No. 704,669

Patented July 15, 1902.

H. G. TUCKER.

CRUDE OIL BURNER.

(Application filed Jan. 31, 1902.)

(No Model.)

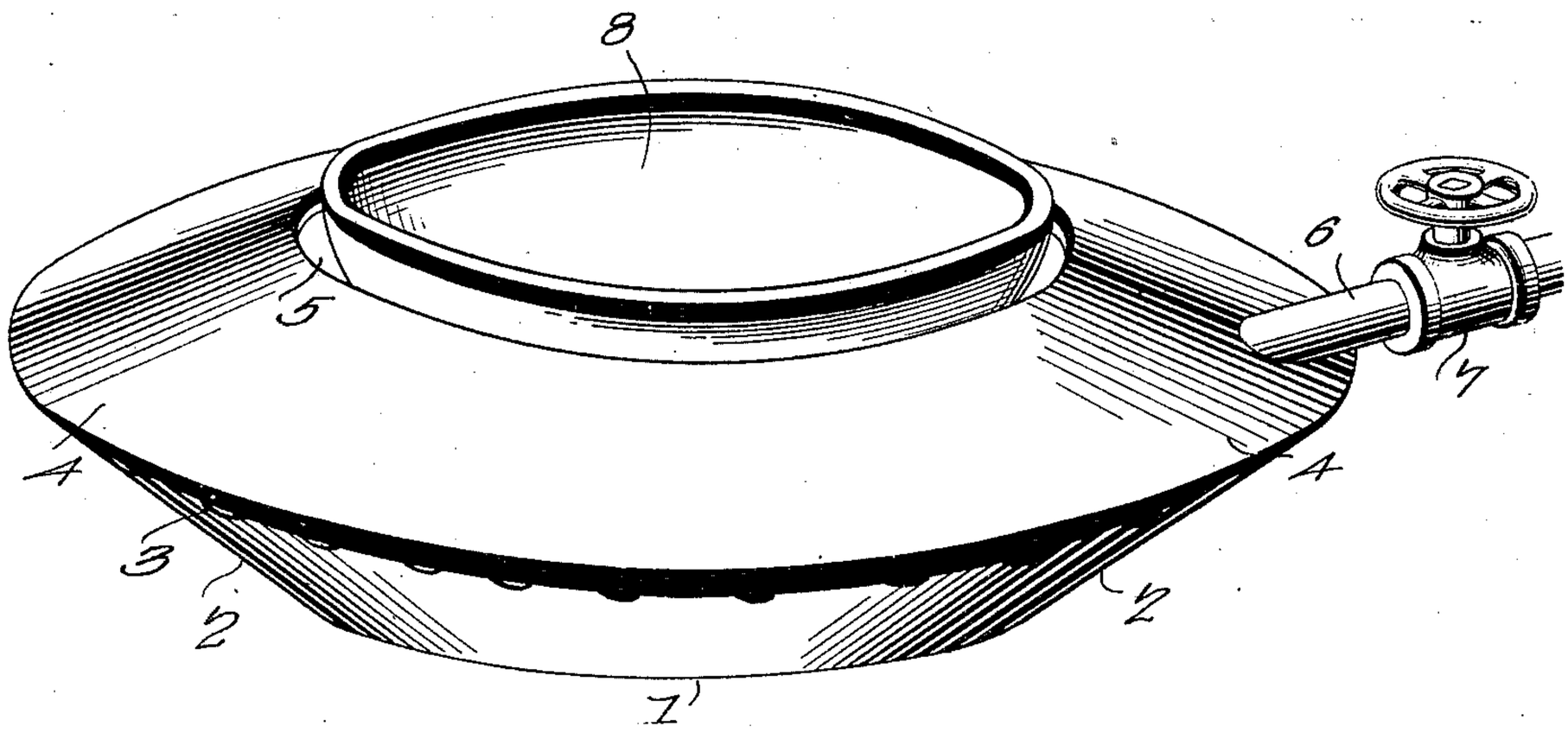
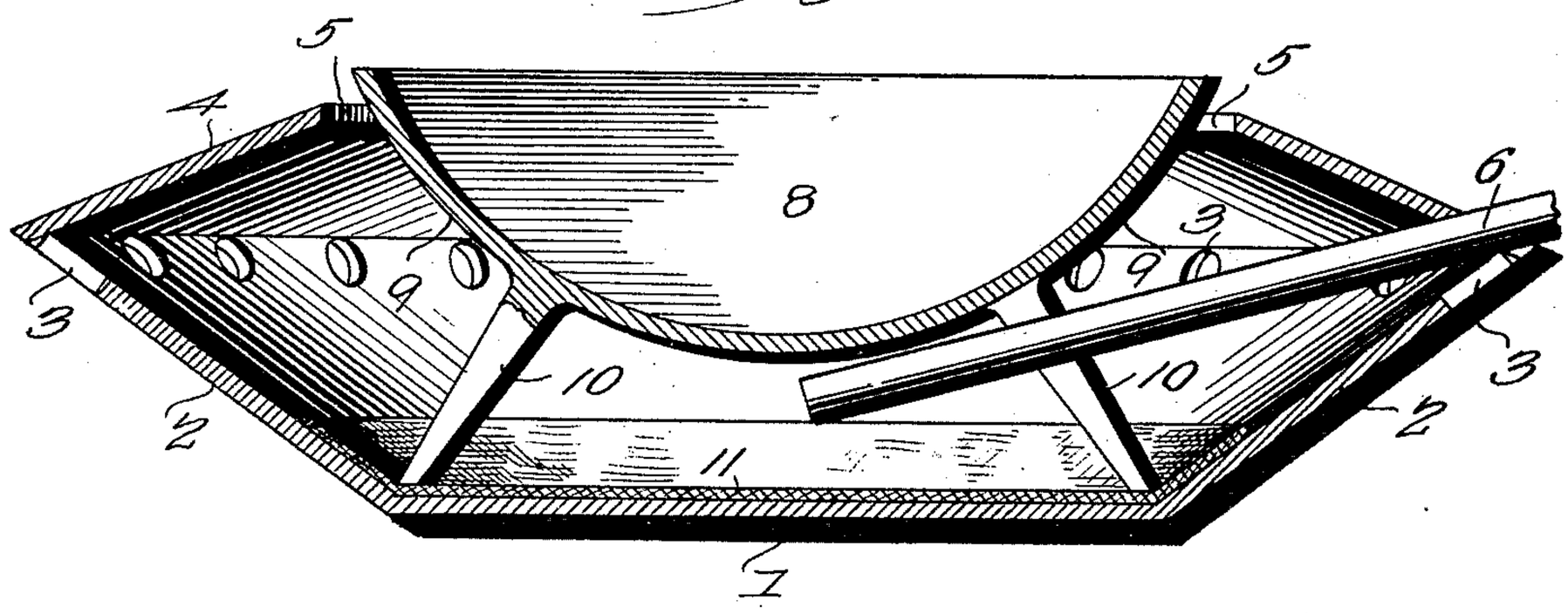


