

W. S. ANDREWS & T. VAN ALLER.

IGNITING DEVICE.

APPLICATION FILED MAR. 30, 1911.

1,024,713.

Patented Apr. 30, 1912.

Fig. 1.

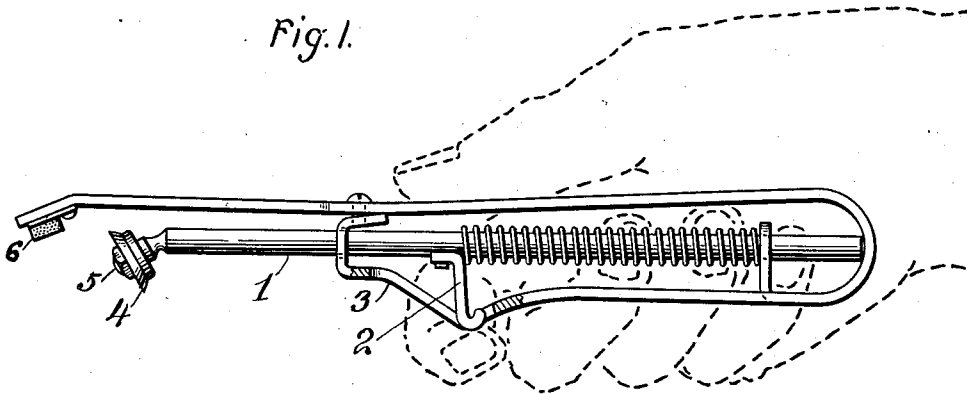


Fig. 2.

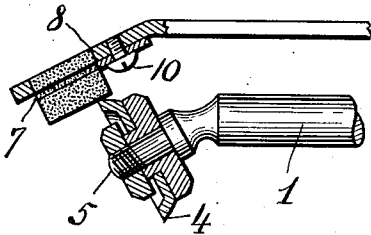


Fig. 3.

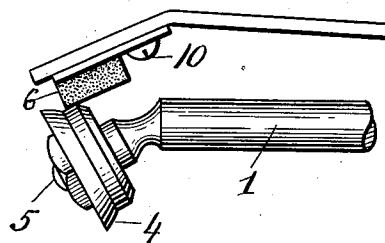
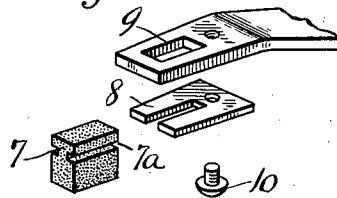


Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM S. ANDREWS AND TYCHO VAN ALLER, OF SCHENECTADY, NEW YORK.

IGNITING DEVICE.

1,024,713.

Specification of Letters Patent.

Patented Apr. 30, 1912.

Application filed March 30, 1911. Serial No. 617,870.

To all whom it may concern:

Be it known that we, WILLIAM S. ANDREWS and TYCHO VAN ALLER, citizens of the United States, residing at Schenectady, county of Schenectady, and State of New York, have invented certain new and useful Improvements in Igniting Devices, of which the following is a full, clear, and exact specification.

10 This invention relates to igniting devices for gas or other vapor jets of the type in which a pyrophoric alloy is used in combination with a spring actuated hammer which strikes a hammer blow and sets free
15 a shower of scintillating sparks in the gas jet. In a prior Patent #985,098 dated Feb. 21, 1911, issued to us, we described a form of such igniter, and the present invention is an improvement thereon, but is also capable
20 of use for other purposes.

The present improvements relate more particularly to the mount for the block of pyrophoric alloy to the end that no readjustment is required, and the alloy may be
25 used up more completely than it could with the form of mount described in our patent. To this end the block is channeled with two grooves or saw cuts near its base and extending full length on opposite sides, and
30 a forked strip of sheet metal is pushed into the grooves; the base is then set in a hole in the spring support and locked in place by a set-screw engaging the forked strip and support.

35 The invention will be clearly understood upon inspection of the accompanying drawing in which—

Figure 1 is a full size view of an igniter embodying the improvements: Fig. 2 is a
40 view showing in section the improved mount for the block of alloy: Fig. 3 is a view showing the normal position of the parts: and Fig. 4 is a view of the separated parts of the mount.

45 1 represents a spring pressed hammer rod sliding in guides in a metal handle, and 2 a trigger by which the operator's finger may strain the spring, automatic release being effected by the finger sliding over the sloping
50 guide 3.

4 is a scraping disk or cutter formed of a cup of sheet steel mounted on the hammer

rod so as to turn freely and held in place by a nut 5, all as described in our patent above mentioned.

55 6 is a small block of pyrophoric alloy of iron and cerium, or iron and lanthanum. The block is rectangular in section in both planes across and along its length and nearly square in the third dimensional
60 plane. We form a groove on each side near the base as indicated at 7 7^a and seat a flat spring of sheet metal 8 so that its forked end may slide in the grooves. The bent end of the igniter which forms an elastic support
65 for the block is punched with a rectangular hole, as indicated at 9, of a size to admit the base of the block, and a set screw 10 locks the parts together, so that the alloy is firmly seated and cannot work loose. This
70 mount is very secure and permits almost all of the alloy to be employed usefully in generating sparks.

Having thus described our invention, what we claim as new and desire to secure
75 by Letters Patent is:—

1. The combination with a pyrophoric igniting device, of a recessed support, a block of alloy seated therein, a thin plate interlocking with the body of block, means
80 for securing the plate to the support and a spring retracted striker to engage the block.

2. The combination with a pyrophoric igniting device, of a support, a block of pyrophoric alloy interlocking therewith in
85 the body of the block, a forked lock piece securing the block to the support engaging grooves therein and a spring retracted striker to engage the block.

3. The combination with a pyrophoric
90 igniting device, of a support, a block of pyrophoric alloy grooved near its base and entering a recess in the support, a thin forked plate entering the grooves, a set screw securing the plate to the support, and a
95 spring retracted striker to engage the block.

In testimony whereof we affix our signatures in the presence of two witnesses.

WILLIAM S. ANDREWS.
TYCHO VAN ALLER.

Witnesses:

BENJAMIN B. HULL,
MARGARET E. WOOLLEY.