

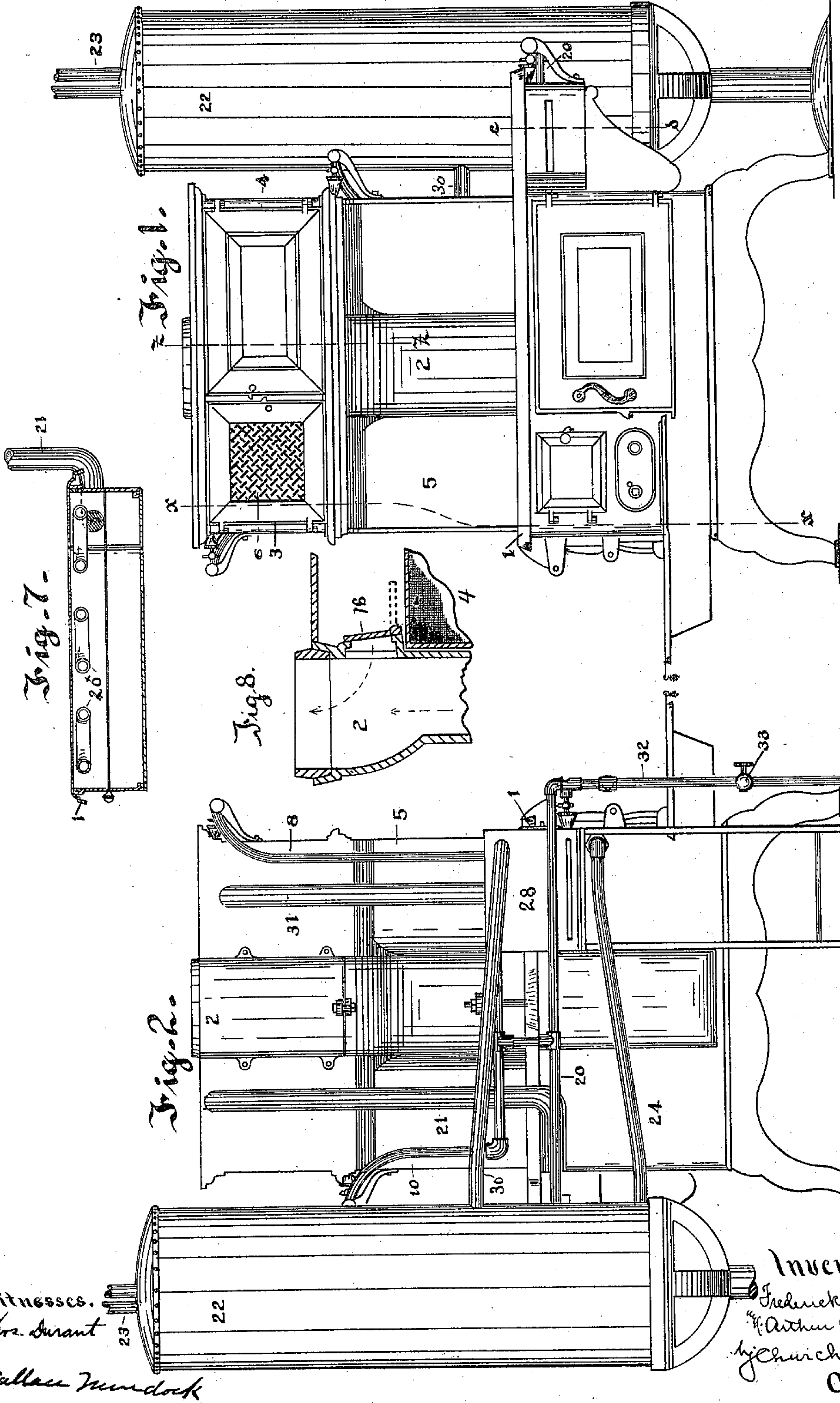
(No Model.)

2 Sheets—Sheet 1.

F. WILL & A. B. CLUNIES.
STOVE OR RANGE.

No. 598,548.

