

[54] TREATMENT APPARATUS FOR THE EYE AND ORBIT AREA

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[58] Field of Search 128/402, 403, 258, 128/380

[57] ABSTRACT

Apparatus for the symptomatic treatment of the eye and orbit areas comprising a frame carrying a pair of receptacles for liquid. A face of each receptacle is contoured to fit a different eye of the user, the frame being adjustable to enable the receptacles intimately to engage over the orbits and eyes of the user. The apparatus is prepared for use by filling the receptacles with a freezable fluid and subjecting the same to freezing temperatures to cause the fluid to solidify. In use, the frame is adjusted so that the receptacles are simultaneously positioned over the eyes of the wearer.

[56] References Cited

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5 Claims, 4 Drawing Figures

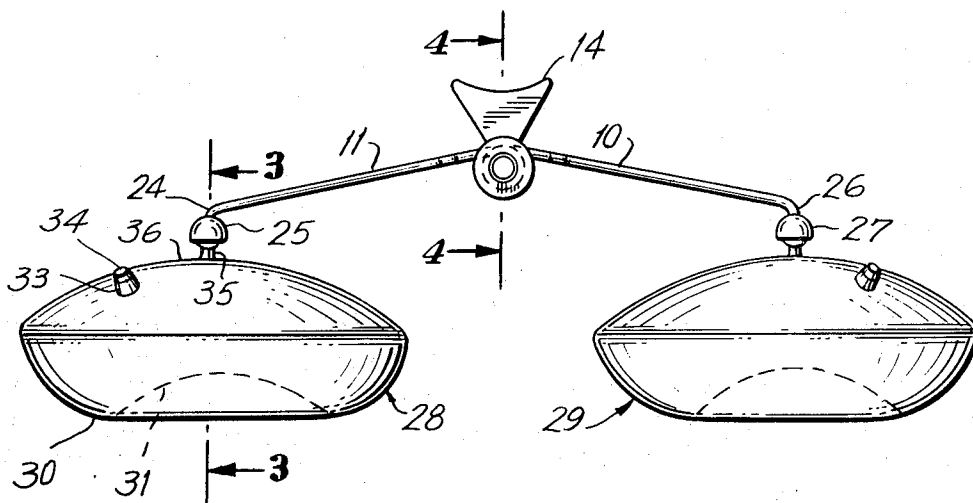




FIG. 1

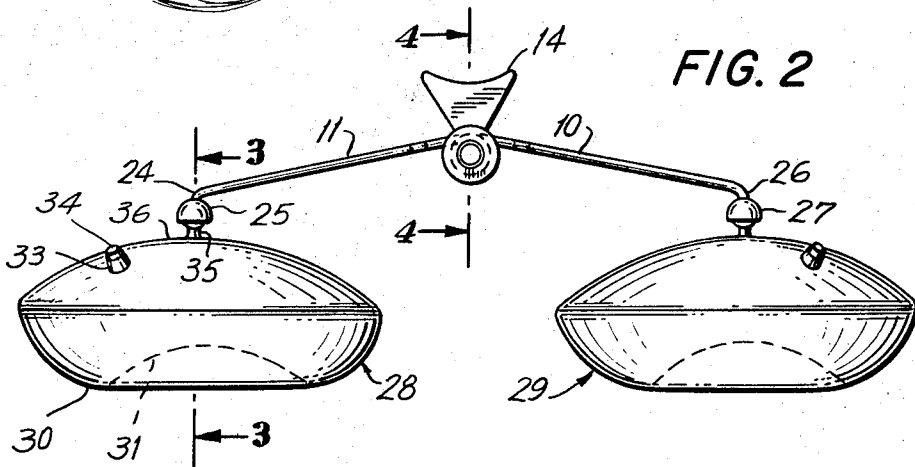


FIG. 2

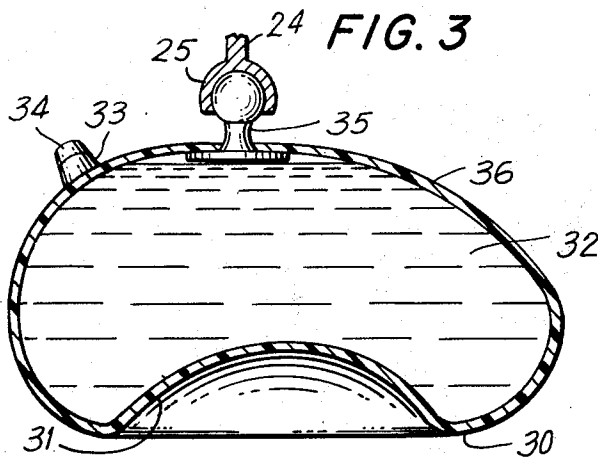


FIG. 3

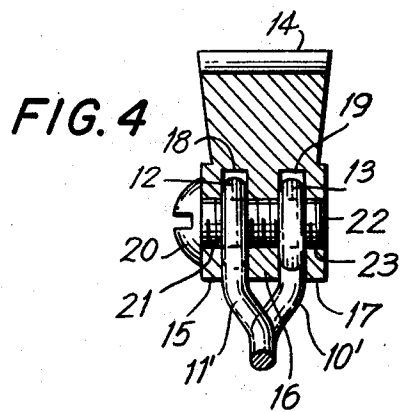


FIG. 4

TREATMENT APPARATUS FOR THE EYE AND ORBIT AREA

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention is in the field of apparatus for the relief of tension, symptomatic reduction of edema in the orbit area, relief of headache and promotion of circulation, particularly in the area beneath the eyes, whereby with regular use the tendency toward wrinkling and swelling in the course of the aging process may be substantially reduced.

2. The Prior Art

It is known to provide cold compresses, towels and icebags to the forehead and adjacent areas in order to achieve symptomatic relief of swelling, headache and promote circulation, etc. Heretofore the apparatus employed for such purpose have been subject to multiple inconveniences, including leaking, the requirement to replace ice and like cooling material, are ungainly and are not adapted intimately to conform to the areas to be treated.

SUMMARY OF THE INVENTION

The present invention is directed to an improved apparatus for achieving cosmetic benefits as well as relief of headache symptoms, local edema in the area of the orbit, as well as a multiplicity of other benefits which may be derived by chilling the orbit areas of a user in a controlled manner.

The apparatus comprises a frame including a pair of struts having one end pivotally connected to the other in an adjustable fashion whereby the angle between the struts is modified to suit the physiognomy of the individual. The distal ends of the struts carry one element of a universal connector. Each strut is connected to a hollow fluid receiver cavity adapted to be filled with a freezable liquid. One face of each receptacle carries a complementary fastener element adapted to be connected to the universal connector component carried by the struts whereby the connected receptacles may be angularly and rotatably arrayed relative to the struts. The opposite faces of the receptacles are three dimensionally configured so as intimately to engage the facial area of a user from a point just above the cheek bone to a point just below the eyebrow and extending laterally from just inside the bridge of the nose outwardly to the terminal edge of the eye socket or orbit.

