E. C. FEYRER.

LIGHT TREATMENT APPARATUS.

APPLICATION FILED FEB. 26, 1917.

1,232,908.

Patented July 10, 1917.

2 SHEETS—SHEET 1.

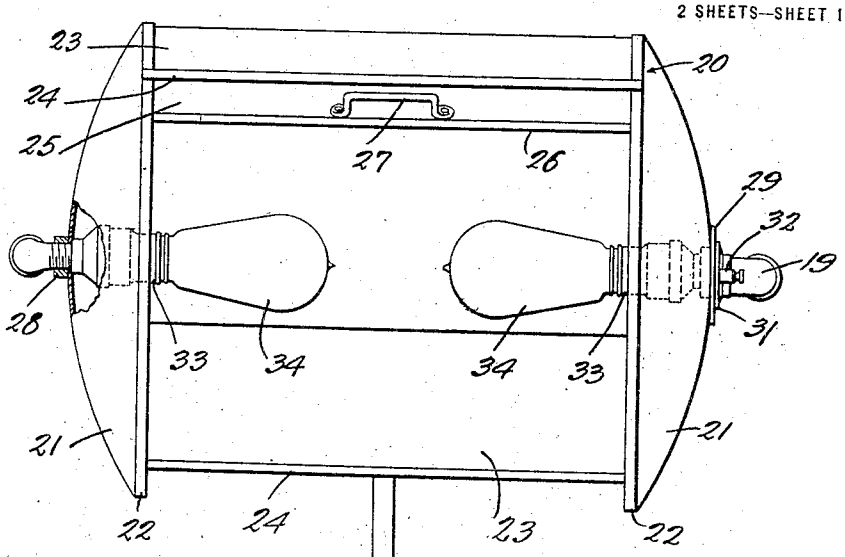


Fig. 1.

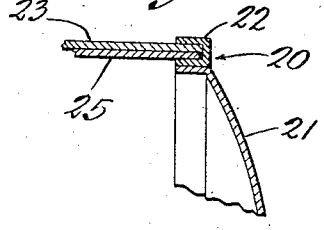


Fig. 4.

Witness

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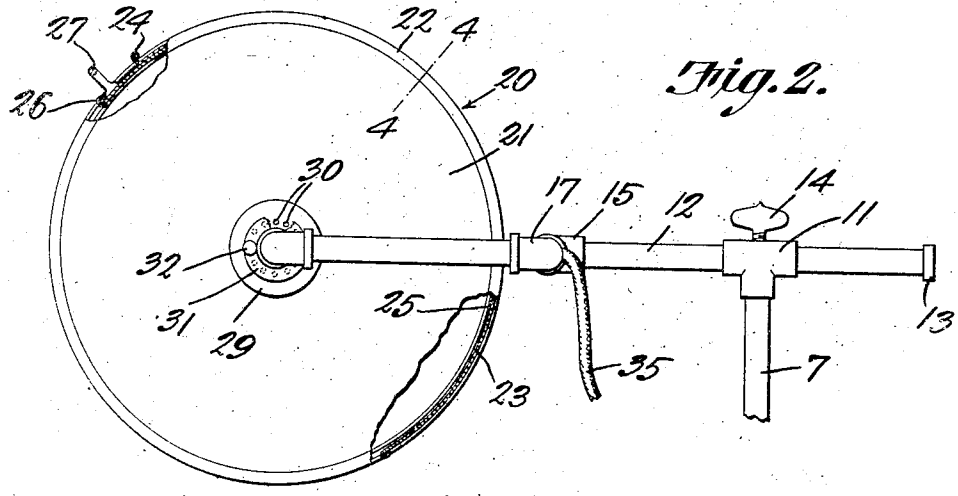


Fig. 2.

