

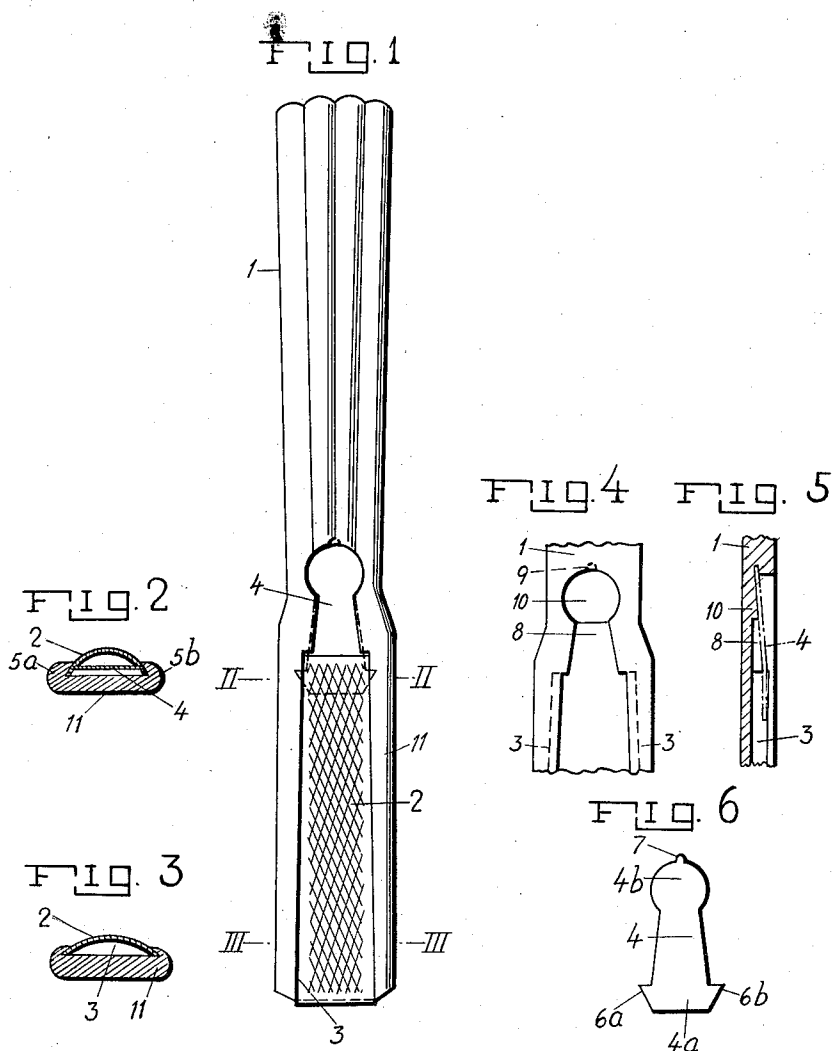
Aug. 11, 1959

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2,898,914

FOOT RASPERS FOR REMOVING OF CALLOSITIES

Filed March 10, 1958



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2,898,914

FOOT RASPERS FOR REMOVING CALLOSITIES

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Application March 10, 1958, Serial No. 720,297

6 Claims. (Cl. 128—304)

This invention relates to improvements in foot rasps for removing callosities and the object of the invention is to provide a device of this character that will be a handy and effective tool for its purpose, simple in construction and with an attractive appearance.

A further object of the invention is to provide a device which can be readily taken apart for the exchange of the rasp piece when worn out.

Another object of the invention is to provide a device where the rasp piece is detachably locked in position by extremely simple and effective means.

Still a further object of the invention is to provide a device where the parts are held together solely by the tension of the parts without the use of screws or the like.

With these and other objects in view the invention consists essentially in the novel construction and arrangement of parts as described in the present specification and illustrated by the accompanying drawing that forms part of the same.

Referring to the drawing:

Figure 1 is a plan view, showing the embodiment of my invention.

Figure 2 is a section along the line II—II, and

Figure 3 is a similar section along the line III—III in Figure 1.

Figure 4 is a plan view of the middle portion of the device with some parts removed.

Figure 5 is a longitudinal section thereof with a locking part inserted, and

Figure 6 a plan view of said locking part.

The foot rasper consists of an oblong handle 1 of plastic or such like formed at its one end with a bed or body portion for a rasp piece 2 which is made of an oblong piece of thin metal sheet. Said body portion extending from the handle has a lengthy groove in one surface, dovetailed in cross section and successively decreasing in width from the free end. The rasp piece, being bow-shaped in cross section, is to be inserted into the groove from the outer end and pushed along the bed to its position in the handle as indicated in Figure 1. During the movement the rasp piece will, because of the decreasing width of the groove, change its form to be higher and narrower at the inner end as shown in Figures 2 and 3. Thus the stress in the rasp piece of the somewhat springy material will successively increase towards said inner end, and the rasp piece will get a steady close-fitting position in the bed. This is of importance as the rasp piece is not attached by means of screws or the like but only retained from being pushed out by means of a locking part in the shape of a catch. This catch consists of an oblong flat spring 4 positioned in the handle at the inner end of the rasp piece, which spring at its outer end 4a extends into the rasp piece and is provided with two laterally directed teeth 6a, 6b. In catching position said outer end of the spring lies within the inner end of the rasp piece gripping with the teeth into two corresponding holes 5a, 5b in the rasp piece wall. The outer tooth-carrying end 4a of the spring has in plan view the shape

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of a wedge as seen in Figure 6. The inner end 4b of the spring is enlarged and rounded and ends with a narrow point 7. The handle has a recess 8 positioned as an elongation of the groove 3, said recess having the same shape—preferably a key-hole shape—as the outer form of the flat spring to receive the spring, and the rear portion of this recess ends with a small pit or bore 9 into which the point 7 will grip when the spring is lying in position in the handle. From this pit or bore the recess has an inclination upwards to build up a short bridge 10 with such a height that the flat spring, resting on the bridge and extending into the dovetailed groove 3 with the teeth 6a, 6b lying in the side cavities of this groove, will form a bow as indicated in Figure 5 and will be maintained in this position by the tension. Except for this flat spring no other attaching means are used in the embodiment shown.

