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2 SHEETS--SHEET 1.



Inventor.

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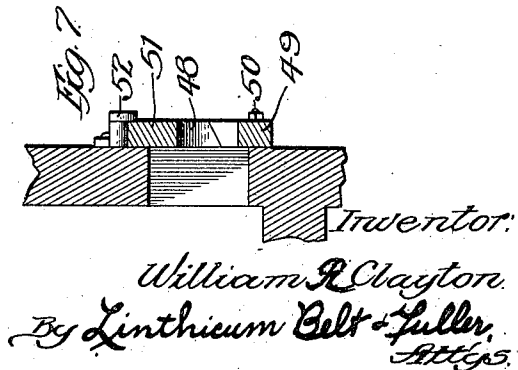
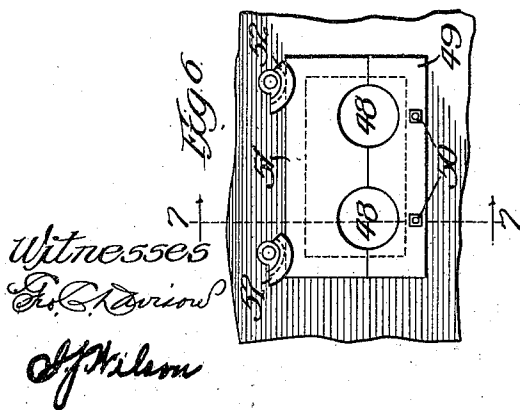
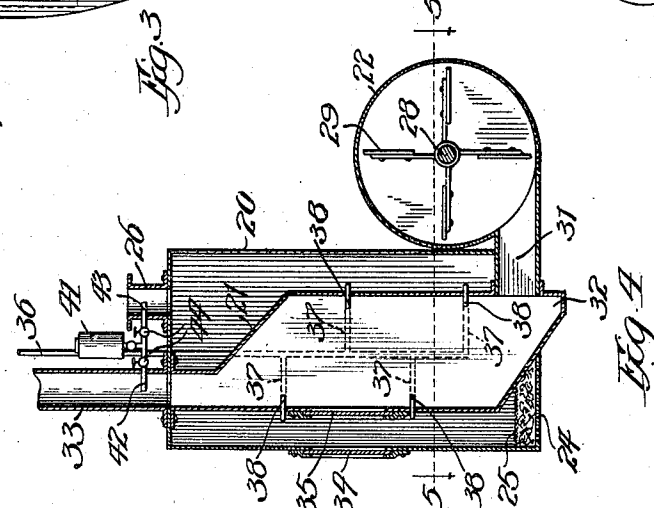
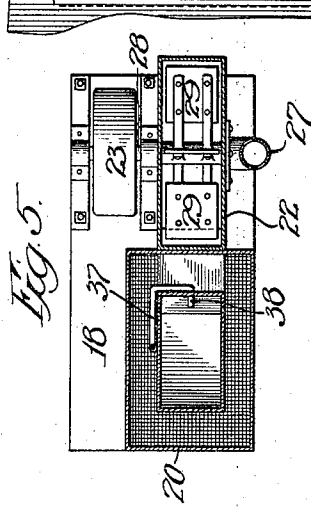
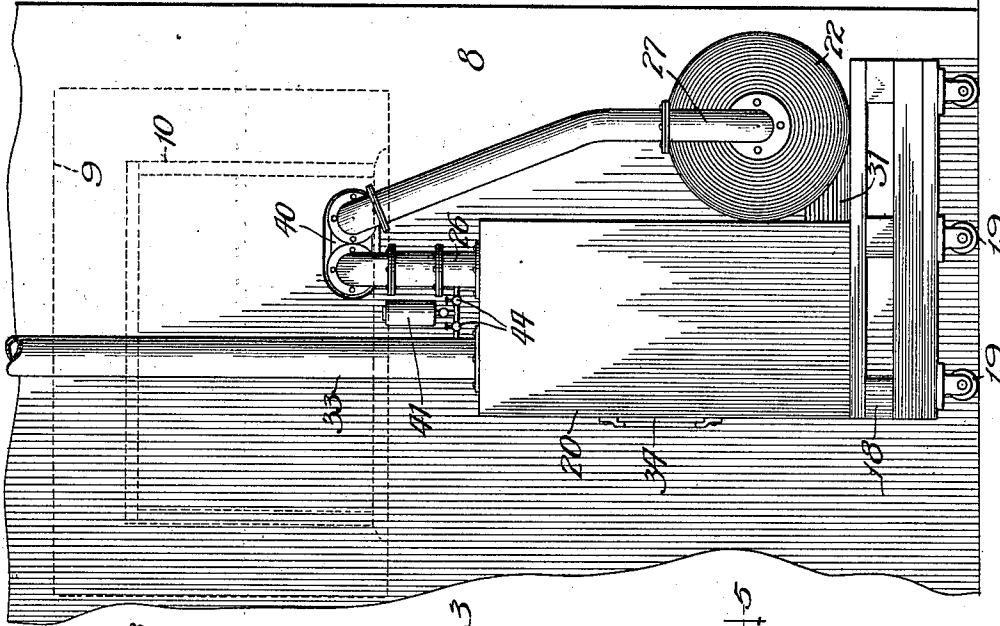
Atty.

