

J. E. CARTER.
PICK.
APPLICATION FILED MAY 6, 1911.

1,002,643.

Patented Sept. 5, 1911.

Fig 1

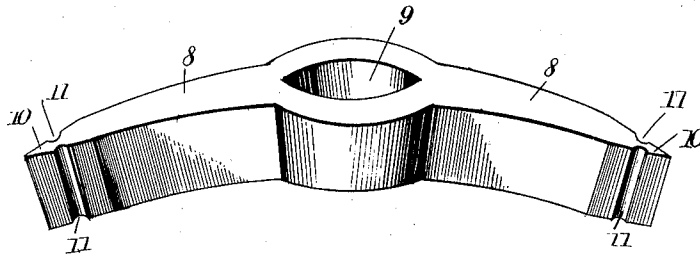


Fig 2

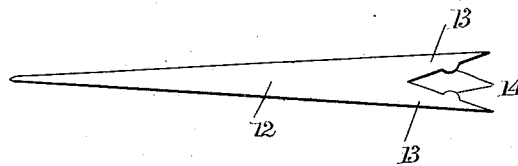
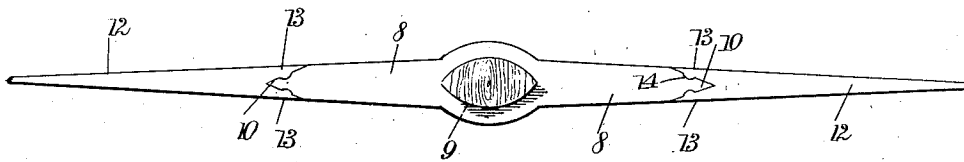


Fig 3



WITNESSES
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PICK.

1,002,643.

Specification of Letters Patent.

Patented Sept. 5, 1911.

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To all whom it may concern:

Be it known that I, JAMES E. CARTER, a citizen of the United States, and a resident of Reno, in the county of Washoe and State of Nevada, have invented a new and Improved Pick, of which the following is a full, clear, and exact description.

Among the principal objects which the present invention has in view are; to provide a construction and arrangement of a pick to facilitate the replacement of steel points; and to provide a construction and arrangement which renders possible the carriage of a supply of renewing pick points adapted for attachment to the pick body or eye.

With these objects in view the invention consists in forming a body or eye portion for a pick constructed from a relatively tough material and shaped to provide mechanically engaging ends.

It further consists in shaping for attachment upon said eye portion and the ends thereof relatively hard and brittle points.

One embodiment of the present invention is disclosed in the structure illustrated in the accompanying drawings, in which like characters of reference denote corresponding parts in all the views, and in which—

Figure 1 is a perspective view of a pick body portion constructed in accordance with the present invention; Fig. 2 is a side view of a pick point portion constructed in accordance with the present invention; and Fig. 3 is a side view of a nick head constructed and arranged in accordance with the present invention.

It is to meet the requirements for a pick having a hard point and a body portion adapted to the use above set forth that has given rise to a class of picks where the points are constructed from harder material than the body, and constructed removably therefrom. It has proven, however, that points which are mechanically removable from the body do not give satisfaction, for the reason that the operation jars the same loose. The general custom at present employed is to weld on a body portion constructed from suitable material points which are formed from material suitable for their particular employment. The welding of the points is an operation which may be readily performed in a shop arranged and equipped for such operation. But where a person is called upon to

renew the point of his pick when at a distance from the shop the operation is one difficult if not impossible.

The purpose of the present invention is to provide points for a pick so arranged as to be readily welded thereon.

As shown in the accompanying drawings, the body portion 8 is provided with a centrally arranged eye 9. The material from which the body portion 8 and eye 9 are constructed may be selected with reference to the special work to be performed thereby. The body portion 8 is shortened and the ends are shaped to form wedges 10. In the side edges of the wedges 10 there are formed recesses 11.

In Fig. 2 of the drawings is shown, in separated position, a pick point 12 constructed in accordance with the present invention. The pick point is constructed from material best suited to keep its sharpened edge. This point is designed to be welded upon the body portion 8 and upon the wedges 10 thereof. For this purpose the joining ends of the pick point 12 are bifurcated to form forked extensions 13. The extensions 13 have set out from the inner sides thereof slight projections 14 adapted to be snugly inserted in the recesses 11 of the wedges 10. It will be understood that the opening between the extensions 13 may not originally conform to the shape of the wedges 10. When, however, in the operation of welding the extensions 13 are softened or made more ductile by heat the said extensions are forced upon the sides of the wedges 10 and the projections 14 are forced into the recesses 11, thereby forming a mechanical hold upon the body portion 8.

With a body portion and pick points constructed as above set forth and as shown in the accompanying drawings, the operation of forming the pick as seen in Fig. 3 is as follows: The miner or other person having removed the old point, proceeds to heat the bifurcated end of the pick point 12 and one of the ends of the body portion 8 carrying the wedges 10. A sufficient heat to soften the material may be produced under ordinary conditions, while it would prove difficult to produce a heat sufficient to bring the metal to the condition usually employed in welding. When the material is heated to what, for illustration, may be termed a cherry red, the sides thereof, if firmly con-

5 nected or properly swaged, which operation may be performed by an ordinary ax, will form an adhesion sufficient in the present instance to prevent the separation of the point 12 and the body portion 8 when aided by the mechanical grip of the said point and body portion formed by the projections 14 and the recesses 11.

10 The usual process of cooling and tempering by air, oil or water may be performed under the rough and ready conditions to meet which the present invention is designed.

15 Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A pick, having a body portion provided with a shank eye and a plurality of extensions therefrom, said extensions having ends contracted to form wedge-shaped members, said members being provided with edge disposed holding members; and a plurality of pick points constructed from a metal different from that from which the body portion is constructed, said pick points having

bifurcated joining ends adapted to extend over said wedge-shaped members, said bifurcated ends having formed on their inner surfaces members for engaging the said holding members formed on said wedge-shaped members.

2. A pick, having a body portion provided with a shank eye formed therein; a plurality of extensions oppositely disposed from said shank eye, the terminal ends of said extensions being wedge-shaped and having a holding groove formed in the side thereof; and a plurality of pick points having each a bifurcated joining end, said joining ends having projections formed on the inner side thereof to engage said grooves.

In testimony whereof I have signed my name to this specification in the presence of the subscribing witnesses.

JAMES E. CARTER.

Witnesses:

O. S. INGALLS,
JOHN HITCHENS,
JOHN R. MELROSE.