

B. G. STRONG, DEC'D.

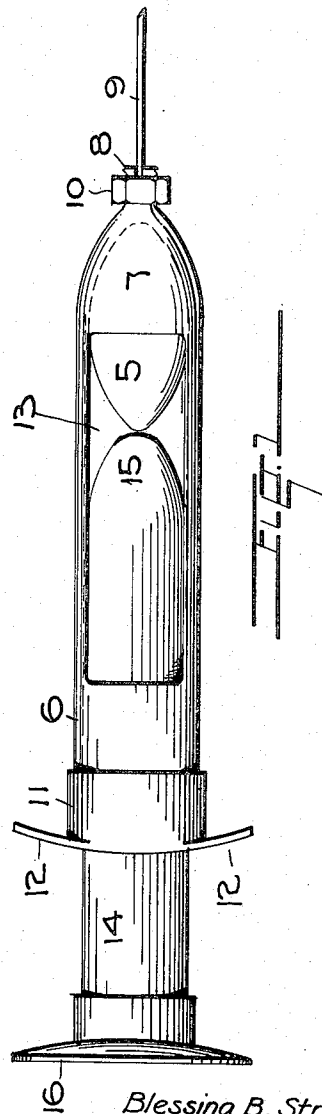
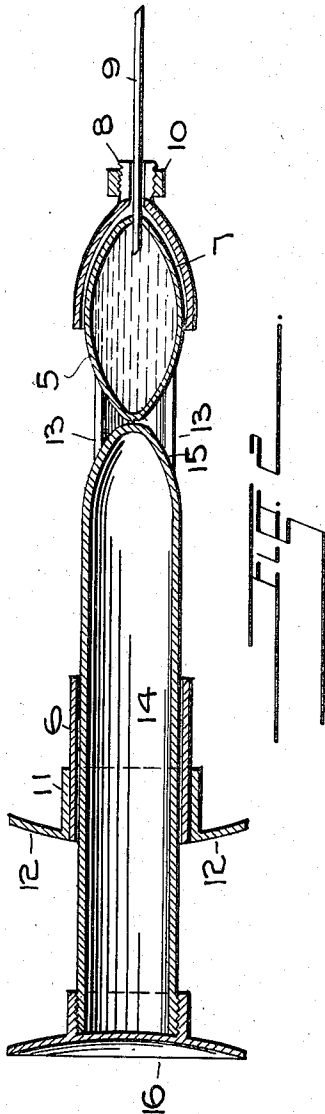
BLESSING B. STRONG (NOW BY MARRIAGE BLESSING B. STRONG MARTIN) EXECUTRIX.

MEANS FOR HYPODERMIC MEDICATION.

APPLICATION FILED OCT. 30, 1907.

937,029.

Patented Oct. 12, 1909.



WITNESSES:
H. M. Shump
N. B. Downs

Blessing B. Strong
Executrix for
Benjamin G. Strong
INVENTOR.^{deceased}
BY *[Signature]*
ATTORNEY.

UNITED STATES PATENT OFFICE.

BLESSING B. STRONG, (NOW BY MARRIAGE BLESSING B. STRONG MARTIN,) OF READING, MICHIGAN, EXECUTRIX OF BENJAMIN G. STRONG, DECEASED.

MEANS FOR HYPODERMIC MEDICATION.

937,029.

Specification of Letters Patent.

Patented Oct. 12, 1909.

Application filed October 30, 1907. Serial No. 399,951.

To all whom it may concern:

Be it known that I, BLESSING B. STRONG, a citizen of the United States of America, residing at Reading, in the county of Hillsdale and State of Michigan, am the executrix of the last will and testament of BENJAMIN G. STRONG, late a citizen of the United States of America, deceased, who has invented new and useful Improvements in Means for Hypodermic Medication, of which the following is a specification.

This invention relates to new and useful improvements in means for the application of remedies under the epidermis of a person under medical treatment and the object of the invention is to provide a contrivance by the use of which a medicated solution may readily and effectively be applied hypodermatically without its coming in contact with any part of the appliance excepting the needle through which it is injected, and which is thus instrumental in rendering the operation hygienic and in eliminating the danger of blood poisoning and other ailments due to unclean instruments and surroundings. This object is attained by the means illustrated in the accompanying drawings in the views of which like parts are similarly designated and in which—

Figure 1 represents a side elevation and Fig. 2 a longitudinal section through the contrivance.

