Sept. 30, 1941. E. L. BREENE 2,257,102

CUTICLE SHIELD

Filed Oct. 2, 1940

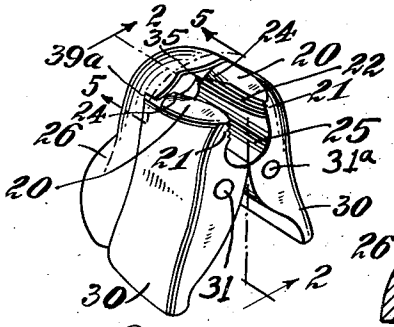


Fig. 1.

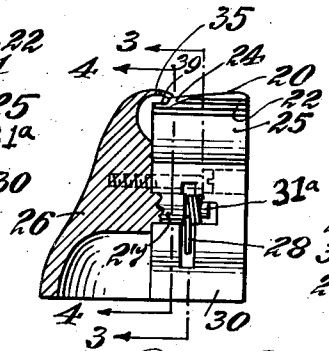


Fig. 2.

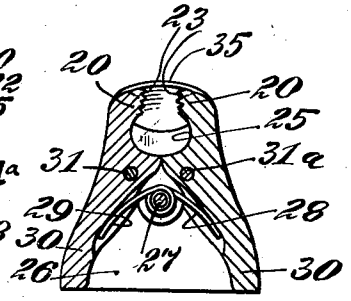


Fig. 3.

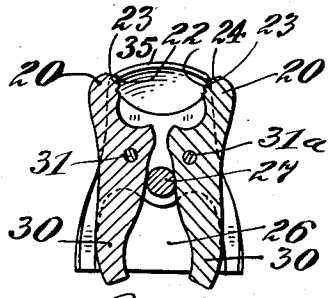


Fig. 4.

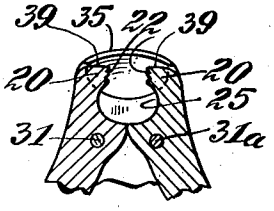


Fig. 5.

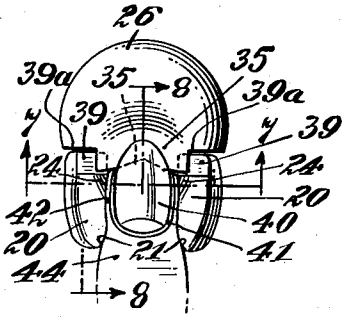


Fig. 6.

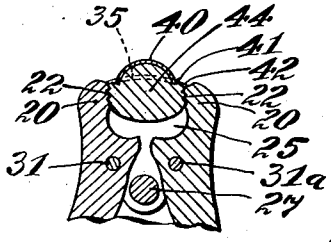


Fig. 7.

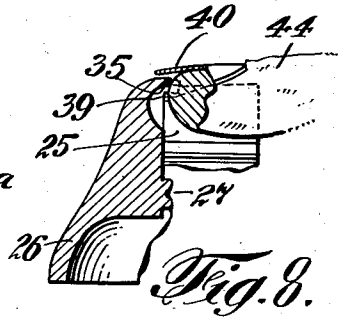


Fig. 8.

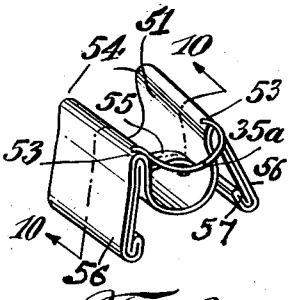


Fig. 9.

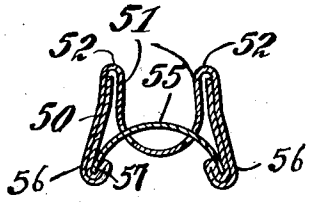


Fig. 10.

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CUTICLE SHIELD

Elizabeth L. Breene, Jackson Heights, N. Y.

Application October 2, 1940, Serial No. 359,337

16 Claims. (Cl. 132—73)

This invention relates to new and useful improvements in a finger cuticle protector for use during manicuring operations and is a continuation in part of my application Serial Number 315,288, filed January 24, 1940, for Cuticle shield.

