(No Model.)

S. POOLE.

PLIERS FOR CUTTING AND CAPPING FUSE, &c.

No. 287,159. Patented Oct. 23, 1883.

Fig. 1

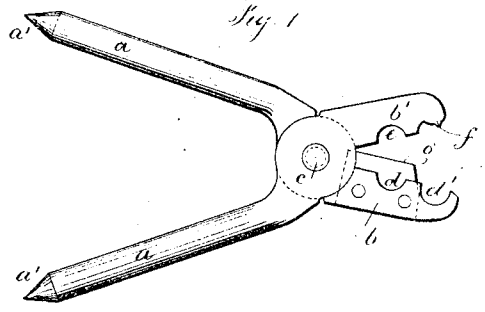


Fig. 2.

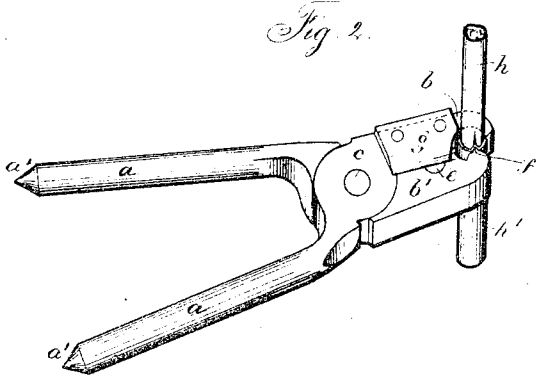


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

SAMUEL POOLE, OF BROOKLYN, NEW YORK, ASSIGNOR TO JOHN J. TOWER, OF SAME PLACE.

PLIERS FOR CUTTING AND CAPPING FUSE, &c.

SPECIFICATION forming part of Letters Patent No. 287,159, dated October 23, 1883.

Application filed July 20, 1883. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL POOLE, of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Pliers for Cutting and Capping Fuse, &c., and the following is declared to be a description of the same.

In mining and other operations where blasting is carried on the handling of fuses, cartridges, or explosive caps and cases of explosive powder is always attended with great risk, and unusual precautions are necessary to protect human life. Devices for securing the explosive cap upon the fuse have heretofore been made.

My invention consists of a device combining the qualifications of a fuse cutter, capper, and case-opener.

My improved pliers contain a pair of handles and jaws pivoted together. The handles, being made round, with parallel sides, and the ends being pointed, are used for making a hole in the blasting cartridge or case of giant-powder for the insertion of the explosive cap upon the end of the fuse. Upon the inner surface of one jaw of the pliers there are two transverse semicircular grooves, and upon the inner surface of the other jaw there is one transverse semicircular groove opposite to the groove in the other jaw nearest the pivot of the pliers, and there is a projecting lip also upon the end of this jaw, opposite to the second transverse groove in the other jaw, and upon the face of one jaw there is secured a plate of metal having a cutting-edge to sever the fuse. The fuse is cut by the blade, and at the same time compressed in the opposing semicircular transverse grooves to a size for entering the explosive-cap. The fuse and cap are laid in the second transverse groove, and the lip on the other jaw is forced into the shell of the cap, near its open end, to indent the metal into the fuse for securing the cap to the end of the fuse.

In the drawings, Figure 1 is an elevation of the pliers open. Fig. 2 is a perspective view of the same, showing also the fuse and explosive cap, as the indentation is made in said cap. Fig. 3 is an enlarged cross-section of the fuse and cap, showing the indentation.

The handles *a a* are preferably made round, with parallel sides and pointed ends *a' a'*, and are to be used to puncture the blasting cartridge or case of giant-powder for the insertion of the explosive cap. The jaws *b b'* and handles *a a* are pivoted together at *c*. The jaw *b* is made with two transverse semicircular grooves, *d d'*, upon its inner face, and the jaw *b'* is made with one transverse groove, *e*, upon its inner face opposite to the groove *d*, and at the end of the jaw *b'* there is a projecting lip, *f*, opposite to the groove *d'*. The cutter blade or plate *g* is upon the jaw *b*, and when the fuse is laid in the groove *e* and the pliers closed such fuse is cut off square by this cutter, and at the same time the end portion in the grooves *d e* is compressed to the correct size to enter the end of the explosive cap *h'*. The fuse *h* is now to be passed into the explosive cap *h'*, and the latter laid in the transverse groove *d'*, and the pliers are closed, the projecting lip *f* indenting the metal near the open end of the cap into the fuse and securing the two together.

If desired, the pivots *c* might be at the outer ends of the jaws *b b'*, in which case the handles will be continuations of the respective jaws, and in line, or nearly so, with them.

I claim as my invention—

1. The pliers for cutting and capping fuse, composed of the handles and pivoted jaws, one jaw having a cutter and two semicircular transverse grooves, and the other jaw having one semicircular groove opposite to one of the grooves in the other jaw, and a transverse projection opposite to the other groove, substantially as specified.

2. Pliers for cutting and capping fuse and perforating the cartridge, composed of round-pointed handles, jaws with coinciding transverse simicircular grooves, and a cutter adjacent to such grooves, and a semicircular groove in one jaw and a projecting rib on the other jaw for indenting the cap, substantially as set forth.

Signed by me this 13th day of July, A. D. 1883.

SAMUEL POOLE.

Witnesses:
GEO. T. PINCKNEY,
CHAS. H. SMITH.