Dec. 9, 1924. 1,518,259

D. C. FILIATREAULT

TOOL HANDLE

Filed Feb. 13, 1924

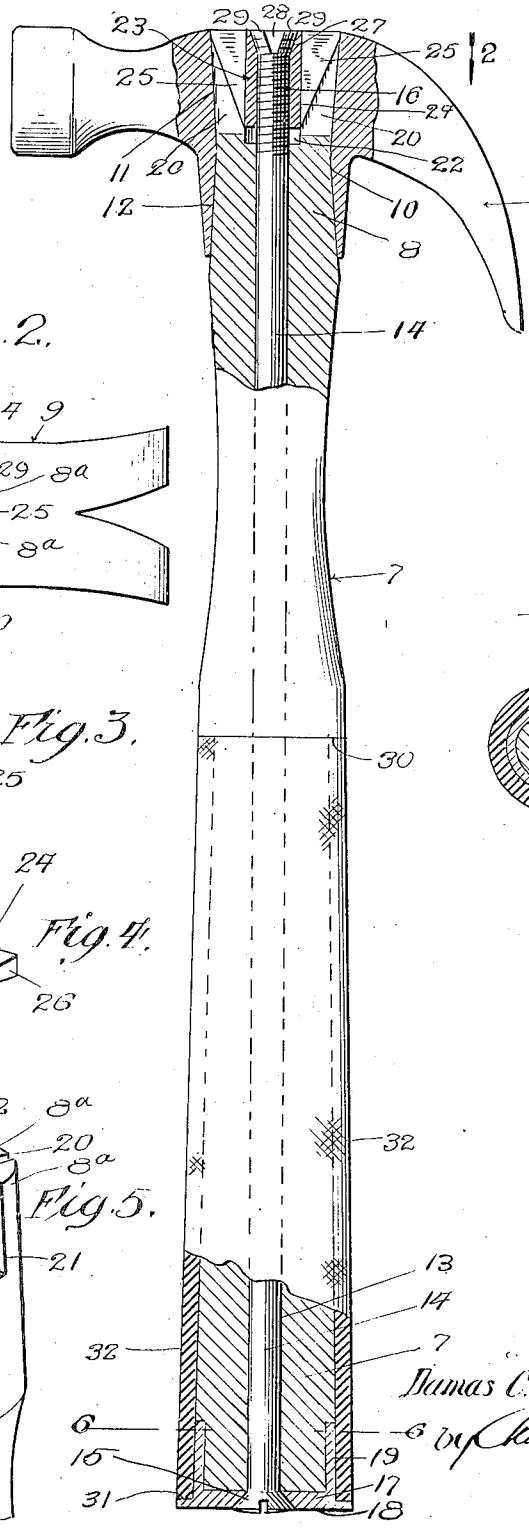


Fig. 1.

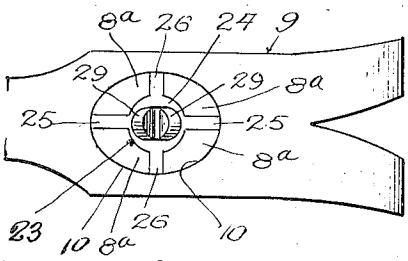


Fig. 2.

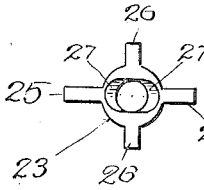


Fig. 3.

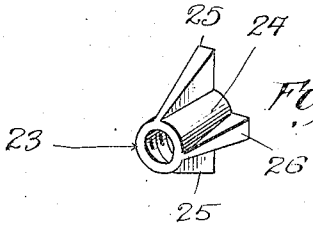


Fig. 4.

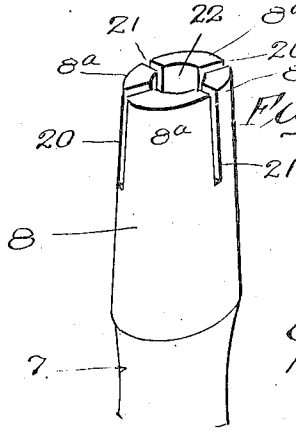


Fig. 5.

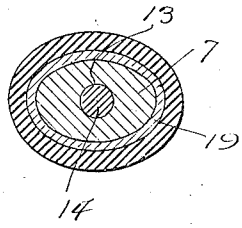


Fig. 6.

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UNITED STATES PATENT OFFICE.

DAMAS C. FILIATREAULT, OF CHICAGO, ILLINOIS.

TOOL HANDLE.

Application filed February 13, 1924. Serial No. 692,491.

To all whom it may concern:

Be it known that I, DAMAS C. FILIATREAULT, a citizen of the United States, and a resident of Chicago, Cook County, and State of Illinois, have invented certain new and useful Improvements in Tool Handles, of which the following is declared to be a full, clear, and exact description.

