July 28, 1942. M. E. WILKINSON 2,291,125

FINGER SUPPORT

Filed April 25, 1940

Fig. 1.

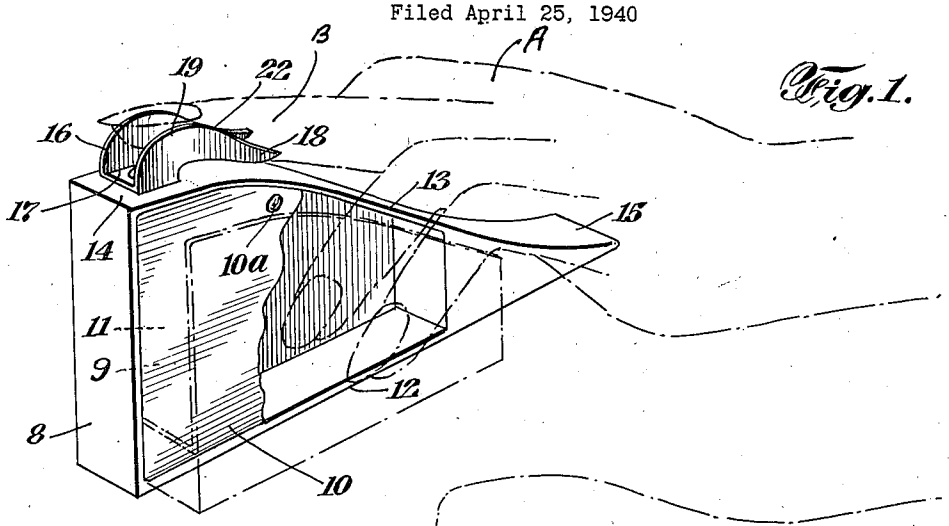


Fig. 2.

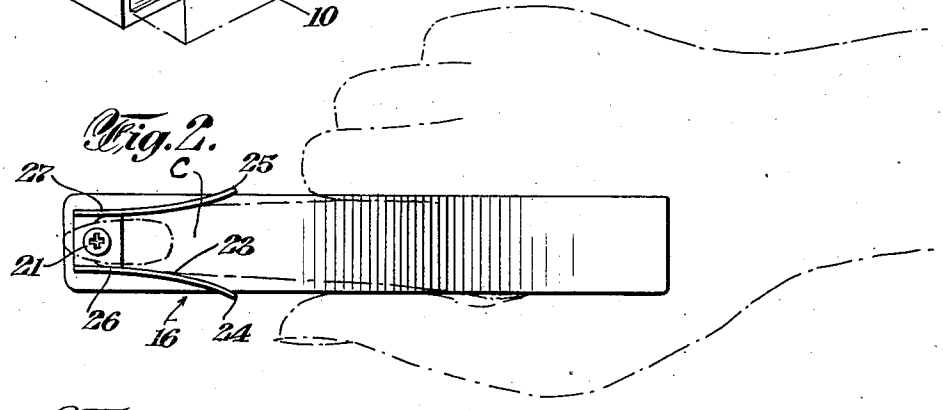


Fig. 3.

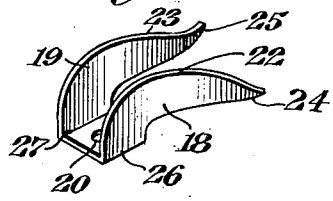
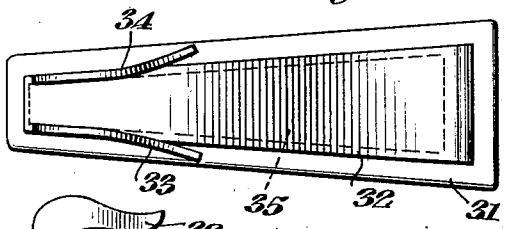


Fig. 4.



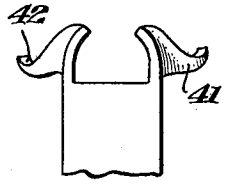


Fig. 7.

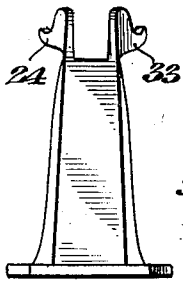


Fig. 6.

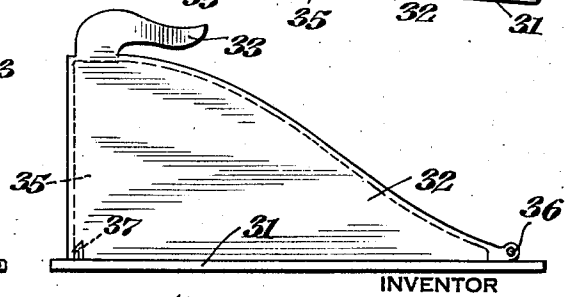


Fig. 5.

