W. B. MORRIS.
Mill-Pick.

No. 198,996. Patented Jan. 8, 1878.

Fig. 1.

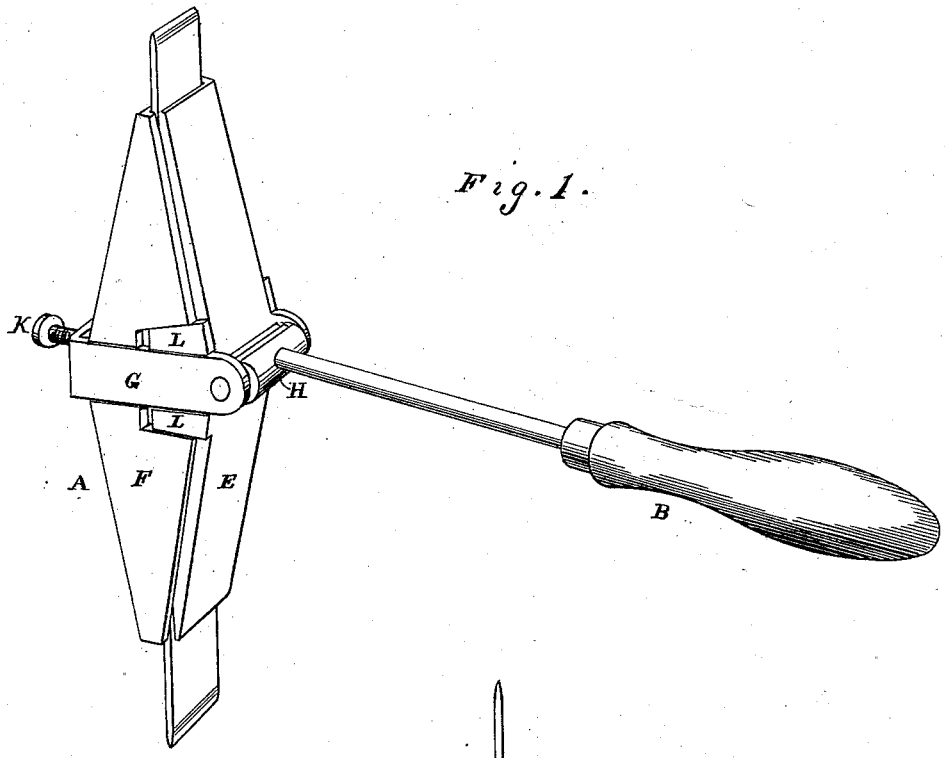
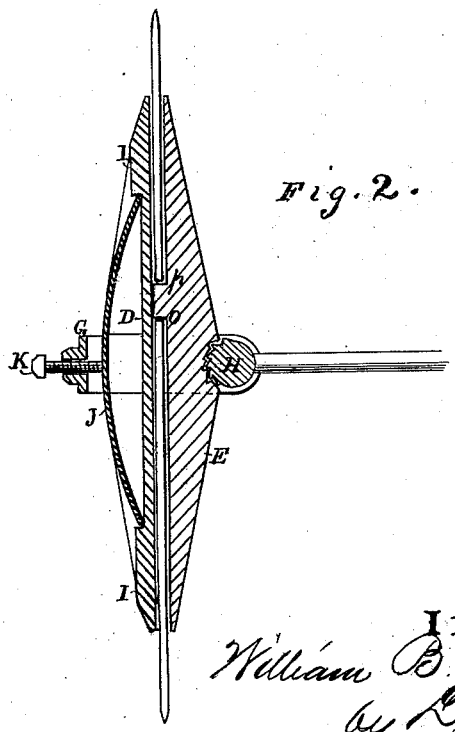



Fig. 2.




Witnesses
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# UNITED STATES PATENT OFFICE.

WILLIAM B. MORRIS, OF COLLINSVILLE, CALIFORNIA.

