

I. L. MITCHELL.
OIL BURNER ATTACHMENT FOR STOVES.
APPLICATION FILED OCT. 17, 1911.

1,018,257.

Patented Feb. 20, 1912.

2 SHEETS—SHEET 1.

Fig. 1.

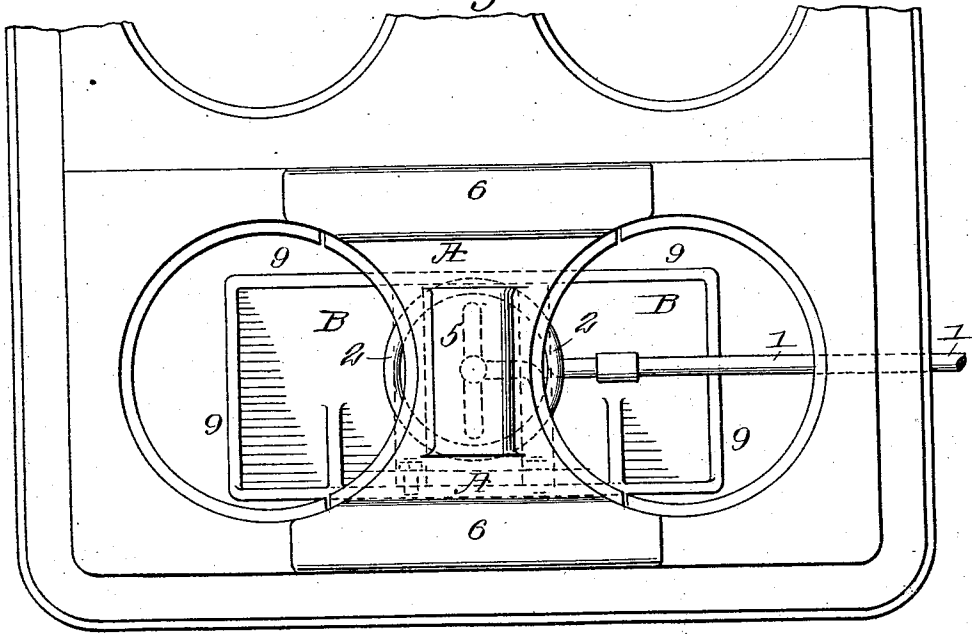


Fig. 2.

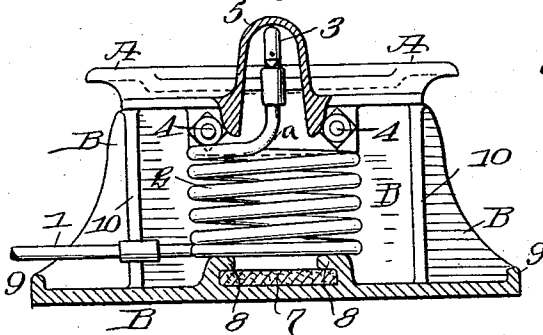


Fig. 3.

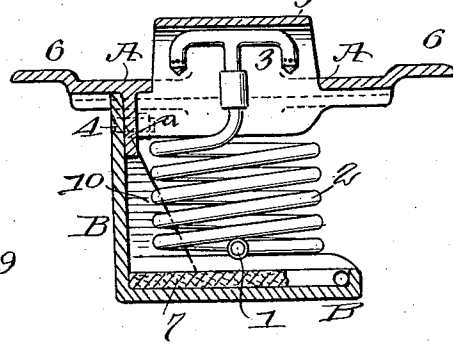
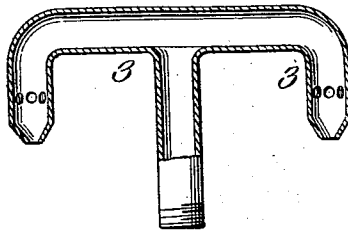


Fig. 4.



WITNESSES
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2 SHEETS—SHEET 2.

Fig. 5.

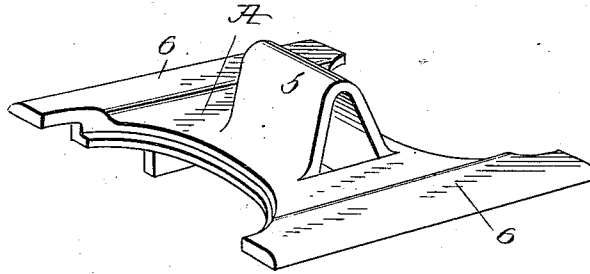
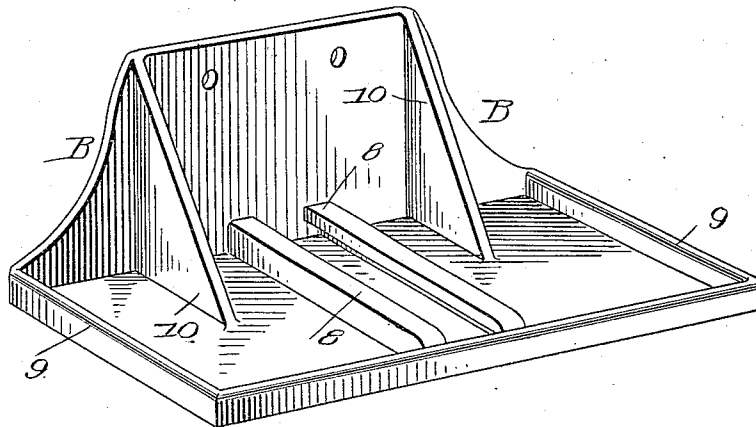


Fig. 6.



