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# (54) CALLUS REMOVER WITH STRAINER

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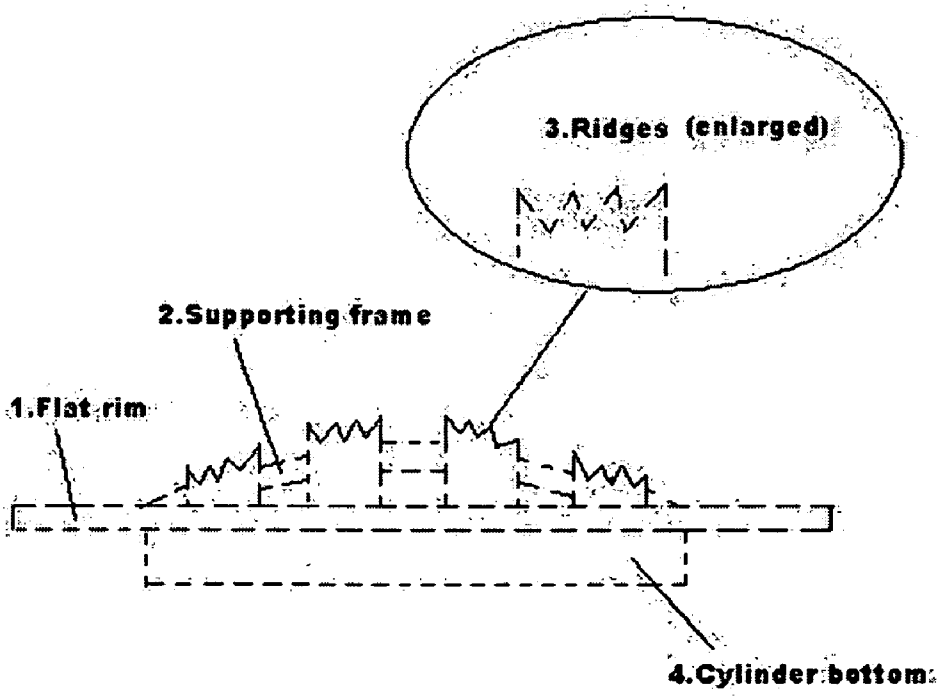
(57) **ABSTRACT**

This invention is a foot health care device with strainer for removing foot callus hand-free while people are taking shower. It adds the function of a rasp to a regular traditional strainer. The device has a cylinder bottom with draining holes that allow water going through, a dome-shaped upper portion with strips of ridges that functions as a rasp to effectively and efficiently remove foot callus, the supporting frames that provide support to the device, and an outside scale-like rim worked as a fine rasp to fine-tune the foot. It is good for the foot health. Since it is used hand free this feature can be extremely beneficial for those aged, disabled, pregnant, overweighed and arthritic who have difficulty bending leg or bending over. It is not only convenient to use but also easy to install by simply replace the traditional strainer with the said device.

