March 24, 1936. R. M. LANGDON 2,035,323

MANICURE DEVICE

Filed May 19, 1934

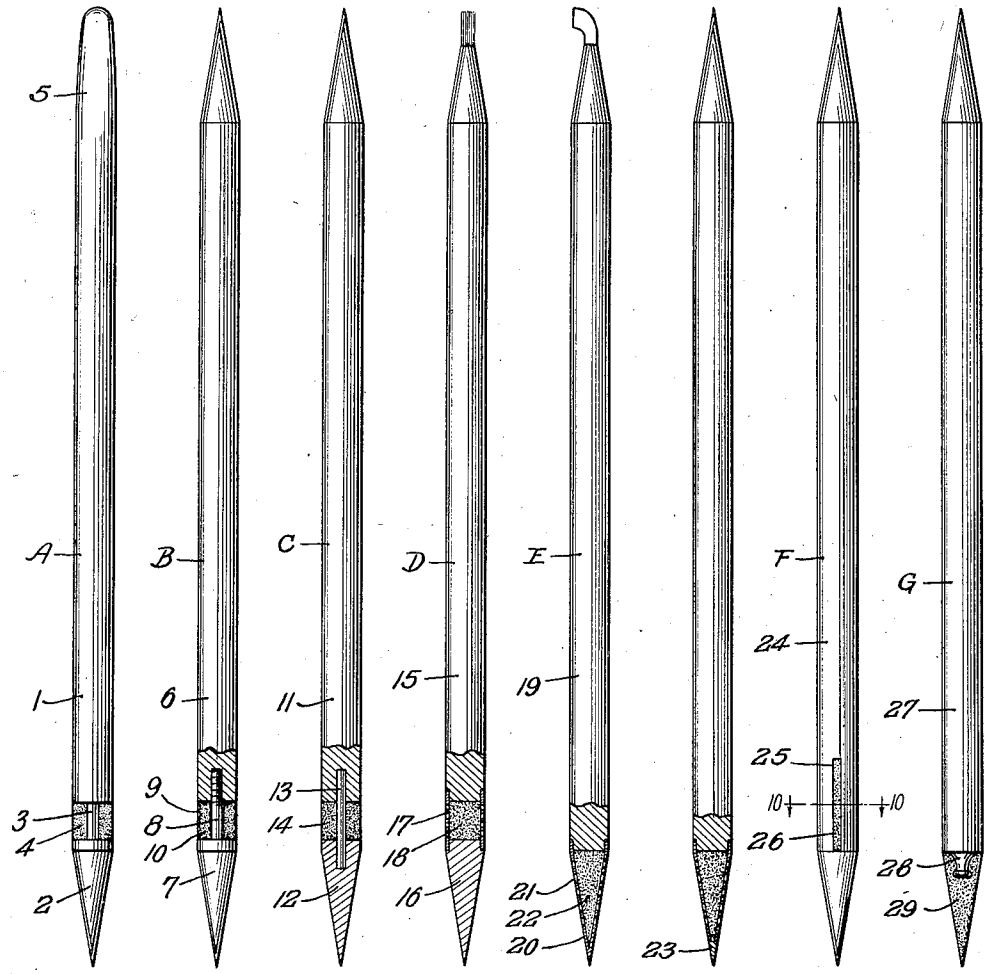


Fig. 1. Fig. 2. Fig. 3. Fig. 4. Fig. 5. Fig. 6. Fig. 7. Fig. 8.

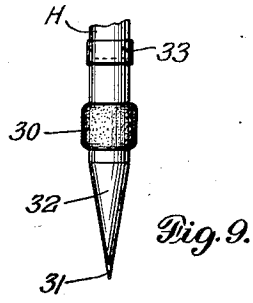


Fig. 9.

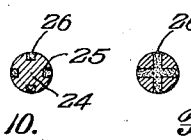


Fig. 10. Fig. 11.

