H. MUNDY & A. STOCK.

CUTTER.

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1,296,549.

Patented Mar. 4, 1919.

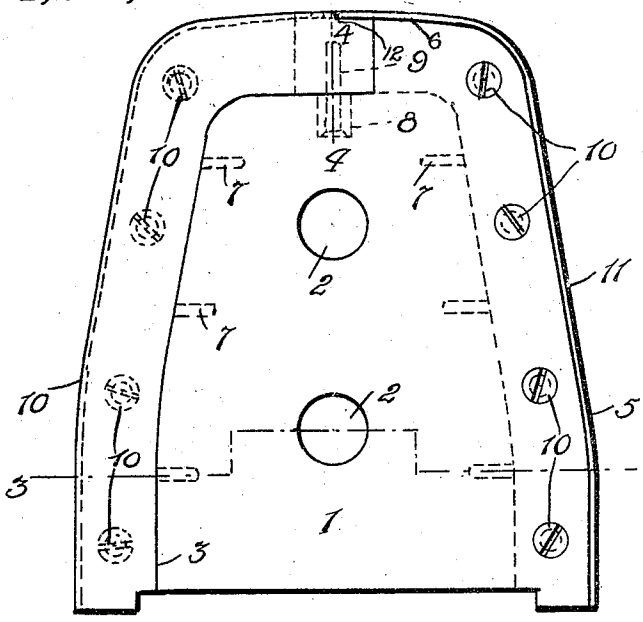


Fig 1

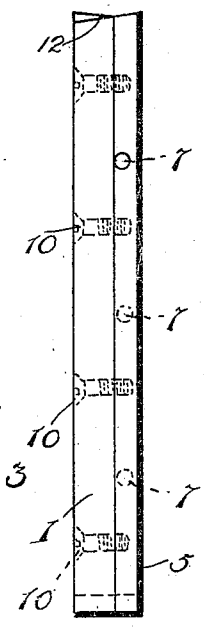


Fig 2

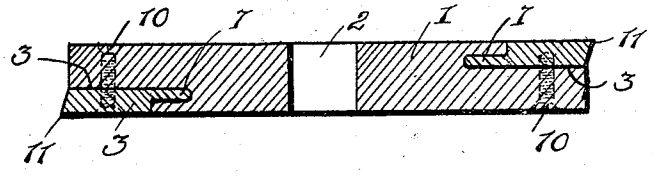


Fig 3

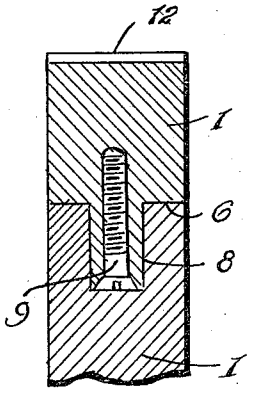


Fig 4

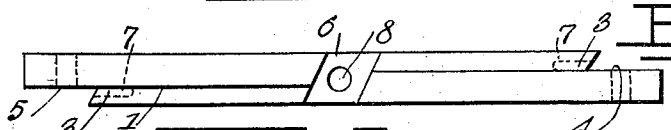


Fig 5

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UNITED STATES PATENT OFFICE.

HARRY MUNDY AND ALBERT STOCK, OF MONTREAL, QUEBEC, CANADA; SAID MUNDY ASSIGNOR TO SAID STOCK.

CUTTER.

1,296,549. Specification of Letters Patent. Patented Mar. 4, 1919.

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To all whom it may concern:

Be it known that we, HARRY MUNDY and ALBERT STOCK, both subjects of the King of Great Britain, residing at Montreal, Province of Quebec, Canada, have invented certain new and useful Improvements in Cutters; and do declare that the following is a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The present invention relates to cutting tools and more particularly to a cutter for cutting or grinding the interior of explosive shells. It has been herebefore customary to provide cutting edges of tools with high speed steel but it has been found that "stellite" is more adaptable for this use.

"Stellite" is a commercial name for a binary metal alloy comprising a metal of the chromium group and cobalt or it may consist of nickel or a metal of the chromium group. These stellite cutting edges have been welded to the body or shank of the tool, but this has been found impractical for tools of the present character.

An object of the present invention is to provide a tool of this character in which the cutting edges thereof are made of stellite and these stellite cutting edges are fastened to and reinforced upon the shank of the tool.

With the above and other objects in view which will hereinafter appear as the description continues, the invention consists of the novel features of construction, combination and formation of parts as will be hereinafter more fully described and particularly pointed out in the appended claim.

In the accompanying drawings has been shown a simple and preferred form of the invention, it being, however, understood that no limitation is necessarily made to the precise structural details herein exhibited, but the right is hereby reserved to any changes, alterations or modifications to which recourse may be had that come within the scope of the claim without departing from the spirit of the invention or sacrificing the efficiency of the same.

In the accompanying drawings:

Figure 1 is a plan view of the tool embodying the present invention;

Fig. 2 is a side elevation of the same;

Fig. 3 is a cross section taken on the line 3—3 of Fig. 1;

Fig. 4 is a detail section taken on the line 4—4 of Fig. 1; and,

Fig. 5 is an edge view looking toward one end of the body or shank of the cutter, with the blades removed.

Referring now more particularly to the accompanying drawings wherein like and corresponding parts are designated by similar reference characters throughout the several views—

The tool herein shown comprises the body portion 1 consisting of low carbon steel being of substantially a rectangular configuration and having its outer edges shaped to conform to the contour of the face of the shell which is to be cut. The body portion of the tool is provided with the openings 2 whereby it may be secured to a suitable holder. The opposite faces of the shank of the tool are provided with the grooves 3. These grooves are formed adjacent the edges of the tool, and one portion of which indicated by the numeral 4 extends along the upper face of the tool, whereas the other groove 5 is formed in the lower face of the tool. These grooves are provided with an oblique-walled recess 6 formed in the medial portion of the front end. Communicating with the grooves are the recesses 7 and communicating with the oblique-walled recess 6 is a bore 8. For forming the stellite cutting edges upon the tool the shank as herebefore described is placed in a suitable mold and the screw 9 is placed within the bore 8 whereby the screws 10 are supported within the grooves 3. The molten stellite is then poured within the mold and it will fill the recesses 7 for forming the tips 11. This molten stellite will also travel within the recesses 7 and bore 8, thereby completely embedding the screws 9 and 10. That portion of the stellite which rests within the opening 6 is formed with a cutting nose 12.

From the foregoing it is obvious that a welding flux is unnecessary for securing the stellite cutting tips to a low carbon steel body of the tool as the screws 9 and 10 will securely hold the stellite in place and the same will be reinforced upon the tool by that portion of the stellite which flows within the recesses 7 and bore 8.

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

A cutting tool of the type described, in-

cluding a body member, with its lateral and forward edges provided with grooves formed in upper and lower opposite edges thereof, respectively, the forward central edge of said body member having an oblique-walled recess communicating with said grooves, said oblique-walled recess having a bore extending inwardly therefrom, said grooves having their inner walls each provided with a plurality of recesses, and cutting tips filling said grooves, recesses and bore, said tips each having a cutting nose positioned in said oblique-walled recess.

In witness whereof we have hereunto set our hands.

HARRY MUNDY.
ALBERT STOCK.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."