

No. 733,349.

PATENTED JULY 7, 1903.

A. WALKER.
MINER'S PICK.

APPLICATION FILED JAN. 29, 1903.

NO MODEL.

Fig. 1.

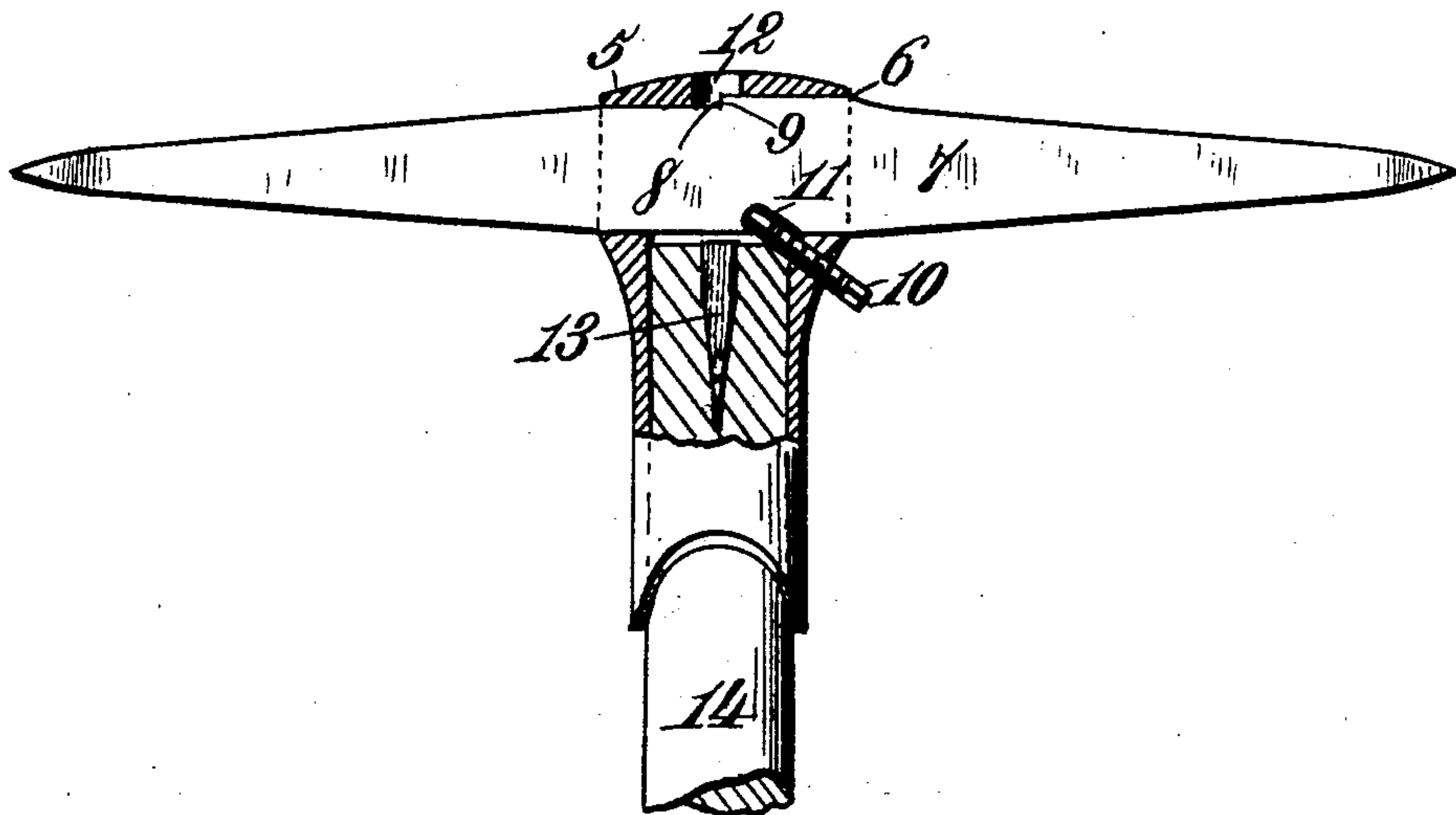


Fig. 2.

