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(57) Sammendrag:
A foot file device (100) used for removing a rough and dead skin, comprises a handle (102); an elongated member (104) extended from one end of the handle (102), said elongated member (104) includes a locking member (106); and a first slot (108) provided on the tip portion (112) of the elongated member (104) and a second slot (110) provided on the locking member (106). The first and second slots (108 and 110) are configured to detachably hold a first and second ends (118 and 120) of an abrasive paper (116). Said foot file device (100) is characterized by the locking member (106) includes extension portions, wherein the extension portions are configured to tightly lock the abrasive paper (116) to the first and second slots (108 and 110) when the locking member (106) is twisted back.

Fortsættes...

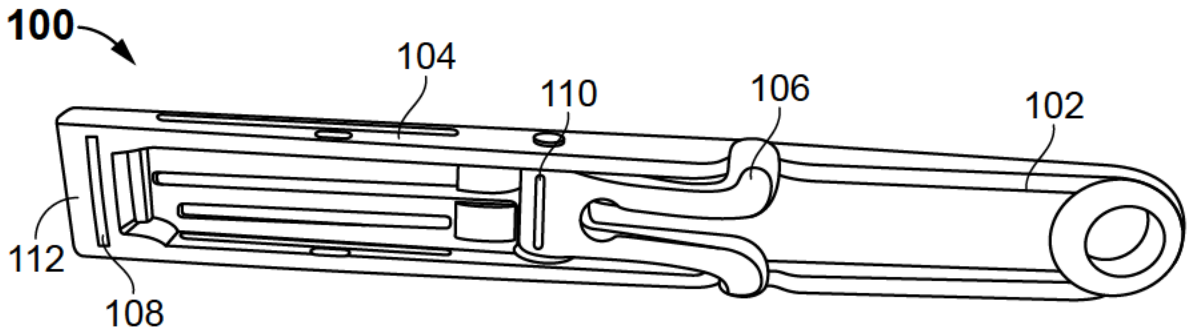

FIG. 1

FOOT FILE DEVICE

TECHNICAL FIELD OF THE INVENTION

The invention disclosed herein generally relates to a personal hygiene device. More particularly, the present invention relates to a personal hygiene device used for personal care to maintain skin, feet, and cracked heels smooth and clean by removing rough and dead skin.

BACKGROUND

Foot files are used for cracked heels that could take care of any unwanted texture. Dry and itchy skin often comes with weather changes. Feet are particularly susceptible to cracked, painful skin since they tend to dry out when taking hot showers or wear socks and uncomfortable shoes. Regular use of the foot file could help to keep the feet smooth and pleasant, and it could reduce discomfort from oversized calluses. The foot file device comprises a rasp, file or plane attached to the end of a handle such that the user could hold one end of the device and rub the other end across the area of skin that is to be removed.

A prior art, JPS 58112308U discloses a foot file device for removing a rough and dead skin comprises a handle, an elongated member extended from one end of the handle, including a locking member, and a first slot and second slot provided on the locking member. The first and second slot are configured to detachably hold a first and second ends of a strip-like abrasive blade. However, the foot file device fails to provide the configuration of the locking member in U-shape. Further, existing foot file device also fails to provide locking member with extension portions, which are configured to tightly lock the abrasive paper to the first and second slots when the locking member is twisted back.

Another prior art, US 2880737 A of J. W. TONE et al., discloses an electric manicuring device, more in particular to an electric motor unit which is adapted to perform certain operations such as tiling and manicuring finger nails. This patent further discloses a file which can be used for removing rough and dead skin comprising a handle, an elongated member extending from one end of the handle; said elongated member includes a locking member, and a first tab and a second tab provided on the locking member. The first and second tab are configured to detachable hold a first and a second end of an abrasive paper. The locking member is a U-shaped member including extension portions. The extension portions are configured to tightly hold the abrasive sheet to the first and second tab. However, this prior art patent fails to describe the positioning of the abrasive papers by slots instead of tabs, position of the locking member and first tab is interchangeable, and ability of the locking member to twist back in order to hold the abrasive paper.

