No. 743,414. PATENTED NOV. 10, 1903.

G. S. ANDERSON & B. F. JEVONS.

OIL BURNER FOR HEATING PURPOSES.

APPLICATION FILED NOV. 22, 1902.

NO MODEL.

Fig. 1.

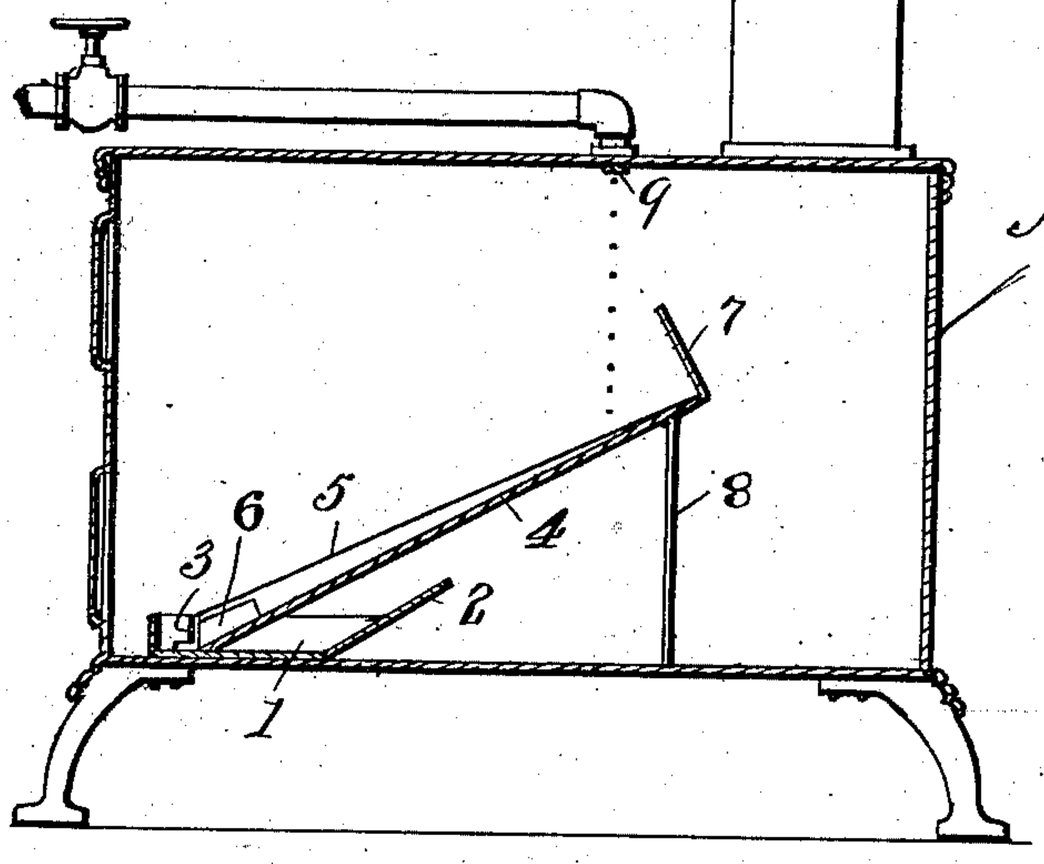


Fig. 2.