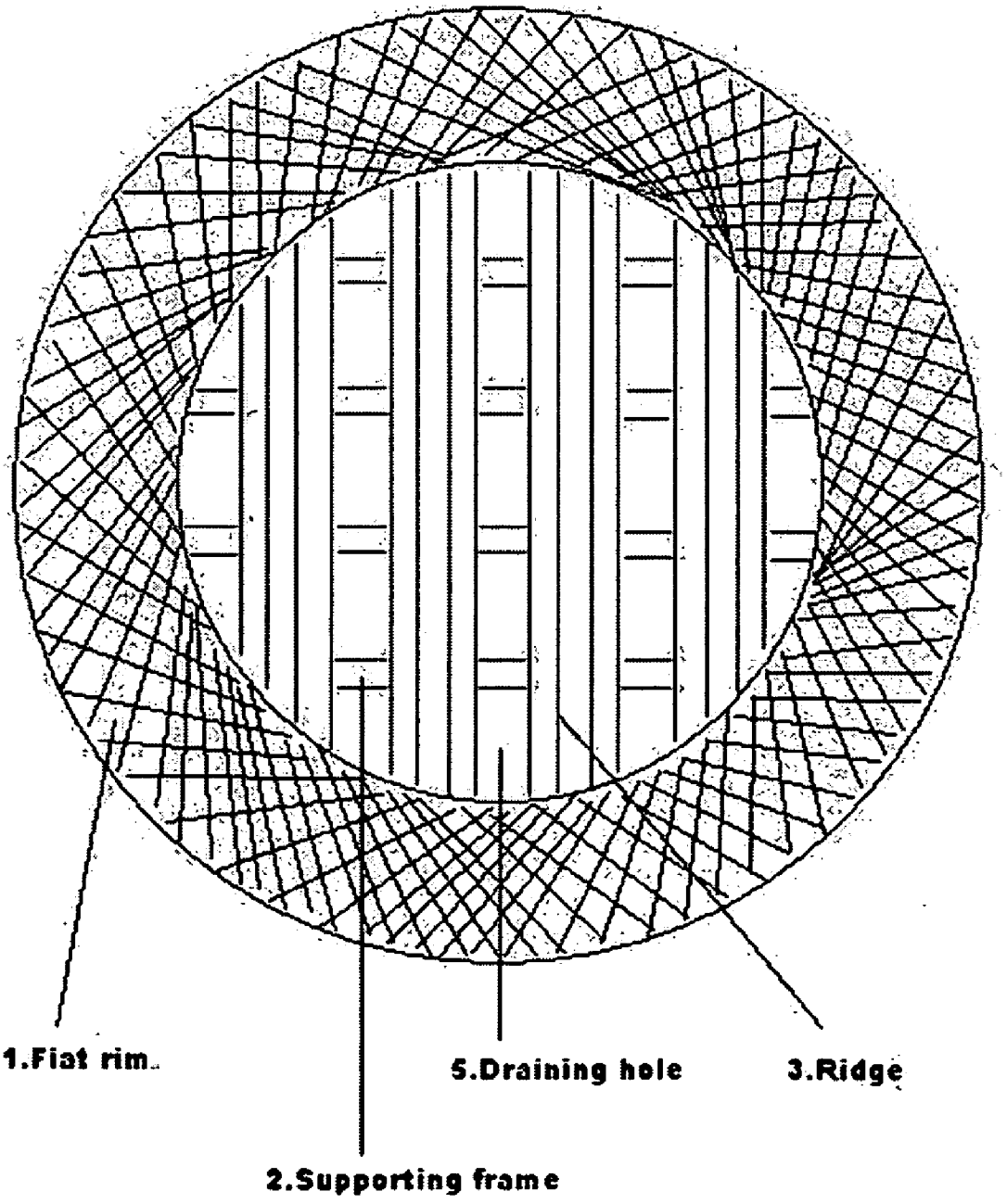
**Section View**

**The section view by cutting the device in half perpendicularly**



Plane View

FIG.1



**Section View**

**The section view by