

H. N. Relyea,
Millstone Pick.

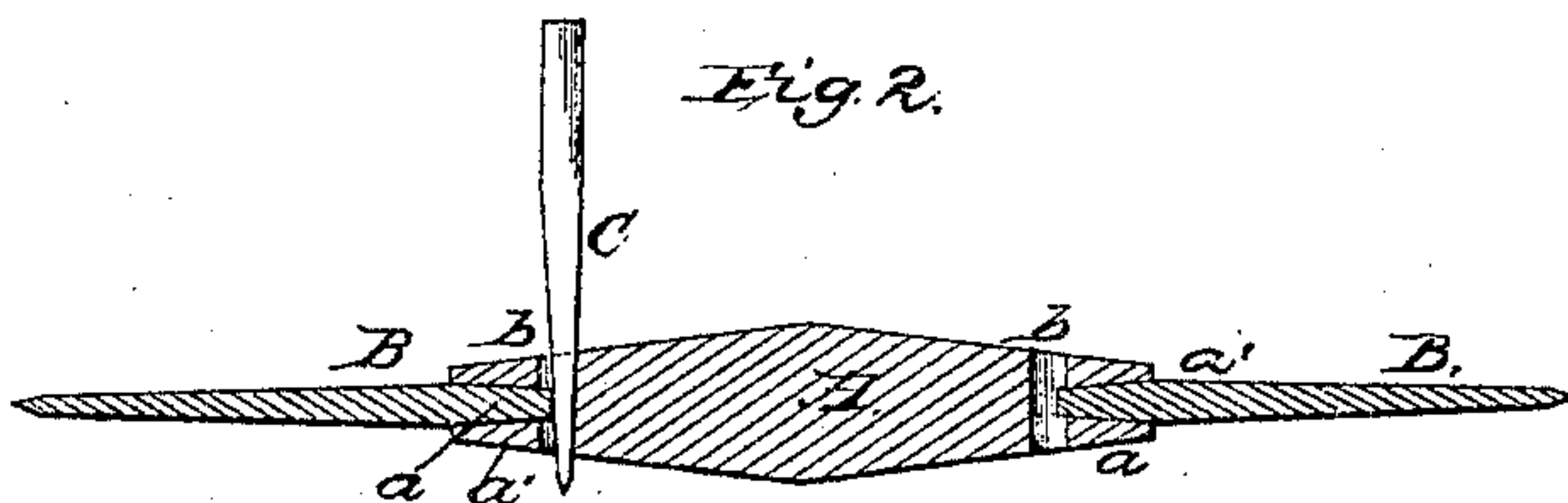
N^o 61,252.

Patented Jan. 15, 1867.

Fig. 1.



Fig. 2.



Witnesses.
W. R. R. R.
W. R. R. R.

Inventor.
H. N. Relyea
By M. M. Relyea

United States Patent Office.

HIRAM N. RELYEA, OF WARSAW, NEW YORK, ASSIGNOR TO HIMSELF AND
MILLS L. RICE.

Letters Patent No. 61,252, dated January 15, 1867.

IMPROVED MILL PICK.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, HIRAM N. RELYEA, of Warsaw, in the county of Wyoming, and State of New York, have invented a new and improved Millstone Pick; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings forming part of this specification, in which—

Figure 1 is a front or rear view of a millstone pick, partly in section, constructed according to my invention.

Figure 2 a longitudinal section of the same, taken in the line *x x*, fig. 1.

Similar letters of reference indicate corresponding parts.

It is the object of my invention to produce a millstone pick closely resembling in size, weight, and form the ordinary pick, and adapted to use in the common holder or handle, with which every miller is supplied; the same being provided with blades or cutters which are self-fastening, and removable for sharpening when worn out, whereby greater durability and economy are obtained; and it consists of a diamond-shaped stock or head of malleable metal, provided with slightly tapering sockets open at one end only, at each extremity of the head, in combination with cutting blades of nearly equal thickness, one end of which has a cutting-edge and the other a wedging-shank fitting tightly into the socket provided in the head, and removable by means of a flat-sided wedging key, and holes for its insertion at the foot of each socket. Experience has proven that the form of the common diamond-shaped pick is the best form, having the greatest weight in the centre, at or near the point at which it is held by the handle, which balances it, enabling the blows to be struck with greater ease, precision, and uniformity than when it is otherwise disposed, and especially when the weight is transferred nearer to the extremities. Though perfect in form it has the disadvantage of being expensive in its original cost, and in keeping it in working condition, being wholly made of the best steel, and requiring to be drawn out by forging and retempered frequently during use, in consequence of the thickness of the metal preventing it from hardening uniformly throughout. It also loses both in weight and proper form from the loss of metal sustained by wear, and forging, and grinding.

These objection I obviate; first, by making a head, A, of the usual form and size, but of wrought or malleable iron, or soft steel, which fits the common holder in the usual manner. The ends are truncated, and each provided with a slightly tapering socket, *a*, which receives the shank of the blades B B. These are made of the very best steel, and being thin and of nearly uniform size, receive an even degree of hardness throughout in tempering. Their shanks, *a'*, are not pointed, but merely taper sufficiently to fit the sockets *a* so tightly that it requires several hard blows of the pick to drive them in until their ends rest against the bottom of the sockets, when they become as solid as if they were a part of the head, the softness of which allows it to conform perfectly to the hardened shank. As these blades seldom, if ever, require tempering anew, and are ground without detaching when dull, their removal is seldom required, except to replace them by new ones when worn too short to be of service. So fixed are they that their removal requires special means, which are supplied by the holes *b*, passing through the head in such a position that the centres nearly or quite coincide with the bottom of the sockets. Into these holes a round and preferably taper pin or key, (shown in red, *c*, fig. 2,) having one side flattened, is driven, which loosens the blades, and causes their release without effort, or injury to the metal of either part.

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

The diamond-shaped truncated head A, formed of malleable metal, and provided with sockets *a a*, and transverse holes *b b*, in combination with the hardened blades B B, and key *c*, constructed and arranged substantially and for the purposes set forth.

HIRAM E. RELYEA.

Witnesses:

L. LOCKWOOD THAYER,

G. H. JENKINS.