E. C. FEYRER.

LIGHT TREATMENT APPARATUS.

APPLICATION FILED AUG. 14, 1919.

1,354,813.

Patented Oct. 5, 1920.

FIG. 3.

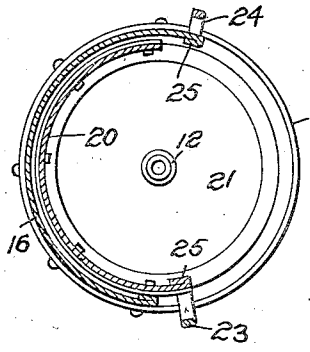


FIG. 1.

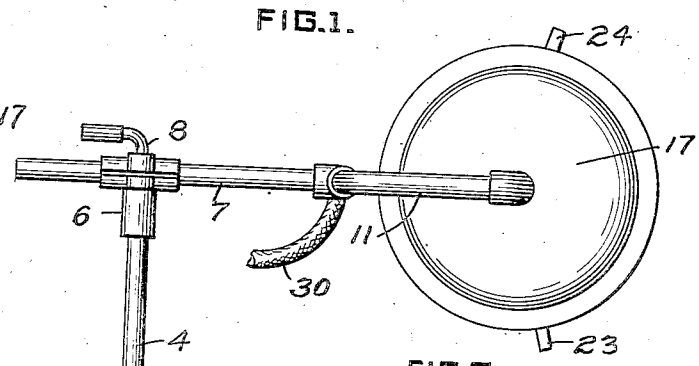


FIG. 4.

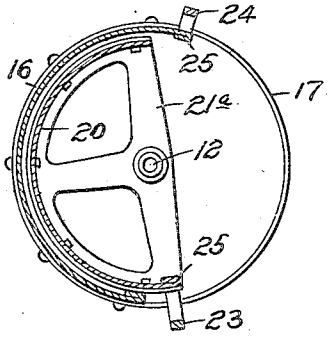


FIG. 2.

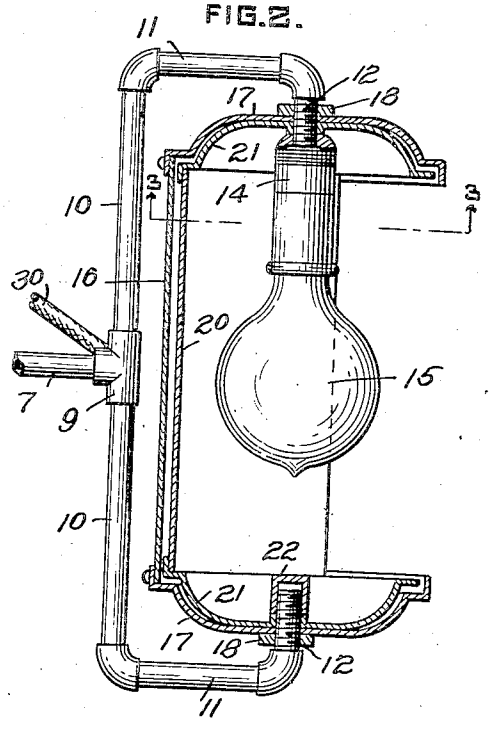
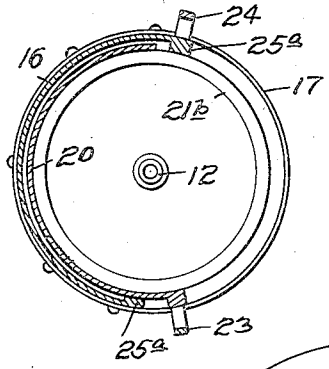
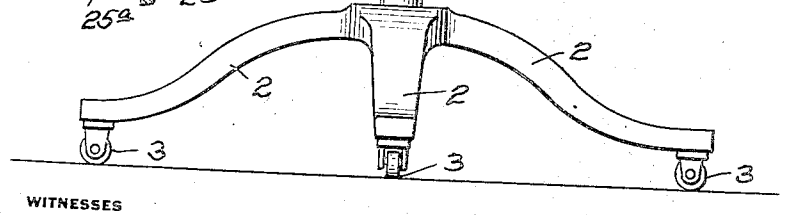


FIG. 5.





WITNESSES

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LIGHT-TREATMENT APPARATUS.

1,354,813. Specification of Letters Patent. Patented Oct. 5, 1920.

Application filed August 14, 1919. Serial No. 317,406.

To all whom it may concern:

Be it known that I, ERNEST C. FEYRER, a resident of Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Light-Treatment Apparatus, of which the following is a specification.

