(No Model.)

N. H. SNIDER.

HOLDER FOR GRINDSTONE TRUING TOOLS.

No. 273,625. Patented Mar. 6, 1883.

Fig. 1.

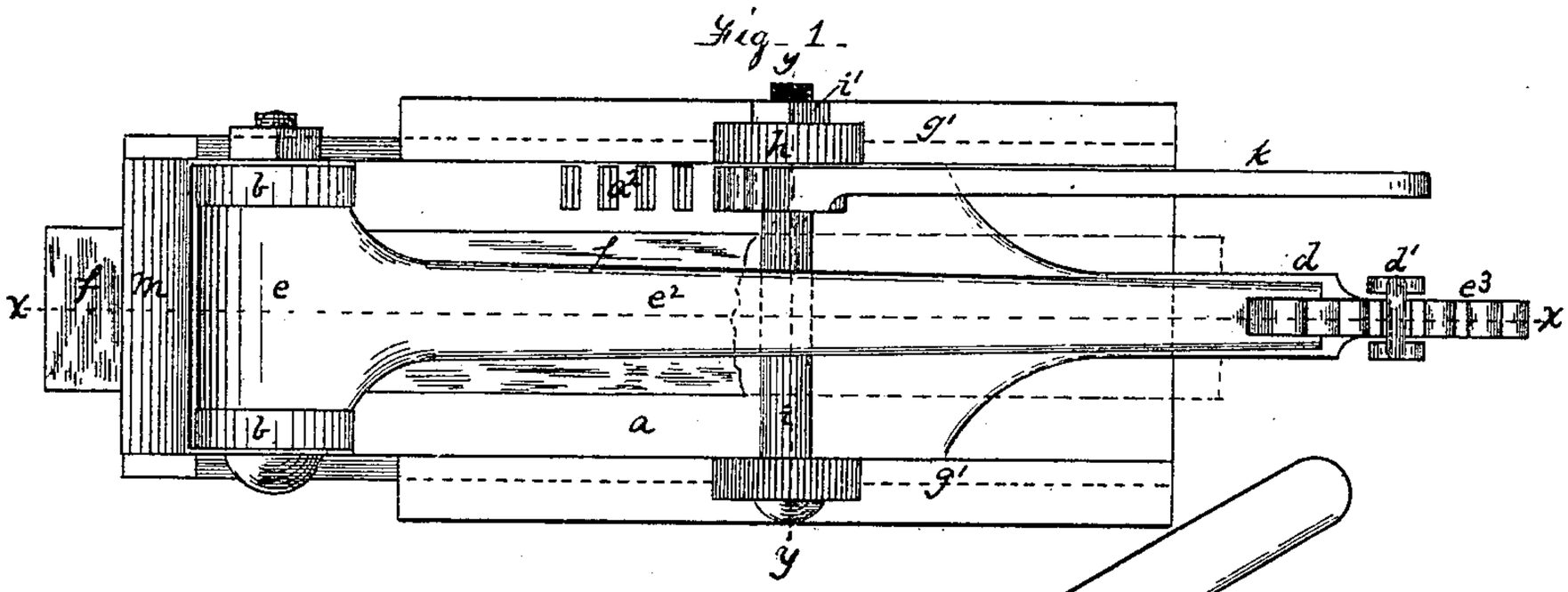


Fig. 2.

