

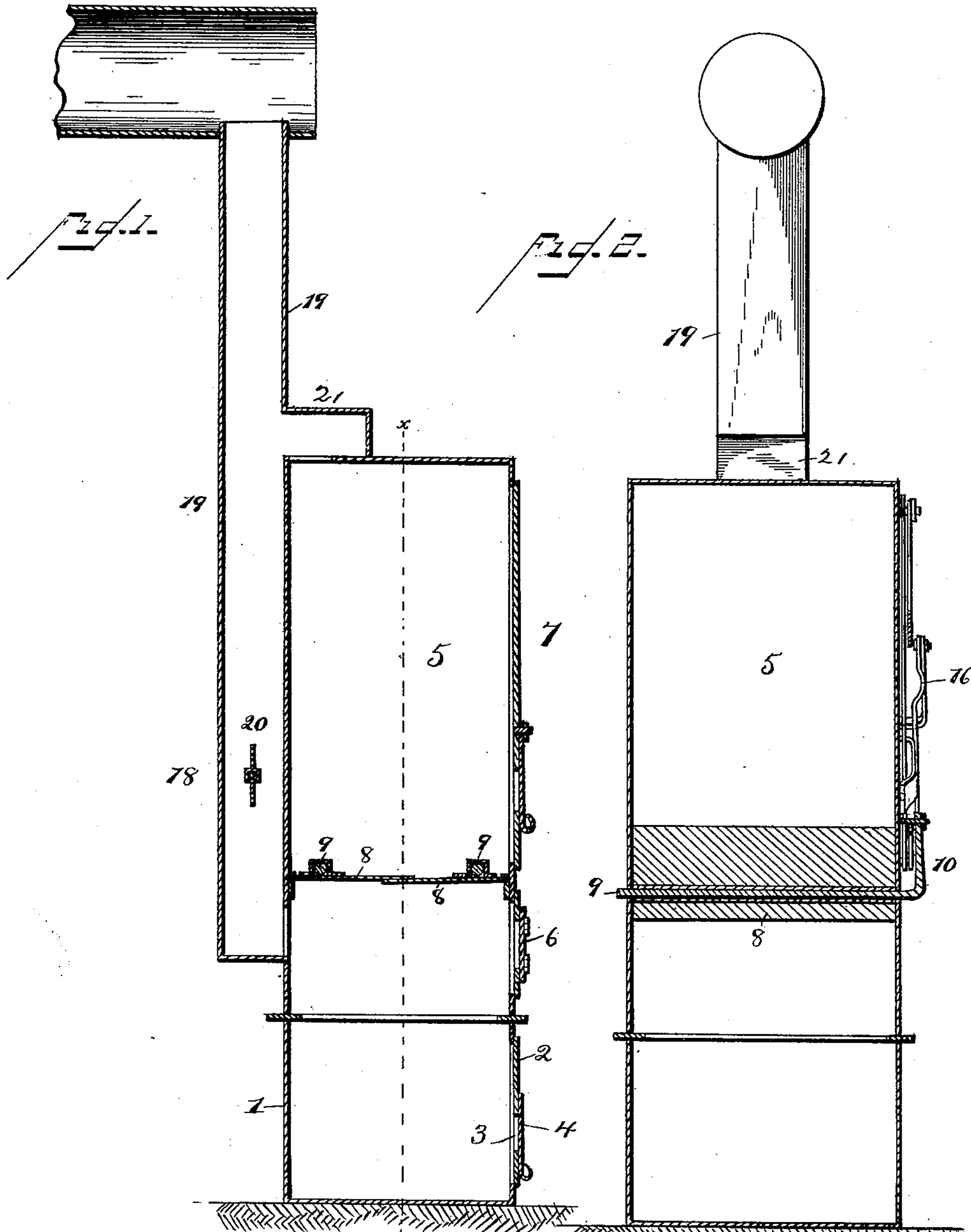
(No Model.)

2 Sheets—Sheet 1.

H. LEVY.
SMOKE HOUSE.

No. 434,716.

Patented Aug. 19, 1890.



WITNESSES:
H. L. Ouraud.
D. M. Jones.

