

J. C. RILEY.
Gasoline-Burner.

No. 168,783.

Patented Oct. 11, 1875.

FIG. 1.

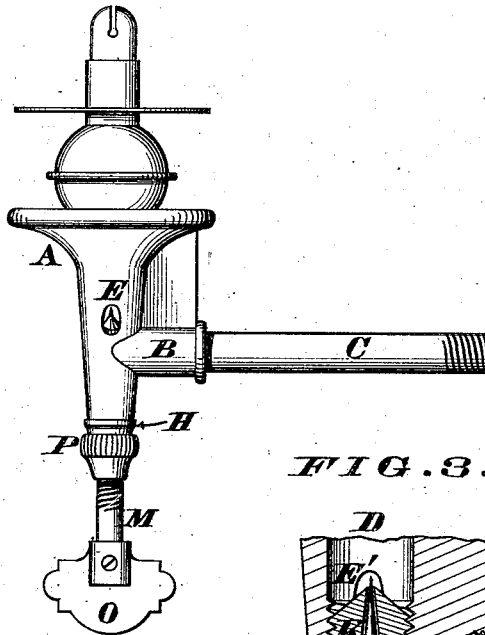


FIG. 2.

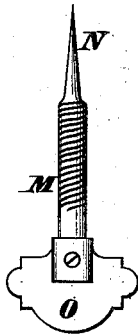
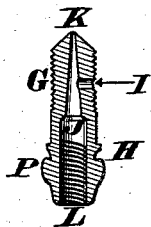
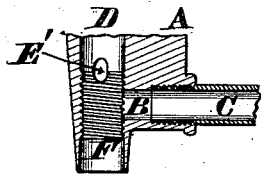
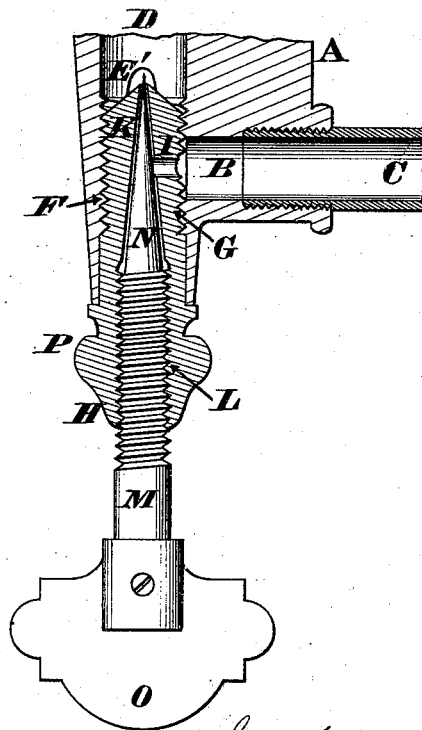


FIG. 3.



Attest.
 Jas. H. Layman.
 Chas. Woodcock & Sons
 Inventor
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 Att'ys.

UNITED STATES PATENT OFFICE.

JOHN C. RILEY, OF CINCINNATI, OHIO.

IMPROVEMENT IN GASOLINE-BURNERS.

Specification forming part of Letters Patent No. **168,783**, dated October 11, 1875; application filed August 28, 1875.

To all whom it may concern:

Be it known that I, JOHN C. RILEY, of Cincinnati, Hamilton county, Ohio, have invented a certain new and useful Improvement in Gasoline-Burners, of which the following is a specification:

This invention relates to that class of devices in which an interior nozzle, having an attenuated or contracted passage or orifice, is employed for regulating the flow of gasoline or other illuminating agent to the air-mingling chamber in the burner proper; and my improvement consists in constructing such nozzles so as to be detached, as hereinafter set forth.

Such nozzles have heretofore been made in one piece with the body of the burner, and whenever the discharge-orifice in said nozzles has become worn to any extent by the action of the regulating-needle, or otherwise, or choked by adventitious substances entering the burner, they must be thrown away and a new burner substituted in its place, thereby involving considerable expense and annoyance. My nozzle, on the contrary, being made of a separate piece from the burner proper, and simply united to the same by being screwed therein, can be removed at any time when necessary or desirable. After this act has been accomplished a new nozzle may be screwed into the body of the burner, the removal of the old nozzle and the application of the new one being effected in a few minutes, and without requiring any special tools or implements.

In the accompanying drawing, Figure 1 is an elevation of a gasoline-burner embodying my improvements. Fig. 2 is a sectional view, showing the operative parts of the burner detached; and Fig. 3 is an enlarged axial section of the detachable nozzle and its accessories.

A represents the body of the burner, which may be of the represented or any other approved form, and have the customary branch B to receive the service-pipe C, for communi-

cation with a tank or reservoir containing gasoline or other suitable illuminating agent. This said body of the burner is furnished with an axial chamber, D, having the customary openings E E', to admit air. Furthermore, said chamber D is provided with an internal or female thread, F, wherewith is engaged the external screw G of the removable plug or nozzle H, which latter may be composed of any suitable material. This plug or nozzle is provided with a lateral opening, I, that communicates with the central channel J, the latter converging at its upper end K, in the same manner as in ordinary burners of this class.

The central channel J may be tapped at L, for engagement of the usual regulating-screw M, having the customary tapering or needle point N at its upper end.

O represents the usual thumb-piece, to facilitate the manipulation of the feed device M N. P is a milled or polygonal collar at the lower end of the plug or nozzle H.

The removable plug or nozzle H is screwed into the burner A in such a manner as to bring the opening I opposite the inlet B, as shown in Fig. 3, after which the regulating device M N is applied, said device being adjusted in the usual way, so as to allow a greater or less quantity of gasoline to pass.

If at any time the discharge-orifice K of nozzle H should be injured in any manner, or should become enlarged or contracted by use, said nozzle can be at once unscrewed from the burner and repaired, or a new nozzle inserted in its place in a few minutes.

I claim as my invention—

The combination of burner A B D F, removable plug or nozzle G H I J K L, and regulating-screw M N, substantially as herein described and illustrated.

In testimony of which invention I hereunto set my hand.

JOHN C. RILEY.

Attest:

GEO. H. KNIGHT,
EDWARD F. REED.