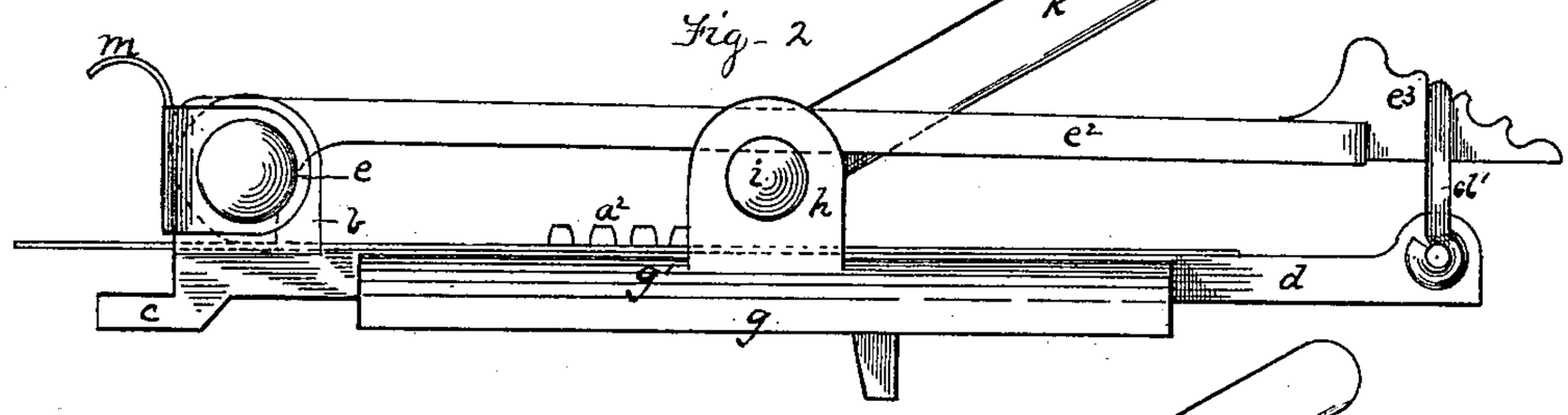


Fig. 3.

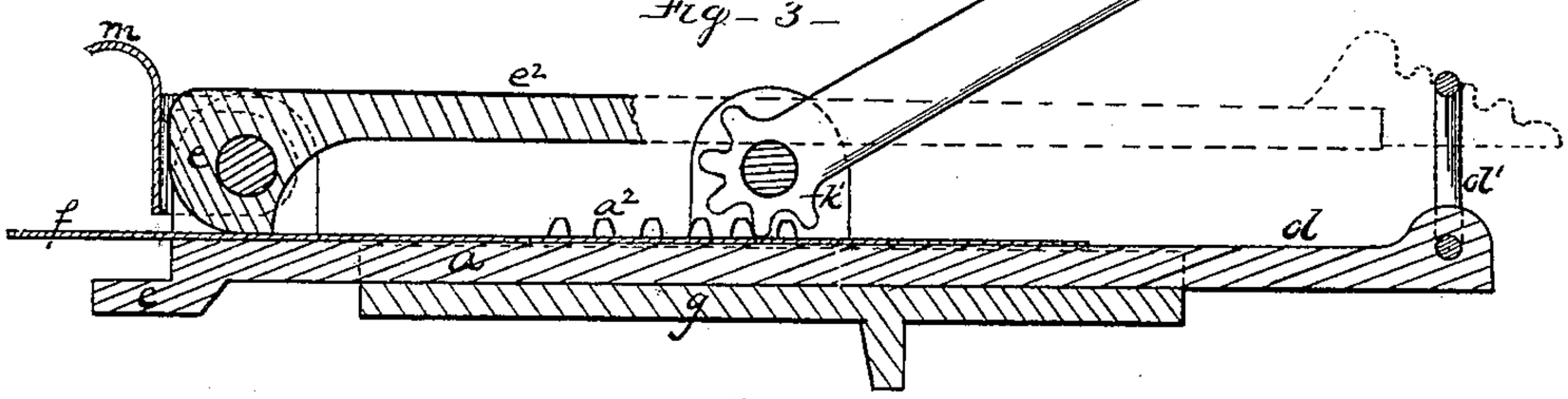
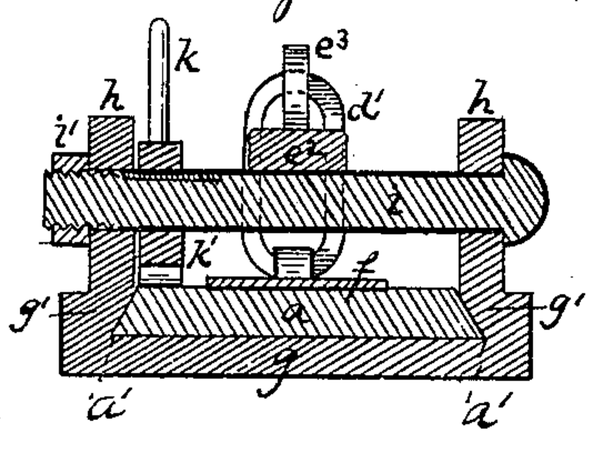


Fig. 4.



Witnesses.
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UNITED STATES PATENT OFFICE.

NICHOLAS H. SNIDER, OF PITTSBURG, PENNSYLVANIA.

HOLDER FOR GRINDSTONE-TRUING TOOLS.

SPECIFICATION forming part of Letters Patent No. 273,625, dated March 6, 1883.

Application filed September 23, 1882. (No model.)

To all whom it may concern:

Be it known that I, NICHOLAS H. SNIDER, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Tool-Holders; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to improvements in the tool-holder patented to me in Letters Patent No. 257,400, dated May 2, 1882, and has for its object to provide the said patented holder with a bed-plate in which it may slide, power devices for moving it in said bed-plate, and certain details of construction.