The object of the invention is to provide a protector for use during manicuring operations, which cause the entire nail to be exposed, the sides of the fingers moved out of their normal position, and the cuticle adjacent the sides of the fingers and the nail to be temporarily displaced by the pulling of the cuticle downward from the nail grooves, then exposing the entire nail surface for manicuring operation and at the same time protecting the sensitive cuticle from the manicuring chemicals, buffing powders, friction from the buffer, or any other implements used in the operation of manicuring, so that when the manicuring operation takes place the delicate cuticles are not subject to injury in the manicuring operations. A device in accordance with my invention may be made for self use, or for use by professional manicurists.

The invention consists of a cuticle protector comprising a pair of members adapted to grip the ends of a finger and gently pull the same downwardly on both sides of the nail to expose the nail and the cuticle adjacent the same, and handle portions on said members for spreading said members apart to permit insertion of the finger therebetween, said members being shaped to act as gripping means, and shaped to extend along the length of the tapering finger ends, so as to expose the entire side portions of the finger. The invention also, in other embodiments includes guide means extending transversely of said members adjacent one edge thereof, for positioning beneath the finger nail to also move the tip of the finger downward, which in cooperation with the downward movement of the sides of the fingers, exposes the cuticle, and prevents the buffer or chemicals from contacting with the cuticle or the finger portions of the device.

This invention will be further fully described, embodiments hereinafter pointed out, and the invention will be finally pointed out in the claims.

In the accompanying drawing,

Fig. 1 is a perspective view of a device embodying my invention;

Fig. 2 is a vertical central section taken on line 2—2 of Fig. 1;

Fig. 3 is a vertical transverse section taken on line 3—3 of Fig. 2;

Fig. 4 is a vertical transverse section taken on line 4—4 of Fig. 2;

Fig. 5 is a vertical transverse section of part of the device shown in Fig. 1 taken on line 5—5 of Fig. 1;

Fig. 6 is a plan view of the device shown in Fig. 1 showing it applied to a finger tip;

Fig. 7 is a vertical transverse section of Fig. 6 taken on line 7—7;

Fig. 8 is a vertical longitudinal partial section taken on line 8—8 of Fig. 6;

Fig. 9 is a perspective view of another embodiment of the invention, and

Fig. 10 is a transverse section taken on line 10—10 of Fig. 9.

Similar characters of reference indicate corresponding parts throughout the various views.

Referring to the drawing, the cheeks 20 are fashioned with substantially vertical walls tapering in the manner of the tapering shape of the end of a finger. The planes 21 converge towards the ends of the fingers. These planes 21 are provided with horizontal ridges 22 and intervening grooves, so as to grip the sides of the finger therebetween. Preferably, these cheeks are so placed that their upper edges 23 are spaced from the lateral edges of the intervening nail a small distance. These edges 23 with the walls 21 when pressing upon the opposed sides of the finger, then push downwardly these sides, and thus move the portion of the fingers adjacent the lateral edges of the nail away from the same. The cuticle which lies between the nail and this portion of the finger is thereby drawn away from the nail, and the nail at its lateral edges becomes entirely exposed. With many people the side portions of the fingers extend over the nail and cover the intervening cuticles. The pressure of the cheeks thus frees the nail of the sides of the fingers and the cuticles, and enables the nail to be polished, painted or otherwise manicured without affecting the cuticles.

The tops of the cheeks are made descending, that is, at 24 the tops slope downwardly. Usually the fingers show descent, and by this shape the cheeks conform to the fingers, and the polishing brushes can be made to operate efficiently.

There is provided a space 25 below the cheeks, into which the finger is inserted.

Various means may be provided for pushing the cheeks against the finger. In the embodiment, a standard 26 having a post 27 has springs 28 and 29 which act to press the cheeks against each other, so that when separated against the action of the springs, the cheeks will have a

tendency to move towards each other. If a finger is placed between the cheeks, the finger will be pressed or compressed. The cheeks are on arms 30 each pivoted on pins 31, 31a, upon the standard 26, and the springs 28 and 29 are askew of each other. When the lower ends of the arms are pressed towards each other, the cheeks are opened.

When the cheeks are in resilient arms, then the material itself being inherently resilient takes the place of the pins, springs and post.

To press the tip end of the finger away from the nail, a bridge wall 35 is provided on the standard 26, or a wall 35a in the resilient embodiment. This wall presses the tip of the finger and is preferably spaced from the tip of the finger nail and below the same. This spacing enables the liquid or polishing material or the buffer or brush thereof when being applied to the nail from contacting with the device, whereby it is maintained clean.

It will be noted that the cheeks extend below the bridgewall, and this is for the purpose of gripping the finger as far as possible to its extremity. For the proper functioning of the jaws, cutaway portions 39 are provided to enable the jaws to pass underneath the bridge wall, which has cutaway portions 39a. This is kept broad to act to protect the finger.

