J. B. HANCOCK.

KNIFE SHARPENER.

APPLICATION FILED JAN. 5, 1915.

1,170,898.

Patented Feb. 8, 1916.

2 SHEETS—SHEET 1.

Fig. 1.

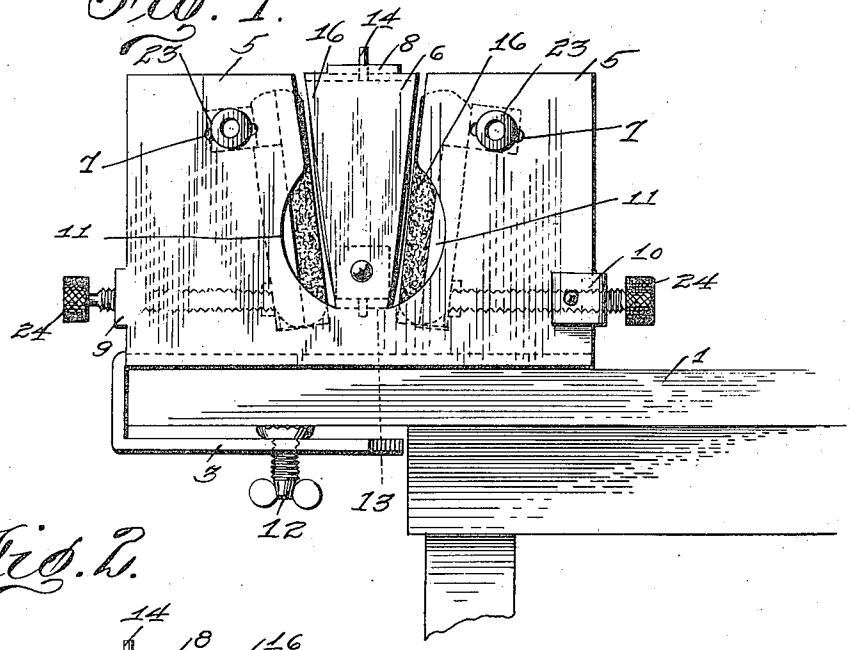


Fig. 2.

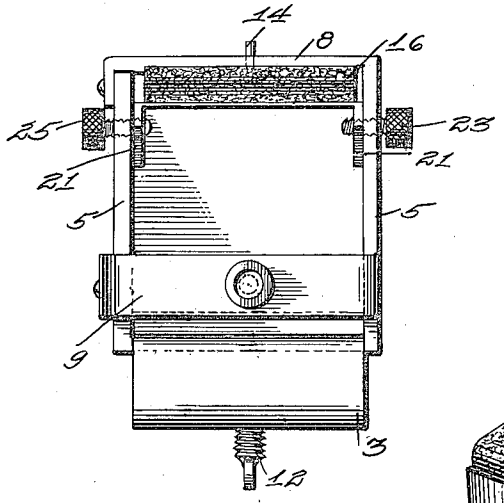
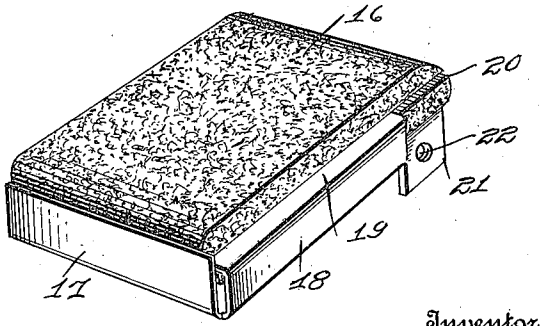


Fig. 5.



Witnesses

G. Dowell

J. P. Campbell

Inventor

James B. Hancock

By Richard Bowen

Attorney

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2 SHEETS—SHEET 2.

Fig. 4.

