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Keating

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[54] **GUARDED FINGER NAIL CLIPPERS**

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[51] **Int. Cl.** **A45d 29/18**

[58] **Field of Search** 132/75.5, 75.4; 30/28, 30/29, 124, 143

[56] **References Cited**

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[57] **ABSTRACT**

A finger nail clipper in which front or side guards, or both, are attached to protect the user from cutting the soft skin of his fingers or toes; the guards include an adjustably mounted curved front guard, attached to the lower clipper jaw, which butts against the skin under the finger nail or toe nail to assure uniformly trimmed nails, and a side guard which is affixed to at least one side of the cutting element of one jaw member and projects alongside the cutting element of the other jaw member.

5 Claims, 6 Drawing Figures

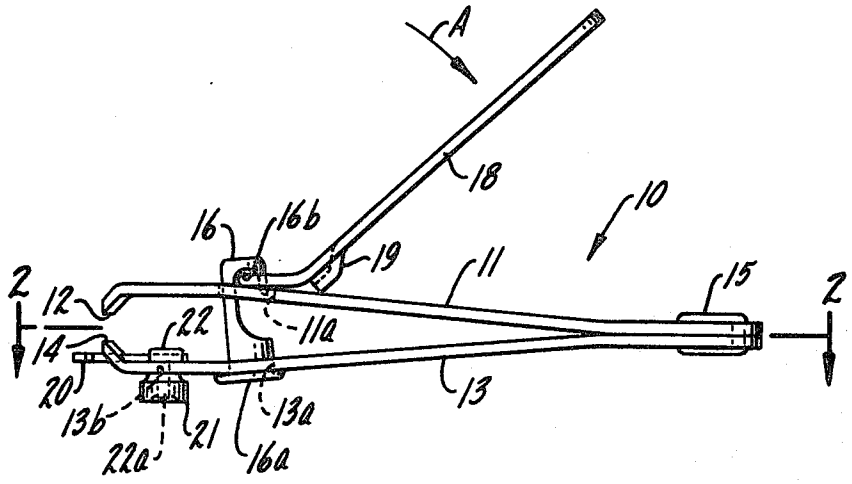


Fig. 1.

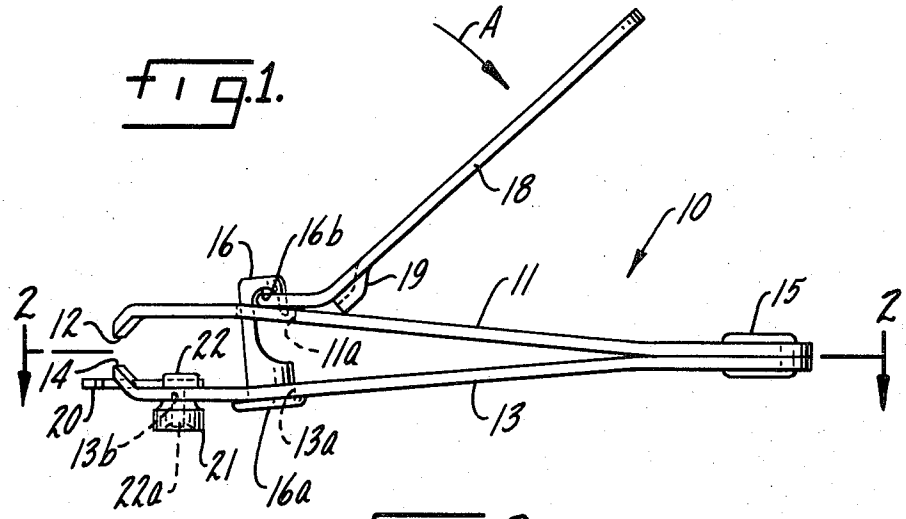


Fig. 2.

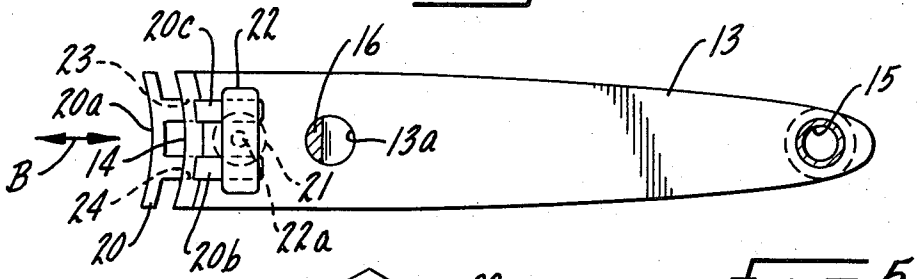


Fig. 3.

