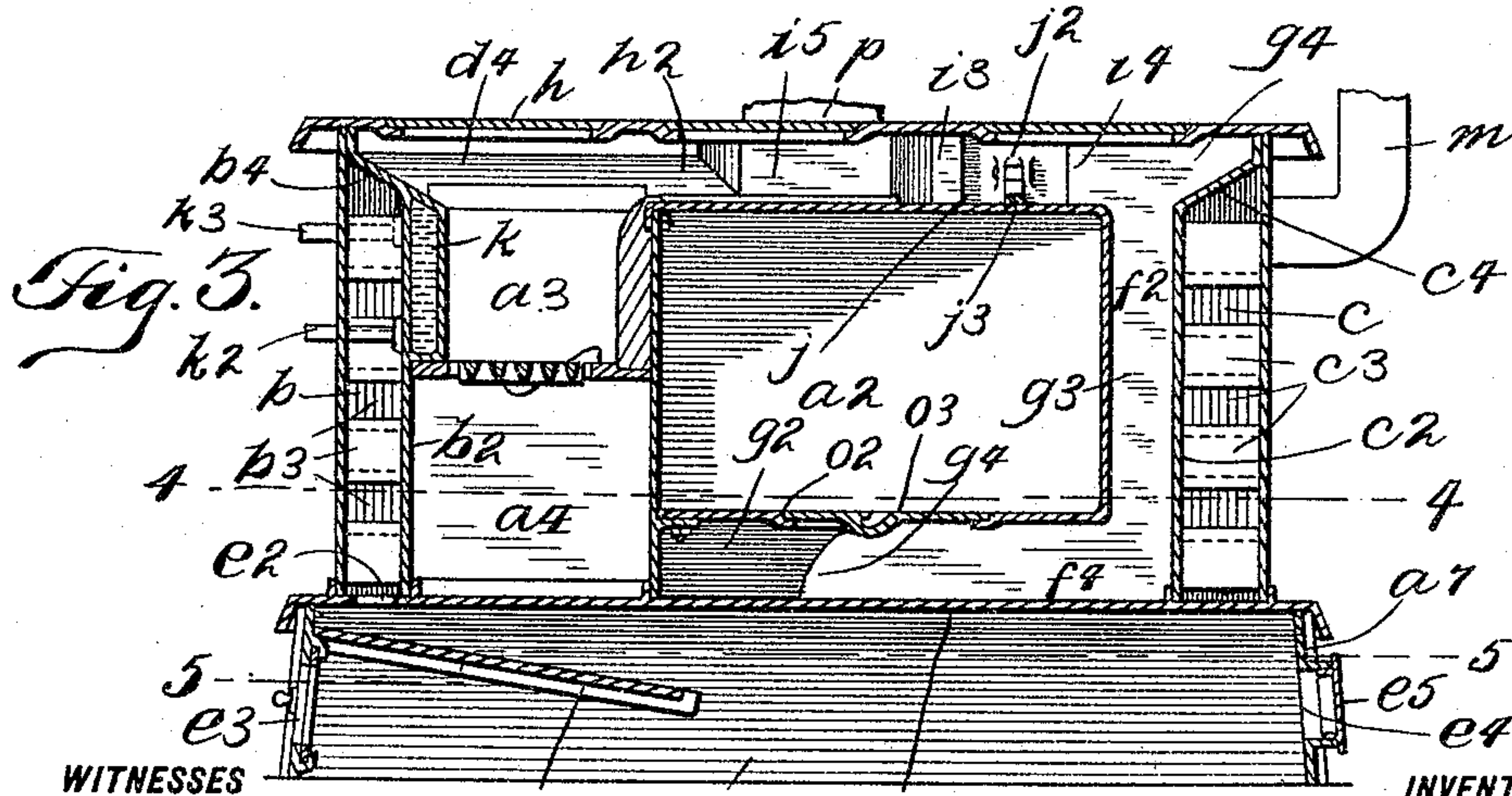
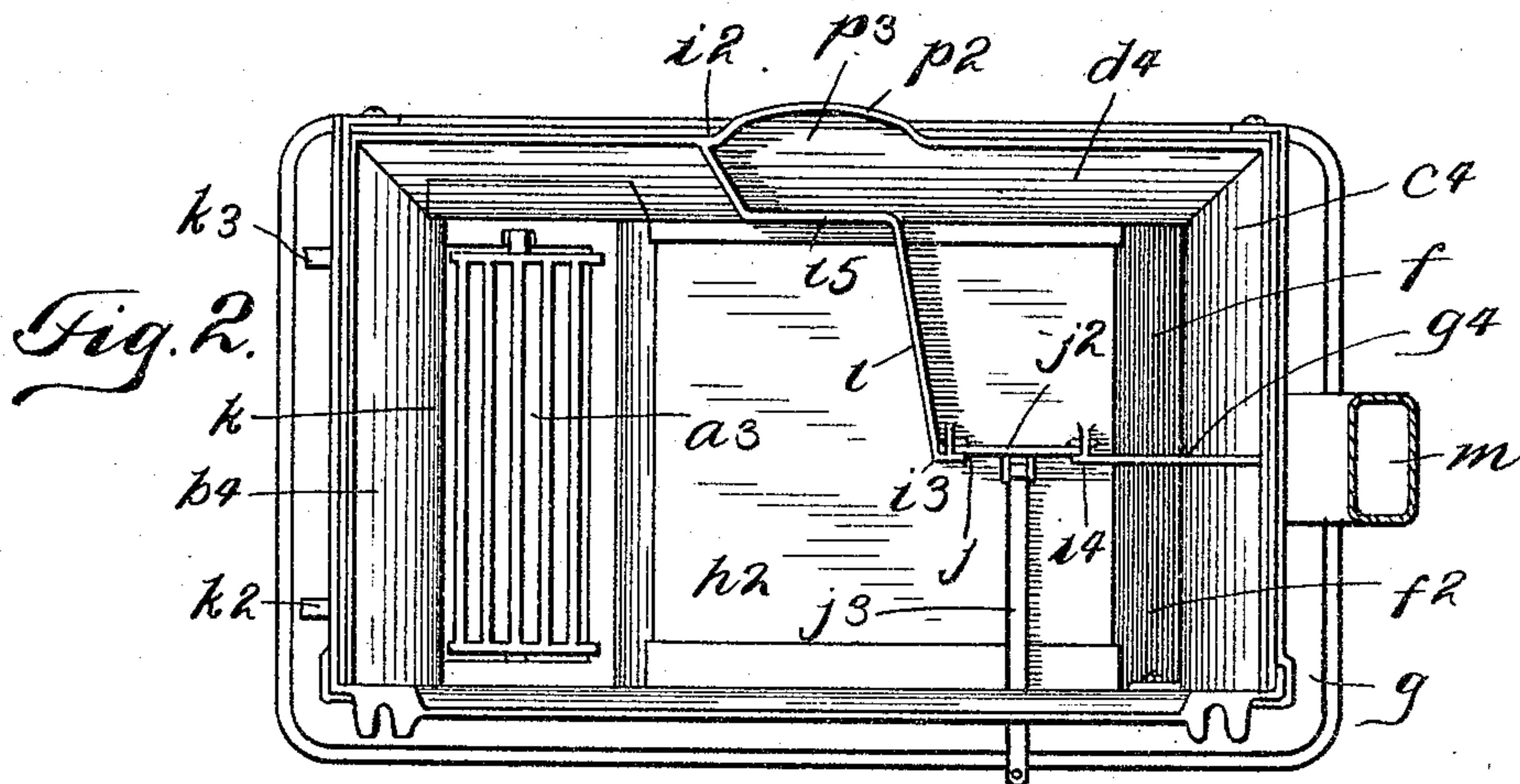
