W. L. COUSLAND.

PICKS.

No. 195,261. Patented Sept. 18, 1877.

Fig. 1.

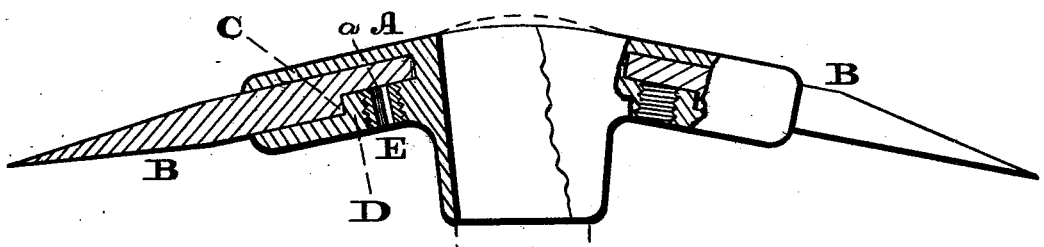

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

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IMPROVEMENT IN PICKS.

Specification forming part of Letters Patent No. **195,261**, dated September 18, 1877; application filed May 22, 1876.

To all whom it may concern:

Be it known that I, WILLIAM L. COUSLAND, of the city and county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Picks; and I do hereby declare the following to be a clear and exact description of the nature thereof, sufficient to enable others skilled in the art to which my invention appertains to fully understand, make, and use the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a partial side and sectional view of the pick embodying my invention. Fig. 2 is a side elevation of the holding-screw. Fig. 3 is a central transverse vertical section thereof. Fig. 4 is a side elevation of the key. Fig. 5 is a top view thereof.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists of flush screws for securing the bits or blades to the sockets of a pick-head, whereby the screws will not be broken during the service of the pick, as is occasioned in picks having screws projecting beyond the surface of the head, said screws being headless and threaded throughout, so as to gain the greatest holding power.

It also consists of offsets or shoulders on the blades and sockets for providing large bearings for the screws, without increasing the weight of the pick-head or disturbing the balance thereof.

Referring to the drawings, A represents the sockets of a head and pick, and B blades or bits removably fitted in the sockets.

The walls of the sockets are formed with threaded openings for the reception of screws E, which are adapted to tighten against the blades at the portions within the sockets, and thus securely hold said blades.

When the blades are to be removed, in order to be sharpened, repointed, or replaced, the screws will be loosened, and the blades may then be readily withdrawn from the sockets.

In order to provide the screws with threads for their entire surface, and thus increase their holding power, I form the screws without heads, and this provision also prevents projection of the screw beyond the surface of the head, whereby, when the blade enters the bank of ore, earth, mineral, or other substance, the screws cannot be broken or present resistance.

An opening, *a*, is formed through the screw, and it may be of any desired shape, so that a key with a shank on one or more bits may be introduced into said opening, and thus provide means for turning the screws for evident purposes, and to prevent twisting thereof.

In order to obtain bearings for the screws which will be short in length, I form on the inner faces of the sockets offsets or shoulders D, which provide increased thickness of metal at the parts of the sockets adjacent to the screws.

The inner ends of the blades are cut away, so as to leave offsets or shoulders E, which come to bearings against the offsets or shoulders D of the sockets, the narrow portions of the blades resting adjacent to the thickened portions of the sockets, and the wide portions of the blades resting adjacent to the narrow portions of the sockets.

It will be seen that the transverse bearing-surfaces of the inner ends of the blades against the walls of the sockets are not reduced, as they are of the same dimensions as if the offsets or shoulders did not exist, and thus the blades are not weakened; moreover, the weight of the pick is not increased, and the balance of the head is preserved.

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

1. The combination, with a pick, of headless screws, threaded throughout their lengths, having openings *a*, and fitted flush with the outer surface of the head of the pick, substantially as and for the purpose set forth.

2. The pick-head with sockets A, having offsets or shoulders D, and the removable blades B, having offsets or shoulders C, substantially as and for the purpose set forth.

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Witnesses:

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