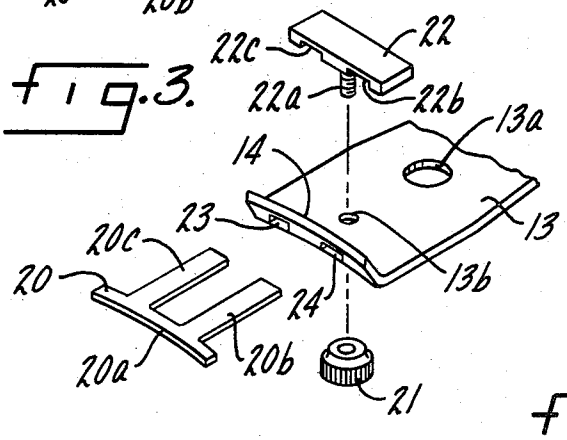


Fig. 5.

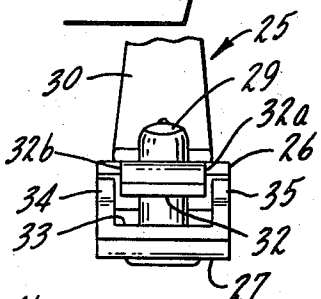


Fig. 6.

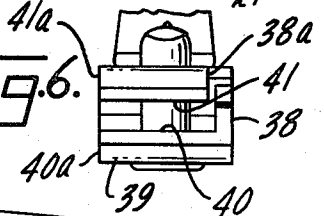
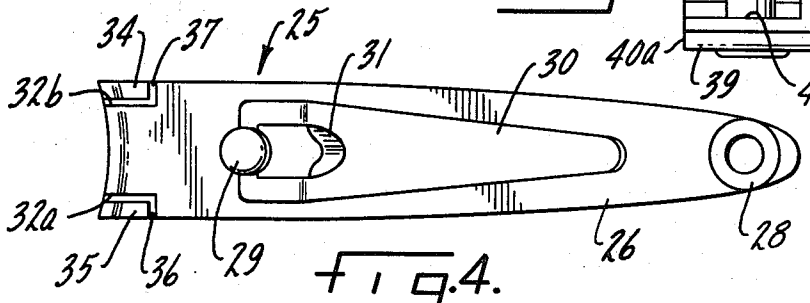


Fig. 4.



GUARDED FINGER NAIL CLIPPERS

BACKGROUND OF THE INVENTION

This invention relates generally to finger nail clippers and more particularly concerns guarded finger nail clippers.

One problem found in cutting finger nails and especially toe nails is that of the skin getting in the way of the cutting edges and consequently being cut. Consequently, it is desirable to guard the skin from being cut by making it difficult for the cutting edge of the clipper to enclose surrounding soft skin.

Another problem in conventional finger nail clippers is that when a person who is normally right handed or left handed has to cut the finger nails on his right or left hand respectively, it is very difficult to align the clippers and cut while holding the clippers in his opposite hand. Consequently, it is desirable to have a guard which guides the clippers so that each nail will be cut a uniform length from the tip of the finger.

SUMMARY OF THE INVENTION

Thus, it is the object of this invention to provide a nail clipper with an adjustable guide to assure uniform clipping.

Another object of this invention is to provide a nail clipper with side guards to protect against cutting of soft skin alongside the nails.

Accordingly, the nail clipper of the present invention includes: an elongated upper jaw member having a downwardly directed cutting element at one end, an elongated lower jaw member having an upwardly directed cutting element at one end, securing means attaching the jaw members to each other at the ends opposite the cutting elements, with the free cutting element ends of the jaw members flexibly biased apart to separate the cutting elements from each other, and cam means for driving the free ends of the jaw members toward each other to close the cutting edges thereof on each other and sever a nail positioned between the cutting edges. A front guard member is mounted on and projects outwardly of the free end of one of the jaw members closely adjacent the cutting element of that jaw member, and an adjustable mounting means is attached to the one jaw member to mount the guard member on the jaw, allowing adjustment of the length of projection of the front guard member outwardly of its associated cutting member to control the depth of the nail cut to suit the needs of the user. Another embodiment of the present invention includes at least one side guard element affixed to the side of the free end of one jaw member and projecting alongside the cutting element of the other jaw member, for precluding cutting of the user's skin during severing of a nail.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a side view of a nail clipper constructed in accordance with one embodiment of the invention;

