No. 676,361. Patented June 11, 1901.

J. G. GLOVER.

GAS LIGHTING TORCH.

(Application filed Dec. 19, 1900.)

(No Model.) 4 Sheets—Sheet 1.

Fig. 1.

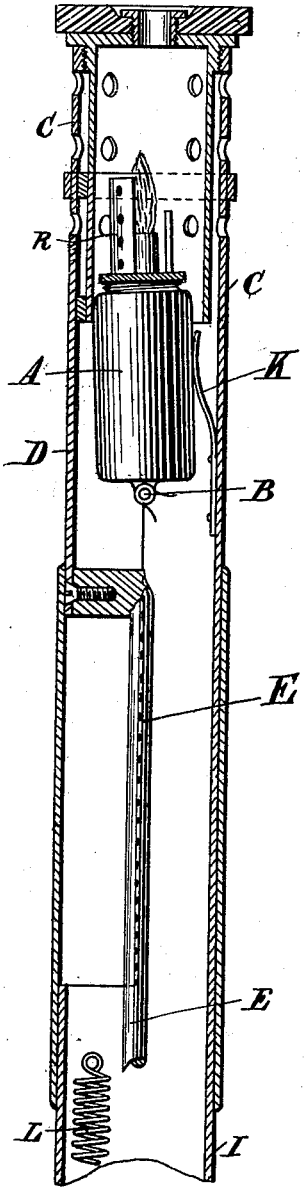
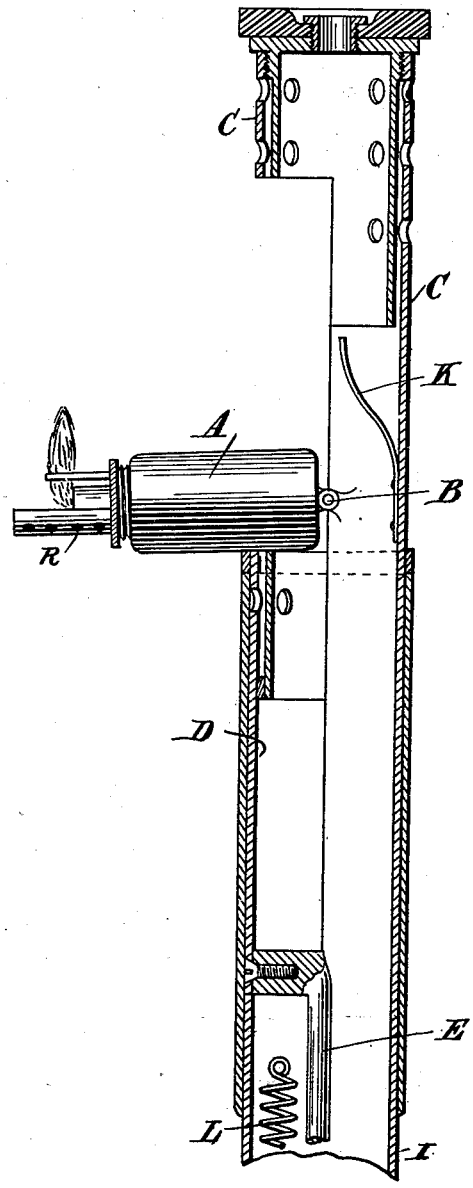


Fig. 2.



Witnesses

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Fig. 3.

