

(No Model.)

F. OBIOLS.
TOOL HOLDER.

No. 511,057.

Patented Dec. 19, 1893.

FIG. 1.

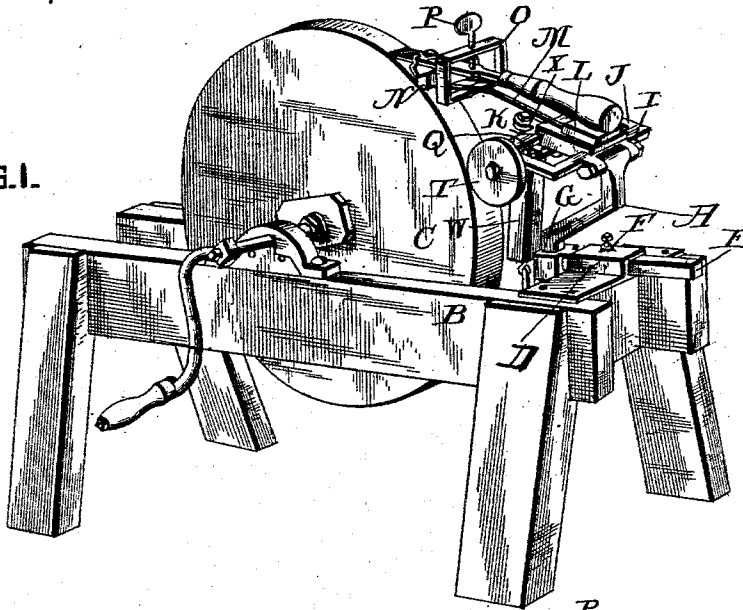


FIG. 2.

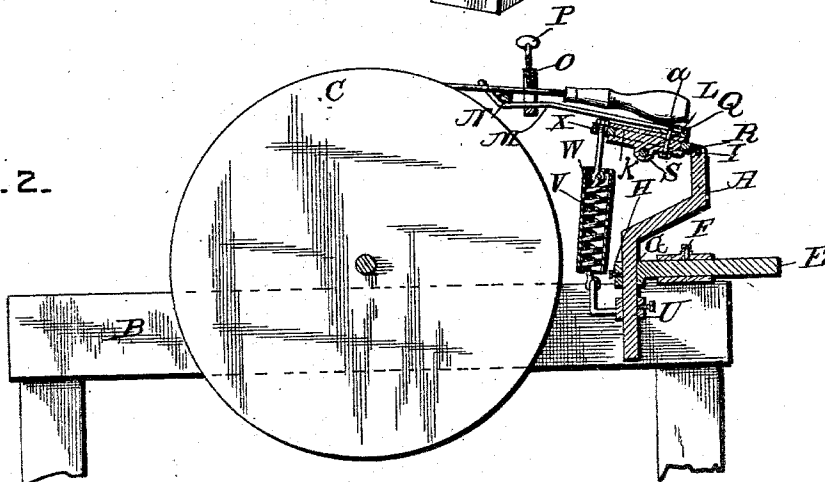
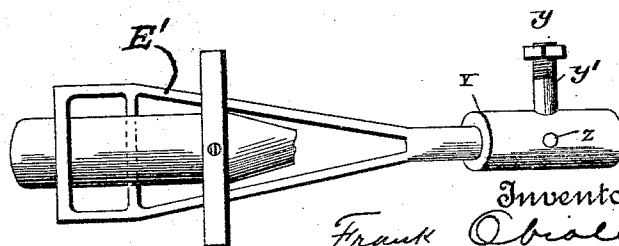


FIG. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

FRANK OBIOLS, OF VENTURA, CALIFORNIA.

TOOL-HOLDER.

SPECIFICATION forming part of Letters Patent No. 511,057, dated December 19, 1893.

Application filed February 4, 1893. Serial No. 460,980. (No model.)

To all whom it may concern:

Be it known that I, FRANK OBIOLS, of Ventura, in the county of Ventura and State of California, have invented certain new and useful

Improvements in Tool-Holders; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention is an improvement in tool holders designed for greater simplicity, durability and compactness of construction and certainty and efficiency of operation.

A further object of my invention is to supply means for holding any form of tool and cause the cutting edge thereof to press against a grindstone with any required force, also to supply means for causing a lateral movement of the tool thereby sharpening its entire edge.