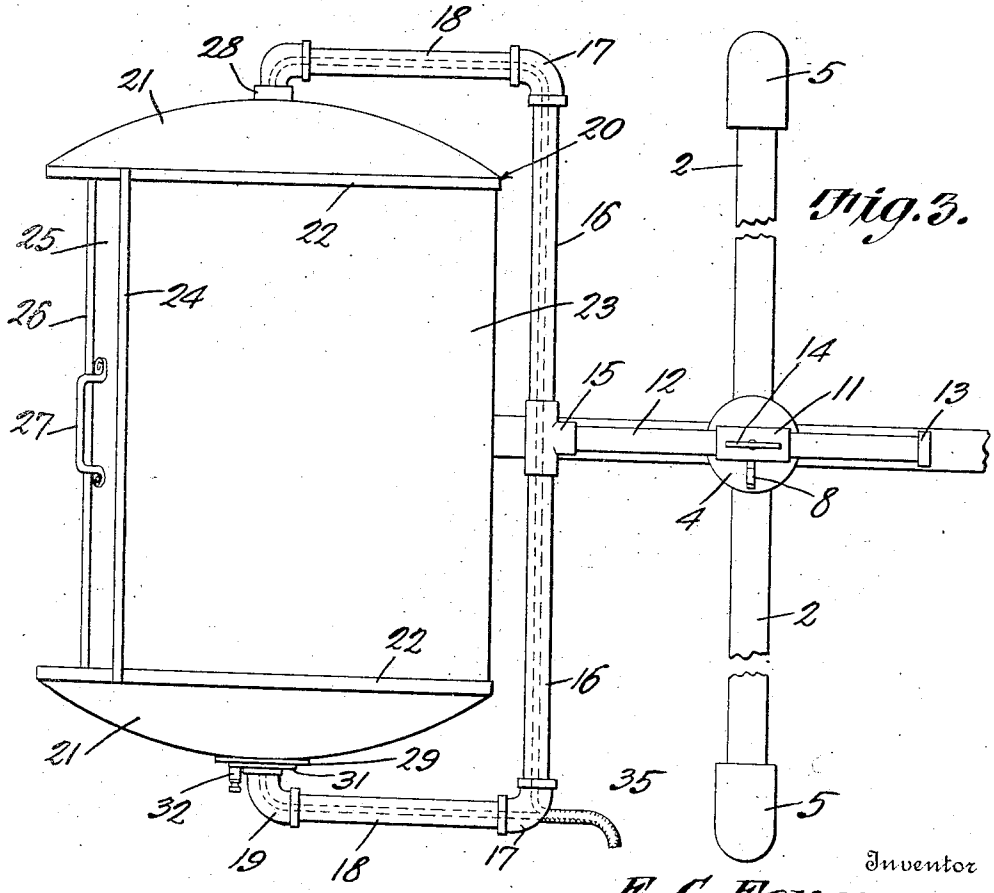


Fig. 3.

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UNITED STATES PATENT OFFICE.

ERNEST C. FEYRER, OF ERIE, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO CLARENCE E. LEITZINGER, OF ERIE, PENNSYLVANIA.

LIGHT-TREATMENT APPARATUS.

1,232,908. Specification of Letters Patent. Patented July 10, 1917.

Application filed February 26, 1917. Serial No. 151,105.

To all whom it may concern:

Be it known that I, ERNEST C. FEYRER, a citizen of the United States, residing at Erie, in the county of Erie and State of Pennsylvania, have invented a new and useful Light-Treatment Apparatus, of which the following is a specification.

The present invention relates to a light treatment apparatus, and aims to provide a novel and improved appliance of that character for utilizing electric light for the treatment and relief of painful or congested conditions of the human body.

It is the object of the invention to provide an apparatus of the nature indicated of novel construction, whereby the light can be confined to the desired area of any part of the human body, to avoid waste, and to render the treatment more effective, the device being adjustable whereby the area subjected to the light and heat can be increased or decreased within practical limits.

Another object of the invention is to provide an apparatus of the nature indicated which is adjustable to enable the light to be directed in any and all directions or angles, in order that the light can be properly concentrated on the desired part of the human body in a most effective manner.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts, and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, can be made within the scope of what is claimed, without departing from the spirit of the invention.

The invention is illustrated in the accompanying drawings, wherein:—

Figure 1 is a front view of the apparatus, portions being broken away.

Fig. 2 is a side elevation of the apparatus, portions being broken away.

Fig. 3 is a plan view thereof.

Fig. 4 is a sectional detail taken on the line 4—4 of Fig. 2.

