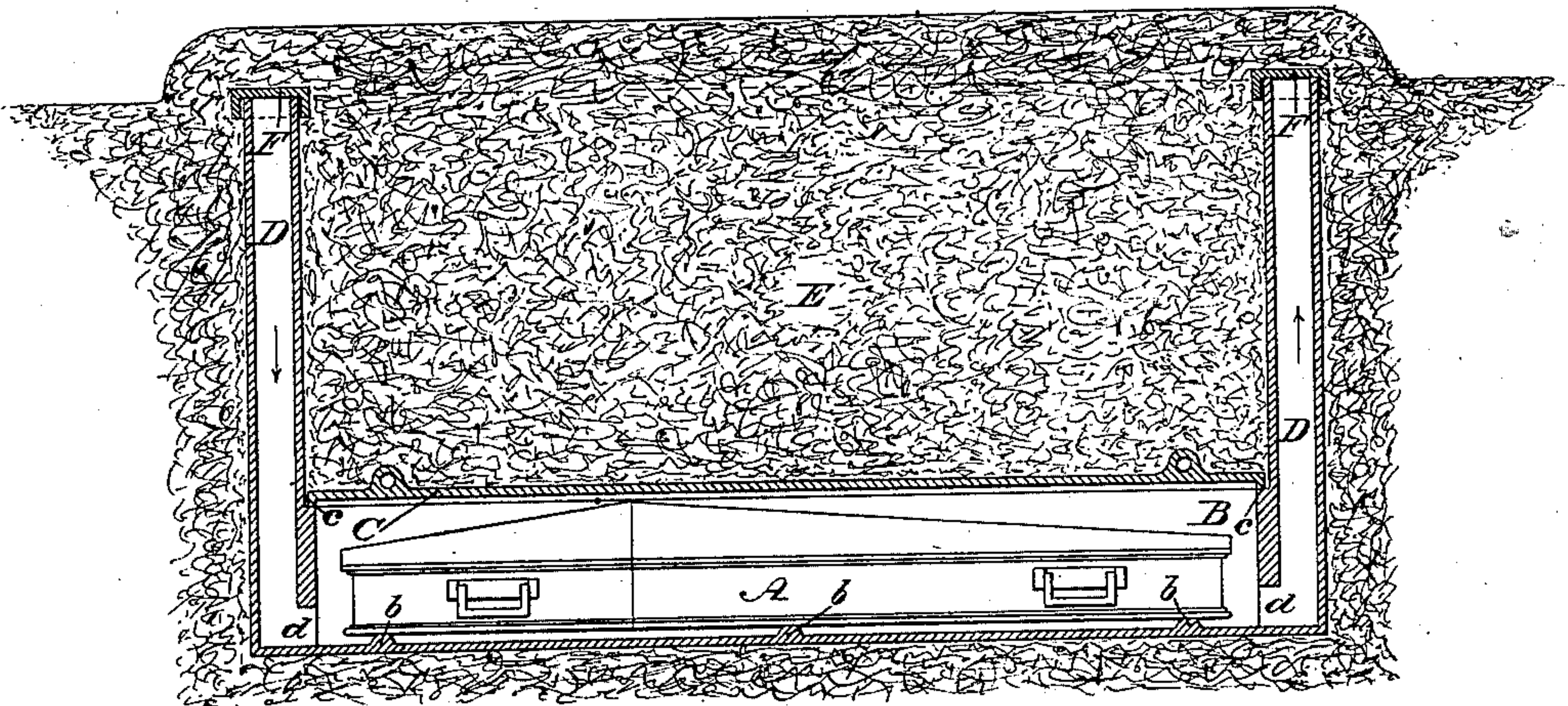


Fig. 2.