Referring to Fig. 6, which shows a plan view of the improved device applied to a finger, it will be seen that the nail 40 has the skin adjacent thereto hardened or horny. This is generally known as the cuticle, though the word cuticle applies to skin in general, but in this case the word cuticle has reference to this horny portion of the skin adjacent to the nail. It extends around three sides of the nail as shown in Fig. 6 and is indicated by 41. In some people this horny portion or cuticle is more pronounced than in others, in the latter it seems to fade away or merge with the skin as if it did not exist. The cheeks 20 of my device are preferably so placed in respect to a finger tip that a certain part of the skin of the finger is exposed, that is, it is not covered by the cheeks. This exposed portion of the finger is indicated by 42 in Fig. 6. When the cheeks grip the finger tip substantially at this part of the finger, then the normal enclosing portions of the finger tip are drawn downwardly and away from the nail, and the cuticle between this finger portion and the nail are also drawn downwardly away from the nail and thereby it is possible to paint the nail almost in its entirety without causing the material used for the painting of the nail to act upon the cuticle. Materials of this kind where used for painting or for polishing, or for other manicuring purposes as also the liquids used to remove the polish of the previous manicuring, contain acetone which has an erosion effect upon the cuticle.

One of the main objects of this invention is to provide a protector which will so operate upon the finger that the cuticle is protected against these harmful liquids or powders. When the finger tip 44 is subjected to the cheeks 20 it is pressed as shown in Fig. 6, and when it is subjected to the transverse bridge portion this has a tendency to press the tip of the finger away from the nail and the pressure of the tip of the finger downwardly inwardly of the longitudinal length of the finger has ordinarily a tendency to compress the sides of the finger tip adjacent the nail, but by the cheeks pressing these portions downwardly, the nail is exposed as far as it is possible to do so.

It will be noted that the preferred form of use, is shown in Fig. 8 wherein the nail is spaced from the bridge portion. The object of this is that the polishers or brushes can operate upon the nail, and then if they pass beyond the nail edge they will not contact with the bridge portion or with the body of the protector, and thereby this protector will not be soiled with these liquids, and there will be no necessity for cleaning.

It is seen that the object of the protector is to engage as much of the sides of the fingers as possible so as to draw them downwardly so as to expose the nail as much as possible and protect the sides of the fingers and the cuticle.

From the foregoing it will have been seen that the invention comprises a pair of arm members, means to move the free ends of the arm members to grip the sides of the finger and gently pull the cuticle downwardly from the nail grooves for exposing the entire nail surface for manicuring operation, the said means returning the arm members resiliently to initial position upon removal of the finger from the enclosing position of said arm members, and that the free ends of the arm members slope in the direction of the tapering form of the finger tip and extend along the same as much as possible to the further end of the finger. The invention comprises also the combination of these parts just described with guide means extending transversely of said arm members for engaging beneath the finger nail to protect the end of the finger from any material applied during the holding of the finger by the arm members.

The invention further consists of other important and essential means which have been hereinbefore described and which will be pointed out in the claims.

In Figs. 9 and 10 is shown another embodiment in which a strip of flexible resilient material, is bent into the shape shown to provide a substantially U-shaped central portion, the upwardly extending arms 51 of which are adapted to engage a finger. These arms have cheeks 52 which taper inwardly from the rear ends 54 toward the front ends 53 as shown in Fig. 9 so that the front ends will more tightly grip the cuticle adjacent the sides of the finger nail than the rear ends of the arms. It is more desirable to have the front ends of the arms compress the cuticle of the finger to greater degree since the cuticle tends to overlap the nail at this portion of the finger, making it exteremely difficult to properly apply the polish.

The upper ends of the arms of the U-shaped portion continue into downwardly extending outwardly diverged end handle portions 56 which are adapted to be pressed together for spreading the upper ends of the arms 51 when the shield is being engaged upon a finger. These end handle portions have a portion of the strip of material doubled upon itself along the inside faces of the handle portions so as to stiffen these handle portions and prevent the same from bending when urged together so as to insure the spreading of the arms.

The shield is further provided with a resilient means for urging the bottom ends of the end handle portions apart in a manner to cause the arms to tightly engage the sides of the finger. This means comprises a piece of spring steel 55 substantially arcuate in shape and which passes through openings formed in the base of the U-

shaped portion and which engages into receiving sockets 57 formed by bending the lower edges of the handle portions upwards along the inside face thereof. This spring tends to assume a straight line position and so spreads the ends of the handle portions.

