Feb. 18, 1941. M. LEE ET AL 2,232,396

FINGER NAIL PROTECTOR

Filed Dec. 21, 1938

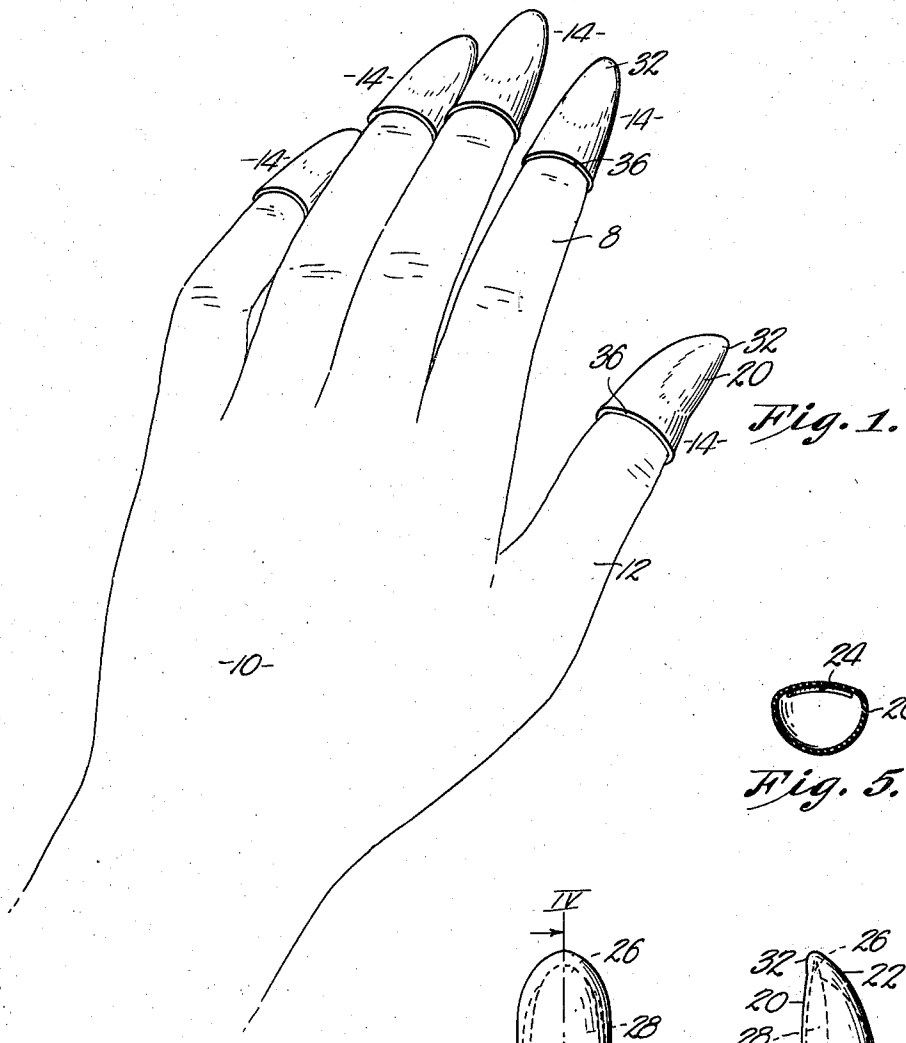

Fig. 1.

Fig. 5.

Fig. 2.

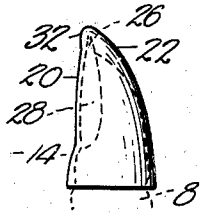

Fig. 3.

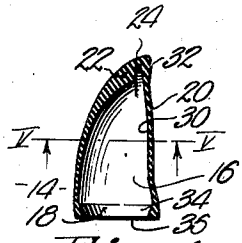

Fig. 4.

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Patented Feb. 18, 1941

2,232,396

UNITED STATES PATENT OFFICE

2,232,396

FINGER NAIL PROTECTOR

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Application December 21, 1938, Serial No. 247,022

1 Claim. (Cl. 2—21)

This invention relates to protectors for the ends of the fingers and thumbs and for the finger and thumb nails, and is particularly useful in guarding the projected end of the finger and thumb nails so that the performance of work will not have a detrimental and damaging effect upon either the appearance or physical condition of the parts of the finger or thumb to which the protector is applied.

One of the important aims of this invention is the provision of a thimble-like protector for the ends of the finger or thumb, that is created of resilient material and which presents a hollow body wherein is formed a compartment and a cavity for the end of the finger and finger-nail respectively, which hollow body is provided with an internal, continuous, specially formed bead at the open end thereof, which will seal the entrance against the introduction of foreign matter into the compartment when the protector is in the operative position.

Another important aim of this invention is the provision of a finger-nail and finger tip protector which may be worn without discomfort and without the possibility of effecting the use of the hand as is the case when relatively long finger stalls or rubber gloves are brought into use in an effort to protect the hands.

A yet further object of the present invention is to provide a protector of the aforementioned character which, when worn, will allow free use of all joints of the fingers; will protect the finger-nails, the cuticle and the finger tips from injury due to the harshness of detergents or other elements being handled; will prevent the possibility of damaging delicate clothing while dressing; will protect the finger tips and nails against damage when performing any type of work; and will be especially useful in protecting the finger tips and nails immediately after a manicure.

