

(No Model.)

J. E. SMITH.
TOOL HOLDER.

No. 521,965.

Patented June 26, 1894.

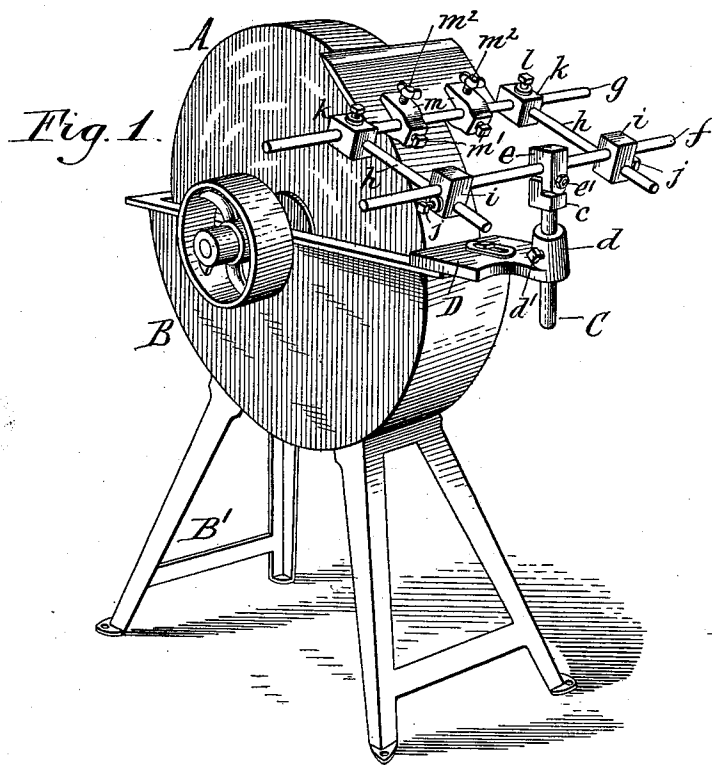


Fig. 1.

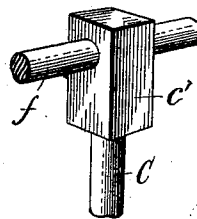


Fig. 2.

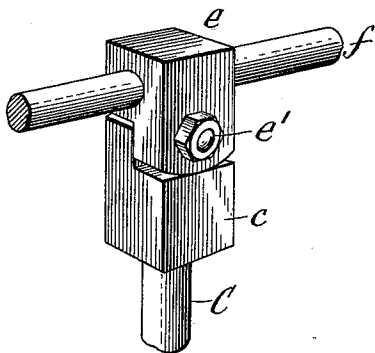
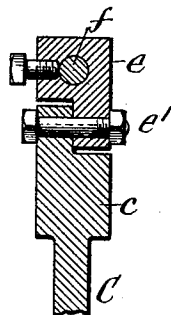


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOHN E. SMITH, OF BUFFALO, NEW YORK.

TOOL-HOLDER.

SPECIFICATION forming part of Letters Patent No. 521,965, dated June 26, 1894.

Application filed April 9, 1894. Serial No. 506,845. (No model.)

To all whom it may concern:

Be it known that I, JOHN E. SMITH, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented a new and useful Improvement in Tool-Holders, of which the following is a specification.

This invention relates to that class of tool holders which are employed in connection with a grind stone for sharpening tools and cutlery.

The object of my invention is the production of a simple holder of this kind whereby comparatively large knives, such as butchers' knives and cleavers, may be firmly held and conveniently presented to the grind stone, and which may be readily adjusted to receive knives of different sizes, as well as be moved into various positions for giving the desired cutting edge to the knife or cleaver.

In the accompanying drawings:—Figure 1 is a perspective view of my improved tool holder in connection with a grind stone. Fig. 2 is an enlarged perspective view of the swiveling joint of the holder. Fig. 3 is a vertical section thereof. Fig. 4 is a fragmentary perspective view of a modified construction of the holder.

Like letters of reference refer to like parts in the several figures.

A is the grind-stone and B the trough in which the stone is arranged, and which is supported by legs B'.

