Dec. 6, 1932. W. H. WELLS 1,890,273

CARPENTER'S TOOL

Filed Sept. 9, 1931

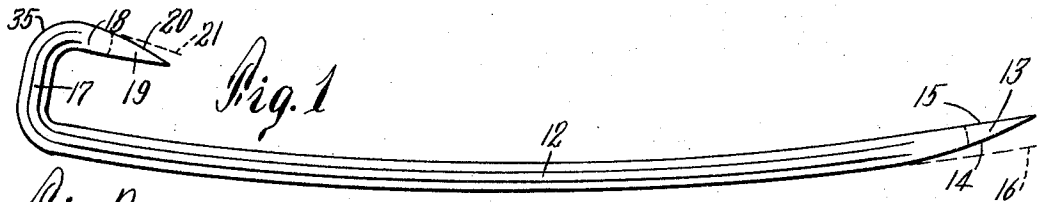


Fig. 1

Fig. 2

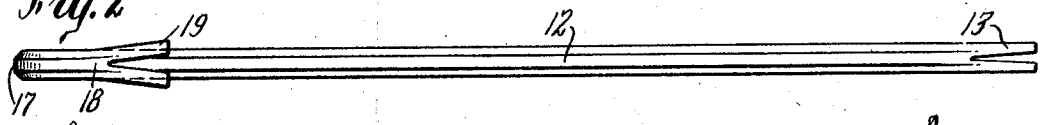


Fig. 3

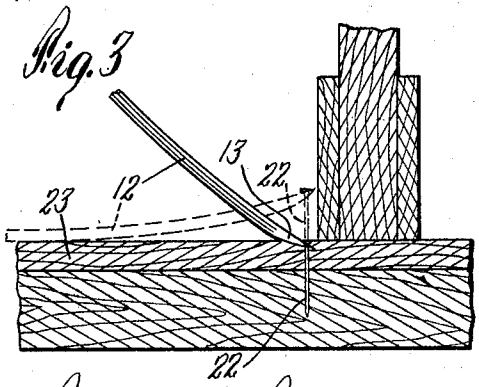


Fig. 4

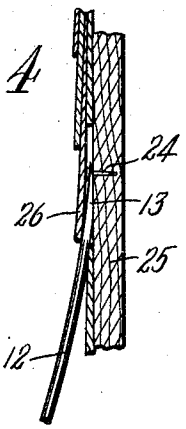


Fig. 5

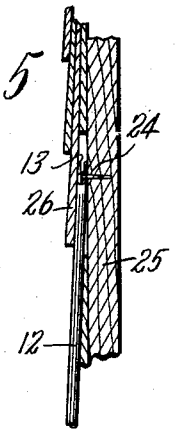


Fig. 6

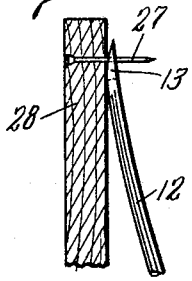


Fig. 7

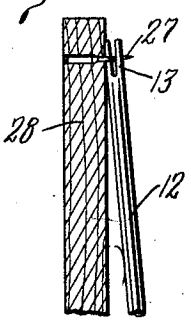


Fig. 10

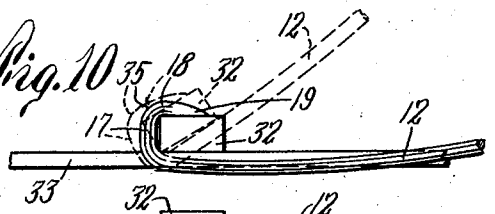


Fig. 11

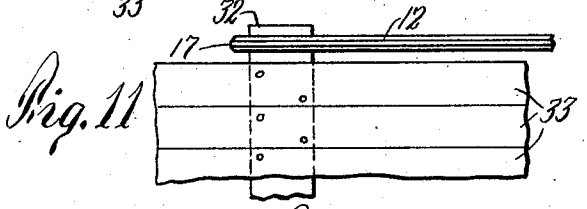


Fig. 8

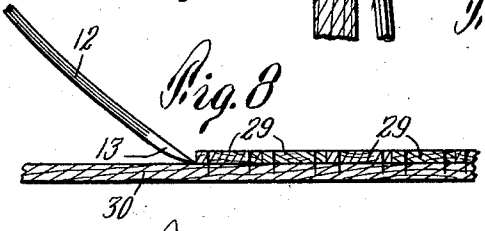


Fig. 9

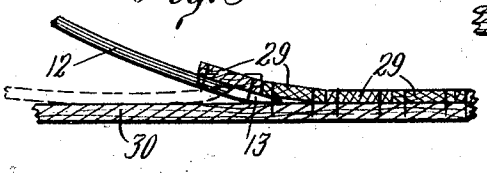
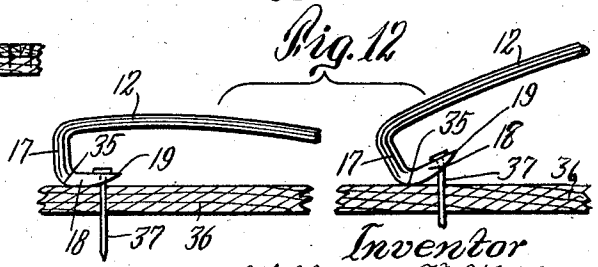


Fig. 12



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Patented Dec. 6, 1932 1,890,273

UNITED STATES PATENT OFFICE

WILLIAM H. WELLS, OF CONCORD, MASSACHUSETTS

CARPENTER'S TOOL

Application filed September 9, 1931. Serial No. 561,879.

