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K. H. BLACK
GAS TORCH LIGHTER

2,502,073

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FIG. 1.

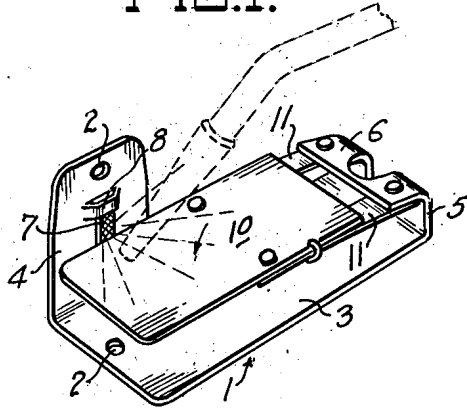


FIG. 3.

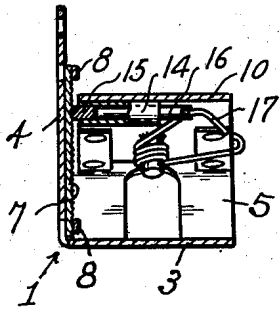


FIG. 2.

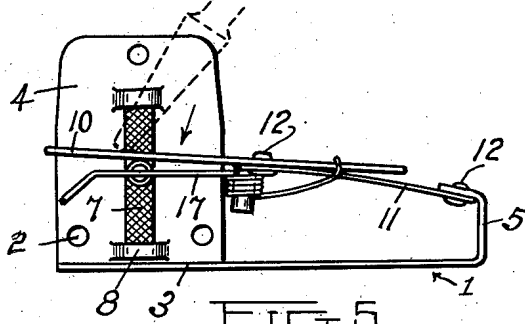
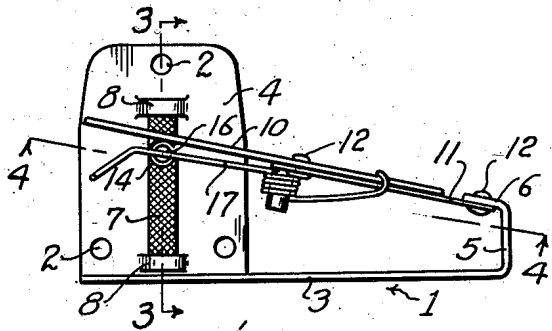


FIG. 4.

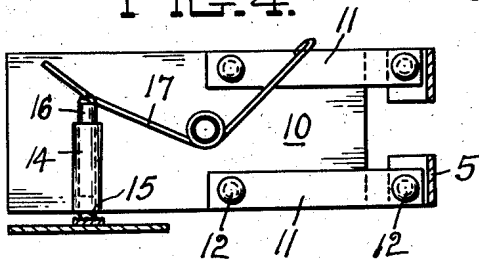


FIG. 5.

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UNITED STATES PATENT OFFICE

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1 Claim. (Cl. 67-6.1)

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This invention relates to means for lighting a gas burning torch by pressure engagement therewith of the torch nozzle.

The object of the invention is the provision of an improved device of this character that is simple and inexpensive in construction and easily operable to cause a heavy sparking and to light a gas emitting from a torch nozzle by merely applying a quick downward thrust of the torch nozzle in an easy natural manner against a movable part of the device.

Further objects and advantages of the invention will be apparent from the following detailed description and from the accompanying drawings, illustrating one embodiment of the invention, in which—

Fig. 1 is a top perspective view of a device embodying the invention showing, in dotted lines, a torch nozzle applying a gas lighting movement thereto; Fig. 2 is a side elevation of the device with the parts in normal position; Fig. 3 is a section on the line 3-3 in Fig. 2; Fig. 4 is a section on the line 4-4 in Fig. 2, and Fig. 5 is a view similar to that of Fig. 2 with the movable flint-carrying member depressed slightly from normal position by applied pressure of an indicated torch nozzle.

Referring to the drawings, 1 designates the body member of the device that is preferably stamped from sheet metal and provided, in the present instance, with openings 2 for receiving screws to facilitate attaching to a bench or other suitable support. This member is shown as having a flat bottom plate 3 for resting on a suitable support, a side flange 4 rising from a side edge of said plate near its forward end, and an end flange 5 rising from the rear end of the plate and terminating in a forwardly extending lip 6. A steel bar 7 having a rough outer face similar to a file surface is secured in upright position to the inner side of the flange 4, in the present instance being held thereto by inwardly struck loops 8 on the flange.

A pressure plate 10 extends forward, preferably on a slight upward incline from the rear flange lip 6, and is attached thereto by a suitable spring means which serves to normally hold the plate in yielding elevated position, as shown in Fig. 2. The spring attaching means preferably comprises flat spring metal strips 11 suitably fixed to the under sides of the lip 6 and plate 10, as by rivets 12, and extended a considerable distance forward on the plate with the plate attaching rivets near their forward ends. This facilitates the flexing action of the springs and

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distributes such flexing over substantially the full length of the metal strips so that it is not subject to any considerable flexing at any point, even should the plate 10 be pressed down to the bottom plate 3. This manner of mounting the plate 10 also causes the outer end of the pressure plate to move more nearly in a straight vertical line when depressed.

A flint-holding tube 14 is fixed crosswise to the under side of the pressure plate 10 with one end opening at a side edge of the plate in register with the exposed side of the striking bar 7. A flint 15 is slidably mounted in this tube and has an end projecting therefrom in position to have frictional engagement with the bar 7 as the plate 10 is depressed and raised. The flint 15 is forced outward against the bar 7 by a plunger 16 in the tube 14, and this plunger is engaged at its outer end and yieldingly forced inward by a spring 17 carried by the plate 10 at its under side.

The spring 17 is preferably of spring wire with its free end portion bearing inward against the outer end of the plunger 16, with its intermediate portion coiled around a downwardly projecting stud on the plate 10 and with its rear end portion anchored to the plate near its rear end.

In an operation of the device, it is positioned in a convenient place on a bench or other support adjacent a point where a gas torch is to be used, so that a downward swinging of a torch nozzle, indicated by dotted lines in the drawing, will strike and quickly depress the pressure plate 10 and cause the flint 15 to move down along the striker bar 7 and emit sparks to light the gas discharging from the nozzle. When the pressure plate 10 is relieved of the nozzle pressure, it will return to its normal raised position by the action of the springs 11.

I wish it understood that my invention is not limited to any specific construction, arrangement or form of the parts, as it is capable of numerous modifications and changes without departing from the spirit of the claim.

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

In a device of the class described, a body plate having a flange projecting from a side edge thereof substantially normal to the plate and a second flange projecting from an end of the plate, a striker bar carried by said first flange at its inner side, a pressure plate carried by and projecting from said second flange in normally spaced relation to and yieldingly movable toward said body plate in a plane parallel to and

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lengthwise of said striker bar, a tube carried by said pressure plate crosswise thereof near its free end, a flint mounted in said tube and adapted to project from an end thereof in position to have frictional engagement with said striker bar when the pressure plate is reciprocated, and spring means carried by the pressure plate and operable to exert a yielding outward pressure against the flint.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
2,384,844	Malmquist	Sept. 18, 1945