Oct. 23, 1956 L. A. PALDANIUS 2,767,530

KNIFE SHEATH

Filed Sept. 1, 1954

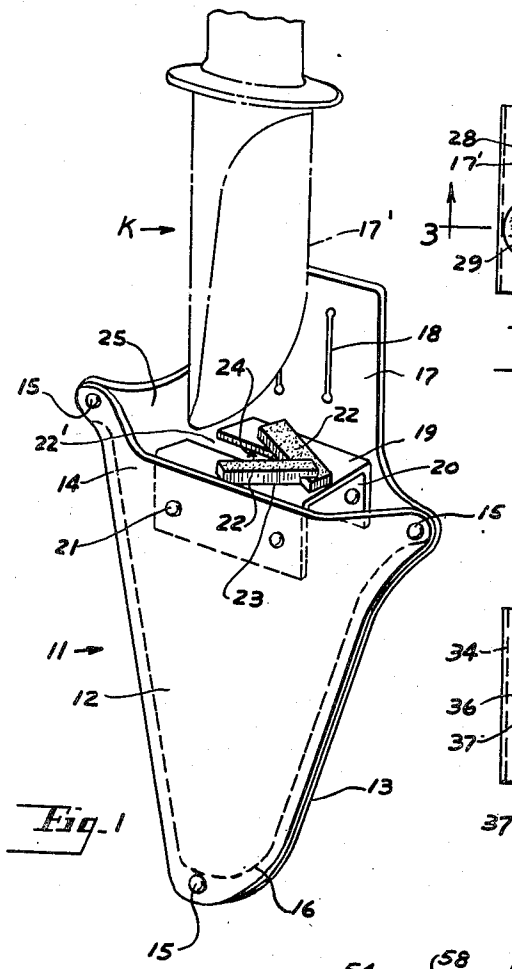


Fig. 1

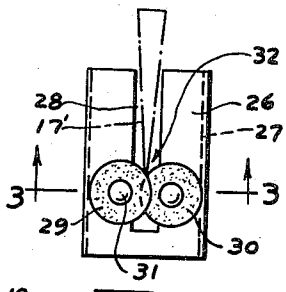


Fig. 2

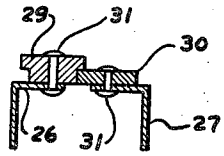


Fig. 3

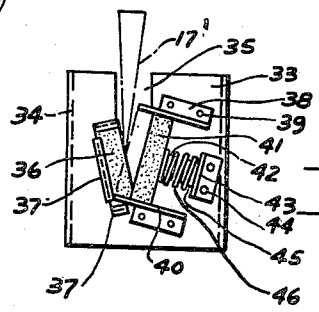


Fig. 4

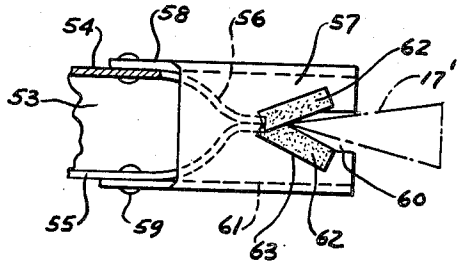


Fig. 5

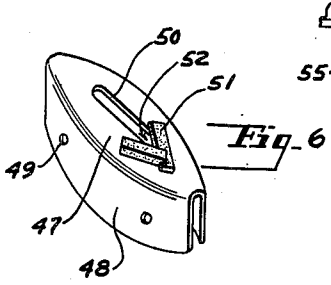


Fig. 6

INVENTOR.
LEO A. PALDANIUS.

BY

Robert A. Sloman

ATTORNEY.

United States Patent Office 2,767,530 Patented Oct. 23, 1956

2,767,530

KNIFE SHEATH

Leo A. Paldanius, Port Huron, Mich.

Application September 1, 1954, Serial No. 453,454

1 Claim. (Cl. 51—214)

This invention relates to a knife sheath, and more particularly, to a knife sharpener with knife storage means associated therewith.

It is the object of the present invention to incorporate within a knife sheath a knife blade sharpening element whereby the blade is sharpened upon each withdrawal of the knife blade with respect to its supporting sheath or housing.