This invention relates to hand tools adapted to be manipulated by carpenters to perform various functions.

The chief object of the invention is to provide a tool adapted to extract a fastener such as a nail or spike from a relatively inaccessible location, and without bending the fastener.

Other objects will be apparent from the following specification and the drawing forming a part thereof.

Of the accompanying drawing forming a part hereof,

Figure 1 is a side view of my improved tool.

Figure 2 is an edge view of the same.

Figures 3 to 12 are fragmentary views illustrating various uses of the tool.

The same reference characters indicate the same parts in all of the figures.

A tool embodying the invention is composed of an elongated bar, preferably octagonal in cross section, although I am not limited to this form.

The bar is bent from an originally straight form so that it includes a major portion 12, having a gradual curvature from end to end, the curve having a long radius. For example, when the length of the major portion is approximately two feet, the length of said radius may be approximately six feet.

The major portion is provided at one end with a bifurcated extracting claw 13, having side faces 14 and 15 converging to a chisel edge, the face 14 being preferably inclined to offset the chisel edge from an imaginary continuation of the saliently curved side of the major portion shown by the dotted line 16, Figure 1.

The opposite end portion of the bar is bent to form an angular terminal comprising a neck 17 projecting inwardly from the saliently curved side of the major portion 12, and an arm 18 projecting from the neck and overhanging an end portion of the reentrantly curved side of the major portion, said arm forming the opposite end of the bar.

When the angular terminal is intended to be used as a nail extractor I provide the arm 18 with a bifurcated chisel edged extracting claw 19, having a side face 20, which is preferably inclined to offset the edge inwardly from an imaginary continuation of the outer side of the arm 18 shown by the dotted line 21, Figure 1. The claws of the major portion 12 and arm 18 face in the same direction as shown by Figures 1 and 2.

Among the functions that may be performed by the described tool are those next described.

A nail 22 driven in a relatively inaccessible position into a structure portion 23, may be engaged by the claw of the major portion 12, as indicated by full lines in Figure 3, and extracted by swinging the major portion downward on the flat surface of the portion 23 from the full line position to the dotted line position. The saliently curved side of the major portion 12 is thus caused to contact with the flat surface of the structure portion 23 at points of support, or fulcrum points, successively increasing in distance from the nail, the result being that the nail is extracted without being bent.

The major portion claw may be engaged with a nail 24, driven into a structure member 25 under a course of shingles 26, as shown by Figure 4. The major portion may then be rotated on its longitudinal axis to extract a nail by twisting it around the prongs of the claw, as indicated by Figure 5.

The major portion claw may be engaged with a nail 27, driven into a structure member 28, as shown by Figure 6 the major portion being then turned on its longitudinal axis to twist the nail and pull its head through the inner side of the member 28. This operation is feasible when the nail is headless, or has a relatively small head.

The angular terminal projecting laterally from the major portion 12 constitutes a hand grip to facilitate the rotation or turning of the major portion on its longitudinal axis.

The major portion claw may be inserted under a board 29, nailed to a member 30, as indicated by Figure 8, and then swung downwardly and pushed further inward, as indicated by Figure 9, to cause the saliently curved side of the major portion to bear on the member 30, at fulcrum points at succes-

sively increasing distances from the claw, the tool being used in this way to detach a series of boards 29 from the member 30.

The angular terminal and the adjacent part of the major portion 12 constitutes a socket adapted to be engaged as shown by full lines in Figure 10, with a member 32 to which boards 33 are nailed. The major portion 12 may then be swung to the position shown by dotted lines in Figure 10, to wrench the member 32 loose and remove it from the boards 33.

The arm 18 and neck 17 of the angular terminal meet to form a fulcrum or point of support 35 adapted to bear on a flat surfaced structure 36 into which a nail 37 is driven. The arm 18 constitutes the short arm of a lever of which the neck 17 and the major portion 12 constitutes the long arm. When the claw is engaged with the head of the nail 37, force may be exerted on the long arm to extract the nail all as indicated by Figure 12.

It is obvious that the tool may be used to perform various other functions and is not limited to those above described.

The word nail as used herein is intended to mean a spike or any other fastener adapted to be driven and extracted like a nail.

I claim:

As an article of manufacture a carpenter's tool composed of a metal bar including a curved major portion having a continuous curve of long radius providing a salient outer side and a reentrant inner side, an extracting claw at one end of the major portion, and an angular terminal at the opposite end of said portion projecting inwardly from the inner side thereof, said terminal comprising a short arm overhanging a part of the inner side of the major portion and a neck connecting said arm with the major portion, the salient outer side of the major portion providing a point of support adapted to bear on a flat surface at one side of a driven nail engaged by the claw, and said point of support being caused to progress outwardly from the nail when the tool is manipulated to lift the claw, so that the nail may be extracted by a non-bending pull, the terminal, and a part of the major portion constituting a socket formed to engage a structure member and adapted to be forcibly turned by pressure exerted on the major portion to wrench said member loose, said terminal constituting a hand grip adapted to facilitate a turning movement of the tool on the longitudinal axis of the major portion to cause the claw of said major portion to exert a twisting force on a nail and thereby extract the same.

In testimony whereof I have affixed my signature.

WILLIAM H. WELLS.