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FINGER SUPPORT

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Application April 25, 1940, Serial No. 331,491

8 Claims. (Cl. 132—73)

This invention relates to devices for use by persons who wish to apply nail polish to their finger nails in accordance with the widespread modern practice. It is intended to be of value especially to those who do this at home as distinguished from those who have it done in a beauty shop. When a woman is trying to hold one hand still, especially the end of one finger of the hand, and at the same time to apply nail polish or coloring material to the finger nail with the other hand, it frequently happens that it is almost impossible to prevent a certain amount of unsteadiness or shaking of the hand. Naturally this difficulty is not so commonly experienced in regular beauty shops where an attendant has both hands free to work with and where moreover much more complicated and elaborate apparatus is available than is commonly found in the ordinary type of home where a woman usually or frequently does this kind of work herself.

Another difficulty commonly experienced when a person is trying to apply nail polish herself is that the end of the finger, when placed on something to support it, has the flesh pushed upwardly at the sides of the finger nail thus tending to cover the nail at the sides and making it extremely difficult to reach the nail at that point for the purpose of applying polish. Because of this difficulty in reaching clear to the sides of the nails it is very easy to smear a little of the liquid on the cuticle without intending to do so.

It is one of the objects of the present invention to provide a device for supporting the hand and in particular the finger being treated in an easy and natural position and which at the same time shall be simple in construction, inexpensive to manufacture and also attractive in appearance.

It is a further object of the invention to provide a device in which the cuticle is drawn away from the sides of the finger nail and held in that position making it possible to treat the nail itself with greater accuracy and with far greater ease than has been customary heretofore.

It is also an object of the invention to accomplish the foregoing purposes with a device which is adapted for use with not merely one particular size finger but for use with different size fingers.

These and other objects of the invention will readily appear to those skilled in the art to which it appertains by a consideration of the following description of different embodiments thereof taken in connection with the accompanying drawing in which

Fig. 1 is a perspective view of one form of the invention and shows in dotted lines a finger in position for treatment;

Fig. 2 is a top plan view of the same device;

Fig. 3 is a perspective view of the finger clamp used in Figs. 1 and 2;

Fig. 4 is a plan view of another form of the invention;

Fig. 5 is a side elevation of the device shown in Fig. 4;

Fig. 6 is an end elevation of the device shown in Figs. 4 and 5; and

Fig. 7 is an end view to an enlarged scale of a modified form of the finger clamp of Figs. 4 to 6.

Referring to the drawing more in detail the reference character 8 indicates a support which may be formed from a piece of wood having a thickness somewhat greater than the largest finger with which the device is to be used. This may be a solid block of wood which is probably the simplest and cheapest type of construction. However, the support in Fig. 1 is shown as being provided with a compartment 9 which opens toward the side. This compartment may be closed by any suitable means as for example by a sliding drawer 10 having a knob 10a for convenience in withdrawing the drawer from the compartment. This compartment may be used for carrying small articles there being shown in dotted lines at 11 a bottle of nail polish. It is to be understood that other materials than wood may be used for the support such for example as making it out of cardboard and other means may be employed for closing the compartment such as hinging a small door to one edge of the opening into the compartment.

The under surface 12 of the support 8 is preferably a flat surface and adapted to rest on a table or other support. The upper edge or narrow surface 13 of the support 8 curves gradually from a maximum height 14 at one end to a minimum height 15 at the other end, the latter being preferably to as thin an edge as is practical. The end of the device indicated at 15 will hereafter be referred to as the front of the device or the front end while the end 14 will be referred to as the rear end. The form of the curve is preferably so chosen that the hand of a person using it will lie naturally along its outline as shown at A in Fig. 1 and thereby give to the user the maximum amount of relaxation.

In the form of the invention shown in Figs. 1 and 2 there is mounted at the end 14 of the support 8 a finger clamp 16 which is preferably resilient. This clamp may be conveniently stamped out of sheet metal and then bent into the final shape shown in the drawing. While it is not intended to limit the invention to any particular material for the clamp it has been found that stainless steel has many advantages and has been used satisfactorily for the clamp. After the piece of stainless steel has been stamped out of a larger piece of sheet metal it is bent into the form shown in the drawing having an intermediate flat portion 17 and an upwardly extending ear at each end thereof as indicated at 18 and 19. It will be seen from the drawing that the plane of the sheet material from which the ears are formed is disposed in a direction that is more

or less parallel with the sides of the support but not precisely so as will be explained presently. The clamp 16 may be secured to the support 8 in any convenient manner. In the drawing the intermediate portion 17 is provided with a hole 20 through which a screw 21 is adapted to pass for the purpose of securing the clamp to the support 8.