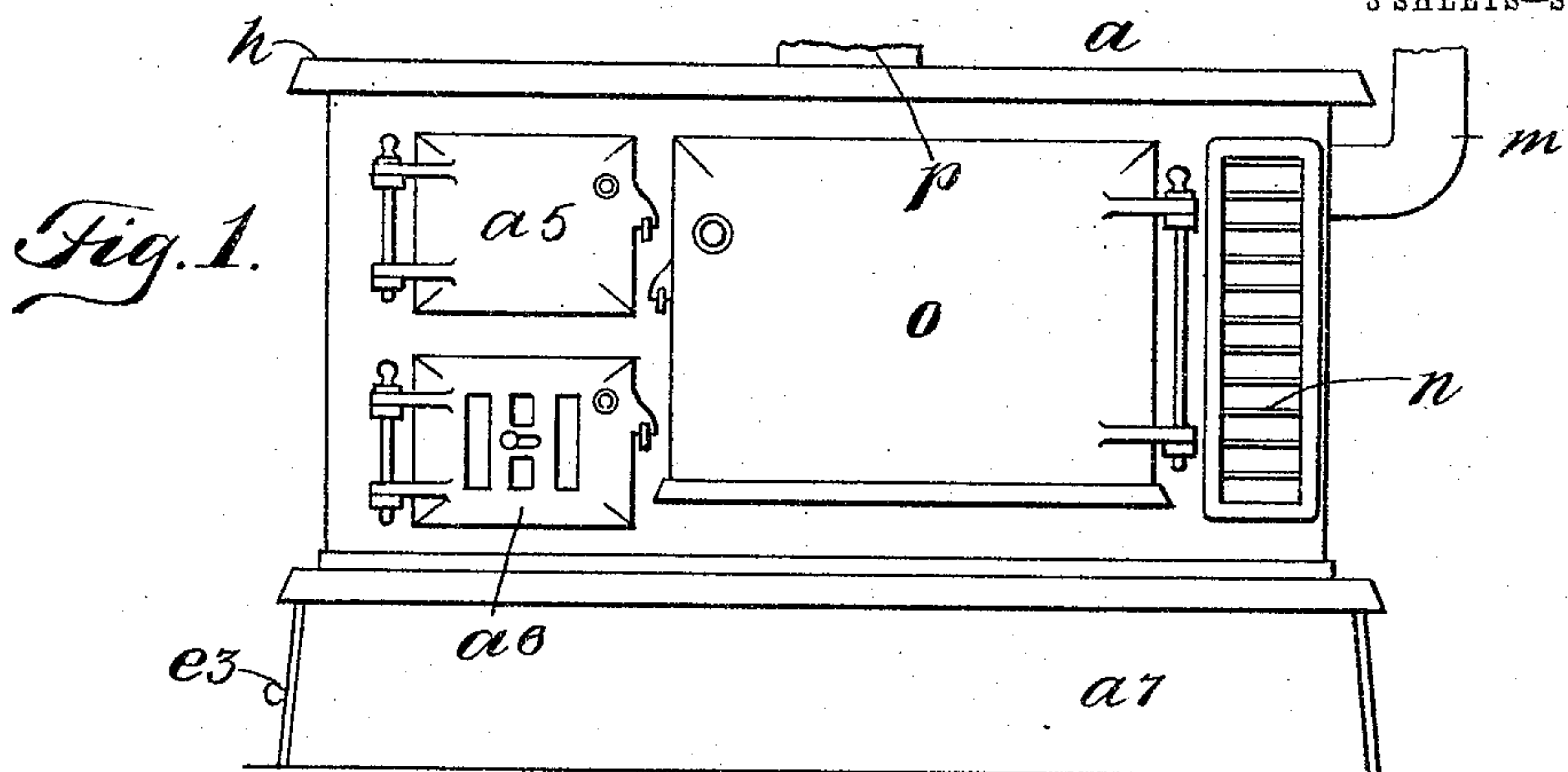


