J. R. BROOKS.

GAS LIGHTER.

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1,001,345.

Patented Aug. 22, 1911.

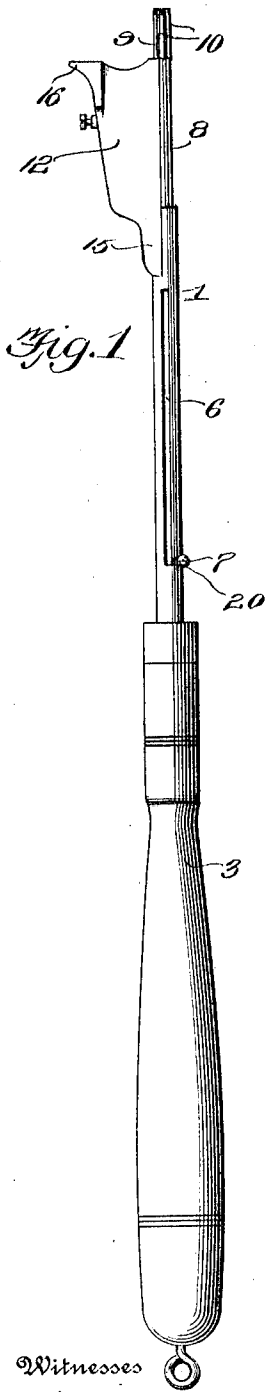


Fig. 1

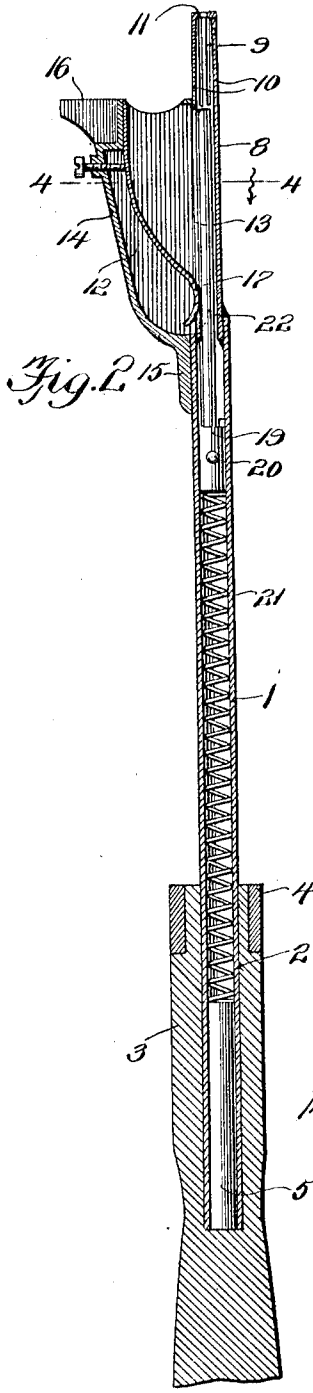


Fig. 2

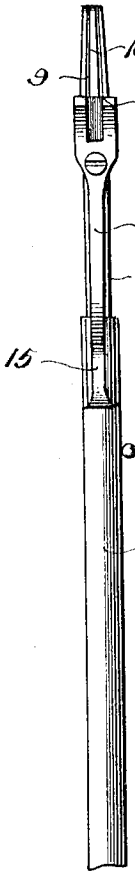
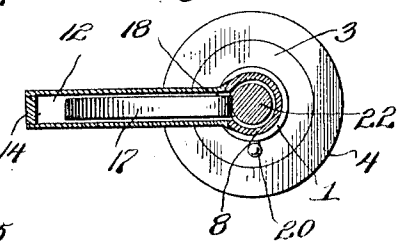


Fig. 3

Fig. 4



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN R. BROOKS, OF SPRINGFIELD, MISSOURI.

GAS-LIGHTER.

1,001,345. Specification of Letters Patent. **Patented Aug. 22, 1911.**

Application filed April 8, 1911. Serial No. 619,753.

To all whom it may concern:

Be it known that I, JOHN R. BROOKS, a citizen of the United States, residing at Springfield, in the county of Greene and State of Missouri, have invented new and useful Improvements in Gas-Lighters, of which the following is a specification.

This invention relates to gas lighters, and it has for its object to produce a simple and efficient device comprising a feeding device for matches and means whereby the matches may be projected through a tube associated with the feeding device and ignited for the purpose of lighting a gas jet or the like.

With this and other ends in view which will readily appear as the nature of the invention is better understood, the same consists in the improved construction and novel arrangement and combination of parts which will be hereinafter fully described and particularly pointed out in the claims.

In the accompanying drawing has been illustrated a simple and preferred form of the invention, it being, however, understood that no limitation is necessarily made to the precise structural details therein exhibited, but that changes, alterations and modifications within the scope of the claims may be resorted to when desired.