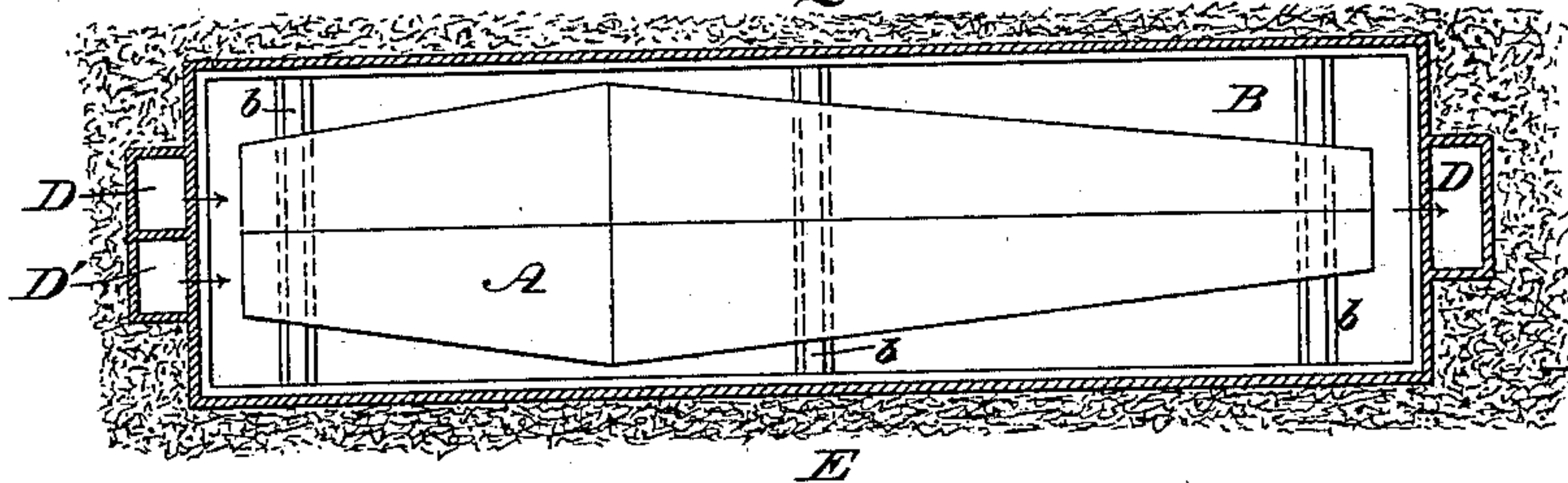


Fig. 3.