Fig. 1

Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

HOLLING G. TUCKER, OF HEREFORD, TEXAS, ASSIGNOR OF ONE-HALF TO REUBEN H. NORTON, OF HEREFORD, TEXAS.

CRUDE-OIL BURNER.

SPECIFICATION forming part of Letters Patent No. 704,669, dated July 15, 1902.

Application filed January 31, 1902. Serial No. 92,043. (No model.)

To all whom it may concern:

Be it known that I, HOLLING G. TUCKER, a citizen of the United States, residing at Hereford, in the county of Deaf Smith and State of Texas, have invented a new and useful Crude-Oil Burner, of which the following is a specification.

My invention is an improved crude-oil burner; and it consists in the peculiar construction and combination of devices hereinafter fully set forth and claimed.

In the accompanying drawings, Figure 1 is a perspective view of a crude-oil burner embodying my improvements. Fig. 2 is a sectional view of the same.

In the embodiment of my invention I provide a fire-pan 1, which is here shown as of circular form and provided with flared sides 2, but which may be of any other suitable form. The sides of the said fire-pan are provided with a plurality of air-inlet openings 3, of which any suitable number may be provided, and which openings may be of any suitable size. At the upper side of the fire-pan is an inturned overhanging flange 4, which extends entirely around the same and is here shown as upwardly inclined, the said inturned overhanging flange partially covering the fire-pan and forming an opening 5. I here show a pipe 6 to supply crude oil to the fire-pan, and the said pipe is provided with a valve 7 to regulate or cut off the supply of oil to the fire-pan. Any other suitable means may be employed for supplying the fire-pan with oil, and I do not desire to limit myself in this particular. I also provide a flame-spreader 8. The same is provided with downwardly-converging sides 9 and is here shown as of concavo-convex form, with the convex side downturned; but the said flame-spreader may be modified in form without departing from the spirit of my invention. The flame-spreader is here shown as provided with supporting-legs 10, which bear on the bottom of the fire-pan, and the flame-spreader is disposed within the fire-pan and extends upwardly through and projects somewhat above the inturned flange 4, being disposed centrally in the opening 5 and nearly closing the same and with its sides proximate to the inturned flange 4, so that a narrow space is formed between the flame-spreader and the inturned flange, through which space the flame from the burning oil passes. The inturned overhanging flange forces the flame inwardly toward the flame-spreader, and the latter serves to spread the flame and promote combustion of the oil. The oil in the fire-pan may be initially ignited by a match, after which the oil will burn constantly so long as the same is supplied to the fire-pan, and the burner will require practically not attention. The flame-spreader is removable from the fire-pan and may be readily lifted out of the same.

In the drawings, Fig. 2, I show a sheet of asbestos which covers the bottom of the fire-pan and is indicated by the reference-numeral 10. In practice the oil is supplied to the burner in sufficient quantities to keep this asbestos sheet saturated, and the same facilitates the burning of the oil and diffuses the flames over the bottom of the fire-pan. In the embodiment of my invention here shown ignition is started by means of a lighted match, which may be dropped in the fire-pan on the asbestos sheet. The latter enables the match to burn freely while igniting the oil with which the asbestos sheet is saturated. In practice the asbestos sheet may be a mat formed by a coil of asbestos rope or cord, and I do not desire to limit myself in this particular. Neither do I desire to limit myself to the use of asbestos in this connection, as other suitable absorbent material may be used in lieu thereof.

Having thus described my invention, I claim—

1. A crude-oil burner comprising a fire-pan forming a vessel to contain oil, having means to admit air thereto and an inturned flange extending around and partially covering the same, and a removable flame-spreader having downwardly-converging sides, said flame-spreader being supported in the said fire-pan, disposed within the opening formed by and with its sides in proximity to the inturned flange thereof and having supporting-legs which bear on the bottom of the fire-pan, substantially as described.

2. A crude-oil burner comprising a fire-pan forming a vessel to contain oil, having outwardly-flared sides, perforated for the admission of air, and an inturned flange extending inwardly from the flared sides of the pan, and partially covering the same, and a flame-spreader with downwardly-converging sides, supported in the fire-pan and extending through the opening formed by the inturned flange, and in proximity to said flange, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

HOLLING G. TUCKER.

Witnesses:

C. E. DOYLE,

FRANK S. APPLEMAN.