Particular attention is directed to the form or shape of the ears 18 and 19 which contributes in two different ways to the carrying out of the purpose of the invention. Each ear is somewhat elongated in one direction and narrower in the other direction and they are disposed so that the longer dimension extends in the same general direction as the curved surface 13. The upper edges of the ears 18 and 19 are curved as indicated at 22 and 23 following in a general way the shape of the curve 13 and are preferably so related thereto that the depth of the space between the ears 18 and 19 gradually increases from the rear end to the front end where the ears terminate in a form that is more or less of a point, indicated at 24 and 25. By this means when the hand of a person, as shown in dotted lines at A in Figs. 1 and 2, is placed on the support with a finger, indicated at B in Fig. 1 and at C in Fig. 2, positioned between the ears of the clamp, and then pushed upwardly along the curved surface 13 until the finger nail is level with the upper edges 22 and 23 of the ears, the distance from the finger nail to the support 8 will be found to be less and less the farther the finger is pushed in between the ears 18 and 19. In this way provision is made for different size fingers. A large finger will be pushed in between the ears only a slight distance while a small finger will be pushed in between the ears 18 and 19 a somewhat greater distance where the depth is less.

The lower edge of the ear 18 at the rear thereof, that is, at the end opposite the pointed end 24, is integrally connected with the portion 17 as indicated at 26 and in like manner the lower rear edge of the ear 19 is integrally connected with the portion 17 at 27. As already stated the material from which the ears are made preferably has a certain amount of resiliency and the ears are therefore capable of holding a finger therebetween with a resilient pressure—particularly near the ends 24 and 25.

A second characteristic of the ears 18 and 19 will be noted by referring to Fig. 2 which shows them as diverging outwardly from the rear toward the front, that is, the ends 24 and 25 are spaced somewhat farther apart than the ends 26 and 27. Because of this construction a large finger is engaged by the ears when the finger is pushed in between the ears only a short distance. On the other hand a small finger will be pushed in between the ears a much greater distance before it is engaged snugly. The finger C shown in dotted lines in Fig. 2 is nearly to the position where the distance between the ears is narrowest. By thus providing the proper relationship between the curved edges 22 and 23 of the ears and the outward spread of the ears each finger, whatever its size, will be engaged snugly by the ears at approximately that position in which the finger nail is most conveniently treated. In speaking of the proper height of the finger nail it has been spoken of as being at the same height as the upper edge of the ears 18 and 19 but it is obvious that persons using the device may prefer to have the finger nail slightly above the edge of the ears or even slightly below and the device may be so constructed. The importance of the correlation of the form of the curves 22 and 23 and the amount of divergence or flaring of the ears lies in the fact that fingers of different sizes are embraced in different positions and each finger is embraced in such a position that the height of the finger nail with respect to the height of the upper edge of the ears is the same for each finger regardless of the size of the finger.

In the form of the invention shown in Figs. 4 to 6 there is a base 31 to which there is secured in a manner to be presently described the support proper 32. In this form of the invention the parts are molded out of some sort of thermoplastic material and the ears 33 and 34 corresponding to ears 18 and 19 are preferably resilient to some extent as in the form of the invention described with reference to Figs. 1 to 3. The interior of the support 32 is preferably hollow and open toward the bottom. This is both for convenience in manufacturing and in order to provide a compartment 35 for the storage of small articles. At the front end of the support 32 the base 31 and the support are provided with cooperating hinge means as indicated at 36. At the rear end of the device a suitable spring latch 37 may be provided for detachably holding the base 31 and the support together and the compartment 35 closed. When the device is used for storing articles in the compartment 35 it may for convenience be turned upside down from the position shown in Fig. 5 and the base 31 operated as a sort of lid.

In the modification of Fig. 7 the upper edges of the ears 33 and 34 are provided with inwardly facing portions or lips 41 and 42 respectively. In operation these inwardly facing lips engage the flesh at the sides of the finger and draw it downward and away from the nail as the finger is pushed up the curved upper surface of the support even more than is the case with the other forms of the invention shown in Figs. 1 to 6.

The operation of the invention will be more or less obvious from the foregoing description of the construction of the device. The support 8 together with the hand of the person whose finger nails are to be treated may be allowed to rest on a table or other surface and the particular finger which is to be next worked on is pushed up along the curved surface 12 from the front 15 toward the rear 14 and in between the ears 18 and 19 of the clamp 16. The adjacent fingers are allowed to rest on either side of the support 8 in a more or less relaxed position and at the same time they are capable of holding the support in an upright position with a minimum amount of effort. It should also be noted that while the maximum steadiness is obtained by resting the support and the hand being treated on a table or other support this method of operation is not necessary as the device may be held and wholly supported with one hand while a finger nail of that hand is being treated by means of the other hand. As already stated a large finger will be embraced and held tightly by the ears sooner, that is, nearer the front, than a small one. Since a small finger is pushed in farther before it is held tightly by the ears it will therefore be higher on the curved surface 12 and more accessible for treatment than if it were in the same position as that reached by a large finger.