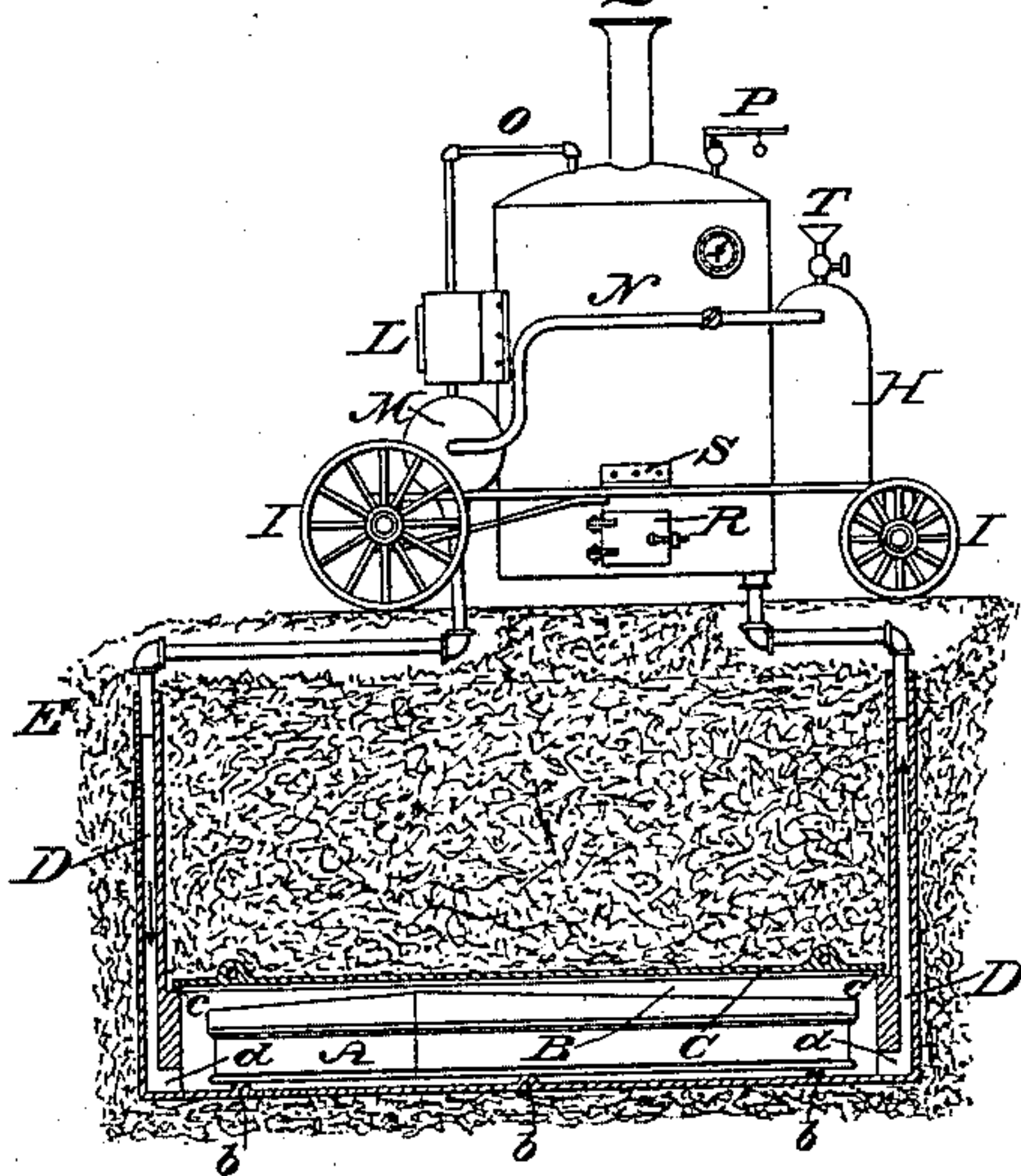
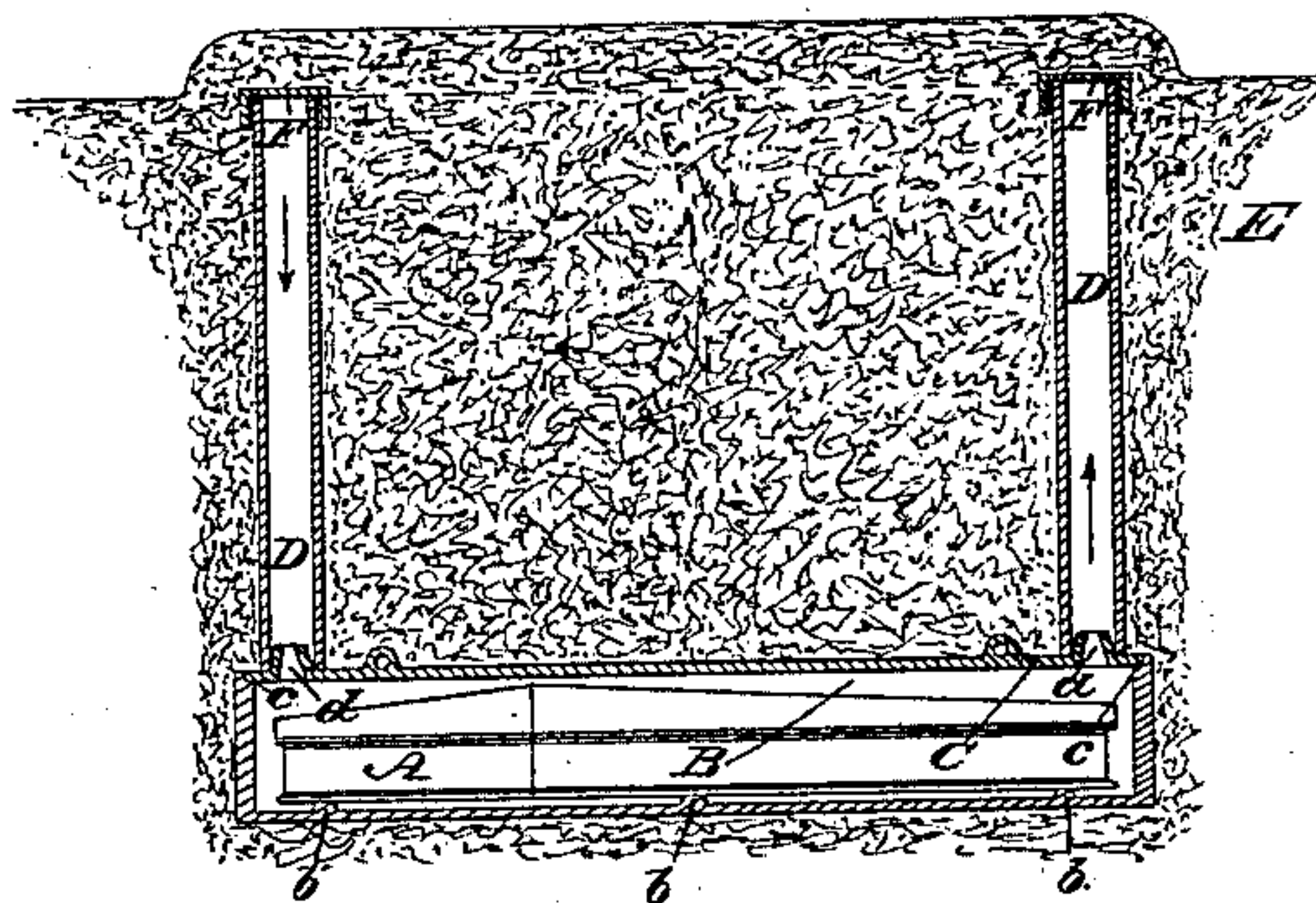