INVENTOR:
Herman Levy,
by J. S. Dagg & Co.,
Attorneys.

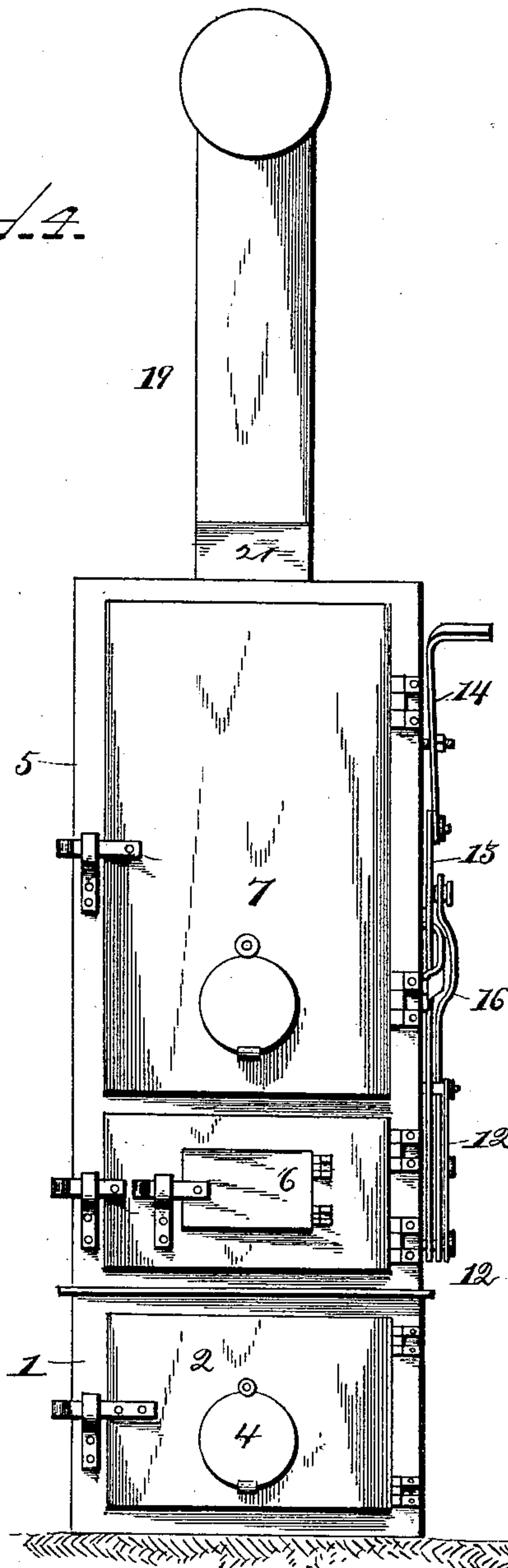
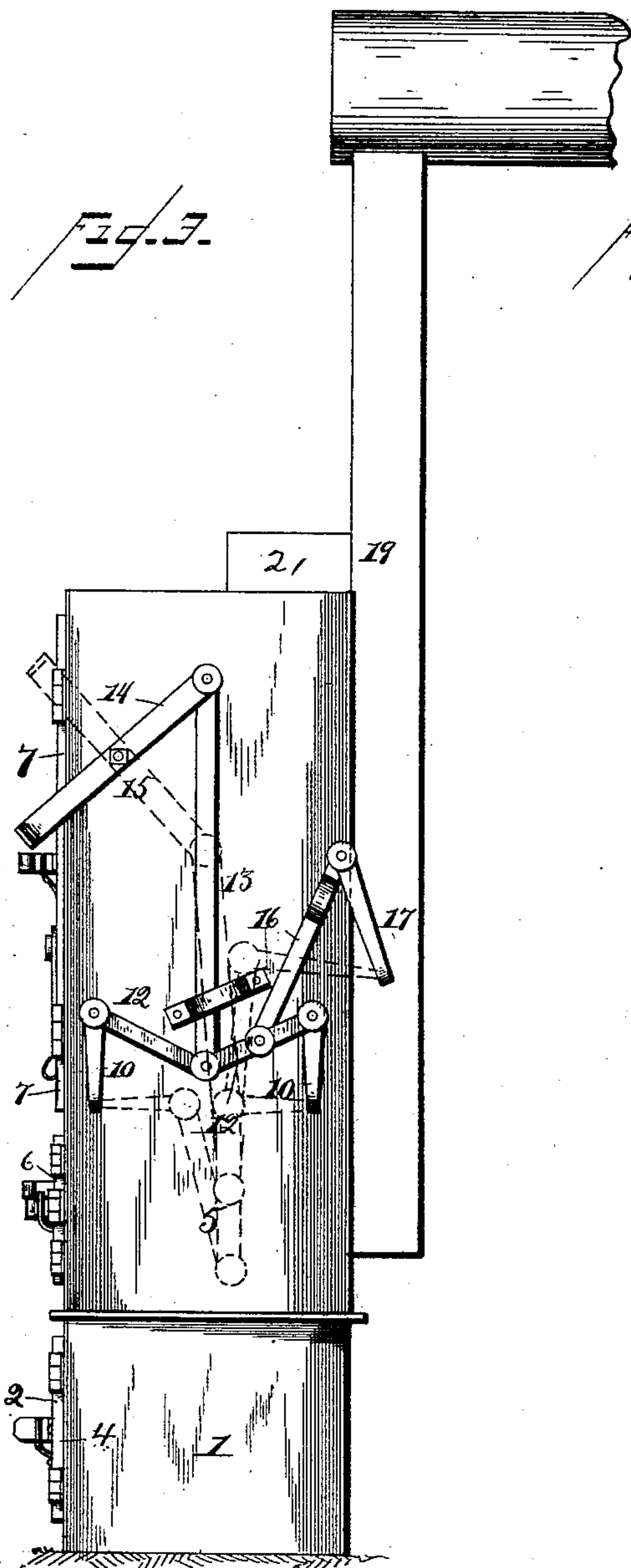
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2 Sheets—Sheet 2.

