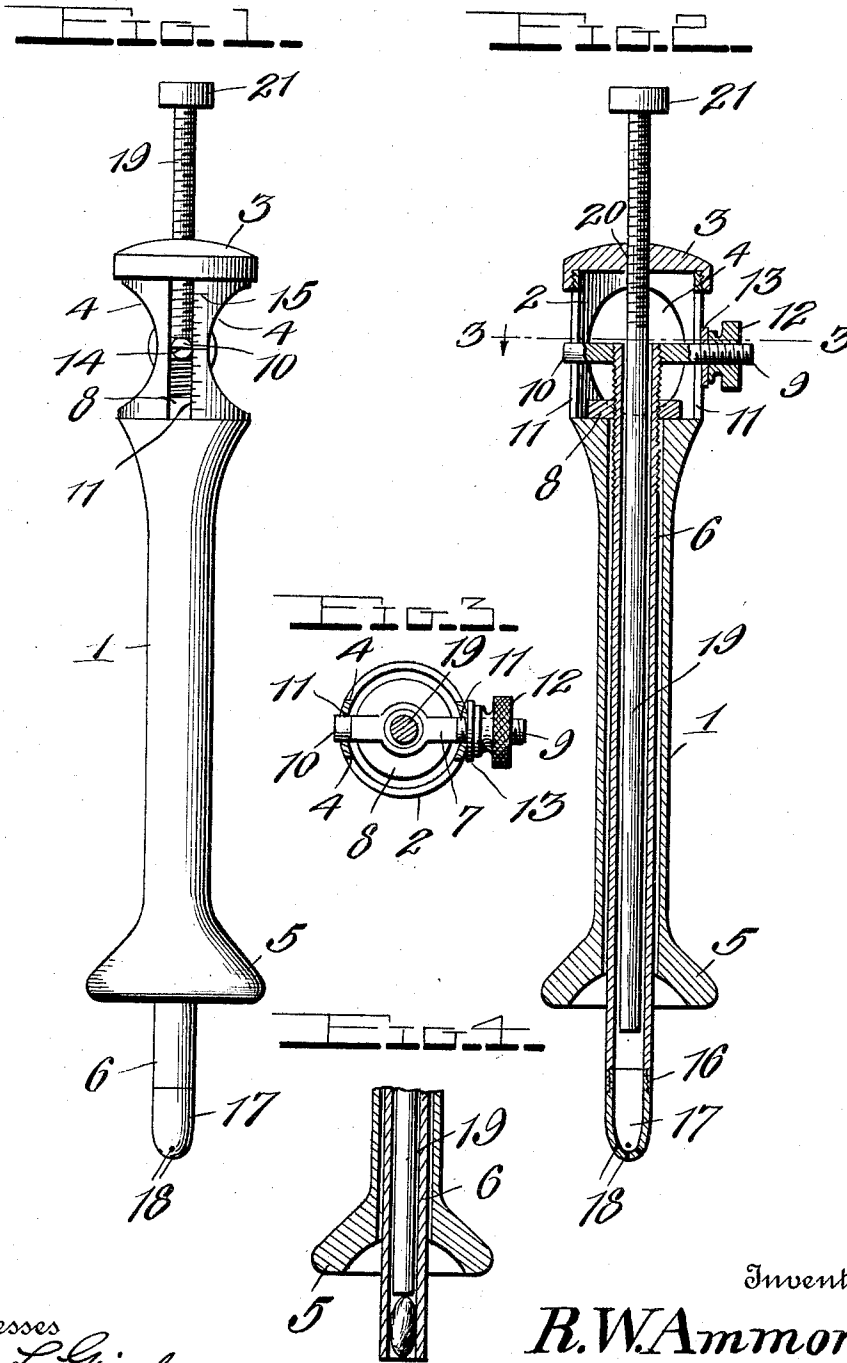


R. W. AMMONS.  
MEDICAL APPLICATOR.  
APPLICATION FILED AUG. 29, 1910.

1,006,341.

Patented Oct. 17, 1911.



Witnesses  
Chas. L. Griestauer.  
O. B. Hopkins

Inventor  
R. W. Ammons  
by H. B. Wilson & Co.  
Attorneys

# UNITED STATES PATENT OFFICE.

RALPH W. AMMONS, OF LOS ANGELES, CALIFORNIA.

