

I. CURTNER.
Stone-Tools.

No. 146,051.

Patented Dec. 30, 1873.

Fig. 1

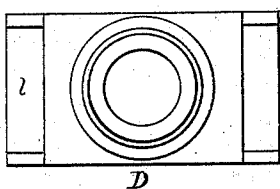


Fig. 2

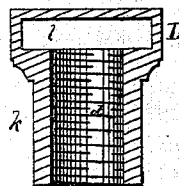
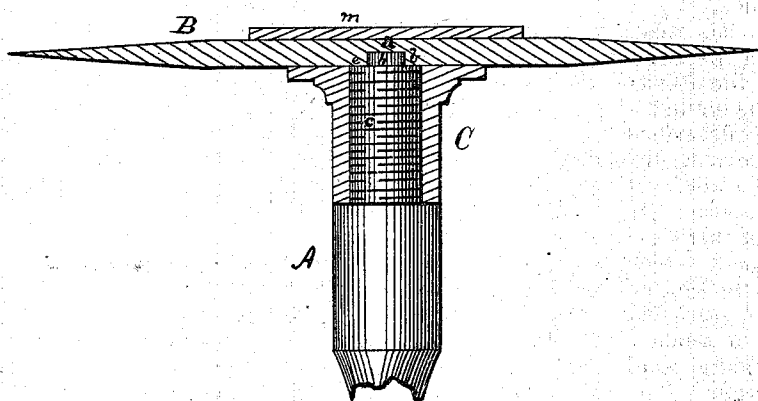


Fig. 3



Witnesses.
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UNITED STATES PATENT OFFICE.

IRA CURTNER, OF DAYTON, OHIO, ASSIGNOR TO CHAS. A. GUMP AND
EDWIN S. FORGY, OF SAME PLACE.

IMPROVEMENT IN STONE-TOOLS.

Specification forming part of Letters Patent No. **146,051**, dated December 30, 1873; application filed
September 20, 1873.

To all whom it may concern:

Be it known that I, IRA CURTNER, of Dayton, in the county of Montgomery and State of Ohio, have invented a new and valuable Improvement in Mill-Picks; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a view of the T-coupling forming a part of my mill-pick. Fig. 2 is a section of same. Fig. 3 is a vertical section of my mill-pick.

This invention has relation to mill-picks; and it consists in the construction and novel arrangement of the devices for securing in place a removable blade with a recess, as hereinafter more fully described.

In the accompanying drawings, the letter A designates the handle. B indicates the removable blade, tapering on its upper or lower surface, or both of them, toward the ends from the central portion *a*, which is provided in its under side with the central recess *b*. C designates a ferrule, provided with a socket to receive the end or tenon of the handle A, a screw or key, *c*, being usually employed to secure the connection. The upper end of the ferrule is provided with a screw-thread, *d*, extending to a shoulder, *e*, and designed to engage with the shank-socket of the T-coupling. At the end of the threaded portion a small boss or projection, *h*, is provided to enter the recess *b* of the blade when the ferrule is screwed home. D represents the T-coupling. This consists of the shank-socket *k*, having a female screw-thread, and the blade-socket *l*, rectan-

gular in form, and arranged at right angles with the axis of the shank-socket. The blade-socket is of greater diameter than the shank-socket usually, and its upper or outer wall *m* is designed to extend longitudinally for some distance on each side of the shank-socket to receive the parallel central portion or body *a* of the blade, thus materially strengthening the same and deadening the vibrations, as the blade is, by the pressure of the boss *h* of the ferrule, when the latter is screwed home, brought firmly in contact with said wall. When the parts are screwed together, the end of the shank-socket is designed to fit the shoulder *e* of the ferrule neatly and evenly, so that the joint of the cylindrical surfaces of the two parts will be hardly perceptible. At the same time the frictional contact serves to obviate, in great measure, the tendency of the parts to become loose by unscrewing. The blade-socket is designed to fit the blade neatly on each side, but loosely on the lower surface, so that it can be easily and quickly removed in either direction.

What I claim as new, and desire to secure by Letters Patent, is—

The combination, with the T-coupling having the blade-socket *b*, and shank-socket *k*, of the screw-ferrule C, provided with the boss *h*, to enter a central recess in the blade, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

IRA CURTNER.

Witnesses:

PATRICK H. GUNCKEL,
CHAS. A. GUMP.