PATENT SPECIFICATION

Application Date: Jan. 12, 1920. No. 944/20.

154,477

Complete Accepted: Dec. 2, 1920.

COMPLETE SPECIFICATION.

Improvements in Vapour Stoves and Lamps.

We, KYNOCH LIMITED, of Lion Works, Witton, Birmingham, Manufacturers, and RICHARD HENRY STEPHENS, Engineer, of 40, Church Road, Moseley, Birmingham, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to oil or spirit vapour stoves and lamps of the kind wherein a perforated high-walled cup or preheater is employed by means of which the preliminary heating of the vaporiser is effected.

The object of the present invention is to provide an improved form of spirit cup which ensures a better and quicker combustion of the spirit, shields the flame from draughts, and protects from the heat of the pre-heater the regulating spindle of the needle valve such as described in Specification No. 134,430, when such a valve is employed, whilst improved means are provided for fixing the spirit cup in position.

It is known to provide a high-walled spirit cup having a vertical outer wall perforated with a large number of holes over its entire area, and provided with a horizontal inturned flange at its upper end. It is also known to provide a shallow spirit cup pieced at its centre & the metal tuned up into a neck or sleeve which closely surrounds the central fuel supply tube, the bottom of the cup resting on the top of the oil container.

According to the present invention the cup is of an inverted cone shape, and has at its upper end an inturned flange inclined upwards from the horizontal, whilst the perforations are not provided over its entire area, so as to leave a considerable area of unperforated metal to act as a draught shield for the flame.

The base of the cup is pierced and the metal turned up into a short sleeve or neck which closely surrounds the central fuel-supply tube to which it is secured, while the bottom of the cup rests upon the top of the container and is secured thereto.

The spirit cup carries means for attaching the grid supports thereto.

Figure 1 of the accompanying drawings represents an elevation of a vapour stove with the improved spirit cup shown in section.

Figure 2 shows the said spirit cup in plan.

Figure 3 represents a modification.

Referring to Figures 1 and 2, the spirit cup or preheater 1 in which the spirit is placed for effecting the preliminary heating of the vaporiser, consists of a high conical cup the base of which is pierced to pass over the central fuel-supply tube 2, the metal being raised into a short sleeve or neck 11 which closely fits the tube 2 and is secured thereto by brazing, soldering or other suitable means, while the rounded bottom of the cup rests upon and is soldered or otherwise secured to the top of the oil container 3, the central portion 12 of the latter being fashioned in the form of a short neck of a curvature corresponding to that of the cup bottom. The sloping wall of the cup 1 extends upwards for a considerable height, and has a turned-in flange 4 at its upper edge, whilst two or more series of air-holes 5, 6, are provided, as shown, to ensure efficient combustion of the spirit. The high wall of the cup ensures the protection of the valve spindle 7 (described and claimed in Specification No. 134,430) from the

[Price 1/-]

heat of preheater. As described and claimed in our Specification No. 148,721 the flange 4 may be pierced with holes to receive the grid-supports 8 which may also pass under arch-parts 9 raised out of the wall of the cup.

Owing to the spirit cup being of a deep conical form, the wind, in striking the inclined sides of same when lighting in the open air, is diverted towards the bottom, and causes a sharp upward draught through the spaces necessarily left between the raised or arch parts 9 and the rods 8. The flange 4 being inclined upwards to the horizontal, effectually prevents any down draught into the cup.

In the modification represented in Figure 3, the upper edge of the spirit cup 1 is provided with an outwardly turned flange 10, and with a separately-fitted inside flange 4, the rod supports 8 for the grid being passed through holes in the flange 10 and under arch-parts 9 carried by the walls of the cup.

Having now particularly described and ascertained the nature of our said invention, and in what manner the same is to be performed, we declare that what we claim is:—

1. In vapour lamps and stoves of the type referred to, a spirit cup or pre-heater of inverted cone shape having at the upper end of its sloping walls an inturned flange inclined upwards from the horizontal, substantially as described.

2. A vapour lamp or stove having a spirit cup according to Claim 1, in which the base of the cup is pierced and the metal turned up into a short sleeve or neck which closely surrounds the central fuel-supply tube, to which it is secured, the bottom of the said cup resting upon and being secured to the top of the oil container, substantially as described.

Dated this 10th day of January, 1920.

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Redhill: Printed for His Majesty's Stationery Office, by Love & Malcomson, Ltd.—1920.

Fig.1.