Patented Feb. 8, 1898.



Witnesses.

Thos. Durant

Wallace Munk

Inventors

Frederick Will

Arthur B. Clunies

Church & Church
Att'ys

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Fig. 4.

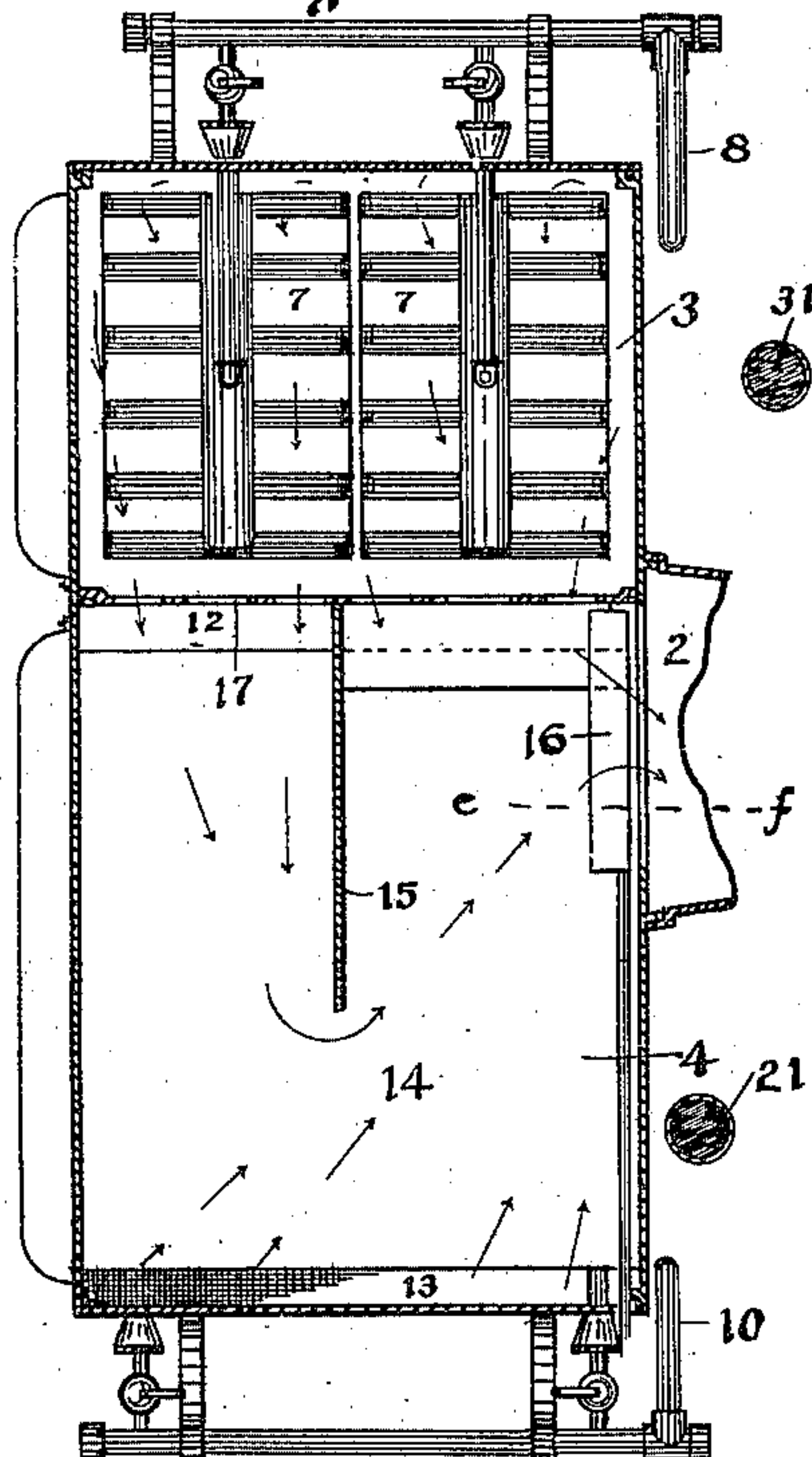


Fig. 5.

