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HONING DEVICE FOR RAZOR BLADES

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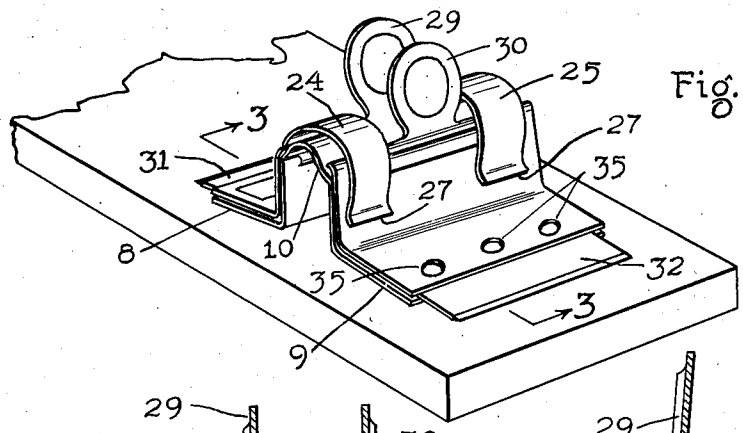


Fig. 1

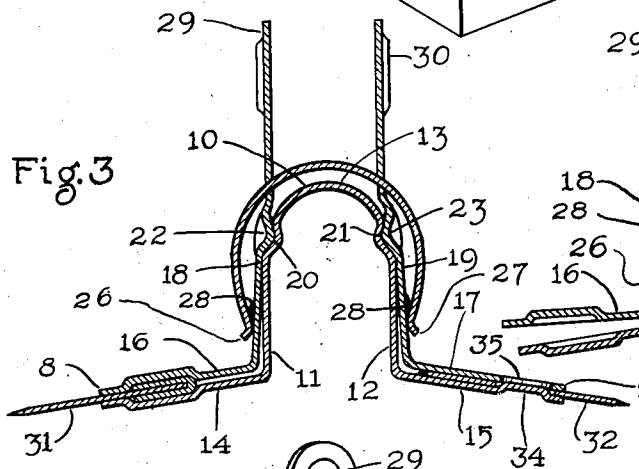


Fig. 3

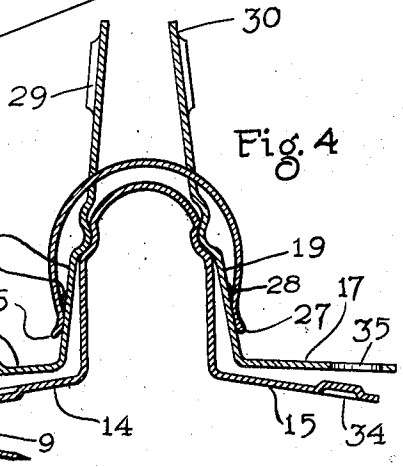


Fig. 4

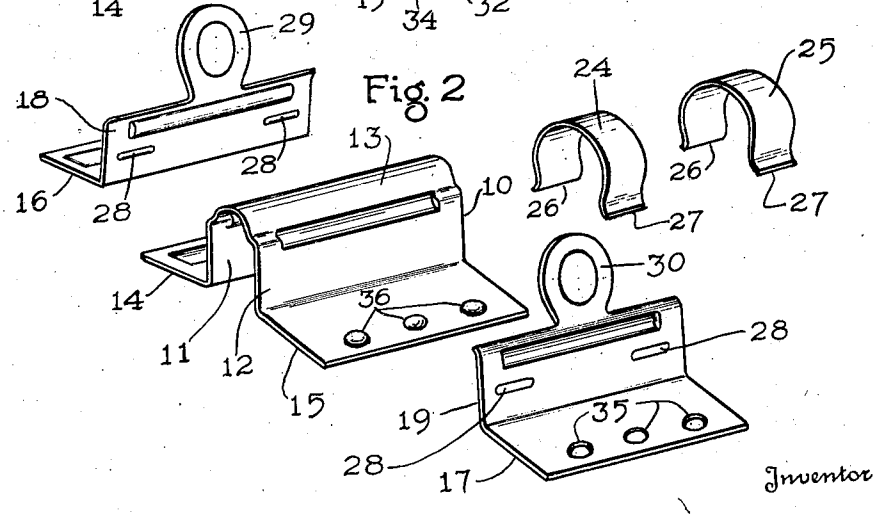


Fig. 2

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HONING DEVICE FOR RAZOR BLADES

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6 Claims. (Cl. 51—218)

My invention relates to devices for honing razor blades and has for its object to provide a device by means of which two razor blades may be simultaneously honed.

Another object of the invention resides in providing a frame and in constructing the frame with two razor blade holders extending outwardly therefrom and adapted to support two blades with the cutting edges thereof substantially in a common plane.

A feature of the invention resides in arranging said holders so that the blades extend outwardly therefrom in opposite directions.

