(No Model.)

2 Sheets—Sheet 1.

H. McCONNELL.

LAMP STOVE.

No. 347,187. Patented Aug. 10, 1886.

Fig. 1.

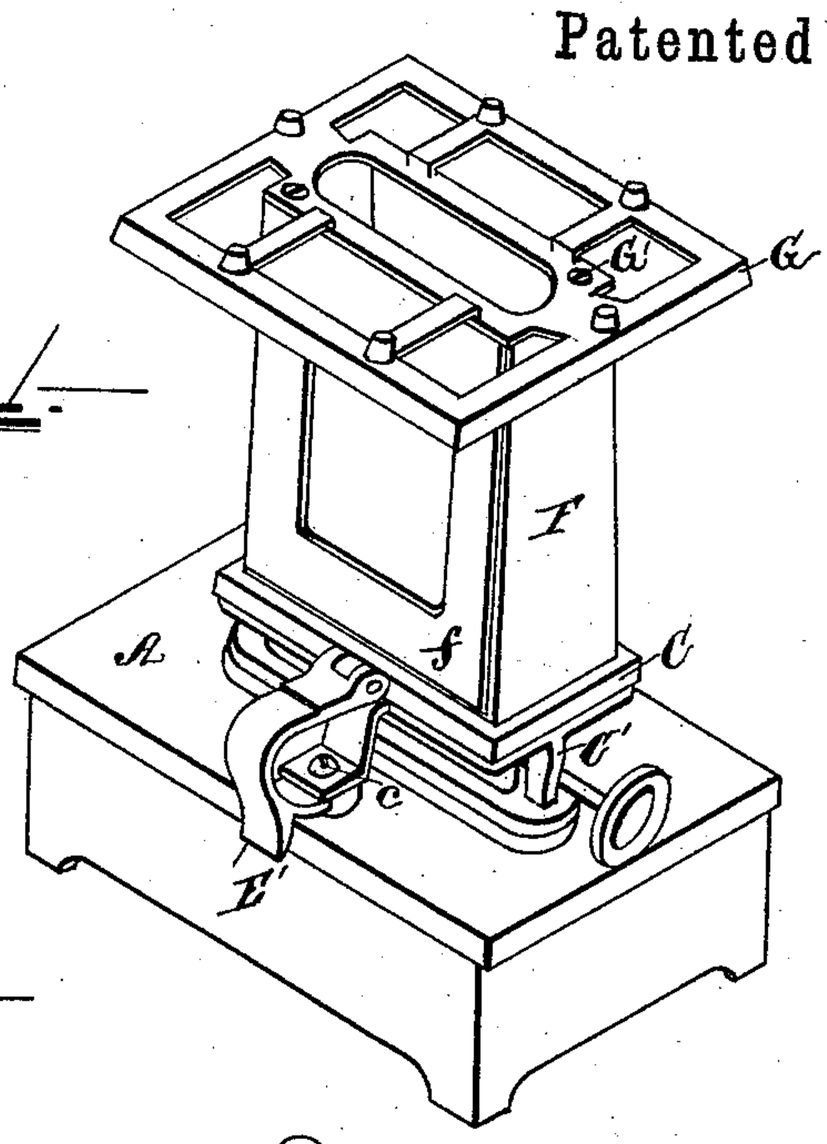


Fig. 2.