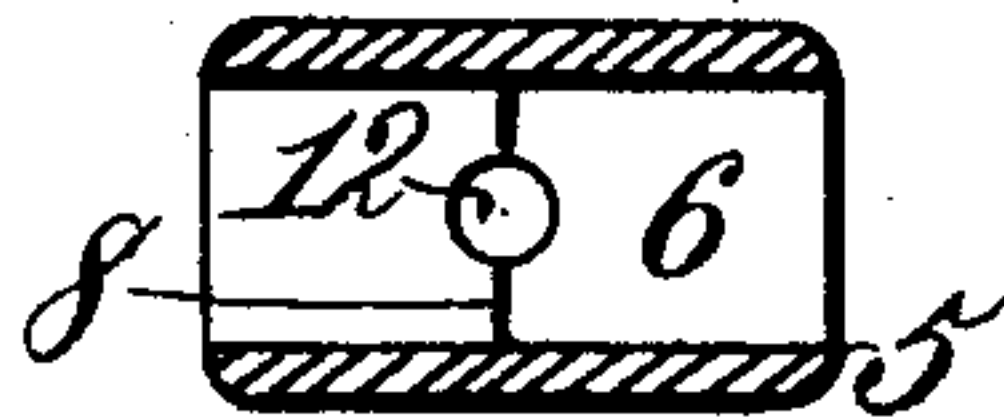


Fig. 3.

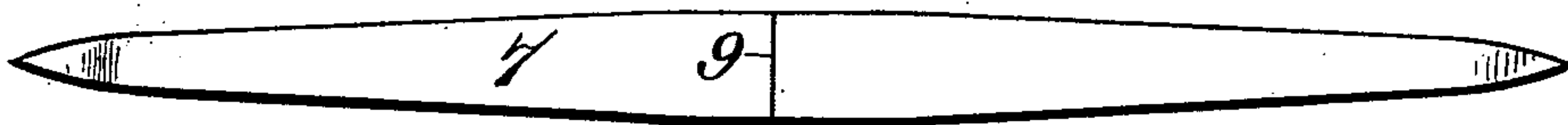


Fig. 4.



Witnesses.
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UNITED STATES PATENT OFFICE.

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MINER'S PICK.

SPECIFICATION forming part of Letters Patent No. 733,349, dated July 7, 1903.

Application filed January 29, 1903. Serial No. 141,048. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER WALKER, a citizen of the United States, residing at Whatcheer, in the county of Keokuk and State of Iowa, have invented new and useful Improvements in Miners' Picks, of which the following is a specification.

This invention relates to what I shall for convenience term a "miner's pick;" and the object of the invention is to provide a device of this kind having simple means for removably connecting the blade with the socket thereof, the means being of such a nature that the blade is normally held solidly in place and that said blade can be quickly and readily removed when it becomes dulled or injured in order to substitute a sharp or new one therefor. The improved blade includes a socket adapted to receive a handle of some suitable kind and having an eye provided interiorly with a single shoulder combined with a blade removably extending through said eye, also furnished with a single shoulder to abut against said other shoulder to thereby hold the blade against movement in one direction and detachable means for holding the blade against movement in the opposite direction, said shoulders being conveniently disposed approximately centrally of the respective parts. In the present case the detachable means consists of a screw tapped into the socket and the upper or outer end of which is adapted to enter a hole or depression in the under side of the blade, and said screw is preferably arranged obliquely with respect to the blade, by reason of which it is adapted to force the shoulder on the latter firmly against the cooperating shoulder.

The invention is shown in one simple and convenient embodiment thereof in the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a longitudinal sectional elevation of a pick including my invention. Fig. 2 is a cross-sectional elevation taken through the eye of the socket and looking toward the top thereof. Figs. 3 and 4 are respectively top and bottom plan views of the blade.

