(No Model.) 4 Sheets—Sheet 1.

H. McCONNELL.

OIL STOVE.

No. 348,029. Patented Aug. 24, 1886.

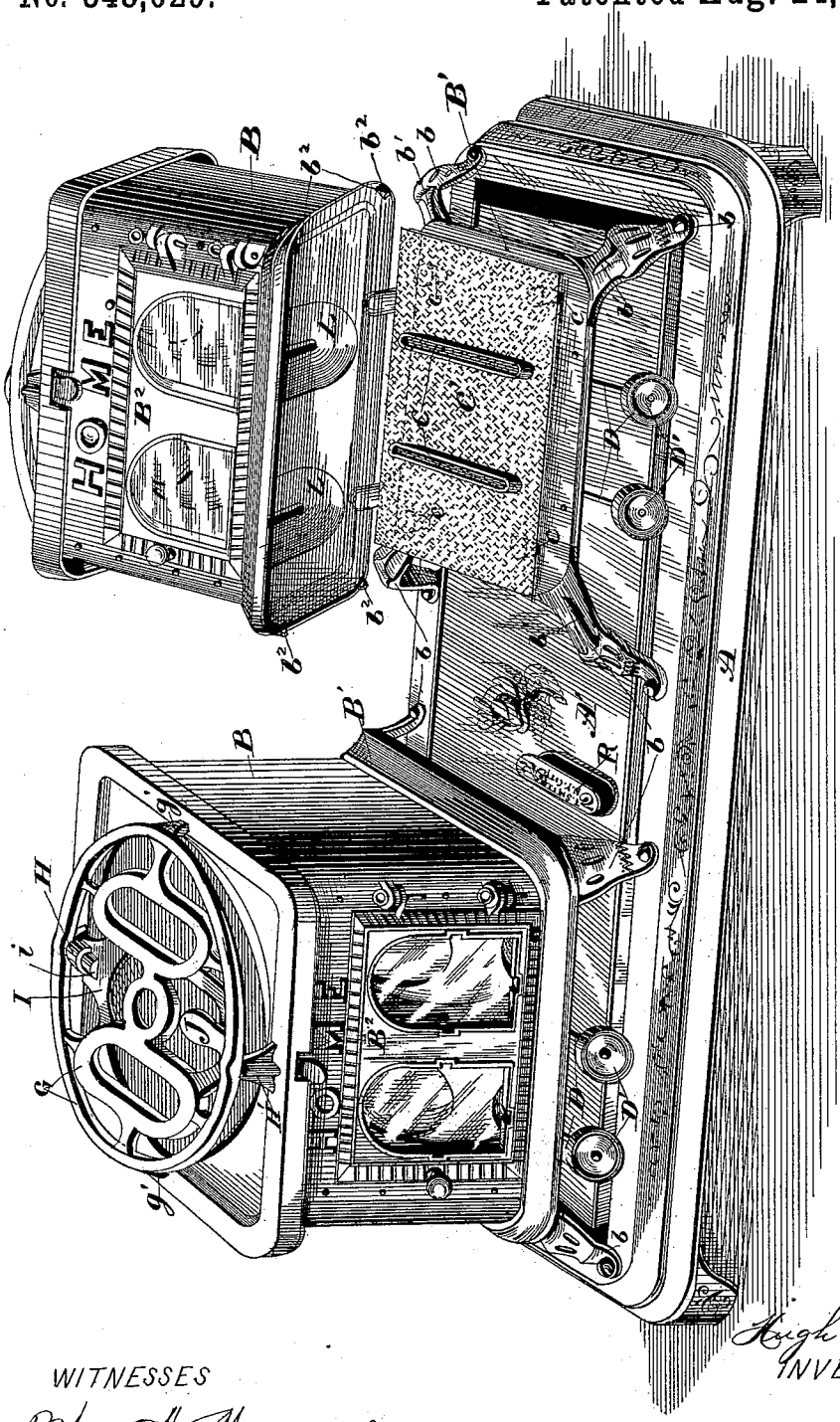


Fig. 1.

Hugh McConnell
INVENTOR.

WITNESSES

Wm. A. Morroe

Geo. W. King

Leggett and Leggett. Attorneys.