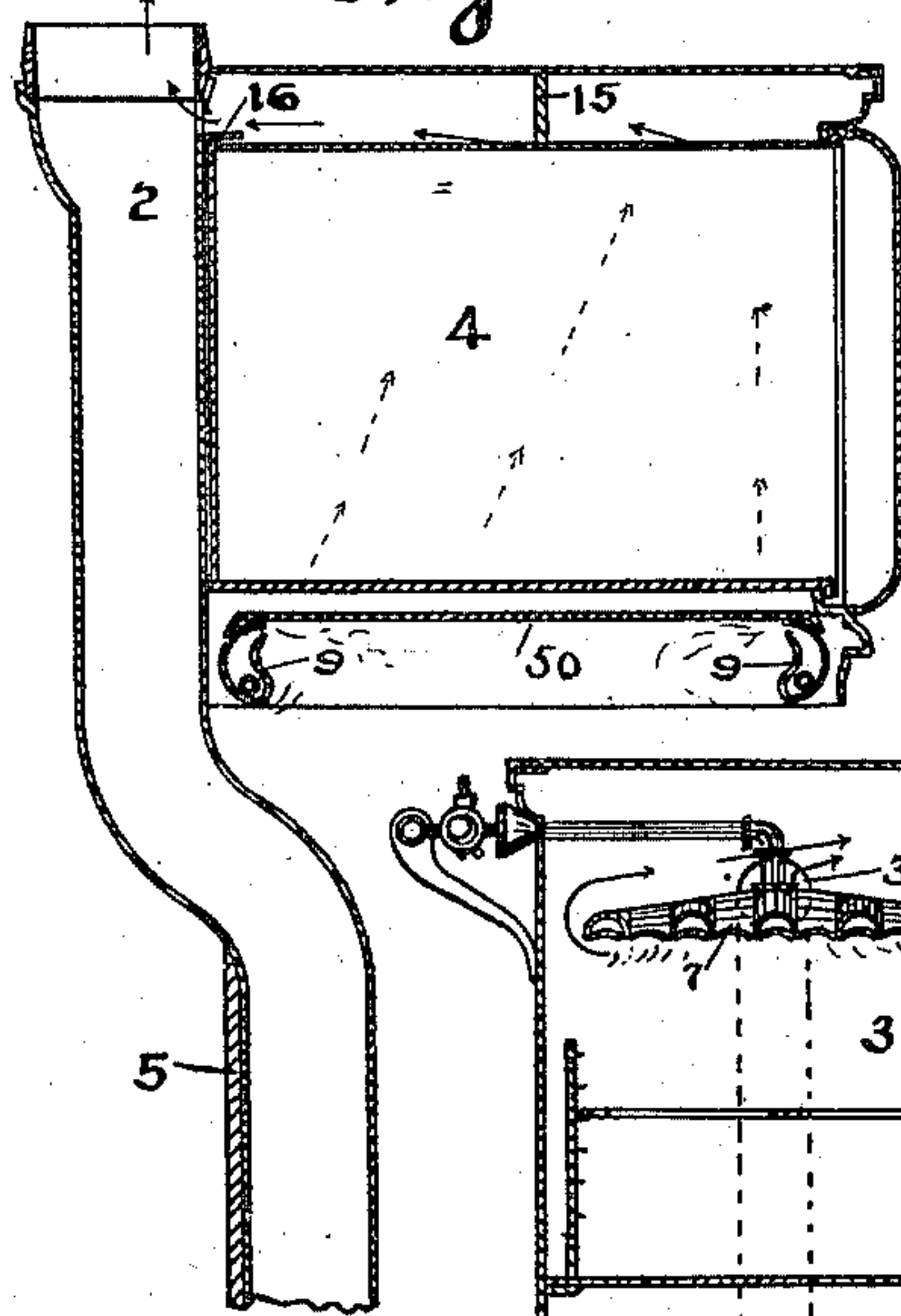


Fig. 3.