cutting the device in half perpendicularly**

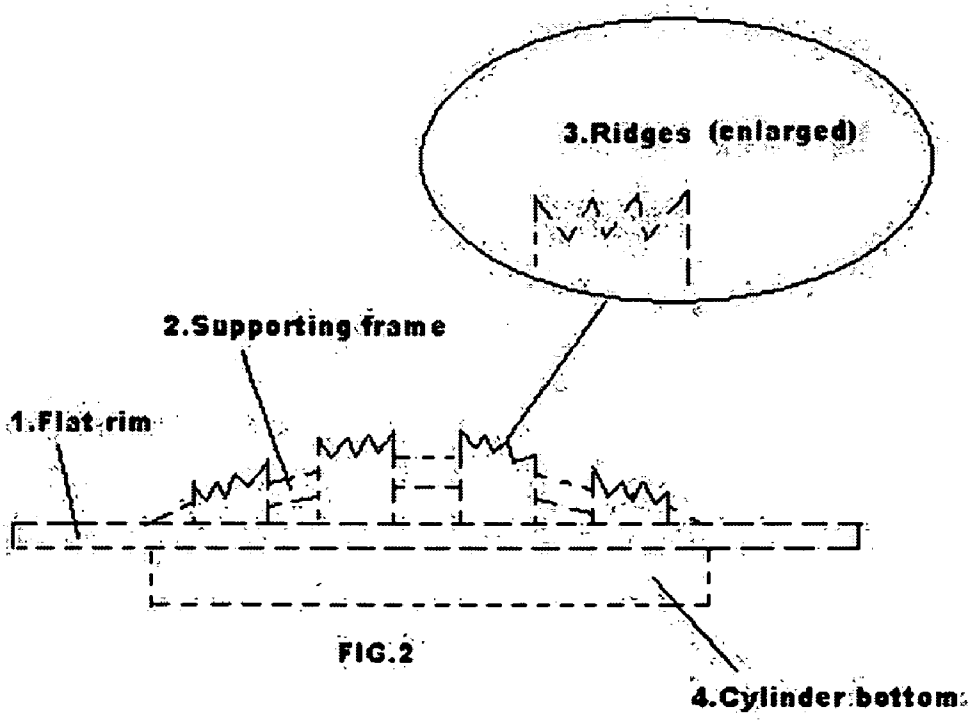



FIG.2

Side View

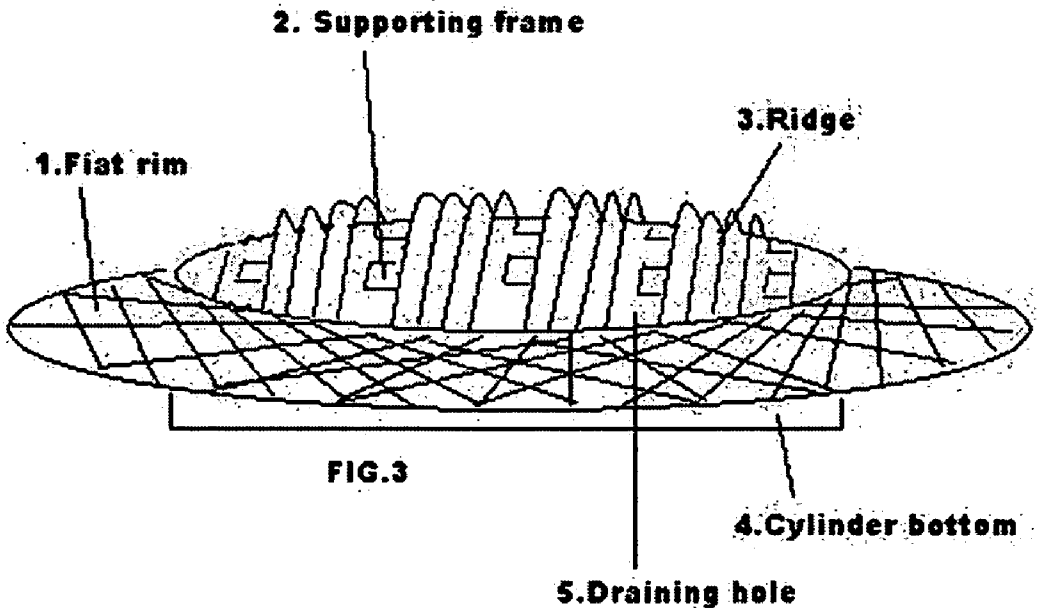
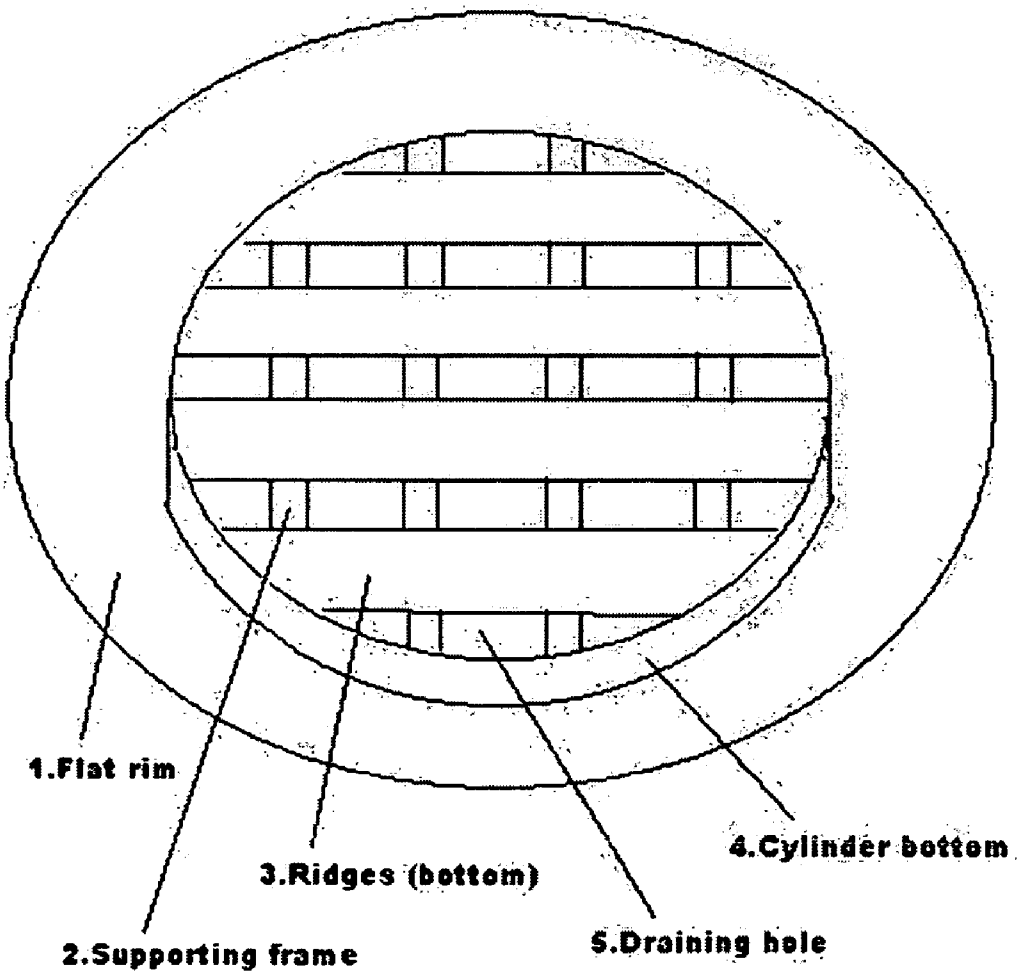