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Patented Mar. 24, 1936 2,035,323

UNITED STATES PATENT OFFICE

2,035,323

MANICURE DEVICE

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Application May 19, 1934, Serial No. 726,551

3 Claims. (Cl. 132—73)

This invention relates to devices, tools and reagents for manicuring nails, and comprehends the combination of a holder for solid soluble cuticle remover or reagent, especially adapted for immediate use by dipping the same or treating the same with a suitable solvent, such as water.

Cuticle reagent has heretofore been applied in liquid form with the use of an orange stick or similar tool, by which the manicurist resorted to dipping the manicuring tool in a bottle of liquid cuticle remover, and applied the same to the nail. The present invention dispenses with the necessity of carrying or having a bottle of liquid cuticle remover in the manicuring set, because it provides for the formation of liquid cuticle remover by a simple operation of dissolving as needed with water or other cuticle solvent, a portion of solid cuticle reagent (either fused or in powdered form) which reagent is carried by a holder, and preferably by a manicuring device having the characteristic uses of an orange stick.

The invention will be better understood by reference to the accompanying drawing in which

Figure 1 is a view in elevation of an orange stick or other manicuring device carrying solid cuticle reagent therewith.

Figure 2 is a view in elevation, partly in cross-section of a tool containing solid cuticle reagent within a circular screen.

Figure 3 is another form shown in elevation partly in cross-section.

Figure 4 is still another form shown in elevation and partly in cross-section whereby a sleeve is used.

Figure 5 is a view in elevation and partly in cross-section showing the cuticle reagent carried in the tip of the holder.

Figure 6 is a modification of the type shown in Figure 5 with the provision of an extraneous point.

Figure 7 is a view in elevation in which the solid reagent is carried in slots at points on the holder.

Figure 8 is a modification with the tip in cross-section showing the solid reagent forming the actual manicuring tip.

Figure 9 is a view in elevation of a modification whereby the solid reagent forms a sleeve or ring around the tool.

Figure 10 is a horizontal sectional view taken along the line of 10—10 of Figure 7.

Figure 11 is a modified form in cross-section along the line 10—10 of Figure 7.

Referring to the various figures in the drawing, and specifically to Figure 1, the manicuring stick A has a body 1 with a working end or tip 2 integrally joined by the attenuated portion 3. This structure may be produced by a machining operation or even a molding process whereby the elements 1, 2 and 3 are formed from a single piece of material. The solid reagent 4 is carried around the portion 3, thus filling up substantially the cut-out space as shown. In using this device A, it is only necessary to dip or wet that part of the same in water, whereby the solid reagent 4 dissolves and flows downwardly over the tip 2 to its pointed end for suitable application to the cuticle being treated. The top end 5 may carry another working tip, or a different type of pointed end; it is preferably web shaped in conformity with the design of the general orange sticks now on the market.

Figure 2 shows the pencil B having a body 6 to which is suitably connected the working end 7 by means of the screw threaded pin 8. Surrounding the pin 8 is a screen or cage 9 of doughnut shape containing the solid cuticle reagent 10 in powdered or fused condition. The operator need only dip the working end in water, which flows through the screen 9 to dissolve some of the reagent and then flow downwardly over the tip 7.

In Figure 3, the pencil C is constructed so that the handle 11 is joined with the working tip 12 through the medium of a steel pin 13 which passes through the solid reagent 14.

In Figure 4, the orange stick D has the body 15 joined to the working end 16 by means of a perforated sleeve 17 which surrounds the solid reagent 18. The tool D is used by dipping in water, the water entering the perforations in the sleeve and flowing out of the same as a liquid cuticle reagent down onto the working end 16.

In Figure 5, the holder E has a body member 19 carrying at its lower end an inverted cone 20 with perforations 21 for permitting water to enter into contact with the solid reagent 22, and thereafter exit as a liquid reagent.

Figure 6 shows a modified form of the device of Figure 5 in which the point of the inverted perforated cone is provided with a piece of orange wood 23.

Figure 7 shows the manicuring stick F in the single piece 24 containing elongated slots 25 preferably milled out in a vertical direction and carrying solid cuticle remover 26 in said slots, as shown in Figure 10. The slots may be continuous throughout the cross-section, as shown in Figure 11.