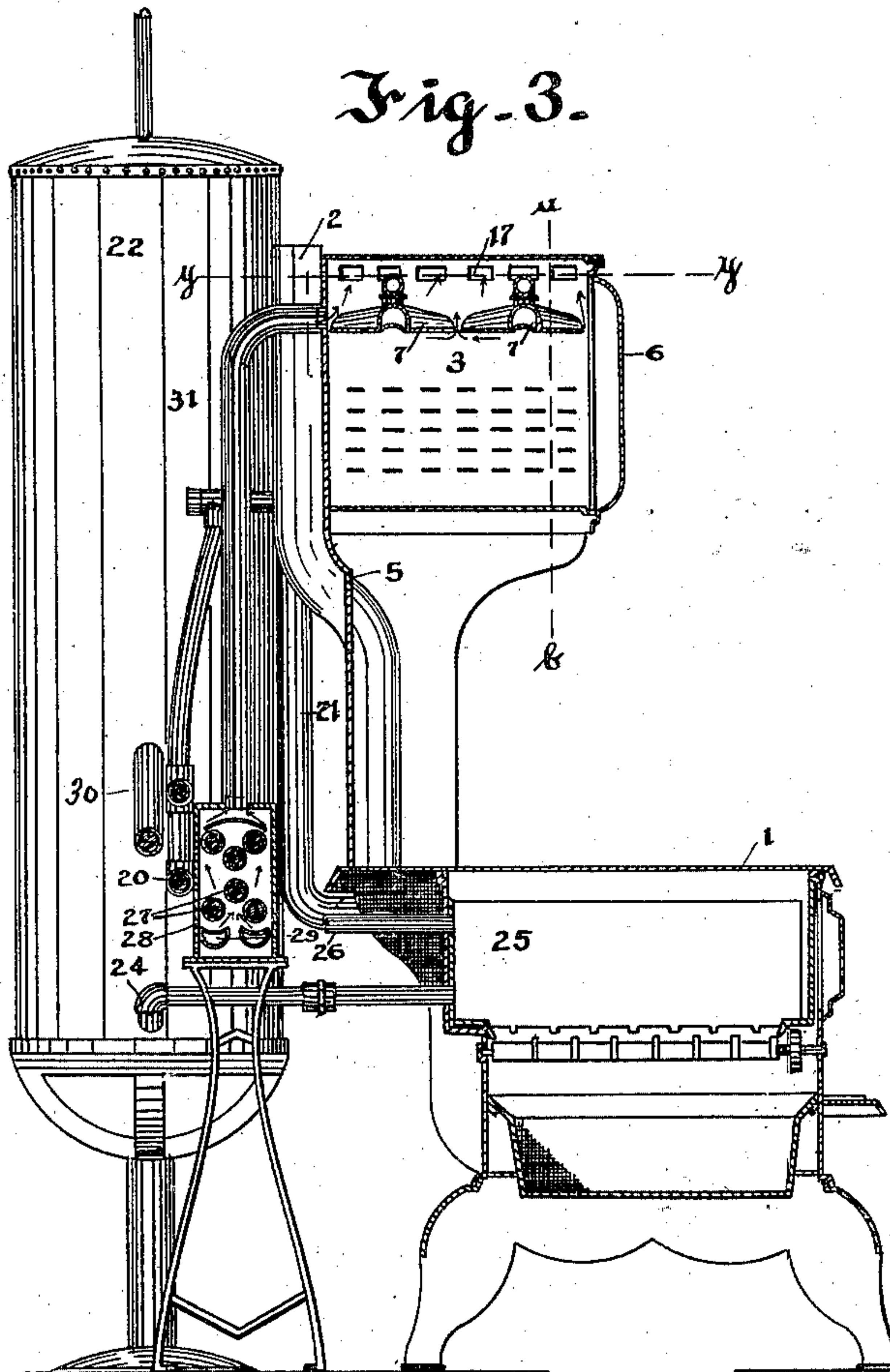