FIG.3

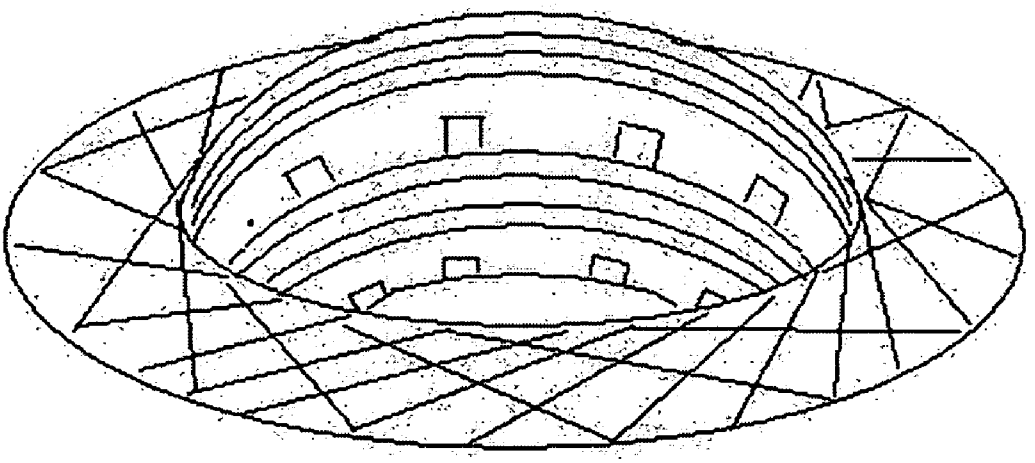
**Bottom View**

FIG. 4



Front Page View

FIG.5



# CALLUS REMOVER WITH STRAINER

## BACKGROUND OF THE INVENTION

[0001] This invention is a foot health care device that allows people to remove foot callus hand-free simply by rubbing the foot against the device while taking a shower. It adds the function of the rasp to a strainer.

