(No Model.)

H. CLEARY.

TOOL HOLDER FOR GRINDSTONES.

No. 354,690. Patented Dec. 21, 1886.

Fig. 1.

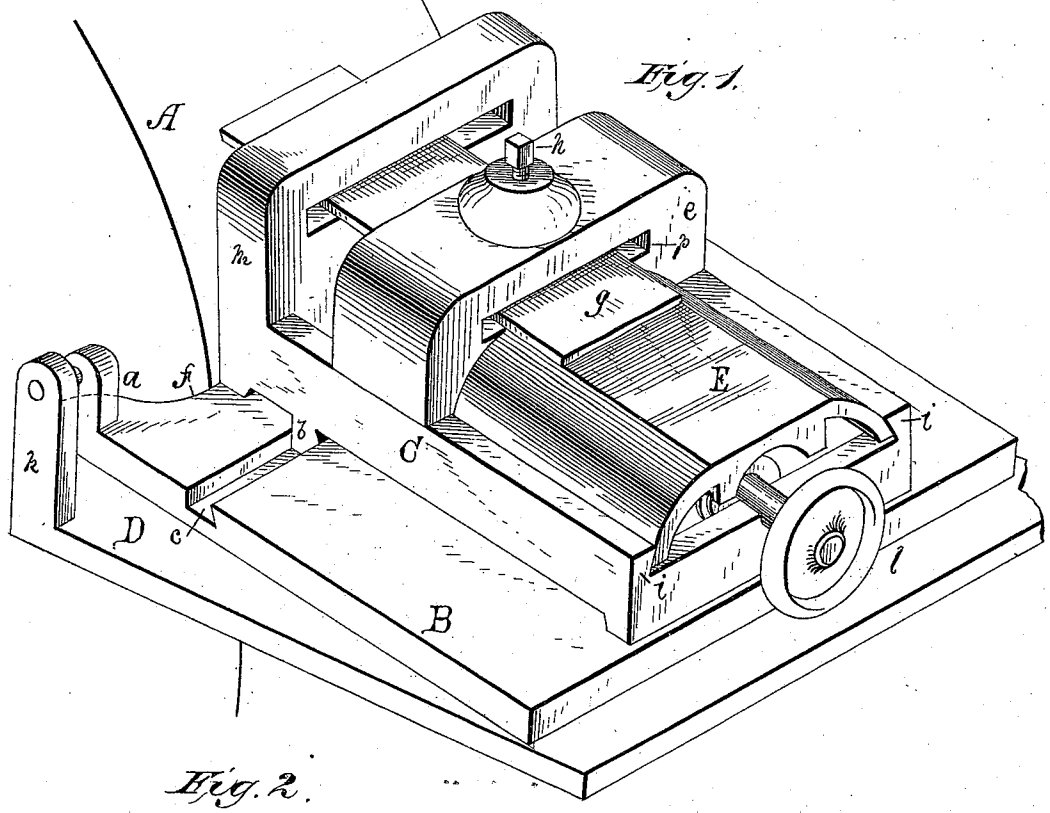


Fig. 2.

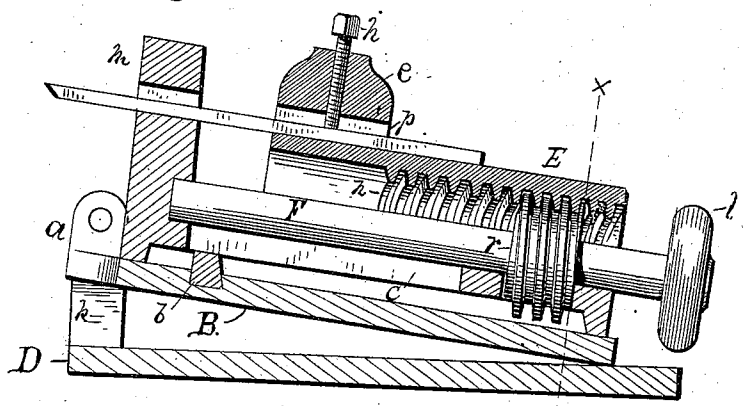
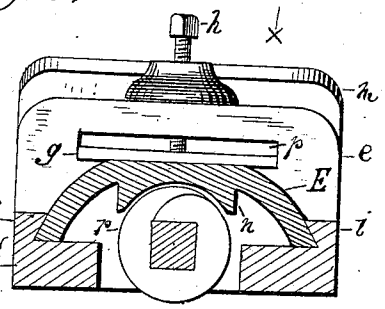


Fig. 3.



WITNESSES

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TOOL-HOLDER FOR GRINDSTONES.

SPECIFICATION forming part of Letters Patent No. 354,690, dated December 21, 1886.

Application filed July 24, 1886. Serial No. 208,961. (No model.)

To all whom it may concern:

Be it known that I, HUGH CLEARY, a resident of Wheeling, in the county of Ohio and State of West Virginia, have invented certain new and useful Improvements in Tool-Holders for Grindstones; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My invention is an improved holder for tools adapted to true and trim the faces of grindstones, though it is equally applicable for use in holding tools to the face of the stone in order to be sharpened.

