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3,069,772

ELECTRIC DRY SHAVER HEAD WITH CHANGEABLE CUTTING
HEADS OF VARYING SHARPNESS

Filed April 14, 1959

2 Sheets-Sheet 1

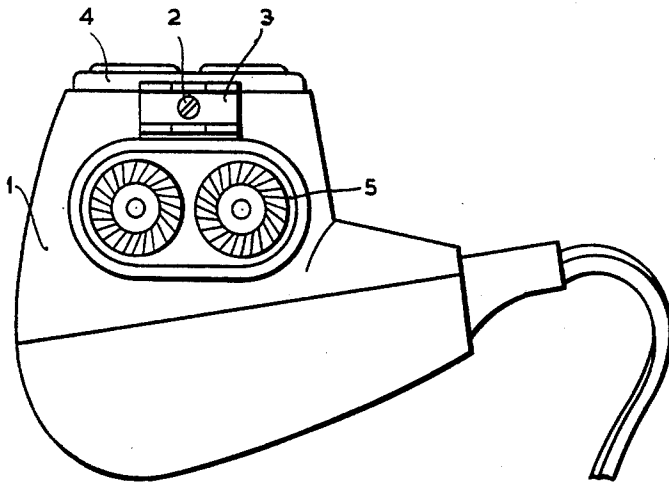


FIG. 1

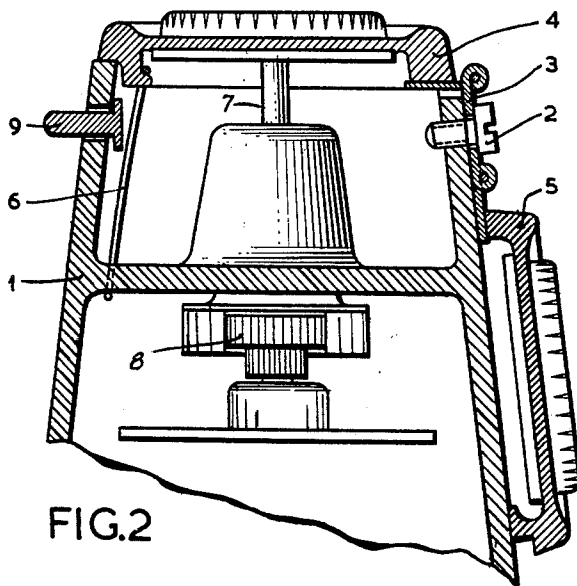


FIG. 2

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Fig. 3

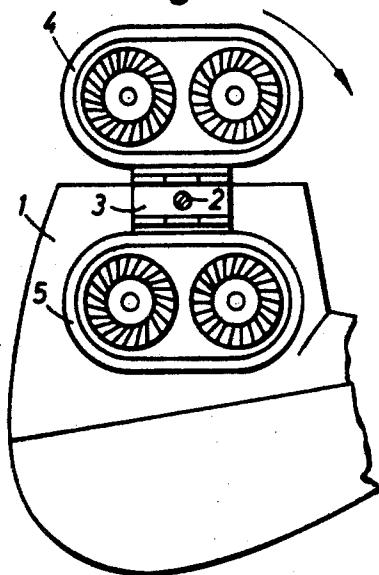


Fig. 4

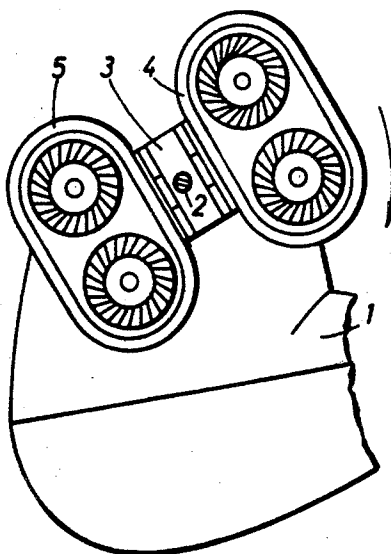


Fig. 5

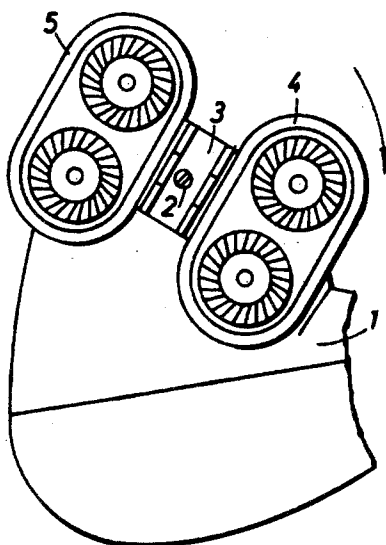
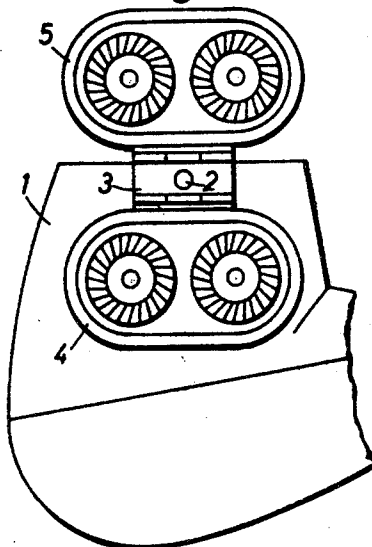


