D. W. GOODELL.

OIL AND GAS STOVES.

No. 190,308. Patented May 1, 1877.

Fig. 1.

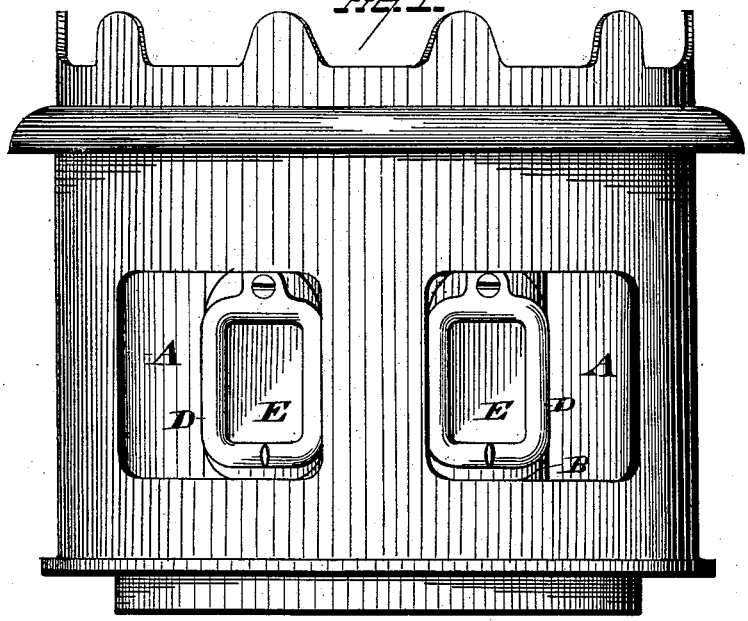


Fig. 2.

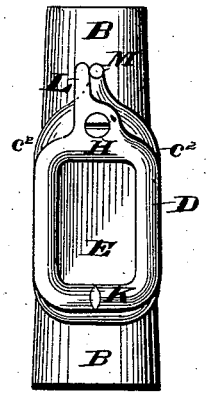
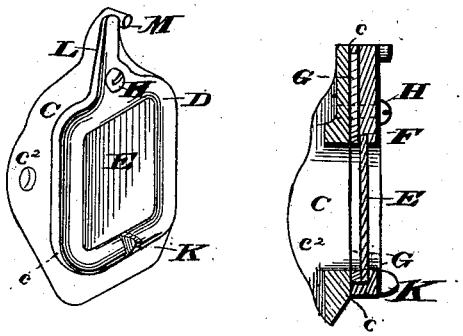


Fig. 3.



WITNESSES.

Ed. D. Nottingham,

A. M. Bright.

INVENTOR

Dexter W. Goodell,

By D. Eggett and Seggett,

ATTORNEYS

UNITED STATES PATENT OFFICE.

DEXTER W. GOODELL, OF FLORENCE, MASSACHUSETTS, ASSIGNOR TO FLORENCE MACHINE COMPANY, OF SAME PLACE.

IMPROVEMENT IN OIL AND GAS STOVES.

Specification forming part of Letters Patent No. **190,308**, dated May 1, 1877; application filed April 4, 1877.

To all whom it may concern:

Be it known that I, DEXTER W. GOODELL, of Florence, in the county of Hampshire and State of Massachusetts, have invented certain new and useful Improvements in Oil and Gas 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 it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to improvements in oil or gas stoves, and is designed to afford means for ready and direct access to the interior of a chimney when the latter is inclosed by a drum, and which, together with the drum, prior to my invention had to be removed in order to light the wick, trim it, or for any other reason gain access to the interior of the chimney.

It consists in constructing the chimneys with openings provided with doors or windows having mica lights, which are opposite to, and correspond with, respective openings made in the wall of the drum, so that through these latter drum-openings the chimney doors or windows may be directly operated, and upon adjusting the latter the chimneys are correspondingly opened or closed.

The frames secured to the chimneys, and upon which the doors or windows have their support or bearing, are made in single pieces, preferably of cast-iron, and of interior side shape to correspond with any-shaped chimney, whether straight or tapering, while their outer front face presents a straight-sided and plane surface bearing, upon or over which the door or window may freely move.

The improvement is especially adapted to cooking-drums, and the drawing shows such a drum, constructed as is usual in such case; but the invention is not thereby limited, as it can be as well used upon a heating-drum in an oil or gas stove.

