D. EASTMAN.

METAL HANDLE FOR TOOLS.

APPLICATION FILED APR. 4, 1912.

1,158,032. Patented Oct. 26, 1915.

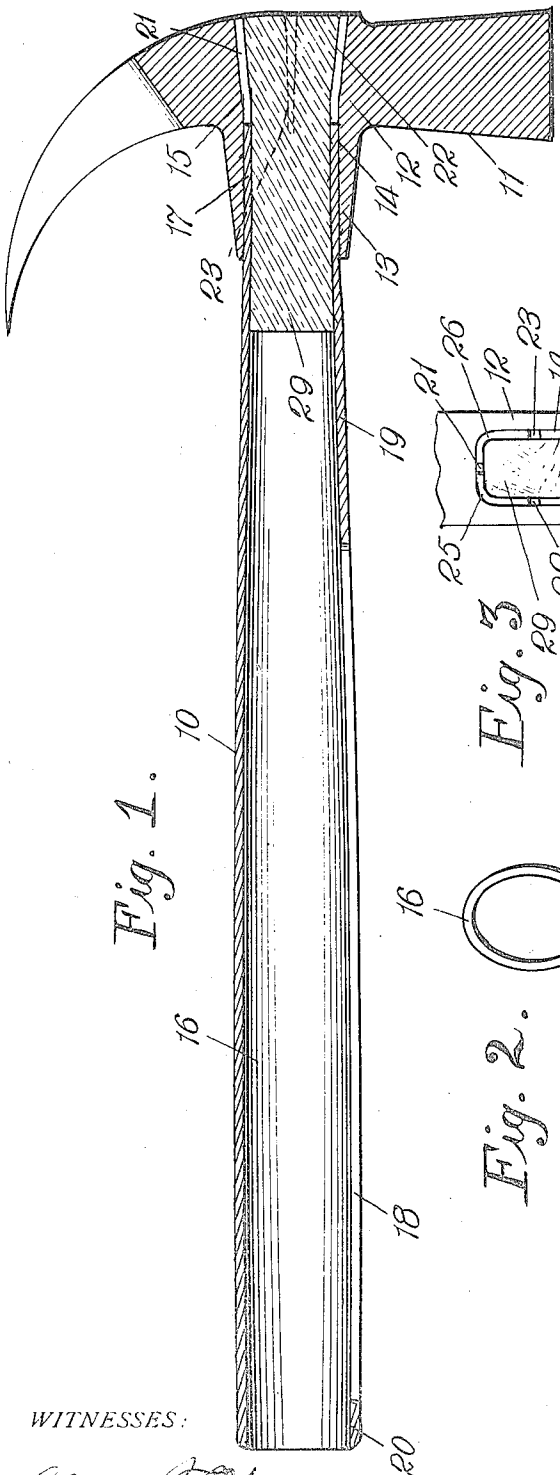


Fig. 1.

Fig. 3.

Fig. 2.

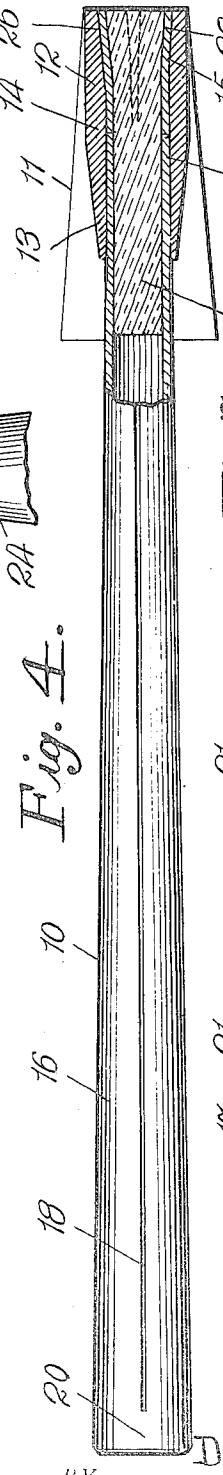


Fig. 4.

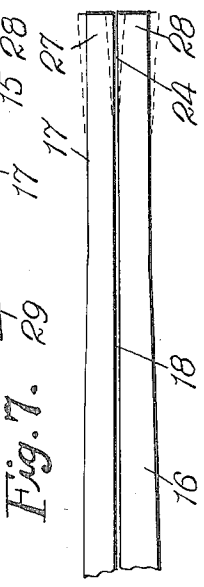


Fig. 7.

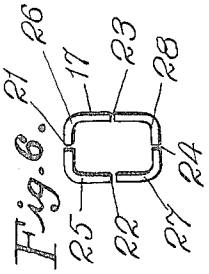


Fig. 6.

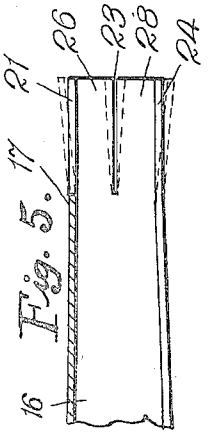


Fig. 5.

WITNESSES:

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METAL HANDLE FOR TOOLS.

1,158,032. Specification of Letters Patent. Patented Oct. 26, 1915.