The front ends of the arms of the U-shaped portion are provided with a means for engaging beneath one's finger nail to assist the clamping action of the spring in holding the cuticle shield in position upon the finger. This means comprises a U-shaped guide 35a arranged in substantially the same plane as the arms and which is adapted to engage one's finger nail adjacent the top face of the flesh located immediately therebelow for assisting in holding the shield in position. This guide has the ends of its arms clamped between the adjacent faces of the upper ends of the arms and the end handle portions. This clamping action tends to maintain the guide in a fixed position relative to the front ends of the arms. The guide is preferably constructed of a piece of flexible wire so as to spread and contract with the ends of the arms so as not to interfere with the engagement of and the removability of the guide from the finger.

I have described an embodiment of my invention, but it will be clear that changes may be made within the principle of the invention described without departing from the scope of the subjoined claims.

What is claimed is:

1. In a cuticle protector, the combination of a pair of cheeks, means to move said cheeks to permit the insertion of the sides of a finger tip therebetween and gently press upon the sides of the finger tip to pull the cuticle downwardly from the nail grooves, thus exposing the entire nail surface for manicuring operation, said means returning the cheeks resiliently to initial position upon removal of the finger from the enclosing position to said cheeks, and guide means extending transversely of said cheeks for engaging beneath the finger tip to protect the end of the finger from any material applied during the holding of the finger by the cheeks.

2. A cuticle shield, comprising a strip of flexible resilient material having a U-shaped portion for engagement on a finger so that the arms of the U-shape grip the end of the digit and gently pull the cuticle downwards, and end handle portions extending from the ends of the arms of said U-shaped portion, and a guide mounted between the ends of the arms of said U-shaped portion for engaging beneath the finger nail to assist in holding the shield on the finger.

3. A cuticle shield, comprising a strip of flexible material having a U-shaped portion for engagement on a finger so that the arms of the U-shape grip the end of the digit and gently pull the cuticle downwards, and end handle portions extending from the ends of the arms of said U-shaped portion, and a guide mounted between the ends of the arms of said U-shaped portion for engaging beneath the finger nail to assist in holding the shield on the finger, said end handle portions being directed downwards and outwards relative to the arms of said U-shaped portion.

4. A cuticle shield, comprising a strip of flexible resilient material having a U-shaped portion for engagement on a finger so that the arms of the U-shape grip the end of the digit and gently pull the cuticle downwards, and end handle portions extending from the ends of the arms of said U-shaped portion, and a guide mounted between the ends of the arms of said U-shaped portion for engaging beneath the finger nail to assist in holding the shield on the finger, said end handle portions being directed downwards and outwards relative to the arms of said U-shaped portion, said end handle portions being stiffened by doubling a portion of the strip of material upwards along the inside face thereof.

5. A cuticle shield, comprising a strip of flexible resilient material having a U-shaped portion for engagement on a finger so that the arms of the U-shape grip the end of the digit and gently pull the cuticle downwards, and end handle portions extending from the ends of the arms of said U-shaped portion, and a guide mounted between the ends of the arms of said U-shaped portion for engaging beneath the finger nail to assist in holding the shield on the finger, and a spring mounted between said end handle portions for assisting in urging the arms of the U-shaped portion to grip the finger.

6. A cuticle shield, comprising a strip of flexible resilient material having a U-shaped portion for engagement on a finger so that the arms of the U-shape grip the end of the digit and gently pull the cuticle downwards, and end handle portions extending from the ends of the arms of said U-shaped portion, and a guide mounted between the ends of the arms of said U-shaped portion for engaging beneath the finger nail to assist in holding the shield on the finger, and a spring mounted between said end handle portions for assisting in urging the arms of the U-shaped portion to grip the finger, said spring having its ends engaged into receiving sockets formed at the base of said end handle portions.

7. A cuticle shield, comprising a strip of flexible resilient material having a U-shaped portion for engagement on a finger so that the arms of the U-shape grip the end of the digit and gently pull the cuticle downwards, and end handle portions extending from the ends of the arms of said U-shaped portion, and a guide mounted between the ends of the arms of said U-shaped portion for engaging beneath the finger nail to assist in holding the shield on the finger, and a spring mounted between said end handle portions for assisting in urging the arms of the U-shaped portion to grip the finger, said spring having its ends engaged into receiving sockets formed at the base of said end handle portions, said receiving sockets being formed by doubling the bottom ends of said end handle portions upwards along the inside face thereof.