No. 782,631.

PATENTED FEB. 14, 1905.

S. TURANSKY.
HOT AIR RANGE OR STOVE.
APPLICATION FILED JULY 12, 1904.

3 SHEETS—SHEET 1.



WITNESSES
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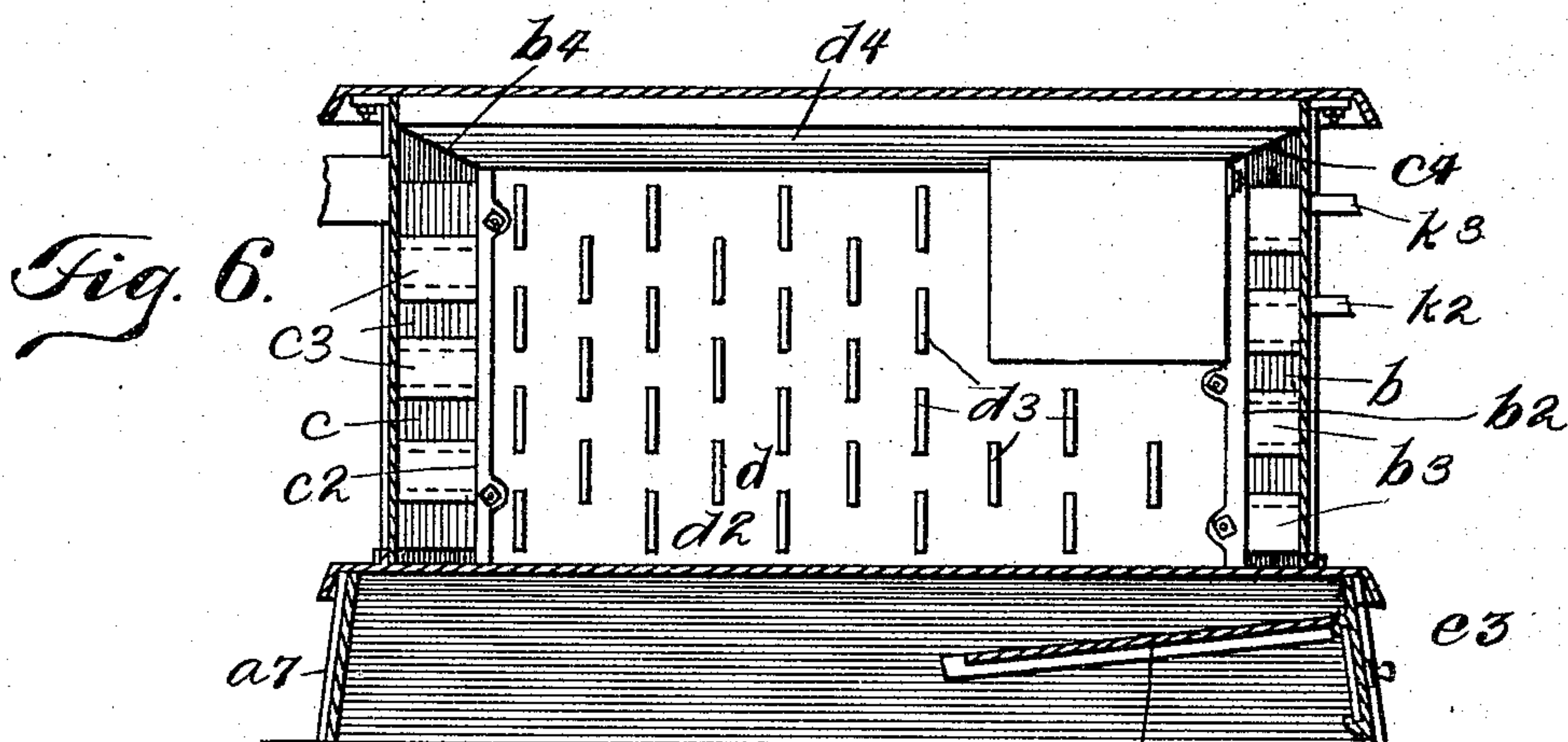
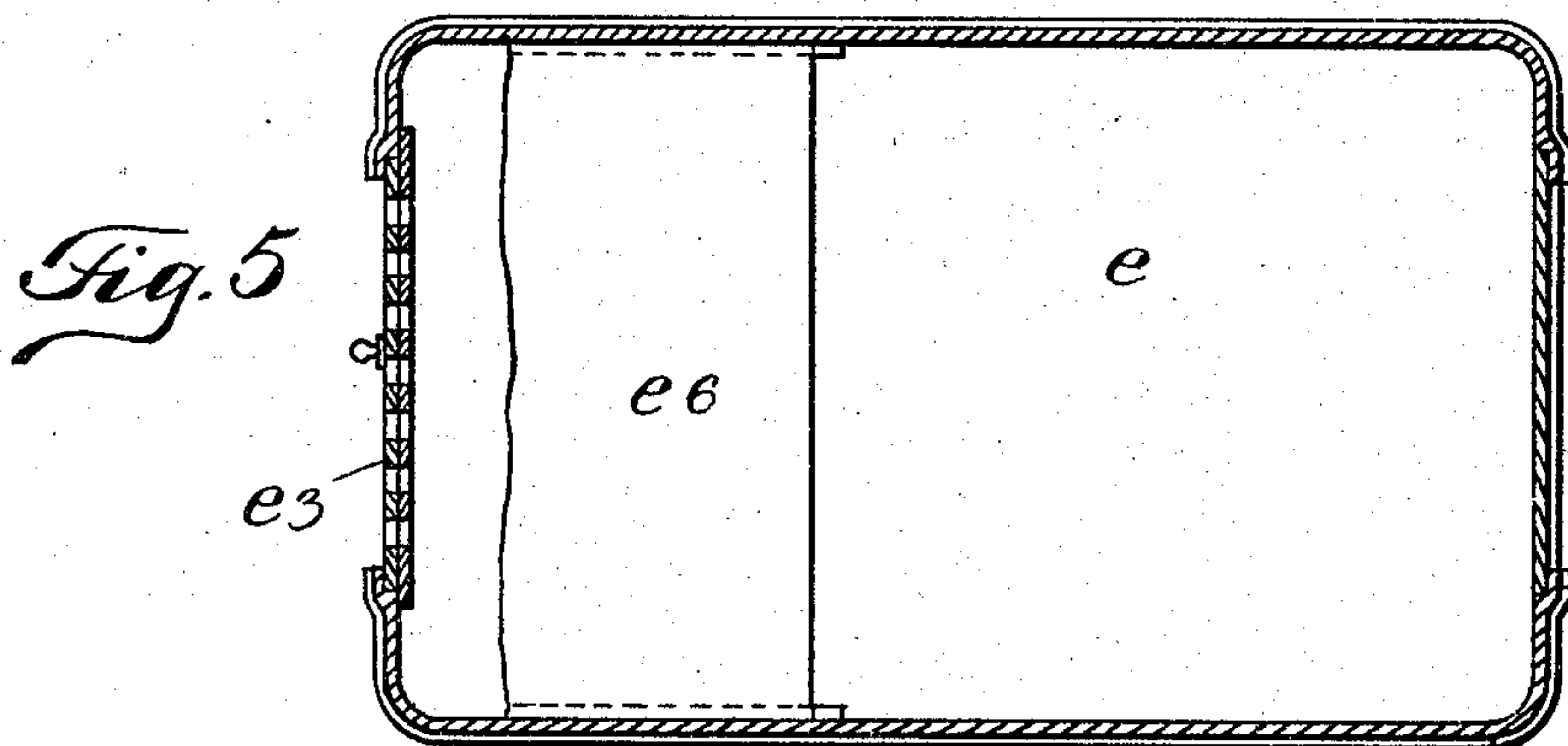
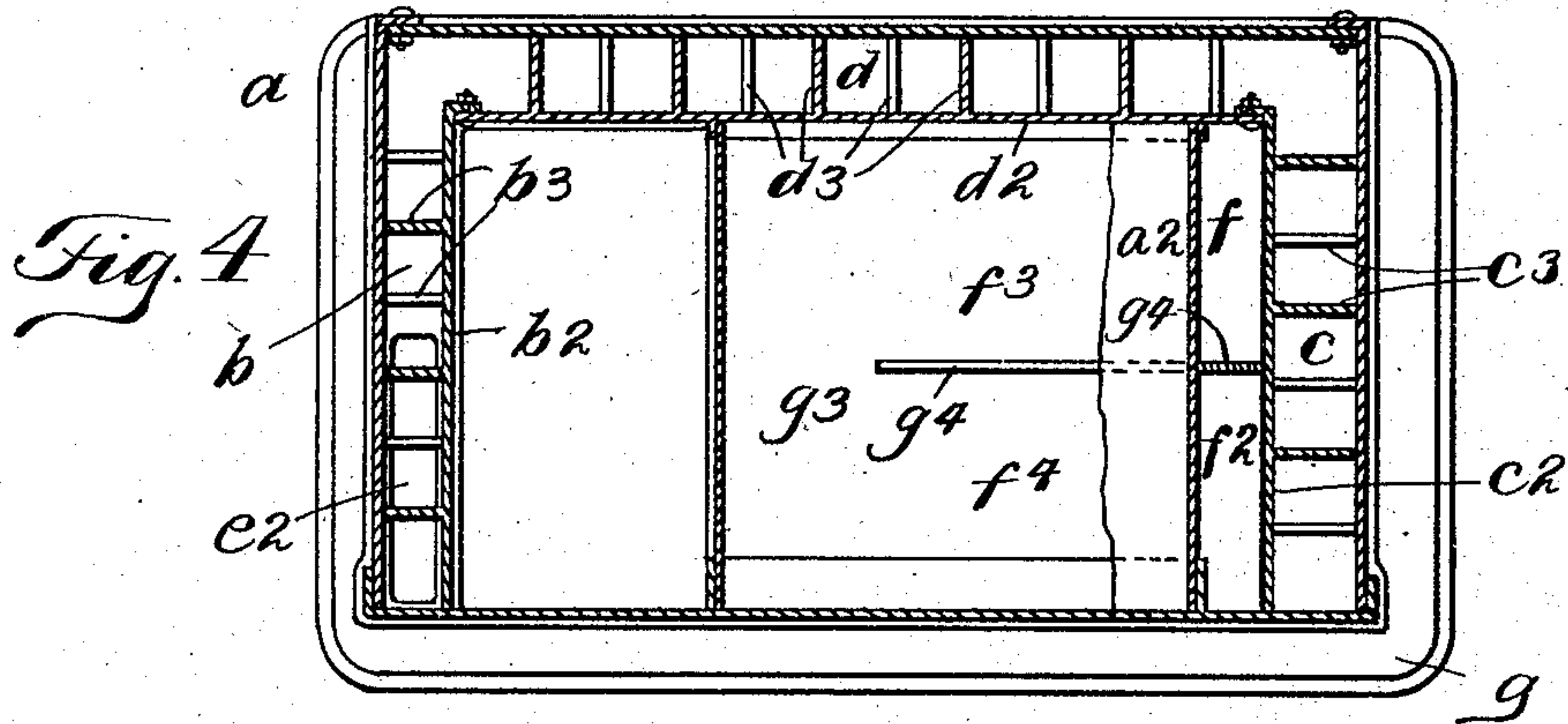
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3 SHEETS—SHEET 2.



