

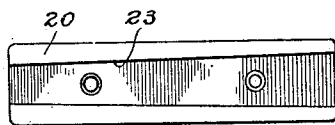
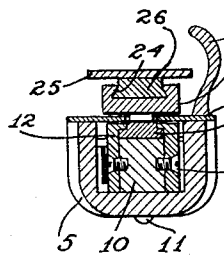
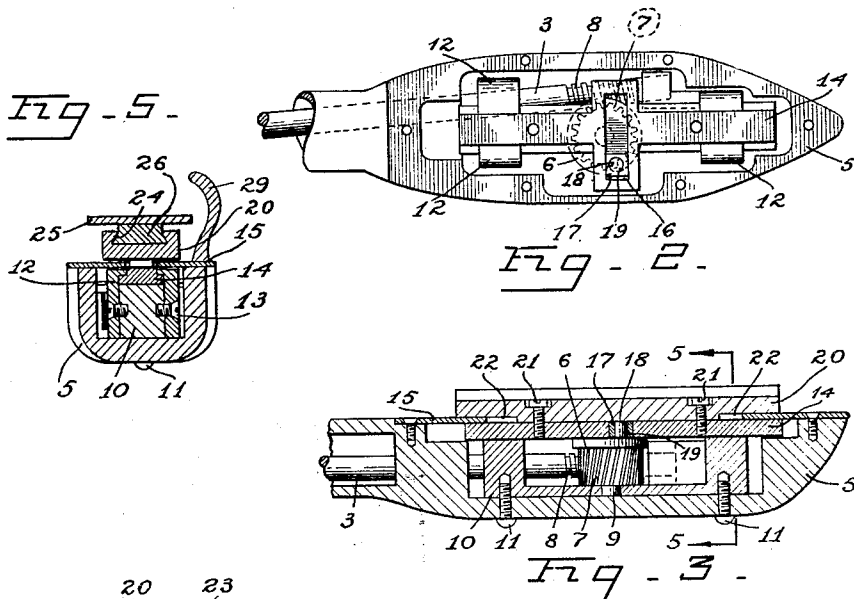
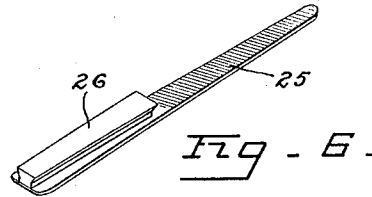
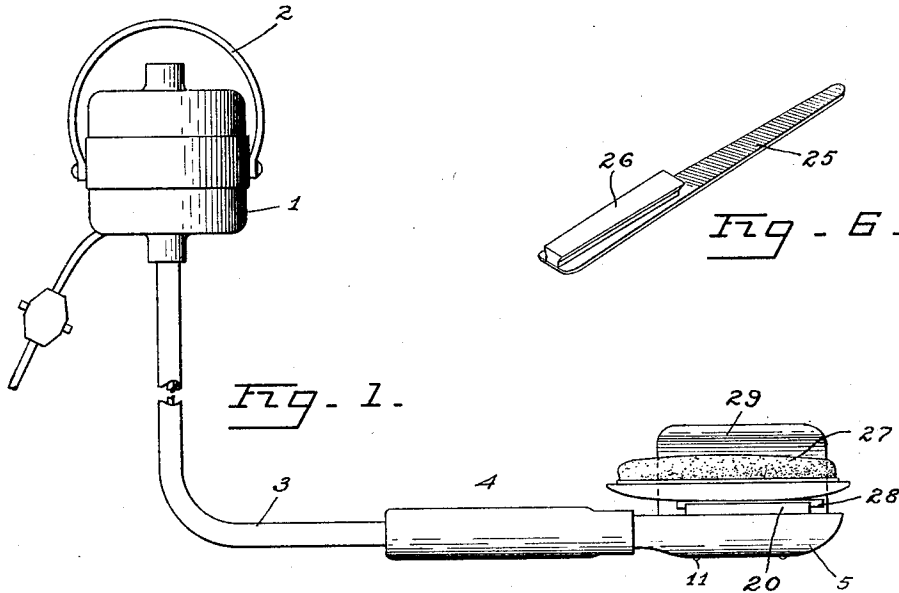
Jan. 3, 1933.

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1,892,867

ELECTRIC FINGER NAIL FILE AND BUFFER

Filed June 1, 1931



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ELECTRIC FINGER NAIL FILE AND BUFFER

Application filed June 1, 1931. Serial No. 541,420.

My invention relates to improvements in electric finger nail files and buffers and it consists of the combinations, constructions and arrangements hereinafter described and claimed.

An object of my invention is to provide an electric finger nail file and buffer in which the buffer and finger nail file are quickly attachable to and detachable from a support that is designed to be reciprocated. Novel means is used for reciprocating the support at the desired speed so as to provide an efficient device. The finger nail file projects beyond the support so that the edges of the file may be used for gaining access to all parts of the nail.

The device is portable and is extremely simple in construction. The device is not only adapted for manicuring purposes, but is also designed for use as a portable sandpapering machine and the like.

Other objects and advantages will appear in the following specification, and the novel features of the device will be particularly pointed out in the appended claims.

