

Dec. 13, 1955

S. P. WINTHER

2,726,445

ELECTRIC SHAVER

Filed Dec. 8, 1953

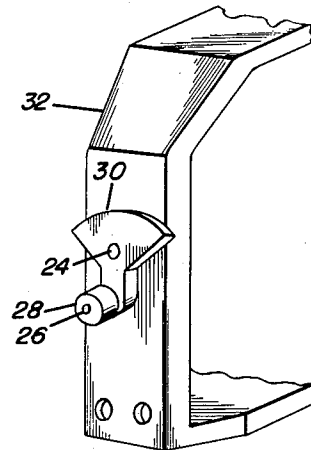
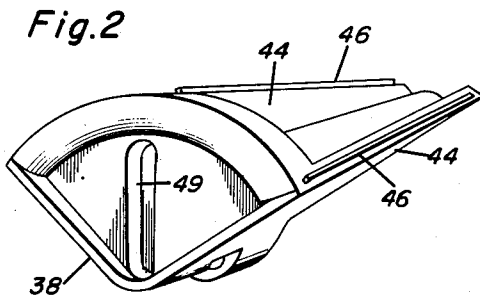
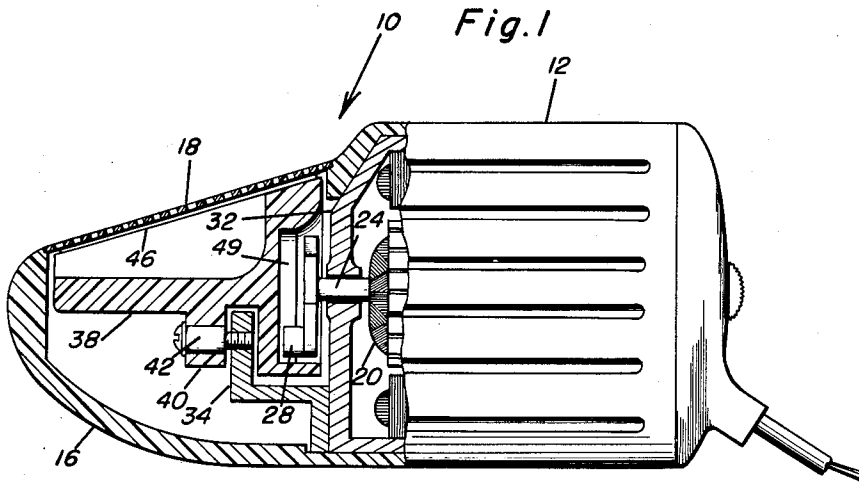
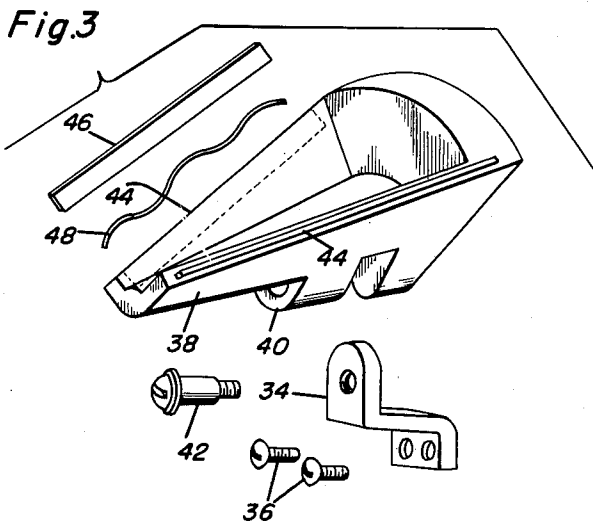


Fig. 4



Simon P. Winther
INVENTOR.

BY *Almonce A. Olson*
and *Harvey B. Jackson*
Attorneys

1

2,726,445

ELECTRIC SHAVER

Simon P. Winther, Chicago, Ill., assignor of forty per cent to Leslie Krueger, Chicago, Ill.