W. R. CLAYTON.
MAUSOLEUM.
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1,002,223.

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2 SHEETS—SHEET 2.



UNITED STATES PATENT OFFICE.

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MAUSOLEUM.

1,002,223.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM R. CLAYTON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Mausoleums, of which the following is a specification.

This invention pertains in general to mausoleums, and more particularly to public or community mausoleums which comprise a number of tiers of crypts, each adapted for the reception and preservation of a body, and aims to produce a mausoleum of this character in which the bodies received will be cared for and preserved in the most sanitary and satisfactory manner and with the greatest protection to the public against contagious diseases.

It is a matter of common knowledge that the bacteria which produce decomposition and putrefaction in the human tissues can propagate only in the presence of moisture. The large amount of water in the human body, usually about 40 per cent. of the weight of the body, so facilitates the propagation of these bacteria that ptomaines are customarily manifest in the dead body within three days after death occurs.

It is an object of my present invention to prevent decay and putrefaction of a dead body, by removing all the moisture from the interior of the casket, and reduce the body to a state of absolute siccidity.

In order to accomplish this object within the necessarily limited time, my invention contemplates a novel desiccating apparatus in conjunction with a mausoleum and casket so constructed that communication can be readily established between the interior of the casket and the apparatus for the purpose of maintaining a draft of hot dry air through the casket until the body therein has become completely aerified.

A preferred embodiment of my invention which is shown on the drawings accompanying and forming a part of this specification has been designed with a number of objects aiming toward the successful operation thereof, in view.

One of the objects is to thoroughly dry and heat the air before it is admitted to the casket, thereby increasing its absorptive qualities.

Another object is to bring the dry and heated air directly in contact with the body

in the casket and to provide a forced draft of the air so that the desiccation will proceed with all possible speed.

Other objects and advantages of this invention will become apparent as it is better understood by reference to the following description and accompanying drawings throughout the various views of which like reference characters refer to similar parts.

Referring to the drawings—Figure 1 is a vertical sectional view of a portion of a mausoleum and a casket embodying my invention, the desiccating device being shown in elevation. Fig. 2 is a horizontal sectional view on the line 2—2 of Fig. 1. Fig. 3 is a fragmentary end elevation of the mausoleum showing the desiccating apparatus in operating position. Fig. 4 is a sectional elevation through the center of the desiccating apparatus. Fig. 5 is a section on the line 5—5 of Fig. 4. Fig. 6 is an elevation of a cover attached to the front end of a crypt through which the desiccating apparatus may be connected with the casket disposed within the crypt; and Fig. 7 is a sectional elevation on the line 7—7 of Fig. 6.

On the drawings, 8 designates the rear walls of a series of tiers of crypts 9. As many of these crypts may be employed in a single mausoleum as may be found desirable or expedient. Each crypt is preferably constructed of concrete and is made of sufficient size to accommodate a casket or coffin 10. The rear ends of adjacent tiers are preferably spaced apart to provide an alley therebetween, as shown in Fig. 1, sufficiently wide to accommodate a portable desiccating device designated generally as 11.

The caskets or coffins which are used in the present instance are equipped, when the undertaker trims the same for the reception of the body, with an inlet pipe 12 and an outlet pipe 13. The inlet pipe which extends but a short distance into the casket has its open end slightly upturned, as shown in Fig. 1, while the outlet pipe extends along one side and end of the casket communicating with the interior thereof near the diagonally opposite corner. The pipe 13 is preferably made of flexible material so that it may readily accommodate itself to caskets of various sizes without interfering with the trimming of the casket. The ends of the pipes terminate flush with the upper end of the casket and are provided with female

threads adapted for the reception of male coupling members 14 and 15 by means of which the pipes 16 and 17 may be connected to the pipes 12 and 13 after the casket is deposited in the crypt. The threaded ends of the casket pipes may be closed by ornamental stoppers until such time as it is desirable to connect the pipes 16 and 17 thereto whereupon the stoppers may be removed.