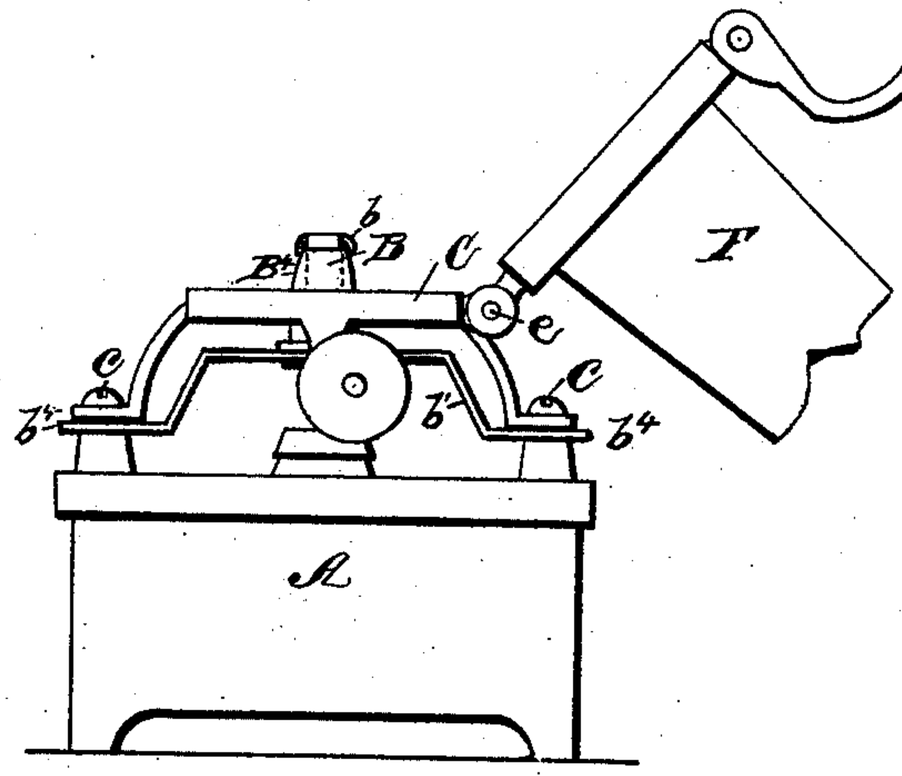


Fig. 3.

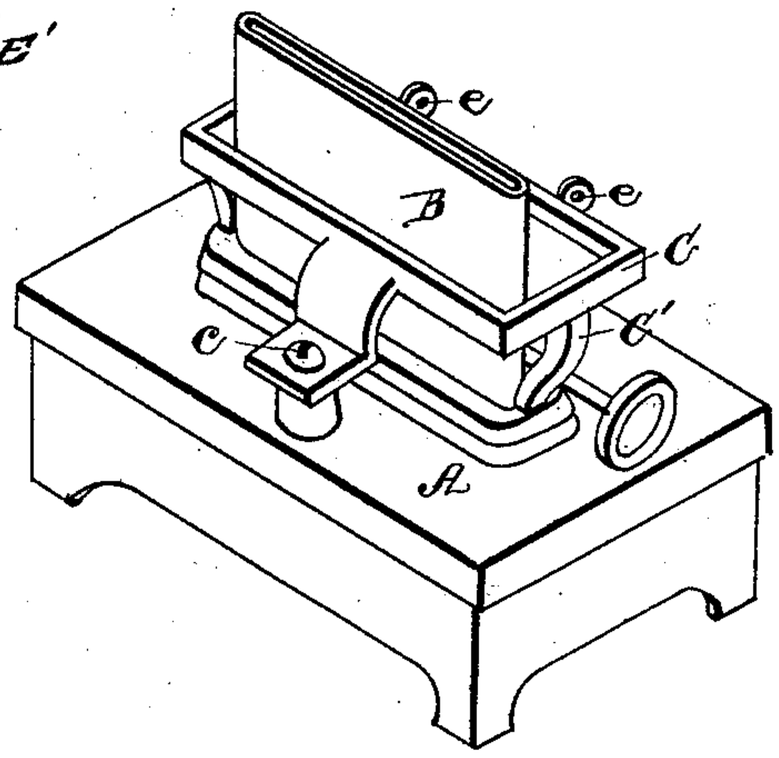
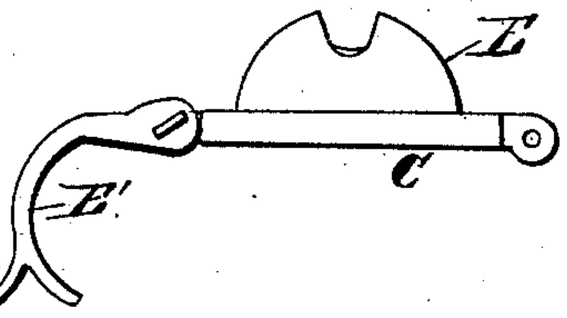


Fig. 4.



WITNESSES

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(No Model.)

2 Sheets—Sheet 2.

H. McCONNELL.

LAMP STOVE.