An object of the invention resides in constructing the device with a U-shaped frame having jaws fixed relative thereto and projecting outwardly therefrom in opposite directions.

Another object of the invention resides in providing movable jaws movable toward and from said fixed jaws and in constructing said movable jaws with flanges extending along the legs of the frame and pivoted thereto.

A feature of the invention resides in constructing the legs with sockets and the flanges with fulcrums swingable in said sockets.

An object of the invention resides in providing one or more spring clips circular in form and embracing said frame and flanges for urging said movable jaws toward the fixed jaws and for holding the fulcrums in said sockets.

Another object of the invention resides in providing said flanges with extensions projecting outwardly beyond said frame and forming finger pieces by means of which the movable jaws may be moved away from the fixed jaws in opposition to the action of said spring clips.

Other objects of the invention reside in the novel combination and arrangement of parts and in the details of construction hereinafter illustrated and/or described.

In the drawing:

Fig. 1 is a perspective view of a razor blade honing device illustrating an embodiment of my invention.

Fig. 2 is a perspective view of the various parts of the device shown in Fig. 1 detached from one another.

Fig. 3 is a sectional view taken on line 3—3 of Fig. 1 and drawn to a larger scale.

Fig. 4 is a view similar to Fig. 3 showing the holders in open position.

In the use of razor blade holders of the ordinary type in which a single blade is held considerable wear occurs upon parts of the holder at such localities of the holder as engage the hone. The present invention provides a device by means of which two blades are simultaneously honed and by means of which wear on the device proper through abrasion is entirely prevented.

My invention proper consists of a frame 10 having two razor blade holders 8 and 9 carried thereby and adapted to simultaneously support two razor blades for simultaneous honing. These parts will now be described in detail.

The frame 10 is preferably U-shaped in construction having two legs 11 and 12 and a curved connecting portion 13. This frame is preferably constructed of sheet metal bent in the desired form and is provided at the ends of the legs 11 and 12 with two members 14 and 15 which project outwardly therefrom in opposite directions and which are disposed to form an obtuse angle almost equal to 180°. These members constitute jaws forming parts of the blade holders 8 and 9 and are fixed with respect to the frame 10.

The blade holders 8 and 9 further comprise jaws 16 and 17 which overlie the jaws 14 and 15. These jaws are also constructed of sheet metal and are formed with flanges 18 and 19 extending upwardly therefrom and adapted to overlie the legs 11 and 12 of the frame 10. The legs 11 and 12 of frame 10 are constructed with sockets 20 and 21 which are disposed near the connecting portion 13 of said frame and which are adapted to receive fulcrums 22 and 23 formed on the outer ends of flanges 18 and 19. By means of this construction the two jaws 16 and 17 are pivoted for movement toward and from the jaws 14 and 15.

For the purpose of holding the two fulcrums 22 and 23 in cooperative relation with sockets 20 and 21, two spring clips 24 and 25 are employed. These clips encompass the frame 10 and the flanges 18 and 19 of jaws 16 and 17 and engage the flanges 18 and 19 intermediate the fulcrums 22 and 23 and the jaws 16 and 17. The edges 26 and 27 of these clips normally lie closer together than the width of the frame 10 so that the said clips are sprung apart in the application of the same to the device whereby the flanges 18 and 19 are urged against the legs 11 and 12 of the frame 10 and the jaws 16 and 17 brought into engagement with the jaws 14 and 15. To prevent disengagement of these clips from the flanges 18 and 19, the said flanges are formed with protuberances 28 which engage the said clips and hold the same properly applied.

The two spring clips 24 and 25 are spaced from one another as best shown in Fig. 1. On two

flanges 18 and 19 and between the two clips 24 and 25 are constructed extensions 29 and 30 which project upwardly above the connecting portion 13 of frame 10 and which serve as finger pieces by means of which the two jaw members 16 and 17 may be manipulated. The ends 26 and 27 of the spring clips 24 and 25 engage the flanges 18 and 19 intermediate the jaws 16 and 17 and the fulcrums 22 and 23 as previously described. Due to this construction the spring clips 24 and 25 are flexed and the jaws 16 and 17 moved away from the jaws 14 and 15 when the two finger pieces 29 and 30 are pressed together.

In Figs. 1, 3 and 4, two razor blades 31 and 32 are shown as mounted in the holders 8 and 9. The razor blade 32 is a double edged razor blade which is provided with three holes 34 along the same. In the jaw 17 are constructed holes 35 which register with the holes 34. In the jaw 15 are provided nubs 36 which are adapted to enter the holes 35. These nubs pass through the holes 34 in the razor blade and serve to hold the razor blade in proper position within the holder 9. The razor blade 31 is a single edged blade having a backing 37 attached to the same to stiffen and reinforce the blade proper. To receive a blade of this type the holder 11 is constructed to form two complemental grooves 38 and 39 in the two jaws 16 and 14, which grooves receive the backing 37 of the blade proper and also hold the blade at the proper position. By means of this construction, both single edged and double edged blades can be honed.