C is a post or standard secured in a bearing *d* formed on a bracket D of the trough and preferably made vertically adjustable therein by means of a set screw *d'*. The standard C is formed at its upper end with a head or enlargement *c* and to this head a block *e* is pivoted by means of a horizontal bolt *e'*, so as to permit said block to tilt toward either side of the standard.

f is a transverse guide rod secured centrally to the swiveling block *e* and forming the rear member of the tool holding frame.

g is a transverse tool supporting rod arranged in front of the guide rod, parallel with the latter, and *h, h* are longitudinal or side rods which extend rearwardly from the front rod *g* to the guide rod *f*.

i i represent supporting blocks arranged to

slide freely on the guide rod and provided with openings for the passage of said rod. The rear portions of the side rods pass through openings formed in the sliding blocks *i* at right angles to the guide rod, and they are adjustably secured in said openings by set screws *j*.

k k represent supporting blocks secured to the front ends of the sliding rods and having transverse openings in which the front rod is adjustably secured by set screws *l*.

m m are knife clamps which are mounted upon the front rod *g* and in which the knife or cleaver to be ground is secured. These clamps are provided with openings through which the front rod passes and are secured in place by set screws *m'* arranged in openings formed in their rear ends and bearing against said rod. Each clamp preferably consists of a pair of jaws between which the knife or cleaver is confined by a clamping or thumb screw *m²* arranged in the upper jaw of the clamp and bearing against the adjacent side of the knife or cleaver. Upon loosening the set screws of the front blocks, the latter may be adjusted toward or from each other in accordance with the length of the knife or cleaver to be ground, and upon loosening the set screws of the rear blocks, the side rods may be adjusted forward or backward to locate the front or tool supporting rod at the proper distance from the face of the grind stone. After these rods have been properly adjusted the set screws of the several blocks are again tightened. The knife clamps may be adjusted toward or from each other after loosening their set screws, and they may also be inclined on the front rod at a greater or less angle, in accordance with the desired bevel which is to be given to the cutting edge of the knife or cleaver. Upon loosening the set screw of the standard, the same may be raised or lowered for placing the rear portion of the tool holder at the desired elevation. As the rear blocks are free to slide on the guide rod, the side and front rods carried by said blocks may be moved laterally on the guide rod in either direction, for presenting all portions of the cutting edge of the knife to the grind-stone. The front rod, being supported at both ends by the side rods,

forms a firm support whereby the knife is reliably held in position during the operation of grinding, without any effort on the part of the operator, the operator being only required to slide the tool holding frame back and forth on the transverse guide rod. This construction also permits the tool holding frame to be swung upward and backward toward the operator for examining the knife edge from time to time. In case the knife or cleaver has rounded ends, the latter are readily ground by tilting the tool holding frame on the pivot bolt *c'* at the upper end of the standard.

If desired, the transverse guide rod may be rigidly connected with the enlarged upper end *c'* of the standard, as shown in Fig. 4, but in that case the holder can be used only for grinding straight-edged knives or cleavers.

I claim as my invention—

1. In a tool holder, the combination with a transverse guide rod, of rear supporting blocks mounted on said guide rod, longitudinal rods attached at their rear portions to said blocks, front supporting blocks attached to the front portions of said longitudinal rods, a transverse rod arranged in front of said guide rod and supported in said front blocks, and a knife supporting clamp or clamps mounted on

said transverse front rod, substantially as set forth.

2. In a tool holder, the combination with a transverse guide rod, of rear supporting blocks capable of sliding on said rod, longitudinal rods capable of forward and backward adjustment in said rear blocks, a transverse front rod, front supporting blocks secured to the front ends of the longitudinal rods and capable of lateral adjustment on the transverse front rod, and a knife clamp or clamps adjustably secured to the transverse front rod, substantially as set forth.

3. In a tool holder, the combination with a standard or support, of a transverse guide rod pivoted to said standard by a horizontal bolt, a front supporting rod carrying knife clamps, supporting blocks sliding on said guide rod, and side rods connecting the front supporting rod with said sliding blocks, substantially as set forth.

Witness my hand this 29th day of March, 1894.

JOHN E. SMITH.

Witnesses:

CARL F. GEYER,
JNO. J. BONNER.