FIG. **2** is a sectional plan view along line **2—2** of FIG. **1**;

FIG. **3** is a partial exploded perspective view of adjustably mounted front guard means employed in the clipper of FIG. **1**;

FIG. **4** is a plan view of a nail clipper constructed in accordance with another embodiment of the invention;

FIG. **5** is an end view showing the cutting end of the clipper of FIG. **4**; and,

FIG. **6** is an end view of a nail clipper comprising a further embodiment of the invention.

DETAILED DESCRIPTION OF THE INVENTION

FIG. **1** is a side view of a nail clipper **10** which includes an elongated upper jaw member **11** having a downwardly directed cutting element **12** at one end and an alongated lower jaw member **13** having an upwardly directed cutting element **14** at one end. The two jaw members **11** and **13** are connected, by securing means **15**, at the ends of the jaw members opposite the cutting elements, so that the cutting elements **12** and **14** at the free ends of the jaw members are flexibly biased apart to separate the cutting elements from each other.

Clipper **10** includes a cam means for driving the free ends of the jaw members **11** and **13** toward each other to close the cutting elements **12** and **14** on each other and sever a nail positioned between the cutting edges. This cam means includes a post **16** which extends through holes **11a** and **13a** in the jaw members **11** and **13** respectively. The post includes a head **16a** which is larger in diameter than the hole **13***a* so that the post will be firmly stopped against the outer surface of jaw member **13.** The post **16** also includes a notch **16b** which pivotly mounts a movable handle **18.** The combined post and handle **18** are larger than the diameter of the hole **11a** and firmly stopped against the outer surface of jaw member **11** so as to attach the post and handle to the elongated jaw members **11** and **13.** The handle **18** includes a cam **19** which extends from the handle in a direction toward the upper elongated jaw. When the handle **18** is pushed in the direction of arrow A, the cam **19** drives jaw members **11** and **13** together so that the cutting elements **12** and **14** mounted on the free ends of the jaw members close on each other to sever material placed between the cutting elements.

A front guard member **20** is mounted so that it projects outward from the free end of the lower jaw member **13.** The guard member **20** is adjustably mounted on jaw member **13** by a hold-down clamp **22** having a threaded projection **22***a* which extends through an opening **13***b* in the lower jaw member **13.** The hold-down clamp is firmly attached with a retainer **21** which screws onto the threated projection **22***a* of the hold down clamp **22** so as to firmly clamp the front guard member **20** in place.

FIG. **2** is a sectional plan view taken along line **2—2** of FIG. **1,** showing the lower jaw member **13,** a section of the securing means **15,** and a section of the post **16.** The front guard member **20** has a curved surface **20***a* which is shaped to butt against the skin of the finger tip when the nail clipper is used. The front guard member **20** also has two prongs **20***b* and **20***c* which extend through complimentary openings in the lower jaw member. The prongs can slide freely in and out of these openings as indicated by arrow B. The hold-down clamp **22** projects over each of the prongs **20***a* and **20***b*, and when the retainer **21** is firmly screwed on the threaded projection **22a** of the hold-down clamp, the prongs **20***b* and **20***c* are securly clamped between the hold-down clamp **22** and the upper surface of the lower jaw member **13.**

FIG. **3** shows a partial exploded perspective view of the clamping means used for adjustable mounting of

the guard member **20**. As seen therein, the front guard member **20** can be inserted into the openings **23** and **24** in the lower jaw member **13**. Also shown in hold-down clamp **22** and its threaded projection **22***a*. When assembled, the prongs **20***b* and **20***c* of the front guard element **20** pass through the openings **24** and **23**, respectively, and extend past the opening **13**b in the lower jaw lever **13**. The hold down clamp **22** is then placed so that the projection **22**a passes through opening **13***b*, and the underside of the hold-down clamp is positioned with recesses **22***b* and **22***c* adjacent to the prongs **20***b* and **20***c* of the front guard element **20**, respectively. The retainer **21** is then screwed on the threaded projection **22***a* to clamp the prongs **20***b* and **20***c* of the front guard member tightly between the hold-down clamp **22** and the jaw element **13**.