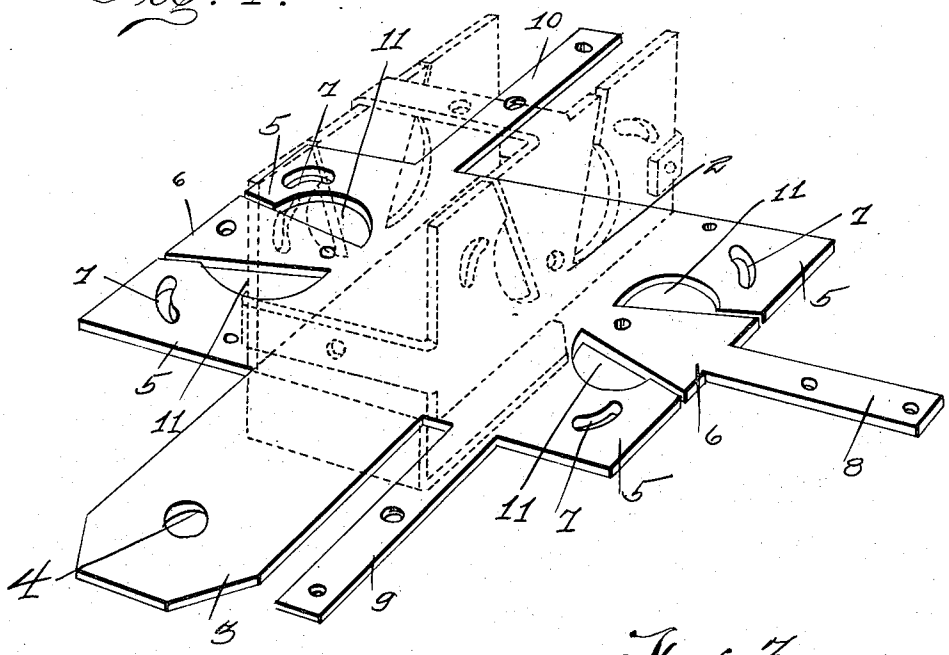
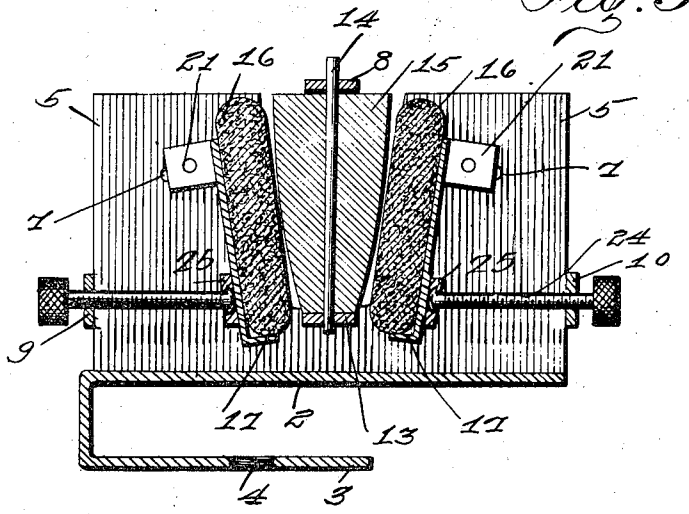


Fig. 3.



Witnesses

R. O. Kidwell

J. P. Campbell

Inventor

James B. Hancock,

By Richard Owen,

Attorney

UNITED STATES PATENT OFFICE.

JAMES B. HANCOCK, OF CEDAREDGE, COLORADO.

KNIFE-SHARPENER.

1,170,898. Specification of Letters Patent. Patented Feb. 8, 1916.

Application filed January 5, 1915. Serial No. 649.

To all whom it may concern:

Be it known that I, JAMES B. HANCOCK, a citizen of the United States, residing at Cedaredge, in the county of Delta and State of Colorado, have invented certain new and useful Improvements in Knife-Sharpeners, of which the following is a specification.

My invention relates to new and useful improvements in knife sharpeners.

The primary object of the invention is the provision of a sharpener which is simple and inexpensive in construction and which is portable, whereby it may be moved from place to place for the convenience of the user.

A further object of the invention is the provision of means whereby the sharpener may be adjusted.

A still further object of the invention is the provision of means for securing the sharpener to a suitable support.

With these and other objects in view the invention consists in the novel details of construction and arrangement of parts which will be more clearly understood from the following description and drawings, in which,

Figure 1 is a view in side elevation showing the sharpener attached to the support. Fig. 2 is an end view. Fig. 3 is a longitudinal sectional view. Fig. 4 is a perspective of the blank from which the framework is formed showing in dotted lines the manner of folding, and Fig. 5 is a perspective detail of the sharpening stone and holding frame.

