April 26, 1932. R. F. LAMB 1,855,975

COMBINATION HOOK AND CUTTER

Filed May 14, 1930

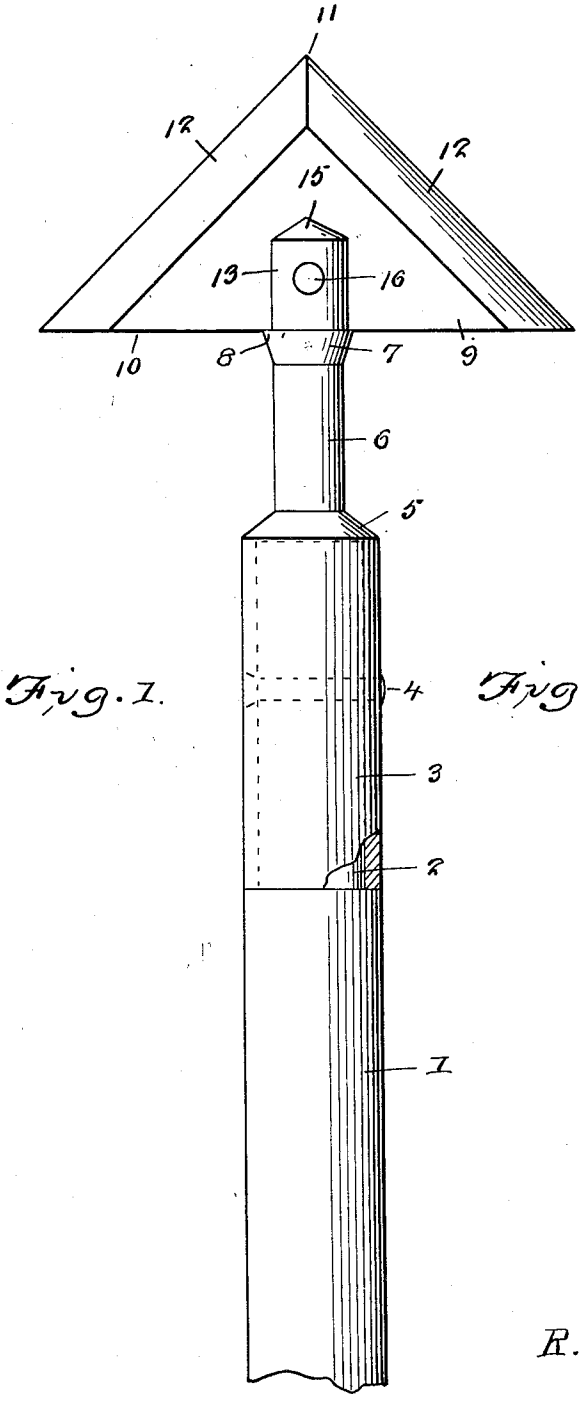


Fig. 1.

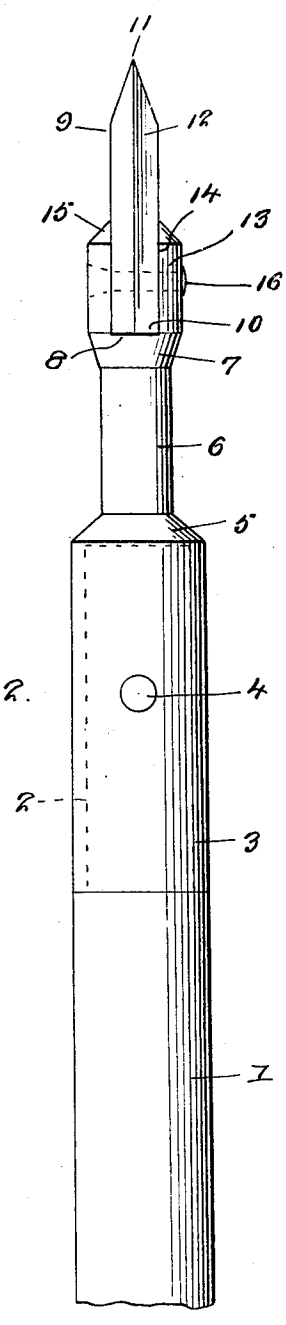


Fig. 2.

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UNITED STATES PATENT OFFICE

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COMBINATION HOOK AND CUTTER

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This invention relates to a tool for use by firemen for the purpose of removing wall materials, in the event of fire, such for example, as plaster, metal, metal lath and cement plaster ceilings, walls, etc., and the primary object of the invention is to provide a device for this purpose which may be more readily employed and with better results than by the use of the hooks which are customarily employed.