The invention consists in the details of construction hereinafter particularly described, and specifically claimed.

In the drawings, Figure 1 is a perspective view of the holder, showing a portion of a grindstone and the face of the tool in contact therewith. Fig. 2 is a central vertical section of the holder with some of the parts in side elevation. Fig. 3 is a cross-section of the moving carriage in the line *x x* of Fig. 2.

In Fig. 1 the grindstone is represented at A, the holder being arranged in proximity thereto, as shown. This holder consists of a pivoted base, B, and a movable carriage, C. The base B is provided at one end with upwardly-projecting lugs *a a*, which are pivoted by means of pivot-pins upon short standards *k k*, projecting from a stationary platform or table, D, upon which the rear of the base-plate B rests, being supported at a slight angle, as shown, the front of both the parts B and D being preferably cut out at *f*, to allow of the holder coming in close proximity to the stone.

The carriage C is supported upon the base-plate B, and has lateral movement across its surface, so that its tool may be brought in contact with the entire extent of the stone from side to side. The carriage is held in position upon the base-plate by a dovetailed projection, *b*, on the carriage, fitting in a corresponding groove, *c*, in the base-plate, this groove and projection being arranged on the upper edge, so that in the lateral movement of the carriage no binding of the parts will occur, as would be likely were the guides placed at the lower ends, as heretofore in devices of this class.

It will also be observed that as this projection *b* is placed near the end of the frame—that is, toward the stone, as described—it will not be subjected to any material amount of leverage, as would be the case were it placed at the other end.

A frame, E, slides longitudinally of the carriage, and constitutes the tool-holder proper. An enlargement is formed upon its forward end, as shown at *e*, and this is slotted, as at *p*, for the passage of the body of the tool *g*, which may be adjusted and then clamped in place by the clamping-screw *h*, which may be of any suitable design. The forward end of the tool extends through and is supported in an elongated slot formed in an upward extension, *m*, on the carriage C, the tool thus receiving support at two points.

In order that the tool may be adjusted to correspond to the wear of the stone or the amount of surface removed, the tool-holder is adapted to slide in ways formed by the guide-strips *i i* upon each side of the carriage C. A shaft, F, has its bearings in the front and rear portion of the carriage C, and near its lower end is provided with a screw-threaded portion, *r*, the shaft terminating in a handle, *l*, as shown.

The under surface of the tool-holder is provided with segmental screw-threads *n* for a part of its length, which are adapted to mesh with the screw-threaded portion of the shaft F, and to be moved thereby either toward or from the stone, as desired.

It will be observed that by reason of the peculiar construction of the tool-holding frame E a new and very desirable result is secured. The extension on E is of arch shape, and is sufficiently long to contain the devices employed for adjusting the frame. As its sides rest in the grooves formed in the carriage C, a complete inclosure is formed, within which the operating devices are located, whereby the dust, &c., from the stone is prevented from clogging them. The upper side of the frame is flattened to form a rest for the tool, which projects beyond it and acts as a roof or covering for the space between the studs *m* and *e*.

It will thus be seen that the tool-holder being covered throughout its whole extent the adjusting devices are protected, and the cuttings from the stone cannot get to the threads to fill them up. This is one of the principal objections to tool-holders in use at the present time.

When it is desirable to remove the tool-holder out of the way for the purpose of sharpening dies or other tools by hand that cannot conveniently be held in the holder, it can readily be done by sliding the holder sidewise on the base-plate until the dovetailed piece disengages with the groove in the upper edge of the plate, and it can then be removed and set aside for further use.

The tool-holder being removed leaves the surface of the base-plate unobstructed, and it serves as a "tool-rest" during the operation of grinding tools by hand, the grooves being so near the upper edge of the plate that there is no liability of the tool-stock catching in it during the operation of grinding, as the case with tool-rests having slots or grooves through or in the surface of the plate near the place where the handle of the tool rests.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. In a tool-holder, and in combination, a base-plate, B, suitably supported, a carriage supported thereby, and a connecting means between the two adapted to permit lateral movement of the carriage, consisting of a suitable lug and groove, said connection being located at the end of the part nearest the point of work, substantially as described, and for the purposes set forth.

2. In a tool-holder, and in combination, a base-plate, B, a carriage, C, adapted to have lateral movement, a supplemental carriage adapted to have longitudinal movement, consisting of holding-stud *e* for the tool, and the arch-shaped extension E, for the adjusting devices, substantially as described.

3. In the described tool, and in combination, a carriage, C, a tool-holding frame, an arch-shaped extension for the adjusting devices, said extension being mounted upon the carriage C, with its edges in suitable guideways, whereby a complete inclosure is formed for the adjusting mechanism, substantially as described.

4. In the described tool, and in combination, a carriage, C, a tool-holding frame adapted to be adjusted longitudinally thereon, a horizontal extension of said frame adapted to hold and inclose the adjusting devices, and a tool projecting toward the stone in the same plane with said holding-frames, for the purpose set forth.

In testimony that I do claim the foregoing as my own I hereby affix my signature in presence of two witnesses.

HUGH CLEARY.

Witnesses:

MICHAEL HEALY.

THOS. O'BRIEN.