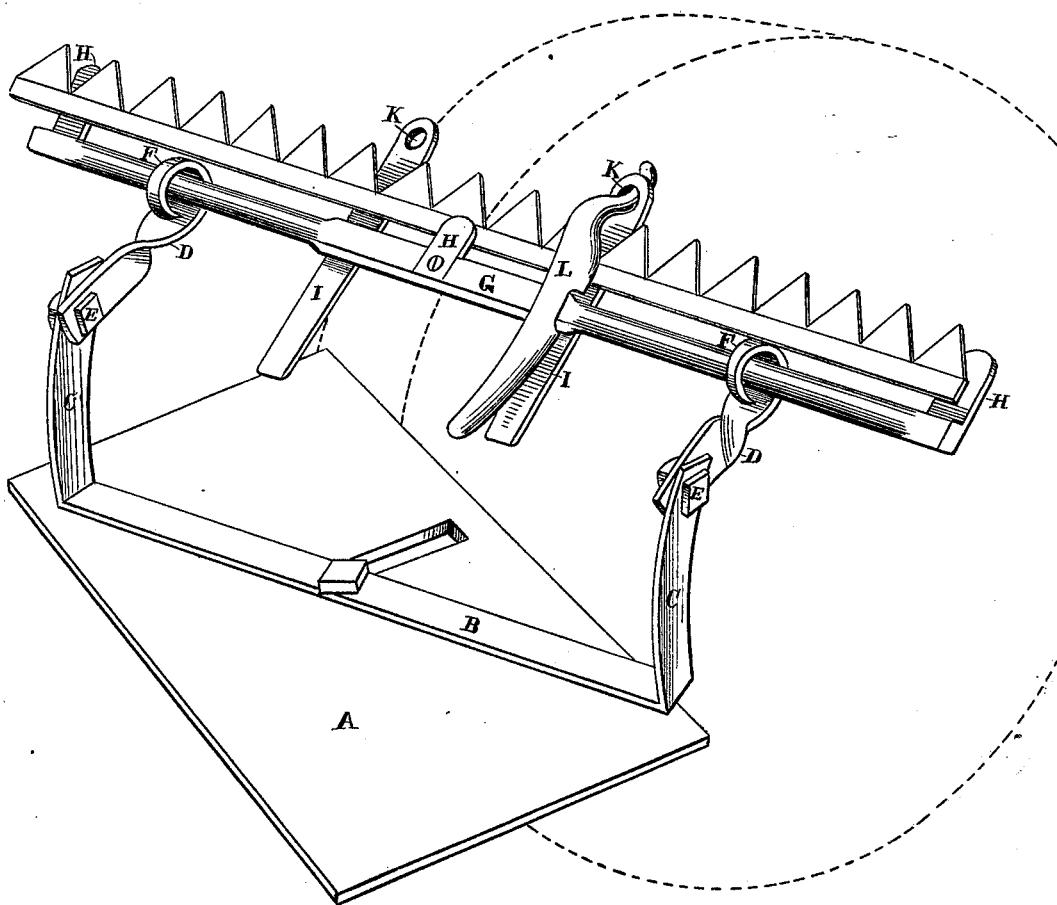


T. J. HUBBELL.
Sickle-Grinder.

No. 214,145.

Patented April 8, 1879.



Witnesses

J. L. Boone

Frank A. Brooks

Inventor

Thomas J. Hubbell
by Dewayto
Attys

UNITED STATES PATENT OFFICE.

THOMAS J. HUBBELL, OF YOUNTVILLE, ASSIGNOR OF ONE-HALF HIS RIGHT
TO JOHN BATEMAN, OF OAKVILLE, CALIFORNIA.

IMPROVEMENT IN SICKLE-GRINDERS.

Specification forming part of Letters Patent No. **214,145**, dated April 8, 1879; application filed
February 26, 1878.

To all whom it may concern:

Be it known that I, THOMAS J. HUBBELL, of Yountville, county of Napa, and State of California, have invented a Sickle-Holder; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing.

My invention relates to devices which are designed to hold and support the sickles of mowing-machines, reapers, headers, &c., for the purpose of grinding them, and so that they may always be ground with a true bevel and at any desired angle.

It consists of an adjustable supporting-standard, which is secured in the proper position near the stone, so that the knives may be brought to the proper bevel, in combination with a shaft-bearing, supporting-plates, and a clamping-lever to hold the blades, as hereinafter more fully described and claimed.

The accompanying drawing is a view of my support and holder.

A represents a base, which is suitably secured opposite the face of the stone. This base is slotted, as shown, and the central connecting-bar B of the two vertical arms C is secured to the base by a bolt passing through the slot. By means of this slot and bolt the device may be adjusted to or from the stone, so that the sickle can be held at any angle with the stone that may be desired, and it also serves to adjust the position of the sickle to suit large or small grinding-stones.

To the upper ends of the arms C are attached short arms D by bolts E, which permit them to be adjusted up or down, as may be desired. The outer ends of these arms are provided with eyes F, through which the bar G slides and turns loosely. This bar has supporting and steadying lugs H for the sickle, as shown. Near the center are two arms, I, which extend across the bar and support the central portion of the sickle. At each of their outer ends a hole, K, is made, and a short lever, L, has its outer end so bent that it can be inserted into either of the holes. The main

portion of this lever then lies along the arm I, above the sickle, and thus steadies and holds the sickle in place while it is being ground.

The operation will then be as follows: The frame B C is turned to an angle and secured by the bolt passing through the slot, so that one side of each tooth in the sickle can be brought upon the stone successively and at the proper angle. The sickle is laid upon the lugs H and arms I, and is held and guided by the lever L. The bar G is made to slide through the eyes F, so as to bring the first tooth into position to allow one side to be ground. This being finished, it is moved along and the next tooth is ground.

The space between the supports C may be sufficient to allow the bar G to move far enough to grind a certain number—say, three—teeth, when it may be drawn back and the sickle moved along for the next section of three or more, until the teeth all have one side ground. The frame B C is then turned upon its bolt and secured at a similar angle, the opposite side of a line drawn parallel with the face of the stone, and the lever L shifted to the other arm I, to hold the sickle while the other sides of the teeth are ground.

It will be manifest that the angle and bevel of the teeth can always be adjusted by moving the frame B C toward or back from the face of the stone, so as to change the angle at which the teeth lie upon the stone, and this also provides for an adjustment for large or small stones.

If the face of the stone be untrue or it be out of center, the bolts which secure the short arms D D to the standards C may be loosened, and these arms may be changed relatively to each other; or both may be left loose to accommodate the unevenness of motion; or one may be made fast, while the other moves.

By these means the most perfect adjustment may be made to accommodate the sickle to all the variations in grinding-stones, while the angle and bevel can always be perfectly retained by the most unskilled grinder.

It will also be seen that the sickle is supported throughout its length, and the grinding can be accomplished by one man.

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

The sliding bar G, with its supporting lugs H and the arms I, in combination with the

holding-lever L and the arms C D, substantially as and for the purpose herein described.

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

THOMAS J. HUBBELL. [L. S.]

Witnesses:

GEO. H. STRONG,
H. B. MCCORMICK.