

Aug. 1, 1933.

M. E. BENTLEY
CLEANING AND POLISHING DEVICE, PARTICULARLY
APPLICABLE FOR MANICURE PURPOSES
Filed Aug. 25, 1931

1,920,738

3 Sheets-Sheet 1

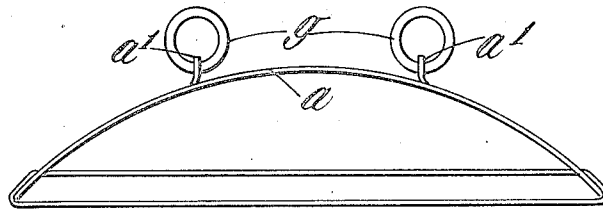


Fig. 1.

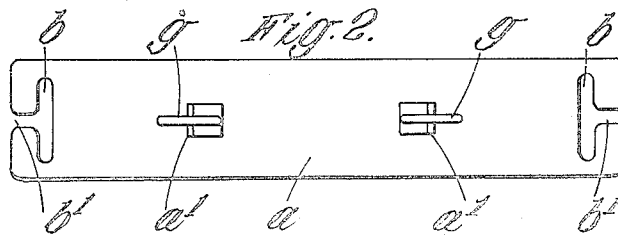


Fig. 2.

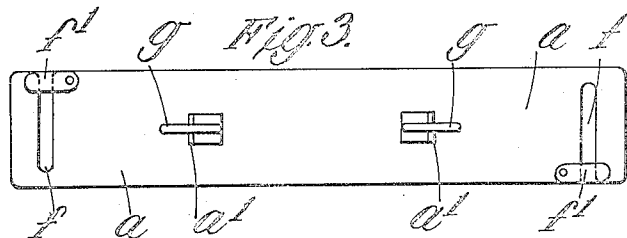


Fig. 3.

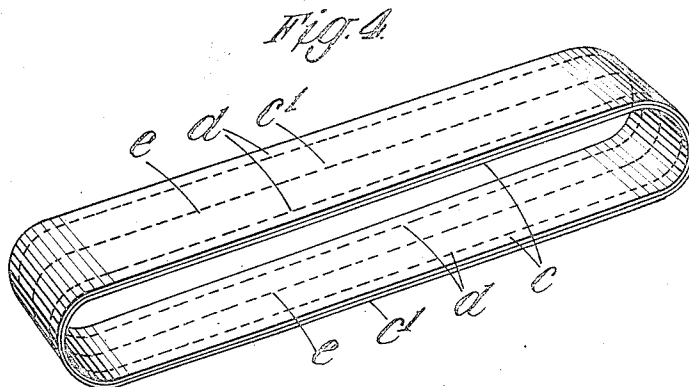


Fig. 4.

Marguerite Edith Bentley

INVENTOR

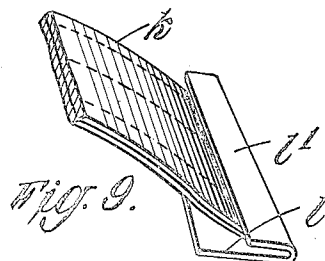
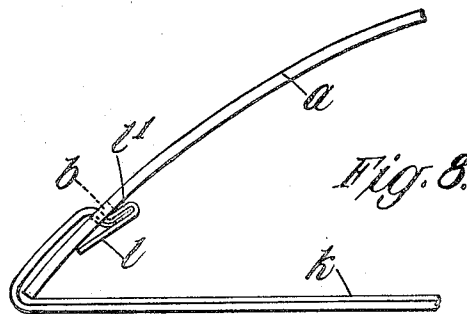
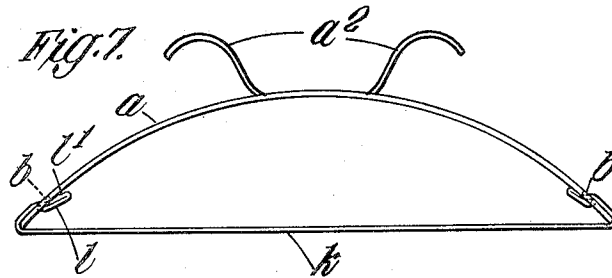
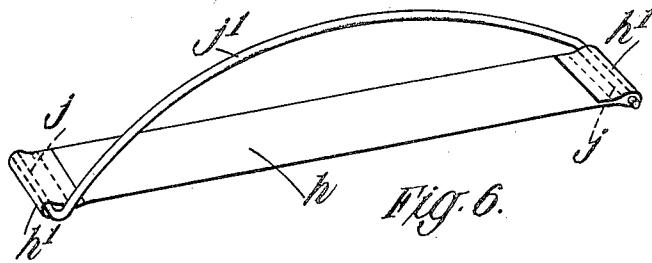
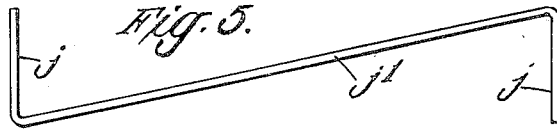
By *Arthur*
her Attorney.