However, the existing foot file devices do not desirably conform to complexly curved skin contours, such as at the heel. The existing foot file devices are inconvenient and lack to provide comfort for the user while using to remove the rough and dead skin from the user's feet. Henceforth, there is a requirement for an alternative way of securing abrasive paper to the foot file, instead of tabs, interchangeable position of the locking member and first tab, and the configuration of the locking member to twist back in order to hold the abrasive paper.

In the light of above-mentioned problems, it needs to provide a reusable foot file device for personal care to maintain skin, feet, and cracked heels smooth and clean by removing rough and dead skin by the user while maintaining a comfortable contact with the foot. It is also a need to provide a flexible foot file device for smoothing out the cracks in the feet. It is also a need to provide an inexpensive foot file device for using multiple times by positioning new gritty exfoliating material.

SUMMARY OF THE INVENTION

This summary is provided to introduce a selection of concepts in a simplified form that are further disclosed in the detailed description of the invention. This summary is not intended to identify key or essential inventive concepts of the claimed subject matter, nor is it intended for determining the scope of the claimed subject matter.

The present invention relates to a foot file device used for removing a rough and dead skin. The foot file device comprises a handle; an elongated member extended from one end of the handle. The elongated member includes a locking member. The locking member is of U-shaped member with extension portions, and the extension portions are configured to hold the interchangeable abrasive abrasive paper. The foot file device comprises, a first slot and a second slot. The first slot is provided on the tip portion of the elongated member. The second slot is provided on the locking member. The first and second slots are configured to detachably hold a first and second ends of an abrasive paper. According to the present invention, the extension portions of the locking member, are configured to tightly lock the abrasive paper to the first and second slots when the locking member is twisted back.

Other objects, features and advantages of the present invention will become apparent from the following detailed description.

BRIEF DESCRIPTION OF THE DRAWINGS

The foregoing summary, as well as the following detailed description of the invention, is better understood when read in conjunction with the appended drawings. For illustrating the invention, exemplary constructions of the invention are shown in the drawings. However, the invention is not limited to the specific methods and structures disclosed herein. The description of a method step or a structure referenced by a numeral in a drawing is applicable to the description of that method step or structure shown by that same numeral in any subsequent drawing herein.

FIG. **1** exemplarily illustrates a perspective view of a foot file device in an embodiment of the present invention.

FIG. **2** exemplarily illustrates an enlarged view of an elongated member includes a plurality of apertures in one embodiment of the present invention.

FIG. **3** exemplarily illustrates a front view of an abrasive paper in one embodiment of the present invention.

FIG. **4** exemplarily illustrates a rear view of the abrasive paper in one embodiment of the present invention.

DETAILED DESCRIPTION OF THE INVENTION

Referring to FIG. **1**, a foot file device **100** used for exfoliating and removing a rough and dead skin on the user's feet. In one embodiment, the device **100** could be a personal hygiene device used for personal care to maintain skin, feet, and cracked heels smooth and clean by removing rough and dead skin. The device **100** is configured to use and maneuver at any angle and easily reach corners for exfoliating and removing a rough and dead skin on the user's feet. The device **100** is flexible and comfortable for everyday use to maintain clean, smooth, and hygiene for the user's skin, feet, and cracked heels.

In one embodiment, the device **100** is made of a material, but not limited to, plastic and metal. The device **100** includes a handle **102** and an elongated member **104**. The handle **102** is configured to provide a sufficient grip for the user to securely hold the device **100**. The elongated member **104** is extended from one end of the handle **102**. The elongated member **104** further includes a locking member **106**. In one embodiment, the locking member **106** is of, but not limited to, U-shaped member. The locking member **106** is movably positioned on the elongated member **104**. The locking member **106** further includes extension portions. The extension portions are configured to tightly lock an abrasive paper **116** (shown in FIG. **3A**) to the elongated member **104** when the locking member **106** is twisted back.