This invention relates to light treatment apparatus for utilizing electric light for medical and therapeutic purposes. Its object is to provide an apparatus of simple construction and easy to operate, whereby light can be confined to the desired area of the part to be treated and which is readily adjustable so that the area subjected to the light and heat can be increased or decreased readily.

This invention is an improvement upon the device illustrated and described in my Patent No. 1,232,908, granted July 10, 1917.

In the accompanying drawing Figure 1 is a side elevation of the apparatus; Fig. 2 is a horizontal longitudinal section through the lighting cylinder; Fig. 3 is a transverse section therethrough on the line 3—3, Fig. 2, the lamp and lamp socket being omitted; and Figs. 4 and 5 are similar views illustrating modifications.

The present apparatus, like that of my former patent, includes a portable, adjustable support comprising a tubular standard 1, mounted upon a base comprising radial arms 2 provided with casters 3. A vertical rod or upper standard section 4 telescopically and rotatably fits the tubular standard 1 and is arranged to be locked in adjusted position by the clamp 5. The upper end of the rod or standard 4 is provided with a T-fitting 6 having a horizontal opening in which the horizontal shank member 7 of the light cylinder has a sliding and rotatable fit. Said shank can be adjustably fixed in the member 6 by means of clamping screw 18. The outer end of the shank 7 has secured thereto a T-fitting 9 to which are secured tubular fork arms 10 having sections 11 extending outwardly and parallel to each other, provided at their ends with portions 12 projecting toward each other, and on which the light drum or cylinder is mounted. On the inner ends of one or both of the portions 12 is mounted a socket 14 for receiving a lamp bulb 15. The light drum comprises a cylindrical body 16 which extends for slightly more than 180° of arc and which is connected to heads 17 which are rotatably mounted on the inwardly projecting end portions 12 of the fork 10, 11. Nuts 18 on said extensions outside of the heads, provide frictional means against the heads of the drum to prevent its too free rotation. The open side of the drum is closed by means of an arcuate shutter 20, the inner surface of which, and also of the drum body portion 16 is a reflecting surface. The ends of this shutter 20 are secured to end members 21 which are rotatably mounted on the projecting end portions 12 of the fork 10, 11, between the cylinder heads 17 and the lamp socket 14 (or cap 22 when only one lamp is used). The exposed edge of the shutter 20 is provided with a handle 23 and the opposite edge of the arcuate body portion of the drum is provided with a handle 24, thus providing convenient means for closing the drum entirely or opening the front thereof to any desired extent. Preferably one or both edges of the shutter and also the arcuate body portion of the drum are stiffened, such as by means of beads 25, Figs. 3 and 4, or ribs 25^a, Fig. 5.

The end members 21 for the shutter in Figs. 2 and 3 are shown as cup-shaped circular inner heads. They may, however, be merely segments of circles, or even skeleton members such as shown at 21^a, Fig. 4, or merely rings as shown at 21^b, Fig. 5. In the latter modification these end rings 21^b bear against the inwardly projecting strengthening ribs 25^a of the drum casing 16 and are thereby guided so that the shutter can be turned to open and closed position without being trunnioned directly on the members 12 as in the other forms. Inasmuch as the drum body 16 extends through an arc slightly in excess of 180° these ribs 25^a prevent displacement of the shutter.

The conductors 30 for the lamps are brought into the tubular fork 10, 11 at any desired point and lead through the arms thereof to the socket or sockets.

By means of the apparatus described the light can be directed in any direction and at any angle, and the light opening is readily adjustable to vary the extent of the area to be subjected to the light treatment.

The construction of the cylinder, providing this adjustable opening is very simple, compact and durable.

It will, of course, be understood that the light drum need not be a true cylinder.

I claim:

1. Light treating apparatus comprising a drum open on one side and provided with end heads, a forked support for said drum having inwardly turned ends upon which said heads are rotatably mounted, and an arcuate shutter fitting within said drum and provided with end members rotatably mounted on the inner ends of the inwardly turned portions of said fork.

2. Light treating apparatus comprising a drum open on one side and provided with end heads, a forked support for said drum having inwardly turned ends upon which said heads are rotatably mounted, an arcuate shutter fitting within said drum and provided with end members rotatably mounted on the inner ends of the inwardly turned portions of said fork, and handles on the exposed edge of said shutter and the opposite edge of the drum.

In testimony whereof I have hereunto set my hand.

ERNEST C. FEYRER.

Witnesses:

JOHN J. SWEENEY,

J. W. NICHOLLS.