A further object of my invention is to supply simple means for adjusting the angle formed by the plane in which the blade lies and the tangent to the grindstone through the point of contact of the tool with the stone.

Other objects and advantages of the invention will appear in the following description in which I have set forth fully the details of construction and the essential features thereof in which similar letters of reference designate corresponding parts.

There are various forms which this device may take on and still be within the spirit of my invention, and I do not desire to confine myself to the exact location and construction of parts herein shown and described.

Figure 1 is a perspective view of my invention attached to the bed of an ordinary grindstone. Fig. 2 is a vertical section, and Fig. 3 is a modification.

Reference being had to the above figures, A represents a bar or rod bent as shown in the drawings, the cross section of which is rectangular.

Secured to the upper portion of the frame or base B on which the grind stone C rests is the guide or bearing D into which is adapted to slide the laterally adjustable rod E which is securely held in the required position by means of the binding screw F which passes through the upper surface of the bearing D. One end of the adjustable rod E is enlarged

and perforated with a rectangular hole G into which the rod A passes and is vertically adjustable by means of the binding screw H.

Pivoted to the upper end of the rod A by means of the bolt I is the open rectangular frame J parallel sides of which furnish tracks for the sliding piece K, to the upper surface of which is secured by means of bolt (a) to the plate or clamp L, which holds the U shaped spring wire support M, the open ends of which are bent upward and inward as shown in Fig. 1.

The manner of securing the tool in the required position is clearly shown in Fig. 1, the inwardly projecting ends of the wire M passing over the blade of the tool, while beneath the blade and the wire is situated the block of wood N, and to further secure the tool I have supplied the open rectangular clamp O through one side of which passes the binding screw P which is intended to be screwed firmly down against the blade of the tool.

Revolubly secured to the under side of the rectangular frame J is the threaded shaft Q which passes through the threaded hole R in the projection S on the under surface of the sliding piece K. To one end of the shaft Q, is secured the hand wheel T by means of which the shaft is revolved in either direction thereby moving K to the right or left as desired.

About the lower vertical portion of the adjustable rod A is the adjustable sleeve U to which is attached one end of the spring V which is incased in the box W, the other end being attached to the projection X on the frame J, its object being to exert the desired downward pressure of the edge of the tool on the grindstone.

In Fig. 3 I have represented the means of holding curved edge tools, such as gouges, &c., which consists of the hollow tube Y which is secured to the plate L by means of the nut (y) which engages with the projection (y') on the under surface of Y, and in place of the wire M, I have substituted the wire frames E' one end of which is adapted to fit into the tube Y and secured in any desired position therein by means of the set screw (z).

It will be readily seen from the above description that I have provided a very simple, effective and inexpensive apparatus by the

use of which either a straight or curved edge tool may be evenly ground at any desired bevel.

By the use of my invention the assistant
5 needed in the process of the ordinary grinding of tools is dispensed with thus making it possible for one person to grind any form of tool.

I am aware that changes in the form of parts
10 of the devices herein shown and described as an embodiment of my invention can be made without departing from the spirit or sacrificing the advantages thereof and I therefore reserve the right to make such changes and
15 alterations as fairly fall within the scope of my invention.

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

20 1. In an apparatus of the class described the combination of a vertically and horizontally adjustable rod, to the upper end of which is hinged or pivoted a rectangular frame, said frame carrying a sliding support
25 to which is secured a clamp, said clamp being

adapted to hold the wire M, and means for adjusting the position of said sliding support, substantially as described and in the manner and for the purpose set forth.

2. In an apparatus of the class described 30 the combination of a vertically and horizontally adjustable rod, to the upper end of which is hinged or pivoted a rectangular frame, said frame carrying a sliding support to which is secured a clamp, said clamp being 35 adapted to hold the wire M, and means for adjusting the position of said sliding support, and spring V one end of which is secured to said pivoted rectangular frame while its other end is secured to an adjustable sleeve on said 40 vertically adjustable rod substantially as described and in the manner and for the purpose set forth.

In testimony whereof I have signed this specification in the presence of two subscrib- 45 ing witnesses.

FRANK OBIOLS.

Witnesses:

W. H. BARNES,
H. L. POPLIN.