No. 801,904. PATENTED OCT. 17, 1905.

J. C. PERRY.

ELECTRIC TORCH.

APPLICATION FILED MAY 28, 1904.

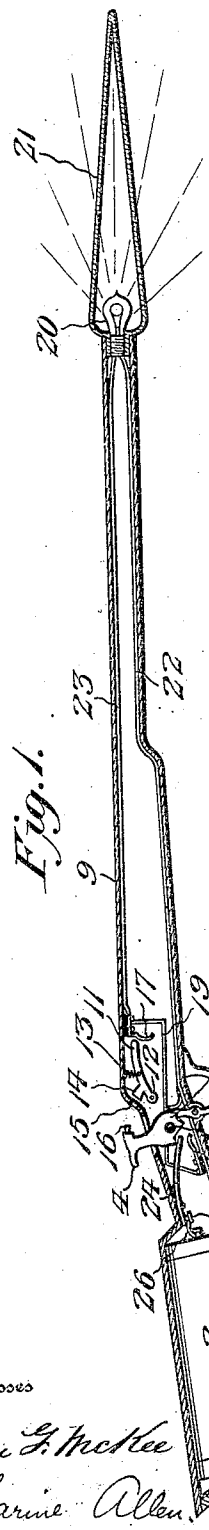


Fig. 1.

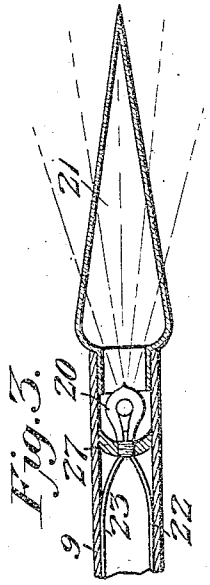


Fig. 3.

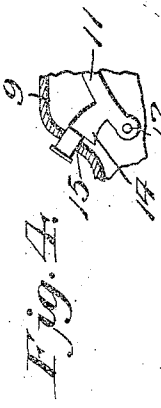


Fig. 4.

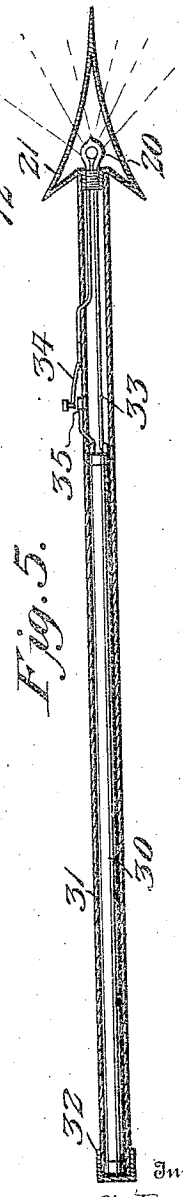


Fig. 5.

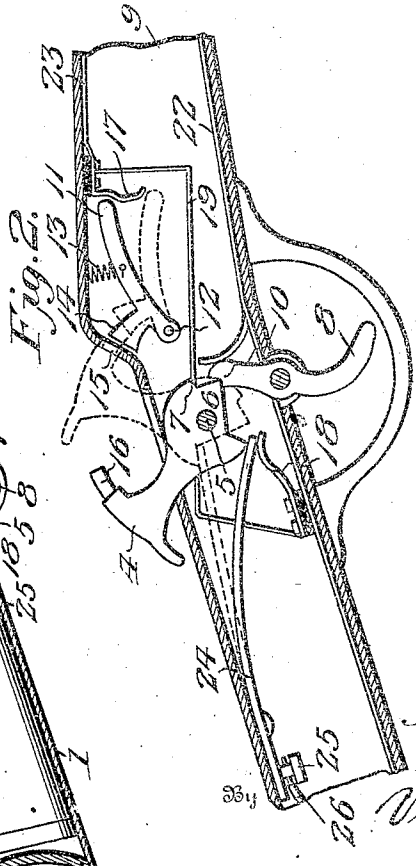


Fig. 2.

Witnesses

Edwin L. McKee

Katharine Allen

Inventor

John C. Perry

By Victor J. Evans

Attorney

UNITED STATES PATENT OFFICE.

JOHN C. PERRY, OF COLUMBIA STATION, OHIO.

ELECTRIC TORCH.

No. 801,904. Specification of Letters Patent. Patented Oct. 17, 1905.

