

G. SCHIRMER.
MEDICAMENT APPLICATOR.
(Application filed June 27, 1901.)

(No Model.)

Fig. 1

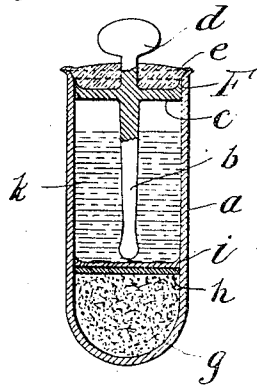


Fig. 2.

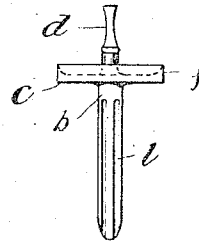


Fig. 3

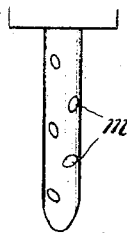


Fig. 4.

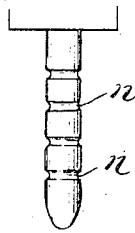


Fig. 5

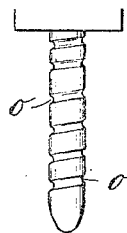
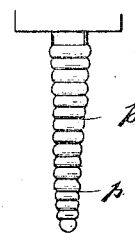


Fig. 6.



Witnesses:

Engine R. Heber
Jules C. Hertzog

Inventor,

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by T. Singer.
Att'y.

UNITED STATES PATENT OFFICE.

GUSTAV SCHIRMER, OF CHICAGO, ILLINOIS.

MEDICAMENT-APPLICATOR.

SPECIFICATION forming part of Letters Patent No. 883,994, dated October 8, 1901.

Application filed June 27, 1901. Serial No. 66,205. (No model.)

To all whom it may concern:

Be it known that I, GUSTAV SCHIRMER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Medicament-Applicators, of which the following is a specification.

In an application filed by me in the Patent Office of the United States on the 5th day of March, 1901, Serial No. 49,871, I have described and claimed a medicament device for ephemeral use, in which a charge of medicament is contained within a receptacle and a point or pencil sunk therein and its flanged end hermetically sealed to said receptacle to serve as a closure thereto.

My present invention relates to means for more readily severing the hermetical seal, to means enabling the point to take up a more liberal supply of medicament, and to provisions for separating a charge of medicament in dry condition from a body of solvent fluid in one and the same receptacle and opening a passage therebetween by means of the point, so that the medicament may be applied in a fresh condition without time to become stale.

Figure 1 is a vertical central section through a charged and sealed receptacle embodying my improvements, and Figs. 2 to 6 are various forms of self-loading points adapted for use therewith.

At *a* is represented the receptacle. This is made of any suitable material adapted to hold the charge, but not desirably of any expensive character, as it is expected to serve its purpose but once and then be thrown away. The point is indicated by *b* and has a flange *c* and knob or handle *d*, by which it may be manipulated. The flange practically closes the mouth of the receptacle and after the charge has been inserted therein is hermetically sealed thereto at *e* to preserve the contents from the deleterious action of the atmosphere, from decomposition, and from spilling. The receptacle itself is of a size adapted to be carried in the vest-pocket. The seal, however, is liable to harden with time, so that unless provision is made to disrupt it the knob is apt to be broken from the point in the effort to break the seal. For this reason I provide the flange *c* with an upturned annular knife-edge *f* along its outer perimeter, which cuts into

the seal *e* as the knob is turned, and thereby readily removes it.

In the bottom of the receptacle I place a charge *g* of dry medicament, closing it in liquid and air tight by a diaphragm insoluble to the fluid that is to be used as a solvent for the dry medicament. This diaphragm may consist of a disk *h*, of innocuous material, resting upon the bed of medicament, and a seal *i*, of insoluble material, as chrome-gelatin, animal membrane, &c., or the dry medicament may be inserted in a capsule arranged to be punctured, as will be understood from the following paragraph.

The receptacle is cylindrical from the mouth down for some distance. A solvent fluid or complement *k* of the dry medicament is inclosed between the diaphragm and the sealed flange of the point. When the seal is broken by the knife-edge of the point, said point, with its flange, can be pushed down, being guided by the cylindrical walls of the receptacle, the end of the point puncturing the diaphragm or capsule and admitting the solvent to the dry medicament. In a moment the lotion will be formed in pristine strength and be ready for application.

The point may be smooth, as in my former application and as indicated in Fig. 1 of the drawings accompanying the present application; but as a smooth point will not always take up sufficient medicament I prefer to form it with depressions—either longitudinal grooves *l*, as indicated in Fig. 2, or pockets *m*, as in Fig. 3, or circumferential grooves *n*, as in Fig. 4, spirals *o*, as in Fig. 5, or diminishing annulars *p*, as in Fig. 6, or in any other way adapted to take and temporarily hold a maximum charge of medicament. The flange *c* will be located between such depressions and the handle and serve as a shield to prevent the medicament from coming in contact with the operator's fingers, which he may not have time to disinfect in cases of urgency.

Having thus described my invention, I claim—

1. The combination, in a medicament-applicator, of a receptacle for the medicament, a point dipping into said receptacle and having a flange hermetically sealed thereto, a knob by which said point may be turned and a knife-edge connected with said flange and

arranged to sever the seal as the point is turned.

2. The combination, in a medicament-applicator, of a receptacle for the medicament, a point confined in said receptacle and having a flange to close the mouth thereof, a hermetical seal uniting said flange to the receptacle, a peripheral upstanding knife-edge on said flange, and means whereby said point and flange may be turned to sever the seal.

3. The combination, in a medicament-applicator of a receptacle, a hermetical diaphragm dividing said receptacle into a lower and an upper compartment, the former of which receives a charge of dry medicament, and the latter a charge of solvent fluid, a point dipping in said fluid and adapted to be pressed down to penetrate said diaphragm and admit the solvent to the dry medicament, a hermetical seal closing the mouth of said receptacle and retaining said point therein,

and means connected with said point for breaking said seal.

4. The combination, in a medicament-applicator, of a receptacle of even diameter for some distance down from its mouth, a hermetical diaphragm dividing said receptacle into a lower and an upper compartment, the former of which receives a charge of dry medicament, and the latter a charge of solvent fluid, a point dipping in said fluid, and having a flange fitting the mouth of the receptacle, a hermetical seal uniting said flange to the receptacle, and means connected with said point whereby said seal may be broken and the point caused to penetrate the diaphragm.

In testimony whereof I affix my signature in presence of two witnesses.

GUSTAV SCHIRMER.

Witnesses:

JULES C. HERTZOG,
JACOB HELLER.