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DRY-SHAVING APPARATUS HAVING A SHAVING HEAD WHICH IS PARTLY
CONSTRUCTED FOR USE AS A HAIR-CLIPPER
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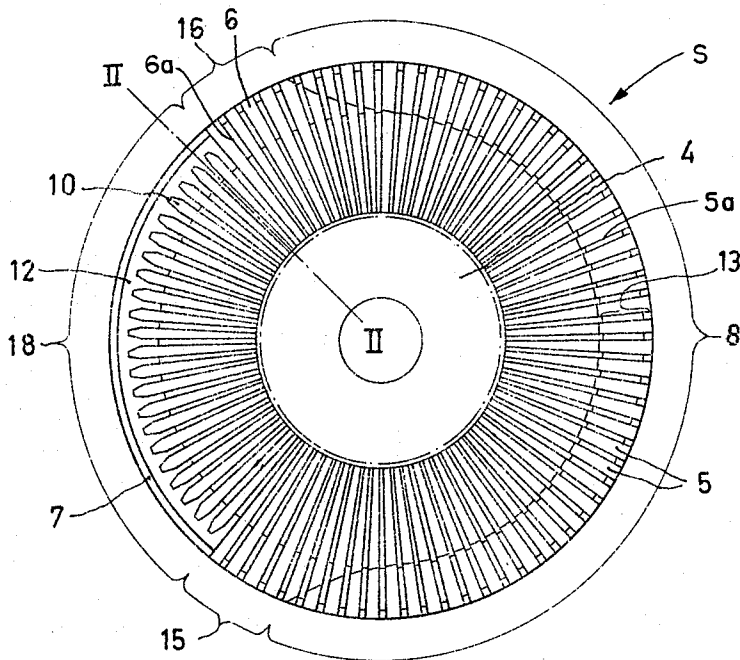


FIG. 1

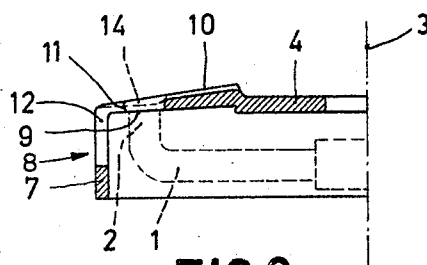


FIG. 2

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DRY-SHAVING APPARATUS HAVING A SHAVING HEAD WHICH IS PARTLY CONSTRUCTED FOR USE AS A HAIR-CLIPPER

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3 Claims. (Cl. 30—34.1)

The invention relates to a dry-shaving apparatus having a shaving head which, along part of its circumference, is constructed for use as a hair-clipper.

Such dry-shaving apparatus are known in which a fixed shear plate, below which one or more cutters move, serves in normal manner for shaving purposes, the shaft of the cutter in question comprising in addition one or more cutters which cover part of the circumference and cooperate there with fixed hair-clipper teeth.

It is the object of the invention to provide a solution with which in a simpler manner a corresponding object is reached and the invention is characterized in that the same moving surface of the cutter is used both for the hair clipping part and for the shaving part.

So in this case it is not necessary to use specially shaped moving cutters or to construct part thereof in a special manner and to attach it for hair-clipping purposes. As a matter of fact it has been found that the same path which is covered by the normal cutter can also be used for hair-clipping purposes when the said hair-clipping part of the shaving head, which is otherwise constructed normally for shaving purposes, is made accessible for longer hairs.

It has also proved possible to overcome a complication occurring in the known construction, and the preferred embodiment of the invention is characterized in that a single fixed shear plate is provided both with apertures for shaving action and, on part of the circumference, with wider apertures for hair-clipping purposes.

In the known constructions the thinking was that a separate shear plate should always be used for the shaving action and a separate attached plate was always provided with hair-clipping teeth for long hairs.

The solution, according to the invention, in its simplest form is an embodiment in which in a known manner the shaving shear plate for the reception of face hair along the circumference thereof below part of a fixed plate operates as a hair clipper. This structure includes a gap extending parallel to the plate in the circumference of the shaving shear plate. The shear plate, in accordance with the teachings of the invention, is constructed with radially extending portions being spaced from each other to form slots therebetween and said portions being cut off over part of the gap and re-entrant over a short distance therefrom.