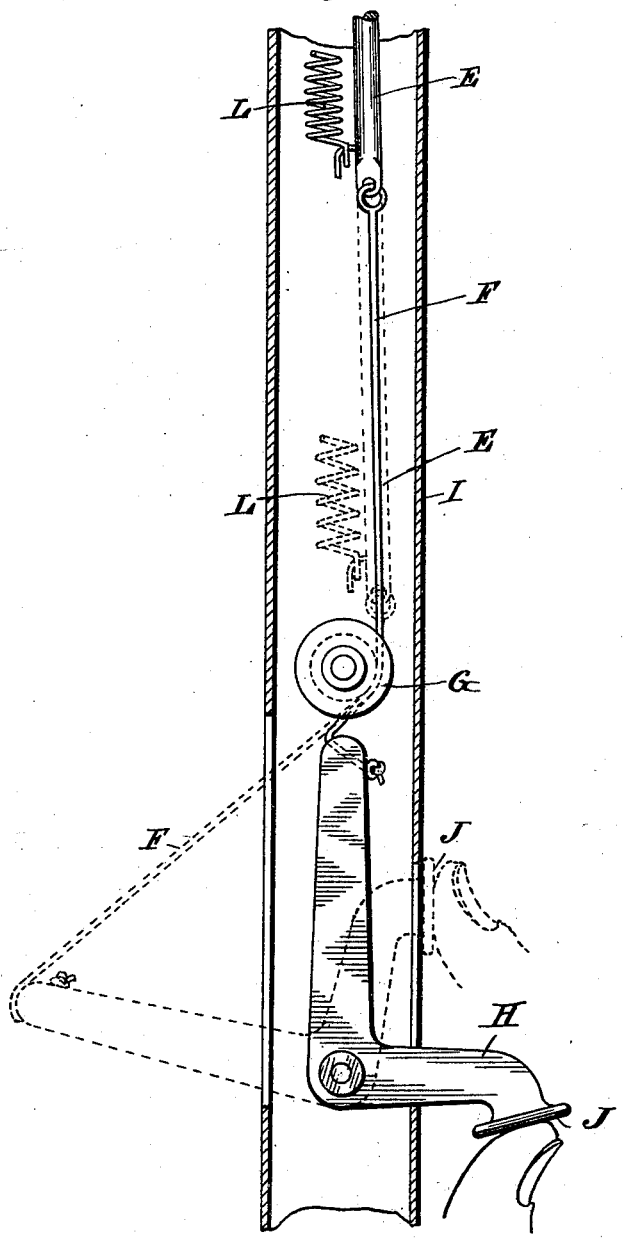
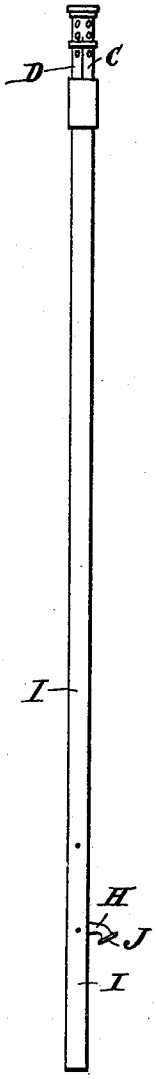


Fig. 4.



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(No Model.) 4 Sheets—Sheet 3.

Fig. 5.

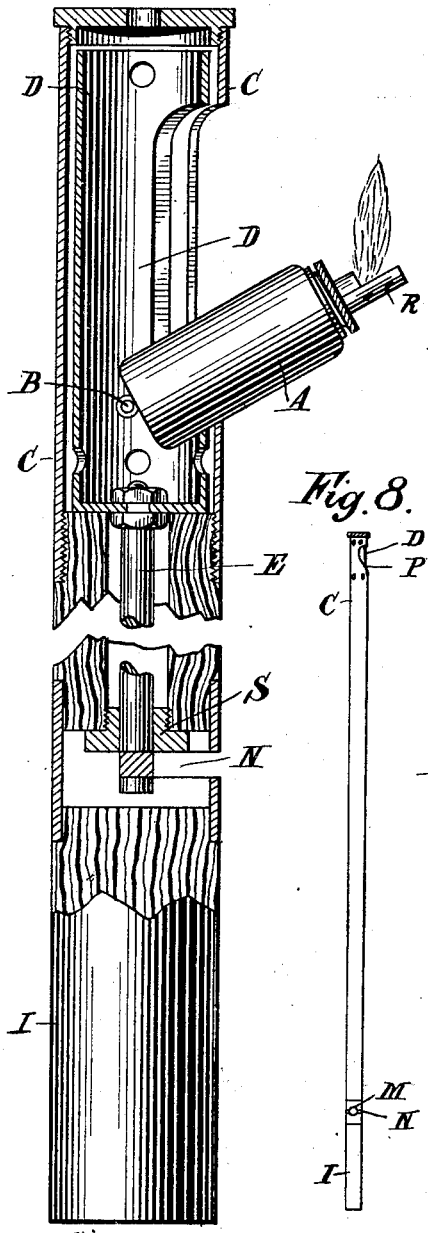

Fig. 6.

