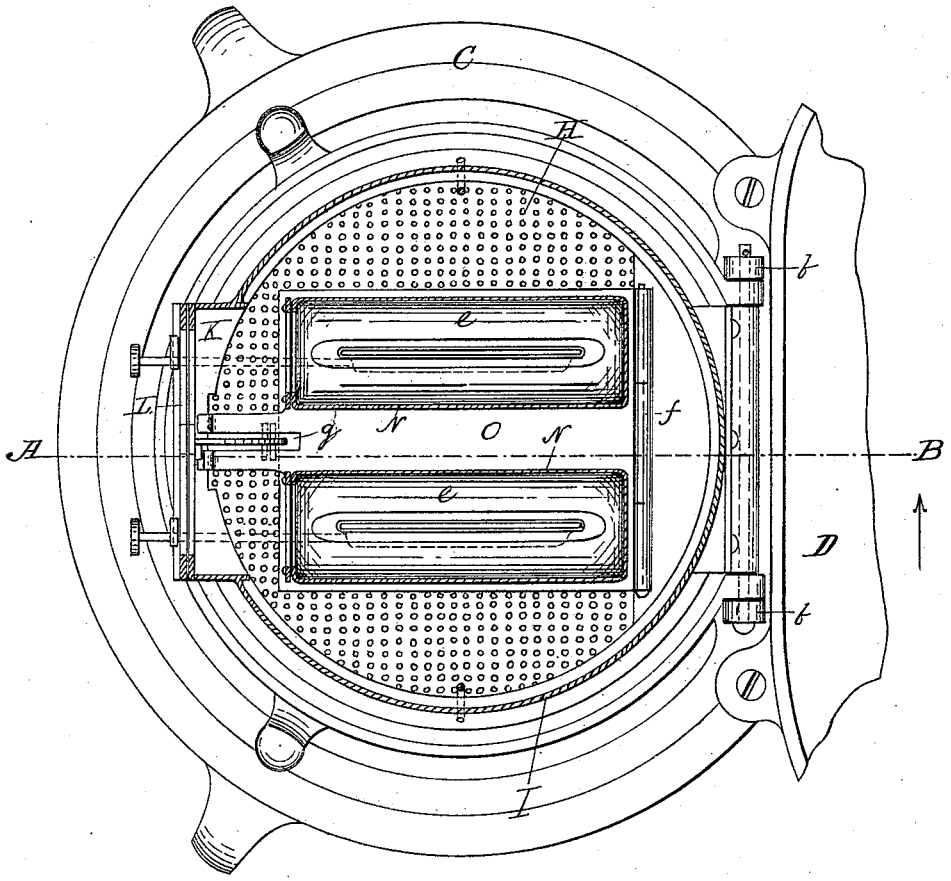
(No Model.) 2 Sheets—Sheet 1.

E. W. BALL & C. A. FLETCHER.

OIL STOVE.

No. 348,094. Patented Aug. 24, 1886.

Fig. 1.



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(No Model.) 2 Sheets—Sheet 2.

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Fig. 3.