WITNESSES

A. B. Mattingly
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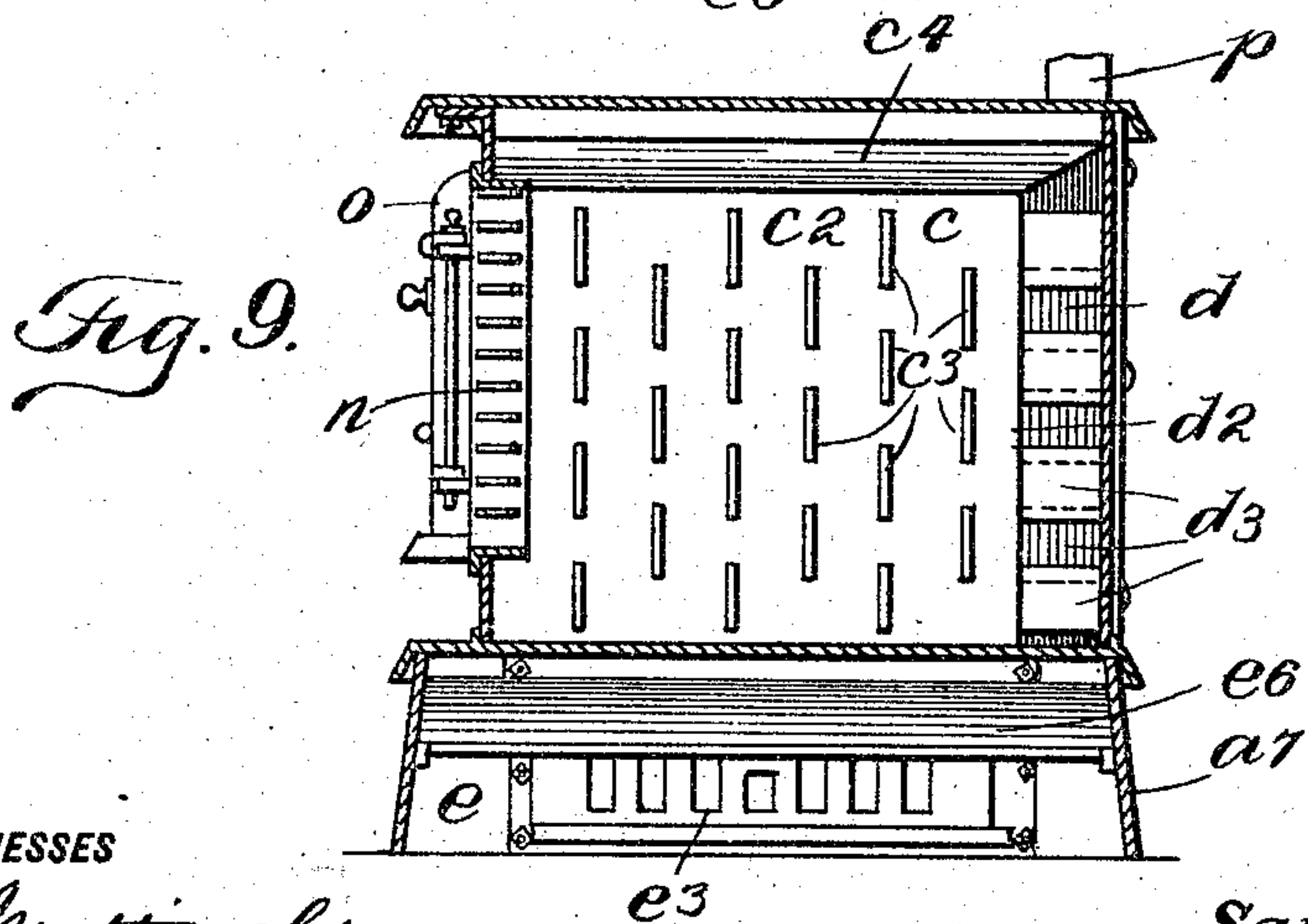
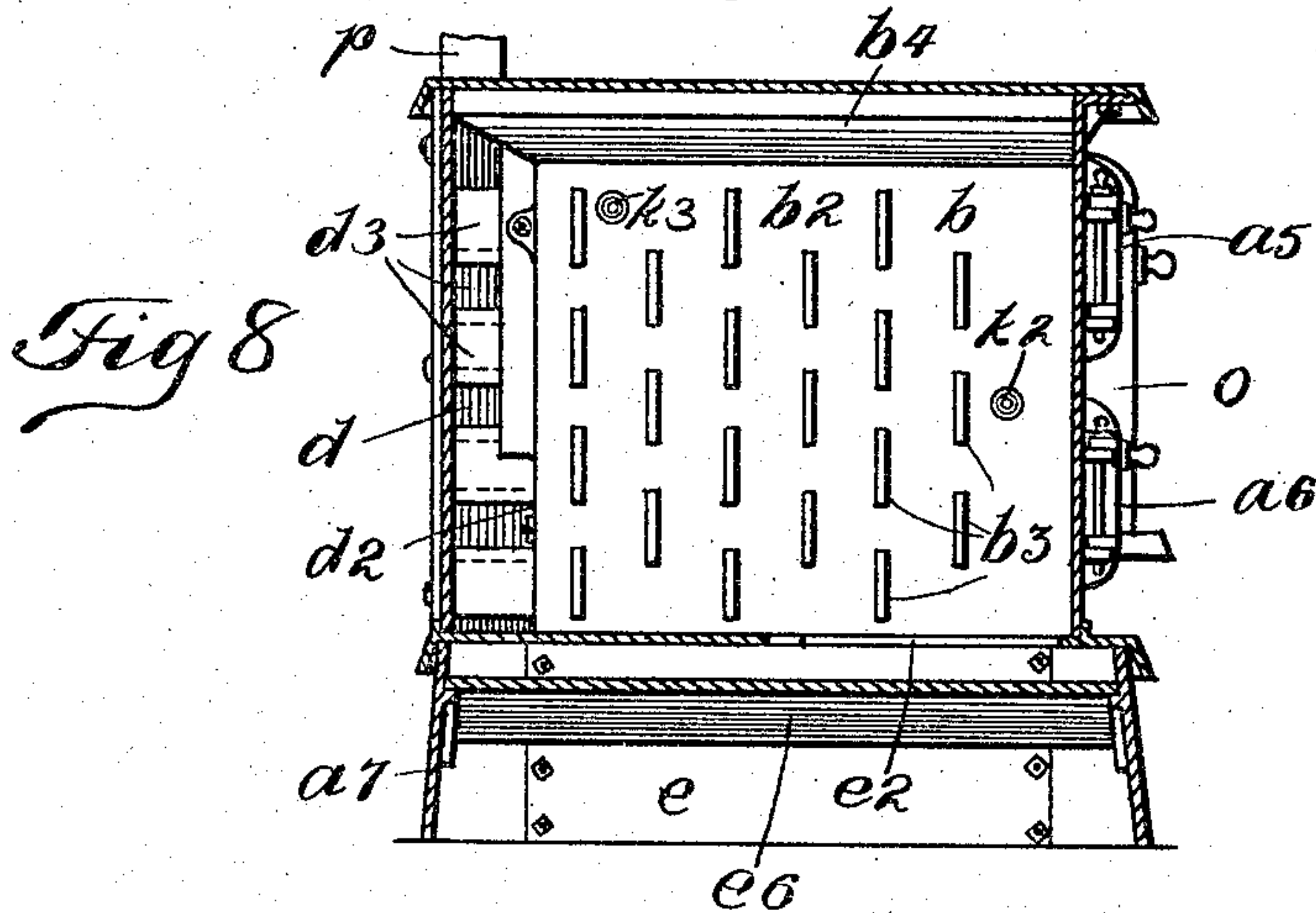
