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1,471,461

R. J. HARMON

COLD CHISEL

Filed April 11, 1922

Fig. 1.

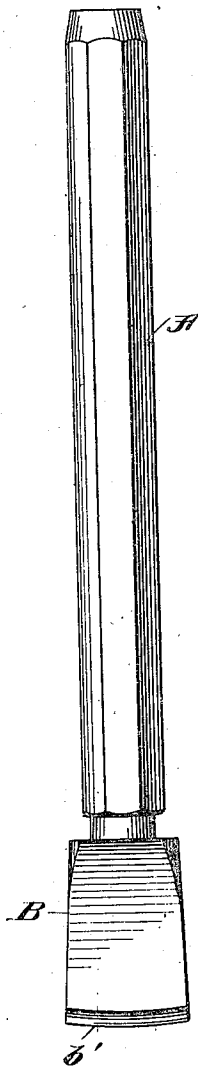


Fig. 2.

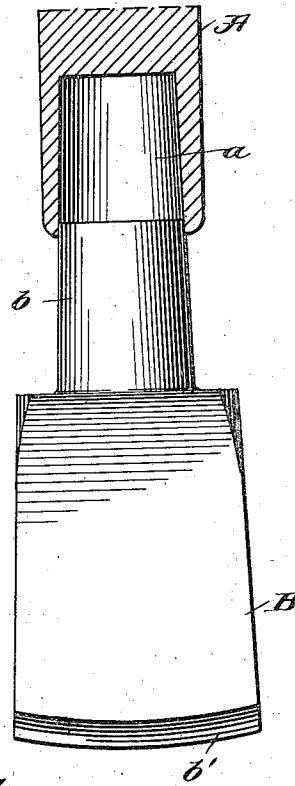
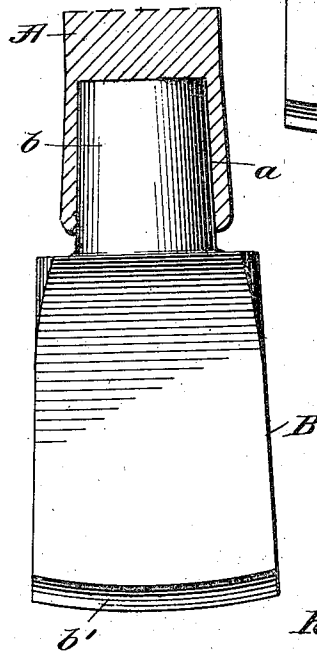


Fig. 3.



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UNITED STATES PATENT OFFICE.

RICHARD J. HARMON, OF BINGHAMTON, NEW YORK.

COLD CHISEL.

Application filed April 11, 1922. Serial No. 551,631.

To all whom it may concern:

Be it known that I, RICHARD J. HARMON, a citizen of the United States, residing at Binghamton, in the county of Broome and State of New York, have invented new and useful Improvements in Cold Chisels, of which the following is a specification.

The present invention relates to improvements in cold chisels, and has for its object to provide a cold chisel with a removable point or head whereby a single handle or body may be utilized with a series of points.

By the invention, the heads or points may be more readily tempered as desired than if they are formed integral with the handle or body, and as a single handle, can be employed with several different points or heads, there results a considerable saving in metal and corresponding reduction in the cost of manufacture.

Preferably the handle or body of the improved chisel is made of untempered tool steel, while the head or point is drop forged and tempered to the required degree, the head or point having a shank or pin that is fitted into a socket formed in the lower end of the handle or body and held securely therein by the pressure of the socket walls which are slightly expanded as they are forced over the stem or stud on the point.

In the accompanying drawing:

Figure 1 is an elevation of a cold chisel constructed in accordance with the present invention.

Figure 2 is a view, on an enlarged scale, showing the lower, socketed, portion of the handle or body in section and the head or point in elevation, the head or point being practically withdrawn from the handle.

Figure 3 is a view similar to Figure 2 showing the handle and the point or head fully engaged.

Referring to the drawing, in which like reference characters designate the same parts in the several figures, the improved cold chisel comprises a handle or body A and a head or point B which is formed separately, from and removably connected with the handle or body.

As shown, the handle or body is of the usual form, being an elongated piece of metal, of polygonal shape in cross section, and is provided at its lower end with a

socket *a* that receives a pin *b* integral with the blade or head B.

The blade or head B is, as usual, of greater width than the stem or body A and has a sharpened lower edge *b'*.

The shank or pin *b* at the upper end of the head or blade B and socket *a* are of circular form in cross section, and slightly tapered or reduced in diameter from the lower to the upper end, the shank or pin being however slightly larger than the socket so that the latter will be expanded laterally somewhat as it is forced over the shank or pin.

Preferably, the handle or body A is made of untempered steel which possesses sufficient elasticity to permit of such lateral expansion and to insure that after the handle is driven onto the shank or stem *b* of the blade, it will exert sufficient lateral pressure to maintain a firm engagement between the handle and blade.

The stem or shank *b* is slightly longer than the depth of the socket *a* so that the end of the handle or body will not contact with the upper edge of the head proper when the blade and handle are fully engaged and the upper end of the pin bears against the end of the socket.

As previously stated, the blade or head B is highly tempered so that the cutting edge *b'* thereof will be as effective as possible, and it is preferably formed by drop forging.

By making the blade separate from the handle or body A of the chisel, it can be tempered as desired more satisfactorily than if these parts are integral. Further, a single handle or body A may be used with a series of points or heads, the parts being readily assembled or separated without heating.

It will be appreciated that the handle or body of the improved chisel may be employed with any one of a series of heads or points, so that there is a considerable saving of metal and consequent reduction in expense of manufacture.

I claim:

A cold chisel comprising an elongated body of untempered steel having a socket opening through its lower end, whose bottom presents an unbroken surface and a detachable point of steel highly and uniformly

tempered throughout and provided with a tapering tang fitted in the socket in the body, the socket and tang being so proportioned that the tang will seat throughout its end area on the bottom of the socket, but the socket walls will first be slightly expanded as the tang is forced therein and the point and body held together by the lateral pressure exerted on the tang by the socket walls, said tang also having a shoulder which does not seat on the end of the socket but is sufficiently spaced therefrom to facilitate the removal of the point.

In testimony whereof I have hereunto set my hand.

RICHARD J. HARMON.