Referring to the drawings, Figure 1 represents a cooking-drum detached from a stove. Fig. 2 is a detail view of one of the chimneys, while Fig. 3 shows the window or door alone in perspective and also in vertical central section.

The drum may be of any style corresponding to the oil-stove to which it is to be applied, and it, together with its connecting parts, may be immaterially formed as regards the application of my improvement thereto. Apertures or openings A are made in the side of the drum corresponding in number to the chimneys B, and placed opposite to the doors or windows in the latter.

Metallic frames C, preferably of cast-iron, are secured to the chimneys, which, while being adapted on their inner side to any form of chimney, present on their outer side the smooth plane surfaces *c*, suitable as bearing-faces, upon or over which the doors or windows may slide or swing. The drawing shows the chimneys as tapering from bottom to top, and the frames C fit correspondingly over their tapering sides, while the outer or bearing faces *c* have straight sides, and present constant even bearing-surfaces, upon which the doors or windows have free adjustment.

The supporting-frames C are cast with the extended flanges c^2 on either vertical side of the same, which are shaped to correspond with the special form of any chimney to which they may be secured, and through which rivets or other suitable engaging means pass, and rigidly connect the frames to the chimneys. The doors or windows D are formed with sheets of mica E, seating in rabbets or flanged recesses F, formed in their rear body, the said mica sheets being thus kept from displacement in a plane parallel to the windows or doors, while guard-plates G lock them against angular displacement. These guard-plates correspond in dimension to the recesses in the rear bodies, and when seated in the same over the mica sheets serve to bind the latter securely in position.

A screw or other pivotal pin, H, connects the door or window to its respective chimney, and at the same time clamps the guard-plate tightly against the mica light. This pivotal engaging-pin passes through a slot in the upper extremity of the door or window D, and also through a registering-slot in the upper

extension *g* of the guard-plate G, which latter is constructed with this object in view. The pivot then engages, by screw or other suitable connecting mechanism, with the supporting-frame C, and, as the door or window is brought closely up against the latter, the guard-plate is necessarily bound between the two tightly, and so as to securely clamp the mica sheet in its rabbeted seat.

A projecting knob, K, is formed on the lower extremity of the pivoted door or window, so that the latter may be readily turned aside; while I may also, if desired, though not necessarily, cast a stud or finger, L, upon the opposite end, which, by coming in contact with a right angular stud or projection, M, upon the upper portion of the supporting-frame C, will lock the swinging door or window against movement toward the center of the arm as it is swung one side from its vertical line.

Thus the door or window must be swung outward or away from the center of the drum, when it is moved to admit of attention to the wick, or otherwise, to gain access to the interior of the chimney; and the openings in the drum are made of such size, relative to that of the doors or windows, that the latter may pass freely through these openings as they are swung outwardly open.

While I have described and shown the doors or windows as swinging on pivotal centers, I desire to be understood that they may instead thereof be vertically adjustable in slides formed on either side of the frames C; or they may, on the other hand, be hinged to one side of the latter, as by any ordinary swinging hinge, and thus have movement in a horizontal plane instead of a vertical plane, as in both of the former instances.

It is evident that the plane straight outer faces of the frames C will readily admit of any one of these particular forms or constructions of doors or movable windows having bearing thereon, notwithstanding the peculiar formation or tapering contour of any style of chimney to which they may be secured.

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

1. The combination, with a drum provided with a free side opening, of a chimney having a door or movable window opposite the said opening, substantially as described.

2. The combination, with one or more chimneys inclosed by a drum, having free openings in its wall, of doors or movable windows, provided with mica lights, and corresponding to the said openings, substantially as described.

3. The combination, with a chimney provided with a swinging door or window, of a drum having a corresponding side opening, the same constructed as described, whereby the said door or window swings out through the side opening beyond the circular plane of the drum, substantially as described.

4. The combination, with the swinging door or window-frame, provided with a mica light, of the independent guard-plate and loose pivotal engaging device, substantially as described.

5. The combination, with the door or window, provided with a locking-finger, of a supporting-frame made with the finger-engaging stud, substantially as described.

6. The combination, with the door or window provided with a mica light, of the loose guard-plate, made with the upper slotted extension, and the clamping screw or pin passing through the latter, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand this 30th day of March, 1877.

DEXTER W. GOODELL.

Witnesses:

OLIVER EDWARDS,

CHARLES E. GOULD.