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Fig. 5

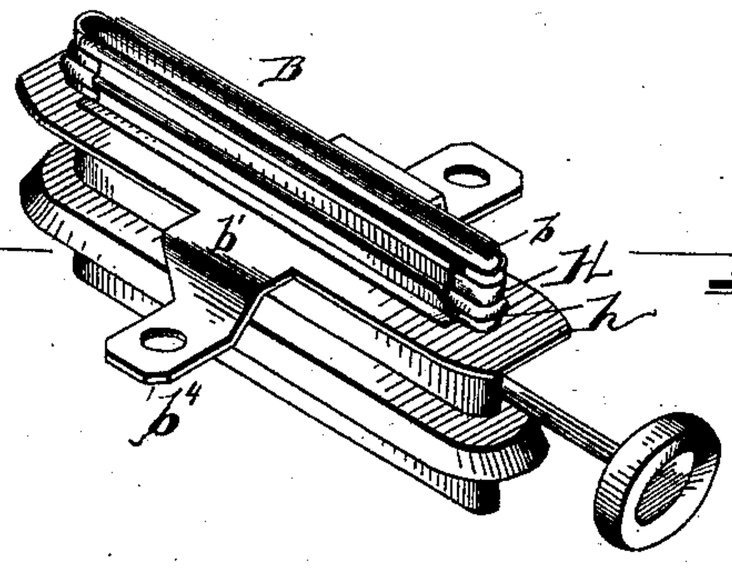


Fig. E

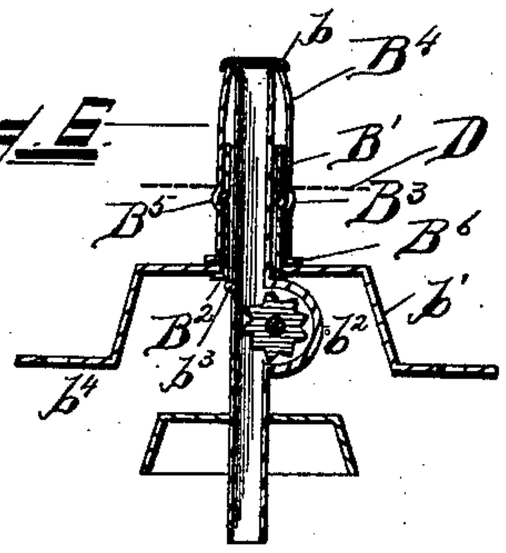


Fig. I

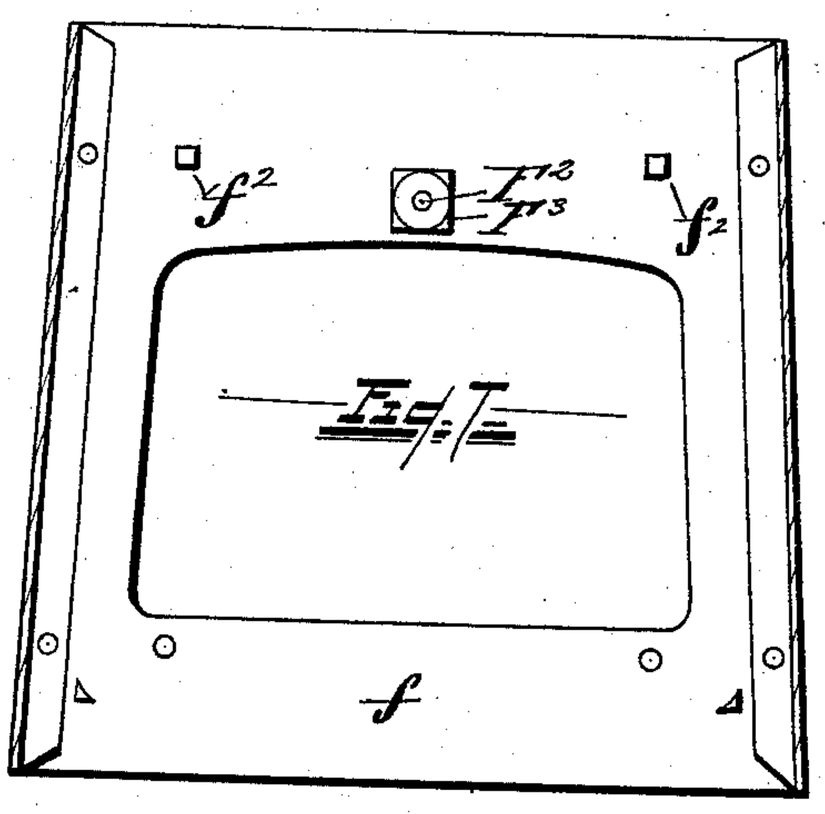


Fig. B

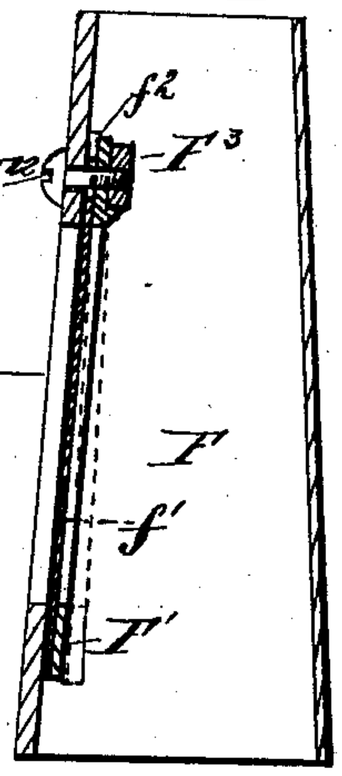
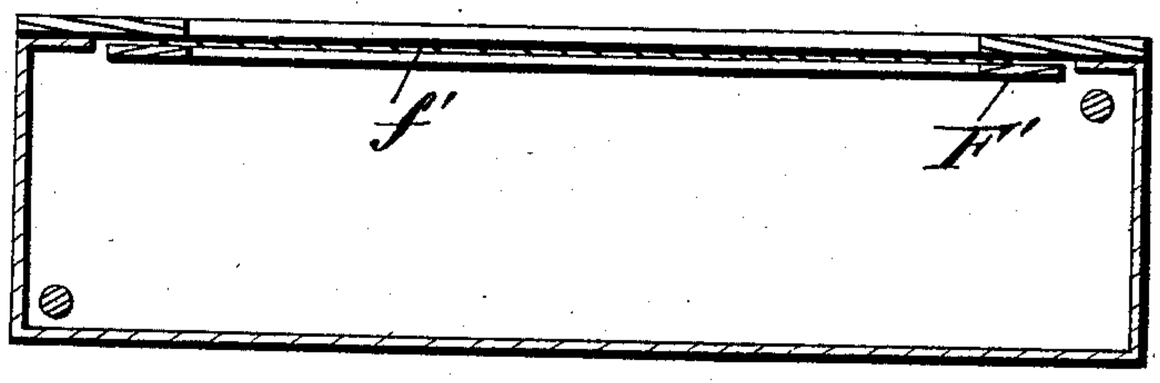


Fig. G



WITNESSES

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UNITED STATES PATENT OFFICE.

HUGH McCONNELL, OF CLEVELAND, OHIO.

LAMP-STOVE.

SPECIFICATION forming part of Letters Patent No. 347,187, dated August 10, 1886.

Application filed June 7, 1884. Serial No. 134,212. (No model.)

To all whom it may concern:

Be it known that I, HUGH MCCONNELL, of Cleveland, county of Cuyahoga, State of Ohio, have invented a new and useful Improvement in Lamp-Stoves; and I declare the following to be a full, clear, and exact description of the same, 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 a part of this specification.

My invention consists of the combinations of devices and appliances hereinafter specified, and more particularly pointed out in the claims.

In the drawings, Figure 1 is a perspective view of a lamp-stove embodying my invention. Fig. 2 is an end elevation of a lamp-stove with chimney thrown back to give access to the wick. Fig. 3 is a perspective view of the stove with the cone, chimney, and top plate removed, an ordinary wick-tube being shown in lieu of my improved wick-tube, but with a frame adapted to hold either form of wick-tube to its seat. Fig. 4 is a separate view of the cone with the chimney removed and with its locking mechanism attached. Fig. 5 is a separate view of my improved wick-tube in perspective. Fig. 6 is a sectional view of the same. Fig. 7 illustrates the parts which engage the mica on the interior of the chimney. Fig. 8 illustrates how the mica is held in place with a single screw and nut, the dotted lines indicating the position of the back frame before the screw is tightened up. Fig. 9 is a cross-section through the chimney, illustrating the location of the bolts which fasten the top, the chimney, and the cone together.