Fig. 6



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ELECTRIC DRY SHAVER HEAD WITH CHANGEABLE CUTTING HEADS OF VARYING SHARPNESS

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3 Claims. (Cl. 30-43)

The invention relates to an electric dry shaving apparatus comprising cutting members which press from behind against a cutting plate, provided with slits, apertures or the like to allow beard hair to penetrate. Such dry shaving apparatus are known and may be provided, for example, with two rotating cutters, each of which presses against the shear plate. The cutters themselves are shaped substantially in the form of stars and apply obliquely to the shear plate, so that their sharply ground edges cut off smoothly the hairs penetrating through the apertures of the shear plate. The same applies to shaving apparatus comprising oscillating cutters.

The smoothness of the shaving is determined by the detail proportions of the shear plate. The thinner the shear plate and the broader each slit of the shear plate, the closer the separate beard hair is cut on the skin. Otherwise there is a limit in this respect, since the skin could be irritated or even cut by the rapidly moving cutters.

It has been found in practice the requirements for the sharpness of the shaving is different for each person. This may be connected with the fact that the skin may have different degrees of softness and that also the beard hair may be thick, smooth, rigid or slack. Also the sensitivity of the skin to such irritation may differ in each case.

In order to fulfill these various requirements, it is proposed, in accordance with the invention, to construct a dry shaving apparatus of the aforesaid kind which comprises means to adjust it to sharp or mild cutting.

It is desirable to provide the new dry shaving apparatus with a plurality of cutting heads of different cutting sharpness, which can be connected at will with the driving gear. The user can thus choose the desired sharpness in accordance with his personal conditions, which may even vary with time.

If with a dry shaving apparatus according to the invention a plurality of cutting heads of different sharpness are used, this may be realized in providing different thicknesses for the shear plates of the cutting heads. A further possibility consists in using shear plates with slits, apertures and the like of different widths and/or different gradients.

It is extremely desirable in this case to link the cutting heads to a holder which is pivotably secured to the housing, the cutting head turned upwards being attachable to the driving shaft(s). In this case the cutting head of the incidentally desired sharpness is selected, pivoted upwardly on the housing of the dry shaving apparatus and pressed down on the driving shaft, so that when switching on the cutting head chosen becomes operative.

Two embodiments of the invention are illustrated in the drawing, in which

FIGURE 1 shows a dry shaving apparatus with two pivotable interchangeable cutting heads, in a side view.

FIGURE 2 shows a cross section of the same apparatus, in which the lower, here unessential portion is broken away and

FIGS. 3, 4, 5 and 6 are various positional views of the interchangeable cutting heads.

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The bipartite housing 1 of the dry shaving apparatus shown in FIGURES 1 and 2 comprises an electric motor (not shown) which drives the cutters. At the upper portion of the housing is provided so as to be laterally pivotable around a screw 2 a holder 3, to which are linked two cutting heads 4 and 5 respectively with the associated shear plates, cutters and so on. Said cutting heads are each provided with cutting members juxtaposed to a shear plate. Provision is made of springs (not shown) which tend to pivot the cutting heads 4 and 5 respectively so that they are located with the holder 3 in one plane. In this aligned position the two cutting heads are permitted to pivot about the screw 2 and one or the other cutting head may be tilted upwardly at will. The cutting heads are different from each other in their different sharpnesses. The cutting head turned upwardly (in FIGURE 2 the cutting head 4) can be tilted against the spring pressure into the position shown, in which it is held by a snapping spring 6 and in which, moreover, the cutters engage the driving shafts 7, which are rotated from below by way of a gearing 8 (shown diagrammatically) and an electric motor (not shown).

In the position shown in FIGURE 2 the cutting head 4 is ready for use and the dry shaving apparatus can be employed in the conventional manner. If a different sharpness is desired, the cutting head 4 is released by pressing in the stop button 9; the head moves upwards; the two cutting heads 4 and 5 can then be pivoted over 180° about the screw 2. Then the cutting head 5 with a different sharpness is at the top and can be pressed down on the driving shaft 7 to be ready for use.

What is claimed is:

1. A dry shaver head construction for attachment to a dry shaver housing having a drive shaft therein comprising a pair of spaced cutting heads each having at least one shear plate and a cutting member juxtaposed thereto, said cutting members being of different sharpness, a connecting element hingedly connecting said cutting heads, and means pivotally connecting said connecting element to said dry shaver housing whereby each of the cutting heads may be alternately connected to said shaver drive shaft while the inoperative cutter head extends adjacent to the housing and generally co-planar therewith.

2. A dry shaver head construction as claimed in claim 1 wherein the shear plates of each cutting head have different thicknesses and are provided with apertures of different widths.

3. A dry shaver head construction as claimed in claim 2, wherein said shear plates of different cutting heads have apertures of different gradients.

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