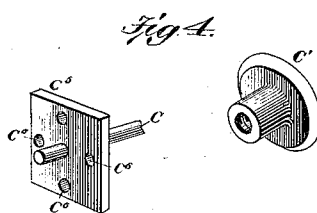
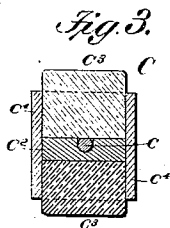
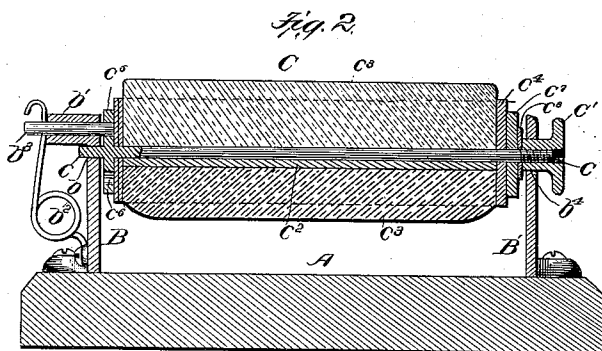
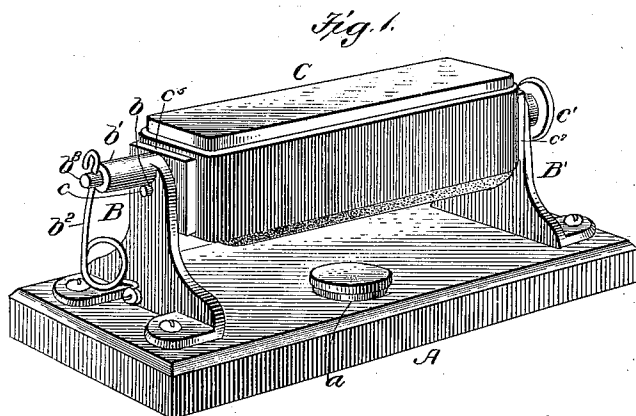


(No Model.)

G. A. KEIST.
TOOL SHARPENING DEVICE.

No. 478,608.

Patented July 12, 1892.



Witnesses:

J. H. Cornwall.

J. Edwards Smith

Inventor,

George A. Keist

By his Attorney

James A. Parker

UNITED STATES PATENT OFFICE.

GEORGE A. KEIST, OF AUBURN, MAINE.

TOOL-SHARPENING DEVICE.

SPECIFICATION forming part of Letters Patent No. 478,608, dated July 12, 1892.

Application filed February 10, 1892. Serial No. 421,011. (No model.)

To all whom it may concern:

Be it known that I, GEORGE A. KEIST, a citizen of the United States, residing at Auburn, in the county of Androscoggin and State of Maine, have invented certain new and useful Improvements in Tool-Sharpener Devices; 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.

This invention is an improvement in tool-sharpeners and holders therefor.

The objects of this invention are to provide a sharpening device for tools by which edged tools may be given various degrees of sharpness ranging from the edge required for cutting meat or the like to the edge of a razor; furthermore, to provide a sharpening device for tools the faces of which may be brought into convenient operative position with ease and held there securely; furthermore, to provide a sharpening device wherein the holder of the sharpening faces or surfaces will be simple in structure, compact of arrangement, and neat in appearance.

The invention has for further objects the production of a combined tool sharpener and holder which will be comparatively inexpensive to manufacture, easy to use, and attractive in appearance.

With these objects in view the invention resides in the various novel features of detail and in the combination of parts hereinafter fully described, and particularly pointed out in the claims.

In the accompanying drawings, forming part of this specification, in which like letters of reference indicate corresponding parts, Figure 1 is a perspective view of my device. Fig. 2 is a longitudinal section thereof. Fig. 3 is a cross-section of a portion thereof, and Fig. 4 shows in detail a portion of the axis c , having secured to it the plate c^5 , and also shows the thumb-piece c' .

In the drawings, A, designates a platform or stand to which the device is secured.

B B' indicate standards or end pieces suitably secured to the platform A, which are provided for the purpose of raising the abrading or sharpening surfaces above the plat-

form and which afford journals for the axis of the combination of sharpening-surfaces.

C designates the sharpening device proper, and consists, in general terms, in an axis mounted between the end pieces B B', a support surrounding or nearly surrounding this axis and extending nearly the length between the two end pieces, two sharpening-stones or abrading-surfaces arranged the one above and the other below the support upon the axis, a leather strap or band extending longitudinally around the support and the stones and serving to confine and hold the same in place and also to act as a sharpening-surface, washers at either end, and suitable tightening and holding devices.

The platform A may be of any suitable material, and the standards B B' may be either integral with the platform or may be secured thereto in any suitable or convenient way.

The platform is provided on its upper surface with a recess a , in which may be placed a box of grease or razor-paste for oiling the leather.