A yet further aim of this invention is the provision of a finger and thumb protector that is specially shaped so as to present a body that may be moved onto the ends of the fingers, which body is provided with a cavity in one end thereof to receive the projected end of the finger nail and to protect this said projected end from breakage when performing work that presents liability of damage to the finger-nails and parts of the fingers adjacent thereto.

A large member of minor objects will appear during the course of the following specification, referring to the accompanying drawing wherein:

Figure 1 is a perspective view of a set of finger-nail protectors embodying the present invention, in place on the human hand.

Fig. 2 is a front elevation of one of the protectors.

Fig. 3 is a side elevation thereof.

Fig. 4 is a longitudinal central sectional view through one of the protectors taken on line IV—IV of Fig. 2; and,

Fig. 5 is a cross sectional view taken on line V—V of Fig. 4.

The preferred manner of manufacturing the protector is through a molding process and the substance used is preferably a good grade of rubber, which when flexed, will promptly return to the normal contour imparted thereto by the mold.

A set of protectors should comprise enough hollow bodies to receive the tips of all fingers **8** of the human hand **10** and a protector for the thumb **12**.

The material employed in the construction of the protector should have sufficient resiliency to allow expansion and contraction of the body to a point where finger tips of different sizes may be accommodated. It is contemplated that the protector may be made in three different sizes and that each set shall include protectors for the fingers and a different protector for the thumb. These details of practical application however, do not change the principal characteristics of the protector and an understanding of the protector illustrated in Figs. 2 to 5 inclusive will readily teach not only structural details and requirements, but the manner of use.

Broadly speaking, the protector comprises a hollow thimble-like body **14** of resilient material wherein a compartment **16** is provided, the entrance to which is through the open end **18** of body **14**.

Compartment **16** is formed by a circumscribing side wall **20** and relatively thick, stable end wall **22** wherein is formed a narrow, arched cavity **24** for the reception of the projected end of the finger or thumb nail. This cavity **24** is in communication with compartment **16** and is so disposed to one side of the longitudinal axis of body **14**. Its specific position is at the zone or juncture between wall **20** and wall **22**, and the inner surface of wall **20** adjacent to cavity **24** is in the same plane as the face of wall **22**, which forms one side of cavity **24**. Reference to Fig. 4 will indicate the manner in which cavity **24** is located so that when the protector is being moved to position, the projected end **26** of finger-nail **28** may

be slid along the inner surface 30 of that portion of wall 20 immediately below cavity 24.

The depth of cavity 24 should be great enough to receive all of the projected end 26 of finger nail 28 and the tip of finger 8 should completely fill compartment 16. This is easily accomplished merely by forming body 14 of the protector of a good grade of flexible material which will adhere snugly to the tip of the finger.

End wall 22 is relatively thick as shown in Fig. 4, and it has been found desirable to vulcanize, or otherwise heat treat this end portion of body 14, so that it is relatively stiff and stable enough to preclude accidental bending or flexing when the tip is in position. End wall 22 has an overhanging or projected portion 32 which completes the protective effect.

The open end of body 14 has a bead 34 formed around the inner annular face to provide a sealing element which precludes the introduction of water or other foreign matter into the protector when the same is being worn. This bead 34 is specially formed—it has a downwardly and outwardly inclined inner face which terminates in a sharp, ring-shaped edge 36 so that the finger 8 is gripped, as shown in Fig. 2. This bead 34, therefore, presents a throat which progressively increases in diameter as the closed end of body 14 is approached and when the tip of the finger or thumb is introduced into compartment 16, bead 34 must be distended until the projected end 26 of the nail 28, housed within cavity 24 and the end of the finger is against the inner surface of end wall 22.

The length of body 14 is slightly less than the distance between the end of the finger being protected, and the first joint thereon. This relation between finger and protector is important and when the protector is constructed as hereinabove set down, it will remain in position to serve its purpose and still allow free use of the hand and fingers, even to the extent of allowing all joints of the finger to flex.

Having thus described the invention, what is claimed as new and desired to be secured by Letters Patent is:

A protector of the kind described for the ends of the fingers and thumb comprising a hollow thimble-like body of resilient material provided with a cavity in the closed end thereof for the reception of the finger-nail when the protector is in the operative position, said body having a substantially planar side wall formed to overlie the outer surface of the finger nail and portions of the finger adjacent thereto, and a transversely and longitudinally arched wall formed to lie against the tip and remaining portions of the finger at the end thereof, said last mentioned wall being extended outwardly and downwardly from one side of the substantially planar side wall, said last mentioned wall being relatively thick and stiff at the zone of juncture with the side wall having arcuate, smooth inner and outer surfaces, and progressively decreasing in thickness as the distance from the planar side wall is increased, said cavity being formed in the thick and stiff portion of the transversely and longitudinally arched wall and in parallel relation with the said side wall whereby the end of the finger between the finger nail and ball of the finger is covered with a finger nail supporting mass of material, said arched wall being sufficiently pliable to conform to the contour of the end of the finger as the finger-nail is supported.

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