

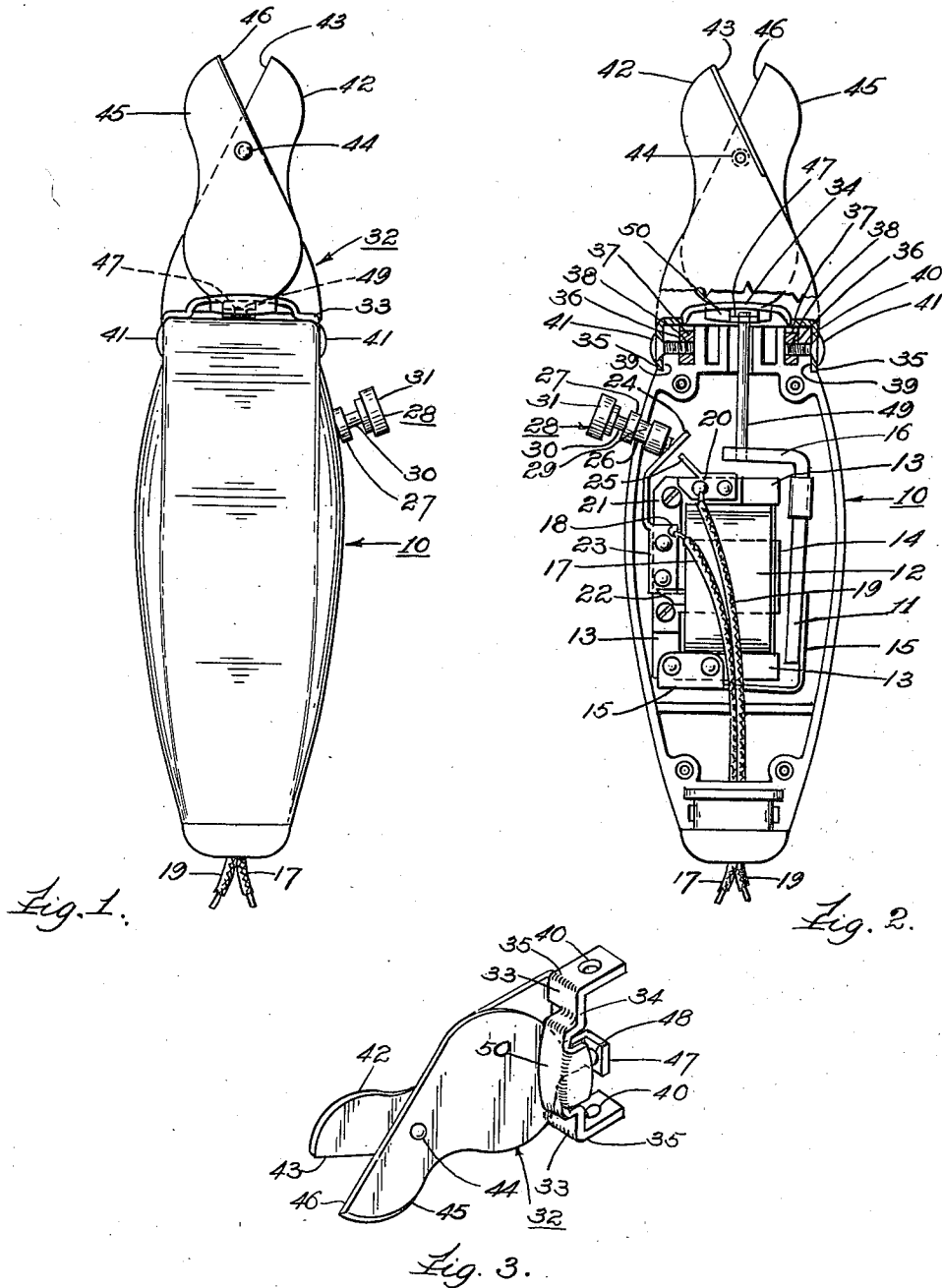
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E. J. WIGGINS

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ELECTRIC SCISSORS

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Inventor
Edward J. Wiggins
by James R. McKnight
Attorney

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ELECTRIC SCISSORS

Edward J. Wiggins, Chicago, Ill., assignor, by
mesne assignments, to General Transformer
Corporation, Chicago, Ill., a corporation of
Illinois

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3 Claims. (Cl. 30—228)

This is a divisional application from the original Serial No. 358,364 filed September 25, 1940, for Electric scissors, now Patent 2,225,580 of December 17, 1940.

My invention relates to an electrically operated device of the vibrator type constructed to operate as a pair of scissors, and to a head for mounting the blades onto the casing in contact with the operating mechanism.

Among the objects of my invention is to provide an electric scissors for cutting paper, silk, cotton, wool and other light and heavy materials, and to create a head for centrally mounting the blades onto the casing and for proper engagement with and operation by the driving mechanism; and such other objects, advantages and capabilities as will later more fully appear and which are inherently possessed by my invention.

While I have shown in the accompanying drawing a preferred form of my invention, yet I wish it understood that the same is susceptible of modification and change without departing from the spirit of my invention.

Referring to the drawing, Fig. 1 is a face view of a device embodying my invention; Fig. 2 is a front elevational view of my device with the cover removed, and Fig. 3 is a perspective view of my complete scissors head.