It is the further object of the present invention to provide a novel sharpener for a knife blade wherein there is provided an enclosing housing for the blade and at the upper end thereof and across the inlet opening thereto, there is provisioned a blade sharpening element.

It is the further object of the present invention to provide a knife sheath construction and in conjunction therewith a blade sharpener arranged upon the exterior of the sheath.

These and other objects will be seen from the following specification and claim in conjunction with the appended drawing in which:

Fig. 1 is a perspective view of the present knife sheath or sharpener, with a knife fragmentarily illustrated.

Fig. 2 is a plane view of a slightly different form of a sharpening element.

Fig. 3 is a section taken on line 3—3 of Fig. 2.

Fig. 4 is a plane view of a slightly different form of sharpening element.

Fig. 5 is a fragmentarily plane view of a knife sheath with the sharpening element arranged upon the exterior thereof; and

Fig. 6 is a perspective view of a slightly different form of knife sharpener from that shown in Fig. 1.

It will be understood that the above drawing illustrates merely a preferred embodiment of the invention and that other embodiments are contemplated within the scope of the claim hereafter set forth.

Referring to the drawing, there is shown a knife sharpener in Fig. 1 which includes a housing and which has at its upper open end a pair of sharpening elements whereby the knife blade is sharpened upon removal of the blade from the said housing.

Specifically, the present sharpener includes a knife sheath 11, having a pair of opposed formed side walls 12 and 13, which are spaced apart at their upper ends as at 14, defining an inlet opening 25.

The said side walls are suitably secured together at the three corners, as indicated in Fig. 1 as by the rivets 15. Additionally, the peripheral portions of the two side walls are secured together as by the stitching 16 to thereby complete the formation of the sheath or housing 11.

A knife K is fragmentarily shown in Fig. 1 with its upright blade 17' positioned directly above the said sheath.

Side wall 13 includes the upright extension 17 which extends above the top edge of side wall 12 and has formed

therein a pair of upright parallel spaced slots 18, whereby the sheath or housing may be suitably supported as by the belt of the user.

Centrally bridging inlet 25 and secured therein is the horizontally disposed mounting plate 19 with elongated oppositely arranged parallel spaced depending side flanges 20, which engage the inner surfaces of the side walls 12 and 13 adjacent said inlet and are secured to the said side walls by a plurality of rivets 21, for illustration, it being contemplated that any other method of securing the said mounting plate to the said side walls could be employed.

Mounting plate 19 has an elongated central recess 22' which terminates at one end of said plate, and partially overlapping said recess and mounted upon said plate is a pair of angularly related overlapping abrasive elements 22. These elements are suitably secured to plate 19 as by soldering or brazing, for illustration, as at 23, to thereby define the wedge-shaped knife blade receiving notch 24 into the apex of which blade 17' is operatively and slidably projected for sharpening purposes.

The elements 22 are constructed of a hard material, such as cemented carbide or the equivalent. The inner intersecting sharpening edges thereof slightly overlap a portion of recess 22' so that the blade is guidably positioned down through said mounting plate and slot 22' therein.

A slight variation in the sharpener is illustrated in Fig. 2, wherein the mounting plate 26 includes the corresponding similar pair of depending side flanges 27 adapted for securing to the inner surfaces of the side walls of the sheath or housing 11, said plate also having the central elongated slot 28 adapted to receive blade 17', said mounting plate serving the additional function of a support for the knife within the housing or sheath.

Mounted upon the top of plate 26 are a pair of carbide discs 29 and 30, which are preferably arranged in overlapped formation and are rotatably journaled upon said plate as by the rivets 31 to thereby define the sharpening apex 32 for cooperatively receiving the edge 17' or blade.

A slightly different form of sharpener is shown in Fig. 4, which corresponds partially to the sharpener of Fig. 1, except that one of the rectangularly shaped sharpening blocks is slidably adjustable.

Referring to Fig. 4, plate 33 includes the depending side flanges 34 and has a transverse blade receiving slot 35 formed therethrough. Overlapping the forward portion of said slot is a single rectangularly shaped sharpening element 36, which is immovably secured in position as at points 37.