Fig. 4.



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METHOD OF AND APPLIANCE FOR DISPOSING OF DEAD BODIES.

SPECIFICATION forming part of Letters Patent No. 285,034, dated September 18, 1883.

Application filed November 20, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, ISAAC W. HEYSINGER, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Methods of and Appliances for Disposing of Dead Bodies, of which the following is a full, clear, and exact description, reference being had to the drawings accompanying and forming part of this specification.

Figure 1 shows a vertical longitudinal section of a grave with the outer containing-case and coffin in place, preparatory to cremation. Fig. 2 is a view from above of an open grave containing the coffin and fire-proof containing-case with its feed and vent pipes. Fig. 3 is a sectional view of a grave with the cremating-furnace applied and ready for operation. Fig. 4 is a modification in construction of the containing-case in which the coffin is placed, the inlet and outlet pipes being attached to the cover instead of the body of the said case.

The lettering in all the figures is uniform.

My invention relates to a method of and appliances for treating dead bodies for burial, whereby the grave sanitary perils consequent upon the contiguity of vast cemeteries to populous cities are all avoided with decency and economy, and in which no violence is done to the feelings of affection of surviving friends or to the sacred memories, hallowed by the customs of unnumbered ages, which gather about the loved one's grave and are too noble and too powerful for good to be lightly cast aside, as must be done when ordinary cremation is resorted to.