The standard or end piece B is provided near its top with a bearing b for the axis or shaft of the portion C, and above this bearing the said end piece is provided with a tubular projection b' . To the lower portion of this standard one end of a spring b^2 is secured in any suitable manner, the other end of the spring being passed through the end of a pin b^3 , which is held thereby within the tubular projection b' , having its inner end normally projecting beyond the inner side of the standard B. The end piece B' has merely a journal or bearing b^4 at its upper end, the said journal being somewhat larger in diameter than the bearing b opposite to it.

The sharpening device C consists of the axis c , journaled in the two end pieces by having one of its ends thrust through the bearing b and by having its other end provided with a screw-thread, on which the thumb-piece c' is secured. The thumb-piece serves two functions: first, to provide a suitable journal for the bearing b^4 , and, second, to tighten and secure the stones in their places, as will be hereinafter described. Surrounding or nearly surrounding the axis c is a support c^2 , of wood or other suitable mate-

rial, having for its object to provide a rest for the sharpening-stones c^3 on either side, and also to hold in shape the band of leather c^4 whether the stones be in position or whether they be removed therefrom. This support c^2 is, by preference, flat and rectangular in its outline. One end of this support has secured to it by means of glue, small brads, or the like one end of the leather strap c^4 , which, passing around the edges of the support, has its other end lapped over, by preference having a slit in the lapped end for the purpose of adjustment and tightening the first end and secured thereto by the following means: Fast upon the shaft or axis c , near the end which is journaled in the standard B, is a plate c^5 , provided with holes or depressions c^6 to receive the inner end of the pin b^3 . Upon the other threaded end of the axis is a loose plate or washer c^7 , having an auxiliary washer c^8 , whereon the thumb-screw c' is tightened. It will readily be seen that by tightening the thumb-screw c' the plate c^7 will press upon the leather band c^4 and hold in place the stone c^3 , which fits snugly within this band and rests upon the support c^2 . To remove the stones, it is only necessary, of course, to loosen the thumb-screw c' , and thereupon, the pressure upon the leather being relieved, the stones may easily be taken from their respective places.

The spring-pressed pin b^3 , in combination with the recessed plate c^5 , forms a locking device for holding any of the four surfaces of the sharpening device uppermost at a time and restraining the same from turning at inopportune times when in use.

In using my device it will be seen that it may often be convenient to have upon one side a stone of coarse grain for taking the rough edges from any edged tool and upon the other side a hone of finer stone, and also to have one side of the leather prepared with razor-paste, emery powder, or the like and the other side of the leather as soft and smooth as may be, by these means enabling the operator to obtain the highest possible edge to any tool.

I make these tools for various uses, from the sharpening of axes and meat-knives to the edging of the finest razors, and of course in designing the device for these various purposes it is made of different materials, of different sizes and strengths, and varying slightly in appearance and manufacture from the device shown in the drawings; but of course no matter for what specific purpose the individual devices may be made the general structures and the combinations of the elements are those set forth herein.

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

1. In a tool-sharpener, the combination, with suitable supports, of a strap of leather

embracing the edges of stones and means, substantially such as described, for tightening the leather upon the stones, thereby holding them in place, substantially as and for the purpose set forth.

2. In a tool-sharpener, the combination, with a base, of standards secured thereto, a shaft or axis journaled between the standards, a rest placed upon said shaft, a band of leather surrounding said rest, stones adapted to fit within the edges of the leather and upon the rest, and means, substantially such as described, for holding the leather and the stones in place, all substantially as and for the purpose set forth.

3. In a tool-sharpening device, the combination, with the standards B B', the standard B having the spring-pressed pin b^3 , of the shaft or axis c , mounted between these standards, a support c^2 , arranged upon the axis c , a band of leather c^4 , surrounding the said support, a plate c^5 , secured to the axis c near one end thereof, the said plate having depressions to receive the inner end of the pin b^3 , stones adapted to fit within the edges of the leather band, a plate or washer c^7 , loose upon the axis c , and a screw for holding the leather to the stones, all substantially as set forth.

4. In a tool-sharpening device, the combination, with the holder C, having an axis c and a plate c^5 fast thereon, the said plate being provided with openings or recesses in the face of the plate, arranged in a circle about the axis c , of a pin b^3 , mounted longitudinally in one of the supports for the holder, the said pin being normally pressed forward by a spring b^2 , attached to the said support and engaging one of the recesses of the plate c^5 , all substantially as and for the purpose set forth.

5. In a tool-sharpening device, the combination, with the platform A and the standards B B', the standard B having a tubular projection b' at its upper end and having a spring-pressed pin b^3 , adapted to move longitudinally within said tubular projection, of a shaft or axis c , having one of its ends screw-threaded and having upon its other end fast thereto the plate c^5 , provided with holes c^6 , a support or rest c^2 , arranged longitudinally upon the axis c , a band of leather c^4 , surrounding the edges of the said support, stones c^3 , fitting within the outer edges of the leather and resting upon the support c^2 , a plate c^7 , loose upon the axis c , and a thumb-screw c' , journaled in the standard B' and engaging the threads upon the axis c , the inner end of the thumb-screw pressing upon the plate c^7 , all substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE A. KEIST.

Witnesses:

JAMES A. PULSIFER,
A. M. PULSIFER.