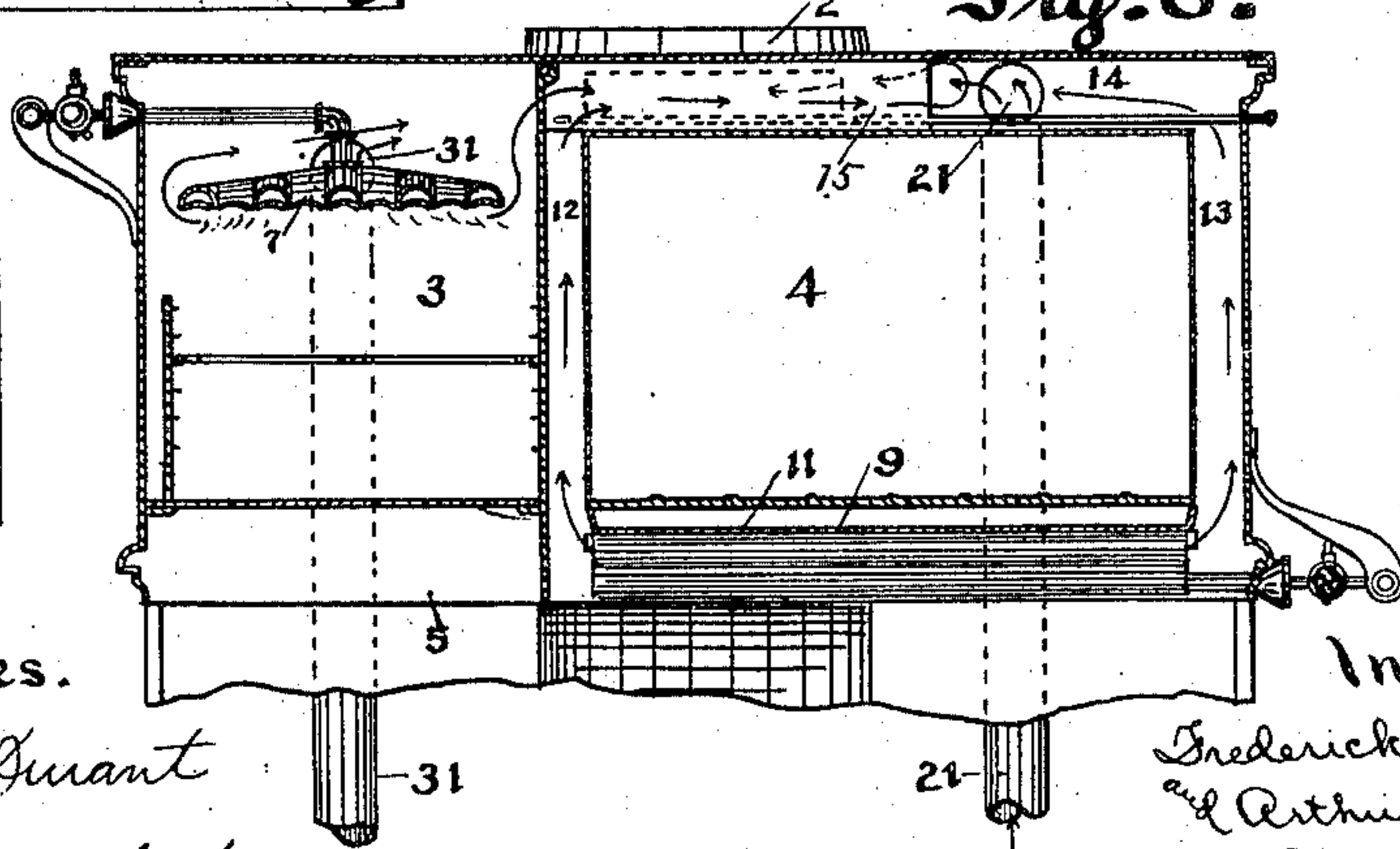