The device **100** further comprises at least two slots. In one embodiment, a first slot **108** is provided on the tip portion **112** of the elongated member **104** and a second slot **110** is provided on the locking member **106**. The first and second slots (**108** and **110**) are configured to detachably hold first and second ends (**118** and **120**) (shown in FIG. **3A**) of the abrasive paper **116** (shown in FIG. **3A**), thereby safely exfoliating the rough and dead skin via a gridding surface of the abrasive paper **116** (shown in FIG. **3A**) by a user while maintaining a flexible and comfortable contact with the user's skin.

Referring to FIG. **2**, the elongated member **104** further comprises a plurality of apertures **114**. In one embodiment, the plurality of apertures **114** is provided at, but not limited to, a bottom portion and side portions of the elongated member **104**. The plurality of apertures **114** is configured to provide suspension while maintaining a flexible and comfortable contact with the user's skin for exfoliating the rough and dead skin and calluses via the gridding surface of the abrasive paper **116** (shown in FIG. **3A**).

Referring to FIG. **3**, the abrasive paper **116** comprises a gridding surface on a front portion for exfoliating the rough and dead skin. The abrasive paper **116** enhances compatibility to the user's skin contours such as, bur not limited to, feet and heels. The abrasive paper **116** further comprises a first and second end (**118** and **120**). Wherein, the first and second ends (**118** and **120**) are configured to detachably insert into the first and second slots (**108** and **110**) (shown in FIG. **1**) of the elongated member **104** and locking member **106** (shown in FIG. **1**). In one embodiment, the first and second ends (**118** and **120**) comprises a shape, but not limited to, a pointed, a rounded, an arrowhead, and a square shape.

Referring to FIG. **4**, the abrasive paper **116** comprises a smooth surface on a rear portion. In one embodiment, the abrasive paper **116** could be, but not limited to, sandpaper, an emery paper, a gritty surface paper, an aluminum oxide paper, a silicon carbide paper, and a gritty pad. In one embodiment, the user could easily change the abrasive paper **116** from the elongated member **104** when worn out with little effort. Further, the abrasive paper **116** could be easily cut off/on, and flexible or sizeable to adapt onto the elongated member **104** of the device **100**. The abrasive paper **116** is further maintained by the simple lock on either end of its sanding surface. The sanding surface of the abrasive paper **116** is flexible and form fitted to the elongated member **104** of the device **100**.

The present invention provides an alternative way of securing abrasive paper to the foot file, without using tabs, interchangeable position of the locking member and first

tab, and the configuration of the locking member to twist back in order to hold the abrasive paper. The advantages of the invention include: the handle **102** of the device **100** enables the user to maintain a more secure grip on the device **100** while using. The device **100** is reusable, which could be used for multiple times by replacing a new abrasive paper. The device **100** is an inexpensive, easy to use, and simple in design. The device **100** is optimal for recaching contoured skin surfaces, for example, heels and provides optimal results for the user. The device **100** is made of water-resistant or waterproof material, so that could used in the bath. Further, the device **100** could be used for dishwasher, thereby it must be capable of withstanding the pressure applied during the operations or process of the dishwasher.

The foregoing examples have been provided merely for the purpose of explanation and are in no way to be construed as limiting of the present concept disclosed herein. While the concept has been described with reference to various embodiments, it is understood that the words, which have been used herein, are words of description and illustration, rather than words of limitation. Further, although the concept has been described herein with reference to particular means, materials, and embodiments, the concept is not intended to be limited to the particulars disclosed herein; rather, the concept extends to all functionally equivalent structures, methods and uses, such as are within the scope of the appended claims. Those skilled in the art, having the benefit of the teachings of this specification, may affect numerous modifications thereto and changes may be made without departing from the scope and spirit of the concept in its aspects.