(No Model.) 4 Sheets—Sheet 2.

H. McCONNELL.

OIL STOVE.

No. 348,029. Patented Aug. 24, 1886.

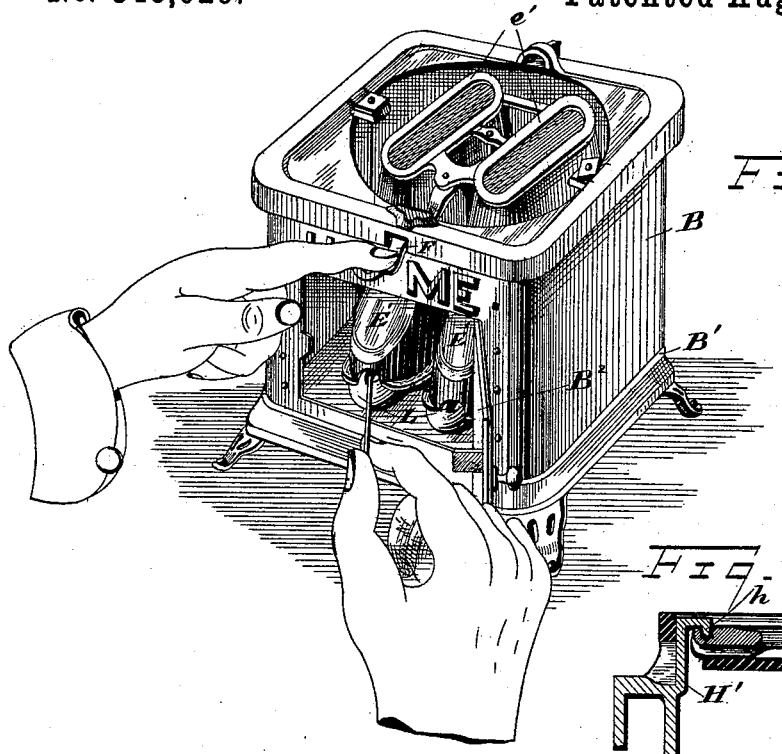


Fig. 8.

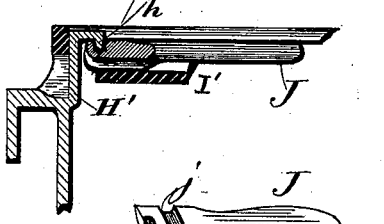


Fig. 4

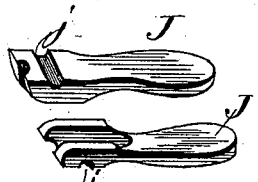


Fig. 5.

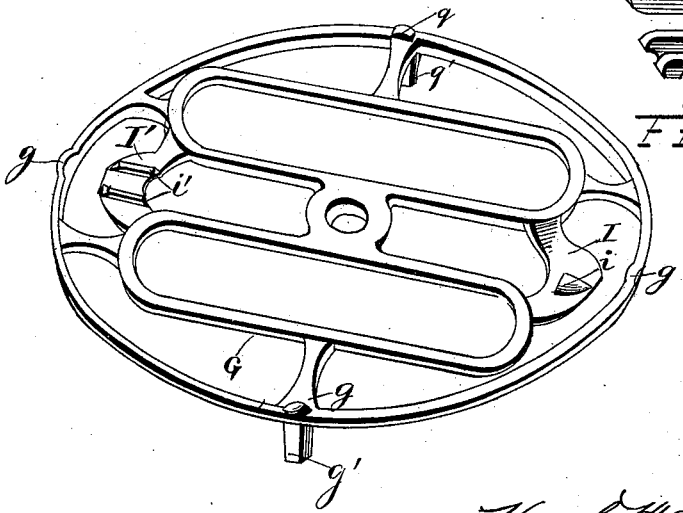


Fig. 3

WITNESSES

Wm. M. Monroe

Geo. W. King

Hugh McConnell
INVENTOR

by Leggett and Leggett.
Attorneys.

(No Model.) 4 Sheets—Sheet 3.

H. McCONNELL.

OIL STOVE.

No. 348,029. Patented Aug. 24, 1886.

