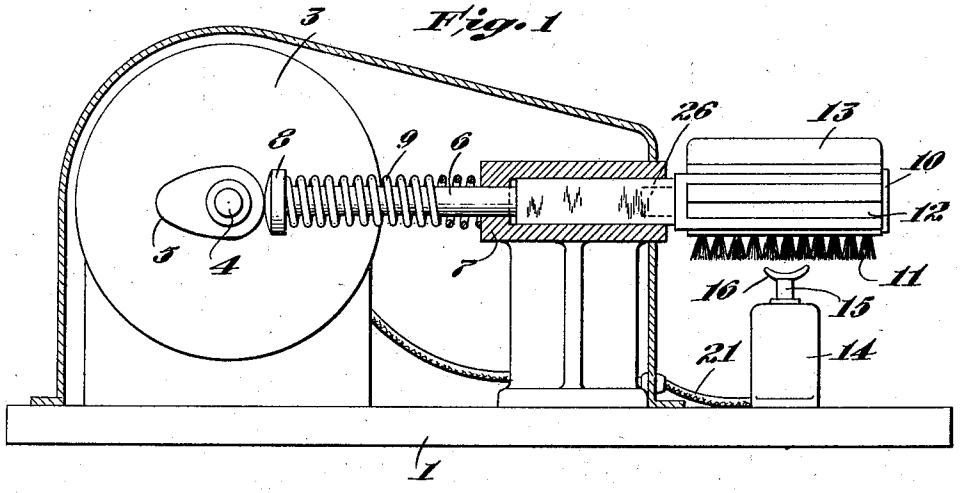
June 16, 1931. C. J. FOERSTER 1,810,701

FINGER NAIL POLISHER

Filed Aug. 28, 1930

Fig. 1



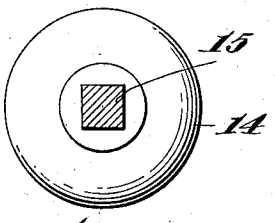


Fig. 3

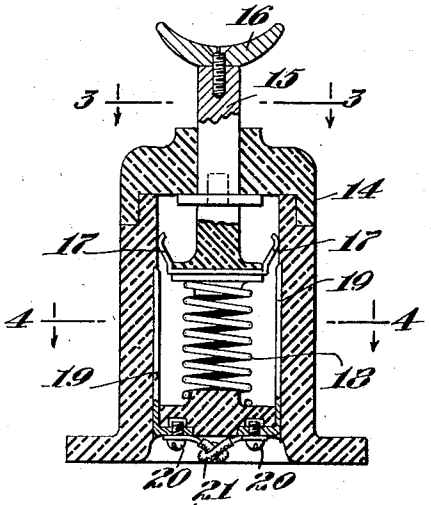


Fig. 2

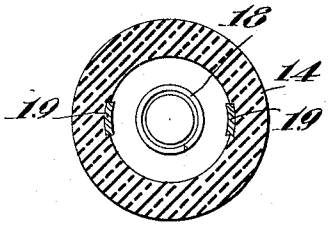


Fig. 4

Inventor
Charles J. Foerster
by Henry K. Thomson
his Atty.

Patented June 16, 1931 1,810,701

UNITED STATES PATENT OFFICE

CHARLES J. FOERSTER, OF NEWTON, MASSACHUSETTS

FINGER NAIL POLISHER

Application filed August 28, 1930. Serial No. 478,326.

This invention relates to apparatus for polishing or brushing finger nails, and pertains more particularly to improvements in devices of the type described and claimed in my copending application Serial No. 395,709, filed September 27, 1929. Said application discloses improved apparatus automatically operated to reciprocate a brush or other polishing device over the nail of a finger which rests upon a support comprising a pivoted rest normally urged upwardly by a suitable spring, the polishing tool being reciprocated by an electric motor or other driving means.

The present invention has for its principal object the provision of an improved type of finger rest which is provided with a switch for closing an electric circuit connected with the driving motor, whereby the motor is started by placing the finger on the rest.

A recommended embodiment of the invention is illustrated in the accompanying drawings, in which:

Fig. 1 is a side view of the improved apparatus, with certain parts shown in section;

Fig. 2 is an enlarged sectional view of the finger rest and switch; and

Figs. 3 and 4 are sections taken on lines 3—3 and 4—4 respectively of Fig. 2.

The apparatus comprises a base 1, having a casing 2 mounted thereon; an electric motor of any usual type housed within the casing and having a shaft 4 provided with an eccentric member or cam 5; a plunger 6 reciprocable within a bearing 7 supported within the casing and projecting therefrom, one end of the plunger having a head 8 held in operative relation to the cam 5 by means of a helical spring 9, and the opposite end of the plunger having an axial recess tightly receiving the reduced end 26 of a removable polishing or buffing tool 10 which has a plurality of brushing, polishing or sanding members affixed to its respective sides. Said members may include a brush 11, a filing or sanding element 12, and a buffer 13.

A casing 14 of insulating material is mounted upon the base 1 beneath the polishing tool, and a stem or plunger 15 is journaled for vertical movement in said casing. The upper end of the stem extends outwardly of the casing and is provided with a finger rest 16 disposed in proximity to the bottom face of the tool; and the base of the stem has a pair of connected spring clips 17 extending upwardly and outwardly toward the casing 14. A coiled spring 18 interposed between the base of the stem and the bottom of the casing normally urges the stem upwardly as shown in Fig. 2.

A pair of spaced contacts 19 are mounted within the casing in the path of movement of the conducting clips 17, and said contacts are connected through terminals 20 and a cable 21 in the circuit of the motor 3, which is supplied with electric current from a suitable source. The clips or conductors 17 and the contacts 19 thus constitute a normally open switch (owing to the action of the spring 18) which is closed when the stem is moved downwardly by placing a finger on the rest 16 to carry the conductors 17 into sliding engagement with the contacts 19. Such sliding contact allows the stem to be depressed a substantial distance while maintaining the contact and holding the electrical circuit closed to operate the motor.

Thus the closing of the switch by placing the finger to be polished upon the finger rest 16 closes the motor circuit, the shaft 4 and its cam 5 are rotated, the plunger 6 is reciprocated, and the polishing member is moved across the finger nail. When the nail is sufficiently polished and the finger is removed from the rest, the switch is opened automatically by the spring 18. Hence any possibility that the motor will be left running when the apparatus is not in use is avoided.

I claim:

1. Apparatus of the class described comprising a reciprocable polishing tool, an electric motor operatively connected to the tool, means for reciprocating the tool upon operation of the motor, a finger rest mounted beneath the tool, yielding means normally urging the rest toward the tool, and a switch connected in the circuit of the motor and actuable upon depression of the rest against said yielding means for closing said circuit to start the motor, the switch being opened by

said yielding means when the finger is removed from the rest.

2. Apparatus of the class described comprising a reciprocable polishing tool, an electric motor operatively connected to the tool, means for reciprocating the tool upon operation of the motor, a casing mounted beneath the tool, a stem movable through said casing and having a finger rest at its upper end normally disposed adjacent the tool, a spring in said casing bearing against the lower end of the stem and tending to move the stem upwardly, and switch members carried by the stem and the casing respectively, one of said members being connected in the circuit of the motor, said switch members being mutually engaged upon depression of the stem by placing a finger on the rest to close said circuit and start the motor, the switch being opened by said spring when the finger is removed.

In testimony whereof I affix my signature.

CHARLES J. FOERSTER.