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METHOD AND DEVICE FOR RETAINING THE RADIOACTIVITY OF ALL LIQUIDS INTENDED FOR INJECTIONS

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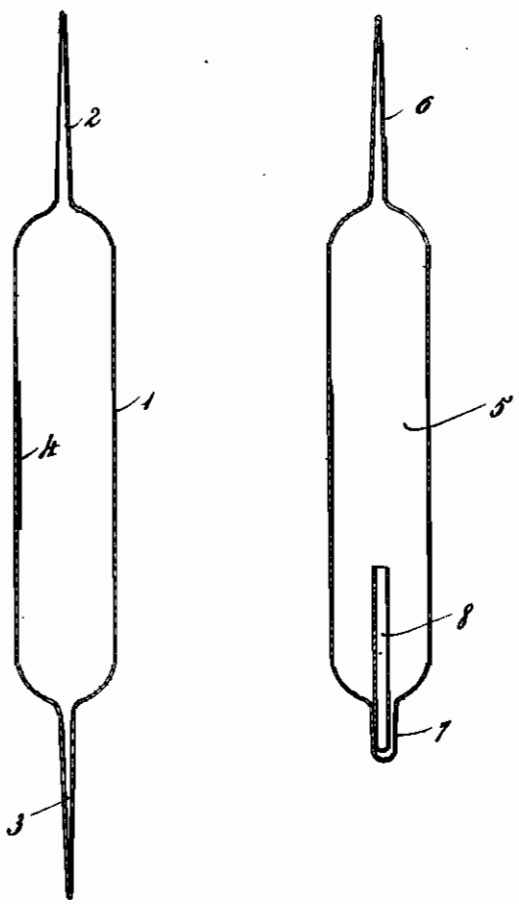
Fig. 1. *Fig. 2.*



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METHOD AND DEVICE FOR RETAINING THE RADIOACTIVITY OF ALL LIQUIDS INTENDED FOR INJECTIONS

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The present invention relates to a process for retaining the radioactivity of all liquids intended for injections. The invention also relates to a device for carrying out said process.

It is known that for the treatment of certain diseases by means of injections of radioactive liquids, it has already been proposed to replace the liquids containing radioactive substances by liquids containing radioactive emanations. For the treatment given by means of these latter liquids to be efficacious, it is requisite for the degree of radioactivity of the liquids used to be accurately measured. It is therefore indispensable for the radioactive liquids to be used a fixed and relatively short lapse of time after they have been prepared.

The present invention has for its object a process and a device which enable such liquids to be prepared in the laboratory, and a constant degree of radioactivity to be retained in same for a practically indefinite time, thereby enabling them to be stocked by all chemists.

The process according to the invention is essentially characterized by the fact that it consists in immersing in the liquid in which a constant degree of radioactivity in which a maintained, a device which contains a predetermined quantity of substance capable of producing radioactive emanations, said quantity being so dosed as to maintain the liquid, which has previously been rendered radioactive, in radioactive equilibrium.

Other advantages and features of the invention will become apparent from the ensuing description taken with reference to the accompanying drawing in which Figs. 1 and 2 shows sectional elevations of two embodiments of an ampoule which enables the process according to the invention to be carried out.

According to the embodiment shown in Fig. 1, 1 designates an ampoule of any known type of the kind of those commonly used for medical purposes and provided, in the known manner, with two tapered points 2 and 3.

The degree of radioactivity of any liquid which is contained in said ampoule and is intended for treatments by means of injection, is kept constant by fixing on the inner wall of the ampoule before filling and closing same a thread 4 made of material which is capable of producing radioactive emanations.

The thread 4 is held in position by means of a coating of paraffin, for example.

Instead of being formed in the shape which has just been mentioned, the material capable of producing emanations might be formed in the shape of a stick 8 fixed on one of the points 7 of the ampoule 5. As shown, the ampoule 5 is provided in the usual manner with a tapered point 6.

The volume of the thread 4 or that of the stick 8 is so calculated that the quantity of emanations produced by the material which forms them keeps the liquids contained in the ampoules 1 or 5 in radioactive equilibrium.

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