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Marguerite Edith Bentley
INVENTOR

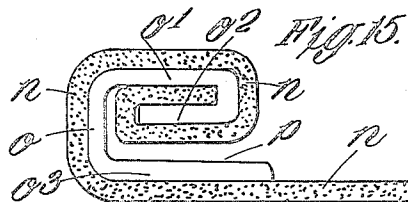
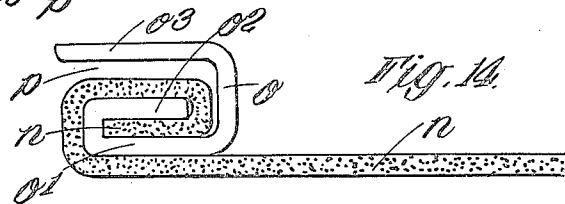
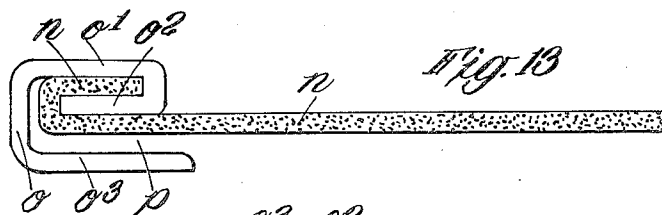
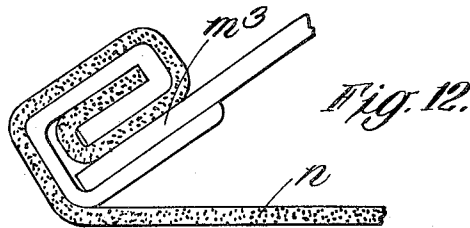
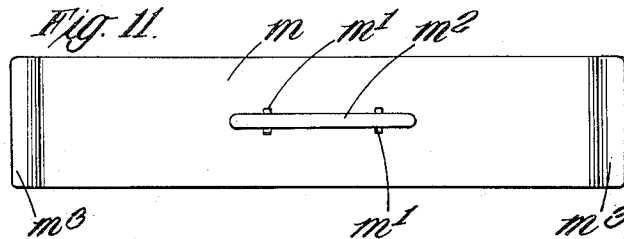
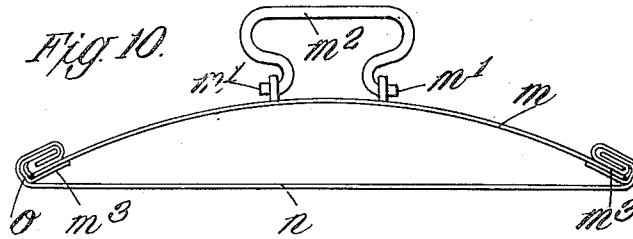
By *Otto H. H. H.*
Her Attorney

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3 Sheets-Sheet 3



Marguerite Edith Bentley
INVENTOR
By *Otto H. Hunk*
her Attorney

UNITED STATES PATENT OFFICE

1,920,738

CLEANING AND POLISHING DEVICE, PARTICULARLY APPLICABLE FOR MANICURE PURPOSES

Marguerite Edith Bentley, Longfield, England, assignor to Tribo Limited, London, England, a Company of Great Britain

Application August 25, 1931, Serial No. 559,184, and in Great Britain November 7, 1930

8 Claims. (Cl. 132—78)

This invention relates to improvements in polishing and cleaning devices, and has for its chief object to provide a simple, cheap and efficient manicure polishing instrument. The invention is not limited, however, to this use, as it is generally applicable to a polishing and/or cleaning device.

According to this invention, the device comprises a bowed or arched carrier, between the ends of which is stretched the polishing or cleaning band. The carrier is preferably made of springy steel or other suitable material so that the polishing or cleaning band is maintained under tension and can thus readily adapt itself to the curvature of the nails or other article being cleaned.

The polishing and/or cleaning band (hereinafter referred to as "the band") may be of endless form, or may be of finite length, as hereinafter described.