When the rasp piece is pushed into the dovetailed bed its forward end will meet the toothed end of the flat spring, which end will, because of its wedged shape, enter into the bow-shaped rasp piece. During the continued moving of the rasp piece the wedged end of the flat spring will be forced downwards by the bow of the rasp piece wall on account of the greater cross distance between the teeth than the breadth of the wedge end. At the moment the rasp piece has reached its end position the teeth will meet the holes in the rasp wall and enter them, and the flat spring will snap somewhat upwards and stop when the teeth abut against the upper edges of the holes. The rasper is then ready for use.

When a worn out rasp piece is to be exchanged for a new one, the spring is pressed downwards by a finger and the teeth, because of the bow shape of the rasp piece, will pass out of the holes, and the rasp piece is free to be drawn off from the bed.

What is claimed is:

1. A foot rasper comprising a handle, a body portion in the shape of a bed having a dovetail-shaped groove, a rasp piece of thin springy sheet material bow-shaped in cross section and adapted to be pushed into the groove from the free end thereof, the edges of said rasp piece engaging the sides of said dovetail-shaped groove, a flat spring carried by the handle, the outer end of said spring extending into the inner end of the rasp piece when said rasp piece is pushed into said groove and provided with at least one laterally directed tooth, the wall of the rasp piece having a hole to receive said laterally directed tooth when the latter is pushed to final position on the bed to cover the outer end of the spring.

2. A foot rasper comprising a handle, a body portion in the shape of a bed having a dovetail-shaped groove, a rasp piece of thin spring sheet material bow-shaped in cross section adapted to be pushed into the groove from the free end thereof, the edges of said rasp piece engaging the sides of said dovetail-shaped groove, a flat spring carried by the handle and extending into said groove, the outer end of said spring extending into the inner end of the rasp piece when said rasp piece is pushed into said groove and provided with at least one laterally directed tooth, the wall of the rasp piece having a hole positioned to receive said laterally directed tooth when the latter is pushed to final position on the bed to cover the outer end of the spring, the said groove decreasing in width towards the handle end to successively change the bow shape of the rasp piece.

3. A foot rasper comprising a handle, a body portion in the shape of a bed having a dovetail-shaped groove, a rasp piece of thin springy sheet material bow-shaped in cross section and adapted to be pushed into the groove from the free end thereof, the edges of said rasp piece engaging the sides of said dovetail-shaped groove, a flat spring carried by the handle, the outer end of said

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spring extending into the inner end of the rasp piece when said rasp piece is pushed into said groove and provided with at least one laterally directed tooth, the edge of the rasp piece having a hole to receive said tooth when the latter is pushed to final position on the bed to cover the outer end of the spring, said outer end of said spring being wedge-shaped.

4. A foot rasper comprising a handle having a spring receiving recess at one end and a bore extending from said recess into the handle, a body in the shape of a bed having a dovetail-shaped groove extending from the end of said handle adjacent said recess, a rasp piece of thin spring sheet material bow-shaped in cross section adapted to be pushed into the groove from the free end thereof, a flat spring carried by said handle, the spring extending into said recess and into the inner end of the rasp piece, said spring being provided with at least one laterally directed tooth, the wall of the rasp piece having a hole to receive said tooth when the rasp piece is pushed to final position in said groove to cover the outer end of the spring, said spring loosely fitting into said recess in the handle, said spring being also provided with a part entering said bore.

5. A foot rasper comprising a handle having a spring receiving recess at one end and a bore extending from said recess into the handle, a body in the shape of a bed formed with a dovetail-shaped groove extending along said body from the end of said handle adjacent said recess, a rasp piece of thin springy sheet material bow-shaped in cross section adapted to be pushed into the

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groove from the free end thereof, a flat spring carried by said handle, the spring extending into both said recess and into said rasp piece, said spring being provided with at least one laterally directed tooth, the wall of the rasp piece having a hole to receive said tooth when the latter is pushed to final position on the bed to cover the outer end of the spring, said spring loosely fitting into said recess in the handle, and into said bore, and a bridge in the recess giving the outer end of the spring a slight inclination upwards.

6. A foot rasper comprising a handle having a spring receiving recess at one end and a bore extending from said recess into the handle, a body in the shape of a bed provided with a dovetail-shaped groove extending therealong, a rasp piece of thin springy sheet material bow-shaped in cross section adapted to be pushed into the groove from the free end thereof, a flat spring carried by the handle, one end of the spring positioned to enter the inner end of the rasp piece as it is pushed into said groove and provided with at least one laterally directed tooth, the wall of the rasp piece having a hole positioned to receive said tooth when the rasp piece is pushed to final position on the bed to cover the outer end of the spring, said spring loosely fitting into said recess in the handle, the rear end of the spring extending into said bore of the recess, said recess having the form of a keyhole.

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