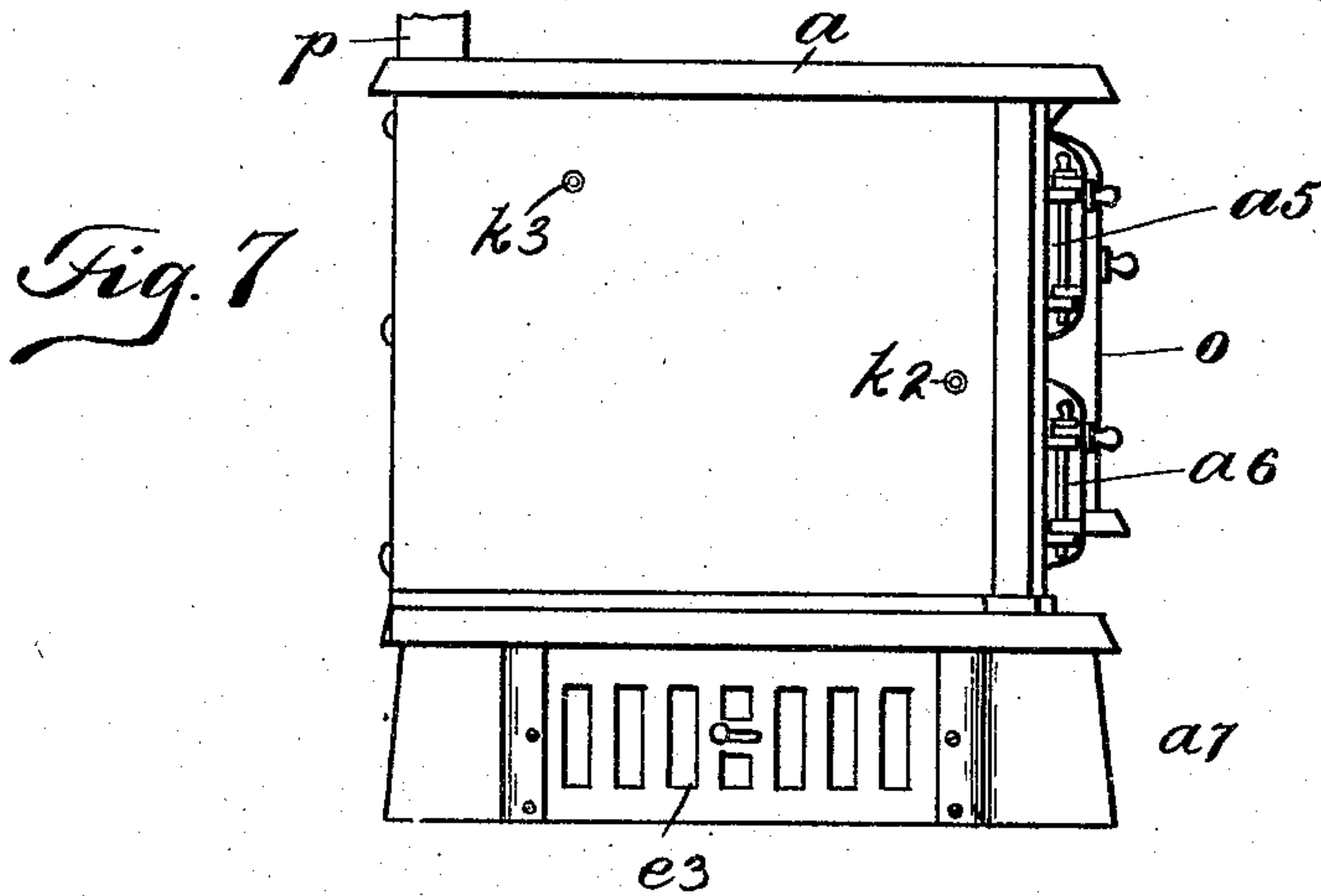
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APPLICATION FILED JULY 12, 1904.