Although I have shown the razor blade holder as constructed to receive one blade of each kind, it can readily be comprehended that the holders can be constructed so that either single edged or double edged blades may be honed by the same device.

The operation of the invention is as follows: Finger pieces 29 and 30 are first brought together, which causes the two flanges 18 and 19 to pivot about the fulcrums 22 and 23 and the jaws 16 and 17 to swing away from the jaws 14 and 15. The blades may then be inserted between the respective jaws and the pressure on the finger pieces 29 and 30 released. The razor blades then become securely clamped in place and occupy the positions shown in Fig. 3. The device is then grasped by the frame 10 between two spring clips 24 and 25 and manipulated over the surface of the hone in the customary manner. It will be noted that merely the two cutting edges of the blades 31 and 32 engage the surface of the hone, which is designated at 40 in Fig. 3. In this manner, wearing of the parts of the holders for the blades is entirely prevented and the sharpening of the blades effectively accomplished. After the blades have been sharpened on one side, the holders are again open and the blades reversed and the process repeated as freqeuntly as found necessary to procure the desired sharpening of the blades.

My invention is highly advantageous in that a simple and practical construction is provided whereby two blades may be simultaneously honed at one time. With my invention wear of the holder or parts of the device through abrasion on the hone is entirely prevented. With my invention the blades are held in proper position and at the proper angle with respect to the hone so that sharpening is positively and effectively accomplished. The blades are both easily removed by merely pressing the two finger pieces together, which simultaneously opens both holders, lifting the movable jaws away from the fixed jaws. The razor blade sharpening device may be constructed to receive either single edged or double edged blades or the same may be constructed as shown in the drawing to receive both. When a device such as shown in the drawing is employed and only one type of blade is desired to be sharpened, the holder for the other type of blade can be provided with a dummy blade which is permanently retained within the same. My invention can be constructed at a nominal cost and is fool proof in construction and positive in operation.

Changes in the specific form of my invention, as herein disclosed, may be made within the scope of what is claimed without departing from the spirit of my invention.

Having described my invention, what I claim as new and desire to protect by Letters Patent is:

1. In a device of the class described, a U-shaped frame, two jaws extending outwardly from the legs of said frame in opposite directions and fixed relative thereto, a pair of movable jaws overlying said fixed jaws, flanges formed on said movable jaws and extending along the legs of said frame, means for pivoting said flanges to the legs of said frame, and means for swinging said jaws about the pivoting means.

2. In a device of the class described, a U-shaped frame, two jaws extending outwardly from the legs of said frame in opposite directions and fixed relative thereto, a pair of movable jaws overlying said fixed jaws, flanges formed on said movable jaws and extending along the legs of said frame, means for pivoting said flanges to the legs of said frame, and extensions on said flanges projecting above said frame and forming finger pieces for swinging said movable jaws away from said fixed jaws.

3. In a device of the class described, a U-shaped frame, two jaws extending outwardly from the legs of said frame in opposite directions and fixed relative thereto, a pair of movable jaws overlying said fixed jaws, flanges formed on said movable jaws and extending along the legs of said frame, means for pivoting said flanges to the legs of said frame, extensions on said flanges projecting above said frame and forming finger pieces for swinging said movable jaws away from said fixed jaws, and a spring clip engaging both of said flanges for urging said movable jaws against said fixed jaws.

4. In a device of the class described, a U-shaped frame, two jaws extending outwardly from the legs of said frame in opposite directions and fixed relative thereto, a pair of movable jaws overlying said fixed jaws, flanges formed on said movable jaws and extending along the legs of said frame, means for pivoting said flanges to the legs of said frame, extensions on said flanges projecting above said frame and forming finger pieces for swinging said movable jaws away from said fixed jaws, and a circular spring clip encompassing said frame and flanges and urging said movable jaws toward said fixed jaws.

5. In a device of the class described, a U-shaped frame, two jaws extending outwardly from the legs of said frame in opposite directions and fixed relative thereto, a pair of movable jaws overlying said fixed jaws, flanges formed on said movable jaws and extending along the legs of said frame, a socket formed in each of the legs of said frame near the connecting portion of the frame, a fulcrum on each of said flanges for engagement with said socket for pivoting said movable jaws

for movement toward and from said fixed jaws, a spring engaging both of said jaws for holding said fulcrums in said sockets and for urging said movable jaws toward said fixed jaws, and means for swinging said jaws about said fulcrums.

6. In a device of the class described, a U-shaped frame, two jaws extending outwardly from the legs of said frame in opposite directions and fixed relative thereto, a pair of movable jaws overlying said fixed jaws, flanges formed on said movable jaws and extending along the legs of said frame, means for pivoting said flanges to the legs of said frame, and a circular spring clip encompassing said frame and flanges and engaging said flanges intermediate said jaws and fulcrums for urging said movable jaws toward said fixed jaws and for holding said fulcrums in said sockets.

GEORGE H. NELSON.