No. 633,928. Patented Sept. 26, 1899.

A. WALKER.

FASTENING DEVICE FOR TOOL HANDLES.

(Application filed Feb. 25, 1899.)

(No Model.)

Fig. 1.

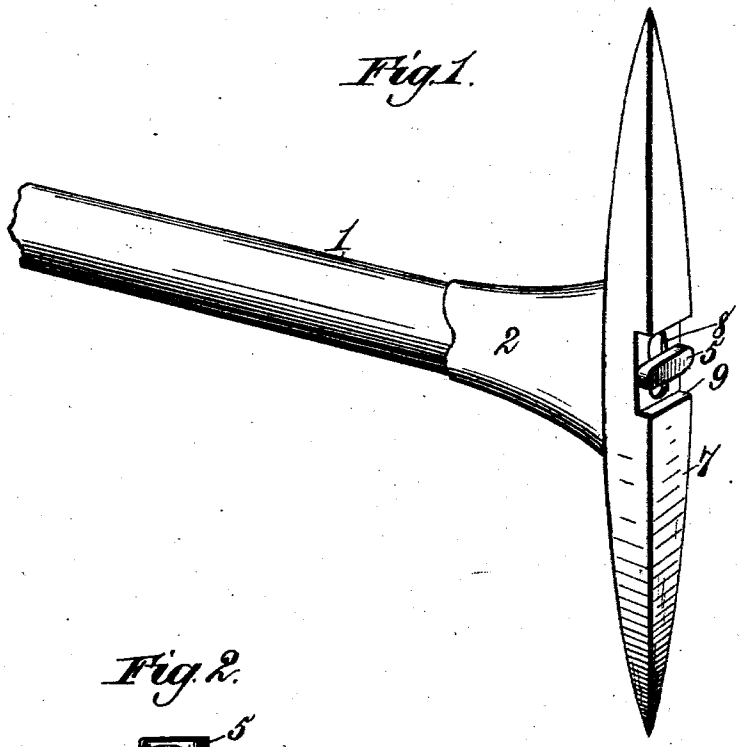

Fig. 2.

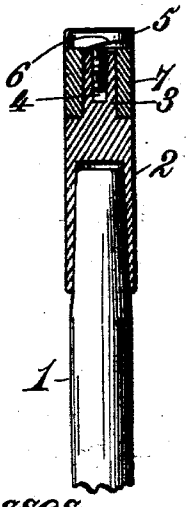

Fig. 3.

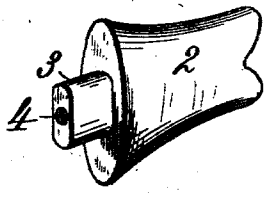

Fig. 4.



Fig. 5.



Witnesses.
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[illegible]

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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ALEXANDER WALKER, OF WHAT CHEER, IOWA, ASSIGNOR TO THE WHAT CHEER DRILL AND MINERS TOOL COMPANY, OF SAME PLACE.

FASTENING DEVICE FOR TOOL-HANDLES.

SPECIFICATION forming part of Letters Patent No. 633,928, dated September 26, 1899.

Application filed February 25, 1899. Serial No. 706,873. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER WALKER, a citizen of the United States, residing at What Cheer, in the county of Keokuk and State of Iowa, have invented new and useful Improvements in Fastening Devices for Tool-Handles, of which the following is a specification.

My invention relates to fastening devices for tool-handles, the object of the same being to provide means whereby the securing-bolt is protected and prevented from receiving the strain or shock of the blow of the instrument and means whereby the head of the tool may be readily removed without entirely withdrawing the securing-bolt.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be defined in the claim.

In the drawings, Figure 1 is a perspective view illustrative of my invention. Fig. 2 is a longitudinal sectional view. Fig. 3 is a detail perspective view of the ferrule or socket-piece. Fig. 4 is a similar view of the securing-bolt detached. Fig. 5 is a sectional detail of a modification.

Like reference-numerals indicate like parts in the different views.

The handle 1 may be of any suitable form and construction, being seated at its forward end in a ferrule or socket-piece 2, having an integral lug or projection 3 projecting from its forward end. The said lug is somewhat elongated in cross-section, being substantially oblong in shape with rounded corners. It is provided with a threaded opening 4, which receives the lower end of the securing-bolt 5. The head of the said securing-bolt is of substantially the same shape in cross-section as the lug 3 and is beveled upon its lower side edges, as shown at 6, the bevel extending from the center on one side to one end and from the center on the opposite side to the opposite end, the same being provided for a purpose which will hereinafter appear. The tool-head 7 is provided with a central opening or slot 8 of substantially the same size and shape as that of the bolt-head and lug heretofore referred to, the upper side of said tool-head being formed with a recess 9, which extends transversely thereof and is slightly longer than the slot or opening 8. When assembled, the parts are in the positions illustrated in Figs. 1 and 2 of the drawings, at which time the inner or under side of the tool-head bears against the upper side of the ferrule 2 and the outer or free end of the lug or projection 3 terminates at a short distance below the bottom wall of the recess 9 in the head 7. Said head 7 is secured in place upon the handle 1 by screwing inwardly the head of the bolt 5 by applying a wrench thereto or in any other suitable manner. The under side of the bolt-head engages the bottom wall of the recess 9 and clamps the tool-head tightly in engagement with the ferrule 2. When the bolt is in place, the upper surface of the head thereof lies beneath the outer surface of the tool-head 7, so that the bolt-head is protected and housed by the recess 9 and prevented from being brought in contact with any outside object. The said bolt-head is also located transversely of the slot or opening 8. The tool is now in condition to be used, and it will be observed that when the point of the pick or other tool-head is brought in contact with a resisting object the force of the blow will be taken up by the lug 3 and the strain or shock removed or kept from the securing-bolt 5. When it is desired to remove the tool-head from the handle, it is merely necessary to turn the bolt-head a quarter of a revolution to the left, so as to bring it in line with the slot 8. The said tool-head may then be readily withdrawn from the lug or projection 3. Ordinarily in devices of this kind where the tool-head is held in place by a securing-bolt it is necessary to entirely remove the bolt in order to separate the head from the handle. This objection is entirely obviated by my construction.

The inclined or beveled portions 6 of the under side of the bolt-head are provided for the purpose of enabling the bolt to be readily turned to the right for the purpose of clamping the tool-head in place, the said beveled portions riding over the bottom wall of the recess 9, adjacent to the slot 8, and not rupturing or otherwise abrading the metal adjacent to said slot. This I also regard as a feature of considerable importance.

An obvious modification of my invention is illustrated in Fig. 5 of the drawings, wherein it will be observed the lug 3^a is formed with

a threaded extension 10 instead of a threaded opening 4, and in lieu of the securing-bolt 5 an internally-threaded nut 11 is employed, which screws upon the extension 10. The operation is similar to the preferred form of the invention.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination with the ferrule or socket-piece of a tool-handle having a transversely-elongated lug or projection thereon, provided with a threaded opening, of a tool-head having a longitudinally-extending elongated slot or opening of the size and shape of, and adapted to receive, said lug, and a securing-bolt adapted to be screwed longitudinally in said lug and provided with a head adapted to engage the outer surface of said tool-head, the lower forward edges of said bolt-head being inclined or beveled, as and for the purpose set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ALEXANDER WALKER.

Witnesses:
JESSE N. SOUTHWICK,
JAMES DAVISON.