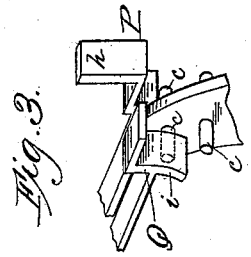
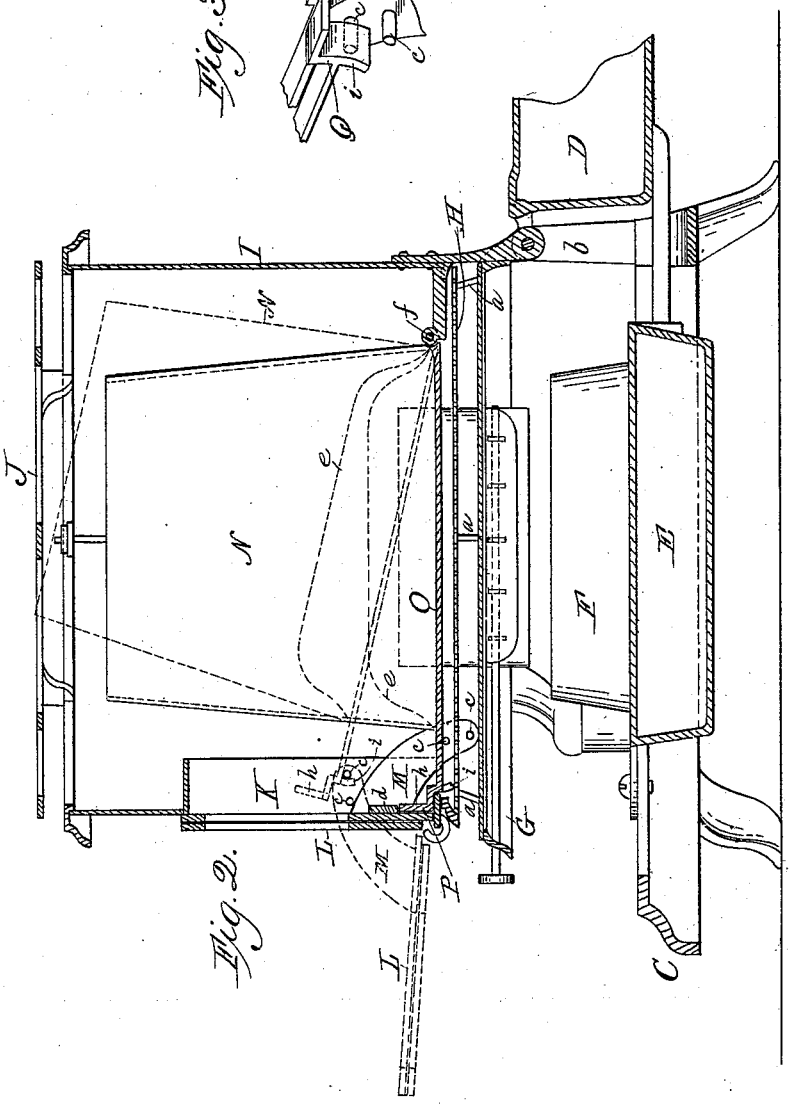


Fig. 2.



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UNITED STATES PATENT OFFICE.

EDWARD W. BALL AND CHARLES A. FLETCHER, OF WORCESTER, MASS.

OIL-STOVE.

SPECIFICATION forming part of Letters Patent No. 348,094, dated August 24, 1886.

Application filed October 25, 1883. Serial No. 109,949. (No model.)

To all whom it may concern:

Be it known that we, EDWARD W. BALL and CHARLES A. FLETCHER, both of the city and county of Worcester, and State of Massachusetts, have jointly invented certain new and useful Improvements in Oil-Stoves; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and in which—

Figure 1 represents a horizontal section through the upper part or drum of the stove, looking down, showing a plan view of the lower part of the stove and of our improvements applied thereto. Fig. 2 represents a vertical section taken on line A B, Fig. 1, looking in the direction of the arrow, same figure. The dotted lines represent the position of the parts when the chimneys are raised from the burners by the opening of the door, as will be hereinafter fully described; and Fig. 3 represents, on an enlarged scale, a perspective view of the parts relating to our improvements shown in Figs. 1 and 2.

Our invention relates to the chimneys used in oil-stoves; and it consists in hinging or pivoting said chimneys at one end to the base or lower rim of the drum of the stove, so that the chimneys may be raised up from the wick-tubes without raising or taking off the top part or drum of the stove, for the purpose of lighting the wicks through an opening in the front part of the drum of the stove, said opening being provided with a door hinged or pivoted at the bottom to open outwardly, and having an arm or projection attached thereto to raise the chimneys by the opening of said door independently of the raising of the drum of the stove.

To enable those skilled in the art to which our invention belongs to make and use the same, we will proceed to describe it more in detail.

In the drawings, the part marked C represents the base of an ordinary oil-stove, having an oil-reservoir, D, at the back of the stove, and the oil-receptacle E, and wick-tubes F, and solid plate or diaphragm G, all constructed in the usual manner.

The part H is a perforated plate or diaphragm, held in its proper position over the solid plate G by legs or supports *a*, or in any other suitable manner.

The part I represents the upper part or drum of the stove, upon the top of which is secured the iron perforated plate J, upon which anything may be placed. The drum I is hinged at its lower part to projections *b*, extending from the base C in the usual manner, to allow of the drum I of the stove being raised up and down independently of the base C and the parts attached thereto, as is usually done in oil-stoves for the purpose of lighting the wicks when ready for use.