[0002] Foot callus can accumulate and become very thick if it is not taken care of properly. The accumulated callus on feet causes the rough skin that can be easily chapped. Walking with a chapped feet could cause a lot of pain while walking. The worst it could cause the foot related disease or disorders.

[0003] I always want to remove the accumulated foot callus when I take a shower because it is getting very soft after soaking in the water, and it is much easier to be got rid of at this time. However I can not find a convenient tool. So I would rub my foot against the surface of the strainer back and forth a few times. It works a little bit but not that good. Sometimes I would find something rough to file the foot callus but I have to bend my leg to raise the foot (this can be extremely difficult for those aged, disabled, pregnant, overweighed and arthritic people). Most often I have to lean against the wall using one hand to balance my body. After a while my leg would feel sore and tired and I have to stop to take a rest and change the gesture. It is important to point out it is not safe as well. People would easily fell down because of the losing of the balance while leaning against the wall of the shower stall standing with only one foot on the wet floor, which can cause bone breaking.

[0004] I have tried to find an easy-to-use callus remover in the market. Unfortunately there are not many products available. Most of them require using hands and bending the leg or bending over, some of them using brushes or cloth and they are not working very efficiently and effectively for removing the foot callus. So I think why couldn't I invent a foot callus remover that not only allows the water going through but also can remove foot callus hand free and safe without bending the leg and raising the foot? Thus the idea was born.

## BRIEF SUMMERY OF THE INVENTION

[0005] This invention is a foot health care device with strainer for removing foot callus hand-free while people are taking shower. It adds the function of a rasp to a strainer for removing foot callus.

[0006] The invented device has the following features and advantages:

[0007] (a) It comprises four interconnected parts: a cylinder bottom, strips of ridges, supporting frames, and an outside flat rim.

[0008] The bottom part is a cylinder with twenty-one draining holes that can be plugged in a regular strainer passageway to allow water going through. On the surface of the upper portion of the device are arc-like strips of ridges functioned as rasp for removing foot callus. The frames under the strips provide strength and support to the device. The intersecting of the arc-like strips and frames forms twenty-one holes that are connected with the bottom portion and make it a dome-shaped design. This kind of design allows almost any part of the foot to be cleaned. Around the dome-shaped upper portion is a scale-like flat rim functioned as a fine rasp that allows the foot skin to be fine-tuned.

[0009] (b) It is very convenient and easy to remove the foot callus when it is soaked by the water and becomes soft. People can remove the foot callus hand free effectively and efficiently simply by rubbing the foot against the dome-like ridged area of the device while taking a shower. It saves the time, too.

[0010] (c) It is safe to use the device. You can remove the foot callus without the help of the hands and bending the leg or bending over while taking a shower, so it is safe and your leg would no longer feel sore and tired. You could use your two hands to lean against the wall when necessary. This is extremely beneficial for those aged, pregnant, disabled, overweighed and arthritic people.

[0011] (d) It is easy to install. The size of the device is the same as a regular strainer. It simply takes place of the traditional strainer without taking more space. It is so easy to install that it takes only a few minutes to replace the old strainer with the new device.

[0012] (e) It cleans itself. Since the device is installed in the current strainer passageway the removed foot callus will be rushed into the draining holes along with the shower water. No cleaning is needed.

[0013] (f) The device can be made using the same kind plastic material that makes a traditional strainer. The process of making it is simple and the cost is low.

[0014] In general the device is safe, practical, and easy to use. It saves time and money and everyone would need it. It is good for foot health.

## BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING

[0015] FIG. **1** is a plane view.

[0016] FIG. **2** is a section view.

[0017] FIG. **3** is a side view.

[0018] FIG. **4** is a bottom view.

[0019] FIG. **5** is a front page view.

## DETAILED DESCRIPTION OF THE INVENTION

[0020] This device has a dome-like appearance. It looks like a hat with a brim. Its diameter is only 4¼ inches (10.795 cm) the same size as a regular strainer, and the outside rim is ¾ inch (2 cm) wide.

[0021] It has four portions: a flat rim **1**, supporting frames **2**, four strips of ridges **3**, and a cylinder bottom **4**.