The above defined area will, for convenience, be herein referred to as the eye socket or orbit area, although the same extends beyond that which is technically considered to be the orbit.

The receptacles adjacent the body are allochiral, being adapted to engage the orbit and eye areas of the left and right eyes of the user.

The device is used by first filling the receptacle with a freezable liquid and causing the same to be frozen, either by detaching the receptacles at the universal joints and placing them in the freezing compartment of an ordinary freezer or the like, or by inserting the entire apparatus in the freezing environment. Thereafter the user spreads the struts and articulates the receptacles about the universal joints in such manner as to angle the user-engaging surfaces of the receptacles so that they simultaneously contact the orbit areas of the person to be treated.

Should extended treatment be desired, it is feasible to supply a multiplicity of receptacles which may serially be snapped into position on the universal connector component forming a part of the strut after the fluid within the original receptacles has melted.

It is accordingly an object of the present invention to provide treatment apparatus for cooling the orbit areas of a human.

A further object of the invention is the provision of a treatment apparatus of the type described wherein the receptacles include a filling aperture and seal member.

A further object of the invention is the provision of apparatus of the type described including an adjustable frame and adjustable connections between the receptacles and frame whereby the device may be accommodated to fit orbit contours of a wide variety of users.

A further object of the invention is the provision of apparatus of the type described wherein the receptacles may be readily removed from connection with the strut assembly and replaced.

Still a further object of the invention is the provision of a device of the type described wherein the receptacles comprise molded plastic material resistant to cracking at low temperatures and having a relatively low coefficient of thermal conductivity.

To attain these objects and such further objects as may appear herein or be hereinafter pointed out, reference is made to the accompanying drawings, forming a part hereof, in which:

FIG. 1 is a perspective view of an apparatus positioned over the orbit areas of an individual;

FIG. 2 is a side elevational view of the apparatus of FIG. 1;

FIG. 3 is a magnified section taken on the line 3—3 of FIG. 2;

FIG. 4 is a magnified section taken on the line 4—4 of FIG. 2.