The method of disposing of dead bodies which I have invented, and which, together with the appliances therefor, forms the subject-matter of this specification, offers a remedy for all the evils of ordinary burial, including the dread, not wholly fanciful, of being buried before death has actually supervened. By means of my invention the funeral rites proceed as in ordinary burial, no shock is given to any sensibility, the mourners disperse, the grave is filled up, the cremating apparatus is afterward brought to the grave, and in a few hours, without disturbing the grave or revealing its secrets, the body and all its combustible surroundings are reduced to

an inorganic state, just as they lie in the grave. The hygrometer of the apparatus indicates the completion of the process. The inlet and outlet pipes for the gases are then closed, the apparatus is removed, and the grave is left safe forever from danger of violation, every possibility of contagion from small-pox or other infectious disease disappears, every poisonous or poison-generating element is removed from the grave without odor or other offense, no contamination of water can ever result, no putrid decomposition, and the cemetery has become a spot to be visited with love instead of loathing. No Christian sentiment is shocked, no tender recollection dimmed—the loved one is borne in the memory as last seen in life—and all that has been removed is the volatile portion—the gases—which in any event must disappear in time, only we convert them directly into harmless products and burn them up in the grave or the cremating-furnace as fast as produced, instead of allowing them to poison earth, air, and water for a generation to come, and only the non-volatile residuum remains behind, which represents all that is left on earth of the friend whose loss we mourn.

Referring to the drawings, A is the coffin, which is precisely like any ordinary burial-casket or coffin, and is treated in all respects in precisely the same way. The grave is represented as filled up, the mound being seen in Figs. 1 and 4. The coffin rests in its containing-case B as ordinarily in the rough wooden outer box. The box B, however, I prefer to make of fire-brick, terra-cotta, or other heat-resisting material, although, if the cover be sufficiently resisting and be supported against sinking, the sides and bottom may be of wood. I prefer, however, to use burnt clay, or like material, which may be painted, if desired, to resemble wood. At each end of this containing-case I provide a pipe leading to the surface of the ground and opening at its lower part into the ends of the containing-case, near the bottom thereof. At the head of the coffin in Fig. 1 this pipe is shown double, and at the opposite end single. Across the bottom of the box are ribs *b b b*, to raise the coffin somewhat from contact with the floor.

In Fig. 4 the pipes D D' are shown as placed upon the cover of the containing-case, suitable



openings with lipped edges being provided therefor; but I prefer the form shown in Fig. 1, where the upright pipes are shown as being nearly or quite concealed from view. The pipes D D' are covered, when the grave is being filled up, with caps or covers F F, to prevent dirt or other material from falling in, and I usually cover these caps with the mound of the freshly-made grave. The cover of the containing-case C is placed upon the said case after the coffin has been lowered. This I also make of fire-resisting material, and usually provide it with eyes for lowering it by means of ropes. The joint I make as close as convenient by matched shoulders, and I sometimes, where water is met with, cement it in, or otherwise make it water-tight. I also sometimes make the containing-case double in its thickness with an interposed non-conducting air-space, but usually find that a single thickness is sufficient.

In Fig. 3 is shown the cremating-furnace in place, the connecting-pipes being attached, and the apparatus ready to drive a blast into the grave. This furnace may be of many forms. Its function is to drive into the containing-case B, through the inlet-pipes D and D', a double current of incandescent or combustible gases and atmospheric air which shall generate an intense heat or flame in the body of the containing-case, whereby the coffin and its contents are rapidly devolatilized, the products of combustion and the half-consumed gases generated in the case being drawn up the exit-pipe and under the grate of the furnace, whereby they are entirely consumed. This process is continued until a hygrometer or other indicating-instrument shows that no aqueous or other volatile matters are passing, when all the organic remains will have been recombined, and no residuum left in the grave but the inorganic basis upon which the living fabric was built.

I sometimes use a Siemen's gas-furnace, in which the volatile matters contained in the gas-coal are driven off by slow combustion, and pass all the volatile products, including carbonic oxide and various hydrocarbons, directly into the containing-case. To drive these gaseous matters down the tubes D and D', I use one or more fans or blowers, one of which is shown at M, Fig. 3. To drive these fans I employ a small steam-engine or other motor upon the portable wagon I, moved about by horses or other power from grave to grave, as may be required.