My invention is illustrated in the accompanying drawing forming a part of this application, in which

Figure 1 is a side elevation of the device shown operatively connected to a motor by a flexible shaft;

Figure 2 is a plan view of the device with the cover plate removed;

Figure 3 is a longitudinal section through the device;

Figure 4 is a top plan view of the support;

Figure 5 is a section along the line 5-5 of Figure 3, and Figure 6 is a perspective view of a removable block with a tool.

In carrying out my invention I make use of an electric motor 1 which may be supported by any means such as by a bail 2. A flexible shaft 3 extends from the motor 1 and is connected to the device hereinafter described.

The device comprises a handle 4 that supports a casing 5. The casing or housing 5 has an eccentric 6 mounted therein, this eccentric having an integral worm gear 7 (see Figure 3). A worm 8 (see Figure 2) formed on the end of the flexible shaft 3 meshes

with the worm gear 7 and is rotated by the motor 1. The worm gear 7 has a shaft 9 that is journaled in a block 10 secured in the casing 5 by screws 11 or other suitable fastening means. Figure 5 shows how the block 10 has L-shaped members 12 secured thereto by screws 13 and slidably receiving a reciprocating member 14 that is in the shape of an inverted T in cross section. The member 14 slides on the top of the block 10 and is held against vertical movement by the L-shaped guides 12.

A cover plate 15 removably secured to the casing or housing 5 overlies the member 14. The member 14 has a slot 16 (see Figure 2) that extends at right angles to the length of the member and this slot receives a block 17 which in turn has a bore 18 for receiving a pin 19 that is eccentrically mounted on the eccentric 6. It will be seen from this construction that a rotation of the worm 8 will cause the eccentric 6 to reciprocate the member 14. A support or holder 20 is removably secured to the member 14 by screws 21 and has recesses 22 for receiving the cover plate 15 (see Figure 3). The top of the support 20 is provided with a wedge-shaped groove 23 whose walls 24 (see Figure 5) are also wedge-shaped. The support 20 is designed to hold tools such as a finger nail file, a buffer, etc.

The finger nail file is shown in Figure 6 and it will be noted that the file 25 is secured to a block 26 that is wedge-shaped and has inclined sides so as to be received in the support 20 and be wedged in place. Figure 5 shows the block 26 as spacing the file 25 a sufficient distance above the support 20 to space the edges of the file above the support 20.

Figure 1 shows a buffer 27 having a block 28 shaped for entering the wedge-shaped groove 23 in the support 20.

From the foregoing description of the various parts of the device, the operation thereof may be readily understood.

The device may be placed upon a dressing table or the like and when the motor 1 is connected to a source of current not shown the support 20 will reciprocate the tool temporarily secured to the support. The recip-

rocations are fast enough to efficiently file the nails when the finger nail file is used. In like manner the buffer is reciprocated rapidly enough for applying a polish to the nails, and giving a luster thereto.

Although I have shown and described one embodiment of my invention it is to be understood that the same is susceptible of various changes and I reserve the right to employ such changes as may come within the scope of the claims hereto annexed.

In Figures 1 and 5 I show a guard 29 that projects above the casing 5 in the manner shown. The person using the device places his fingers against this guard and this prevents their moving with the reciprocated member. In other words the guard provides a stationary support against which the fingers may be pressed while the file or buffer is being used.

If desired the block 26 may be made out of wood and the file 25 may be made out of paper with a sanded surface. The sand paper may be of different degrees of coarseness so as to rapidly file the finger nail or to slowly file the finger nail. A person may have a set of blocks 26 and sand paper files 25 of different degrees of coarseness for different types of work. When the sand paper wears out a new file can take its place.

I claim:

1. In combination, a movable handle, a casing carried thereby, a reciprocable support carried by the side of the casing and having a wedge-shaped groove, and a block removably receivable in the groove and carrying a tool, said tool being reciprocated in the direction of the length of the handle.

2. In combination, a casing, a rotatable worm, a worm gear meshing with the worm and having an integral eccentric with a pin mounted off center, a block rotatable on the pin, a reciprocable member having a transversely extending slot for slidably receiving the block, guides for the member, a support carried by the member, and a manicuring tool removably secured to the support.

3. In combination, a motor, a flexible shaft operatively connected thereto, a manicuring device having a handle for receiving the flexible shaft, a casing carried by the handle, a worm operated by the flexible shaft, a worm gear meshing with the worm and having an integral eccentric with a pin mounted off center, a block rotatable on the pin, a reciprocable member having a transversely extending slot for slidably receiving the block, guides for the member, a support carried by the member, and a manicuring tool removably secured to the support.

4. In combination, a motor, a flexible drive shaft operatively connected to the motor, a handle disposed at the other end of the flexible drive shaft, a casing carried by the handle, a reciprocable member carried by the side

of the casing and being operatively connected to the drive shaft, and a tool removably carried by the reciprocating member and having a movement in the direction of the length of the handle.

5. In combination, a motor, a flexible drive shaft operatively connected to the motor, a handle disposed at the other end of the flexible drive shaft, a casing carried by the handle, a reciprocable member carried by the side of the casing and being operatively connected to the drive shaft, a tool removably carried by the reciprocating member, and a finger rest carried by the casing and being disposed adjacent to the tool.

6. In combination, a handle, a flexible drive shaft extending therethrough, a casing aligned with and carried by the handle, a reciprocable member carried by the side of the casing and being operatively connected to the shaft, and a tool removably secured to the member and having a reciprocating movement parallel to the length of the handle.

WILLIAM H. BURR.