## IMPROVEMENT IN MILL-PICKS.

Specification forming part of Letters Patent No. **198,996**, dated January 8, 1878; application filed November 6, 1877.

*To all whom it may concern:*

Be it known that I, WILLIAM B. MORRIS, of Collinsville, in the county of Solano and State of California, have invented an Improved Mill-Pick; and I do hereby declare the following description and accompanying drawings are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention without further invention or experiment.

The object of my invention is to provide a mill-pick in which a long and a short bit can be used, and one also in which the pick-handle can be adjusted to different angles to suit the convenience of the person using it. To provide these features necessitates a novel construction of the pick-head, all as hereinafter described, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view, and Fig. 2 a longitudinal section.

Let A represent the head of my pick, and B the handle. The head I construct in several parts, of which D and E are two parallel plates, which bear against the sides of the chisels, and F is one of the sides of the head, which sides I secure to the longitudinal edges of the outer plate.

A band or strap, G, incloses three sides of the head at its middle, as shown, and its ends I connect by a roller, H, across the fourth side. The strap and roller thus connected hold the two plates D and E together and in place.

The outer plate D, I form with shoulders or raised portions I at either end, and a strip of metal, J, somewhat longer than the distance between the shoulders I. I bend it so as to bring its ends against these shoulders I, while it will curve outward from the ends, its center almost touching the outer side of the strap G. I place a set-screw, K, in the outer side of the strap G, so that it can be turned and press the strip J against the outer plate D. This outer plate, with the sides F, slides in the strap G, and the sides F, I cut away to allow of this movement. The opening thus cut forms a guide, in which the sides and plate move. The inner plate E also slides within the strap G, and guides L, fixed to its sides, serve to keep it in place when it travels in the strap.

The bar or roller H has longitudinal notches or teeth cut on its surface, and a concave depression in the inner plate E has corresponding teeth. A projection, forming shoulders *o p*, extends across the plate at right angles on the inside of one of the plates D or E, at a point one side of their middle, so that when the chisels are inserted they will each bear against this projection, one on either side.

When the chisels are inserted between the plates, the set-screw K in the strap G is turned, bringing the two plates D and E together, and pinching them upon the chisels. The strip J, on which the screw presses when being turned, acts as a toggle-lever, and transmits the pressure to its ends, which are thus forced against the ends of the plate D, pressing it upon the chisels, and holding them more firmly in place. This bent strip J also serves as a brace, and strengthens the holder materially.

The handle B is fixed in the roller H, and before the two plates are clamped upon the chisels the roller can be turned to bring the handle at any desired angle with the chisels. As the plates are clamped together the cylinder is forced into the depression in the plate D, and the teeth on the surface of the roller interlock with those in the depression, so that when the chisels are firmly secured in the head A the handle is also rigidly fixed at the desired angle with the chisels.

The shoulders *o p*, against which the inner ends of the chisels bear, being set at one side of the middle of the holder, allow of chisels of different length being used, so that when a chisel is worn short by continued use it can be placed in the shorter division of the holder, and still project from the holder a suitable length, and answer the same purpose as a chisel of full length.

Having described my invention, I claim and desire to secure by Letters Patent—

1. A mill-pick provided with shoulders *o p*, for holding chisels of unequal length, and a handle attached to this holder, which can be placed at any desired angle with the chisels, substantially as and for the purposes herein described.

2. The parallel plates D and E, with their sides F and shoulders *o* and *p*, the plates held together and operated to clamp upon the chisels by a strap, G, roller H, strip or brace J, and set-screw K, in combination with the handle B, and all combined, operated, and arranged substantially as and for the purpose herein described.

3. The roller H, connecting the ends of the strap G, having a toothed surface fitting into a corresponding tooth depression in the plate E, and operated for clamping the plates D and E, and for securing the handle B at any angle with the chisels, substantially as and for the purposes herein described.

In witness whereof I have hereunto set my hand and seal.

WILLIAM B. MORRIS. [L. S.]

Witnesses:
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