

UNITED STATES PATENT OFFICE

2,580,739

DEVICE FOR USE IN HOLDING CUTICLES AWAY FROM FINGERNAILS

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Application March 4, 1949, Serial No. 79,534

7 Claims. (Cl. 132-73)

1

This invention relates to a device for use in holding the cuticle at the sides of the finger nail away from the nail.

In the procedure of manicuring the nails, it is customary for women to apply a nail enamel, clear or colored, to the nails. The most difficult part of this procedure is to apply the enamel neatly so there is no visible gap or space between the enamel and the cuticle, and also in a manner so the enamel does not extend over the cuticle and onto the latter. A manicurist usually uses the fingers of one hand to draw the cuticle away from the nail during the application of the enamel by an applicator held by the fingers of the other hand, but obviously this is not possible where the person is applying the enamel to the fingers of her own hand.

One of the objects of the present invention is the provision of a small, economically made, easily operated device that is adapted to be operated by the person whose nails are to be enamelled for drawing the cuticle away from the sides of the nail on each finger during the enamelling operation and for holding the cuticle away without further attention from said person until the work of enamelling the nail is finished.

Another object of the invention is the provision of a support for the finger carrying the nail that is being enamelled during the enamelling and which support is provided with means for holding it to said finger so it may be moved around with the finger, and which device also operates in a manner to facilitate the enamelling of the nail by drawing the cuticle away from the nail when the device is attached to the finger for functioning as a support.

Other objects and advantages will appear in the description and in the drawings.

In the drawings, Fig. 1 is a perspective view of the device with the outer body partly broken away to show the interior structure.

Fig. 2 is a top plan view of the device with a finger supported thereon and secured thereto.

Fig. 3 is a sectional view taken along line 3-3 of Fig. 2, but without the finger, and with the device in normal position between periods of use.

Fig. 4 is a sectional view taken substantially along line 4-4 of Fig. 2, but without the finger and in normal position between periods of use.

In detail, the device comprises a hollow four sided body 1, two of the opposed sides being indicated at 2, 3 and the other two opposed side walls being designated 4, 5. The bottom side is open and there is a top wall 6 closing the upper end.

2

From the foregoing, it will be seen that the body 1 may also be considered a housing, open at its lower side. In use, the said body is adapted to be supported on a table or other surface on the lower edges of the said side walls.

The top wall 6 is formed with a recess 7 that is disposed centrally between the upper edges of side walls 2, 3 and which recess opens laterally outwardly at one end above side wall 4 and at its opposite end the bottom of the recess may curve upwardly as at 9 (Fig. 3) so as to generally conform to the curvature of the outer end of a person's finger on the palm side.

This recess 7 extends longitudinally of the upper edges of side walls 2, 3 and the bottom is transversely curved to provide a concave upper surface adapted to substantially follow the transverse contour of said finger of a person on the palm side, of the side opposite the nail.

While any suitable dimensions and shapes may be employed for body 1, it is usually preferable, to make it rectangular. That is, the side walls and top may be rectangular, and practically square, in outline. The drawings show the device considerably enlarged. In actual practice the sides and top may each be from about one to two inches square and preferably substantially one and one quarter inches square. However, as already stated, the precise shape and size is more or less optional provided the top wall is adapted to provide an adequate support for the outer end of a finger of the person using it.

The closed end of recess 7 functions to provide a stop for positioning the finger correctly.

Sides 2, 3 are vertically slotted from a point adjacent their lower edges, as seen at 10, 11 in Figs. 1, 4.

These slots are parallel and equally spaced from the side wall 5, and disposed substantially closer to wall 5 than to wall 4.

Vertically reciprocable in slots 10, 11 are the ends 12 of an elongated horizontally disposed element 13 which may be formed of a strip of sheet material 13. Said ends 12 are of reduced width, providing shoulders 14 at the junctures between said ends 12 and the main body of the element 13 therebetween, which shoulders are adjacent the opposed inner surfaces of walls 2, 3 and prevent longitudinal movement of said strip.

Centrally secured between the ends of the element 13 are vertically extending clamping members 15. These clamping members are integrally joined by a lower end piece 16 (Fig. 1). Members 14 and end piece 15 are in the form of a

3

strip of spring material, such as spring metal, or any other desired material.

The lower end portions 17 of members 14 extend divergently upwardly from the ends of lower end piece 16 to points considerably less than the vertical length of members 15 and equal distances from piece 16. From said points, the upper end portions 18 of members 15 extend convergently toward each other.

The upper wall, or top 6 is formed with a pair of openings 19 that are equal distances from opposite sides of a line bisecting recess 7 longitudinally of the latter. The upper end portions 18 of members 15 extend upwardly through these openings 19 and terminate at their upper ends about even with a horizontal plane in which the uppermost portion of top wall 6 is disposed.

The terminating upper ends 20 of members 15 extend toward each other with the free end edges of said members in generally opposed relationships.

Carried by top wall 6 is a downwardly extending projection or spreader or boss 21 positioned centrally between walls 2, 3. This projection 21 may be made integral with top wall 6 and integrally connected with forward wall 5 by means of suitable webs as shown in Fig. 3. As best seen in Fig. 4 the projection 21 is disposed between the members 15. The width of this projection and the distance that it projects downwardly from the top 6, with which it is also integrally united, is such that after a predetermined upward movement of element 13 and members 15 for a distance less than the thickness of a finger, the divergent inner sides of portions 17 will engage the lower corners of projection 21 and further upward movement thereafter will cause said members 15 to be spread apart at their upper ends a sufficient distance to admit the fingers to a position between members 15.

The projection 21 is formed with a downwardly opening recess 25 that is adapted to receive the upper end of an expansion spiral spring 26. The lower end of said spring engages the lower end piece 16.

