Oct. 11, 1927. 1,644,705

M. H. BELCHER

COMBINATION TOOL

Filed Nov. 27, 1926

Fig. 1.

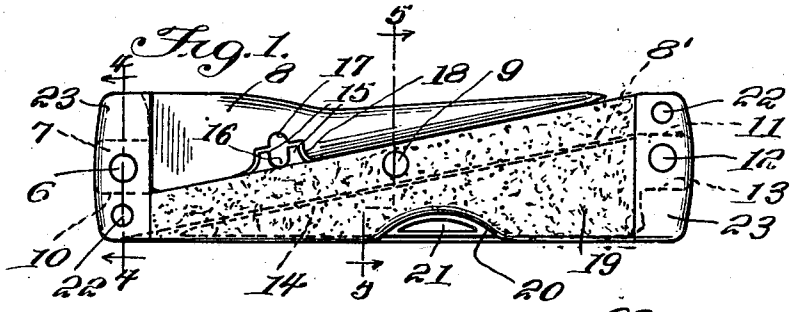


Fig. 2.

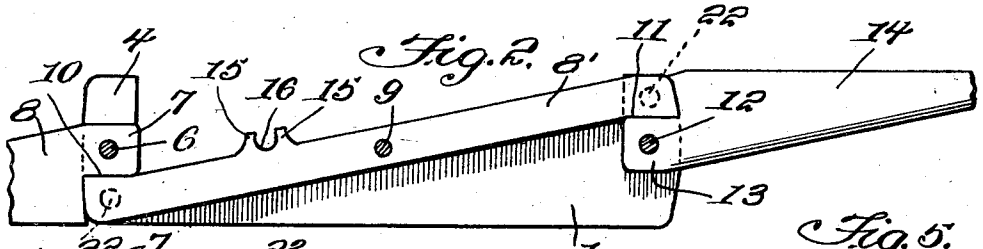


Fig. 3.

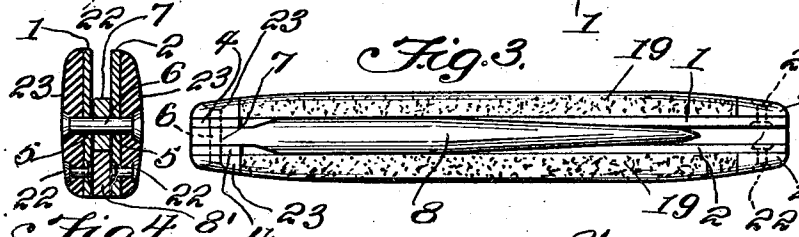


Fig. 5.

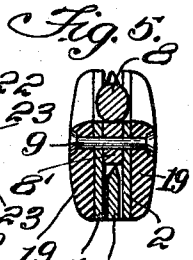
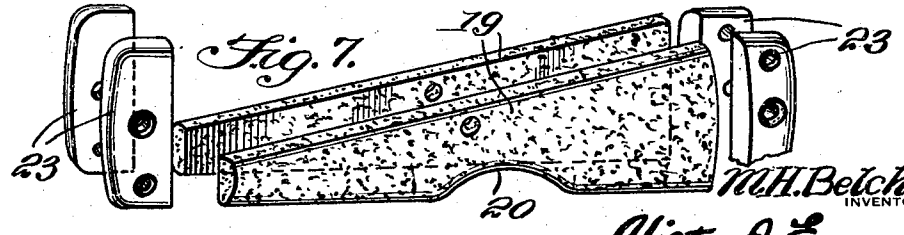


Fig. 4.



Fig. 6.

Fig. 7.



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UNITED STATES PATENT OFFICE.

MILES HARVEY BELCHER, OF GREASY CREEK, KENTUCKY.

COMBINATION TOOL.

Application filed November 27, 1926. Serial No. 151,193.

This invention relates to tools and its primary object is to provide a tool especially designed for miners and for general blasting purposes.