The operation of the form of the device shown

in Fig. 7 is also more or less obvious from a consideration of the construction heretofore given. The inwardly curved ears or lips 41 and 42, as the finger is pushed rearwardly, tends to pull the flesh down away from the nail even more than with the other forms of the invention and enables the person using the device to apply polish to the finger nail with much less danger of smearing the cuticle without intending to do so.

It is to be understood that the different embodiments of the invention set forth in the foregoing description and shown in the accompanying drawing have been selected for purposes of illustration only and various changes may be made therein without departing from the spirit and scope of the invention as defined in the subjoined claims.

I claim:

1. A combined support and clamp for treating finger nails comprising a support having a curved upper surface adapted to be positioned so that said surface extends downwardly toward the palm of the hand of the user with the end of the finger to be treated resting on the upper end of said curved surface, and a clamp at the upper end of said surface with ears adapted to engage the sides of the end of said finger, said ears being curved along their upper edges so that in cooperation with the curve of said support the depth of the space between said ears decreases the farther a finger is pushed in between said ears.

2. A combined support and clamp for treating finger nails comprising a support having a curved upper surface adapted to be positioned so that said surface extends downwardly toward the palm of the hand of the user with the end of the finger to be treated resting on the upper end of said curved surface, and a clamp at the upper end of said surface with ears adapted to engage the sides of the end of said finger, said ears diverging outwardly toward the hand of the user whereby the space between the ears is progressively less the farther a finger is pushed into the space between said ears.

3. A combined support and clamp for treating finger nails comprising a support having a curved upper surface adapted to be positioned so that said surface extends downwardly toward the palm of the hand of the user with the end of the finger to be treated resting on the upper end of said curved surface, and a clamp at the upper end of said surface with ears adapted to engage the sides of the end of said finger, said ears diverging outwardly toward the hand of the user to provide a space therebetween of varying width and said ears having their upper edges curved to define in conjunction with the curved upper surface of said support a varying depth corresponding with said varying width.

4. In a device of the character described, a support having a lower surface adapted to rest on a table and a narrow upper surface curving gradually from the higher end to the lower end whereby a finger of the person using the device may lie in an upwardly extending direction along said curved surface, a clamp having means for connecting it to said support at the upper end of said curved surface, said clamp having resilient ears extending from said connecting means toward the lower end of said curved surface for engaging the sides of the finger of the person using the device and for holding said finger in place.

5. In a device of the character described, a support having a lower surface adapted to rest on a table and a narrow upper surface curving gradually from the higher end to the lower end whereby a finger of the person using the device may lie in an upwardly extending direction along said curved surface, a clamp having means for connecting it to said support at the upper end of said curved surface, said clamp having resilient ears extending from said connecting means toward the lower end of said curved surface for engaging the sides of the finger of the person using the device and for holding said finger in place, said ears diverging from said connecting means toward the opposite end to provide a space therebetween of gradually increasing width, said ears having upper curved edges to provide in cooperation with the curved upper surface of said support a gradually increasing depth toward the lower end, the width and depth of the space between said ears varying together to accommodate smaller fingers the farther a finger is pushed into the space between said ears.

6. A combined finger support and clamp comprising a support having a substantially flat under surface adapted to rest on a supporting table and having a curved upper surface extending from close to the table at the front end upwardly and rearwardly toward the rear end, a clamp at said upper end of said curved surface formed from sheet material and having an intermediate portion resting on said curved surface and an upwardly extending ear at each end thereof, said ears extending forwardly and downwardly in a substantially parallel but slightly divergent direction toward the front end of said device.

7. In a device of the character described, a substantially flat base adapted to be positioned on the flat surface of a table, a support having a hollow interior opening toward the bottom positioned on said base, said support having a curved upper surface extending from close to said base at one end to some distance away from the base at the other and upper end, a pair of ears connected with and extending upwardly from said upper end of said upper curved surface for holding a finger firmly in position therebetween, and means for detachably securing said support to said base to provide a compartment for the storage of small articles therein.

8. In a device of the character described, a substantially flat base adapted to be positioned on the flat surface of a table, a support having a hollow interior opening toward the bottom positioned on said base, said support having a curved upper surface extending from close to said base at one end to some distance away from the base at the other and upper end, a pair of ears connected with and extending upwardly from said upper end of said upper curved surface for holding a finger firmly in position therebetween, means at one end of said support for hingedly connecting it to said base, and resilient latching means at the other end of said base for detachably holding said base against said support.

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