Fig. 7

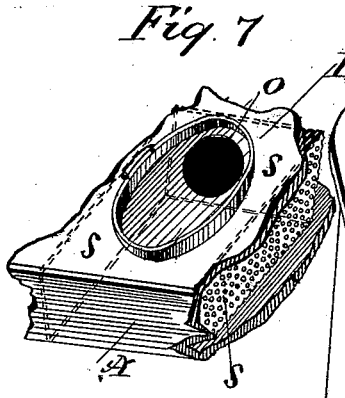
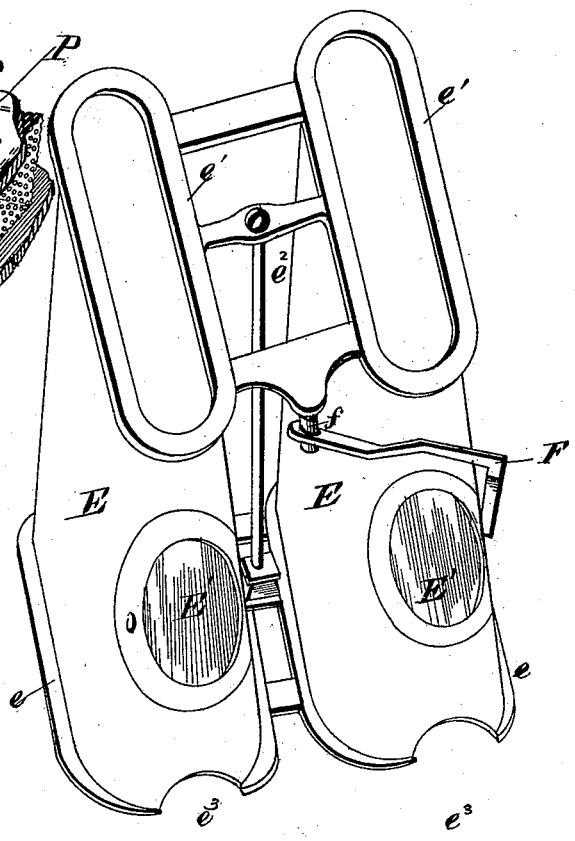


Fig. 6.



WITNESSES.

Wm. M. Monroe

Geo. H. Lining

Hugh McConnell INVENTOR

by Leggett & Leggett Attorneys

(No Model.) 4 Sheets—Sheet 4.

H. McCONNELL.

OIL STOVE.

No. 348,029. Patented Aug. 24, 1886.

Fig. 8.

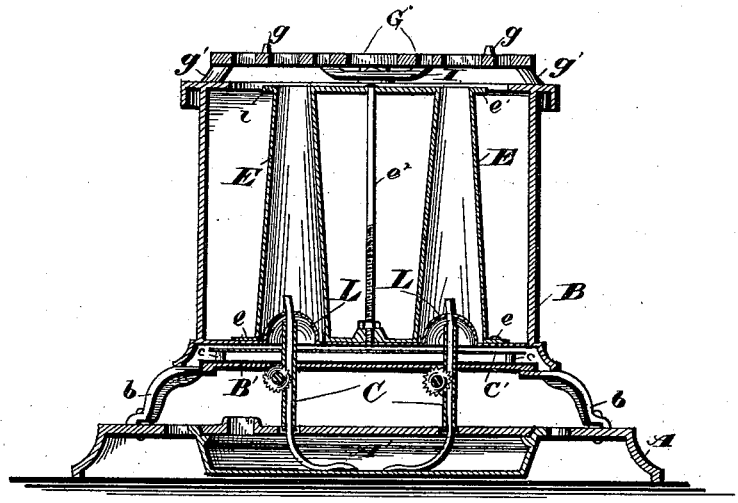
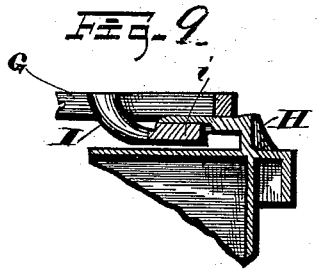


Fig. 9.



WITNESSES

Wm. M. Monroe.