H. LEVY.
SMOKE HOUSE.

No. 434,716.

Patented Aug. 19, 1890.



WITNESSES:

F. L. Curayd.
Amos J. Jones.

INVENTOR:

Harman Levy
by James Duggan & Co.,
Attorneys.

UNITED STATES PATENT OFFICE.

HERMAN LEVY, OF NEW YORK, N. Y.

SMOKE-HOUSE.

SPECIFICATION forming part of Letters Patent No. 434,716, dated August 19, 1890.

Application filed March 18, 1890. Serial No. 344,349. (No model.)

To all whom it may concern:

Be it known that I, HERMAN LEVY, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Smoke-Houses; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in smoke-houses for smoking hams, sausages, and other articles of food. Smoke-houses for the above purpose as now generally constructed are made of sheet-iron of proper dimensions with two doors, a smaller one near the bottom for starting the fire and furnishing the draft, and a larger one which enables the goods to be handled which are hung up in the body of the house. The fire is constantly burning at the bottom and nourished by hickory-wood and sawdust, which gives a dense smoke, filling the entire interior of the smoke-house. It is drawn off slowly by a pipe leading from the top to the flue. Whenever the workman is obliged to open the door to see after the goods, the smoke will pour out in a dense mass, filling the room in which the smoke-house is located and penetrating the entire house. This is not only damaging to the house and its contents, but very frequently seriously affects the health of the operator, and often results in permanent injury to him.

To remedy the above and other defects is the object of my invention; and it consists in the novel construction and combination of parts hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a central longitudinal section of a smoke-house constructed in accordance with my invention. Fig. 2 is a similar section on the line $x x$, Fig. 1. Fig. 3 is a side elevation of the same; Fig. 4, a front view.

In the said drawings, the reference-numeral 1 designates the base or fire-box, which may be made of brick-work or of other suitable material. This base is provided with a door 2, having draft-opening 3 and closing cap or cover 4. Mounted upon the open top of this base is the smoke-house proper, the same

consisting of an open-bottomed rectangular casing 5, preferably made of sheet metal and provided with two doors 6 and 7, the larger one 6 being for the purpose of gaining access to the interior of the casing for the purpose of introducing and withdrawing articles therefrom. The smaller or lower door 7 communicates with the open top of the fire-box, where by fuel may be fed thereto.

