No. 662,191. Patented Nov. 20, 1900.

C. L. GE FRORER.

TORCH AND HEATER.

(Application filed May 25, 1900.)

(No Model.)

Fig. 3.

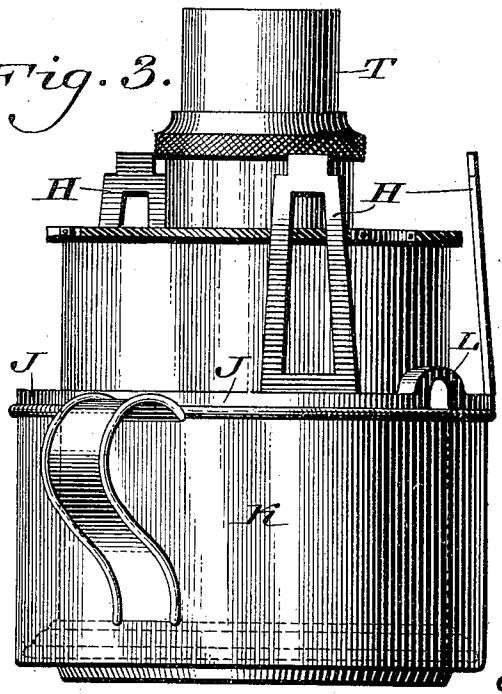


Fig. 1.

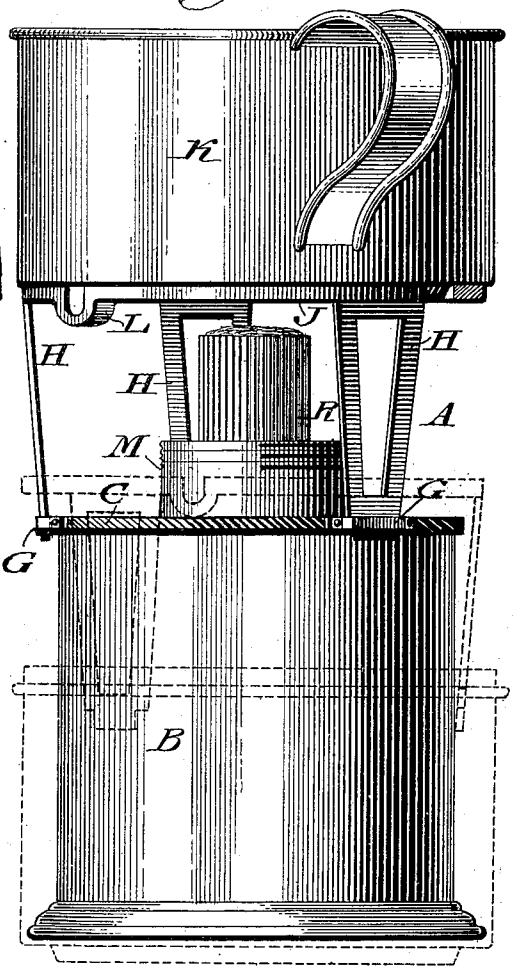


Fig. 2.

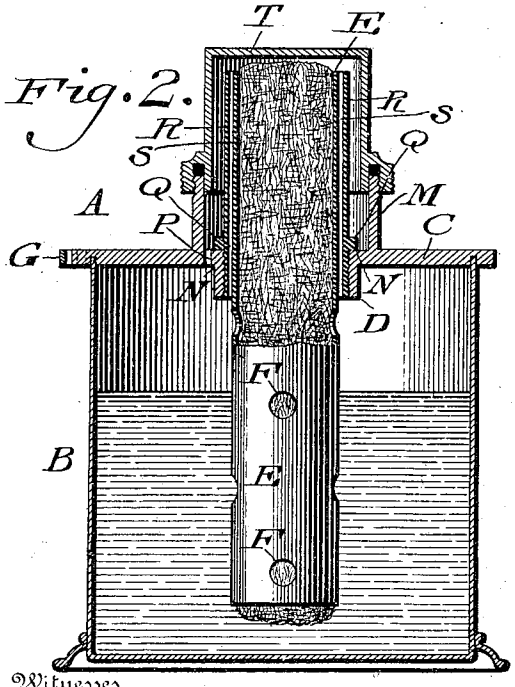
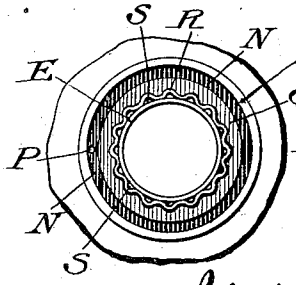


Fig. 4.



Witnesses

P. F. Eagle.

L. Bonville.

Inventor

Charles L. Ge Frorer.

By Wedderburn & Fairbank Attorneys

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

CHARLES L. GE FRORER, OF PHILADELPHIA, PENNSYLVANIA.

TORCH AND HEATER.

SPECIFICATION forming part of Letters Patent No. 662,191, dated November 20, 1900.

Application filed May 25, 1900. Serial No. 17,915. (No model.)

To all whom it may concern:

Be it known that I, CHARLES L. GE FRORER, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Torches and Heaters, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of a torch and heater provided with means whereby should the device be overturned and the fluid escape from the burner and wick tube into the covering-cap it will return into said reservoir without the formation of an air-cushion, as such cushion is destroyed by the existence of an air-passage, as will be hereinafter described.