This invention relates to tool handles and its principal object is to provide improved means for securing a tool head such as a hammer head or the like to the handle. Another object is to provide a wooden handle with a metal reinforcement therein extending from end to end and having associated means of improved form for rigidly securing the tool head to the handle. Another object is to provide simple means for locking the parts in assembled condition. Another object is to provide in a hammer of this type a cushioned grip whereby the hammer may be held more firmly and whereby much of the jar may be taken off the hands of the workmen using the hammer. With these and other objects and advantages in view this invention consists in the several novel features hereinafter fully set forth and claimed.

The invention is clearly illustrated in the accompanying drawing, in which:

Fig. 1 is a view partly in side elevation and partly in central longitudinal section of a tool handle embodying a simple form of the present invention with a tool head secured thereto; Fig. 2 is an end view looking in the direction of the arrow 2 in Fig. 1 partly broken away; Fig. 3 is an end view of a certain wedge used for connecting the handle to the head; Fig. 4 is a perspective view of the wedge; Fig. 5 is a perspective view of the fragment of the wooden shaft or handle portion; and Fig. 6 is a detail cross-section taken on the line 6—6 of Fig. 1.

Referring to said drawing which illustrates a simple embodiment of the present invention, the reference character 7 designates a wooden shaft or handle having a tapered end 8 adapted for connection with the tool head 9 which in this instance is illustrated as comprising a hammer head of ordinary and well known form. As usual the hammer head has a socket 10 in which the handle is secured, said socket being formed with reversely tapered end portions 11, 12 as is customary.

The handle 7 is centrally bored lengthwise of itself to form a hole 13 and in said hole is placed a reinforcement rod 14 which fits tightly in the hole and extends from end to end of the handle. One end of the rod 14 is formed with a head 15 and its other end is formed with screw threads 16. Secured on and surrounding one end of the handle 7 is a metal cap 17 against which the head 15 of the rod 14 bears. Said cap is formed with an end wall 18 which bears against the end of the handle and with a band-like member 19 which surrounds the end portion of the handle. This cap provides a substantial abutment member for the head 15 of the rod 14, to bear against and also protects the end of the wooden handle.

The end 8 of the handle which engages with the tool head, is formed with saw kerfs 20, 21 arranged at right angles to each other and the bore of the handle is increased in diameter at this end to form a recess or cavity 22.

A wedge member 23 is employed in connection with the reinforcement rod to rigidly secure the tool head 9 to the handle. Said wedge comprises an internally threaded tubular portion 24 and tapered or wedge-like wings or ribs 25, 26 that extend at right angles to each other. The wedge member 23 is contained in the cavity 22 and saw kerfs 20, 21 and the threaded rod engages in the threaded hole of the wedge member. In the outer end of the wedge member 23, may be formed one or more notches 27, two being shown, and the threaded end of the rod 14 may be notched as at 28 to leave furcations 29 that may be bent into the notches 27 of the wedge member 23 after the rod has been screwed tightly into the wedge, to thereby prevent the rod from being turned back. When the wedge member is drawn into the cavity 22 of the handle, the wings 25, 26 spread the slotted end portions 8^a of the handle and force them into frictional engagement with the tapered face 11 of the socket. The slotted end of the handle is spread in several directions by the angularly disposed wings, and a firmer grip is thereby had upon the tapered wall of the socket of the tool head. In case the parts become loose after

continued and hard usage the bifurcated end of the rod may be straightened and the rod screwed up to tighten the parts after which the furcations 29 may be bent down again to lock the parts together.

To provide a cushioned grip for the handle, the latter is turned down as shown, leaving a shoulder 30, and between said shoulder 30, and a shoulder 31 of the cap 17 is secured a sleeve 32 made of rubber or rubber composition. The outer face of the sleeve may be roughened to provide a firmer grip for the hand.

The device is simple in construction, is easily assembled and provides a reinforced tool handle which is not likely to break when subjected to the ordinary rough uses to which hammers are put. By providing a slotted head for the reinforcement rod, an ordinary screw driver may be used for tightening up the parts in case they become slack from any cause. The tool handle can be used in connection with hammer heads, axe heads, and various other tool heads as is well understood.

More or less variation of the exact details of construction is possible without departing from the spirit of this invention; I desire, therefore, not to limit myself to the exact form of the construction shown and described, but intend, in the following claim, to point out all of the invention disclosed herein.

I claim as new, and desire to secure by Letters Patent:

A tool handle comprising a wooden handle having an end for engagement in the socket of a tool head, said end having a cavity therein and equi-distant angularly disposed slots radiating from said cavity, a metal cap on one end of the handle, a reinforcement rod extending lengthwise through said handle and having a head bearing against the end of said cap and threaded at its other end, and a wedge member having an internally threaded tubular body portion and equi-distant angularly disposed wedge-like wings radiating therefrom, said wedge member having a non-circular countersink in its outer end and being confined in said cavity and slots of the handle, and said reinforcement rod being threadedly secured in said wedge member and coacting with said wedge member to spread the slotted end of the handle into frictional engagement with the socket of the tool head, the threaded end of said rod being bifurcated and the furcations being bent into said non-circular countersink.

Chicago, February 11 1924.

DAMAS C. FILIATREAULT.