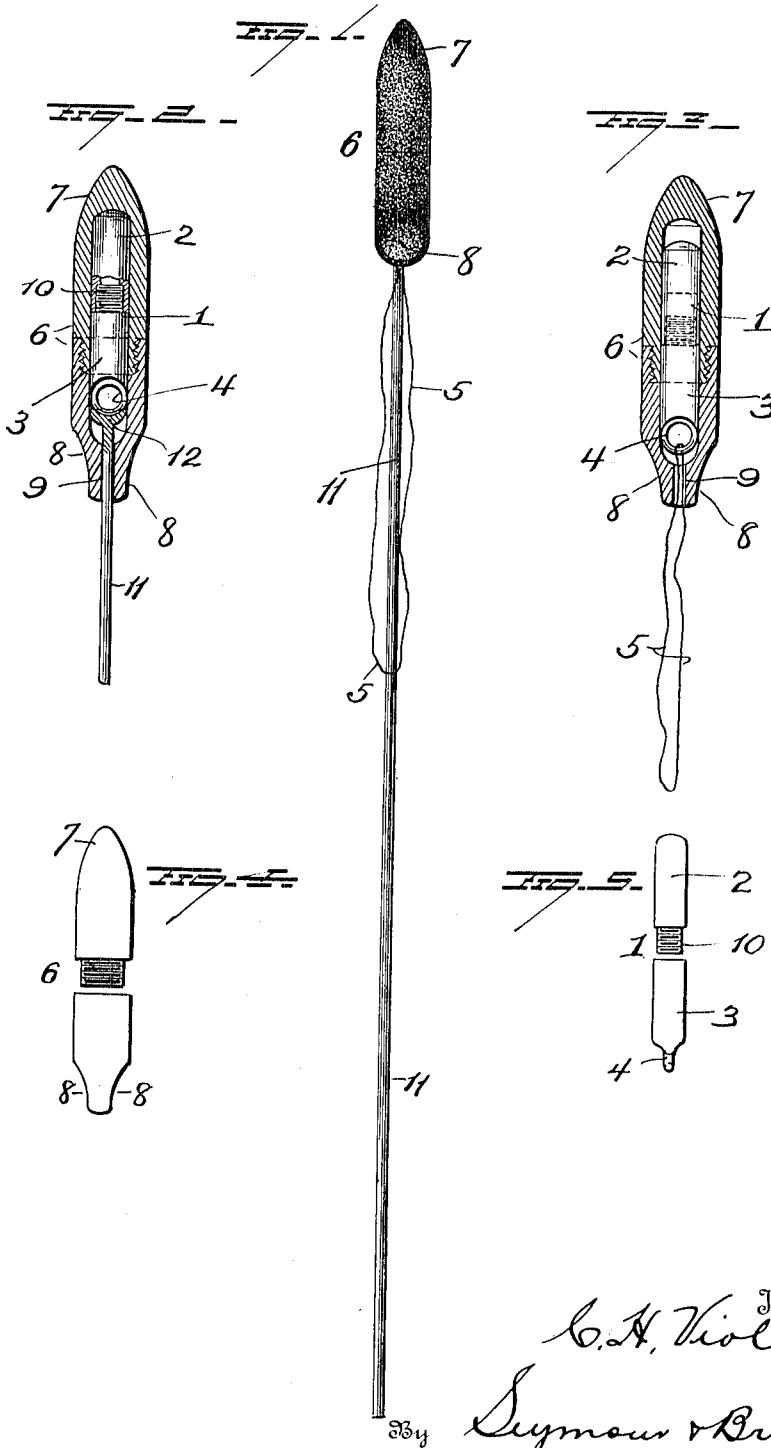


C. H. VIOL.
RADIUM APPLICATOR.
APPLICATION FILED MAY 9, 1921.

1,406,509.

Patented Feb. 14, 1922.



Inventor
C. H. Viol
By *Symons & Bright*
Attorneys

UNITED STATES PATENT OFFICE.

CHARLES HERMAN VIOL, OF PITTSBURGH, PENNSYLVANIA, ASSIGNOR TO STANDARD
CHEMICAL COMPANY, OF PITTSBURGH, PENNSYLVANIA.

RADIUM APPLICATOR.

1,406,509.

Specification of Letters Patent.

Patented Feb. 14, 1922.

Application filed May 9, 1921. Serial No. 467,899.

To all whom it may concern:

Be it known that I, CHARLES H. VIOL, a citizen of the United States, and a resident of Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Radium Applicators; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in radium applicators,—one object of the invention being to provide simple and efficient means to facilitate and render safe the administration of radium to variously located affected parts.

With this and other objects in view, the invention consists in certain novel features of construction and combinations of parts as hereinafter set forth and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in elevation showing one embodiment of my invention; Figure 2 is a sectional view showing the arrangement of parts when the rod 11 is used; Figure 3 is a view illustrating the manner in which the applicator may be withdrawn in cases where it is not desirable or necessary to employ the rod shown in Figures 1 and 2, and Figures 4 and 5 are detail views.

1 represents a metal container for radium salt or compound and may comprise two members 2-3 having threaded connection, one with the other, and one of said members may be provided at one end with an eye 4 to facilitate the attachment of a thread 5 which may in some instances, be employed for withdrawing the applicator from an affected portion of the patient. The radium container 1 is enclosed within a hard rubber screen 6. This screen may be made conical at one end as indicated at 7 and at its other end it may be flattened to provide a finger-hold, as indicated at 8, and at this flattened end, a hole 9 is provided through which the withdrawing thread 5, shown in Figure 2, may be passed.

In order to facilitate the application, removal or replacement of the rubber screen, the latter is made in two parts, one of which is provided with a tubular threaded shank 10 to screw into the other part.

Affected parts which are more or less superficial in character and which may be readily reached by merely grasping the finger-hold 8, the applicator as shown in Figure 2 may be employed, but in many cases the affected parts to be treated cannot be conveniently reached by thus handling the applicator and in such cases the rod 11, shown in Figure 1, may be employed. The rod 11, which may be made of stiff wire or which may be more or less flexible in character so that it may be readily bent, passes through the hole 9 in the rear section or member of the rubber screen and is provided within the latter with a slightly dished head 12 to engage the rear end of the container 1. In withdrawing the applicator with the use of the rod, the head 12 thereon will engage the rear end wall of the rubber screen, and when the applicator is being inserted, the head 12 will engage the rear end of the container and press the forward end thereof against the forward conical portion of the rubber screen.

Having fully described my invention what I claim as new and desire to secure by Letters-Patent, is:

1. In an applicator, the combination with a metal container for radium, of a two part screen enclosing said container, and means for withdrawing the applicator.

2. In an applicator, the combination of a container for radium, and a shield enclosing the same, said shield being separable from said container and comprising members separable from each other.

3. In an applicator, the combination with a container for radium, of a hard rubber shield comprising separable parts to enclose said container, and a rod entering one end of the screen and provided within the latter with a head to engage one end of said container and also to engage the wall at one end of said shield.

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

CHARLES HERMAN VIOL.

Witnesses:

H. B. KEARNEY,
P. F. HAYNE.