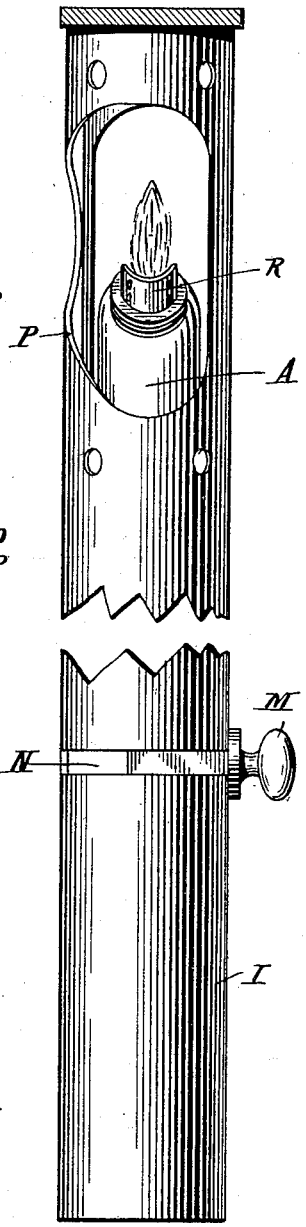

Fig. 7.

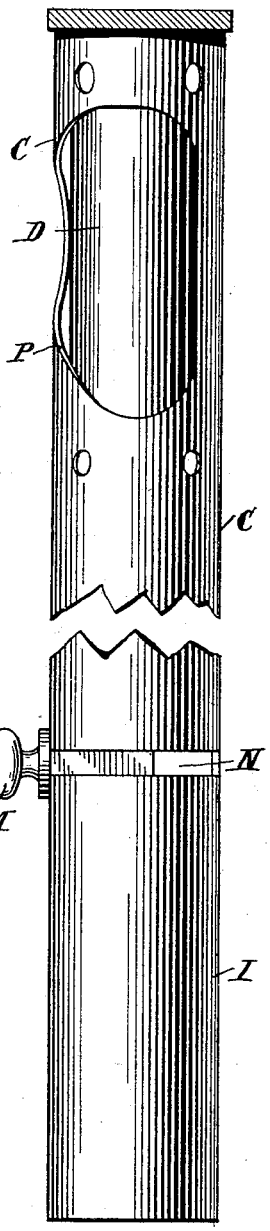

Fig. 8.

Witnesses

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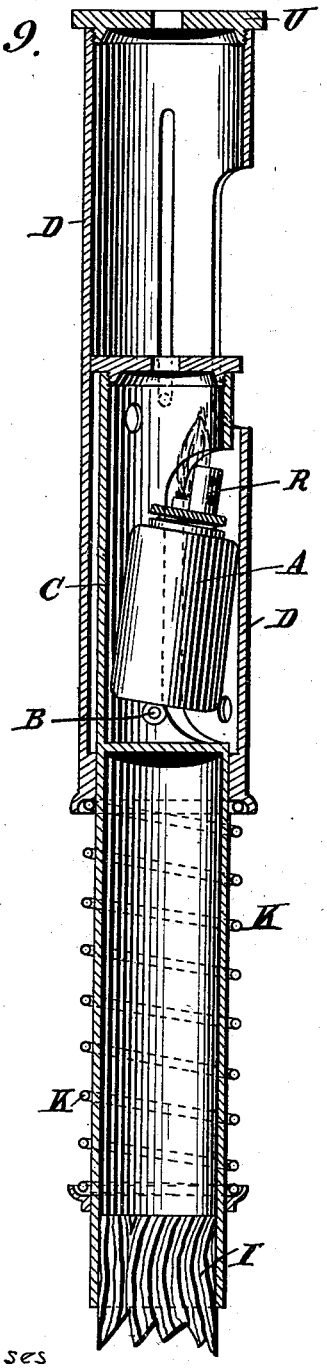
(No Model.) 4 Sheets—Sheet 4.

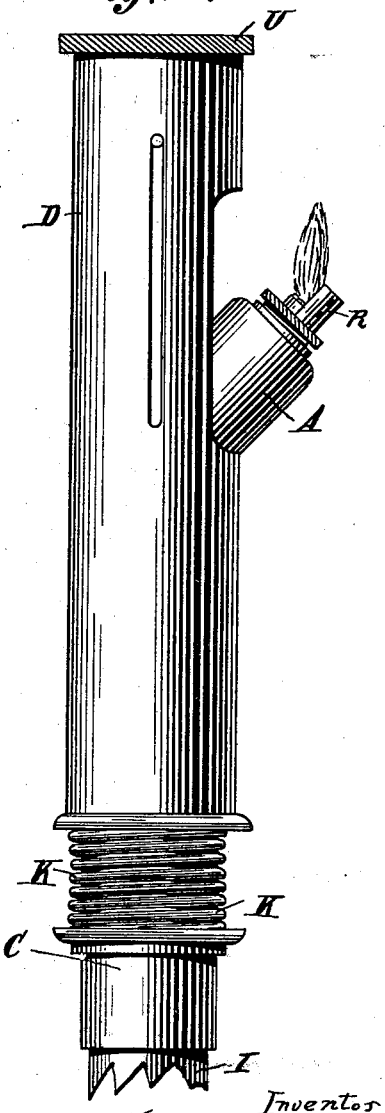
Fig. 9.