[0022] Referring to FIG. **4** the bottom portion is a cylinder **4** that is **8** mm high. It has twenty-one draining holes **5** that allow the shower water going through. It is designed to plug in a regular strainer passageway in a shower stall.

[0023] Referring to FIG. **1**, **2** and **3** the dome-like upper portion looks like a hat. It is composed of four arc-like strips of ridges **3** with different length. On the surface of each said strips are four ridges **3** that function as a rasp for removing foot callus. The supporting frames **2** intersect and connect

below the said strips of ridges **3** to provide extra strength and support to the ridges **3** area. The intersection of the four strips of ridges **3** and supporting frame **2** forms twenty-one draining holes **5** that connect with the cylinder bottom **4**. The arc-like strips of ridges **3** and supporting frames **2** make the upper portion of the device a dome-shaped design. This design allows the foot to be easily cleaned without tilting it too much.

**[0024]** The outside scale-like flat rim 1 with ¾ inches (2 cm) in width is around the dome-shaped upper portion. The scale-like little ridged design at top of the rim **1** functions as a fine rasp to allow the foot skin to be fine-tuned.

**[0025]** The device can use the same kind of material that makes the traditional strainer. The process of making it is simple and cost is low. Its color can be white or any color that matches the color of the ground of the shower stall.

**[0026]** There are a few considerations for the design.

**[0027]** (a) The size is the same as that of a traditional strainer, which makes it easy to replace the traditional strainer with the new device.

**[0028]** (b) It is safe to use. Since it is dome-shaped design it is not safe if the size is too big. The small size of this kind of design will not cause the people to fall in case people step on it.

**[0029]** (c) The combination of both the dome-shaped ridged surface and scale-like flat rim area allows effectively and efficiently removing callus under the foot or side of the foot. People would have a feeling of massage when rubbing foot against the device.

**[0030]** (d) The usage of the device is easy, quick and comfortable and everyone is able to use it. People can remove the foot callus or massage the foot simply by stepping one foot on top of the device and rubbing the foot against it back and forth, or moving the foot around the device.

**[0031]** This invention has the following advanced features compared to other callus removers:

**[0032]** (a) Some of the current callus removers need to be installed on the wall or the ground of the shower stall. It need extra space and is hard to be fastened.

**[0033]** However this invented device is installed in the passageway of the traditional strainer. So there is no extra space needed and it is easy to install and fasten it.

**[0034]** (b) Some of the callus remover requires using a rasp, a brush or a bath cloth by hand. People need to bent leg and raise foot in order to remove the foot callus. Sometimes people have to use one hand to lean against the wall in order to keep the balance of the body otherwise people may fall. It is not safe especially for those aged, disabled, pregnant, overweighed and arthritic people.

**[0035]** However this invented device is hand free. People can use it while taking shower using two hands. It is great beneficial and helpful for the aged, disabled, pregnant, overweighed and arthritic people.

**[0036]** (c) This invented device's diameter is 4¼ inch (10.795 cm) wide. The size is the same as a regular strainer, so it is easy to replace with the new device.

**[0037]** (d) Currently most of the callus removers need to be cleaned after usage.

**[0038]** This invented device cleans itself automatically. The removed foot callus is washed away along with running shower water. So it is clean free.

**[0039]** (e) Some of the current callus removers require extra specific time other than shower time to soak the foot in the water before foot callus can be removed.

**[0040]** This device allows people to remove foot callus while taking shower. So it saves time as well.

**[0041]** (f) Some of the current callus remover is too complicated to make.

**[0042]** This device can be made using the same kind of materials as the traditional strainer. The process of making it is simple and the cost is low.

What I claim as my invention is:

**1**. A hand-free plastic device with strainer to clean and remove foot callus comprising:

(a) a cylinder bottom with twenty-one draining holes;

(b) separated arc-like strips of ridges at the upper portion of the device connected by the said bottom allowing the removal of foot callus hand free when rubbing the foot against the device;

(c) supporting frames connecting and intersecting below the said strips of the ridges;

(d) a scale-like non-slip rim around the said strips of the ridges that can be used as fine rasp.

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