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ISAAC L. MITCHELL, OF CEDAR RAPIDS, IOWA.

OIL-BURNER ATTACHMENT FOR STOVES.

1,018,257.

Specification of Letters Patent.

Patented Feb. 20, 1912.

Application filed October 17, 1911. Serial No. 655,145.

To all whom it may concern:

Be it known that I, ISAAC L. MITCHELL, a citizen of the United States, and a resident of Cedar Rapids, in the county of Linn and State of Iowa, have invented an Improvement in Oil-Burner Attachments for Stoves, of which the following is a specification.

My invention comprises an oil vaporizer and burner and a support therefor which is so constructed that it may be placed in the fire-box of a stove or other heater and supported detachably therein.

The details of construction, arrangement, and operation of the attachment are as hereinafter described, and illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of a portion of a cook-stove with my improved oil-burner attachment arranged and supported therein.

Figs. 2 and 3 are cross sections of the attachment, the same being taken at right angles to each other. Fig. 4 is in the main a sectional view of the T-shaped head of the oil-supply pipe which constitutes the burner proper. Figs. 5 and 6 are perspective views of the two detachable portions of the oil-burner support constituting the attachment proper.

In Figs. 1 and 2, the numeral 1 indicates an oil-supply pipe which is connected with a spiral coil 2 and terminates in a T-shaped head 3 whose pendent, perforated portions are located above the coil.

The coil and T head 3 constitute an oil vaporizer which is arranged in a support A, B, so constructed that it may be placed and used in the fire-box of a cooking-stove or other form of heater. The details of construction of such support are as follows. It is formed of a horizontal top piece or portion A, and a pendent piece or portion B, which is right angular in shape, the said parts being cast separately and detachably connected by screw bolts 4, the same passing through the top edge of the pendent part B and through a pendent flange a of the part A.

As shown in Figs. 1 and 5, the plate A has substantially an H-form in top view, the central portion 5 being narrow and the end portions 6 broadened or extended laterally. The central portion 5 projects above the other part of the device and is open at the ends, as shown in Fig. 3. This portion thereof thus constitutes a sort of hood beneath which the T head 3 is located, and

the open ends permit free access of air laterally to the burner to support combustion, which is a matter of great importance in all vaporizers of this type. In other words, the hood effectively protects the burner without hindering the desired accessibility of air thereto.

The broadened end portions 6 constitute flanges which, in the case of the cook-stove, as shown in Fig. 1, overlies, or lap upon, the edges of the stove openings. The middle side portions of the part A are formed on the arcs of circles which are coincident with, and form part of, a stove-hole adapted to receive kettles, pans, or other forms of cookers.

The coil 2 of the vaporizer rests upon the horizontal or base portion of the part B and directly over an asbestos pad 7 which, as shown in Fig. 2, is held detachably in place by means of hook-shaped flanges 8. The base or part B is oblong and rectangular in shape and provided around its edge with a raised rib or flange 9, which serves to strengthen the part B and serves also as means for preventing overflow of any oil that may drip on the base. The part B is provided with braces 10 of triangular form, which further serve to strengthen the same.

My improved attachment being placed in a cook-stove in the manner shown in Fig. 1, and oil turned on, the same will drip from the burner tips, and, being ignited, the heat is soon sufficient to vaporize the oil in the coil, thus producing a high degree of heat which extends laterally to the cooking utensils that may be placed in the stove-holes.

While the flanges 6 of the part A adapt the attachment for use in cooking-stoves and for support therein, it is apparent that the broad flat base of the part B adapts the attachment for support upon a grate, or the bottom of a stove or other heater.

What I claim is:—

1. The improved oil-burner attachment for stoves, comprising a horizontal top plate A having a central raised hood open at its ends, side flanges adapted to rest upon the stove top, a pendent portion B having a right-angular form, one side of said pendent portion being secured to said top plate and the other side of said pendent portion forming a base, and an oil-vaporizing coil supported on the base of portion B and hav-

ing a T head which projects into the afore-
said hood, substantially as described.

2. An improved oil burner attachment
comprising a horizontal top plate having
5 horizontal side flanges adapted to rest upon
a stove top and a right angular pendent por-
tion, one side of said pendent portion being
secured to said top plate and the other side
of said portion forming a horizontal base,

raised hook-shaped flanges formed on said 10
base, an asbestos wick held in said flanges,
and a vaporizing coil supported on the
flanges above the wick, as described.

ISAAC L. MITCHELL.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."