Referring now to the drawings, the treatment apparatus includes a pair of struts 10, 11, the innermost ends of which have been formed by bending into eyelets or circular loops 12, 13, respectively. The eyelets 12, 13 are adjustably and pivotally connected to a handle 14. The handle 14, which is preferably fabricated of a yieldable plastic material, includes three spaced-apart parallel leg portions 15, 16, 17, the central leg 16 being separated from the exterior legs 15 and 17 by receiver spaces 18 and 19, respectively.

A headed machine screw 20 is passed through aperture 21 in leg 15, the shank 22 of the screw being received in threaded aperture 23 in the leg 17. The shank 22 of the screw passes through apertures within the eyelets or loops 12, 13, respectively, which loops are disposed within the spaces 18, 19, respectively.

From the foregoing description it will be apparent that when the screw 20 is lightly tightened, the loops 12, 13 and, hence, the struts extending therefrom, will be locked against relative angular movement.

To the free end 24 of the strut 11 there is mounted the female socket 25 of a universal joint coupling. In similar fashion the end 26 of the strut 10 carries a female universal fastener 27, 28 and 29 comprise the eye and orbit engaging receptacles. Since the receptacles 28 and 29 are substantially identical (except for their allochiral nature), the description of one will suffice.

The receptacles are preferably fabricated of a plastic material, such as polyethylene, which retains its resili-

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ience at temperature moderately below the freezing temperature of water.

The under surface 30 of the receptacles is formed with a three dimensional configuration, enabling the same intimately to engage the surface of the orbit of the user, a central concavity 31 being provided to accommodate the protruding eyeball.

The interior 32 of each receptacle is hollow, access to the interior being provided through a conduit 33 which may be sealed by a stopper 34.

The male section 35 of the universal connector element is carried by the rear face 36 of the receptacle, the connector component 35 being molded either integrally on the receptacle or attached thereto by fusing or gluing. The connector element 35 may be snapped into position within the connector element 25 or 27 carried by the struts 11 and 10.

The operation of the apparatus will be evident from the preceding description.

The user will substantially fill the cavity 32 within the receptacles with water or a like freezable liquid through the conduit 33 and thereafter cause the same to be frozen by insertion of the receptacles along, or the entire assembly carrying the receptacles, into a freezing environment. Preferably, the ball joint connector components 25, 27 and 35 are of the snap-in type whereby only the receptacles need be placed in the refrigerator and whereby, in addition, a multiplicity of receptacles may be kept frozen and ready for use.

The apparatus is adjusted to the physiognomy of the individual by loosening the screw 20, modifying the angular relation of the struts 10 and 11, and thereafter re-tightening the screw.

As best seen in FIG. 4, the struts may include angularly bent areas 10' and 11' whereby the struts, although their free ends 12 and 13 are offset, will throughout the majority of their lengths be disposed in co-planar alignment.

The connected receptacles 28 and 29 are next tilted relative to the struts about their universal connections

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so that the receptacles will be in precise conforming relationship of the orbits of both eyes of the user.

The user will preferably lie facing upwardly, with the apparatus positioned as shown in FIG. 1, whereby in the course of melting of the fluid within the receptacles a substantial cooling influence will be communicated to the eyes and orbit areas of the user, with the consequent therapeutic benefits heretofore mentioned.

The receptacles are preferably fabricated of a plastic material having a low index of thermal conductivity so that the heat of the orbit area and eye is not too rapidly conducted to the fluid in the receptacles, with consequent possible discomfort to the user.

Having thus described the invention and illustrated its use, what is claimed as new and is desired to be secured by Letters Patent is:

1. A treatment apparatus for the eye and orbit areas comprising a frame including a pair of strut members, adjustable connector means pivotally linking an end of one of said strut with an end of the other said strut to enable relative angular adjustment of said struts, a universal joint member at the free end of each said strut, a hollow receptacle member including a fluid receiver cavity operatively connected to each said universal joint member, said receptacle members including front face portions contoured, respectively, intimately to engage the external surfaces of the right and left orbit and eye of a user.

2. Treatment apparatus in accordance with claim 1 wherein each said receptacle includes on the rear face thereof a sealable fill aperture leading to said cavity.

3. The apparatus of claim 2 wherein said universal joint member comprises a ball and socket connector.

4. The apparatus of claim 3 wherein said ball and socket connector is snap-engageable.

5. The apparatus of claim 1 wherein said receptacles comprise molded plastic resistant to cracking at low temperatures.

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