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To all whom it may concern:

Be it known that I, DAVID EASTMAN, a citizen of the United States, and a resident of New York, county and State of New York, have invented a certain new and useful Improvement in Metal Handles for Tools, of which the following is a full, clear, and exact specification.

This invention relates to a class of hollow handles made of metal and adapted to be used in conjunction with tools of various types.

My invention has for its object primarily to provide a hollow metal handle for hammers, hatchets, axes, or the like, and which is so constructed that the tool proper may be readily applied thereon and held against displacement, thereby dispensing with the employment of handles made of wood which are commonly known to become loose after a short period of use and are susceptible of being easily broken.

Another object of the invention is to provide a form of metal handle adapted to receive the impact resulting from the force of the blow of the tool when in use, thus obviating all resistance which may tend to bruise or sting the hand of the person using the tool.

A further object of the invention is to provide a metal handle having a form of neck wherein a plurality of integral members or fingers are employed and which are adapted to be expanded so as to snugly engage the walls of the eye of the tool, in order to firmly hold the tool upon the handle; and a still further object of the invention is to provide an element or wedge adapted to be inserted between the expansible members whereby the members will be directed to conform with the shape of the walls of the eye and held tightly thereagainst.

A practical embodiment of the invention is represented in the accompanying drawing forming a part of this specification in which similar characters of reference indicate corresponding parts in all the views, the said invention being more fully described hereinafter and then pointed out in the appended claims.

In the drawing, Figure 1 is a sectional view showing a hammer with one form handle embodying my invention applied thereto. Fig. 2 is a view of the free end of the handle. Fig. 3 is a fragmentary view of the head of the hammer showing how the expansible members are forced to engage the wall of the eye of the hammer by the use of the wedge. Fig. 4 is a detail view partly in section of the underside of the handle. Fig. 5 is a fragmentary sectional view through the neck of the handle and its expansible members. Fig. 6 is an end view of the expansible members of the handle, and Fig. 7 is a fragmentary inverted plan of the neck portion of the handle.

For the purpose of illustrating the utility of my invention the hollow metal handle 10 is shown as applied to a hammer 11 having a head 12, and an annular flange or neck 13, though it is evident that the handle may be used in conjunction with the usual or any preferred type of hatchet, ax, or other forms of tools and instruments. Through the annular flange 13 and head is the customary opening or eye 14 the wall of the head of which is formed on an incline, or converges, as at 15.

The handle 10 may be of any suitable length, shape, or size, and is made of sheet metal, but preferably of steel so as to be resilient to a degree, in order to slightly give to the force exerted thereon when a blow is struck during the use of the tool. By the use of proper appliances the handle 10 is stamped to provide a substantially oval body portion 16 which is tapered and terminates at one of its ends with a neck 17 of approximately a rectangular shape. The lengthwise edges of the body portion 16 of the handle are spaced apart for a slight distance whereby a slot 18 is provided so that the handle will receive the impact from the force of the blow of the tool when used practically without any resistance resulting therefrom as is incident to many forms of tool handles in ordinary use. The slot 18 may extend the entire length of the body portion of the handle, or a part thereof as well as its neck may be spot-welded, as at 19, and the body portion may also be spot-welded, at 20 at the end opposite to the neck.

Between the corners of the neck 17 of the handle and lengthwise thereof are a plurality of slits 21, 22, 23, 24 whereby angular or substantially L-shaped expansible members, or fingers 25, 26, 27, 28 are integrally provided so that when the neck of the handle is inserted in the eye 14 of the flange and head of the tool by then forcing

an expanding element or wedge, 29, made of wood or other suitable material, the members or fingers will be directed so as to conform with and closely engage the inclined or converging portions of the wall 15 of the eye of the head of the tool.

In the foregoing description I have embodied the preferred form of my invention, but I do not wish to be understood as limiting myself thereto, as I am aware that modifications may be made therein without departing from the principle, or sacrificing any of the advantages of this invention, therefore I reserve to myself the right to make such changes as fairly fall within the scope thereof.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:—

1. As an article of manufacture, a hollow metallic handle for percussion tools, the body portion of said handle having a cross section one dimension of which is greater than the other, a narrow opening extending substantially the entire length of said body portion and being located in substantially the middle of one edge of said handle, said opening being of a width sufficient to prevent the sides thereof from touching, the said body portion of said handle being constructed resilient to permit said opening to be normally distorted when said handle is in use to absorb percussion shocks, and means provided on one end of said body portion to attach said handle to a percussion tool.

2. A metallic handle for percussion tools and the like, comprising a tubular body portion of a distorted oval cross section, said body portion being provided with a long narrow opening extending substantially the length of the handle and on the front edge thereof, said opening being of a width sufficient to prevent the sides thereof from normally touching, a neck formed upon one end of said handle to be attached to a percussion tool, and the other end of said handle having a continuous wall to maintain the edges of said opening a definite distance apart, the said handle being constructed to permit sufficient distortion of said opening to enable said handle to absorb shocks when in use.

This specification signed and witnessed this second day of April A. D. 1912.

DAVID EASTMAN.

Witnesses:
ROBT. B. ABBOTT,
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