Another object of the invention is to provide a tool for the purpose stated in the use of which there will be no likelihood of the firemen being injured by falling material such as sheets of metal or metal laths after the material has been pulled from its fastenings.

Another object of the invention is to provide a tool for the purpose stated which will be exceptionally useful in the tearing loose of sheet metal structures and in accomplishing which the tool is so designed that a number of sheets of metal may be torn from a building wall or ceiling by repeated use of the tool and without any interruption in the work, until several pieces have been impaled upon the tool.

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, it being understood of course that minor changes may be made so long as they fall within the scope of the 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 view in elevation of the tool embodying the invention.

Figure 2 is a similar view looking at the edge of the blade of the tool.

The tool comprises a handle 1 which is reduced in diameter at one end as indicated by the numeral 2 and a ferrule 3 is fitted to this end of the handle and a rivet 4 is fitted through registering openings in the ferrule and the reduced portion 2 of the handle 1 whereby to securely connect these parts. At its outer end the ferrule 3 is closed and has a beveled reduced portion 5 and a cylindrical stem portion 6 and the said stem portion is formed with a circumferential enlargement 7 providing a circumscribing beveled shoulder 8 upon the stem.

The blade of the tool is indicated in general by the numeral 9 and the said blade is formed of metal and preferably of steel and as shown in the drawings, the blade is of triangular form and has a blunt lower edge 10 which bears upon the shoulder 8 and its other edges are inclined upwardly to a sharp point 11 and, throughout the length of these edges, the blade is beveled upon its opposite sides as at 12. The stem 6 is formed at its upper end with a substantially cylindrical head 13 which is formed with a diametric slot 14 and the upper end of the head is of the tapered conical form shown in the drawings and indicated by the numeral 15. The shoulder 8 is beveled and the upper end of the head is conically tapered in order that said parts may readily pass beneath or under the sheets of metal which are torn loose from a wall or ceiling.

The blade 9 is fitted in the slot 14 at a point midway between the lower corners of the blade and a rivet 16 is secured through the head 13 and through the said blade 9.

Inasmuch as the blade possesses the characteristics above outlined, it will be evident that its point 11 constitutes a piercing or entering point and its beveled edges 12 constitute cutting or splitting edges, and it will be evident from the description of the use of the tool which is to follow that the lower blunt edge 10 of the blade constitutes an impact or hammer element.

In the use of the tool, the same is grasped by a fireman and a forceful thrust exerted on the handle thereof so as to cause the piercing point 11 of the blade to pierce the sheet metal or other material which is to be dislodged and, if sufficient force is exerted, the blade will of course be forced entirely through the sheet metal or other part due to the cutting action of the edges 12 of the blade.

However, if the complete penetration of the sheet metal or other material is not effected by the first operation, repeated thrusts are made until the blade has been caused to pass entirely through the part to be removed whereupon the handle is rotated by the fireman's hands through one quarter thrust so as to position the blade at right angles to its former position. In the piercing operation, the incision made in the material will of course permit of the handle being thrust in the incision, and it will therefore be evident at this point that the handle may be repeatedly, rapidly, forcefully reciprocated so as to cause the abutting edge 10 of the blade to impact the surface of the sheet metal or other part of the wall or ceiling and, as considerable force can be exerted in carrying out this step of the operation, and inasmuch as the fireman using the tool may bring the impact edge 10 of the blade into contact with the inner surface of the material to be removed and forceful pulls exerted upon the handle member 1 so as to pull the material loose from any fastening devices such as bolts, rivets, or the like.

It will further be understood from the foregoing description of the invention, that inasmuch as the penetration of the material results in an opening through which the handle of the tool may be inserted, the piece of material removed in the carrying out of the operation as above described, may be permitted to remain on the handle after it is separated from the wall or ceiling, and if the material is in the nature of sheet metal and comparatively light in weight, a number of such pieces of material may be torn loose from the wall or ceiling structure without the fireman stopping his work to remove each piece individually, so that when as many pieces have been accumulated as can be conveniently carried away by the fireman to a place where they are to be deposited, this disposition of the pieces of material is carried out in a single operation and therefore the work is materially expedited.

What I claim is:—

An impaling tool comprising a ferrule adapted to receive a handle, said ferrule having one end closed by a wall having a beveled surface, a stem portion joined with said wall and being less in diameter than the ferrule and concentric therewith, said stem portion having at its outer end a beveled shoulder and a head upon said shoulder, said head being conically tapered at its outer end and the head having a slot disposed transversely thereof and a triangular blade seated in said slot and having an edge bearing upon said shoulder.

In testimony whereof I affix my signature.

RICHARD F. LAMB.