My invention has for its object the construction of a lamp-stove which shall serve at once the double purpose of a lamp for illumination, and a stove for the usual purpose of heating and cooking.

My invention has also for its object the simplifying of the general construction and the strengthening of the parts, and mechanism whereby the wick-tube may be held in place without soldering, or the employment of screws, as has been customary heretofore.

My invention also has for its object the production of a wick-tube with mechanism for holding itself firmly to its seat, and for materially strengthening and stiffening its walls.

In carrying out my invention, A is any usual oil-reservoir. B is a wick-tube. C is a metallic frame engaged by screws *c* or otherwise to the reservoir A, and having prongs C′, which project down against and thereby hold the wick-tube firmly upon its seat on the reservoir, and so dispensing with the necessity of soldering the wick-tube to the reservoir, or fastening it thereto by screws or rivets. In practice I propose to use cement beneath the wick-tube where it seats upon the reservoir, and then depend upon the plate C to assist in holding it in place. This part of my invention is applicable to any ordinary form of wick-tube, and I have shown its application to such ordinary form in Fig. 3 of the drawings. It is my purpose, however, to employ a wick-tube of peculiar construction, which I will now proceed to describe. The tube B, Fig. 5, has its upper edge turned over at *b*. *b′* is a plate, preferably of tin or sheet metal, with an opening which permits it to pass down over the end of the tube B, resting at one side upon the ratchet-housing b^2, and at the other side upon a bead, b^3. This plate is provided with ears b^4, which project out and engage the binding-screws *c* beneath the attaching-arms of the frame C.