FIG. **4** is a plan view of a nail clipper **25** with an elongated upper jaw member **26** and an elongated lower jaw member **27**. Securing means **28** attaches the ends of the jaw members opposite the cutting elements firmly together so that the cutting elements on the free ends of the jaw members are flexibly biased apart. Also shown is a mounting post **29** on which a handle **30**, with cam **31**, is pivotally mounted so that the jaw members **26** and **27** can be driven to close the cutting edges on the free ends of the jaw elements and sever material placed between the cutting edges. Side guard elements **34** and **35** are affixed to the opposite sides of the free end of jaw member **27** and project alongside the opposite sides **32***a* and **32***b* of the upper jaw cutting element. These side guard members **34** and **35** push back the skin around the sides of the nails, thus precluding the cutting of the user's skin during the severing of a nail. Openings **36** and **37** separate the upper jaw element **26** from the lower jaw element **27** so that material cannot be cut between the side guard elements **34** and **35** and the upper jaw element **26**.

FIG. **5** is an end view of the clipper **25**, showing the cutting elements **32** and **33** at the ends of the elongated jaws **26** and **27**, respectively. A partial view of the handle **30** and the post **29** are shown. The side guards **34** and **35** and sides **32***a* and **32***b* of the upper cutting element **32** are also shown. In this embodiment the cam, handle, and post work similarly to that described in FIGS. **1** and **2**.

FIG. **6** shows another embodiment of the invention utilizing a side guard **38** on only one side of the lower jaw **39**. The cutting elements **40** and **41** extend to the outer edge of the jaws as shown in **40***a* and **41***a* opposite the side guard **38** and the indentation for the side guard **38***a*. Thus, one can use the side guard **38** to push back the skin on one side of the finger to clip a nail and then turn the clippers 180° and use the side guard to push back the skin on the other side of the finger nail. In all instances when references to cutting a finger nail is made, it also includes cutting a toe nail.

It will be apparent from the foregoing that a combination nail cutter including the features of both embodiments of the present invention may also be constructed. Thus, a finger nail clipper can have both an adjustable front guard for guiding the depth of the cut, and either a single or double side guard to protect the skin from being cut. Accordingly, it is intended that any combinations of the single or double side guard and the adjustable front guard are within the scope of the invention.

I claim:

1. A nail clipper comprising:

an elongated upper jaw member having a downwardly directed cutting element at one end thereof,

an elongated lower jaw member having an upwardly directed cutting element at one end thereof;

securing means attaching said jaw members to each other at the ends thereof opposite said cutting elements, with free cutting element ends of the jaw members flexibly biased apart to separate the cutting elements from each other;

cam means for driving the free ends of the jaw members toward each other to close the cutting edges thereof on each other and sever a nail positioned between the cutting edges;

a front guard member mounted on and projecting outwardly of the free end of one of said jaw members closly adjacent the cutting element of that jaw member; and,

adjustable mounting means for mounting said front guard member to said jaw member, for adjusting the length of projection of said front guard member outwardly of its associated cutting member to thereby control the depth of nail cut to suit the needs of the user.

2. A nail clipper in accordance with claim **1**, including a side guard element affixed to the side of the free end of one jaw member and projecting alongside the cutting element of the other jaw member, for precluding cutting of the user's skin during severing of a nail.

3. A nail clipper in accordance with claim **2** including an additional side guard element affixed, on the side opposite from said side guard element, to the free end of one jaw member and projecting alongside the cutting element of the other jaw member, for precluding cutting of the user's skin during severing of a nail.

4. A nail clipper comprising:

an elongated upper jaw member having a downwardly directed cutting element at one end thereof;

an elongated lower jaw member having an upwardly directed cutting element at one end thereof;

securing means attaching said jaw members to each other at the ends thereof opposite said cutting elements, with the free cutting element ends of the jaw members flexibly biased apart to separate the cutting elements from each other;

cam means for driving the free ends of the jaw members toward each other to close the cutting edges thereof on each other and sever a nail positioned between the cutting edges; and,

a side guard element, affixed to the side of the free end of one jaw member and projecting alongside the cutting element of the other jaw member, for precluding cutting of the user's skin during severing of a nail.

5. A nail clipper in accordance with claim **4**, including an additional side guard element affixed, on the side opposite from said side guard element, to the free end of one jaw member and projecting alongside the opposite cutting element of the other jaw member, for precluding cutting of the user's skin during severing of a nail.

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