Several novel and advantageous methods of securing the band to the carrier are provided by the present invention, and will be fully described in the following detailed description and claimed in the appended claims.

In order that this invention may be the more clearly understood and readily carried into effect, I will proceed to describe the same with reference to the accompanying drawings which illustrate by way of example certain convenient embodiments of this invention, and in which

Figure 1 is a side elevation of one form of the device according to the present invention, and Figure 2 is a plan view of the carrier with the band removed.

Figure 3 is a plan view of a modified form of carrier according to the present invention also with the band removed, and

Figure 4 is a perspective view of the band removed from the carrier.

Figure 5 is a plan view of a further form of carrier according to the present invention, and

Figure 6 is a perspective view illustrating a device utilizing the carrier, as shown in Figure 5.

Figure 7 is an elevation illustrating another form of device according to this invention.

Figure 8 is an elevation of one end of the device shown in Figure 7, and

Figure 9 is a perspective view of one end of the band as used in the form of the device shown in Figure 7, also on an enlarged scale.

Figure 10 is an elevation of a further modified form of device according to this invention.

Figure 11 is a plan view of the carrier used therein.

Figure 12 is an enlarged fragmentary elevation of one end of the device shown in Figure 10, and

Figures 13, 14 and 15 are illustrative views showing the means of mounting the band on to the carrier in the form of the device shown in Figure 10.

Referring now to Figures 1, 2 and 4 of the accompanying drawings, the device therein illustrated comprises an arched or bowed strip of steel *a* curved and, if desired, shaped to form a handle. Near its ends this strip *a* is provided with two slots *b* disposed parallel to the ends of the strip and communicating with the ends of the strip by means of extension slots *b*¹ disposed at right angles to the main slots *b*. The slots *b*, *b*¹ at the ends of the strip *a* are thus of T-shape (see Figure 2). The polishing medium (see Figure 4) comprises an endless band of webbing or the like *c* to which is stitched a length of chamois leather *c*¹, the band, when flat, being of greater length than the distance between the ends of the bowed strip *a*. The webbing *c* is of such a length that the handle portion or carrier *a* has to be bent to allow the band to be slipped into the two slots *b*, it entering the same through the leg portion *b*¹ of the slots. The handle *a* and the polishing band *c*, *c*¹ are thus kept in tension, the band *c*, *c*¹ being stretched across the ends of the strip, as shown in Figure 1. When in use, the polishing band will readily adapt itself to the curvature of the nails which can thus be very easily cleaned. The chamois leather *c*¹ is stitched to the webbing *c* along its two edges, as at *d*, and also at the centre, as at *e*, so as to form a partial reinforcement of the polishing band at the centre where the tension is relaxed to a certain extent due to the open ends of the legs *b*¹ of the T-shaped slots. The centre stitching *e* will also have a beneficial effect in the use of the device in so far as it enables the tips of the nails to be readily polished, the tips of the nails naturally falling into the centre of the polishing band on the stitching.

It will be appreciated that the handle part of the device may be made in any convenient form, preferably, however, so that the polishing band is kept under tension. In place of the T-shaped slots *b*, *b*¹, shown in Figure 2, straight slots *f*, as in the construction shown in Figure 3, may be provided, these slots *f* opening out at one side of the handle *a*, as shown, and small latches *f*¹ may be affixed to the handle *a* in such a manner as to close the open ends of these slots and keep the polishing band in position therein. Or the slots may be disposed in any other suitable manner.

In order to facilitate the manipulation of the device, I may, as shown in Figures 1 to 3, provide two finger rings *g*, spaced apart, around the arched strip or the like, these rings being adapted to receive the fingers of the person using the device and being secured to the device in any suitable manner, say, to small punched-up tongues *a*¹.

Referring now to Figures 5 and 6 of the drawings, the band *h* is provided at each end with transverse loops *h*¹ into which pins or arms *j* at the ends of the carrier *j*¹ are inserted. The said pins or arms *j*¹ are preferably inserted into the loops *h*¹ from opposite sides at the two ends of the band, as shown, and, in this case, the carrier *j*¹ may be reduced to a length of springy wire of elongated Z-form, the centre portion being arched (see Figure 6) to give the necessary tension to the band *h*.

