Jan. 18, 1955 M. RÜTTGER-PELLI 2,699,771

APPARATUS FOR THE TREATMENT OF THE SKIN

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Fig. 1

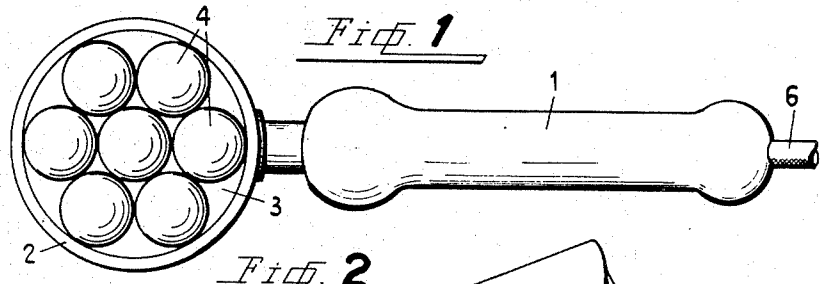


Fig. 2

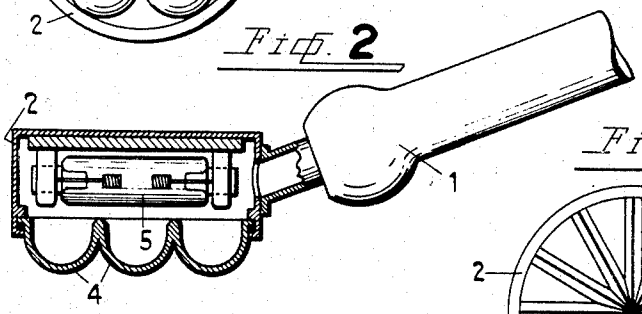


Fig. 3

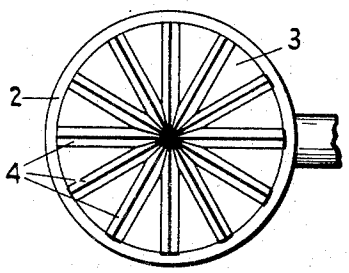


Fig. 5

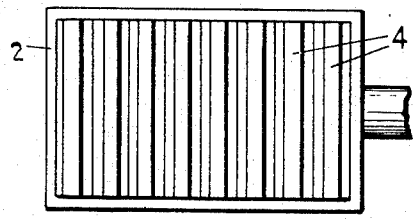


Fig. 4

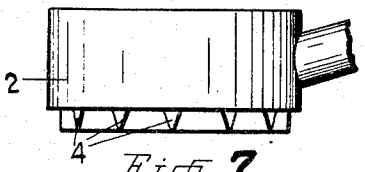


Fig. 6

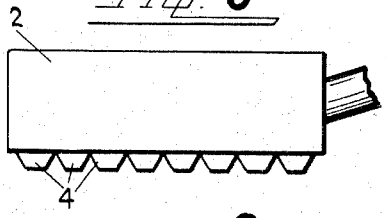


Fig. 7

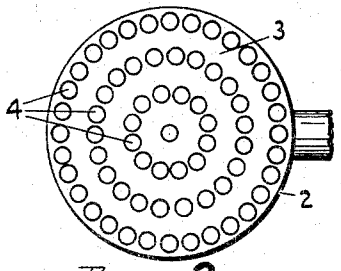


Fig. 9

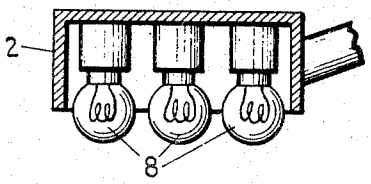
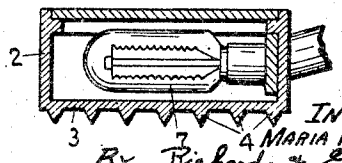


