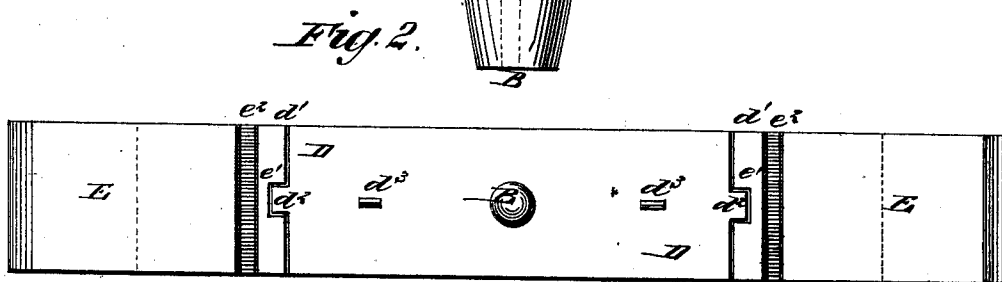
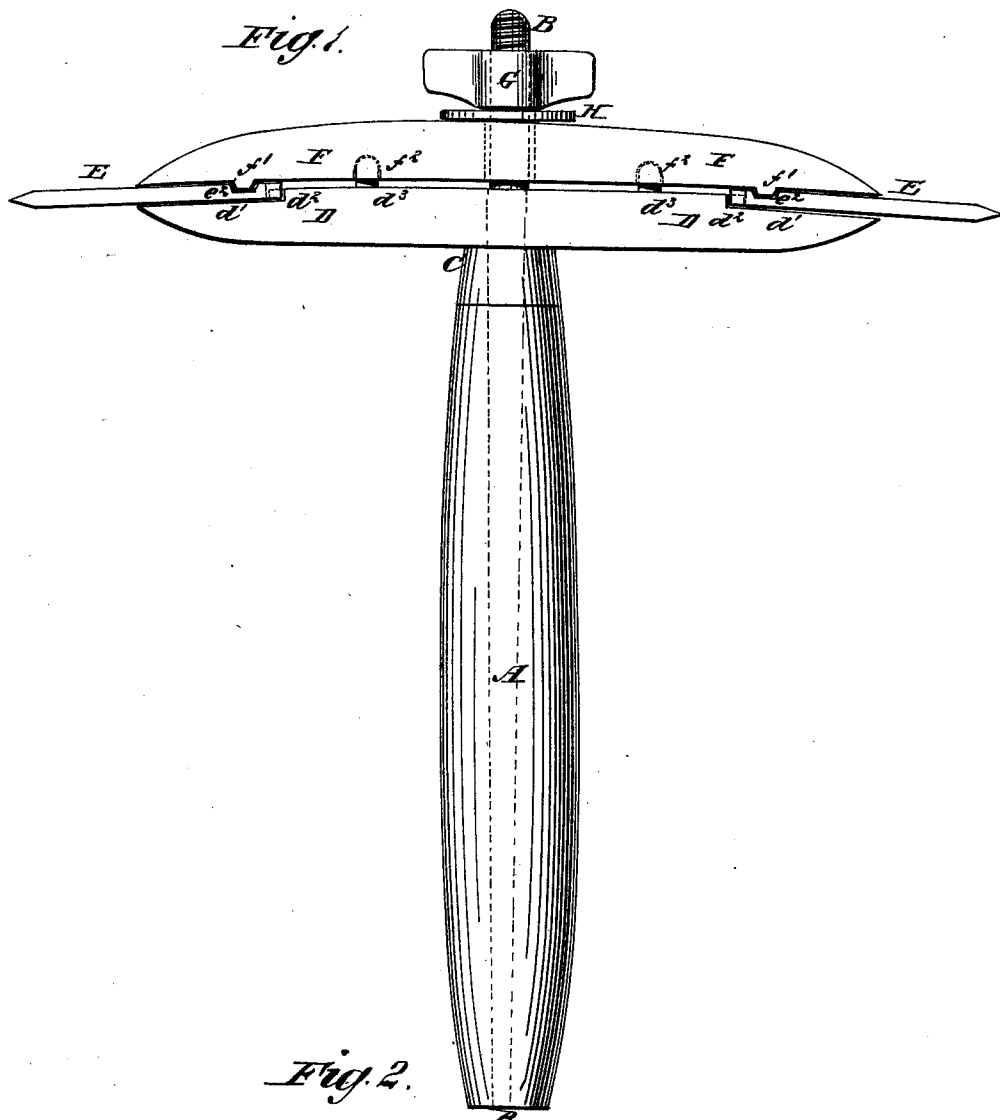


J. H. CAIN.  
Mill-Pick.

No. 213,975.