Referring now to Figures 7 to 9 of the accompanying drawings, the carrier *a* is substantially of the form shown in Figures 1 and 2 and is provided at each end with slots *b*, the ends of the band *k* are provided with metal clips or reinforcements *l* which take into the slots *b* and so hold the band in position. Said clips *l* (see Figures 8 and 9) conveniently comprise small U-shaped strips of metal which are pressed tightly on to the ends of the band *k*. In order, however, to cause the clips *l* to lie flat against the carrier *a*, as shown in Figure 7, I make one part of the clip *l*¹, i. e. that part which lies up against the carrier when the band is in position, of shorter length than the other part (see Figures 8 and 9). The band *k* bends out through the slot *b* from the edge of this shorter portion *l*¹ and the shape of the clip causes the same to lie flat against the carrier *a* when the band is under tension and so no obstruction is provided. Punched-up tongues *a*² may be provided on the carrier *a* to facilitate the handling of the device. The band *k* is provided with three rows of stitching *k*¹, *k*² and *k*³, as hereinbefore described, and is generally formed in the same manner as the band *c*, *c*¹ described with reference to Figure 4.

According to a further form of the present invention illustrated in Figures 10 to 15, I dispense with the slots *b*, *b*¹ in the ends of the carrier *a* and use simply a strip of springy steel or the like *m*. Lugs *m*¹ may be punched-up from the strip *m* to receive a handle *m*², or a handle may be provided in any other way. The ends of the strip are turned down slightly, as at *m*³. The ends of the band *n* in this form are provided with clips *o* which are somewhat of U-shape. One of the limbs *o*¹ of the U is turned over inwardly, as at *o*², and the end of the band *n* is clamped between this turned over portion *o*² and the one limb *o*¹ of the U-shaped clip (see Figures 12 to 15). A space *p* is left between this turned over portion *o*² and the other limb *o*³ of the U-shaped clip. In use the clip *o* is rolled up in the end of the band *n*, as shown in Figures 13 to 15, until the band *n*, which starts in the clamped portion *o*¹, *o*² of the clip *o*, lies entirely around the outside of the clip (see Figures 12 and 15). At both ends of the band *n* there are left spaces *p* and into these spaces are sprung the ends *m*³ of the carrier *m* which is bowed in order to facilitate this entry. The tendency of the carrier *m* to spread at its ends keeps the band taut, and since the end *m*³ of the carrier *m* bears on the metal of the clip *o*, Figure 12, there is no possibility of the band *n* being injured by the carrier *m*. Those portions of the band which lie around the ends of the

clips *o* will enable the device to be used for getting into small corners or crevices.

The band may be made of chamois leather, emery cloth or the like in accordance with the particular use to which the device is to be put.

Although this invention is particularly intended for use as a manicure polishing instrument, it will be obvious that it is also applicable as a cleaning device, for example, if the polishing band be replaced by a band of emery cloth, the device may be used as a cleaning instrument for cleaning the heads of golf clubs or the like.

I claim:—

1. A cleaning or polishing device, more particularly intended for manicure purposes, comprising a single piece holder of springy material, a band and means for attaching said band to said holder, the band being kept in tension by the springiness of the holder.

2. A cleaning or polishing device, more particularly intended for manicure purposes, comprising a single piece holder of springy material, an endless band and means for mounting said endless band on said holder, the band being kept in tension by the springiness of the holder.

3. A cleaning or polishing device, more particularly intended for manicure purposes, comprising a single piece holder of springy material, a band comprising a facing of chamois leather and a backing of fabric and means for attaching said band to said holder, the band being kept in tension by the springiness of the holder.

4. A cleaning or polishing device, more particularly intended for manicure purposes, comprising a single piece holder of springy material having at the ends thereof slots, a band, metal clips at the ends of said band to take through said slots and hold the band on said holder, the band being kept in tension by the springiness of the holder.

5. A cleaning or polishing device, more particularly intended for manicure purposes, comprising a single piece holder of springy material, finger loops to said holder, a band and means for attaching said band to said holder, the band being kept in tension by the springiness of the holder.

6. A cleaning or polishing device, more particularly intended for manicure purposes, comprising a single piece holder of springy material having slots therein, a band, metal clips embracing the ends of said band and having one leg shorter than the other so that when the band is in position on the holder the clips lie flat against the inner face of the same, the band being kept in tension by the springiness of the holder.

7. A cleaning or polishing device, more particularly intended for manicure purposes, comprising a single piece holder of springy material, a band and U-shaped clips at the ends of the band, into which the ends of the holder take to hold the band under tension.

8. A cleaning or polishing device, more particularly intended for manicure purposes, comprising a single piece holder of springy material, a band and U-shaped clips to which the band is attached by turned over parts of one of the limbs of said U-shaped clips, the band, when in use, surrounding the outside of said clips, and the ends of the holder taking into said clips to hold the band under tension.