Fig. 8



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Fig. 10

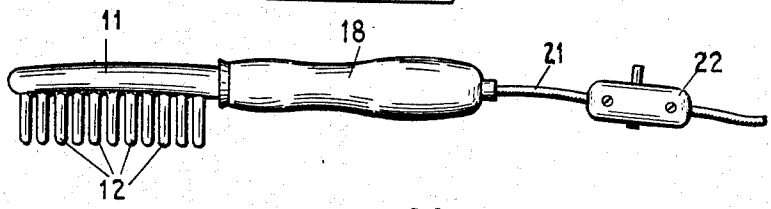


Fig. 11

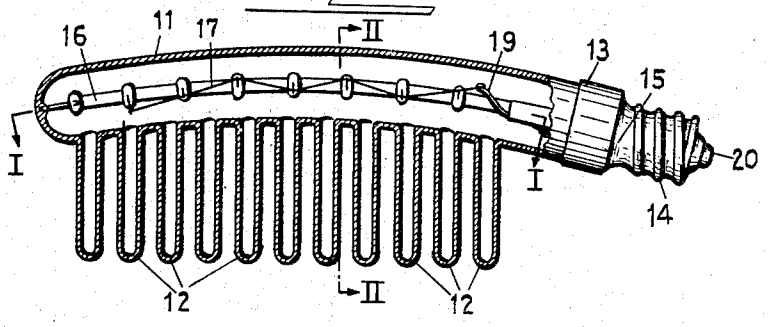


Fig. 12

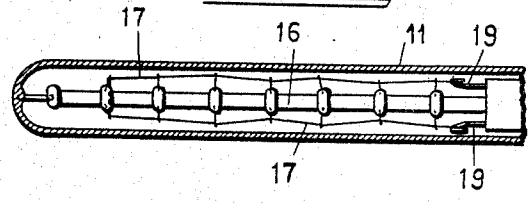
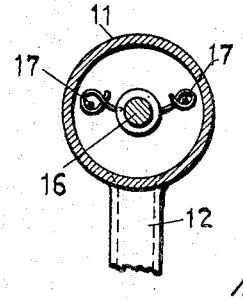


Fig. 13



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APPARATUS FOR THE TREATMENT OF THE SKIN

Maria Rüttger-Pelli, Lucerne, Switzerland

Application August 3, 1950, Serial No. 177,407

Claims priority, application Switzerland April 8, 1949

1 Claim. (Cl. 128—24.1)

The object of the present invention is an apparatus for the treatment of the skin, particularly by means of massage with a simultaneous action of rays of any description, such as for example light rays, heat rays, short waves, ultra-violet rays, infra-red rays, etc.

The apparatus is characterized by means for generating rays and by projections which serve for the massage of the skin.

In the accompanying drawing are illustrated by way of example embodiments of the apparatus according to the invention and more particularly:

Fig. 1 shows a first embodiment with semi-spherical massage projections,

Fig. 2 is a partly sectional view of the apparatus according to Fig. 1 with a mercury vapour lamp as ray generator,

Figs. 3 and 4 are a plan and an elevation of a second embodiment with rib-shaped massage projections,

Figs. 5 and 6 show a plan and an elevation of a third embodiment,

Figs. 7 and 8 show a plan and an elevation of a fourth embodiment,

Fig. 9 is a sectional view of a fifth embodiment,

Fig. 10 is a view of a further embodiment suitable for the treatment of the scalp,

Fig. 11 is a partly sectional view of the apparatus according to Fig. 10,

Fig. 12 is a sectional view on the line I—I of Fig. 11,

Fig. 13 is a sectional view on the line II—II of Fig. 11.

In the embodiment according to Figs. 1 and 2, the apparatus is formed of a cylindrical housing **2** interchangeably fixed to a handle **1**. The housing **2** comprises at its base **3**, massage projections **4** which are of semi-spherical shape. The base **3** is formed of a material pervious to rays generated inside the housing **2**. According to the nature of the rays and the skin treatment to be carried out, only the massage projections or parts of them are pervious to the generated rays, the remainder of the base being impervious to such rays. The base **3** may in itself serve as a massage projection.

