

UNITED STATES PATENT OFFICE.

AXEL W. JOHNSON, OF NEW YORK, N. Y.

PICKAX-SOCKET.

SPECIFICATION forming part of Letters Patent No. 612,244, dated October 11, 1898.

Application filed December 30, 1896. Serial No. 617,505. (No model.)

To all whom it may concern:

Be it known that I, AXEL W. JOHNSON, a subject of the King of Sweden and Norway, and a resident of New York city, in the county and State of New York, have invented certain new and useful Improvements in Pickax-Sockets, of which the following is a specification.

My invention consists of an improved construction of pickax-sockets of malleable or annealed cast metal, whereby it is designed to provide more substantial and reliable sockets proportionately to the weight and of the kind suited for use of either point of the pick without changing it in the socket, as hereinafter described, reference being made to the accompanying drawings, in which—

Figure 1 is an elevation of the head end of the pickax with a part of the socket and the point-bar sectioned out. Fig. 2 is a side elevation. Fig. 3 is an elevation taken at right angles of the view of Fig. 2 with a part in section; and Fig. 4 is a sectional elevation of the socket, taken in the plane of the pick-bar, and a side view of part of the handle.

I make the handle-socket *a* and the pick-bar socket *b* in one integral casting substantially in the usual form for holding the pick for using either point without changing it in the socket, but make the handle-socket *a* taper from the mouth inward, with a closing-web *c* at the bottom for a part of the pick-bar socket and for an abutting wall to the end of the handle *d*, said handle being tapered in conformity with the taper of the socket, and I make the said socket and handle of elliptical form in cross-section, with a taper-slot *e* in one side of the socket in the plane of the greatest diameter, with holes for a clamping-bolt *f* transversely to said plane and as near to the slot as is feasible for tightening the socket on the handle from time to time as it shrinks slack, said handle being bored coincidently with the holes in the socket.

The socket *b* for the pick-bar *g* is parallel in its side walls, and the pick-bar being closely fitted therein is secured by rivets *h*, inserted through the socket and the bar.

It will be seen that the handle-socket thus made and having the handle driven in as

forcibly as the metal will stand in the first place will be reinforced against breaking strain by the clamping-bolt. Said bolt being also a reinforcement to the slotted side of the socket, the socket will have great strength with a minimum amount of metal, and it may be tightened from time to time as the handle shrinks within a considerable range of adjustment without breaking the socket. It is to be understood that both the sockets are cored in the casting, and, if desired, the bolt and rivet holes may also be cored. The bolt *f* is to be screwed into the tapped side of the socket *a* at *i*, which is reinforced by a boss for greater strength of threads.

My improved construction affords a symmetrical socket with practical uniformity.

I claim—

1. The integral handle-socket *a*, and pick-bar socket *b*, in which the socket *a*, is of elliptical form in cross-section, tapered from the mouth inward, and having the taper-slot in one side in the plane of the greater diameter, and also having the clamping-bolt holes transversely to said plane and in close proximity to the slot, and the socket *b*, having parallel sides and being adapted to hold the pick for use of either end without change in the socket, said pick being riveted or bolted in said socket substantially as described.

2. The combination of the handle and clamping-bolt with the integral handle-socket *a*, and pick-bar socket *b*, in which the socket *a*, is of elliptical form in cross-section, tapered from the mouth inward, and having the taper-slot in one side, and also having the clamping-bolt holes transversely to said plane and in close proximity to the slot, and the socket *b* having parallel sides and being adapted to hold the pick for use of either end without change in the socket, said pick being riveted or bolted in said socket substantially as described.

Signed at New York city, in the county and State of New York, this 23d day of November, A. D. 1896.

AXEL W. JOHNSON.

Witnesses:

W. J. MORGAN,
GUSTAF SJÖSTROM.