KNIFE AND TOOL SHARPENER

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Fig. 1. Fig. 2. Fig. 3.

Fig. 4.

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WITNESS:

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This invention relates to devices for sharpening edge tools, and has for its object the provision of a light, simple and inexpensive device which may be employed efficiently for sharpening knives, scissors and other edge tools.

The invention provides a pair of sharpening blades and means for securing the blades in a set relation which may be varied according to the structure of the tool to be sharpened.

A device embodying the invention is illustrated in the accompanying drawing and will be hereinafter fully set forth and defined.

In the accompanying drawings:

Figure 1 is a front elevation of a sharpener embodying the invention.

Figure 2 is a longitudinal section of the same.

Figure 3 is a rear elevation showing the manner of using the tool to sharpen a knife.

Figure 4 is a detail section on the line 4-4 of Figure 1.

Figure 5 is a detail section on the line 5-5 of Figure 1.

In carrying out the invention, there is provided a handle or frame which is preferably constructed of aluminum or some similar material which will be light and durable. This member comprises an elongated loop or open frame indicated at 1, so shaped that it may be conveniently and easily held by the hand of the user. The sides of the looped handle or open frame are extended and flattened at their ends and are integrally united, as shown at 2, the inner side edges of the side members converging toward the basal end of the device and merging into a central slot or notch 3 which extends longitudinally of the frame. The frame or base plate is also recessed on one side, as shown at 4, the recesses forming seats for sharpening blades and one recess being somewhat deeper than the other recess, as will be understood upon reference to Figure 4. Through that side member having the shallower recess a longitudinal slot 5 is provided and this slot accommodates a bolt 6 inserted through the sharpener blade 7, as shown in Figure 5, a securing nut 8 being mounted on the bolt and turned home against the back of the plate to secure the plate in a set position, as will be understood. The sharpener blades 7 and 9 are of hard highly tempered steel and are preferably rectangular in form so that they may seat firmly in the recesses provided therefor in the frame and be held against twisting or turning by the side walls of the recesses, as will be understood upon reference to Figure 1. The blade 9 which is seated in the deeper recess will project under the blade 7 at its lower corner, as shown in Figure 1 and as will be understood upon reference to Figure 4, so that when the bolt 6 is secured the upper blade 7 will effectually clamp the lower blade 9 in place.

It will be noticed, upon reference to Figures 1 to 3 of the drawing, that the blades intersect at their inner edges over the slot or notch 3, presenting a V-shaped notch in which a knife blade, indicated at 16, may be received. When a knife is to be sharpened, the blade is inserted through the open space of the frame, as shown in Figure 3, and is then drawn through the space with its edge resting on the opposed edges of the sharpener blades and with sufficient pressure applied thereto to maintain it in constant even contact with the edges of the sharpener blades. The blade is drawn through the tool from its handle to its tip and a few strokes will produce a fine cutting edge. If a pair of scissors is to be sharpened, the blade 9 is adjusted so as to project somewhat beyond the end of the frame or holding member and is secured in that position by tightening the bolt 6 in the usual manner. One blade of the scissors is then placed against the edge of the sharpener while resting against the end of the holding frame and is drawn against the sharpener blade so that the desired cutting edge will be quickly produced. To sharpen cleavers, hatchets and similar tools, the blade 9 is adjusted in the same manner as when scissors are to be sharpened and the cleaver or other tool is then placed upon a table or other firm support after which the sharpener is drawn along the edge of the blade to be sharpened with a scraping motion. The tool is very light and inexpensive and is highly efficient for the purposes for which it is designed. The sharpener blades may be renewed when necessary without requiring the provision of a new holder and may be adjusted quickly to compensate for wear. To adjust the blades as their working edges become worn, the nut 8 is loosened and the bolt 6 then shifted along the slot 5 to the desired extent, thereby setting the blade 7 at a lower point on the holder so as to present a new portion of its working edge to the tool to be sharpened. The blade 9 is adjusted in the same manner and the nut 8 is then turned home so that the bolt will be tightened, a single bolt serving to secure both blades in working position.

Having described the invention, I claim:

A sharpener for edge tools comprising a holder having a central longitudinal slot and provided in one side with recesses extending through the end of the holder and having their inner sides intersecting the slot, sharpener blades seated in said recesses with the lower inner corner of one blade overlapped by the lower inner corner of the other blade, the holder being provided with a longitudinal slot in the seat receiving the overlapped blade, and a securing bolt carried by the overlapping blade and extending through said slot.

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