Geo. W. King

INVENTOR

Hugh McConnell

by Leggett & Leggett.

Attorneys

UNITED STATES PATENT OFFICE.

HUGH McCONNELL, OF CLEVELAND, OHIO.

OIL-STOVE.

SPECIFICATION forming part of Letters Patent No. 348,029, dated August 24, 1886.

Application filed January 4, 1884. Serial No. 116,440. (No model.)

To all whom it may concern:

Be it known that I, HUGH MCCONNELL, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Oil-Stoves; 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 pertains to make and use the same.

My invention relates to improvements in oil-stoves.

The object of my invention is, first, to provide a combined double chimney that may easily be removed from the stove for convenience in cleaning, and that may be tilted for lighting the wicks by operating a lever that extends outside of the stove.

A further object is to provide a grate or vessel-support that, when in position, is firmly locked by a cam-lever, and that may be easily removed from the stove.

With these ends in view my invention consists in the parts and combinations of parts, as will be more fully described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in perspective of a double stove. The stove on the left hand is in position for use while the one on the right hand is tilted back, showing the wick-tubes, air-plate, &c., and on the tilted part the cones that support the chimneys. Fig. 2 is a view in perspective, showing the manner of tilting the chimneys for lighting the wicks, but with the grate removed. Fig. 3 is a view in perspective of the top grate or vessel support and attachments. Fig. 4 is a vertical section of the locking device connected with the grate shown in Fig. 3. Fig. 5 is a view in perspective, showing the upper and lower parts of the lever shown in Fig. 4. Fig. 6 is a view in perspective of the double chimney and the device for tilting the same. Fig. 7 is a view in perspective of a portion of the oil-container. Fig. 8 is a vertical section of the stove from side to side, and Fig. 9 is a sectional view showing the inside formation of the lug on the locking device.

A represents the base or supporting frame, inside of which is secured the oil-container A′, and upon which are mounted the stoves or drums B, secured to the part A by the legs *b*. The lower part of the drum B′, to which are directly attached the said legs, is a broad plate through which the wick-tubes C pass, and to which the tubes are secured so that there is no opening around the outside of the wick-tube and between them and the plate B′. This plate prevents anything from falling into the oil-container below through the openings exposed for the passage of the wicks. All matter from the burning wick or from the cooking apparatus above is by this plate prevented from entering the said oil-container.

C′ is a perforated air-plate fitted around the tubes C, and supported by the legs *c*, that rest on the plate B′.

Below the plate B′, and attached to the wick-tubes, are the rods D, extending in front of the stove and provided with the thumb-wheels D′, and are for raising or lowering the wicks in the usual manner.

In stoves of this class it is important that as little heat as possible be transmitted from the parts above to the oil-container below. To this end the hinges at the rear, (not shown,) consisting of lugs extending respectively from the parts B and B′, and pivoted on a common rod in the usual manner, are fitted loosely to each other and to the rod, so that but little heat will pass between the parts at this point. The legs *b* are provided, respectively, with the ribs *b′*, and the part B with the teats b^2, that engage each other when the parts are in position, and by means of which the part B is slightly separated from and has no contact with the parts below, except, as aforesaid, at the teats and hinges. The bodies E of the chimneys are made, preferably, of tin or some bright metal, and provided in front with openings covered with isinglass E′, through which the flames may be seen from the outside of the chimneys.

The chimneys E are provided respectively on their upper and lower edges with the metallic frames *e′ e*, which latter, with the chimneys E, are secured together by the vertical screw-bolt e^2. The bottom plate of the drum B has slots or openings for the passage of the wicks upward, and the portions of the plate next these slots are raised, forming what is known as "cones." (Shown at L in Figs. 1 and 2.) These plates with the said slots and cones are made in the usual manner, and no claim is made on this part of the

device. The chimneys fit nicely around these cones, preventing any lateral displacement of the chimney. The chimneys are cut away, as shown at e^2, so that when they are tilted back, as shown in Fig. 2, a match may be inserted through the opening thus formed and the wicks lighted. The chimneys, by reason of the broad base resulting from their union, rest securely upon their seat, and the chimneys are made to fit the said cones so nicely that no leakage of air occurs at the points where the chimneys are cut away. A thumb-lever, F, extends through a slot in the drum B, on the edge of which it is fulcrumed, and is provided on the inner end with a hole or socket that embraces the lug *f*, attached to the frame *e'*. By pressing on the outer end of the lever or thumb-piece the chimneys are tilted back, so that the wicks may be lighted, as shown in Fig. 2.