The portable desiccating device proper, comprises a base 18 mounted on suitable rollers 19 and carries a heating or drying chamber 20, a combustion chamber 21, a fan 22, and a motor 23 operatively connected with the fan. As best shown in Fig. 4 the heating chamber 20 is provided with a perforated bottom 24 above which is located a screen 25. The space between the screen and the bottom is preferably filled with calcium chlorid or other material possessing a great affinity for water which will remove the moisture from the air as it is drawn into the heating chamber. At the top of the heating chamber a discharge passageway 26 is connected with the flexible pipe 16 and when the desiccating process is to be carried out the free end of this pipe is connected with the casket pipe 12 as previously described. The flexible pipe 17 is connected with an elbow 27 which discharges into the interior of the fan casing 22.

Within the fan casing upon the shaft 28 there is mounted the fan 29 comprising a plurality of blades, and the shaft 28 is preferably directly connected with the motor 23. This motor which is carried upon standards 30, may be of an electrical type or if preferred, a gas engine or a gasoline engine may be substituted in lieu of the electric motor. The sole purpose of the motor is to drive the fan 29, and it will be obvious that any suitable source of motive power may be employed.

A discharge passageway 31 from the fan casing opens directly into the combustion chamber 21. This chamber, as shown in Fig. 4, is disposed within the heating chamber 20 and has one end thereof projecting below the communication with the passageway 31 as at 32, to receive any moisture which may accumulate within the chamber as the result of the combustive action therein. The top of the combustion chamber terminates in a stack or pipe 33 which may be communicated with the atmosphere outside the mausoleum. Doors 34 and 35 may be provided in the walls of the heating and combustion chambers to permit access to the interior of these chambers, respectively.

A pipe 36 is connected with a gas supply or a gasoline supply if preferred, and is provided with a plurality of branches 37 which terminate in jets or burners 38 within the combustion chamber. The purpose of

these jets or burners is, to consume the impurities in air discharged from the fan and to thoroughly sterilize this air before it is permitted to escape to the atmosphere; also to heat the air in chamber 20 and increase its moisture carrying properties.

The rear end walls of the crypts are provided with wedge-shaped openings 39 through which the pipes 16 and 17 may be inserted and attached to the casket pipes 12 and 13. For the purpose of sealing the crypts when the desiccating process is going on, split-plugs 40 are provided which may be inserted in the openings 39 around the pipes 16 and 17, and which will effectually stop up the openings and seal the crypt.

A receptacle 41 adapted to contain a disinfectant is mounted above the heating chamber and terminates in discharge nozzles 42 and 43 within the stack 33 and the passageway 26, respectively. Suitable hand-valves 44 may be provided to regulate the amount of disinfectant which will be discharged through the nozzles.

When a casket containing a body has been deposited in a crypt and the front of the crypt has been sealed up in the usual manner, the ornamental plugs are removed from the threaded ends of the casket pipes 12 and 13 and the flexible pipes 16 and 17 are attached thereto. The burners 38 are now lighted and the fan is set in operation. The air which is drawn into the heating chamber 20 will be dried by the absorbent in the bottom of the chamber and will be heated by convection and by contact with the heated walls of the combustion chamber 21. The heated and dried air is drawn into the casket through the pipe 12 where it comes directly in contact with the body reposing therein. After circulating around the body the air will be withdrawn from the casket through the pipes 13 and 17 into the fan casing 22, from which it will be discharged by the fan through the passageway 31 into the combustion chamber 21. In the combustion chamber, the air will be subjected to the flames from the burners 38 which will kill any germs or bacteria that might be withdrawn from the casket and will thoroughly sterilize the air and relieve it of any contagious germs which might be present. As a further precaution against the spreading of contagious diseases by the air which is drawn from the casket containing a diseased body, the disinfectant from the receptacle 41 is discharged into the passageway 26 leading from the heating chamber and also into the stack 33 leading from the combustion chamber. The liquid disinfectant admitted into the passageway 26 will be volatilized and carried along by the heated air into the casket and the further application of the disinfectant to the air dis-

charged from the combustion chamber will afford ample protection against the escape of the germs of contagious diseases.

It will be evident from the above description of the operation of this mechanism that the air is drawn through the casket around the body by suction, and this method is much to be preferred over the circulation of the air through the casket under pressure, for the reason that if the casket should not be air-tight the air in the crypt surrounding the casket will be drawn thereinto and eventually into the combustion chamber, whereas if air was forced through the casket under pressure some of this germ laden air would probably escape from the casket and remain in the crypt, and if the crypt were opened at some future time this air might cause the spread of a contagious disease.

After the process of desiccation has been carried on until all the moisture has been removed from the body the pipes 16 and 17 are disconnected from the casket and removed from the crypt. The pipe openings 39 are then closed by a plug 45, as shown at the left in Fig. 1, which is inserted into the wall of the crypt until its outer end is disposed beneath the outer face of the wall. The aperture 39 is preferably provided with a peripheral groove 46 and after the plug is inserted the depression back of the plug head is filled with cement which will engage in the groove 46 to prevent displacement of the plug and hermetically seal the crypt.