It also consists in providing the device with a stand for supporting a cup or vessel to be heated and admitting of the placing of said stand and cup in compact form on the torch and heater or the nesting of the parts.

Figure 1 represents a side elevation of a torch and heater embodying my invention. Fig. 2 represents a partial vertical section and a partial side elevation thereof. Fig. 3 represents a side elevation, showing the stand and cup or vessel in folded position on the body of the torch and heater. Fig. 4 represents a top view of a portion of the reservoir, the wick and burner tube, and members adjacent to the latter.

Similar letters of reference indicate corresponding parts in the figures.

Referring to the drawings, A designates a torch and heater, and B the reservoir thereof, the latter being adapted to contain alcohol or other suitable fluid. Depending from the center of the top C of said reservoir is the collar D, which is interiorly screw-threaded for engagement of the burner and wick tube E, the lower portion of the latter having openings F, whereby the fluid may reach and saturate the wick in said tube. On the top C are the ears G, from which rise a stand composed of the legs H of the supporting-ring J, the latter being of annular form and adapted to receive the depressed base of the cup or vessel K, it being noticed that said legs may be removed from the ears G and inverted with the ring J, the cup also being removable and adapted to be placed over the reservoir B from below, the parts assuming the position shown in Fig. 2, convenient for packing, storing, transportation, &c. In the ring is a depression forming the loop L, whereby a curling-iron, soldering-tool, or similar device is adapted to be heated, said iron, &c., being placed in part in said loop, so as to rest on the base thereof and the end of the iron, &c., engaged with the under side of the ring, thus holding said iron, &c., nicely and firmly in position while being subjected to the flame of the burner.

Rising from the top C of the reservoir is the neck M, which is set back from the central opening from said top, leaving the shoulder N, in which is the vertical port P, the latter forming a communication between the interior of said neck and the interior of the body B.

Q designates a horizontal shoulder or flange, which projects from the exterior of the sleeve R and rests on the shoulder N, without, however, covering the port P, it being noticed that said sleeve surrounds the wick-tube E, is secured thereto, and constitutes a portion of the burner and is separated from said tube, forming the air-passages S, which are open throughout and having their lower ends in communication with the interior of the body of the reservoir B.

As a convenient means of forming the air-passages S the sleeve R is constructed in corrugated or serpentine form, which leave channels between said sleeve and the wick-tube E, constituting the air-passages S, as most plainly seen in Fig. 4.

T designates a cap for extinguishing the flame and preventing evaporation of the alcohol or fluid when the device is not in use.

It will be seen that when the cap is removed the wick may be lighted, producing a torch or, if desired, a heat for the cup or vessel or other article K when the latter occupies the stand formed by the ring J and legs H as supported on the reservoir B. When the cup and stand are removed and the cap applied, the device may be readily carried in a pocket, satchel, &c., or by hand, and should it be overturned the alcohol or fluid may enter said cap without leakage at the cap. When the device is restored or stood upright, the alcohol or fluid will flow through the port P into the reservoir B, while the air in the

latter, instead of forming an air-cushion to prevent the return of the alcohol or fluid, will escape through the passages S into the cap T or neck M, the effect of which is evident.

If desired, the stand may be raised to remove the legs H from the ears G. The stand is then slightly turned and lowered, when the legs telescope over the reservoir B, as shown dotted in Fig. 1, the cup being the same as in Fig. 3 and receiving said legs, thus placing the parts in compact condition.

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

1. In a torch and heater, the combination of a reservoir, a burner and wick tube dipping into the same, means for supporting said tube in said reservoir, and a closing-cap for said tube, the top of said reservoir being provided with a port communicating with the bottom of said cap, and the burner and wick tube being formed with a channel providing communication between said reservoir and top of said cap.

2. In a torch and heater, the combination of a reservoir, a wick-tube and a sleeve surrounding the same forming a burner, which dips into said reservoir, means for supporting said tube in said reservoir and a closing-cap for said tube, the top of said reservoir being provided with a port forming a communication between said reservoir and bottom of said cap, said sleeve being spaced from said wick-tube forming an air-passage providing communication between said reservoir and top of said cap.

3. In a torch and heater, a reservoir, a wick-tube dipping into the same, a sleeve surrounding said tube and forming therewith a burner, and a flange projecting from said sleeve and being seated on said reservoir as a support for said tube, said sleeve being corrugated and partly secured to said tube, and parts spaced therefrom forming air-passages leading from the reservoir to the top of the burner.

4. In a device of the character stated, a burner, a closing-cap therefor, a reservoir having a port in the top thereof and a neck rising from said top outside of said port said port being between said burner and neck and a vertically-corrugated sleeve encircling the exterior of the burner the openings formed by the corrugation being in communication with the interior of the reservoir and the interior of a closing-cap over the burner.

5. In a combined torch and heater, a reservoir, with ears projecting from the periphery of the top thereof, a ring having legs depending therefrom, the lower ends of the same being removably fitted in said ears, and a cup adapted to be seated on said ring or to surround the lower end of the reservoir, and the legs of the ring being adapted to slide over the upper end of the reservoir and to fit between the reservoir and the body of the cap when the parts are nested.

6. In a combined torch and heater, a reservoir having a top and a burner in said top, in combination with a ring having a loop and depending legs, said top being provided with ears which project from the periphery thereof and removably receive the lower ends of said legs.

CHARLES L. GE FRORER.

Witnesses:
JOHN A. WIEDERSHEIM,
WM. CANER WIEDERSHEIM.