A pair of parallel spaced guides 38 are secured at 39 to the top of plate 33, and have upstanding guide flanges 40, between which is slidably positioned a second carbide block 41, the opposite ends of which engage loosely the said flanges 40. Boss 42 projects from one side of sharpening element 41 for cooperatively receiving one end of coiled spring 46. The opposite end of said spring projects over a corresponding boss 45, which is oppositely spaced from boss 42 and is secured to the flange 43, which is anchored at 44 to plate 33.

Thus there is provided a second spring biased carbide element 41 which is angularly related with respect to carbide element 36 and extends slightly thereover in overlapping relation, at the same time with its inner edge overlapping a portion of blade receiving slot 35. Thus the spring is always urging the stone from the position shown to the dotted line position indicated in Fig. 4 to thus guarantee a more even wear of the two stones.

A slightly different form of mounting plate is shown in Fig. 6, differing from the corresponding plate of Fig. 1

in that the plate 47 is substantially elliptical in form, and the corresponding depending side flanges 48 are of similar shape and are, accordingly, adapted for engagement with a similarly shaped inlet opening at the upper open end of the knife sheath or housing, such as is shown in Fig. 1. Apertures 49 are formed in flanges 48 for receiving securing rivets such as rivets 21, or any other convenient fastener.

Plate 47 has a central elongated blade receiving slot 50 and mounted upon plate 47 is a pair of angularly related slightly overlapping sharpening elements 51, whose sharpening apex 52 overlaps a portion of slot 50 formed in plate 47.

A slight variation of the present invention is shown in Fig. 5 wherein the knife sheath or sharpener housing 53 includes the spaced side walls 54 and 55, spaced apart at their upper ends for receiving and storing the knife blade 17'. In this case, the sharpener is upon the exterior of the sheath or housing and includes mounting plate 57 with a pair of parallel spaced side flanges 61. As shown in Fig. 5, these flanges have lateral extensions 58 which engage over the outer surfaces of side walls 54 and 55 and are secured thereto as by the rivets 59. The flanges 61 furthermore overlie the marginal side portions 56 which form extensions of the said side walls 54 and 55.

Plate 57 has an elongated recess 60, and overlapping said recess and mounted upon plate 57 and secured thereto as at 43 by soldering or brazing are a pair of angularly related slightly overlapping carbide elements 62, which provide a sharpening notch for receiving the blade 17', which is fragmentarily shown. By this construction there is a storage housing or sheath for the knife. However, the sharpener, including elements 57 and 62, is upon the exterior of the said sheath or housing.

Having described my invention, reference should now be had to the claim which follows for determining the scope thereof.

I claim:

A knife sharpener comprising an upright wedge-shaped housing, including a pair of substantially flat closely spaced side walls converging toward their lower ends, the upper horizontal edges of said walls being spaced apart defining an inlet of substantially oval shape and of a width several times the thickness of a knife blade, a horizontal relatively stationary mounting plate centrally bridging the said inlet, upright flanges depending from opposite longitudinal edges of said plate respectively bearing against the interior surfaces of said walls, fasteners securing said flanges to said walls, said plate having an elongated central recess therethrough lying in a plane substantially parallel to the general planes of said side walls; adapted to loosely and guidingly receive the blade of the knife, and a pair of opposed elongated intersecting and overlapping angularly related carbide blocks mounted and secured upon said plate, each having an elongated inner blade cutting edge defining together a blade receiving wedge-shaped notch overlapping and extending inwardly of one end of said recess, said blocks at said notch being operatively engageable with said blade on removal thereof from the housing, said recess terminating at one end of said plate.

References Cited in the file of this patent

UNITED STATES PATENTS

1,173,549	Blair	Feb. 29, 1916
1,335,603	Roberts	Mar. 30, 1920
2,295,859	Murray	Sept. 15, 1942
2,413,169	Case	Dec. 24, 1946
2,441,690	Dirksen	May 18, 1948
2,549,462	Haman	Apr. 17, 1951
2,598,589	Murchison	May 27, 1952