Application December 8, 1953, Serial No. 396,947

1 Claim. (Cl. 30—43)

This invention relates to new and useful improvements and structural refinements in electric shavers, and the principal object of the invention is to provide a shaver which is very simple in construction, efficient in operation and which may be readily disassembled for purposes of convenient replacement and cleaning of its various components.

Particularly, this invention is a modification of my earlier invention relating to similar subject matter disclosed in my previous application, Serial No. 322,945, filed November 28, 1952, now Patent No. 2,700,816, granted February 1, 1955.

An important feature of the invention resides in the provision of an electric shaver with an oscillatory cutter head, together with novel means for imparting movement to the oscillatory head, while another feature of the invention resides in the specific construction of the head per se.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a side elevational view of the invention, partially broken away so as to reveal its construction;

Figure 2 is a perspective view of the cutter head per se;

Figure 3 is an exploded perspective view of the cutter head, cutter blade and mounting bracket; and

Figure 4 is a fragmentary perspective view illustrating the crank pin, roller and counterweight on the drive shaft of the motor.

Referring now to the accompanying drawings in detail, the electric shaver is designated generally by the reference character 10 and, in general respects, is similar to my earlier invention disclosed in application, Serial No. 322,945.

Thus, the shaver embodies in its construction a suitable housing 12 which is provided with a tapered extension 16, the latter being equipped with a foraminous top wall 18.

The top wall 18 is intended to be brought in contact with the skin on which whiskers are to be shaved, and it is to be understood that the top wall is of a substantially semi-circular cross-section.

A suitable electric motor designated generally by the reference character 20 is mounted in the housing 12 and

2

includes a drive shaft 24 which projects into the extension 16. The drive shaft 24 is provided with a crank pin 26 carrying an antifriction roller 28, and a suitable counterweight 30 is formed integrally with the crank pin 26 for purposes of balancing the same.

As is clearly shown in Figures 1 and 4, the drive shaft 24 is rotatably journaled in the frame 32 of the motor 20 and an angulated bracket 34 is secured by suitable screws 36 to the frame 32, for purposes hereinafter described.

An oscillatory, tapered cutter head 38 of substantially V-shaped transverse section is provided at the underside of the bight portion thereof with a bearing 40 which receives a spindle or fulcrum screw 42 carried by the bracket 34. In this manner, the head 38 is free to oscillate in the housing extension 16, and the head 38 includes a pair of convergent side members 44 carrying cutter blades 46 which are urged by the springs 48 against the inner surface of the foraminous wall 18.

The relatively large end wall of the head 38 is provided with a diametrically extending slot 49 which operatively receives therein the roller 28 of the crank pin 26.

Accordingly, when the motor 20 is energized, rotation of the drive shaft 24 will impart an oscillatory movement to the cutter head 38, so that the cutter blade 46 will travel back and forth on the underside of the foraminous wall 18 to effect the shaving action.

From the foregoing, the construction and operation of the device will be readily understood and further explanation is believed to be unnecessary. However, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the appended claim.

What is claimed as new is as follows:

An electric shaver comprising: a housing including a substantially tapered forward extension comprising a foraminous wall, a frame mounted in the housing, an electric motor in the housing including a shaft journaled in the frame, an angular bracket on the frame projecting into the extension, a spindle on said bracket, a forwardly tapered cutterhead of substantially V-shaped transverse section mounted for oscillation in the extension and including a bearing at an intermediate point on its bight portion journaled on the spindle, said cutterhead further including a rear end wall having a groove therein, and a crank pin on the shaft engaged in the groove for operatively connecting the motor to the cutterhead for oscillating same, said cutterhead still further including a plurality of blades operable on and cooperable with the foraminous wall.

References Cited in the file of this patent

UNITED STATES PATENTS

2,055,517	Branstetter	Sept. 29, 1936
2,234,891	Bruecker	Mar. 11, 1941
2,321,932	Nyhagen	June 15, 1943
2,387,756	Henningesen	Oct. 30, 1945