In the drawings, the numeral 1 indicates a suitable support which in this instance is shown as a table. The frame of the sharpener is formed from a single blank, as shown in Fig. 4 of the drawings. The body portion of the blank is indicated, at 2, and has a tongue or extension 3 extending from one end thereof. This tongue or extension 3 is provided with the threaded perforation indicated, at 4, and the purpose of which will be presently described. Extending from each side of the body portion 2 are the tongues or extensions 5 and the triangular shaped intermediate extensions or tongues 6. Each of the extensions 5 is provided with an elongated curved opening, as indicated at 7, and the purpose of which will be presently described. Extending from one of the tongues 6 is an extension 8 and an extension 9 extends from the end of one of the extensions 5. An extension 10 similar to the extension 9 extends from one of the tongues 5 on the opposite side of the body portion 2 and in a direction opposite to that of the extension 9. The tongues are provided with various perforations to receive fastening means which will be later described. The sides of the tongues 5 adjacent the intermediate triangular shaped extensions 6 are of the shape shown so as to leave the semicircular openings 11 as more clearly shown in Figs. 1 and 4 of the drawings.

The blank is to be folded, as shown in dotted lines in Fig. 4 of the drawings, whereby the tongue or extension 3 extends beneath the body portion 2 and acts as a receiving socket for securing the frame to any suitable support. A clamping screw 12, more particularly shown in Figs. 1 and 2 of the drawings, is received in the threaded opening 4 in the tongue or extension 3 and clamps the frame in position upon the support. When the blank is folded the tongues 5 and 6 form the sides of the frame and the extension 8 extends over the top of the frame and engages the tongue 6 on the opposite side of the frame and is bent to engage the side thereof. As previously described, this extension 8 is provided with perforations one of which will be over the center of the frame when in folded position and the other perforation is used for receiving a fastening device whereby the parts are held in position. When folded the extensions 9 and 10 form the end walls of the frame and the ends of said extensions overlap the sides and may be secured in position by any suitable fastening which pass through perforations formed in said extensions and sides. The extensions 9 and 10 are further provided with perforations which will be on a line with the longitudinal center of the frame and the purpose of which will be presently described.

A strip or plate 13 is secured to the side walls of the frame by means of fastening means passing through perforations formed in the triangular shaped tongues 6 and through the upturned ends of said plate. This plate is provided with a perforation and a rod 14 is received within said perforation and extends through the central perforation in the extension 8. Received upon this rod 14 is a roller 15 which is of the shape shown in which the top part is of a

diameter greater than that of the lower part and the purpose of which will be presently described. This roller may be made of any suitable material but is preferably of wood.

The abrading or sharpening plates are indicated, at 16, and are held in metal frames, the structure of which is more particularly shown in Figs. 3 and 5 of the drawings. The frames are formed with an end piece 17 which supports the sharpening plates and the side strips 18 having the inturned edges 19 which are received in grooves 20 formed in the sides of the sharpening plates. The holding frames are provided with tongues 21 bent at right angles thereto and said tongues are provided with threaded openings 22. The frames holding the sharpening plates are received between the side walls of the frame and are held in position by means of thumb screws which are received in the threaded openings 22 of the tongues 21 and extend through the elongated curved slots formed in the tongues or extensions 5 which form the sides of the frame. It will thus be seen that the sharpening plates and frame may be adjusted by loosening and tightening the thumb screws 23. Threaded shafts 24 are rotatably connected to cleats 25 secured to the frame of the sharpening plates, as clearly shown in Fig. 3 of the drawings, and extend through the central openings of the extensions 9 and 10. By adjusting the threaded shafts the angle of the sharpening plates may be readily changed.

By having the roller 15 of the shape shown it will be seen that a fine adjustment may be made of the sharpening plates and they can be set at such an angle as to readily act on the knife or other article being sharpened.

