M. A. PUGH.

RADIOTHERAPEUTICAL SHIELD.

APPLICATION FILED DEC. 10, 1917.

1,406,488. Patented Feb. 14, 1922.



Fig. 1.

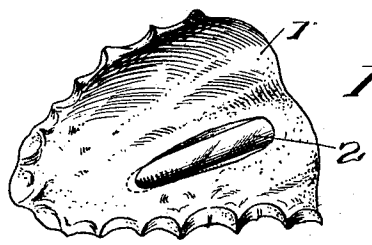


Fig. 2.

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MARGUERITE AIMÉE PUGH, OF NEW ORLEANS, LOUISIANA.

RADIOTHERAPEUTICAL SHIELD.

1,406,488. Specification of Letters Patent. Patented Feb. 14, 1922.

Application filed December 10, 1917. Serial No. 206,497.

To all whom it may concern:

Be it known that I, MARGUERITE A. PUGH, a citizen of the United States, residing at New Orleans, parish of Orleans, and State of Louisiana, have invented certain new and useful Improvements in Radiotherapeutical Shields, of which the following is a specification.

My invention relates to radio-therapeutics and the object of my invention is to provide means for localizing the action of the radio-active material and prevent the emanations from the same from injuring or burning the adjacent or opposed tissues.

The usual method employed in treatment involving the use of radio-active material is to inclose the radio-active substance in a metalic case or capsule, and to place this capsule against or adjacent the tissues to be treated. This method not infrequently causes injury to the adjacent or opposed tissues, particularly when the conformation of the portion of the body to be treated causes such tissues to lie adjacent to the capsule.

I have discovered that by forming a suitable shield of vulcanite, the shape thereof being varied according to the portion of the body to be treated and arranging the capsule containing the radio-active material within a recess in one face of said shield, that I may control the emanations so that they will act only upon the tissues to be treated. My invention consists generally in a shield of vulcanite, or other material impervious to the radio emanations as hereinafter fully described and claimed.

My invention will be more readily understood by referring to the accompanying drawings forming a part of this specification and in which—

Fig. 1 is a view illustrating a shield embodying my invention, in use, the particular form of shield shown therein being designed for use in treating a portion of the roof of the mouth, and

Fig. 2 is a perspective view of the shield.

Referring to the drawings, 1 indicates a shield embodying my invention, the same being made of vulcanite or any similar material impervious to the emanations from radio-active substances. As shown in the drawings this shield is formed to fit snugly the roof of the mouth but it is to be particularly understood that my invention is not limited to any particular form or shape of the shield as this form or shape will vary materially according to the portion of the body to be treated. The shield is formed, in one of its surfaces, with a pocket or recess 2 in which is arranged the capsule 3 containing the radio-active substance. It is obvious that, with a shield as mentioned, the emanations from the radio-active substance will not affect any of the adjacent or opposed tissues as said emanations can pass only in the direction of the opening from the recess 2.

I prefer to form the shield of vulcanite, but any material impervious to the radio-emanations may be employed; and it is to be understood that wherever the term "vulcanite" is used in this specification or in the claims that I intend to cover any substance that is its equivalent with regard to its relation to radio-active substances.

I claim—

1. A shield of the class described provided with a recess therein in open communication with one side of the shield in combination with a capsule of radio-active material arranged therein, portions of said shield adjacent said recess being shaped to conform to the surfaces adjacent that to be treated, substantially as described.

2. A shield of the class described provided with a recess therein in open communication with one side of the shield in combination with a capsule of radio-active material arranged therein.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

MARGUERITE AMÉE PUGH.

Witnesses:
C. F. BORAH,
MAY LOVE.