

(No Model.)

W. H. M. NEAVE.
MANUFACTURE OF PICKS.

No. 502,746.

FIG. 1. Patented Aug. 8, 1893.

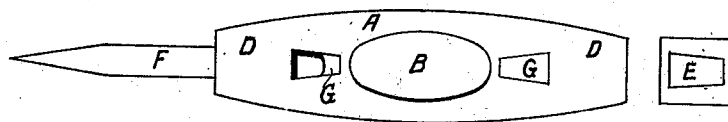


FIG. 2

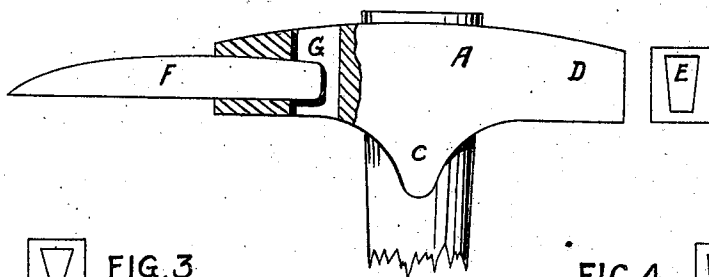


FIG. 3

FIG. 4



FIG. 5.

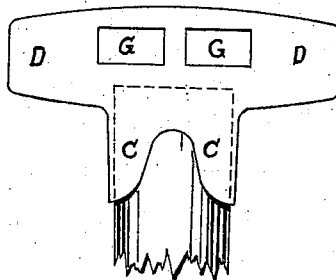


FIG. 6.

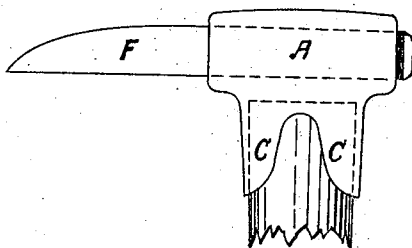
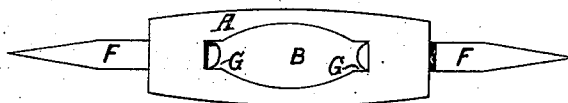


FIG. 7.



Witnesses.

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UNITED STATES PATENT OFFICE.

WILLIAM HY. M. NEAVE, OF SHEFFIELD, ENGLAND.

MANUFACTURE OF PICKS.

SPECIFICATION forming part of Letters Patent No. 502,746, dated August 8, 1893.

Application filed August 20, 1891. Serial No. 403,199. (No model.) Patented in Belgium January 15, 1891, No. 93,437, and in England January 21, 1891, No. 1,094.

To all whom it may concern:

Be it known that I, WILLIAM HENRY MARDEN NEAVE, a subject of the Queen of Great Britain, residing in Sheffield, in the county of York, England, have invented certain new and useful Improvements in the Manufacture and Construction of Picks, (for which I have received Letters Patent in Great Britain, dated January 21, 1891, No. 1,094, and in Belgium, dated January 15, 1891, No. 93,437;) and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to the construction of picks, and other like tools having loose or detachable points, and particularly to the process of manufacture of same, which refers to the method of preparing the socket holes, so that they will correspond with and accurately fit upon the shanks of the points.

The annexed sheet of drawings shows how I carry the first part of my invention into effect.

Figure 1 is a plan of a pick with one point in position, and end view; Fig. 2, an elevation of same, with part of side removed; Fig. 3, end of pick head, showing triangular hole; Fig. 4, an illustration of open side socket hole, or groove; Fig. 5, a pick with releasing slots through side, over the shaft; Fig. 6, a one ended pick. Fig. 7 shows novel position of releasing slots.

I make the pick head A, of any suitable configuration such as that shown, having an eye, or shaft socket B, and straps C, and two short arms D, extending in opposite directions, and provided with socket holes E, to receive and hold the points F, and having releasing slots G, for knocking out the points when required. I form the socket holes E, which are to receive the points F, of a more or less dovetailed cross section, and also tapering from the front to the back, on two or more sides.

The pick shown in Fig. 5 is made with one or more releasing slots of any convenient shape, two being shown. They are made

through the side of the head over the end of the socket for the shaft, which only passes partly through the head. By this arrangement a shorter head is obtained than that shown in Fig. 1.

In Fig. 6, I have shown a single end pick, for use in cramped situations, or otherwise; this pick is made with the socket hole passing completely through, and the shank of the point is made long enough to project as shown, so that it can be readily released by a blow at that end.

In the arrangement shown in Fig. 7, the releasing slots are made vertically and opening into the eye B, for the shaft.

The improvement in the manufacture of cast pick heads A, refers to the method of preparing the socket holes E, to insure perfect accuracy in form and finish, on which their retaining power depends. Instead of driving serrated drifts, when the castings are cold, into the socket holes already formed in the castings, or filing the holes to a gage, neither process giving the accuracy desired, I prepare plain mandrels or drifts of the exact size and proportions of the required socket holes, and having heated the pickhead to the desired degree in a suitable hearth or furnace, I drive one of the beforementioned mandrels or drifts into each socket hole while the casting is hot, clearing out the core sand, and any metal flash, and I leave the mandrels in position until the casting is cool.

While the mandrels are in position, the hot casting may with advantage be pressed, hammered, or the like, to close the metal upon mandrels, to produce a perfect fit; when the casting is cool the mandrels are driven out leaving the holes perfectly smooth and clean.

Having now particularly described my invention and shown various methods of carrying it into practice, I declare that what I desire to secure by Letters Patent is—

The hereinbefore described process of forming cast pick heads for detachable points consisting in casting the heads with openings extending longitudinally of the head, reheating said head, driving into the socket while

the casting is hot, a mandrel of the exact size
of the opening desired; withdrawing said
mandrel after the casting is cool, and fitting
the removable points to said socket, substan-
5 tially as described.

In testimony that I claim the foregoing as
my own I have affixed hereto my signature, in

presence of two witnesses, this 31st day of
July, 1891.

WILLIAM HY. M. NEAVE.

Witnesses:

ROBT. F. DRURY,
GILBERT. N. DRURY.