

(No Model.)

S. D. STRONG.
OIL STOVE.

No. 474,874.

Patented May 17, 1892.

Fig. 1.

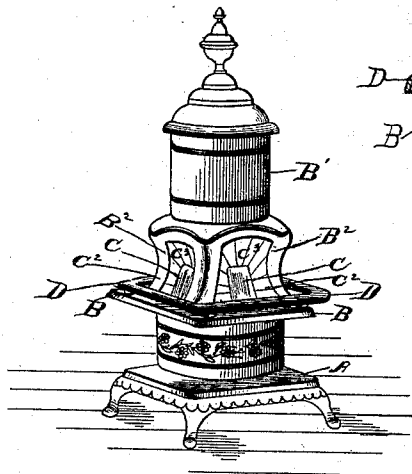


Fig. 2.

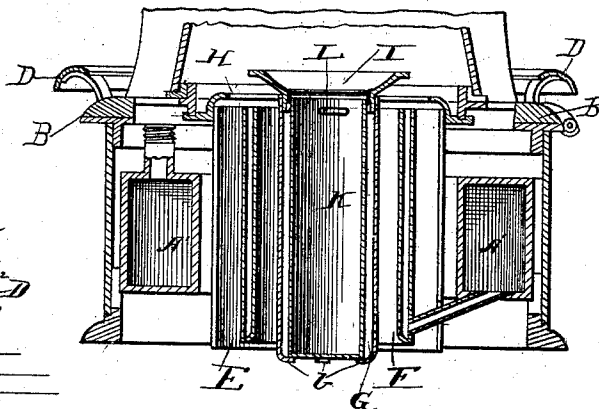


Fig. 3.

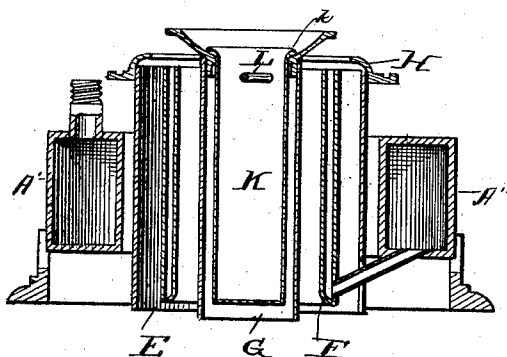
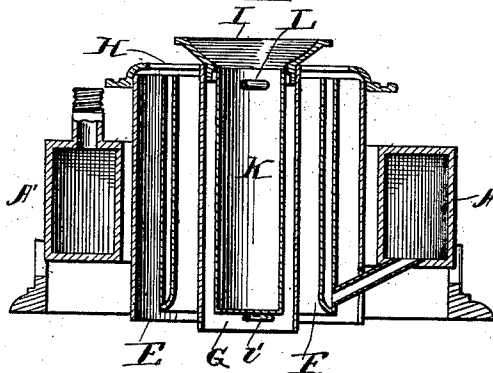


Fig. 4.



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SAMUEL D. STRONG, OF CHELSEA, MICHIGAN.

OIL-STOVE.

SPECIFICATION forming part of Letters Patent No. 474,874, dated May 17, 1892.

Application filed December 1, 1891. Serial No. 413,727. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL D. STRONG, of Chelsea, in the county of Washtenaw and State of Michigan, 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 same, reference being had to the accompanying drawings, forming a part of this specification, and to the letters of reference marked thereon.

The present improvement relates to oil-stoves, and particularly to the parts immediately connected or used in connection with the burner; and the invention consists in certain novel details of construction and combinations and arrangements of parts, all as will be hereinafter described, and pointed out particularly in the appended claims.

In the accompanying drawings, Figure 1 is a small perspective of a stove embodying my present invention. Fig. 2 is an enlarged detail section of the burner and water-reservoir and adjacent parts. Fig. 3 is a similar view of a modified arrangement. Fig. 4 is a similar view of another arrangement.

Like letters of reference in the several figures indicate the same parts.

The invention is shown in connection with a well-known variety of oil-stove now on the market and will at once be recognized by those skilled in the art. Hence there is no need of describing the same in detail further than to say that A is the base-section, containing the fuel-reservoir A' and burner, with its connected parts, as will be presently described.

B is the top portion, having four corner flues B², leading up at the sides of the combustion-chamber and opening into the dome B'.