Referring more especially to Fig. 1, the numeral 5 denotes the socket of the improved

pick, it having at its top or outer end the eye 6, these parts being usually made integral, although this is not essential. The blade 7 is adapted to removably extend through the eye 6, and it may be made of the material usually employed in making this class of articles. Upon the interior of the eye and formed upon the top or outer wall thereof is a shoulder 8, which, it will be seen, extends entirely across the wall on which it is formed, the upper or outer side of the blade 7 having a similar shoulder 9, adapted to abut against said shoulder 8. It will be seen that when the shoulder 8 is engaged by the cooperating shoulder 9 the blade 7 is held against movement in one direction, detachable means being provided for holding the blade against movement in the opposite direction. In the present case the means for holding the blade 7 against movement in said opposite direction consists of a screw 10, which is tapped into the socket 5, the hole in the socket which receives the screw being obliquely disposed with respect to the blade 7 and opening into the eye 6. The shoulder 9, it will be seen, is upon the upper or outer side of the blade 7. In the under or inner side of the blade is a concavity or depression 11, which is adapted to receive the upper end of the screw 10. As the screw 10 is obliquely disposed with respect to the blade 7, it serves to force the blade 7 in a direction to carry the shoulder 9 firmly against the cooperating shoulder 8, it being understood that as the screw is driven in it bottoms against the concavity 11. To remove the blade, the screw is unscrewed sufficiently to bring the upper end thereof flush, or substantially so, with the under wall of the eye 6, which results in carrying the screw out of the concavity 11, at which point the blade can be readily slid from place and a new one as easily slid into the eye. When the new blade is in place, the screw will be run into its seat until it bottoms in the concavity 11, after which on the continued movement of the screw the shoulder 9 is forced against the cooperating shoulder 8. It will be seen that both of said shoulders are abrupt, whereby the shoulder 9 can be forced solidly against the cooperating shoulder 8 by the screw 10

or other means provided for this purpose in order to hold the blade in a firm condition.

It is not my intention to limit the use of the invention to miners' picks, for it may be employed with facility in connection with other kinds of tools.

A hole or perforation 12 is made in the outer side of the eye 6, through which a wedge 13 can be passed in order to drive the same into the handle 14, thereby to securely hold said handle in place.

It will be evident from the foregoing description that the improved device includes a socket having an eye combined with a blade removably extending through said eye provided with a single shoulder substantially centrally of its length, said eye having an internal and coacting shoulder also located substantially centrally of the same and adapted to abut against said other shoulder, means being provided for holding the shoulder of the blade against that of the eye. It will be seen that the effective or working faces of these two shoulders are located at approximately right angles to the longitudinal axis of the blade. To secure the construction in question, the blade and eye are made of differential thicknesses substantially centrally of their length, such differentially-thickened portions being united by a face which is illustrated as being practically at right angles to the said longitudinal axis. By this construction a thoroughly simple article is provided and one in which the blade will be held solidly in place by a single screw or its equivalent.

Having described the invention, what I claim is—

1. In a device of the class described, a socket having an eye combined with a blade removably extending through said eye, provided with a single shoulder substantially centrally of its length, said eye having interiorly a coacting and single shoulder located substantially centrally thereof, and means for holding the shoulder of the blade against that of the eye.

2. In a device of the class described, a socket having an eye combined with a blade removably extending through said eye, provided with a single shoulder substantially centrally of its length, said eye having interiorly a coacting and single shoulder located substantially centrally thereof, and a screw tapped into the socket, the blade having a seat in the side thereof opposite that having the shoulder to receive the inner end of said screw.

3. In a device of the class described, a socket having an eye, a part of which is of different thicknesses, said differentially-thickened portions being united by a face, substantially centrally of the eye upon the interior thereof, which face constitutes a shoulder.

4. In a device of the class described a blade of different thicknesses, the differentially-thickened portions being united by a face, constituting a shoulder, approximately centrally of the length of the blade.

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

ALEXANDER WALKER.

Witnesses:

RICHARD WATSON MEWES,
PETER H. LEONARD.