Patented April 8, 1879.



WITNESSES:  
*Francis M. Arde.*  
*C. Bidgwick.*

INVENTOR:  
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ATTORNEYS.

# UNITED STATES PATENT OFFICE.

JAMES H. CAIN, OF CANA, NORTH CAROLINA.

## IMPROVEMENT IN MILL-PICKS.

Specification forming part of Letters Patent No. **213,975**, dated April 8, 1879; application filed August 24, 1878.

### *To all whom it may concern:*

Be it known that I, JAMES HARISON CAIN, of Cana, in the county of Davie and State of North Carolina, have invented a new and useful Improvement in Mill-Picks, of which the following is a specification:

Figure 1 is a side view of a mill-pick, illustrating my invention. Fig. 2 is a detail view of the same, the hand-nut, washer, and detachable jaw being removed to show the construction.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish mill-picks, picks, pickaxes, and other tools for cutting and digging stone and rock, which shall be so constructed that the points, when dull, may be readily detached and replaced with sharp ones, so that it may not be necessary to send the entire pick-head to the shop every time the points become dull, and so that the points may always be properly tempered.

The invention will first be described in connection with the drawings, and then pointed out in the claim.

A represents a wooden handle, which is perforated longitudinally to receive the iron rod B. The rear end of the rod B is secured by being riveted down upon the end of the handle A by a nut, or by other convenient means.

The forward end of the handle A is strengthened against splitting by an iron ferrule, C, placed upon it.

To the forward part of the rod B, close to the end of the handle A, is rigidly attached the stationary jaw D. The forward side of the jaw D is slightly convexed, and in its end parts are formed rabbets  $d^1$ , to serve as seats for the points E.

Upon the rabbeted end parts of the jaw D, close to or upon the shoulder of the said rabbets, are formed lugs or projections  $d^2$ , to enter notches  $e^1$  in the inner ends of the points E, to hold the said points from lateral movement upon their seats. Upon the forward side of the points E, at a little distance from their inner ends, are formed transverse grooves

$e^2$ , to receive transverse ribs  $f^1$ , formed upon the inner sides of the end parts of the detachable jaw F. The inner side of the detachable jaw F is slightly concaved, to correspond with the shape of the stationary jaw D.

The jaw F has a hole formed through its center, to receive the end of the rod B, upon which it is secured, clamping the points E to their seats by the hand-nut G, screwed upon the end of the rod B. A washer, H, is interposed between the hand-nut G and the detachable jaw F, so that the said jaw F may be pressed down squarely upon the stationary jaw D.

Upon the forward or inner side of the stationary jaw D are formed, or to them are attached, legs or pins  $d^3$ , which enter cavities  $f^2$  in the inner side of the detachable jaw F, to guide the said detachable jaw F into line with the stationary jaw D, and keep it from getting out of place laterally.

If desired, the middle parts of the jaws D F may be concaved, to make them lighter, leaving flanges along their edges and around their central holes, to give them the necessary strength.

With this construction, when one point E becomes dull it can be easily and quickly replaced by a sharp one, so that there may be no delay with the work, each man having a set of six or more points for his pick.

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

The combination of the clamp-jaw, convexed in front, rabbeted at  $d^1$ , having projections  $d^2$ , and pins  $d^3$ , the points E, having notches  $e^1$  and transverse grooves  $e^2$ , and the jaw F, concaved at inner side, having transverse ribs  $f^1$  and concavities  $f^2$ , as and for the purpose specified.

JAMES HARISON CAIN.

Witnesses:

JOHN C. FROST,  
R. F. CAIN,  
A. H. STEWART.