C C are the transparent sections or windows opposite the combustion-chamber. The four flues before mentioned form the sides of the windows or transparent portions, and their surfaces are formed into reflecting-surfaces C², flaring away from the windows, which surfaces merge into similar reflecting-surfaces C³ on the top section above the windows, the effect of which is to diffuse the light from the windows, preventing the formation of deep shadows by the flues, as might otherwise be the case. The top section is hinged to the bottom section and around its base is provided

with a rail D, which, besides giving the stove a highly-ornamental appearance, serves as a cold hand-hold to tilt the upper section back for the inspection of the burner, &c. Such rail itself does not become highly heated, because of the relatively small metallic connections with the stove-body, as will be readily understood.

Returning now to the base-section, it will be seen that the fuel-reservoir or oil-tank is of annular form, and within it is supported by connecting-lugs or otherwise a cylinder E, upon the upper end of which is mounted the annular outside deflector H for the flame. This cylinder in turn supports the wick-tube F, having the usual double walls and a pipe or tubular connection with the oil-reservoir at the bottom, together with the necessary accessories for raising and lowering the contained wick.

Within the wick-tube and supported therefrom, as just mentioned, with relation to the tube E or in any other suitable manner is a third tube or cylinder G, open at top and bottom.

Between and around all of the tubes mentioned are formed air-passages, through which air for maintaining the combustion is supplied, that coming up outside of the wick-tube serving to supply the air to the outside of the flame, being controlled and properly directed against the flame by the annular outside deflector H, before mentioned, and that coming up inside of the tube supplies the inside of the flame, being controlled and directed against the flame by the annular inside deflector I. This last-mentioned deflector is mounted on the upper end of the open bottom cylinder G above the wick-tube and deflector H, the flame being adapted to pass around over its edge.

Instead of forming the deflector solid way across or with a relatively small opening therein, as heretofore, it has practically no center or is annular in form, the central aperture being of substantially the size or slightly smaller than the cylinder upon which the deflector is supported, and within the central opening so formed is suspended a water-reservoir, preferably removable, whereby it may be removed and filled to prevent any possi-

bility of the water accidentally dropping on the wick, the result of which would be disadvantageous.

The water-reservoir is lettered K, and in Fig. 3 it is hung directly on the deflector itself, for which purpose it has its upper end flanged out or a projection or rim k formed thereon, which rests on the inner edge of the deflector. In the remaining figures the water-reservoir is not connected with the deflector at all, but is carried on supports from the cylinder G. In Fig. 2 it is shown supported on lugs or flanges l , turned in from the bottom of the cylinder, and in Fig. 4 its support is shown as a cross-bar l' , and this form, it will be seen, permits the air to circulate up around the reservoir and out through the annular inside deflector, serving in a measure to increase the evaporation of the water, and in this respect being perhaps somewhat the preferable form.

A cross wire or handle—such as L—may be provided for lifting the water-reservoir, although this is not an absolute essential.

The arrangement of the inside deflector and water-reservoir is at once simple and effective, the construction being cheaper than that heretofore employed and more convenient and efficient, first, because the water-reservoir may be removed for filling and cleaning, and, secondly, because the relation of the central deflector to the wick-tube always remains the same, no necessity existing for its removal for filling the water reservoir.

Having thus described my invention, what I claim as new is—

1. In an oil-stove, the combination, with the

oil-reservoir, wick-tube, cylinder within said tube, and inside annular deflector supported on the upper end of the cylinder, of the water-reservoir held within the cylinder, substantially as described.

2. In an oil-stove, the combination, with the oil-reservoir, wick-tube, and annular inside deflector held within the circle of the wick-tube, of the water-reservoir located below and removable through the central opening in the deflector, substantially as described.

3. In an oil-stove, the combination, with the oil-reservoir, wick-tube, and cylinders on both the outside and inside of said tube, of the annular outside and annular inside deflectors supported, respectively, on said cylinders, and the water-reservoir located below and removable through the opening in the inside deflector, substantially as described.

4. In an oil-stove, the combination, with the oil-reservoir, wick-tube, cylinder within the wick-tube, and annular inside deflector supported on said cylinder, of the removable water-reservoir in the cylinder removable through the central opening in the deflector, substantially as described.

5. In an oil-stove, the combination, with the oil-reservoir, wick-tube, and annular inside deflector, of the water-reservoir having a projection at the top co-operating with the inner edge of the deflector, whereby the water-reservoir is supported, substantially as described.

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