In mausoleums so constructed that no room is provided at the rear of the crypts for the desiccating apparatus or where no openings have been provided in the rear walls of the crypts, the desiccating apparatus may be connected with the casket before the front sealing plate of the crypt has been placed in position.

In Figs. 6 and 7 I have shown a sectional plate which may be fastened over the crypt opening, said plate being provided with apertures 48 for the reception of the flexible pipes 16 and 17. In this instance the lower section 49 of the plate may be securely fastened to the front wall of the crypt by the usual bolts 50, and after the flexible pipes have been positioned the upper section 51 may be placed over the pipes and securely and removably held in position by cam members 52 which are adapted to engage with the upper edge of the plate section. This sectional plate fits closely around the pipes 16 and 17 and practically and effectually seals the crypt while the desiccating process is being carried out. After the rarefaction is completed the sectional plate may be replaced by the usual sealing plate which affords a permanent seal to the crypt.

While I have shown and described a preferred embodiment of my invention it will

be obvious that various mechanical changes in the construction of the mausoleum, the casket and the desiccating apparatus, may be resorted to, and that an individual cement casket or other tight chamber adapted to receive the burial casket or the body itself, may be employed in connection with the desiccating apparatus without departing from the spirit of the invention or sacrificing any of the material advantages thereof.

What I desire to claim is:

1. The combination of a receptacle, a closed casket disposed therein, inlet and outlet pipes passing through the walls of said receptacle and communicating with the interior of the casket, and a desiccating device connected with both of said pipes, said desiccating device including an air circulating means whereby a current of air is circulated through said casket to desiccate the contents thereof.

2. The combination of a receptacle adapted to be hermetically sealed, a closed casket disposed in said receptacle, an air circulating mechanism, an inlet pipe establishing communication between said mechanism and the interior of the casket, and an outlet pipe establishing communication between the interior of the casket and said mechanism whereby a current of air is circulated through the casket.

3. The combination of a series of crypts provided at one end with apertures, and a portable mechanism equipped with pipes adapted to be inserted through the aperture in any of said crypts, said mechanism comprising a heating chamber communicating with one of said pipes, a combustion chamber communicating with the other pipe, and means for circulating the heated air from the heating chamber through said pipes into the combustion chamber.

4. The combination with a series of crypts provided at one end with apertures, of a casket disposed within one of said crypts, a portable mechanism having pipes adapted to be inserted through the apertures in any of the crypts and to communicate with the interior of the casket disposed therein, said mechanism comprising a heating chamber connected with one of said pipes, a combustion chamber connected with the other pipe, means for causing the heated air to be discharged from the heating chamber through the casket into the combustion chamber to desiccate the contents of the casket, a burner located in said combustion chamber, and a disinfecting apparatus adapted to deliver a disinfectant to the discharge pipes from the combustion and heating chambers.

5. The combination of a crypt provided with apertures at one end thereof, a casket disposed within the crypt, a plurality of pipes permanently arranged within said

- casket and opening at one end thereof in substantial alinement with the apertures in the end wall of the crypt, and a portable desiccating device provided with pipes adapted to be inserted through the apertures in said crypt and connected with the pipes in said casket whereby communication is established between the interior of the casket and the desiccating device.
6. The combination of a crypt provided with apertures at one end thereof, a casket disposed within the crypt, a plurality of pipes permanently arranged within said casket and opening at one end thereof in substantial alinement with the apertures in the end wall of the crypt, and a portable desiccating device comprising a heating chamber, a combustion chamber, a fan, and a pair of pipes connected with the heating chamber and combustion chamber, respectively, and adapted to be inserted through the apertures in the crypt wall and to connect with the permanently arranged pipes on the interior of the casket whereby heated air may be circulated by the fan through the interior of the casket and delivered to the combustion chamber.
7. The combination of a crypt, a casket located therein, and a desiccating device adapted to be communicated with the interior of said casket in the crypt, said desiccating device comprising a combustion chamber, a burner located in said chamber, a heating chamber surrounding said combustion chamber, a pipe leading from said heating chamber to the casket, a fan adapted to discharge into the combustion chamber, a pipe connecting the interior of the casket with said fan whereby air will be drawn from the heating chamber through the casket and delivered into the combustion chamber, and a disinfecting device for discharging a disinfectant into the pipe leading from the heating chamber and into the discharge passageway from the combustion chamber.
8. The combination of a crypt having a pipe-receiving aperture in its end wall, a casket adapted to be placed in said crypt, an inlet and an outlet pipe arranged in said casket with the ends thereof projecting outside the end wall of the casket, in position to be inserted in said crypt aperture, and means adapted to be detachably connected with said pipes for circulating a current of dry air through said casket.
- WILLIAM R. CLAYTON.
- Witnesses:
WM. O. BELT,
M. A. KIDDIE.