Having fully described the detail construction of the device it is thought that the advantages and operation will be clearly understood. The main frame, as above described, is made from a single blank and bent into the shape shown and may be readily attached to any suitable support as indicated in Fig. 1 of the drawings. By having the semicircular openings formed in the tongues 5 it will be seen that the knife or other article to be sharpened may be readily inserted between the sharpening plates 16 and the roller 15. By simply drawing the knife backward and forward it can be readily sharpened. The sharpening plates can be adjusted through means of the threaded shaft 24 and the elongated circular openings 7 formed in the tongues 5.

Having fully described the invention what I claim as new and desire to secure by Letters Patent is:—

1. A knife sharpener comprising a frame, abrading plates secured to the frame, and a frusto-conical roller having bulged sides mounted between said plates.

2. A knife sharpener comprising a frame, abrading plates adjustably secured to the frame, and a roller mounted between the plates, said roller diminishing in diameter from the top toward the bottom.

3. A knife sharpener comprising a frame, plates pivotally connected to said frame, abrading plates secured to said pivoted plates, and a frusto-conical roller having bulged sides mounted between said abrading plates.

4. A knife sharpener comprising a frame, plates pivotally connected to the frame, said plates provided with bottom flanges and sides having right angle extensions, abrading plates received on the bottom flanges and provided with grooves adapted to receive the right angle extensions of the sides, and a roller mounted between the abrading plates.

5. A knife sharpener comprising a frame, plates pivotally connected to the frame, said plates provided with bottom flanges and sides having right angle extensions, abrading plates received on said bottom flanges and provided with grooves adapted to receive the right angle extensions of the sides, threaded shafts extending through the frame and rotatably connected to the pivoted plates, and a frusto-conical roller having bulged sides mounted between the abrading plates.

6. A knife sharpener comprising a frame, a plate pivotally connected to the frame, abrading material secured to the plate, lugs formed on the plate, cleats secured to said plates, means passing through the frame and engaging the cleats for adjusting the plates, and means passing through the frame and lugs for pivotally connecting the plate.

7. A knife sharpener comprising a frame, a plate secured across the top of the frame, a plate secured to the frame intermediate the top and bottom, a roller mounted between said plates, and abrading plates secured adjacent the roller.

8. A knife sharpener comprising a frame made from a single blank folded to form sides and ends, abrading plates pivotally mounted between the sides, and means extending through the ends and engaging the plates for adjusting the same.

9. A knife sharpener comprising a frame made from a single piece of material bent to form sides and ends, abrading plates pivotally mounted between the sides, said plates being provided with cleats having an opening therein, a roller mounted between the abrading plates, and means extending through the ends and engaging the cleats for adjusting the plates.

10. A knife sharpener comprising a frame made from a single blank, said blank being bent to form a bottom, sides, ends, and an

extension beneath the bottom, abrading plates pivotally mounted between the sides, and means for adjusting the plates.

11. A knife sharpener comprising a frame made from a single blank, said blank being bent to form a bottom, sides, ends, and a strip extending across the top of the frame, abrading plates pivotally mounted between the sides, and a roller rotatably mounted between the bottom and top strip.

12. A knife sharpener comprising a frame formed from a single blank, said blank being bent to form a bottom and sides, an extension formed on each side and adapted to be bent to engage the opposite side and form the ends of the frame, a tongue formed on one side and adapted to be bent to engage the opposite side and form a strip extending across the top of the frame, and abrading plates mounted between the sides.

13. A knife sharpener comprising a frame having a bottom and sides formed with elongated openings, abrading plates mounted between the sides, and means passing through the elongated openings in the sides and engaging the plates.

14. A knife sharpener comprising a frame having a bottom, sides provided with elongated openings, and ends, abrading plates mounted between the sides, means passing through the elongated openings in the sides and engaging the abrading plates, and means passing through the ends and engaging the plates for adjusting them.

15. A knife sharpener comprising a frame, elongated curved openings formed in the sides of the frame, and abrading plates pivotally and slidably mounted within said openings.

16. A knife sharpener comprising a frame having openings formed in the sides thereof, abrading plates pivotally connected to the frame adjacent the openings, and a roller mounted in the frame between the abrading plates.

17. A knife sharpener comprising a frame having slots formed in the top thereof and terminating into enlarged openings, abrading plates secured to the frame adjacent the openings, and a roller mounted between the abrading plates.

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

JAMES B. HANCOCK.

Witnesses:
W. C. OVERHULTS,
H. A. COBBETT.