

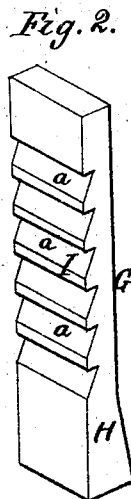
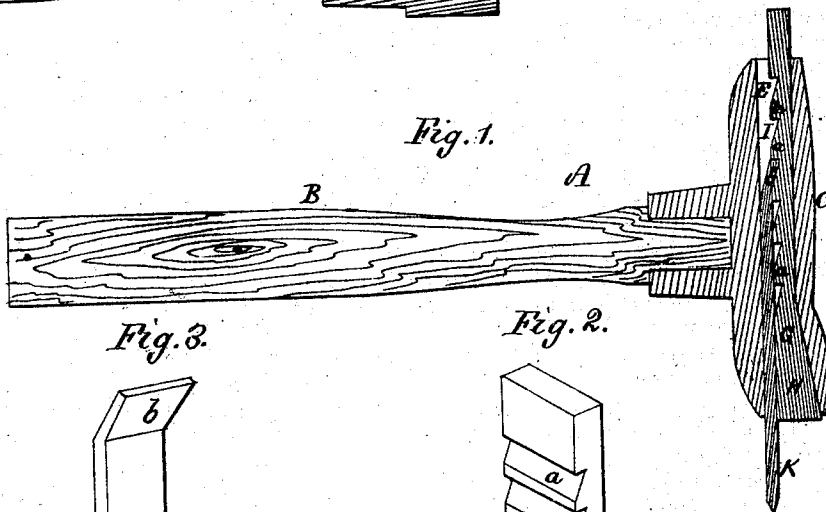
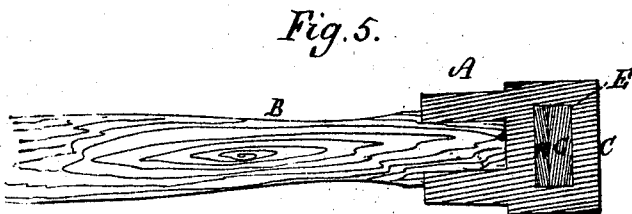
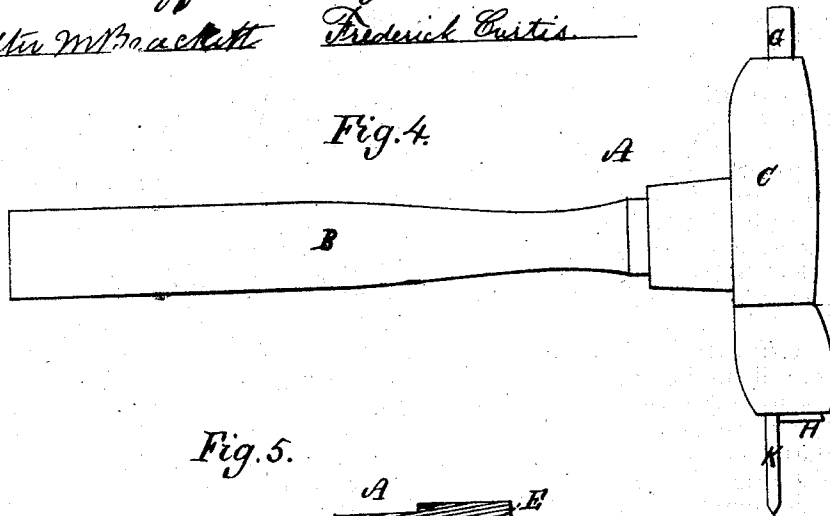
Jotham Cummings.

116817

Mill Pick.

PATENTED JUL 11 1871

Witnesses. Jotham Cummings.
Edward Griffith by his Attorney
Walter M. Bouchett Frederick Curtis



UNITED STATES PATENT OFFICE.

JOTHAM CUMMINGS, OF WEST CHARLESTON, VERMONT.