In accordance with the present invention, a conventional type shear plate may be used, however by modifying this shear plate in the manner described above a hair clipper is provided in addition to the shaving surface of the dry shaving apparatus.

In an otherwise conventional form of the shaving shear plate the thickness of the radially extending portions may be chosen to be suitable to form the teeth of the fixed plate for the hair clipper, the ends of the portions over the movable cutters of a smaller thickness being used for shaving purposes.

In order that the invention may readily be carried into effect there will now be described in greater detail in connection with the accompanying drawing in which,

FIG. 1 is a shear plate according to the invention while,

FIG. 2 is a cross sectional view through a slot taken along the line II—II in FIG. 1.

The dry shaving apparatus itself is not shown because this is of a known construction and has, for example, a round slotted shaving shear plate S and rotating cutters 2 underneath the shear plate and co-acting therewith. FIG. 2 illustrates the end 1 of an arm which supports one of the cutters 2, all of the parts being shown in broken lines. The center line of the rotating cutters 2 is shown by a dot-dash line 3. The shear plate S shows a substantially disc-shaped part 4 and an annular rim 7 spaced radially therefrom. As clearly seen in FIG. 1, the slots 5 and 6 are located between the disc-shaped central part 4 of the shear plate and the annular rim 7 of said shear plate. The part of the shaving shear plate enclosed by the bracket sector 18 in FIG. 1 serves as a hair clipper and the part indicated by the bracket sector 8 serves as a dry shaver. It will be apparent, as seen in FIG. 2, that the same moving cutting surface 9 is used both for the hair clipping sector 18 and for the shaving sector 8.

FIG. 2 discloses a lateral view of the radially extending portion 10 which forms part of the hair clipping part 18 and ends in a blunt tip 11 just inside the rim 7. These radially extending portions are located with their blunt ends above an entrance gap 12 in the hair clipping part which extends along the circumference parallel to the surface of the fixed shear plate. The radially extending portions 10 have approximately the same shape as the radially extending portions 5a and 6a as far as their thickness, width and mutual distance is concerned. However, the only difference is that the portions 10 are cut back above the gap 12, re-entering through a short distance with respect to the annular rim 7 of the shear plate. Thus, the upper part of the rim 7 is removed in sector 18 in order to form a gap 12 which extends all along sector 18. In this manner wider apertures for hair clipping portions are formed between the radially extending portions 10 and the rim 7 of the shear plate in addition to the conventional apertures for shaving purposes as disclosed in sector 8. The shear plate may be formed entirely in a conventional manner used for fabricating shear plates for dry shavers of the present type, and the added operation consists of providing the gap 12 and portions 10 for forming the hair clipping teeth which are cut off to the length required for that purpose.

In the manufacture of the shear plate, the thickness of the radially extending portions is chosen with the view to use as teeth in the hair clipping part. The radially extending portions of the sector 8 which serves for shaving purposes can simply be given the thickness required for that purpose for grinding the surface of a strip 13 along the circumference to a smaller thickness. The resulting upper limit of said portions which consequently extend to the annular rim 7 is shown in FIG. 2 by broken line 14.

Small sectors 15 and 16 are present between sectors 8 and 18 where the radially extending portions extend from the central part 4 of the shear plate to the annular rim 7 with the original thickness. As a result an increased rigidity of the shear plate is obtained. This is of importance notably on either side of the gap 12 where the portions 10 are not connected to the rim 7.

What is claimed is:

1. A dry shaving apparatus comprising a shear plate, a movable clipper adapted to co-act with said shear plate, said shear plate having a hair clipping sector and a shaving sector both provided with radially extending portions and a rim located laterally therefrom, said shaving sector having its radially extending portions connected to said rim while said hair clipping sector has its radially extending portions spaced from and unconnected to said rim, the opening in said hair clipping sector between said radially extending portions and said adjacent part of the rim extending continually from one end of said hair clipping

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sector to the other end thereof and constituting an entry aperture for the hair to be cut, and the thickness of the radially extending portions in said hair clipping sector being greater than the thickness of the radially extending portions in said shaving sector.

2. A dry shaving apparatus as claimed in claim 1 comprising further relatively thick sectors between said hair clipping sector and said shaving sector for increasing the rigidity of said shear plate.

3. A dry shaving apparatus as claimed in claim 1 wherein said sectors are arranged on a circular shear plate and oppositely located.

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