To enable others skilled in the art to make and use my invention, I will now describe it by reference to the accompanying drawings, in which—

Figure 1 is a plan view. Fig. 2 is a side elevation. Fig. 3 is a longitudinal section on the line *x x* of Fig. 1. Fig. 4 is a cross-section on the line *y y* of Fig. 1.

Like letters of reference indicate like parts in each.

The holder is composed of a flat body or tool-rest, *a*, having two perforated lugs, *b*, at the front end, a rear extension or handle, *d*, at the back end, an eccentric or jaw, *e*, mounted on a pin or shaft which extends between the lugs *b*, and having a handle or lever, e^2. In such a tool-holder the tool lies longitudinally on the rest, passes between the lugs *b b*, and is held by the eccentric or jaw *e*. Thus far the tool is the same as that in my former patent.

In order to use this detachable holder or tool with a bed when desired, I provide the rest or body *a* with flaring or dovetailed edges *a'*, and place it in a bed-plate, *g*, which is open at its ends, but along the sides is provided with flanges *g'*, which form a cavity in cross-section corresponding in shape to the form of the body *a*, so that when the body *a* is placed in the bed-plate it can be moved freely backward and forward therein. On the upper face of the body *a*, at or near one edge, is a rack, a^2, the teeth of which are of any suitable or desired shape. On the sides of the bed-plate *g*, opposite to each other, are perforated lugs *h*, through which extends a bolt, *i*, secured in place by a nut, *i'*, so as to be removable at pleasure. Mounted on the bolt *i*, which acts as a shaft thereto, is a lever, *k*, the lower end of which is provided with a toothed segment, *k'*, the teeth of the segment gearing into and engaging with the rack a^2 on the body *a*. The purpose of this construction is to enable the tool-holder to be forced forward in the bed-plate against the face of the stone upon which the tool *f* is acting.

The bed-plate is placed on the grindstone-frame in such a way as to give it a firm, steady bearing, and to enable considerable force to be exerted on the lever *k* without displacing it. Such force is necessary because the action of the swiftly-revolving undressed grindstone exerts too much power to enable the tool to be held up against it properly by hand.

While it is desirable to use the construction of lever having a toothed segment, just described, because it gives a long throw to the tool-holder, yet I do not limit myself to such form, as a simple lever working against a projection on the body or rest *a* would enable me to force up the tool-holder in the required manner and with sufficient power.

On the rear end of the handle *d* is a pivoted link, *d'*, and on the rear end of the handle e^2 is a rack, e^3, having any desired number of teeth. The purpose of the link *d'* and rack e^3 is to enable the jaw *e* to be secured firmly in place when biting upon the tool *f*. The rack e^3 runs diagonally to the axis of the handle e^2, so that the link *d'* may be used to hold the arm e^2 when tools *f* of different degrees of thickness are used in the holder. The rest *c*, projecting below the level of the body *a*, acts as a stop to prevent the body *a* from sliding too far back in the bed-plate *g*.

In the dressing and cutting of grindstones by the use of tools of this class it has been necessary for the workman to wear goggles or shields of other kinds to prevent the grit and sand from the stone from entering the eyes.

In order for the further protection of the eyes, and, if desired, to dispense with the use of goggles, I have applied a shield, *m*, which curves over the cutting-point and intercepts the particles of sand which fly upward, and casts them back upon the face of the stone. This shield is made preferably of sheet metal, and is secured either to the lugs *b* or upon the shaft of the jaw *e*, or on other suitable part.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In devices for dressing grindstones and for like purposes, a detachable tool-holder composed of a rest having dovetailed edges, and an eccentric jaw arranged longitudinally of the rest and pivoted thereto at one end, in combination with a bed-plate having a dovetailed recess wherein the tool-holder may slide, substantially as and for the purpose specified.

2. In a device for dressing grindstones and for like purposes, a detachable tool-holder composed of a rest having dovetailed edges, a lug or rack on its upper face, and an eccentric jaw pivoted at one end of the rest, in combination with a bed-plate having a dovetailed recess wherein the tool-holder may slide, and a lever fulcrumed on the bed-plate, substantially as and for the purpose specified.

3. A tool-holder for dressing grindstones and for like purposes, composed of a body or rest, an eccentric jaw pivoted thereon at one extremity, and a shield mounted on the journals of the pivoted jaw, substantially as and for the purpose specified.

4. In a tool-holder having a body or rest, and an eccentric jaw pivoted at one end thereof, the combination of a tapering rack attached to the free end of the pivoted jaw, and a link pivoted on the rest, substantially as and for the purpose specified.

In testimony whereof I have hereunto set my hand this 18th day of September, A. D. 1882.

NICHOLAS H. SNIDER.

Witnesses:
W. B. CORWIN,
F. B. KERR.