IMPROVEMENT IN MILL-PICKS.

Specification forming part of Letters Patent No. 116,817, dated July 11, 1871.

To all whom it may concern:

Be it known that I, JOTHAM CUMMINGS, of West Charleston, in the county of Orleans and State of Vermont, have made an invention of certain new and useful Improvements in Mill-Picks; and do hereby declare the following to a full, clear, and exact description thereof, due reference being had to the accompanying drawing making part of this specification, and in which—

Figure 1 is a vertical and longitudinal section of a mill-pick, so called, containing my improvements; Fig. 2 being a perspective view of the ratchet clamp-bar or wedge thereof; and Fig. 3, a like representation of the blade or pick which reduces the stone; Fig. 4 being a side elevation; and Fig. 5, a horizontal section of the invention.

The nature of this invention consists in the employment of a flat bar having an enlarged wedge-shaped head at one end to retain itself in place within the pick-head or stock, and a toothed rack upon one side, into one of the recessions of which the sloping end of the blade enters, the rack having the effect of preventing the blade from being driven into the head by the force of the blow upon a stone, while the wedge in its turn serves to clamp the blade firmly between it and the socket in the head in which it is situated.

The drawing represents, at A, a mill-pick, so called, the handle of which is exhibited at B, and the head or stock at C, the implement in general form resembling very strongly an ordinary stone-hammer, with the exception of the passage through the head of an orifice, E, for reception of the wedge or clamp-bar and the reducing-blade. The clamp-bar, which constitutes one feature of these improvements, is shown at G as a thin flat bar of metal, one end of which terminates in a wedge-shaped head, H, which is produced by a sloping enlargement of one side. A toothed rack, I, being formed upon the opposite side of the bar, and composed of a regular series of saw-teeth, *a a a*, &c., is exhibited in Fig. 2 of the drawing. The reducing-blade of the implement is shown at K as a thin steel plate, of a width equal to that of the clamp-bar, and sloping at one end, *b*, at an obtuse angle, corresponding to the slope of the teeth *a a*, &c.

When in use the clamped bar and blade are

placed face to face, and with the sloping end *b* of the latter within one of the depressions of the former, and both inserted within the head or stock C of the pick, the mouth and lower end of the head being enlarged to correspond to the form of the enlarged end of the clamp-bar, the sloping faces of the two being in contact. It will be apparent that a blow upon the lower and reducing end of the blade K will serve to drive it and the clamp-bar upward into the orifice of the head, while the sloping end of the clamp-bar, impinging against the flaring mouth of the orifice, serves to clamp or wedge the blade firmly between its opposite side and the adjacent face or wall of such orifice. As a consequence, the more powerful the blows of the pick upon a stone the more securely will the blade be confined within the pick-head, while upon reversing the position of the pick, and striking the opposite end of the wedge-bar upon any solid object with a sudden blow, both wedge and blade will be instantly released, and can be at once removed. The facility with which the latter act is accomplished constitutes one important feature of my invention, and its value will be apparent when the fact is borne in mind that, in order to dress a millstone, the reducing-blade must be removed from one to three hundred times to be sharpened or replaced.

By my construction of parts I am enabled to greatly prolong the wearing time for the blade, as it may be nearly consumed, owing to the firmness with which it is held in place.

I am aware that it is not new to combine with a rack formed in the interior of a pick-head a toothed reducing-blade engaging with the rack, and a wedge forcing the blade into the rack; and this I do not claim, the objects which I have in view requiring an essentially different construction and combination of these parts, as above explained.

I claim—

A mill-pick, composed of the wedge-bar G with its head H and teeth *a a*, &c., and the reducing-blade K with its sloping end, the two being inserted within the orifice of the pick-head and operating therewith and with each other to produce results herein explained.

Witnesses: JOTHAM CUMMINGS.

CHARLES CARPENTER,
B. D. CLARKE.