

(No Model.)

2 Sheets—Sheet 1.

J. M. VAN HEUSEN.

STERILIZING AND DISINFECTING APPARATUS.

No. 516,416.

Patented Mar. 13, 1894.

Fig. 1.

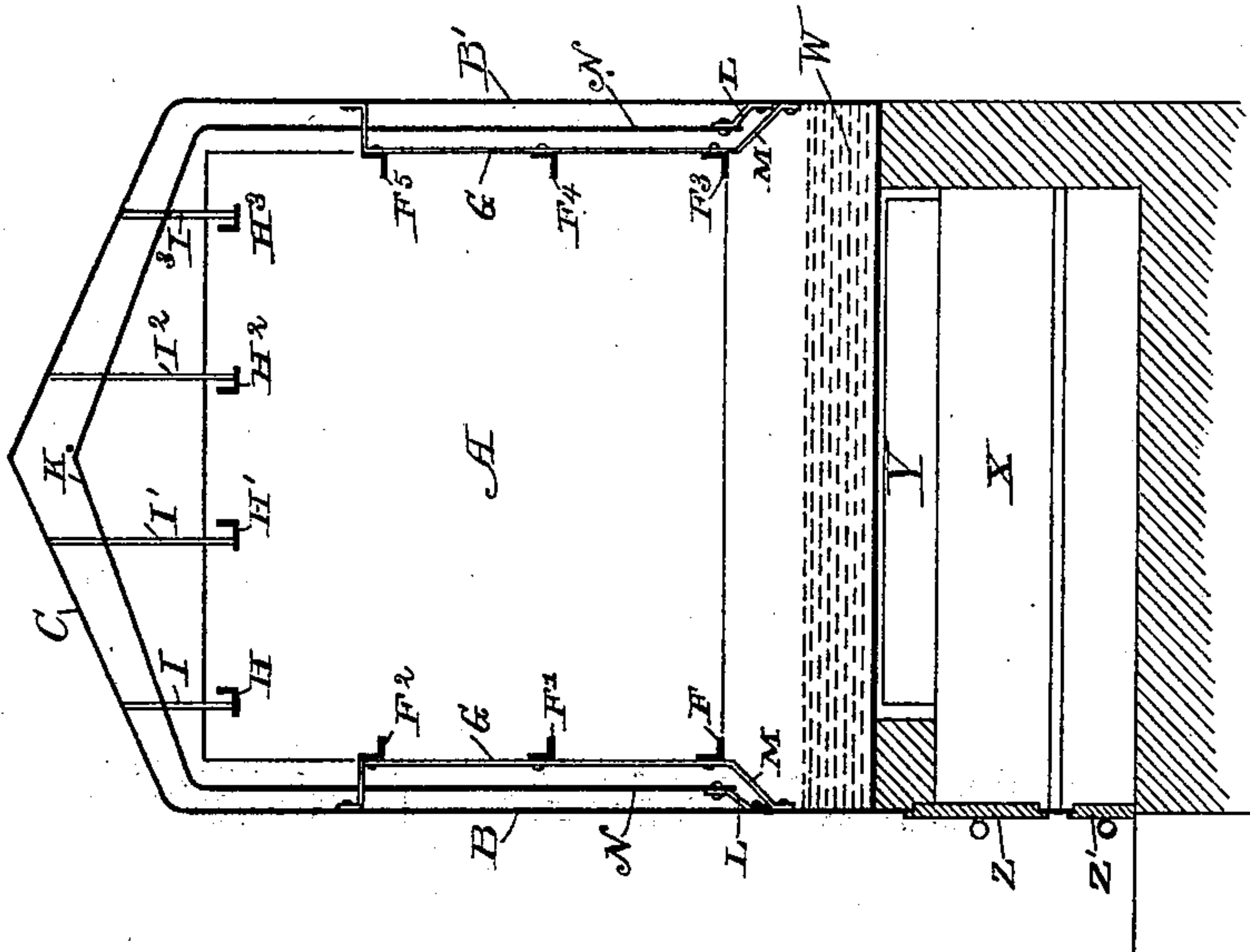
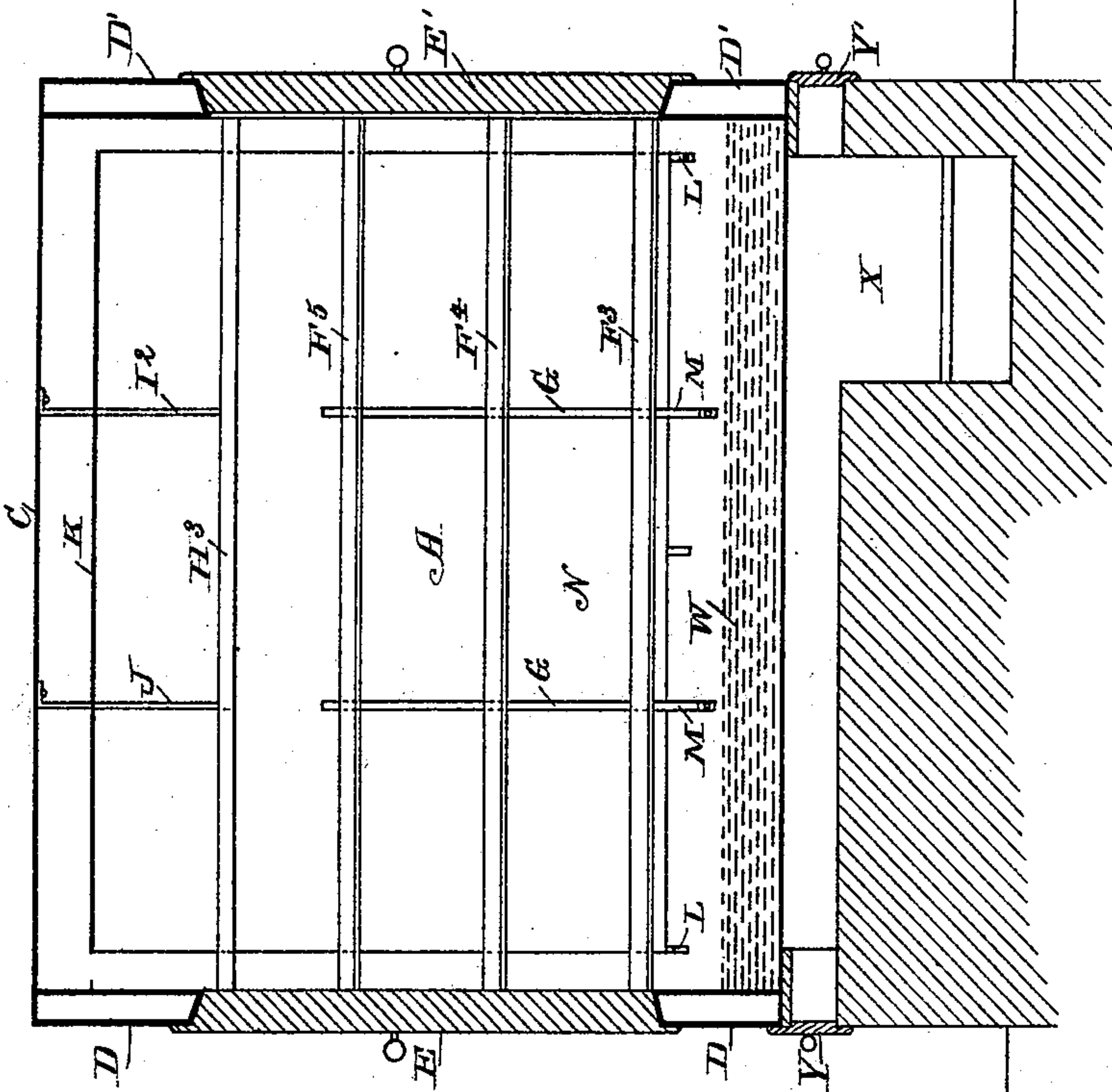