In the drawings, P is the safety-valve; O, the steam-pipe; L, the cylinder; R, the grate-door, and S air-holes to regulate the generation of gas.

I also sometimes use a tank of coal-oil, (shown at H, Fig. 3,) through which I pass a steam-coil, (not shown,) or use other means of volatilizing, and this directly-generated hydrocarbon vapor I blow down into the containing-case through one of the inlet-pipes, D, and also pass a current of atmospheric air down

the other. I prefer heating the air-current by passing it through a coil in the furnace, as it burns more strongly and acts more quickly than when fed cold. The upward current is also drawn into the furnace by a fan or blower, and is entirely decomposed thereby. When all the volatile matters have been destroyed or removed, I disconnect the goose-neck pipes (shown in Fig. 3 beneath the furnace) from the fixed pipes D D D'. I then partly or wholly fill the said pipes with cement or other material suitable therefor, the slight disturbance of the mound made by uncovering the pipes D D' is corrected, and the grave is left to all appearance in its original condition.

This method of treating dead bodies, which I call "grave cremation," may be resorted to at any time after burial, as I design to have such portable cremating-furnaces as permanent fixtures of cemeteries where this method is in use. An interval of a day or two, more or less would, perhaps, be proper.

While I use this method and these appliances in general for bodies when buried under ground, it is evidently equally applicable to the treatment of bodies in vaults or on ship-board or upon the surface when the body and coffin are inclosed in a non-combustible containing-case, in which the flame acts directly upon the combustible or volatile matters, and in which no brick cremating-furnace of the ordinary fixed pattern is employed. It is also applicable to the treatment of dead bodies in common crematories when an ordinary coffin is inclosed in a non-combustible containing-case, in which the volatile matters are liberated and consumed by incandescent gases or superheated air, the remains being not afterward disturbed in the containing-case, which may then be buried as in ordinary interments; and I also sometimes provide a suitable chamber in my portable cremating-furnace, in which these operations may be performed preparatory to final burial.

Having now described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The method of disposing of dead bodies by first burying them with ordinary funeral rites and afterward passing down into the grave, through suitable inlet-pipes, a current of incandescent or superheated gases, so as to consume or rapidly decompose the volatile elements of said dead bodies, substantially as described.

2. The method of disposing of dead bodies by first burying them with ordinary funeral rites and afterward passing down into the grave or vault, through suitable inlet-pipes, a current of incandescent, combustible, or superheated gases, so as to consume or rapidly devolatilize the said dead bodies, substantially as described.

3. In appliances for disposing of dead bodies, the combination of the containing-case B, cover C, one or more inlet-pipes, D D', exit-pipe D, and detached cremating-furnace N,



adapted to produce a current of gas and drive it through adjustable connecting-pipes into the containing-case B, and therein consume the same in contact with the coffin A, the whole  
5 constructed to operate substantially as and for the purpose described.

4. The combination of the portable gas-producing furnace N, having motor L, fan or blower M, and connecting-pipes to attach the  
10 said furnace to the pipes D D', with the said pipes D D' and fire-proof containing-case B, substantially as described.

5. The combination of the containing-case B, cover C, and pipes D and D', with or without the removable caps F F, substantially as  
15 and for the purposes herein shown and described.

6. The apparatus for disposing of dead bod-

ies, consisting of a portable cremating-furnace adapted to be moved about in a cemetery or  
elsewhere from place to place, and provided  
20 with a steam or other motor to generate currents of gases, in combination with a practically fire-proof containing-case for the coffin, having inlets and outlets whereby the said  
25 cremating-furnace may be made to drive a current of incandescent or combustible gases into the said containing-case and consume therein the dead body, together with the other  
volatile matters contained in the said containing-case, substantially as herein shown and de-  
30 scribed.

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