Oct. 22, 1929. J. F. ERBELE 1,732,676

MINER'S FUSE PLIERS

Filed Oct. 2, 1928

Fig. 2.

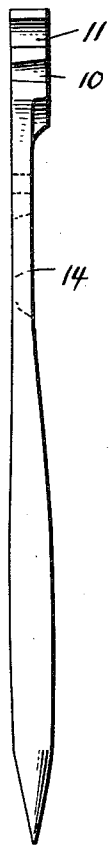


Fig. 1

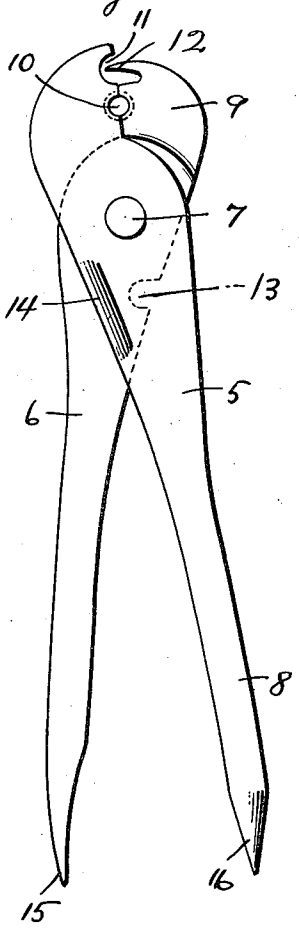
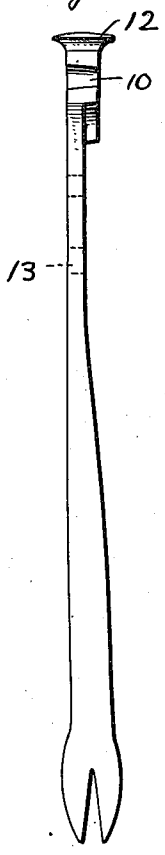


Fig. 3.



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UNITED STATES PATENT OFFICE

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MINER'S FUSE PLIERS

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The present invention relates to fuse pliers adapted particularly for use by miners and has for its principal object to provide a tool of this character embodying all of the necessary implements for cutting and fitting the fuse, as well as for fitting the fuse cap.

Other objects of the invention reside in the special construction and combination of the various elements comprising the invention, reference being had to the accompanying drawings, forming a part hereof, wherein:

Figure 1 is a side elevational view of the tool.

Figure 2 is an edge elevational view illustrating the inner jaw edge of one of the members of the plier, and

Figure 3 is a similar view of the other member of the pliers.

Referring now to the drawings in detail, I have illustrated my invention comprising a pair of plier members indicated at 5 and 6, respectively, pivotally connected at 7, intermediate their ends, and formed into handles 8 at one end, and jaws 9 at their opposite end. The inner face of each of the jaws and inwardly of the outer ends thereof are provided with cooperating transversely extending grooves 10, of a tapering formation toward one side of the jaw.

As illustrated in Figure 1 of the drawings, the grooves 10 cooperate with each other, when the jaws are in closed position to form a conical recess, within which the fuse cap of the character generally employed in blasting surfaces may be heated for crimping the edges thereof. Upon the member 5 of the tool and disposed outwardly of the jaw face thereof is also formed a transversely extending groove 11, of suitable area to accommodate for a dynamite fuse. The outer jaw end of the member 6 is formed into a flared blade 12, having its knife edge disposed transversely of the jaw face and extending outwardly therefrom whereby to enable the blades to enter the groove 11 at the outer end of the opposite jaw blade. It will be apparent that by fitting the fuse within the groove 11 and closing the jaw ends of the tool, the blades 12 will splice the fuse along one edge and longitudinally thereof. One edge of the handle 6, inwardly of the pivot 7 is formed with a transverse groove 13 of a suitable area to permit the seating of the fuse therein and the opposed edge of the handle 5 at a point adjacent the recess 13 is formed with a knife edge 14, whereby upon the movement of the handles toward each other, the knife edge 14 will serve to cut the fuses as the same protrude from one edge of the groove 13. The action of the knife edge 14 in performing its cutting operation is substantially similar to that of a pair of scissors, so that the protruding end of the fuse is cut in a neat manner.

The end of the handle member 6 is formed into a dynamite punch as indicated at 15, and the end of the opposite handle members is formed into a nail puller 16.

It is obvious that the invention is susceptible of various changes and modifications without departing from the spirit or scope of the invention or sacrificing any of its advantages, and I accordingly claim all such forms of the device to which I am entitled.

I claim:

1. A tool of the class described comprising a pair of pivoted members having handles formed at one end and jaws formed at their opposite ends, cooperating grooves formed on the opposed faces of the jaw members of said faces inwardly of the ends thereof and tapering toward one edge of the jaws and adapted to receive a dynamite cap for crimping the same upon the closing of the jaw, a transverse groove formed on one of the jaw faces adjacent the outer end thereof, a fuse splicing blade formed on the other of said jaws and protruding outwardly therefrom whereby to enter the groove of the opposed jaw blade upon the closing of the jaw, and a fuse cutter formed on the handle portion of the tool and comprising a recess formed in one of the opposed edges of one of the handles, and a knife edge formed on the opposed edge of the other of said handles and arranged in cutting relation with one edge of said recess.

2. A tool of the class described comprising a pair of tool members pivotally connected

intermediate their ends with handles formed at one end thereof, and jaws formed at their opposite ends, a fuse cap crimper formed on said jaws comprising a pair of cooperating transversely extending grooves formed on the opposed jaw faces and tapering toward one side of the jaws, a fuse splicing element formed at the outer ends of the jaws comprising a transverse groove formed in the opposed face of one of the jaws adapted to form a seat for the fuse, a transversely extending blade formed on the outer end of the other of said jaws and protruding outwardly from said jaw face, said blade having its ends flared for extending beyond the opposite sides of the jaw and adapted to enter the groove formed in the other of said jaws, and a fuse cutter carried by the handle members and comprising a transverse recess formed in the opposed edge of one of said members and a knife edge formed in the opposed edge of the other of said members and arranged in cutting relation with the other of said recesses.

In testimony whereof I affix my signature.

JOHN F. ERBELE.