Fig. 2.



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(No Model.)

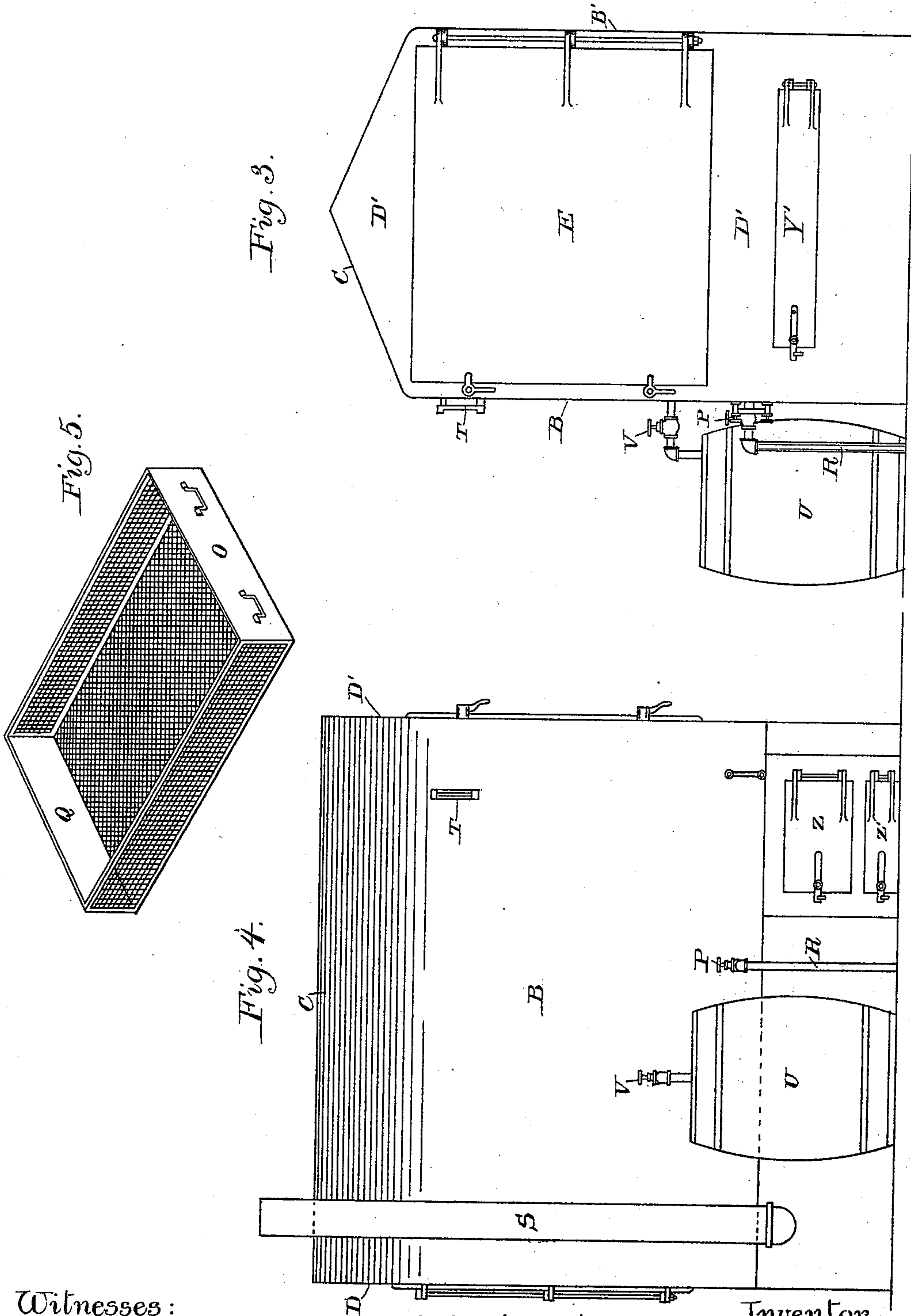
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# UNITED STATES PATENT OFFICE.

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## STERILIZING AND DISINFECTING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 516,416, dated March 13, 1894.

Application filed May 4, 1893. Serial No. 472,988. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN MANNING VAN HEUSEN, a citizen of the United States, residing in the city of Albany, county of Albany, and State of New York, have invented certain new and useful Improvements in Sterilizing and Disinfecting Apparatus; 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.

In the accompanying drawings, Figure 1 represents a vertical cross-section of an apparatus embodying my improvements. Fig. 2 represents a vertical longitudinal section thereof. Fig. 3 represents a front elevation thereof together with the auxiliary condenser. Fig. 4 represents a side elevation of the apparatus; and Fig. 5 represents, in perspective, my preferred form of removable receptacle for containing the clothes, bedding, rags, mail, or other material to be sterilized, disinfected, or rendered anti-septic.

Similar letters of reference indicate similar parts throughout the several views.

Referring to the drawings, A represents the main body portion or interior of the apparatus, and B, B', the opposite side walls thereof. The apparatus is provided with a thin metallic roof C, preferably inclined as shown. In the front and rear walls D, D', of the apparatus are arranged large openings, provided with closing-doors E, E', for the introduction and subsequent removal of the material treated.