A further object of the invention is to provide a tool including a cutting blade and a combined cartridge punch and fuse crimper all associated in a single casing whereby the tool can be conveniently carried in the pocket of the user and be readily accessible to cut a fuse, punch a hole in the cartridge and crimp the cap on the fuse in a safe, adequate and expeditious manner.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claim.

In describing my invention in detail, reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which:

Figure 1 is a side elevation of the tool which forms the subject matter of the present invention and showing the parts in normal position.

Figure 2 is a similar view with the parts in operative position.

Figure 3 is a top plan view of the tool as shown in Figure 1.

Figure 4 is a sectional view taken on line 4—4 of Figure 1.

Figure 5 is a sectional view taken on line 5—5 of Figure 1.

Figure 6 is a perspective view showing the lining of the casing and a portion of the cap crimper and spring means for the tool.

Figure 7 is a similar view of the handle parts of the casing.

Referring to the drawings in detail the reference numerals 1 and 2 indicate the lining plates of the handle or casing of the tool, and as clearly shown in Figure 6 of the drawings, these plates are cut-away at an inclination as indicated at 3, and in a manner to leave projections 4 at one end thereof. These projections 4 are of the same width as the opposite ends of the lining plates and are provided with aligned openings 5 to receive a pivot pin 6 which is also passed through the shank 7 of a punch 8 which when normally arranged reposes upon a strip 8′ secured between the lining plates 1 and 2 in a manner to follow the inclined walls of the cut-away portions thereof and through the medium of a pin 9 as best shown in Figure 1 of the drawings. The ends of this strip 8′ are formed with shoulders 10 and 11 for a purpose which will be later apparent.

Pivotally secured through the medium of a pivot pin 12 passing therethrough and through the ends of the lining plates 1 and 2 opposite the projection 4 is a shank 13 of a knife blade 14. As shown in Figures 1 and 2 of the drawings, the shanks 7 of the punch and the shank 13 of the knife blade are so disposed so as to be engageable by the shoulders 10 and 11 respectively of the strip 8′ whereby said strip will retain the punch and knife blade in either their closed or open positions by such engagement as will be readily apparent.

Formed integral with and extending from one edge of the strip 8′ approximately midway its pivot point and one end thereof are a pair of spaced ears 15 between which is provided a substantially semi-circular recess 16 which cooperates with a similar shaped recess 17 formed in the inner wall of the recess 18 which accommodates the ears 15 when the punch is disposed in normal position as shown in Figure 1.

Secured to the lining plates 3 through the medium of the rivet 6 and the heads formed thereon are the handle cover plates 19 which as best shown in Figure 1 are provided with a cut out portion 20 so that access may be had to the depression 21 formed in the blade 14 whereby the latter can be moved to its operative position as shown in Figure 2. Secured to the lining plates 3 by rivets 22 are end blocks 23 which complete the handle or casing construction of the tool.

From the above description and disclosure of the drawings, it will be obvious that I have provided a tool especially designed for miners and general blasting purposes, and the knife blade 14 may be used for cutting a fuse of a shot, the punch is primarily designed for forming a hole in the cartridge to place a cap therein, while the opening formed by the recesses 16 and 17 when arranged in cooperative position as shown in Figure 1 are adapted to crimp the cap upon a fuse.

It is thought from the foregoing description that the advantages and novel features of my invention will be readily apparent.

I desire it to be understood that I may

make changes in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claim.

What I claim is:

A tool of the character described comprising lining plates having one of their edges arranged at an inclination, projections included in said lining plates, a strip secured between said lining plates and following the inclination of the inclined edges, shouldered ends formed on said strip and being disposed between the ends of the lining plates and projections respectively, work operating members having shanks secured between the ends of the lining plates and cooperating with the shouldered ends of the strip, and crimping means formed with said strip and one of said work operating members respectively and said operating members including a knife blade and a punch.

In testimony whereof I affix my signature.

MILES HARVEY BELCHER.