Fig. 6.



Witnesses.

Thomas Durant
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Frederick Will
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by Church & Church
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UNITED STATES PATENT OFFICE.

FREDERICK WILL AND ARTHUR B. CLUNIES, OF ROCHESTER, NEW YORK,
ASSIGNORS TO THE SILL STOVE WORKS, OF SAME PLACE.

STOVE OR RANGE.

SPECIFICATION forming part of Letters Patent No. 598,548, dated February 8, 1898.

Application filed June 29, 1894. Serial No. 516,083. (No model.)

To all whom it may concern:

Be it known that we, FREDERICK WILL and ARTHUR B. CLUNIES, of Rochester, in the county of Monroe and State of New York, have
5 invented certain new and useful Improvements in Stoves or Ranges; and we do hereby declare the following to be a full, clear, and exact description of the same, reference
10 being had to the accompanying drawings, forming a part of this specification, and to the reference-numerals marked thereon.

Our present invention has for its object to provide in a single structure devices for cooking by the use of either gas or hard fuel, as
15 coal, whereby when it is desired to let the fire in the stove die out the operation of cooking and heating water can be carried on without the necessity heretofore existing of employing a separate and special construction of gas-
20 stove, and whereby also, when desired to increase the capacity of the stove, both the coal and gas heated portions may be used without interference; and to these and other ends it consists in certain improvements in construction and combinations of parts, all as will be
25 hereinafter fully described, and the novel features pointed out in the claims at the end of this specification.

In the accompanying drawings, Figure 1 is
30 a front elevation of a stove provided with our improvements; Fig. 2, a rear view of the same; Fig. 3, a vertical sectional view taken on the line *xx* of Fig. 1; Fig. 4, a horizontal sectional view taken on the line *yy* of Fig. 3; Fig. 5, a
35 vertical sectional view on the line *zz* of Fig. 1; Fig. 6, a similar view on the line *ab* of Fig. 3; Fig. 7, a section on the line *cd* of Fig. 1; Fig. 8, a section on the line *ef* of Fig. 4 with the damper closed.

40 Similar reference-numerals in the several figures indicate similar parts.

1 indicates the body of the stove, which may be of any suitable or ordinary construction, having at the rear the vertical smoke-pipe 2
45 and the chambers 3 and 4, supported upon the said smoke-pipe and upon the back 5, corresponding in position and external appearance to the hot closets ordinarily found on stoves or ranges of this class. The chamber 3, lo-
50 cated at the left of Fig. 1 and shown in section in Fig. 3, is what I term a "broiling-

chamber," having a foraminous door 6 and in the upper portion two heating gas-burners 7, supplied with gas from a pipe 8, said burners being so arranged that the mixed gas and air
55 is burned on the under side, after the manner of ordinary gas-broilers. The closet or oven 4, to the right, is provided with gas-burners 9 beneath it, supplied with gas from a pipe 10, and is preferably provided with a remov-
60 able bottom 11, arranged over said burner, forming, in effect, an oven heated from the bottom.

Arranged at the sides of the closet 4 are vertical flues 12 and 13, which are open at the
65 bottom beneath the false bottom 11, said flues communicating with a horizontal flue 14, extending over the said closet and provided at or near its center with a partition or plate 15, as shown in Fig. 4, and at the rear of this flue
70 14 is provided an opening leading into the smoke-pipe and adapted to be closed by means of a damper 16. The upper part of the chamber 3 is provided with a series of apertures 17, opening into the flue 14, whereby the
75 products of combustion and the odors arising in the broiling-chamber 3 may find their exit through the damper 16 when open, as shown in Fig. 4. The passages or flues 12 and 13
80 also form exits to the smoke-pipe for any odors arising from the top of the stove during the operation of cooking by the use of coal in the fire-box of the stove in the usual manner. A deflecting-plate 50 is preferably arranged
85 above the burners, as shown in Fig. 5.