The present apparatus embodies a portable adjustable supporting means including the tubular standard 1 mounted upon a base adapted to be pushed about upon the floor. This base embodies radial members or pipe sections 2 having their adjacent ends threadedly or otherwise engaged with a fitting 3 upon which a socket member 4 is secured, the lower end of the standard 1 being threadedly or otherwise engaged within the socket member 4. Downturned elbows 5 are threadedly or otherwise engaged to the remote ends of the members 2, and have casters 6 applied thereto adapted to roll on the floor or underlying surface. A vertical rod or upper standard section 7 is slidable within or fits telescopically within the standard 1, to provide an extensible standard, and a set screw 8 is carried by the standard 1 to clamp the rod in various vertically adjusted positions. The rod 7 slides through a bushing 9 engaged within the upper end of the standard 1, and a cap or collar 10 is secured to the lower end of the rod 7 and slides within the standard 1 whereby to guide the rod 7 for vertical movement, and the cap 10 is adapted to contact with the bushing 9 to prevent the rod 7 being withdrawn from the standard. Threadedly or otherwise engaged upon the upper end of the rod 7 is a T-fitting 11 through which a horizontal shank 12 is slidable and rotatable, a cap 13 being engaged upon one end of the shank 12 to prevent its being withdrawn from the fitting 11. A set screw 14 carried by said fitting is adapted to clamp the shank 12 in various angularly and longitudinally adjusted positions. The other end of the shank 12 carries a fork which embodies a T-fitting 15 engaged upon said end of the shank 12 and a transversely extending pipe section or member 16 engaged through the fitting 15 and having elbows 17 engaged with its remote ends, parallel arms or pipe sections 18 being engaged with the elbows 17 and extending in the same direction to complete the fork. Elbows 19 are engaged upon the free ends of the arms 18 and project toward one another to provide pivots for the light cylinder or casing 20, which will be described presently.

The light cylinder or casing 20 is constructed of suitable sheet metal, and embodies the circular ends 21 which are preferably convexed, and which have their margins secured to annular grooved or channel-shaped rings 22. An arcuate back wall 23, extending through an arc of about 180 degrees, has its ends fitting within and secured to the rings 22, and the longitudinal edges of the back wall 23 are preferably beaded, as at 24, to stiffen them. An arcuate shut-

ter 25 has its ends fitting slidably within the grooved rings 22 and said shutter or slide is movable snugly inside of the back wall 23 when opening said shutter, one edge portion of the shutter overlapping the inner surface of the wall 23. The other edge of the shutter is beaded, as at 26, and is provided with a suitable handle 27 for conveniently opening and closing the shutter. The inner surfaces of the ends 21, back wall 23 and shutter 25 are preferably polished to reflect the light, whereby it will ultimately be directed through the opening provided when the shutter 25 is slid open. It is evident at this point, that the shutter 25 can be readily slid to regulate the width of the opening, and said opening can be restricted to a narrow slot, or can be of considerably large area, as desired. This cylinder 20 is mounted for rotation about its axis, hubs 28 and 29 being secured centrally to the ends 21 of the cylinder and being rotatable upon the inturned arms or pivots of the elbows 19. A flange 31 secured to one elbow 19 carries a latch pin 32 engageable with any one of an annular series of apertures 30 with which the disk-shaped hub 29 is provided. Thus, the cylinder can be held in various angular positions, with the opening directed in any desired direction.

Lamp sockets 33 are attached to the inner ends of the elbows or pivot members 19, and project toward one another, as do the electric lamps 34 which are applied to said sockets, or instead of using two lamps, one larger lamp can be applied to one socket only. The use of the lamps is dependent on the circumstances, however, as will be apparent, and in accordance with the light and heat needed for the particular treatment.

Not only is the light opening adjustable in area by sliding the shutter 25, but the light can be directed in any and all directions and angles. Thus, the cylinder 20 can be raised and lowered by loosening the set screw 8 and sliding the rod 7 upwardly and downwardly. By loosening the set screw 14, the shank 12 can slide and turn in the fitting 11 for correspondingly adjusting the light casing and the fork within which it is mounted for rotation. The fork can be moved into a horizontal, vertical or inclined plane, and at any position of said fork, the light cylinder can be rotated about its axis by retracting the latch pin 32. This enables the light rays to be directed effectively to any part of the human body. The light and heat directed through the opening will be uniform or equal throughout the area of the opening, and no light will be wasted by being misdirected. The light rays which are directed away from the opening will be reflected back toward the opening.

The conductors 40 for the lamps are preferably extended through one of the elbows 17 and thence longitudinally within the tubular portions of the fork to and through the elbows 19 to the lamp sockets.

Having thus described the invention what is claimed as new is:—

A light treatment apparatus embodying a cylindrical casing having ends, grooved rings secured to the margins of said ends, an arcuate back wall secured to said rings, and an arcuate shutter slidable in said rings to overlap said back wall when opened, and a source of light within the casing.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

ERNEST C. FEYRER.

Witnesses:
J. C. THOMAS,
JOHN MCCREARY.