From the foregoing it will be seen that the construction and arrangement of the chimneys is such that they are solidly held in position and are safe and easy to operate. A door, B^2, in the front part of the drum gives access to this part of the drum, and as the said door is provided with a window of isinglass the flame may be seen from the front of the stove.

G is the grate or skeleton frame secured to the top of the device, and upon which vessels or other articles that are to be heated are placed. The grate is provided on top with small lugs *g*, that slightly elevate articles with flat bottoms from the face of the grate. On opposite sides of the grate are legs *g'*, that rest upon the top of the drum, while midway between these legs on either side the grate are the ears H and H', that extend upward from the drum. These ears have inward projections that extend toward each other and are adapted to project or rest under the outer rings or edge of the grate where the grate is provided with the webs I and I', that are depressed below the other parts of the grate, so that when the rim of the grate rests on top of the said ears the said webs pass under the said inward projection of these ears. The web I has a small boss, *i*, that engages the concaved under side of the projecting part of the ear H. The inwardly-projecting arm of the ear H' has a pendent rib, *h*, that engages the transverse groove *j* in the cam-lever J. (Shown also in Fig. 5.) The web I' is provided with the ribs *i'*, between which the end of the cam-lever is inserted, and when the lever is pressed down in the position shown in Fig. 4 the grate is locked firmly in its place. It will be observed that as the cam-lever draws the adjacent part of the rim of the grate down onto the ear H' the legs *g'* act as fulcrums, so that the opposite side of grate is raised, pressing the boss *i* firmly into its seat under the arm of the ear H. No screw-driver, wrench, or other tool is required to attach or detach the grate, and either operation requires but a moment of time.

The oil-pan is provided preferably at a point between the drums with the orifice O, through which oil is poured into the container. This orifice is encircled with a rib, P, extending upward and located some distance outside the orifice and inside of the rib. The surface of said pan slopes toward the orifice from all directions, forming an apron to catch the drip from the oil-can that usually accompanies the filling of the container with oil.

R (see Fig. 1) is a cover for the filling-orifice. This cover (which is also a name-plate on which the name of the consignee can be molded or engraved) is made detachable, so that after the stoves are manufactured and stored ready for shipment, these covers may be prepared in such numbers as are required for each consignment of stoves, and marked with the consignee's name, or such other letters, figures, or characters as the local trade may require at the places wherein the goods are to be put upon the market. The orifice O is surrounded inside of the container with a wall of perforated metal plate or gauze, S. This wall or partition branches off in different directions through the container, and when the stove is moved breaks the momentum of the fluid and prevents it from slopping through the orifice O; also, the plates S around the orifice act as strainers.

What I claim is—

1. In an oil-stove, the combination, with the base thereof and a drum hinged thereto, and provided with a door, of chimneys located in and resting on the bottom of said drum and a lever connected to the upper portion of said chimney and passing through the front of the drum, whereby the chimneys may be tilted simultaneously independently of the drum, substantially as set forth.

2. The combination, with the drum having laterally-extending ears, of a grate having webs or arms registering with and adapted to extend under the laterally-projecting ears of the drum, and a cam-lever engaging one of said ears and the adjacent web or arm on one side of said grate for locking the parts together.

3. The ears H and H', constructed, as aforesaid, in combination with the grate G, provided with the parts I and I', the former provided with the lug *i*, adapted to engage a seat on the ear H, and the latter provided with the ribs *i'*, forming a seat between them for the cam-lever, and the legs *g'*, operating as fulcrums, so that as the cam-lever presses one side of the grate firmly upon the ear H' the parts I and *i* will be raised to engage the said seat on the ear H, substantially as set forth.

In testimony whereof I sign this specification, in the presence of two witnesses.

HUGH McCONNELL.

Witnesses:
N. S. WRIGHT,
M. B. O'DOGHERTY.