KRAV

1. En fodfilenhed (**100**) der bruges til at fjerne ru og død hud, omfattende et håndtag (**102**); et aflangt element (**104**) forlænget fra den ene ende af håndtaget (**102**), det aflange element (**104**) inkluderer et låseelement (**106**) som er et U-formet element med forlængelsesdele, hvor forlængelsesdelene er konfigureret til at holde det udskiftelige slibepapir **(116)**; kendetegnet ved en første revne(**108**) anbragt på spidsdelen (**112**) af det aflange element (**104**) og en anden revne (**110**) anbragt på låseelementet (**106**), hvor den første og den anden revne (**108**og**110**) er konfigureret til at holde en første og anden ende (**118**og**120**) af et aftageligt slibepapir **(116)**, hvor forlængelsesdelene af låseelementet (**106**), er konfigureret til at låse slibepapiret fast(**116**) til den første og anden revne (**108**og**110**) når låseelementet (**106**)er skruet til.

2. Enheden (**100**) ifølge krav 1, er fremstillet af plast.

3. Enheden (**100**) ifølge krav 1, hvor håndtaget (**102**) er konfigureret til at være et greb for brugeren.

4. Enheden (**100**) ifølge krav 1, hvor låseelementet (**106**) er bevægeligt anbragt på det aflange element (**104**).

5. Enheden (**100**) ifølge krav 1, hvor det aflange element (**104**) endvidere omfatter et antal åbninger (**114**) ved den nedre del og på sidedele af det langstrakte element (**104**).

6. Enheden (**100**) ifølge krav 5, hvor antallet af åbninger (**114**) er konfigureret til at give støtte, samtidig med at den opretholder en fleksibel og behagelig kontakt med brugerens hud til fjernelse af den ru og døde hud via slibepapirets gitterflade (**116**).

