SLIDABLE CONTROL-KNOB FOR AN APPARATUS PARTICULARLY FOR A HAIR-CUTTER SET

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4 Claims. (CI. 30—34.1)

The invention relates to a control device for use in an apparatus, particularly for displacing a hair-cutter blade into and out of the operational condition.

The main object of the invention is to provide a control device of the kind set forth in a flat shape, so that it projects to a small extent only. Although this is known, the invention provides a solution of the problem of a satisfactory match of the flat knob and of the member to be displaced thereby with the wall along which the knob is displaced, even in those cases in which no adequate space is available on the side of the member to be displaced for the required pressing means.

It is a requirement that the assembly should be simple and permit of being manufactured and mounted at low costs.

The control device in the form of a control-knob is characterised in that a flat spring is clamped between the edges of a flat, dish-shaped body adapted to slide along the outer wall of the apparatus, said spring being provided at the center with a connecting piece extending transversely of the spring body for a hair-cutter blade arranged so as to be slidable on the other side of said wall or for a similar slidable member.

The knob constructed in the form of a flat, dish-shaped body thus permits of accommodating in the dish the spring, i.e., outside the housing wall of the apparatus without occupying additional space, while the dish edges may serve for clamping the spring, so that the construction and mounting can be carried out in a very simple manner. By means of the connecting piece the spring provides a connection of the knob with the member to be displaced, a satisfactory engagement of the two parts and a smooth slidability.

In an advantageous embodiment the flat, thin, dish-shaped slide with the spring clamped tight therein may be utilized, in addition, to facilitate mounting. This embodiment is characterised in that the flat spring holds the dish-shaped slide itself, in the non-mounted state of this assembly, in a curved position with respect to the shape of the slide in the absence of the spring, while the connecting piece of the spring is hooked into the member to be displaced so that the slide and the member are drawn to each other and to the intermediate wall of the apparatus by the action of the spring.

The slide can be connected with the member to be displaced, for example the non-driven cutter of hair clippers across the wall of the housing of the apparatus by disposing the slide with the spring on the wall of the housing, by passing the connecting piece of the spring through an opening in said wall into the cutter by the hair clippers, by subsequently pressing the upper surface of the slide into the flat position and then into a position in which it is inwardly bent, so that the connecting piece can engage the other side of the cutter and hook into it. When subsequently the pressure on the upper side of the slide is overcome, the slide and the hair cutter are drawn by the spring towards each other and against the wall of the housing, so that they engage the latter quite closely.

Further particulars will be explained with reference to an embodiment shown in the drawing.
riveting joints or the like; the assembly has quite a flat shape and the accommodation of the spring does not require additional space.

From FIG. 6 it will appear that the height of the structure may be further reduced and the slide may be secured against turning by arranging it so that it slides in a slot in the surface of the wall 7 of the housing. The part of the wall 7 itself is formed in this case by a lid arranged in an opening of the wall of the motor housing, said lid being capable of supporting the hair cutter blade, so that the hair cutter assembly constitutes an extremely simple, flat unit which can be readily put out of and into operation, and which hardly protrudes from the wall of the housing of the hair cutter.

What is claimed is:

1. A control device for use in a dry shaving apparatus comprising a shaver housing, a slideable control knob having an inverted hollowed-out portion, an intermediate wall provided with a hole therein, said control knob being adapted to be displaced along the outer surface of said intermediate wall, a hair cutter blade having an opening therein and adapted to be displaced along the inner surface of said intermediate wall, a spring in said hollowed-out portion of said control knob, a connecting piece depending from said spring and disposed substantially perpendicular thereto, the free end of said connecting piece being provided with means which passes through said hole in the intermediate wall and engages in the opening of said cutter blade whereby in the mounted position of said control device on said shaver housing, said means on the free end of said connecting piece having a side surface in flat engagement with the underside of said hair cutter blade, said control knob and hair cutter blade are drawn toward each other against the intermediate wall of said housing by means of said spring.

2. A control device for use in a dry shaving apparatus as claimed in claim 1 wherein said spring is a flat spring and said connecting piece is a struck-out portion of said flat spring and the means on the free end of said connecting piece is a bent-over part for engaging in the opening of said cutter blade.

3. A control device for use in a dry shaving apparatus comprising a shaver housing, a slideable control knob having an inverted hollowed-out portion, an intermediate wall provided with a hole therein, said control knob being adapted to be displaced along the outer surface of said intermediate wall, a hair cutter blade having an opening therein and adapted to be displaced along the inner surface of said intermediate wall, a spring in said hollowed-out portion of said control knob, a connecting piece depending from said spring and disposed substantially perpendicular thereto, the free end of said connecting piece being passed through the hole in the intermediate wall and the notch of said connecting piece being inserted in said narrowed part thereby securing said connecting piece against vertical displacement thereof, and in the mounted position of said control device, said control knob and hair cutter blade are drawn toward each other against the intermediate wall of said housing by means of said spring.

4. A control device for use in a dry shaving apparatus comprising a shaver housing, a slideable control knob having an inverted hollowed-out portion, an intermediate wall provided with a hole therein, said control knob being adapted to be displaced along the outer surface of said intermediate wall, a hair cutter blade having an opening therein and adapted to be displaced along the inner surface of said intermediate wall, a flat spring in said hollowed-out portion of said control knob having a struck-out part depending therefrom and disposed substantially perpendicular thereto to form a connecting piece, the free end of said connecting piece having a bent over part which passes through the hole in the intermediate wall and engages in the opening of said cutter blade whereby in the mounted position of said control device on said shaver housing, said control knob and hair cutter blade are drawn toward each other against the intermediate wall of said housing by means of said flat spring.

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