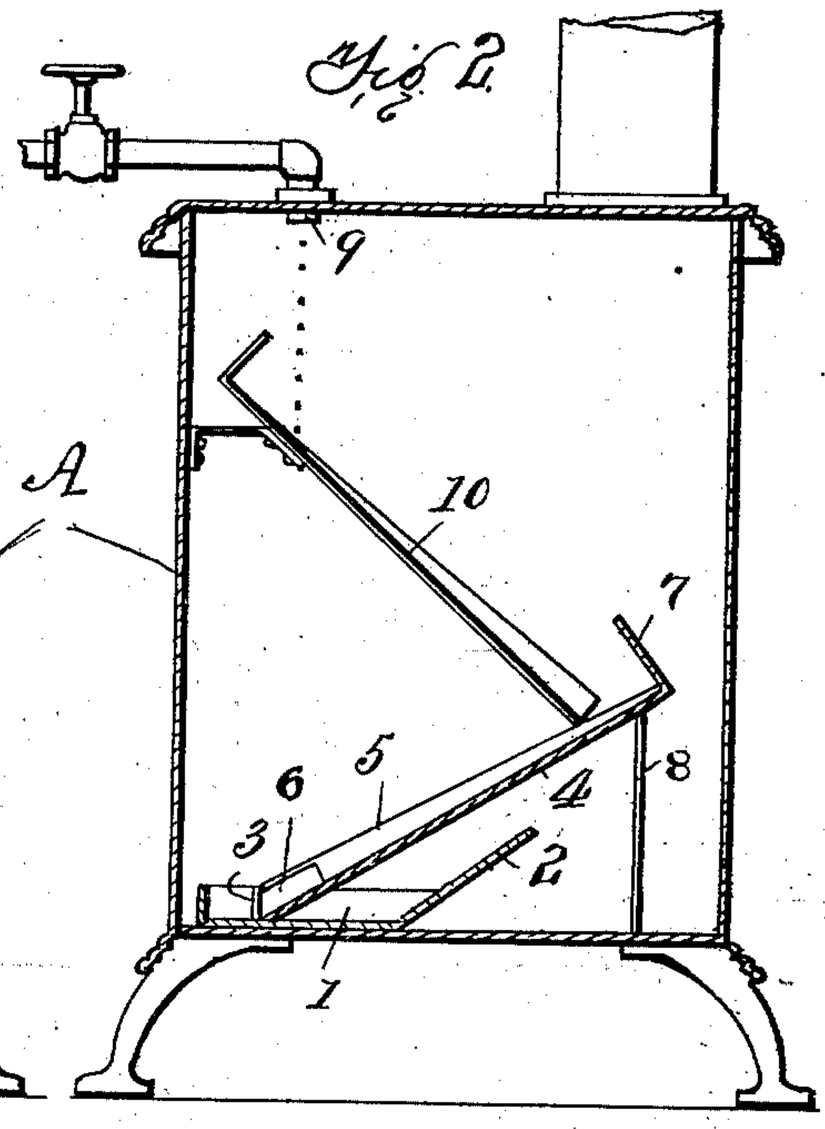


Fig. 3.

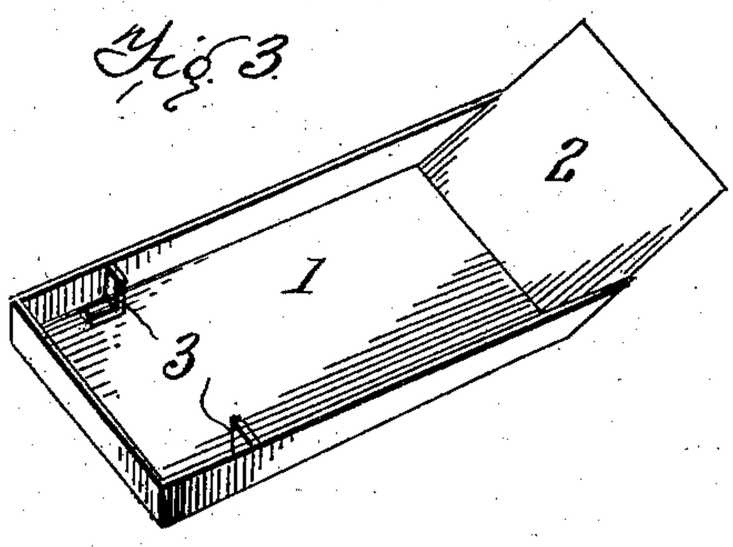
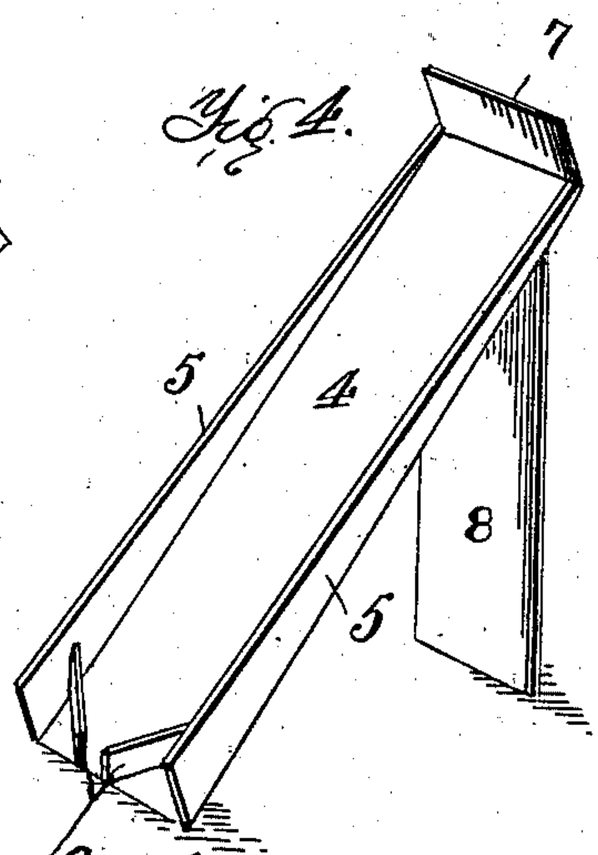


Fig. 4.