The material is preferably placed in metallic trays or drawers of the kind illustrated in Fig. 5 wherein the bottom and sides are shown as made of open-work, for instance, reticulated metal or wire netting, and the ends O, Q, of imperforate metal. These trays or drawers are adapted to be slid in and out upon track ways formed by the angle irons or rails F, F', F<sup>2</sup>, F<sup>3</sup>, F<sup>4</sup>, and F<sup>5</sup> arranged at convenient heights and running lengthwise of the chamber. An additional set of like bars H, H', H<sup>2</sup> and H<sup>3</sup> near the level of the top of the doors serves as hangers for suspending goods within

the chamber when so desired. The bars H, H', H<sup>2</sup>, H<sup>3</sup>, are supported from the roof C by means of the depending rods I, I', I<sup>2</sup>, I<sup>3</sup>; and supports G, G, and M, M, are provided for the track ways.

Located within the apparatus and intermediate of the condenser top or roof thereof and the main body portion of the apparatus, is a false roof or guard having depending side walls N and a peak top K. It will be noted that this false roof or guard is of somewhat less length than the interior length of the outer shell of the apparatus, thereby leaving openings through which the steam can pass freely into the space between the false roof and the roof C, so as to come in contact with the inner surface of the roof C and be freely condensed thereby. Any condensations or drippings from the roof C will be received upon the false roof K and will be conducted to the sides N of said false roof or guard and discharged into the bottom of the apparatus, all possibility of said drippings reaching the goods within the chamber being entirely avoided.

The steam employed for the disinfecting or sterilizing operation may be supplied from any convenient source, as, for instance, through the pipe R, having a regulating stop-cock P. The source of steam supply may likewise be within the apparatus itself as is indicated in the drawings, wherein W shows a body of water which may contain a quantity of carbolic acid or other disinfectant, and which is adapted to be heated to the boiling point by means of a sub-jacent fire-place X provided with the usual flue door Z and ash-pit door Z', and having an exit flue or chimney S.

A suitable condenser as U may be connected with the chamber by a pipe, as shown, having a stop-cock V, so that when desired the steam may be conducted through said condenser and condensed therein.

Y, Y' indicate doors which close corresponding openings in opposite ends of the furnace immediately below the shell of the apparatus. The purpose of these openings is to permit a



draft of cold air to pass through the furnace in contact with the bottom of the apparatus so as to cool the same rapidly when it is desired to do so at the close of the sterilizing or  
5 disinfecting operation.

In putting my invention into practical use, the door on one side of the apparatus is opened and the material to be treated is introduced either in the trays referred to or by being  
10 sustained from the upper rails H H' H<sup>2</sup> H<sup>3</sup>. The door is then securely closed, and the steam or vapor is introduced from without or generated within the chamber and is thus brought into intimate contact with the mate-  
15 rial to be treated. The proper degree of heat being obtained within the chamber, as indicated by the thermometer T, and sufficient time elapsing to complete the operation, the supply of heated steam or vapor is cut off, if  
20 desired, through the pipe R; or if the steam is generated within the apparatus, the fire within the furnace X is dampened by means suitable for the purpose. The material is then removed from the chamber, preferably  
25 through the opposite end to which it entered, and preferably by a person who has not handled the material before its entrance. The material is taken out hot and upon cooling will be found to be substantially dry. The  
30 apparatus is then ready to receive a further charge of material to be treated.

Having thus described my invention, what I claim is—

1. Apparatus for sterilizing or disinfecting purposes, consisting of a chamber for contain- 35  
ing the material to be acted upon and having a thin roof serving as a condenser, a source of steam supply for said chamber, and a drip-intercepting false roof or guard intermediate of the condenser-top of the chamber and the 40  
main body portion thereof, said false roof or guard discharging into the bottom of the chamber, and the space between the condenser-top and said false roof or guard being in open communication with the main body por- 45  
tion or interior of the chamber; substantially as described.

2. Apparatus for sterilizing or disinfecting purposes, consisting of a chamber for contain- 50  
ing the material to be acted upon and having a thin roof serving as a condenser, a source of steam supply for said chamber, and a drip-intercepting false roof or guard intermediate of the condenser-top of the chamber and the 55  
main body portion thereof, said false roof or guard having depending sides and open ends; substantially as described.

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