Inside the housing are arranged the means for the generation of rays which, in the example illustrated, consist of a mercury vapour lamp **5**, radiating rays with a definite wave-length. The current supply to the mercury vapour lamp **5** is carried through the handle **1**; further, current regulating devices may be provided, which are not shown in the drawing.

In the embodiment according to Figs. 3 and 4, the massage projections consist of rib-shaped elements **4**, which form wedges and which radiate from the centre. In the embodiment according to Figs. 5 and 6, the projections are flattened wedges arranged parallel to each other.

In the embodiment according to Figs. 7 and 8, the massage projections consist of cone-shaped projections **4**, the radiation generator being in this instance an incandescent bulb **7**.

In the embodiment according to Fig. 9, the massage projections and the means for ray generation are combined and consist of incandescent bulbs **8** projecting beyond the housing **2**.

In Figs. 10–13 an embodiment particularly suitable for the treatment of the scalp is illustrated. The apparatus is in the shape of a comb with a hollow, slightly curved back **11** and with hollow teeth **12**. The back **11** is provided with a fitting **13** with thread **14** and contact **20** by means of which the apparatus may be screwed interchangeably into a handle **18**. The handle **18** contains the leads **21** for the current, fitted with a switch **22** arranged apart from the handle. The apparatus may further be provided with means for current regulation, which are not shown in the drawing.

In the back portion **11** of the comb are arranged the means for generating the required radiation, such means consisting in this embodiment of a supporting organ **16** on which is fixed the incandescent wire **17**, the wires **19** serving for the supply of current. The incandescent wires may also be introduced into several or all of the teeth **12** in a manner not indicated in the drawing.

The teeth **12** may be of any shape and instead of being cylindrical, they may decrease in diameter towards the free ends or they may possess spherical portions at those ends, to form a larger surface for massage.

Further, the apparatus according to Figs. 10–13 may, instead of the single row of teeth illustrated possess several rows of staggered teeth in such a manner that the apparatus is in the shape of a hair brush.

The bulbs illustrated in the drawing may be replaced by any other means of ray generation, such as incandescent bulbs of standard or special type, with quartz glass for example, different kinds of radiations with different wave-lengths, for example ultra-violet, infra-red, normal rays, heat rays, short wave radiation, etc., then being used for the radiation treatment; further, the upper portion of the housing may form a gas-filled discharge tube, for example.

The massage projections, the base of the housing or a cover around the radiation source may, according to the kind of radiation required and generated, be made of any suitable material, such as glass or quartz, of single or multicoloured material such as glass, for rays of one or several definite wave-lengths, porcelain, plastics, etc. The material used may be coloured in bulk or it may have a coloured coating applied inside or outside, making the material pervious for a definite wave-length. Thus, all possible kinds of radiation and radiation effects may be obtained. If the cover around the source of radiation is provided with longitudinal strips of different colour, and if such a cover is arranged to be rotated from outside, rays of different colours, i. e., with different wave-lengths, may be used during the treatment.

The use of this apparatus consists in that the skin to be treated is massaged with the apparatus by gliding the massage projections over the skin and by simultaneously treating it with the appropriate radiation. Thus the action of massage is combined with a simultaneous heating or exposure to radiation of the skin surface or of the deeper layers of the epidermis which may induce improved blood circulation and thus regeneration of the skin. The apparatus is suitable for cosmetic as well as for medical purposes.

I claim:

An apparatus for the treatment of the skin, said apparatus comprising, in combination, a cylindrical housing of transparent material, a luminous filament, said luminous filament being enclosed air tightly in said housing, the base of said housing comprising a hollow back which is slightly curved and hollow parallel teeth located opposite said back and forming a comb, said teeth having spherical ends for massaging the scalp and a handle interchangeably fixed to said housing.

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