Witnesses

Bruce A. Elliott.

Fig. 10.



Inventor

John G. Glover

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UNITED STATES PATENT OFFICE.

JOHN GEORGE GLOVER, OF LONDON, ENGLAND.

GAS-LIGHTING TORCH.

SPECIFICATION forming part of Letters Patent No. 676,361, dated June 11, 1901.

Application filed December 19, 1900. Serial No. 40,420. (No model.)

To all whom it may concern:

Be it known that I, JOHN GEORGE GLOVER, a subject of the Queen of Great Britain, residing at 214 St. John street, Clerkenwell, London, England, have invented certain new and useful Improvements in and Connected with Gas-Lighting Torches, of which the following is a specification.

The object of this invention is to construct a torch for lighting the gas of incandescent and other lamps used principally for street-lighting in an easy, positive, and expeditious manner and by an open flame which is protected during the transit of the torch from one lamp to another; but such torch is applicable for lighting ordinary gas-lamps through the perforated head as is now done without the necessity of exhibiting an open flame.

For the purpose of this invention the torch-head is constructed from preferably two or more half-tubes or two concentrically-arranged tubes, one being capable of sliding or turning upon the other by the action of a hand or other lever or grip or by a pressure. The fixed half-tube carries within it the burner and oil-well or lamp proper, this being pivoted, so that when the other half-tube is, say, pulled or pushed down the lamp will tilt to place the flame from its burner at an angle to the stick or torch, so that it can be held over the uprising gas of an incandescent or other burner to ignite same without the torch-stick being placed at an angle in any way. The tilting of the lamp is automatic, and a spring may be placed within the fixed half-tube to give it the first movement. On the return of the movable half-tube it forces the lamp back into place and protects same, air to support combustion entering through perforations arranged in the half tube or tubes.

The operation of the movable half tube or tubes may be by any known means, and from near the other end of the stick or by pressure upon the torch-head the torch may be actuated for the lamp to be tilted and exposed by action on a bell-crank lever in connection with a cord and rod, the appliances being returned to the closed position by a spring.

When the movable half or complete tube is revolved about the fixed half or complete tube for exposing and tilting the lamp, a guide or curved race is secured to or forms part of the lamp-body, or the lamp-body may be made of such a shape that the edge of the half-tube or an opening in the tube or an appliance fitted thereon may act upon the lamp and easily force it aback to be inclosed, the operation being performed by the lamplighter actuating a ring or other appliance which is in connection with the half-tube and torch-stick.

The tube or tubes may be constructed from more pieces than two and the movable portion of the tube or tubes be shorter than the fixed portion, which in this case may be a complete tube or tubes at its upper part.

My invention will be understood from the examples shown on the annexed drawings, in which—

Figure 1 is a longitudinal section of the upper part of a torch and torch-head, showing the lamp inclosed by the casings. Fig. 2 is a similar view to Fig. 1, but with the lamp tilted for lighting the gas of an incandescent or other lamp, the movable half-tubes being drawn down to allow of such tilting. Fig. 3 is a longitudinal section of the lower part of a torch, showing the hand operating appliances. Fig. 4 is an elevation of a complete torch. Fig. 5 is a longitudinal section of a torch-head, in which the lamp is operated by a turning movement, the lamp being shown tilted for lighting a gas-lamp. Figs. 6 and 7 are elevations of a torch, part being broken away, hereinafter more particularly described. Fig. 8 is an elevation of a complete torch. Fig. 9 is a sectional elevation of a torch-head, in which the operation of exhibiting the tilting lamp is effected by a pressure of the head of the torch against the inside top of the lantern. Fig. 10 is an elevation of the torch-head shown in Fig. 9, with the head pushed down and the lamp tilted.