3 SHEETS—SHEET 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

SAMUEL TURANSKY, OF BROOKLYN, NEW YORK.

HOT-AIR RANGE OR STOVE.

SPECIFICATION forming part of Letters Patent No. 782,631, dated February 14, 1905.

Application filed July 12, 1904. Serial No. 216,196.

To all whom it may concern:

Be it known that I, SAMUEL TURANSKY, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Hot-Air Ranges or Stoves, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to cooking ranges or stoves; and the object thereof is to provide an improved device of this class whereby an ordinary cooking range or stove may be made to serve as a hot-air heater, the construction and arrangement being such that the room or apartment in which the range or stove is located may be supplied at all times with pure hot air, which may also be used for heating other rooms or apartments, if desired.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which—

Figure 1 is a front side view of a cooking-range made according to my invention; Fig. 2, a plan view thereof with the top or cover removed; Fig. 3, a longitudinal vertical section of the range; Fig. 4, a horizontal section on the line 4 4 of Fig. 3; Fig. 5, a horizontal section on the line 5 5 of Fig. 3; Fig. 6, a sectional back view, the back plate only being removed; Fig. 7, an end view of the left-hand end of the range; Fig. 8, a sectional end view of the left-hand end of the range, the end plate only being removed; and Fig. 9, a view similar to Fig. 8 of the right-hand end of the range.

In the practice of my invention I provide a range a which is oblong and rectangular in form and provided with an oven a^2 , a fire-box a^3 at the left-hand end of the oven and beneath which is an ash-pit a^4 , and the fire-box a^3 is provided with a door a^5 and the ash-pit a^4 with a door a^6 . The end of the range in which the fire-box a^3 is located is provided with a vertically-arranged and transverse air-chamber b , the inner wall b^2 of which is provided with a plurality of baffle-plates b^3 , which

are arranged vertically and extend across said chamber and are designed to obstruct the passage of air therethrough. The end of the range opposite that in which the fire-box is located, or the right-hand end of the range, is provided with a vertically-arranged and transverse air-chamber c , the inner wall c^2 of which is provided with a plurality of vertically-arranged baffle-plates c^3 , also designed to obstruct the passage of air through said chamber. The range is also provided at the back thereof with a vertically-arranged air-chamber d , the inner wall d^2 of which is provided with a plurality of vertically-arranged baffle-plates d^3 , also designed to interrupt or retard the passage of air through the chamber d , and the chambers b and c are in full communication with the chamber d , at the opposite ends thereof, this communication extending from the top to the bottom of the range, as clearly shown in Fig. 4, and the tops of the chambers b , c , and d are closed by walls b^4 , c^4 , and d^4 , which extend downwardly and inwardly to the plane of the top of the fire-box and oven. The range is also provided with a base a^7 , forming an air-chamber e , which is placed in communication with the air-chamber b at the left-hand end of the range, as shown at e^2 in Fig. 3, and at the left-hand end of the base a^7 is a removable air-register e^3 for admitting air to the chamber e , and at the right-hand end of said chamber is an opening e^4 , provided with a removable cap or cover e^5 and which is intended to serve as a connection for an air-supply pipe by means of which air may be supplied to the chamber e , or, if desired, from outside of the room in which the range is placed, and the air-chamber e , at the left-hand end thereof, is also provided with a transverse partition-plate e^6 , which extends inwardly a predetermined distance and which is located over the air-register device e^3 .

Beneath the oven a^2 or between the bottom thereof and the bottom wall or floor g of the range, which also serves as the top wall of the air-chamber e , is an air-chamber g^2 , and at the left-hand end of the oven or between the hot-air chamber c and the oven is a vertically-arranged chamber g^3 , which is in full communication with the chamber g^2 , and the chambers

g^2 and g^3 constitute a part of the flue-passages through which the hot gases of combustion from the fire-box a^3 pass, and the chamber g^3 is divided centrally by a vertically-arranged partition-plate g^4 , which also extends forwardly partially through the chamber g^2 beneath the oven a^2 .

Over the oven a^2 or between the top wall thereof and the top h of the range is an open space or chamber h^2 , which extends the full length of the range and the end walls of which are formed by the inclined walls b^4 and c^4 , which form the tops of the chambers b and c and the back wall of which is formed by the inclined wall d^4 , which forms the top of the chamber d , and the chamber h^2 communicates with the fire-box a^3 and with the chambers g^2 and g^3 , and said chamber h^2 also constitutes a part of the flue-space and is divided by a diagonally-arranged wall i , which extends from the back of the range at i^2 , as shown in Fig. 2, to about the middle of that part of the chamber h^2 over the oven, as shown at i^3 , from which point it extends to the right and joins the partition-wall g^4 , as shown at i^4 , and that part of the wall i which extends from i^3 to i^4 is provided with an opening j , having a hinged damper or door j^2 , provided with an operating-rod j^3 , which passes forwardly through the front wall of the range above the oven a^2 .

Extending backwardly and upwardly from the rear top portion of the oven a^2 is the inclined top wall d^4 of the air-chamber d , which separates the flue space or chamber h^2 from the hot-air chamber d , and the vertically-arranged partition g^4 divides the flue space or chamber g^3 into two separate flue spaces or chambers f and f^2 and also divides the flue space or chamber g^2 into two separate flue spaces or chambers f^3 and f^4 .

At the left-hand side of the fire-box a^3 or between the fire-box and the left-hand end of the range is placed a water-back k , having a supply-pipe k^2 and a discharge-pipe k^3 and the operation of which will be similar to other apparatus of this class, and at the right-hand end of the range and communicating with the air-chamber c is a pipe m , which may be carried to any apartment which is desired to be heated. The front wall of the chamber c , or the front wall of the range which forms the front wall of said chamber, is provided with an air-register n of any desired form or construction, and the oven a^2 is provided with the usual front door o .

Arranged centrally of the back of the range and at the back of the oven is the usual discharge flue or pipe p , and the form of the partition-wall i , over the oven a^2 and back thereof, as shown at i^5 in Fig. 2, and the back wall of the range, at the top thereof, as shown at p^2 in Fig. 2, is such as to form a chamber p^3 , which communicates with the vertically-arranged flue space or chamber f , formed by di-

viding the flue space or chamber g^3 , as shown in said figure. The bottom of the oven a^2 is also provided with an opening o^2 , closed by a removable plate o^3 , and this plate may be removed for the purpose of cleaning the oven, if desired; but said opening and plate form no part of this invention and may or may not be employed.