The principal feature of the invention comprises a collapsible, preferably gelatinous, continuous envelop (commonly known as a capsule) which contains the medicinal solution in absolute sterile condition, and into which a hypodermic needle is inserted. The fluid contained in the capsule is, in practice, ejected through the hollow needle by invagination of the collapsible envelop which is preferably accomplished by pressure applied through the medium of a suitable appliance.

The means employed to hold the needle in operative relation to the capsule and the contrivance used to invaginate the latter may be varied within the spirit of the invention, preference being given to the mechanical appliance illustrated in the drawings and which will now be described.

The reference character 5 designates the above mentioned capsule which preferably is egg shaped, and 6 a cylindrical barrel or

housing formed at one of its extremities with a concave or cup shaped seat 7 which is adapted to receive and hold the capsule during the operation of the device.

The closed end of the barrel terminates in an outwardly tapering, longitudinally split, externally threaded extension 8, provided with an axial aperture which communicating with the interior of the barrel, is designed to receive the hypodermic needle 9. A nut 10 screwed upon the split extension 8 is applied to firmly hold the needle in its adjusted position. The opposite, open extremity of the housing 6 is reinforced by a surrounding collar 11 provided with two opposite, laterally extending wings 12, which, while the operation is being performed, may be engaged by the two fingers between which the instrument is held, to facilitate its manipulation. The housing 6 is furthermore provided with two diametrically opposite openings 13 which extend longitudinally, intermediate its extremities and are designed to admit the capsule 5 for the purpose of depositing it into or removing it from the cup shaped seat 7.

A hollow plunger 14, fitted within the barrel 6, so as to be longitudinally movable therein, has a convex extremity 15, shaped in conformity with the seat 7 and is provided at its opposite outer end with a screw cap 16, which when removed, affords access to the interior of the member for the purpose of storing a quantity of the hollow, double pointed needles used in connection with the instrument.

The manner in which the device is employed is as follows:—The collapsible capsule 11 containing the medicinal solution, is placed within the cup-shaped chamber 7, after which a hypodermic needle is inserted through the axial aperture in the extension 8 of the housing 6 and forced inwardly until its point has punctured the skin of the capsule and projects within its interior, as illustrated in Fig. 1 of the drawings. The nut 10 is now screwed home upon the threaded extension, which secures the needle in its adjusted position. The physician, having partly withdrawn the plunger, now places the instrument between the fingers and after inserting the outer point of the needle beneath the epidermis of the patient, presses the plunger into the housing and against the

envelop 11, thereby invaginating the latter and causing the fluid contained therein to be ejected through the bore of the needle.

To guard against contamination of the medicinal solution by contact with unclean vessels or other appliances and to thus insure its sterility, it may be prepared and inclosed in accurately measured doses in the capsules in a chemical factory and thus supplied to the physicians in a condition ready to be used in the hereinabove described manner.

Having thus described the invention what is claimed is:—

1. A hypodermic injection means comprising an imperforate collapsible envelop adapted to contain a fluid, a needle having both ends sharpened and adapted to be forced through the envelop, clamping means for holding the needle in any desired position, and means for collapsing the envelop to force the fluid through the needle.

2. A hypodermic injection means comprising a casing, an imperforate collapsible envelop adapted to contain a fluid loosely placed in said casing, said casing having an

opening in its end, a needle adapted to pass through said opening and to be forced into the envelop, means for adjustably clamping the end of the casing around the needle, and a plunger carried by the casing and adapted to collapse the envelop to force the fluid therein through the needle.

3. A hypodermic injection means comprising a casing of cone shape having its lower end extended and split, a needle passing through said lower split end, a nut for clamping said split end around the needle to hold the same in place, an imperforate collapsible envelop loosely placed in the casing and through which one end of the needle is forced, said casing having a cylindrical portion at one end, a plunger held in said cylindrical portion and adapted to be reciprocated by hand to collapse the envelop.

In testimony whereof I have affixed my signature in the presence of two witnesses.

BLESSING B. STRONG,
Executrix.

Witnesses:

ALICE L. STRONG,
C. D. BEARD.