Application filed May 28, 1904. Serial No. 210,296.

To all whom it may concern:

Be it known that I, JOHN C. PERRY, a citizen of the United States, residing at Columbia Station, in the county of Lorain and State of Ohio, have invented new and useful Improvements in Electric Torches, of which the following is a specification.

This invention relates to an electric torch for the use of an individual alone or in companies to produce a momentary flash or a constant light at the upper end of the torch. This object I produce by placing or carrying in the lower end of a hollow body a storage battery and connecting it by means of wires extending therefrom to an electric light on the upper end of the torch. Circuit making and breaking devices are in the wire circuit to produce the proper effect of flashing or constant illumination of the lamp. The electric light or lamp is preferably contained within a transparent or translucent point, which may be of any preferred color.

In the accompanying drawings, Figure 1 is a longitudinal central view through one form of my electric torch. Fig. 2 is a similar view of a portion of the torch, enlarged to show the make and break contacts more clearly. Fig. 3 is a similar sectional view of the forward or upper end of the torch, enlarged, with a modified arrangement of the illuminating device. Fig. 4 illustrates a detail. Fig. 5 is a longitudinal section of another form of my invention.

Similar numerals of reference are employed to indicate corresponding parts throughout the several views.

Figs. 1 to 4, both inclusive, illustrate my invention having the form, size, and general appearance of a gun with a movable trigger, trigger-guard, and movable hammer. Contained within the breech 1 is a storage battery 2, which may be removed therefrom or replaced through the rear of the breech, the latter being closed by a plate 3. A hammer 4, pivoted to a screw or bolt 5, is provided with notches 6 and 7 for holding it at full and half cock. The trigger is indicated by 8. Its upper end within the body of the torch 9 is formed with a notch 10, adapted to engage the notches 6 and 7 on the trigger when the latter is at full or half cock. Within the torch 9 is a lever 11 pivoted at one end on a pin 12 and held normally upwardly by a spring 13. Near the pivotal point of the lever 11 is a projection 14, curving slightly backward toward the wall of the torch 9. When it is desired to discharge a blank cartridge at any time, it—that is, the blank cartridge—will be placed in the hole 15 (see Figs. 2 and 4) until it rests on the projection 14. If the trigger 8 be pulled while the hammer is at half-cock, a point or stud 16 on the hammer will strike the cartridge and discharge it.

17 is a contact-plate attached to but insulated from the body of the torch 9. A second contact-plate 18 is similarly insulated and secured to the body of the torch behind the hammer 4 and electrically connected, by means of a wire 19, to the contact-plate 17. At the forward or upper end of the torch is placed an incandescent electric lamp 20, inclosed within a conical transparent point 21. From the lamp 20 wires extend to the lower end of the torch, the wire 22 being connected to the storage battery 2, while that 23 is connected to the contact-plate 17. A spring 24, fastened to the body of the torch, extends forwardly in a curved direction toward the contact-plate 18, but normally separated therefrom when the hammer is at half-cock or at its extreme forward movement. A thumb-screw 25, attached to the spring-arm 24, is connected by a wire 26 to the other pole of the storage battery.

In a torch constructed as above described when carried in parades and used for other purposes the hammer 4 will be carried, say, at half-cocked position, as shown in Fig. 1. The circuits therefore will be broken at 17 and 18, because the lever 11 will be raised by its spring 13 from contact with the plate 17, and the spring-arm 24, which serves the double purpose of making contact with the plate 18 and operating the hammer, will be raised from the said contact-plate 18. Should the hammer be now retracted to its full-cocked position, as clearly indicated in Fig. 2, the spring-plate 24 will be depressed until it strikes the contact-plate 18. This will close the circuit from the battery through wire 22 to the lamp 20 and thence back on wire 23 to contact-plate 17, wire 19, contact-plate 18, spring 24, and wire 26 to battery. As long as the hammer 4 remains in its full-cocked position a constant illumination will be produced by the lamp 20; but if the trigger 18 is pulled

and the hammer released the spring 24 will cause the hammer to move forward to its extreme position, thus breaking the constant circuit through the lamp. As the trigger falls or is moved by the spring 24 the point 16 thereon passes through the hole 15 and striking the projection 14 on the lever 11 the latter will be rapidly depressed, its forward end passing quickly over the contact-plate 17 and then off, and a circuit will be made and as rapidly broken through the plate 7, lever 11, torch-body and wire 26 to battery. The rapid movement of the lever 11 over the contact-plate 17 will cause an instantaneous flash of light to be emitted by the lamp 20. A blank cartridge may be placed in the opening 15, as heretofore mentioned, so that a loud report will be produced at the same moment as the instantaneous flash of the lamp.

