

C. HYDE.  
Stove.

No. 164,303.

Patented June 8, 1875.

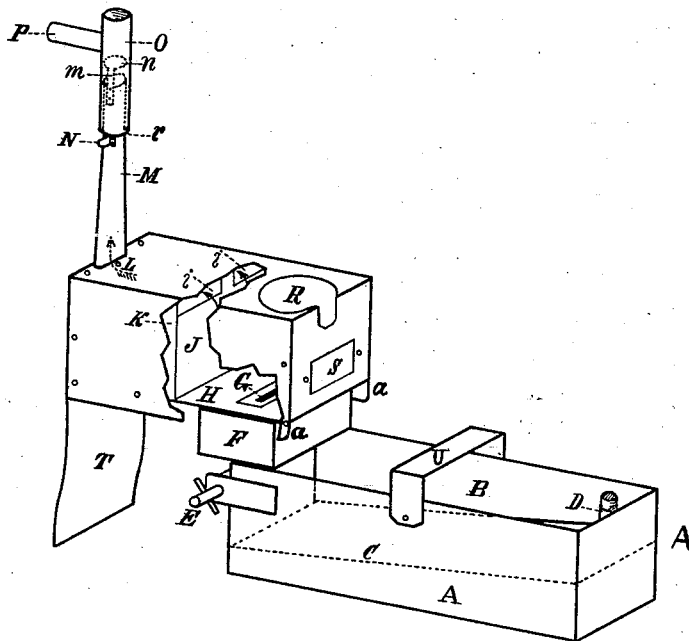


Fig. 1.

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# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN STOVES.

Specification forming part of Letters Patent No. 164,303, dated June 8, 1875; application filed March 27, 1875.

*To all whom it may concern:*

Be it known that I, CHARLES HYDE, of Chelmsford, in the county of Middlesex, State of Massachusetts, have invented a certain new and useful Improvement in Stoves, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which my invention appertains to make and use the same, reference being had to the accompanying drawing, forming a part of this specification, in which—

Figure 1 is an isometrical perspective view.

My invention relates to that class of stoves which are designed for burning kerosene or the hydrocarbon oils; and consists in a novel construction and arrangement of the parts, as hereinafter more fully set forth and claimed, by which a very simple, cheap, and effective device of this description is produced.

In the drawing, A' represents the tank or reservoir, which is divided into two sections by the lateral partition C, the lower section A containing the oil, and the upper section B a non-conductor of heat, such as plaster-of-paris, or some similar substance. A wick-tube, provided with the ordinary wick-wheel E, is disposed at one end of the tank, a tube, D, being arranged at the opposite end, through which the oil is passed to the section A. Around the wick-tube there is an oblong box, F, open at the bottom, and provided interiorly with a foraminous diaphragm and an elongated cone, (both not shown,) common to hydrocarbon-lamps, and through which diaphragm the tube projects upwardly, as at G. The stove L rests at one end upon the leg T, and is divided vertically, by the lateral partition J, into the oven K and receiving-chamber H, into the last of which the flame extends through an opening in the bottom of the same. The sides of the stove project slightly below the bottom, as shown at *a a*, forming a way or runlet, in which the box F slides when all the parts are in the position shown. Leading from the chamber H are two flues, *i i*, connecting with the funnel M, and over the funnel is placed the cap O, closed at its upper end, and provided with the hollow arm P. This cap, which is larger than the funnel, rests upon the step N, leaving an annular flue or air-passage between the cap and funnel, as shown at *r*. A fixed damper or guard, *n*, is at-

tached to the top of the funnel M by the vertical arm *m*. This damper, which is composed of thin sheet metal, conforms in shape to the opening in the funnel M, and is arranged horizontally a short distance above said opening, and within the cap O.

The box F is constructed with sides extending above the cone, and is so pivoted or balanced on the top of the tank A' that when the stove L is passed over it the stove and box will readily adjust themselves to each other in such a manner as to form a perfect joint, and prevent the passage of air between the top of the box and bottom of the stove.

It is well known that in ordinary stoves of this character much trouble is experienced by return flaws or currents of air extinguishing the lamp or causing it to smoke badly.

My invention is designed to obviate this difficulty; and to that end I make use of the cap O and damper *n*, which operate as follows: The arm P is inserted in the chimney, and receives the return current of air, which, in its passage downward, strikes the damper *n*, being thus prevented from entering the funnel M, and caused to pass out between the funnel and cap through the space *r*.

The tank A' is provided with the bale or handle U, and the stove with the glazed opening S, and with an aperture covered by the griddle R.

It will be obvious that the cap O and damper *n* are well adapted to prevent ordinary lamps burning the hydrocarbon oils from being extinguished or from smoking, the chimneys of such lamps being readily constructed so as to have the same attached. It will also be obvious that the arm P may be dispensed with, and a draft-opening made directly in the top of the cap with the same effect, if preferred.

Having thus explained my invention, what I claim is—

In a stove substantially such as described, the box F, in combination with the tank A', tube G, body L, and funnel M, provided with the cap O, substantially as and for the purpose specified.

CHARLES HYDE. [L. s.]

Witnesses:

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