The embodiment selected to illustrate my invention comprises a hollow casing 10, preferably of two parts, in which is housed a vibrator mechanism 11 having a coil 12 and a plurality of E shaped laminations 13. The core 14 of said laminations 13 extends within the hollow portion of said coil 12.

A resilient supporting bracket 15 is attached to said laminations 13 and also to armature 16.

A lead wire 17 is attached at one end to terminal 18 of coil 12 and leads at its other end through the casing 10 to an electrical source of supply. Another lead wire 19 is attached at one end to a stationary switch member 20 which is attached to an L shaped insulated member 21 which rests on and is attached to laminations 13. The other end of lead wire 19 leads through casing 10 to an electrical source of supply.

A coil terminal 22 connects coil 12 and switch support 23 which is attached to L shaped insulated member 21. Switch support 23 has a movable contact blade 24, positioned adjacent an extension 25 of stationary switch member 20, but normally spaced therefrom.

In casing 10 is an opening 26 adapted to receive the collar 27 of push member 28. The collar 27 has a circular groove 29 which receives

the wall of the casing 10. Push member 28 has a shank 30 on which collar 27 is slidably mounted. Push button member 28 also has a head 31.

My improved head structure 32 for holding the cutting blades in operative position comprises a bracket 33 which is provided with a central portion 34 connecting two end portions 35 bent substantially at right angles thereto.

To attach my head 32 I provide a pair of oppositely disposed slots 36 within casing 10 and on opposite sides thereof. Within slots 36 are fitted nuts 37 having screw threaded apertures 38. End portions 35 of bracket 33 are fitted within notches 39 on either side of casing 10 and have apertures 40. Screws 41 pass through said apertures 40 and 38 for holding the head 32 removably in position on the casing 10.

Extending outwardly from bracket 33 and integral therewith is a stationary blade member 42 having an upper and inner edge 43 sharpened at a shearing angle as shown in Fig. 3. Pivotally attached to stationary member 42 by pin 44 is a cooperating blade member 45, which has an upper inner edge 46 also sharpened at a shearing angle as shown in Fig. 3.

For giving the blade member 45 the desired pivotal movement with respect to the stationary blade member 42, such member 45 is provided with a lug 47 formed integrally therewith and extending at right angles with respect thereto. This lug is provided with an opening 48 therein in position to receive the end portion of a pin or shaft 49 forming an extension of the armature 16, so as to cause the blade member 45 to oscillate about the pivot pin 44 when the armature is given a vibratory movement through the medium of the magnet. In the arrangement shown, the central portion 34 of the bracket 33 is offset outwardly to provide a guard portion 50 which is made of increased width so as to be adapted to be bent at an angle about the upper end portion of the shaft 49 and the lug 47.

In the construction as above described, a very satisfactory mounting arrangement is provided for the blades 42 and 45, whereby they may be held very firmly in operative position. As is shown in Fig. 2, both the crossbar portion 34 of the mounting bracket 33 and the turned end portions 35 of the bracket have flat face engagement with portions of the casing 10 so as to enable the screws 41 to hold the bracket strongly in rigid position for operation. Whenever the removal of the parts is desired, this can be accomplished readily and quickly by the removal of the screws 41, leaving the parts free from the

casing but still in compact unit form. When the unit comprising the bracket and the cutting blades is to be replaced into position, the lug 47 is brought easily into engagement with the pin 49, after which the screws 41 are inserted for making the assembly complete.

Having thus described my invention, I claim:

1. In an electrically operated scissors having a casing with an opening in its top portion, an electro-magnetic mechanism housed within said casing and connected to an electrical source of power, an armature positioned within said casing to receive vibratory action from the electro-magnetic mechanism, the upper end of said armature extending to the open top of said casing, a head comprising a bracket extending across the upper end of said armature and rigidly attached to said casing adjacent its top portion so as to be readily detachable therefrom, a stationary blade extending outwardly from said bracket, and a movable blade pivotally attached to said stationary blade, said movable blade having an extension engaging the upper end of said armature and adapted upon operation of said armature to be moved thereby.

2. In an electrically operated scissors having a casing with an opening in its top portion, an electro-magnetic mechanism housed within said casing and connected to an electrical source of power, an armature positioned within said casing to receive vibratory action from the electro-magnetic mechanism, the upper end of said armature extending to the open top of said casing, a head comprising a bracket extending across above the casing and the armature and rigidly attached to the casing so as to be readily detachable there-

from, a stationary blade extending outwardly from said bracket, a movable blade pivotally attached to said stationary blade, and means providing a readily releasable articulated connection between said movable blade and said armature for causing the armature to actuate the movable blade.

3. In an electrically operated scissors having a casing with an opening in its top portion and notches in its upper side portions, an electro-magnetic mechanism housed within said casing and connected to an electrical source of power, an armature positioned within said casing to receive vibratory action from the electro-magnetic mechanism, the upper end of said armature extending through the open top of said casing, a head comprising a bracket having right angled end portions fitted within said notches in said casing, means for holding said end portions in said notches with the bracket engaging the casing for holding the bracket rigidly in position and arranged for enabling easy removal and replacement of the bracket, a stationary blade formed integrally with the bracket and extending upwardly therefrom, a movable blade pivotally attached to said stationary blade, and means comprising a lug carried by said movable blade providing an articulated connection between said movable blade and said armature for causing the armature to actuate said movable blade, said bracket having a raised central portion between said end portions extending above said lug and the upper end of the armature and serving as a guard therefor.

EDWARD J. WIGGINS.