A is the lamp, pivoted at its bottom part at B to the fixed half C of the torch-head in Figs. 1 to 4 and to the movable portion D in Figs. 5 to 8 or to the fixed portion C, as at Figs. 9 and 10. The movable portion or half-tubes D are in connection by a rod E with (in the case of Figs. 1 to 4) a cord or chain F, this passing over a pulley G to a bell-crank lever H, pivoted to the torch-stick I, so that on the lamplighter pressing the knob J of the lever

H the cord F will through the medium of the rod E pull the movable half-tubes D down, as at Fig. 2, to allow the lamp A to fall or tilt in the opening made, the same being assisted by the spring K, which is fitted to the fixed part C, and when the street or other lamp is lighted a release of the bell-crank lever H will allow the spring L, which is fitted to the torch-head and the rod E and has been acted upon by the pull down of the half-tubes D, to return the half-tubes D to a closed position and in so doing to lift the lamp and place it within the torch-head, as in Fig. 1.

According to Figs. 5, 6, 7, and 8 the torch-head is composed of two tubes C D, both having an opening, the movable tube D having the lamp A pivoted to it, said tube D being in connection by a rod E with a turn-button M, riding in a slot N of the torch-stick. The fixed tube C has an opening with one edge P of angled or curved formation, so that as the button M is moved around the lamp A will be tilted outward by reason of its having a tendency to fall through the opening made, the lamp being pivoted outside its center line, so as to have a preponderance of weight on one side, and by a reverse motion of the button M the lamp A will be brought into the torch-head by reason of its riding against the angled face P.

According to Figs. 9 and 10 the torch-head is composed of two tubes C D, both having an opening, the fixed tube C having the lamp pivoted to it and the movable tube D encircling the tube C and being controlled and kept in position by a spring K for covering the hole in the under tube and holding the lamp A upright in the tube C, the spring encircling the lower part of the fixed tube C; but on the head U being pressed against the upper part of a lantern the pressure of the spring K will be overcome, and the rod I being pushed farther the holes in the tubes C and D will correspond for the lamp A to tilt and be exposed outside, as at Fig. 10, a release of the pressure on the rod I allowing the spring K to return the tube D to the position shown in Fig. 9 and allow the torch to be removed and the flame protected.

R is a perforated or wire-gauze shield affixed to the burner of the lamp or to the lamp itself to prevent the flame being blown out by the force of the explosion of gas which often occurs in the chimney when the gas is turned on before the light is applied.

S is a screw-sleeve for centralizing the rod E in the stick.

The drawings only illustrate three examples of the manner in which my invention can be carried into effect, but other means may be adopted for allowing the lamp itself to tilt or become exposed at an angle or otherwise for the lamp to project outside of the torch-head for the flame to be held over the uprising gas of an incandescent burner to ignite the gas, such burner being returned to the torch-head for the flame to be held over the uprising gas-burner to ignite the gas, such burner being returned to the torch-head by a reverse or other movement of the appliance by the lamplighter; but the torch can be employed for lighting ordinary burners; and in this case the lamp need not be acted upon, the uprising gas pressing through the holes of the torch-head and becoming ignited, as usual.

What I claim, and desire to secure by Letters Patent, is—

1. A torch having a head and a lamp pivotally supported in said head and the latter having an opening through which said lamp can fall, said head including two shell-like members one of which is fixed and the other manually operable, and said manually-operable member serving normally to maintain the lamp in an upright position and being adapted when actuated by the user of the torch to release the lamp and being also adapted when returned to its initial position to cause the lamp to return to its upright position.

2. A torch having a head including two tubular members one of which surrounds the other and each having an opening, and one of said members being movable relatively to its companion whereby said openings may be brought into registration and a lamp mounted in said head and arranged to pass through said registered openings.

3. A torch having a head including two tubular members one of which surrounds the other and each having an opening, and one of said members being movable relatively to its companion whereby said openings may be brought into registration and a lamp pivoted to one of said members, the lamp having a preponderance of weight at one side of its pivot, whereby it will fall through said openings when the same register.

4. In a torch, a head having a slot and including two tubular members one of which turns on the other, and each having an opening, a rod connected to said turning member, a finger-piece connected to said rod and extending through said slot, and a lamp pivotally carried by one of said tubular members.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOHN GEORGE GLOVER.

Witnesses:
PERCY E. MATTOCKS,
HUGH HUGHES.