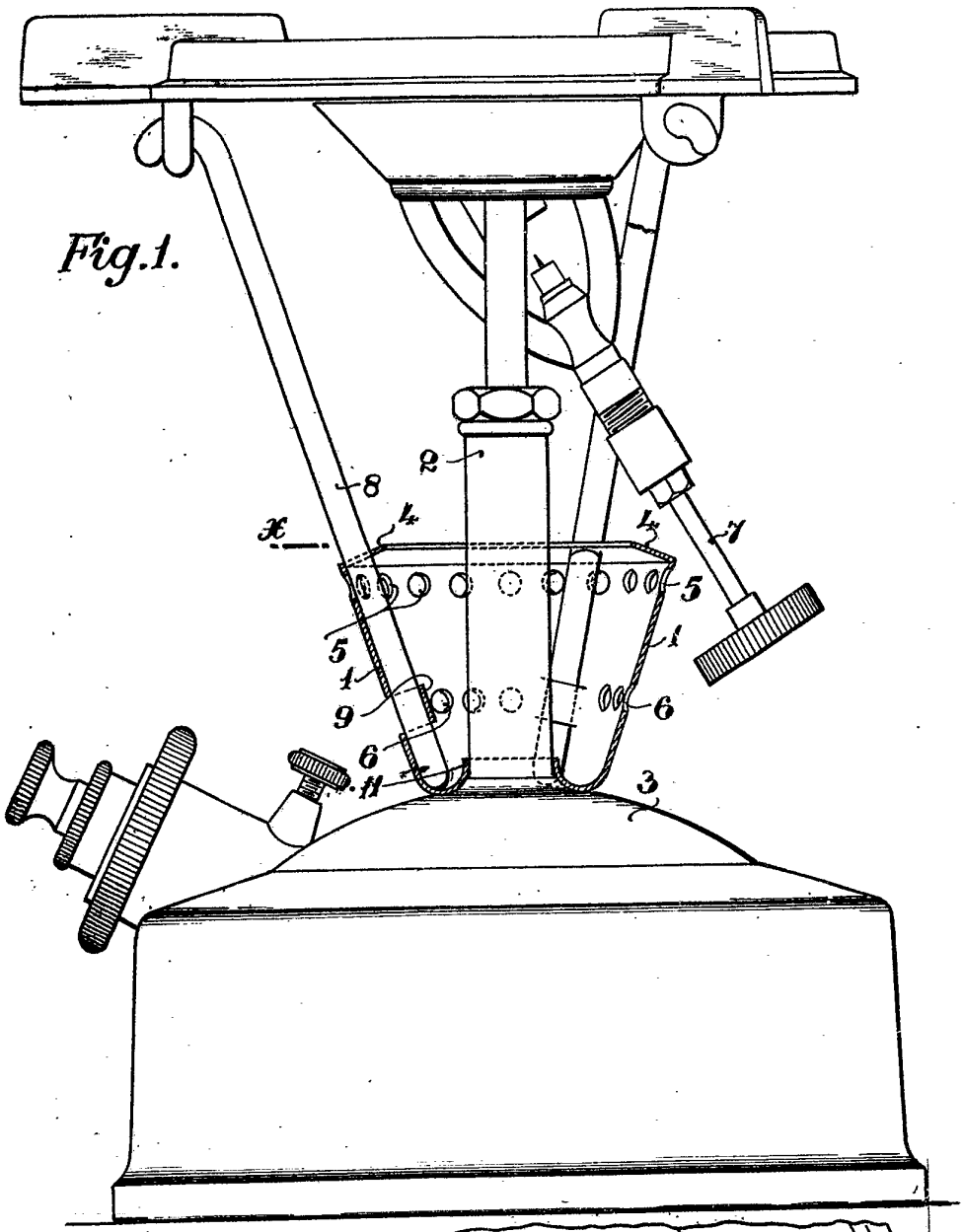


Fig.2.

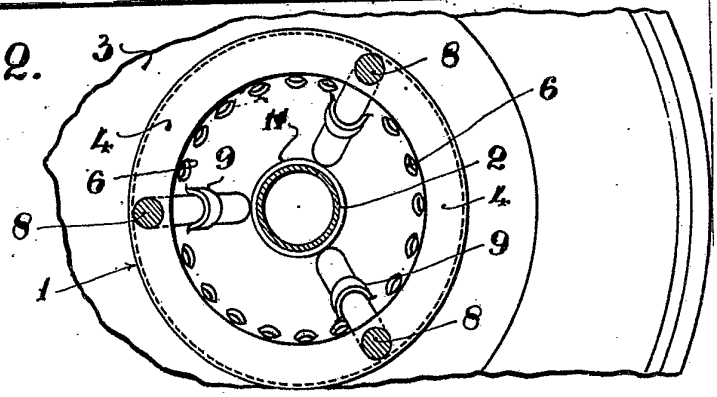
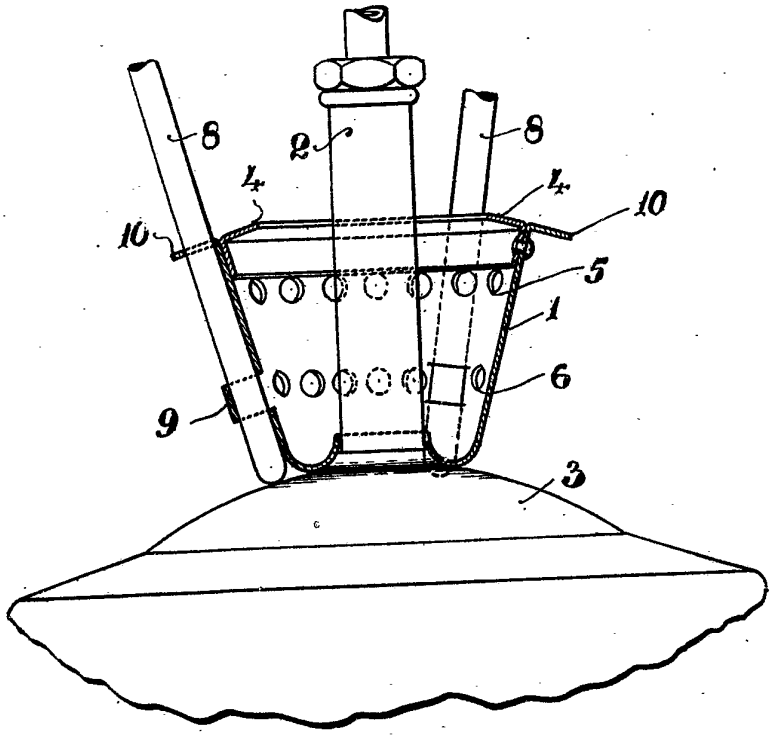


Fig.3.



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