Witnesses
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No. 743,414. Patented November 10, 1903.

UNITED STATES PATENT OFFICE.

GEORGE S. ANDERSON AND BENJAMIN F. JEVONS, OF HOUSTON, TEXAS;
SAID ANDERSON ASSIGNOR TO SAID JEVONS.

OIL-BURNER FOR HEATING PURPOSES.

SPECIFICATION forming part of Letters Patent No. 743,414, dated November 10, 1903.

Application filed November 22, 1902. Serial No. 132,383. (No model.)

To all whom it may concern:

Be it known that we, GEORGE S. ANDERSON and BENJAMIN F. JEVONS, citizens of the United States, residing at Houston, in the county of Harris and State of Texas, have invented certain new and useful Improvements in Oil-Burners for Heating Purposes, of which the following is a specification.

Our invention relates to improvements in liquid and gaseous fuel burners; and the object is to provide an improved device of the kind named which is particularly constructed and applicable for burning crude petroleum.

The invention embodies a stove, a fire-pan located therein, a fire-plate associated with the fire-pan, and the means to feed the fuel to the plate and pan, all as will be hereinafter fully specified and the novelty thereof particularly pointed out and distinctly claimed.

We have fully and clearly illustrated the invention in the accompanying drawings, forming a part of this specification, and wherein—

Figure 1 is a central section through a box-stove, showing the invention applied. Fig. 2 is a central vertical section through a cylinder-stove, showing the manner of applying the invention to such a stove. Fig. 3 is a perspective view of the fire-pan. Fig. 4 is a detail view of the fire-plate.

In the drawings similar reference notations appearing in the several illustrations designate the same parts.

Referring to the drawings, A designates the stove, which, as shown, may be either of the box or cylindrical type.

1 designates the fire-pan, made of suitable metal and of such capacity as to fit it for the purposes intended. It is usually made about one inch deep and approximating five inches wide and nine inches long; but these dimensions may be varied to suit the size of the stove. One end of the fire-pan, as at 2, is inclined and extended to the desired distance, generally about two inches above the line of the pan edges, in order that the flames may be deflected and carried upward against the fire-plate and be spread throughout the interior of the stove. In the fire-pan, well to the front end, are placed fixed stops 3, against which the lower end of the fire-plate lodges and is held.

4 designates the fire-plate, consisting of a suitable metal, the same being flat and the sides running parallel to one another and provided with the heads or tapering flanges 5 on its edges to prevent the oil from escaping over the sides, and the lower end of said fire-plate is also formed with vertical converging flanges 6. The lower edge of the fire-plate, as well as the end of the side flanges, come in contact with and rest against the stops in the pan. The function of the tapering portion 6 of the fire-plate is to bring the oil to the center of the pan at the lower end of the fire-plate, where it runs into the pan. At the upper end the plate is formed with or has secured thereto a deflecting-plate 7, arranged vertically at a suitable angle to the main plate, substantially as shown in the drawings. The purpose of the deflecting-plate is to spread the flames to both sides of the stove. The fire-plate is disposed at the proper incline to warrant prompt delivery of oil to the fire-pan. The inclined fire-plate is supported by a bench on standards 8, secured to it and resting on the bottom plate of the stove.

In the shell of the top of the stove is let a small feed-tube 9, through which the crude oil is fed to the fire-plate and running down the plate reaches the fire-pan, where it may be ignited. In the adaptation of the improvements to a vertical cylinder-stove a reversed counterpart fire-plate 10 is arranged to receive the oil and deliver it to the fire-plate 4, as shown in Fig. 2 of the drawings.

Having described our invention, what we

claim, and desire to secure by Letters Patent, is—

A combustion-chamber, a fire-pan therein, an inclined fire-plate having its upper and lower surfaces exposed to the interior of the combustion-chamber, and having its lower end supported in said fire-pan and adapted to discharge thereinto, said fire-pan having an upwardly-inclined rear end arranged to deflect the flame from the pan against the under surface of the fire-plate in combination with means adapted to supply oil to the upper end of said fire-plate.

In testimony whereof we affix our signatures in presence of witnesses.

GEORGE S. ANDERSON.
BENJAMIN F. JEVONS.

Witnesses as to signature of George S. Anderson:

A. J. McMAHON,
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Witnesses as to signature of Benjamin F. Jevons:

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