The drum I has an opening, K, in the front and lower part thereof, which is provided with a door, L, hinged at the bottom, and which opens outwardly. Upon the inner face of said door there is attached, in any suitable manner, a curved arm or projection, M, extending out therefrom at right angles to the plane of the door. Said arm M has small projections or pins *c* near its outer end, for purposes to be hereinafter fully stated. There is also formed upon or attached to the inner face of the door L, in addition to the arm M, a projection or piece, *d*, for purposes to be hereinafter fully described.

The parts marked N represent the chimneys placed within the drum I of the stove. The parts *e* represent the cones for the burners, which in this instance are attached to the base of the chimneys N, so as to be raised or lowered with them; but, if desired, they may be made independently of the chimneys.

The chimneys N are formed upon or attached to a suitable base-plate, O, which is contained within the drum I of the stove. Said plate O is hinged or pivoted at its rear part to the base or lower part of said drum I at *f*. (See Figs. 1 and 2.)

The plate O is made, in this instance, with a narrow slot, *g*, in the front part thereof, between the chimneys N, and with the projecting parts P Q, to permit of the free movement of the arm M in said slot *g*, between the projections P Q, in opening and closing the door L, the pins *c* projecting out from each side of the arm M a greater distance than the width of the slot *g*, and upon the under side of said slot form a bearing for raising the plate O and the chimneys N, and also furnish a means of support, upon which the plate O rests when

in its proper position, the weight of said plate O and chimneys N upon the upper pins *c* keeping the door L tightly closed.

When the chimneys are in their proper horizontal position, and the door L is closed, the part *h* of projection P will fit under the projection *d* upon the inner face of door L. (See Fig. 2.) By this construction the plate O and the chimneys are prevented from being tipped back out of their proper position when the drum I of the stove is raised for any purpose by means of the hinge at its rear part.

The part *i* of projection Q forms a stop, against which one of the lower pins *c* strikes when the door L is fully opened, as shown by dotted lines, Fig. 2. The projection *i* and said pin *c* are so arranged in relation to each other that when the pin *c* comes against the stop *i* the door L is prevented from opening any farther, and at the same time, being beyond its pivotal point, the plate O, with the chimneys thereon, resting on the lower pins *c*, is held firmly in a raised position.

The operation of our improvements in oil-stoves is as follows: The different parts of the stove being in the position shown by full lines, Fig. 2, any desired cooking utensil is placed upon the plate J. The door L is then opened outwardly by means of a suitable knob or other device attached thereto. By opening said door L the pins *c*, upon which the plate O rests, extending out from the curved arm M, which projects into the slot *g*, between the projections P Q of the plate O, slide along the under face of the sides of the said slot *g*, raising the plate O and the chimneys attached thereto until one of the lower pins *c* strikes against the projection or stop *i* on the part Q, which prevents the door L from being opened any farther; and in this position, the door L being opened beyond its pivotal point and held in place by stop *i*, and the projecting parts P Q of plate O resting upon the lower pins *c*, the said plate O and chimneys N thereon are supported firmly in a raised position, as shown by dotted lines, Fig. 2. A lighted match is then applied to the wicks through the opening K. Then the door L is raised slightly, and the weight of the plate O and chimneys N, resting upon the lower pins *c* of arm or projection M, close the door instantly and hold it closed tightly, in the manner before described. When it is desired to extinguish the flame, it is done by opening the door L and blowing into the opening K.

It will be seen that by using our aforesaid improvements in an oil-stove the burners may be lighted and extinguished very easily and quickly, and both burners at the same time and by one operation, without the necessity of removing the cooking utensils and articles from the top of the stove and raising the drum of the stove, as is done in a large number of oil-stoves now in general use.

Having described our improvements in oil-stoves, what we claim therein as new and of our invention, and desire to secure by Letters Patent, is—

1. The combination, with the base of an oil-stove and a drum hinged thereto, of a chimney located within and resting on the bottom of said drum, the said chimney being hinged or pivoted at one edge, whereby it can be tilted independently of the drum, substantially as set forth.

2. The combination, with an oil-stove and its double chimneys, of a tilting-lever which projects through the walls of said stove, whereby said chimneys can be tilted from the outside of the stove.

3. The combination, with the base of an oil-stove, the drum, and the double chimney located within the drum, of a door pivoted to the drum and connected to the chimneys, whereby said chimneys can be tilted from the outside of the stove.

4. The combination, with the base of an oil-stove, a drum, and chimneys located within the drum and resting on the bottom thereof, of a door hinged to the drum and provided with an inwardly-projecting arm engaging the chimneys, whereby the opening of the door tilts the chimneys, substantially as set forth.

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