8. A cuticle shield, comprising a strip of flexible resilient material having a U-shaped portion for engagement on a finger so that the arms of the U-shape grip the end of the digit and gently pull the cuticle downwards, and end handle portions extending from the end of the arms of said U-shaped portion, and a guide mounted between the ends of the arms of said U-shaped portion for engaging beneath the finger nail to assist in holding the shield on the finger, said guide being resiliently mounted for causing the same to more tightly engage beneath one's finger nail to more rigidly hold said guide in position.

9. A cuticle shield, comprising a strip of flexible resilient material having a U-shaped portion for engagement on a finger so that the arms of the U-shape grip the end of the digit and gently pull the cuticle downwards, and end handle portions extending from the ends of the arms of said U-shaped portion, and a guide mounted between the ends of the arms of said U-shaped portion

for engaging beneath the finger nail to assist in holding the shield on the finger, said guide being resiliently mounted for causing the same to more tightly engage beneath one's finger nail to more rigidly hold said guide in position, said resilient mounting comprising springs attached to the rear edge of said end handle portions and connected to the ends of said guide for urging said guide towards said U-shaped portion.

10. A cuticle shield comprising a pair of hinged jaw members, recessed portions at one end of the jaw members for engagement of a finger, an end shield in longitudinal alignment with the said jaw members to cover one side of the jaw members and to leave the opposite side of the said jaw members open for the insertion of the finger in the recessed portions thereof.

11. A cuticle shield comprising a pair of hinged jaw members, recessed portions at one end of the jaw members for engagement of a finger, an end shield in longitudinal alignment with the said jaw members to cover one side of the jaw members and to leave the opposite side of the said jaw members open for the insertion of the finger in the recessed portions thereof, resilient means to keep the recessed portions of the jaw members closed to enable the device to expose the cuticles of the finger grijped by the device.

12. A cuticle shield comprising a pair of hinged jaw members, recessed portions at one end of the jaw members for engagement of a finger, an end shield in longitudinal alignment with the said jaw members to cover one side of the jaw members and to leave the opposite side of the said jaw members open for the insertion of the finger in the recessed portions thereof, a narrow guide on the top face of said end shield for resting the finger nail thereon and to prevent nail polish from dripping on the finger tip.

13. A cuticle shield comprising a pair of hinged jaw members, recessed portions at one end of the jaw members for engagement of a finger, an end shield in longitudinal alignment with the said jaw members to cover one side of the jaw members and to leave the opposite side of the said jaw members open for the insertion of the finger in the recessed portions thereof, a narrow guide on the top face of said end shield for resting the finger nail thereon and to prevent nail polish from dripping on the finger tip, the bottom face of the end shield being flush with the bottom faces of the jaw members to permit the device to be in upright position on a flat surface end be used as a rest support device for the finger.

14. In a cuticle protector, the combination of a pair of cheeks, each tapering in general direction of the taper of the finger ends, and extending the length of the finger end from the tip to the bottom of the nail, and having rills and grooves to engage the sides of the finger, and having the top portions of the cheeks downwardly inclined, and means to move the cheeks towards and from the finger sides, and to press the cheeks against the finger sides.

15. In a cuticle portector, the combination of a pair of cheeks, each tapering in general direction of the taper of the finger ends, and extending the length of the finger end from the tip to the bottom of the nail, and having rills and grooves to engage the sides of the finger, and having the top portions of the cheeks downwardly inclined, means to move the cheeks towards and from the finger sides, and to press the cheeks against the finger sides, and a bridgewall transversely across the open space between the cheeks, spaced below the nail of the finger held between the cheeks, the bridgewall being stationary in respect to the movable cheeks.

16. In a cuticle protector, the combination of a pair of cheeks having a longitudinally grooved bearing surface preventing the finger from slipping and having the uppermost surfaces of the cheeks inclined downwardly from rear to front to enable the grooved bearing surfaces to follow the downward taper of the finger and means to move said cheeks to permit the insertion of the sides of a finger tip therebetween and gently press upon the sides of the finger downwardly to expose the nail grooves, thus exposing the entire nail surface for manicuring operation, said means returning the cheeks resiliently to initial position upon removal of the finger from the enclosing position to said cheeks.

ELIZABETH L. BREENE.