In the drawing,—Figure 1 is a side elevation of a device constructed in accordance with the invention. Fig. 2 is a longitudinal sectional view enlarged of a portion of the same. Fig. 3 is a view in elevation of a portion of the device as seen from a position at right angles to that shown in Fig. 1. Fig. 4 is a transverse sectional view taken on the line 4—4 in Fig. 2.

Corresponding parts in the several figures are denoted by like characters of reference.

The improved gas lighter comprises a tube 1, the lower end of which is fitted in a socket 2 formed on a handle 3 which is equipped with a ferrule 4. The lower end of the tube 1 has a plug 5 engaging the bottom of the socket 2. The tube 1 is provided with a longitudinal slot 6 having at its lower end a lateral offset 7.

Suitably connected with the upper end of the tube 1 is a smaller tube 8, the upper extremity of which has a plurality of longitudinal slots 9, whereby resilient arms 10 are formed, said arms being provided at their upper ends with inturned nibs 11 which are beveled upon their under sides, as best seen in Fig. 2, so that said nibs, while serving to partly obstruct the upper extremity of the tube, will yield to the pressure of a match that is being pushed or forced in an upward direction so as to permit such match to be projected through the end of the tube.

Associated with the tube 8 is a feeding device or magazine 12, said feeding device or magazine communicating with the interior of the tube 8 through a longitudinal slot 13 in the side of said tube. The outer wall of the feeding device or magazine is formed by an arm 14 of relatively heavy material, such as cast metal, the lower end of said arm being curved inwardly and provided with a downward extension 15 which may be secured by solder, brazing or in any other suitable manner upon the upper end of the tube 1. The upper extremity of the arm 14 is shaped to present claws 16 which may serve to engage the handle of the valve of a gas burner for the purpose of turning the same. Secured adjacent to the upper end of the arm 14 and projecting inwardly between the side walls of the magazine 12 in the direction of the slot 13 in the tube 8 is a leaf spring 17, the lower end of which is curved to present an arcuate convex face 18 to the slot 13. A set screw 25 operating through the arm 14 serves to regulate the tension of the spring.

Operating in the tube 1 is a follower 19 consisting of a cylindrical block having a handle 20 which projects through the slot 6, 7 of the tube 1. A volute spring 21, which is interposed between the block 20 and the plug 5 serves to force the follower in an upward direction, said follower being provided with a plunger 22 adapted to be projected upwardly into the tube 8 and to be engaged by the curved face portion 18 of the spring 17.

In the operation of this device, matches may be introduced singly or several at a time into the magazine or feeding device through the upper end of said device. When the plunger is retracted against the tension of the spring 21, the device being held in an upright position, a match will be guided over the lower end of the spring 17 and will follow the plunger 22 as the latter moves in a downward direction. The follower 19 may now be slightly turned to place the handle 20 in the offset 7 at the lower end of the slot 6, thus retaining the

parts in position. By again slightly turning the plunger to release the handle 20 from the offset 7, the follower and plunger will be projected by the action of the spring 21, and the match will be projected through the slotted upper extremity of the tube 8, where it will be ignited by contact of the match head with the lugs 11, the resilient arms 10 serving to seize the match and to hold it in position while it is being utilized for igniting the gas jet. It is obvious that the spring 17 must be very lightly tensioned so that it will not obstruct the downward movement of the match. By repeating the operation, a second match will be fed from the magazine, and when said second match is projected it will serve to eject the butt end of the match previously consumed.

Having thus described the invention, what is claimed as new, is:—

1. In a device of the character described, a slotted tubular member, a spring actuated plunger operating therein and having a handle projecting through the slot, a smaller tube at one end of the tubular member, said smaller tube being provided with slits forming resilient arms and with an elongated slot, a magazine associated with the smaller tube and communicating with the slot therein, said magazine including an outer wall member consisting of an arm having a downward extension secured directly upon the tubular member and provided at its upper end with handle engaging claws, and a spring connected at one end with said arm adjacent to the upper end of the latter, the free end of said spring being extended in the direction of the elongated slot in the small tube.

2. In a device of the character described, a slotted tubular member, a spring actuated plunger operating therein and having a handle projecting through the slot, a smaller tube at one end of the tubular member, said smaller tube being provided with slits forming resilient arms and with an elongated slot, a magazine associated with the smaller tube and communicating with the slot therein, said magazine including an outer wall member consisting of an arm having a downward extension secured directly upon the tubular member and provided at its upper end with handle engaging claws, a spring connected at one end with said arm adjacent to the upper end of the latter, the free end of said spring being extended in the direction of the elongated slot in the small tube, and a set screw extending through the arm and engaging the spring to regulate the tension of the latter.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN R. BROOKS.

Witnesses:
E. D. MERRITT,
NELLIE BROOKS.