A short distance above the bottom of the casing are two hinged doors 8, which extend entirely across the casing, so that when lowered or shut communication is entirely cut off between the fire-box and the interior of the casing containing the articles to be treated. These doors are hinged or pivoted at their outer ends by means of the pivot-bars 9, which have their bearings in the sides of the casing. These doors are each equal in width to about half the width of the casing, so that when closed they will meet in the center of the casing. Upon one side the pivot-bars 9 extend through and project outside of the walls of the casing, and are bent over at right angles or provided with arms 10 10, to which are pivoted the toggle-levers 12 12, connected together at their inner ends. A vertical rod 13 is connected with said toggle-levers, which is actuated by a lever 14, fulcrumed at 15 to the casing 5.

Connected with one of the toggle-levers is a rod 16, pivoted at its upper end to the arm 17 of the shaft 18. This shaft extends through the smoke-flue 19 of the casing and is provided with a damper 20. The smoke-flue 19 is located on the outside of the casing in the rear thereof, and starts from and communicates with the interior of the casing at a point just below the hinged doors and extends upwardly, and is connected with the house-flue or chimney leading to atmosphere. 21 designates a small flue leading from the top of the casing to the smoke-flue 19.

The operation is as follows: The casing being filled with the articles to be smoked, a fire of sawdust or other material which will give off a dense smoke is started in the fire-box, and the doors 8 are opened by depressing the free end of lever 14, which will elevate rod 13 to actuate the toggle-levers 12 and arms 10, which in turn will operate the doors. At the same time shaft 18 will close damper 20

in the smoke-flue through the medium of arm 17 and rod 16, and thus all the products of combustion will be compelled to pass through the interior of the casing and escape through the flue 21 at the top thereof. If at any time and for any purpose the operator desires to open the door 6 of the casing without the smoke pouring out therefrom and filling the room, he closes the doors 8 by a reverse movement of the lever 14, which will cause a corresponding movement of the toggle-levers and connections. The damper 20 will also be opened and the products of combustion will pass through the smoke-flue from below. All communication is now entirely cut off between the interior of the casing and the fire-box, and the door 6 can be opened without the slightest danger of any smoke escaping into the room.

From the above description it will be seen that my invention is simple and economical in construction and reliable and efficient in use, and by providing means whereby the smoke may be prevented from escaping into the room when the door is opened all liability of damage to the house and contents will be avoided and the health of the workmen will be promoted.

Having thus described my invention, what I claim is—

1. In a smoke-house, the combination, with the fire-box 1 and the casing 5 mounted thereon, the shafts 9, passing through said casing with their ends projecting outside thereof, and the downwardly-swinging doors 8, located within the casing and secured to shafts 9, of the lever 14, pivoted to the outside of the casing, the arms 10, secured to the projecting ends of shafts 9, the toggle-levers 12, pivoted

to arms 10, and the rod 13, connecting the inner ends of the toggle-levers with lever 14, substantially as described.

2. In a smoke-house, the combination, with the fire-box 1 and the casing 5 mounted thereon, the shafts 9, passing through said casing with their ends projecting outside thereof, and the downwardly-swinging doors 8, located within the casing and secured to shafts 9, of the smoke-flue 19, opening into the casing at the top thereof and also below the hinged doors, the shaft 18, located in said smoke-flue and carrying the damper 20, the lever 14, pivoted to the outside of the casing, the arms 10, secured to the projecting ends of shafts 9, the toggle-levers 12, pivoted to arms 10, the rod 13, connecting the inner ends of the toggle-levers with lever 14, and the rod 16, connected with one of the toggle-levers and with arm 17, secured to damper-shaft 18, substantially as described.

3. In a smoke-house, the combination, with a fire-box and a superimposed casing provided with pivoted or hinged doors, of a smoke-flue provided with a damper communicating with said casing at its top and also communicating with said casing below the hinged doors, and the levers and arms connected with said doors and damper, whereby they are operated simultaneously, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

HERMAN LEVY.

Witnesses:

FREDERICK FISCHER,
SAMUEL FISHER.