Arranged at the right-hand end of the stove in Fig. 1 is an ordinary gas stove or heater embodying two or more burners 20^x, supplied with gas by a pipe 20', and from beneath the top plate extends a pipe 21, leading into the
90 flue 14 at the top of the closet 4, as shown in Figs. 2, 6, and 7, said pipe serving to permit the passage to the said flue of any odors and the products of combustion from the burners at the end of the stove.

22 indicates the hot-water tank or boiler, having at the top the usual cold-water inlet 23 and at or near the bottom the exit-pipe 24, connected to the water-front 25, located in the fire-pot of the stove 1 and adapted to be heated
100 by the fire therein. From said water front or back, as the case may be, extends a pipe 26,

communicating with coils of pipe 27, located in a suitable casing 28 and adapted to be heated by gas-burners 29, the exit-pipe 30 from said coil passing into the reservoir 22 with a slight rise, as shown.

It will be noted that the water-heating coil 27 is slightly above the level of the top of the water-front 25 and that there is a rise in the pipe 30 from this to the receptacle 22, thereby providing for the proper circulation of water. The top of the casing 28 is connected by the pipe 31 with the upper portion of the broiling-chamber 3, whereby the products of combustion from the said casing will pass to said chamber and through the apertures 17 therein to the flue 14 and thence into the smoke-pipe of the stove. The burners 29 of the water-heating coil are supplied with gas from the pipe 32, as shown in Fig. 2, from which pipe the other gas-supply pipes lead, as also shown in said figure.

From the above it will be seen that when it is desired to use the stove for cooking in the ordinary manner, by the use of coal in the fire-pot, this may be done without in any way interfering with the gas heating appliances, the supply of gas being cut off from the stove by means of the cock 33, and the damper 16, leading from the top of the hot closet into the smoke-pipe, being of course closed, as otherwise it would operate as a check-damper and retard the combustion. When, however, as in summer, it is desired to avoid heating up the room, as will be the case when coal is employed in the stove, the gas may be turned on and the burner 29 lighted if it is desired to provide hot water, the burners 7 lighted if it is desired to broil in the closet 3, or the closet 4, which now operates as an oven, may be utilized for baking by lighting the burners 9, the damper 16 being of course open and allowing the products from all the burners to pass into the smoke-pipe, thereby preventing any odor from the products of combustion.

It will be noted that the structure of the stove itself, as far as external appearance is concerned, is not altered by the attachment described, nor is the utility of the top of the

stove for receiving vessels or cooking utensils abridged, and also, if desired, the stove may be used in the ordinary manner in connection with the gas appliances, thereby increasing its capacity.

The gas-burners employed may be of the usual or any desired type in which the air and gas are mixed previous to arriving at the place of burning after the manner of the common Bunsen burners.

We claim as our invention—

1. The combination with a coal-burning stove or range having a smoke-pipe 2 and two high closets or chambers 3 and 4 above the stove-top, a heating gas-burner beneath the chamber 4, and flues 12 and 13 open at the bottom and leading from said burner around said chamber, a heating gas-burner 7 within the other chamber, a flue 14 connecting with the smoke-pipe of the stove into which the last-mentioned flues discharge, passages 17 between it and the chamber containing the heater, and a damper 16 controlling communication between said flue and the smoke-pipe, of the water-front 25 of the range, a water-supply pipe 24 therefor, a water-heating coil 27 connected with the exit-pipe 26 of the water-front, a gas-burner 29 for heating it, a casing for the coil and burner, and a flue 31 leading from said casing to the flue communicating with the smoke-pipe, substantially as described.

2. The combination with the coal-burning stove or range having the smoke-pipe, and the high closet or chamber 4 above the top of the stove, flues 12 and 13 at the sides of said chamber, open at the bottom, and a gas heating-burner 9 beneath the chamber, of a flue 14 at the top of the chamber communicating with the smoke-pipe, a damper 16 between the smoke-pipe and flue, and the partition-plate 15 in the flue in front of the damper, substantially as described.

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Witnesses:

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