Thus spring 26 reacts between said element 13 and projection 21 to yieldably urge the members 15 to their lowermost position at all times, in which their upper ends are closer together than the thickness of the finger that is intended to be supported on the bottom of recess 9.

In operation, the operator manually urges the element 13 upwardly with the fingers of one hand, and consequently the members will be yieldably separated at their upper ends to enable the operator to position a finger between said members and on the bottom of recess 7. The members 15 are indicated in spread position in dash lines in Fig. 4. A finger of the other hand is then positioned in recess 7 with outer end of the finger against the curve 9. When the finger is in this position and the pressure on element 13 is released, the members 15 will yieldably move into engagement with the opposite sides of the finger on recess 7 and the terminating upper end portions 20 will engage the fingers adjacent the cuticle along opposite lateral edges of the nail. The spring 26 will thus function to cause said ends 20 to draw the cuticle away from the nail so that polish or enamel is easily applied to the nails.

The support for members 15 can rest on a table with the finger held by said members conveniently elevated above the table.

4

After the enamel has been applied to the nail, an upward movement of element 13 will cause the members 15 to move away from the finger, thereby releasing it.

It will be apparent from the above that the device described will remain firmly secured to the finger to which it is applied even though the finger is moved around. If desired, several of the devices may be used at one time, and as one nail is finished, work may commence on one of the others before said one nail is released.

It is also obvious that the body of the device may have different shapes, as long as there is a base that is adapted to be supported on a table.

We claim:

1. A device of the character described including a supporting body adapted to be supported on a table and having a horizontally extending top on which the outer end of a finger of a hand is adapted to be supported with the nail uppermost, a pair of upwardly extending horizontally spaced opposed clamping members supported on said body for vertical reciprocation at opposite sides of a finger so supported on said top, said clamping members including oppositely inwardly extending portions at their upper ends adapted to engage said finger adjacent the cuticle at opposite sides of said nail upon downward movement of said members for drawing the said cuticle away from said nail, and means carried by said body for causing said downward movement.

2. A device of the character described including a supporting body adapted to be supported on a table and having a horizontally extending top on which the outer end of a finger of a hand is adapted to be supported with the nail uppermost, a pair of upwardly extending horizontally spaced opposed clamping members supported on said body for vertical reciprocation at opposite sides of a finger so supported on said top, said clamping members including oppositely inwardly extending portions at their upper ends adapted to engage said finger adjacent the cuticle at opposite sides of said nail upon downward movement of said members for drawing the said cuticle away from said nail, and means carried by said body for causing said downward movement, a spreader on said body between said members positioned for engagement by the adjacent sides of said members upon upward movement of the latter for causing said members to spread apart at their upper ends a sufficient distance to permit said finger to be placed on said top and removed therefrom free from engagement by said members.

3. A device of the character described including a supporting body adapted to be supported on a table and having a horizontally extending top on which the outer end of a finger of a hand is adapted to be supported with the nail uppermost, a pair of upwardly extending horizontally spaced opposed clamping members supported on said body for vertical reciprocation at opposite sides of a finger so supported on said top, said clamping members including oppositely inwardly extending portions at their upper ends adapted to engage said finger adjacent the cuticle at opposite sides of said nail upon downward movement of said members for drawing the said cuticle away from said nail, and means carried by said body for causing said downward movement, an element connected with said members and accessible for manual manipulation for

5

manually moving said members upwardly and away from said finger.

4. A device of the character described comprising a body on which one of the fingers of a hand is adapted to be supported at its outer end with the nail on such finger uppermost, an upwardly opening recess in said body in which said finger is adapted to be positioned when so supported, a pair of upwardly extending, horizontally spaced opposed clamping members disposed at opposite sides of said recess and extending vertically therepast, said members having divergently upwardly extending lower end portions and oppositely inwardly extending upper end portions, a vertically reciprocable element carried by said body connecting said members at their lower ends and supporting said members for vertically reciprocable movement therewith, a spring interposed between said body and said element yieldably urging said element downwardly, a spreader on said body between said members and below said recess adapted to engage the said divergently extending opposed sides of said members at a point in said upward movement for causing the upper ends of said members to move apart for admitting said finger therebetween, said members being of spring material for yieldably resisting said movement apart, and the upper ends of said members being adapted to engage said finger adjacent the cuticle at opposite sides of said nail when said finger is in said recess for drawing said cuticle away from said nail upon downward movement of said members.

5. A device of the character described comprising a support for the finger of a person, a pair of clamping members relatively movable with respect to said support and adapted to engage said finger at opposite sides of the nail of such finger adjacent the cuticle, means supporting said members for simultaneous movement in a direction generally perpendicular to the plane of said nail for drawing said cuticle away from said nail when said members so engage said finger.

6

6. A device of the character described comprising a support for the finger of a person, a pair of clamping members relatively movable with respect to said support and adapted to engage said finger at opposite sides of the nail of such finger adjacent the cuticle, means supporting said members for simultaneous movement in a direction generally perpendicular to the plane of said nail for drawing said cuticle away from said nail when said members so engage said finger, a spring interposed between said means and said support for causing said movement in said direction, and for yieldably holding said members in engagement with said finger when the latter is positioned on said support.

7. A device of the character described comprising a support for receiving the outer end of the finger of a person with the nail on such finger uppermost, a pair of clamping members relatively movable with respect to said support and adapted to engage said finger at opposite sides of the nail of such finger adjacent the cuticle, means supporting said members for movement in a direction towards said support for drawing said cuticle away from said nail when said members so engage said finger, said support including a top wall through which said members extend, said top wall being formed with an upwardly opening recess between said members on the bottom of which said finger is adapted to be supported.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,783,262	Sachse	Dec. 2, 1930
2,257,102	Breene	Sept. 30, 1941