In Fig. 3 I have shown a slight modification in the illuminating device. Instead of placing the lamp within the transparent point 21 I remove it farther into the torch-body and place behind it a concaved mirror 27 to throw forward all light falling thereon from the rear of the lamp.

Fig. 5 illustrates a torch made from a tube 30, within which a storage battery 31 is placed. A cap 32 covers the lower end of the torch, which will be removed when the battery is to be taken out of the torch-body. The opposite end of the torch is provided with an electric light and a transparent or translucent point, which may be similar in form to that shown in Fig. 1 or of any other shape desired. I have shown as a preferred form one made in the shape of an arrow-head. The electrical connections between the battery and the lamp is through a wire 33 from the battery to the lamp and from thence to one contact-point of a circuit-closer 34. The other contact-point 35 extends to battery. These contact-points may be held closed to produce a constant light from the lamp or temporary contact made between them when it is desired to flash the light.

While the body of the torch has been described throughout the specification as hollow, this construction is not essential, as a solid body may be used in place of a hollow one, with suitable cavities formed therein for the battery and the circuit-closers. The circuit-wires from the lamp to the battery may extend through similar openings in the body or placed on the outside of the same.

Having thus described the invention, what is claimed is—

1. Combined with a hollow torch-body, a storage battery therein, an electric light at one end of said body, and electric connections between the said battery and electric light, a movable lever forming a part of said electric connections for closing the circuit through the lamp, said lever coöperating with said connections to produce a constant illumination when moved in one direction and to cause an instantaneous flash when moved to the opposite direction, and a containing shell for the electric lamp.

2. Combined with a hollow torch-body, a storage battery therein, an electric light at one end thereof, electric connections between said battery and lamp, a movable lever forming a part of said electric connections for closing the circuit through the lamp, said lever coöperating with said connections to produce a constant illumination when moved in one direction and an instantaneous flash when moved in an opposite direction, and manually-operated means for moving said lever.

3. A torch comprising a hollow torch-body, a battery, an electric light at one end of the body, electric connections between the battery and the lamp, two contact-plates associated with said connections, a circuit-closer movable in one direction to close the circuit through one of said contact-plates, and a second circuit-closer adapted to be operated when the aforesaid circuit-closer is moved in the opposite direction to close the circuit through the other contact-plate.

4. Combined with a hollow torch-body, a battery at one end, an electric light at the opposite end, and an electric circuit between the battery and the lamp, two circuit-closers within said electric circuit, means for closing the circuit to produce a constant illumination of the lamp, other means for producing a flash illumination from the lamp, and means for opening both circuit-closers.

5. Combined with a hollow torch-body, means for producing an electric light visible at one end of said body, a pivoted support for holding a blank cartridge, and means for exploding said cartridge and producing a momentary flash of the lamp.

6. Combined with a hollow torch-body in the form of a gun, a storage battery contained within the breech portion of said gun-shaped torch, an electric light in the muzzle end of said torch, and an electric circuit between said battery and said lamp, a pivoted lever in the form of a hammer, a second pivoted lever shaped as a trigger and adapted to coact with the first-mentioned lever, two circuit-closers in said circuit, one circuit-closer being closed when said hammer-shaped lever is retracted, and opened when said hammer is moved forward to close the other circuit-closer.

7. Combined in a torch, a body, a storage battery therein, an electric light at one end thereof, electric connections between said battery and lamp, and a circuit-closer forming a part of said electric connections and provided with means coacting with said electric connections to produce a constant illumination or an instantaneous flash when moved in one direction or the other.

8. A torch comprising a hollow torch-body, a battery therein, an electric light carried by said torch-body, an electric circuit in which the battery and lamp are contained, controlling connections for said circuit, and operating means coacting with said controlling connections and adjustable to three positions to govern said connections to respectively flash the lamp, produce a constant illumination thereof, and throw the lamp out of circuit.

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

JOHN C. PERRY.

Witnesses:
JOHN F. BYRNE,
GEORGE M. BOND.