No. 722,163. PATENTED MAR. 3, 1903.

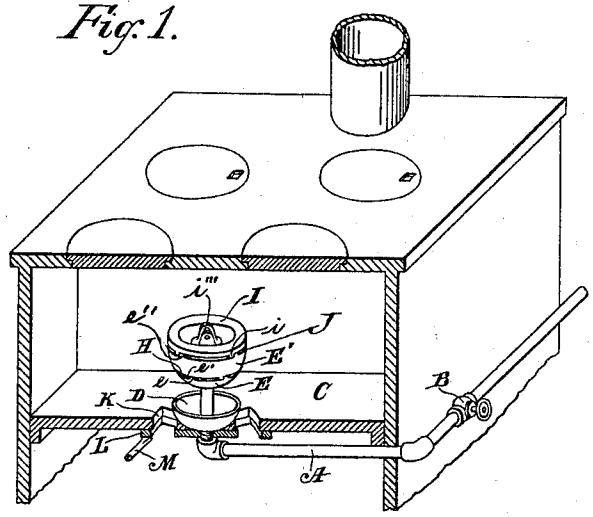
W. J. STOERMER.

HYDROCARBON BURNER.

APPLICATION FILED SEPT. 5, 1902.

NO MODEL.

Fig. 1.



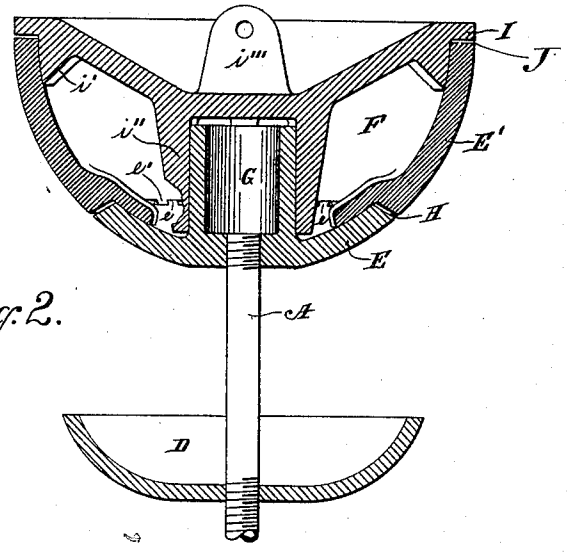


Fig. 2.

WITNESSES

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WILLIAM J. STOERMER, OF LOS ANGELES, CALIFORNIA.

HYDROCARBON-BURNER.

SPECIFICATION forming part of Letters Patent No. 722,163, dated March 3, 1903.

Application filed September 5, 1902. Serial No. 122,260. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. STOERMER, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Hydrocarbon-Burners, of which the following is a specification.

My invention relates to a burner designed to burn the lighter grades of crude petroleum and distillate produced from the distillation of crude petroleum after the illuminating-oils are removed therefrom without the use of steam; and the object thereof is to produce a burner of simple construction and efficient operation and which can easily be cleaned. I accomplish these objects by the burner described herein and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of my burner in place in the fire-box of the stove, which is partly broken away. Fig. 2 is a vertical section of the burner.

In the drawings, A is the fuel-supply pipe, having cock B to regulate the supply of liquid fuel therethrough. This pipe passes through the bed-plate C and through the starting-cup D, which preferably rests on said bed-plate, and enters the casing E of the generator-chamber F in the center of the bottom thereof. The casing of the generator-chamber is composed of a central bottom section E, which is screwed upon the top of the supply-pipe and is provided with a central circular oil-chamber G. Around the outer edge of this section are three or four upwardly-extending small cleaning-lugs *e*, which support the central section E′, having as many small downwardly-extending cleaning-lugs *e′* as there are corresponding upwardly-extending lugs on the bottom section. These upwardly and downwardly extending lugs are adapted to scrape the face of the opposite section when one section is moved on the other and keep said surfaces clean. The lugs of the central section when the parts are moved on each other keep the inner top surface of the bottom section clean. These cleaning-lugs keep the bottom and central sections separated, and the channel therebetween forms a bottom vapor-channel H. The top of the central section is also provided with three or four small upwardly-extending cleaning-lugs *e″*, which support the upper section or cover I. This cover is provided with three or four small downwardly-extending cleaning-lugs *i*, which bear against the top surface of the central section and keep these parts separated, and the channel between said lugs forms an upper vapor-channel J. The cover is also provided with three or four downwardly-extending outer cleaning-lugs *i′*, which extend within the top of the central section and contact therewith and with a like number of inner cleaning-lugs *i″*, surrounding and contacting with the outer surface of the oil-chamber to keep it clean, and with one or more (two are preferred) upwardly-extending shaking-lugs *i‴*, by means of which the cover can be moved first in one direction and then in the opposite direction to cause the various cleaning-lugs to scrape the surfaces of the parts opposed thereto, and thereby remove any carbon or soot which might collect thereon, a poker being used for that purpose. The shaking-lugs have a hole therein, so that the cover can be readily removed to inspect or clean the interior of the vapor-chamber, if desired. The bed-plate is provided with draft-openings K around the starting-cup, the size of which is regulated by the rotating damper L, having lever M, which extends outside the stove.

In the operation of my burner sufficient quantity of liquid fuel is permitted to flow into the starting-cup, which when burned will heat the casing of the vapor-chamber sufficiently hot to vaporize the oil. This oil is then lighted, and before it is entirely consumed the supply is again turned on, and as the casing is now quite hot it vaporizes the oil, and the vapor passes out at both the upper and lower vapor-channels, where it is consumed, thereby keeping the casing hot. It will be observed that in case carbon or soot should form on any of the parts it can easily be dislodged by using an ordinary poker to move the cover back and forth without putting out the fire and that the parts are of simple construction and can readily be replaced when worn out.

If desired, the casing of the vapor-chamber could be formed in two parts instead of three; but I prefer three parts, because thereby two vapor-passages are provided, which

allows a part of the vapor to be burned near the top of the stove and the remainder to be burned near the bottom of the vapor-chamber.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A hydrocarbon-burner comprising a circular casing composed of superposed and relatively movable sections spaced apart by lugs extending from their meeting faces, the lugs on each face being arranged to clean the face of the adjacent section, and also to space said section to form vapor-channels; said sections forming a vapor-chamber; and means to supply said chamber with liquid fuel.

2. A hydrocarbon-burner comprising a circular casing composed of superposed horizontal sections having projecting lugs on their adjacent faces, the lugs on each face being arranged to clean the face of the adjacent section, and also to space said sections to form vapor-channels therebetween; the lower section being stationary and the other sections being relatively movable; said sections forming a vapor-chamber; a fuel-supply pipe in the center of the lower section of said casing adapted to discharge fuel into said chamber.

3. A hydrocarbon-burner comprising a circular casing divided into horizontal superposed sections having projecting lugs on their adjacent faces arranged to clean said faces and to space said sections to form vapor-channels therebetween, one of said sections being stationary and the other sections relatively movable to said stationary section; said sections forming a vapor-chamber; a supply-pipe affixed to said lower section adapted to supply fuel into the vapor-chamber.

In witness that I claim the foregoing I have hereunto subscribed my name this 30th day of August, 1902.

WILLIAM J. STOERMER.

Witnesses:
G. E. HARPHAM,
HENRY T. HAZARD.