B′ represents two plates having flanges B^2 at their lower edges, and beads B^3 near their upper edges.

B^4 represents a plate, there being one upon each side of the wick-tube, as shown. These plates are creased or beaded at B^5, so as to engage the beads near the top of the plates B′. They are also preferably provided with outstanding flanges B^6 at the bottom, which rest squarely upon the plate *b′*. It is thus seen that the plate *b′* is firmly secured to the wick-tube by the plates B^4, which are made to slide in endwise, engaging beneath the edges *b* at the top of the tube and over the beads B^3, near the top of the plates B′, so that the wick-tube is very materially strengthened and stiffened throughout against any tendency to press its faces together upon the wick, and the ears b^4 serve to hold the wick-tube firmly down upon its seat. These ears b^4 alone may be employed for this purpose, although I prefer generally

to employ the frame C with its prongs C′ to operate in connection with the said ears. After the wick-tube B and its plate *b′* have been placed in position, the frame C, with attached cone E, and chimney F are placed over the wick-tube, and the plate *b′* and frame C are secured in position by means of the screws *c*, said screws being passed through the ears b^4 and through the attaching-arms of the frame.

D is a perforated plate adapted to slide down over the wick-tube, resting at its edges within the frame C, and at its middle supported by the beads B^5. This perforated plate is designed to serve the usual purpose of admitting and distributing the air that comes in at the base of the chimney, and also serves the purpose, upon the Sir Humphrey Davy principle, of preventing fire from passing down below the base of the cone.

E is the cone; F, the chimney; G, the top plate, which supports a cooking utensil or other object to be heated.

G′ represents bolts which pass down inside of the chimney close to the corners, so as not to interrupt the draft and engage the cone beneath, thereby binding the cone, the chimney, and the top plate together. The cone E is hinged at *c* to the frame C.

E′ is a gravity-latch which engages beneath the frame C, thereby holding the chimney and top plate against any liability of being accidentally tipped over, this gravity-latch E′ also serving the purpose of a handle for lifting or carrying the stove. The chimney F, I prefer to make of Russia iron, except the face-plate *f*, which I prefer to make of cast metal riveted to the latter.

F′ is a frame located on the inside of the chimney, for holding the mica plate *f′* in place. Heretofore it has required considerable labor to renew a mica plate, and has been a source of considerable annoyance. I accomplish the clamping of the mica plate with a single screw. F^2 represents this screw, and F^3 a nut.

f^2 represents slight projections on the back of the face-plate, against which the frame F′ rests.

It is apparent upon inspection that when the screw is loosened a sheet of mica can be slipped into place, and that when the screw is tightened the frame F′ is tilted down around these small projections f^2, and so clamps the mica firmly in place.

The foregoing construction makes a lamp-stove of very simple and elegant design. The clamp-rods are all housed within the chimney, so as to present a smooth exterior. Solder, which is a source of great annoyance by reason of the heat of the adjacent part of the lamp, is practically dispensed with, and the parts are so constructed and united that the device can be readily taken apart for cleaning, or for the renewal of any portion needing repairs.

H is a clamp which may be employed for holding the ends of the plates B^1 against the wick-tube; and I prefer to provide it with a bead, *h*, as shown.

What I claim is—

1. The combination, with an oil-stove having a wick-tube provided with overturned edges *b* at the top, of an encircling-plate, *b′*, having ears for binding the wick-tube to its seat, the plates B′, and sliding plates B^1, substantially as described.

2. The combination, with a wick-tube having overturned edges *b*, of the encircling-plate *b′*, plates B′, having flanges at the base and beads near the top, and the beaded plates B^1, substantially as described.

3. The combination of the chimney F, having a face-plate, *f*, provided on its inner side with projections f^2, the frame F′, having its upper portion resting against said projections, the mica plate *f′*, located between said face-plate and frame, a single binding-screw, F^2, passed through the central upper portion of the face-plate and frame, and a nut, F^3, for securing said parts, whereby the tightening of the nut will cause the frame F′ to tilt on the projections f^2 and clamp the mica plate in place, substantially as described.

4. The combination, with the wick-tube B, plates B′ B^1, and encircling-plate *b′*, of the clamps H, substantially as described.

5. The combination of the wick-tube B, the encircling-plate *b′*, having ears b^4, the frame C, having ears or attaching-arms, and the screws *c*, passed through the ears of said plate and frame, substantially as described.

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

HUGH McCONNELL.

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