The operation will be readily understood from the foregoing description when taken in connection with the accompanying drawings and the following statement thereof. The articles to be cooked are placed in the oven in the usual manner, and the hot gases of combustion from the fire-box a^3 pass over the oven, through that part of the chamber or flue-space h^2 in front of the partition-wall i , and out through the part f^2 of the flue space or chamber g^3 , forwardly through the part f^4 of the flue space or chamber g^2 , around the front end of the partition-plate g^4 , back through the part f^3 of the flue space or chamber g^2 , and up through the part f of the flue space or chamber g^3 and rearwardly to the escape flue or pipe p . In this operation the oven, as will be understood, is quickly and thoroughly heated; but if it is desired to heat only the top portion of the oven or cook the contents thereof slowly the damper or door j^2 is opened and the heated gases or products of combustion pass to the right over the front portion of the oven and backwardly through the door j to the escape flue or pipe p . In any operation of the range in the process of cooking or baking the air enters the chamber c through the register e^3 or through the pipe connection e^5 and passes upwardly into the chamber b and backwardly into the chamber d , from which it passes into the chamber c at the right-hand end of the range, and the passage of air through the chambers b , d , and c is retarded by the baffle-plates b^3 , d^3 , and c^3 , and said air is thoroughly heated, and this air may be discharged into the room in which the range is situated through the register n , or it may be carried to any other room through the pipe or conduit m , and in this way the room in which the range is located or any other room may be supplied with hot air, and said air may be obtained from the room itself or through a pipe connected with the base of the range at e^4 . The opening e^4 at the right-hand end of the chamber c may be permanently closed if it is desired to attach an air-supply pipe thereto, and this form of construction is shown in Fig. 5; but whenever it is desired to attach an air-supply pipe to said opening e^4 the same may be done by removing the cap e^5 .

By means of my improvement I provide a range or similar cooking apparatus which is perfectly adapted for all ordinary functions of such apparatus and which may also be made to serve not only for the ordinary purposes of cooking, but also for the purpose of

heating various apartments in the building in which the range is located and for supplying pure hot air thereto.

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

1. A range provided with an oven, a fire-box at one end thereof, an ash-pit beneath the said fire-box, hot-air chambers at each end of the range and at the back thereof all of which are in communication with one another and one of which is adjacent to and on the outer side of the fire-box, an air-register communicating with one of said chambers, flue-chambers inclosing the oven at the top and bottom and at the end opposite the fire-box, said flue-chambers being all in communication and the flue-chamber at the end opposite the fire-box being provided with a central vertical partition which extends toward the fire-box partly through the flue-chamber at the bottom of the oven, the flue-chamber at the top of the oven being also provided with a partition which ranges from the back corner of the oven adjacent to the fire-box diagonally thereof to the middle portion of the top thereof and then parallel with the front of the oven to the top of the partition which divides the flue-chamber at the end of the oven opposite the fire-box, that part of the partition in the flue-chamber at the top of the oven which is parallel with the front of the oven being provided with an opening closed by a damper having an operating-rod which passes forwardly through the front of the oven, said range being also provided in the base thereof with an air-chamber which is in communication with the air-chamber in the fire-box end of the range, and means for admitting air to said air-chamber in the base of the range, substantially as shown and described.

2. A range provided with an oven, a fire-box at one end thereof, an ash-pit beneath the said fire-box, hot-air chambers at each end of the range and at the back thereof all of which are in communication with one another and one of which is adjacent to and on the outer side of the fire-box, an air-register communicating with one of said chambers, flue-chambers inclosing the oven at the top and bottom and at the end opposite the fire-box, said flue-chambers being all in communication and the flue-chamber at the end opposite the fire-box being provided with a central vertical partition which extends toward the fire-box partly through the flue-chamber at the bottom of the oven, the flue-chamber at the top of the oven being also provided with a partition which ranges from the back corner of the oven adjacent to the fire-box diagonally thereof to the middle portion of the top thereof and then parallel with the front of the oven to the top of the partition which divides the flue-cham-

ber at the end of the oven opposite the fire-box, that part of the partition in the flue-chamber at the top of the oven which is parallel with the front of the oven being provided with an opening closed by a damper having an operating-rod which passes forwardly through the front of the oven, said range being also provided in the base thereof with an air-chamber which is in communication with the air-chamber in the fire-box end of the range, and means for admitting air to said air-chamber in the base of the range, the air-chambers at the fire-box end of the range the back of the range and the end of the range opposite the fire-box being also provided with vertically-arranged baffle-plates, substantially as shown and described.

3. A range provided with an oven, a fire-box at one end thereof, an ash-pit beneath the said fire-box, hot-air chambers at each end of the range and at the back thereof all of which are in communication with one another and one of which is adjacent to and on the outer side of the fire-box, an air-register communicating with one of said chambers, flue-chambers inclosing the oven at the top and bottom and at the end opposite the fire-box, said flue-chambers being all in communication and the flue-chamber at the end opposite the fire-box being provided with a central vertical partition which extends toward the fire-box partly through the flue-chamber at the bottom of the oven, the flue-chamber at the top of the oven being also provided with a partition which ranges from the back corner of the oven adjacent to the fire-box diagonally thereof to the middle portion of the top thereof and then parallel with the front of the oven to the top of the partition which divides the flue-chamber at the end of the oven opposite the fire-box, that part of the partition in the flue-chamber at the top of the oven which is parallel with the front of the oven being provided with an opening closed by a damper having an operating-rod which passes forwardly through the front of the oven, said range being also provided in the base thereof with an air-chamber which is in communication with the air-chamber in the fire-box end of the range, and means for admitting air to said air-chamber in the base of the range, and said range being also provided with a water-back between the fire-box and the air-chamber adjacent thereto, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 2d day of July, 1904.

SAMUEL TURANSKY.

Witnesses:

C. J. KLEIN,
F. A. STEWART.