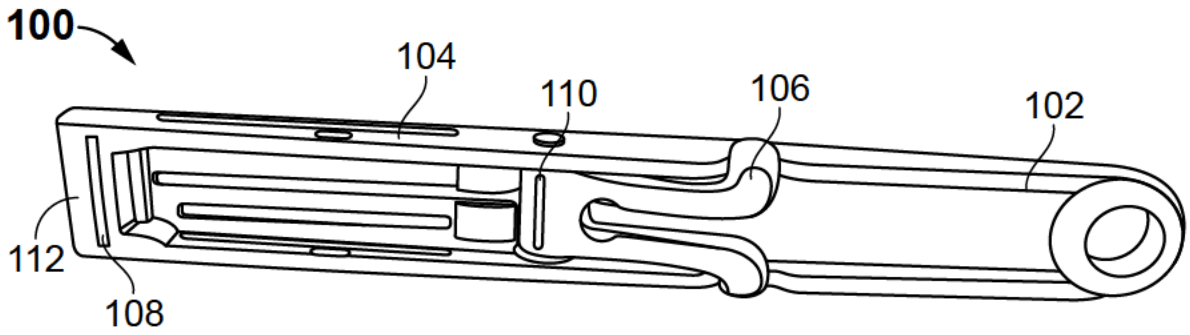

FIG. 1

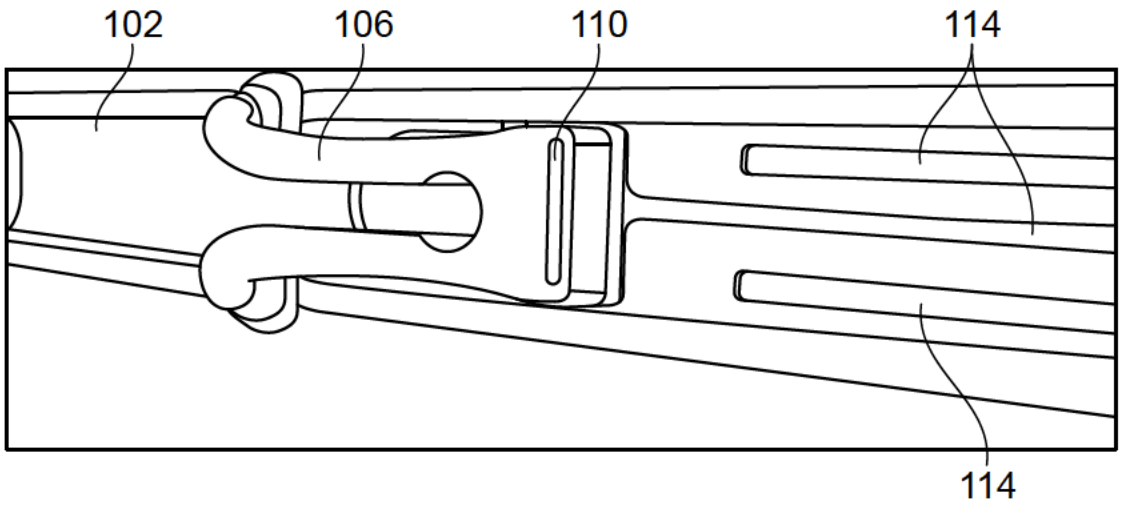

FIG. 2

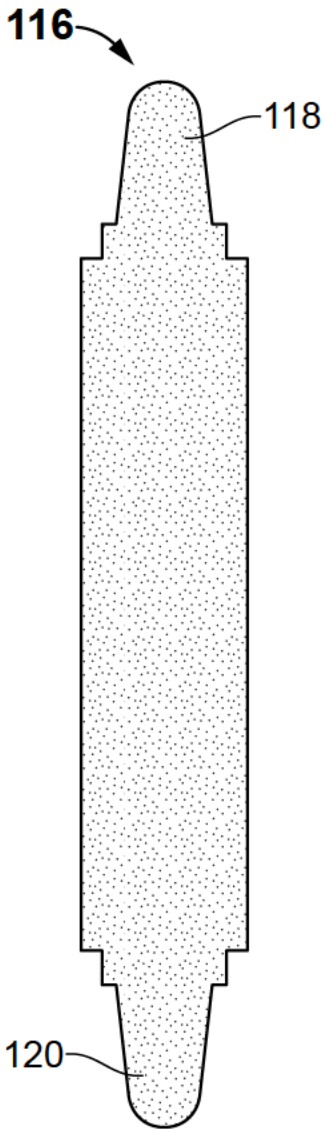

FIG. 3

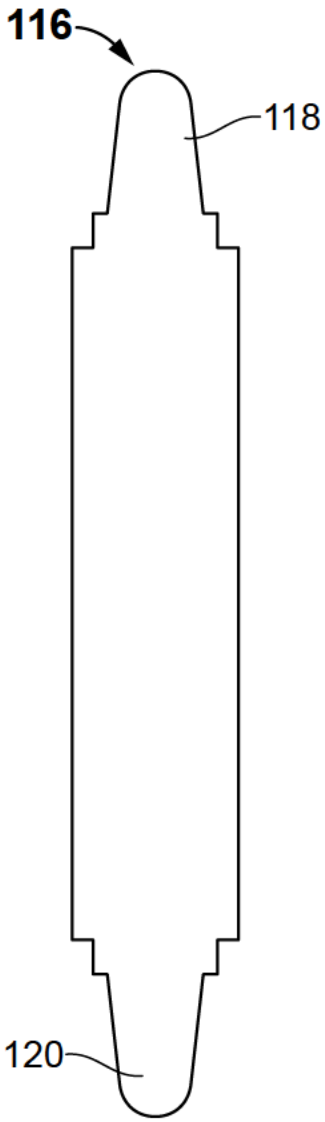

FIG. 4