Figure 8 indicates a manicuring tool G with a holder 27 carrying a depending teat 28 around

which the solid cuticle reagent **29** is compressed or cast in the fused condition.

Figure 9 shows a modification with the holder H having a ring of solid cuticle reagent **30** on the periphery of the body which when dissolved is adapted to flow to the point **31** of the tip **32**.

In all of the figures shown in the drawing, the invention may comprehend the duplication of one or any of the forms at the top end of the tool, so that the person using the tool may utilize both ends of the device, if desired. However, the invention is not limited to any specific arrangement whereby both ends of the tool may be used. The top end may be left blank, for example, or the top tip may be of a different configuration for auxiliary use. A brush may be provided at the top end for brushing away the dead cuticle in the manicuring operation.

In Figure 9, it will be observed that the lower end of the tool or the reagent carrier is provided with a rubber or metallic slip-on connection **33** for detachably securing the same to a holder of any desired form; likewise, the forms shown in Figures 1 to 8 need not be provided with long handles or body portions but may be manufactured as accessories with slip-on connections for detachably securing the same to any suitable orange stick or other manicuring device.

It will be observed that various changes may be made without departing from the scope of the invention; for example, the reagent may be pressed in place in a dense compact condition, or it may be utilized in a loose powdered condition, or it may be granular or in comminuted form. It may be melted and cast into shape, or it may be made plastic and then permitted to dry into the form desired. The active chemical of the reagent may be mixed with an inert ingredient such as fuller's earth, silica sand or the like, to prevent undue deterioration.

The various working ends disclosed in the drawing can be made of suitable materials; orange wood, bakelite, or other condensation products or resins may be used; non-corrosive metals, hard rubber or glass may be used. Any suitable material may be used for either the handle or the working end of the tool, or where a holder alone is desired without a specific working tool. The manicuring implement may be of cylindrical, square or polygon.

Where a certain flexibility of tool end is desired, softer rubber is applicable. The working end of the tool may be made of different material than the body of the tool. These working ends may be made with rubber or other slip-on connections for use with any desired manicuring tool.

The solid cuticle remover may be used without a holder and marketed in stick form as cuticle reagent if desired.

An advantage of use of the reagent in solid phase lies in the possible use of good cuticle reagents which are unstable when maintained in liquid condition for any prolonged time. It also permits the use of solid antiseptics which might be otherwise unstable. The cuticle reagent may be prepared in solid phase by solidifying potassium, sodium or ammonium hydroxides, or other alkali metal hydroxides in admixture with inert diluents, comprising salts of the above compounds, such as carbonates, sulphates and phosphates which can form crystalline salts with water but are used in anhydrous condition. In addition to such salts, cuticle softener and skin emollient are contained in the cuticle reagent, serving also to prevent crystalline film formation on the nails. Such softener may be one or more of the following substances: glycerine, ethylene glycol, triethanolamine, carbitol, or like hygroscopic substances. Turkey red oil, sulfonated oils, soaps and sulfonated alcohols may also be used. A sodium silicate binder is used to keep the various components together, and the stick or pellets may be prepared by melting the hydroxide, adding the remaining ingredients, and casting to desired form

The solid cuticle remover may be prepared by compounding the alkali metal hydroxide, softener, anhydrous salt, and sodium silicate with the proper quantity of water so that subsequent crystallization takes place with formation of the solid product; or the wet mixture may be shaped into rod form and permitted to crystallize thus. The dry constituents can, of course, be shaped into rod form by pressure.

What I claim is:

1. As a new manicuring implement, an orange stick having a pointed end attached thereto, said pointed end being spaced from said orange stick, and dry cuticle reagent filling said space, said cuticle reagent being operable to provide liquid cuticle remover to the pointed end when dipped in a solvent.

2. The structure as set forth in claim 1 in which a metallic screen connects the pointed end to the stick.

3. The structure as set forth in claim 1 in which a pin connects the pointed end to the stick.

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