MEDICAL APPLICATOR.

1,006,341.

Specification of Letters Patent.

Patented Oct. 17, 1911.

Application filed August 29, 1910. Serial No. 579,490.

*To all whom it may concern:*

Be it known that I, RALPH W. AMMONS, citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented certain new and useful Improvements in Medical Applicators; and I do 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 medical applicators.

One object of the invention is to provide a device of this character having means whereby medicinal preparations may be inserted and applied directly to the afflicted parts.

Another object is to provide an applicator of this character having means whereby a suppository may be held in position to be inserted and to be deposited at any desired distance, means being provided whereby the distance to which the medicinal preparation or suppository is to be inserted may be indicated.

With the foregoing and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts as will be more fully described and particularly pointed out in the appended claims.

In the accompanying drawings: Figure 1 is a side view of my improved applicator; Fig. 2 is a longitudinal sectional view showing the parts in position to apply a liquid or semi-liquid medicinal preparation; Fig. 3 is a cross sectional view on the line 3—3 of Fig. 2; Fig. 4 is a longitudinal sectional view of the outer end of the applicator showing the parts arranged for inserting and applying a suppository.

In the illustrated embodiment of the invention I provide an outer tube or casing 1 having on its upper end a hollow head 2 provided with a removable cap 3, which preferably has a screw threaded engagement with the upper end of the head as shown. The opposite sides of the head are cut away to form openings 4, the purpose of which will be hereinafter described. On the outer end of the tubular casing 1 is formed a cup shaped enlargement 5 which is adapted to fit snugly around the organ or parts in which the medicinal preparation is to be inserted. This cup shaped enlarge-

ment not only serves as a stop to prevent the entire instrument from entering the cavity but it also serves to catch any of the liquid or semi-liquid preparation used in the device which does not enter the cavity.

Slidably mounted in the tubular casing 1 is a plunger tube 6 the upper end of which projects into the hollow head 2 and has arranged thereon a cross-piece or head 7. The upper portion of the tube 6 is exteriorly threaded and on said threaded portion is arranged a stop nut 8 which is adapted to be adjusted on the tube to any desired position for limiting the distance at which the outer end of the tube may project beyond the outer end of the casing 1. On the opposite sides of the head 7 of the tube 6 are formed laterally projecting guide lugs 9 and 10 which are adapted to engage guide slots 11 formed in the opposite sides of the hollow head 2 of the casing. The guide lug 9 is extended and projects beyond the adjacent side of the head 2, said projecting end of the lug being screw threaded to receive a clamping nut 12 which is adapted to be screwed thereon and between which and the adjacent side of the head 2 is arranged a washer 13. On the outer end of the lug 10 at the opposite side of the head 7 is an indicating mark or pointer 14 which is adapted to cooperate with a graduated scale of measurement 15 arranged on the outer side of the head 2 along one side of the slot 11 through which the lug 10 projects. The clamping nut 12 on the threaded lug 9 serves as a handle for readily adjusting the plunger tube 6 to the desired position in the casing 1, which position will be indicated by the mark 14 and scale 15. After the tube 6 has thus been adjusted the same may be secured by screwing the clamping nut 12 or the washer 13 into tight engagement with the adjacent side of the head 2. After the parts have been thus adjusted and secured the nut 8 may be screwed down into engagement with the bottom of the hollow head 2 thus forming an additional means for fastening the tube 6 and preventing any possibility of the tube being projected through the casing further than the desired distance.

The outer end of the plunger tube 6 is recessed and threaded interiorly as shown at 16 and into said recessed threaded end is screwed the reduced threaded end of an injecting tip 17 in the outer end of which is formed a series of perforations 18. In thus

engaging the tip 17 the inner and outer surfaces thereof will be flush with the inner and outer surfaces of the tube 6.

Slidably mounted in the tube 6 is a plunger rod 19, the outer end of which is threaded for a suitable distance and said threaded end is adapted to engage a threaded aperture 20 formed in the cap 3 of the head 2, whereby the plunger rod may be adjusted in the tube 6 for ejecting the medicinal preparation when the tube is retracted. On the outer end of the plunger rod 19 is arranged an operating knob or handle 21 whereby said rod may be readily screwed inwardly or outwardly as desired. After the parts have been adjusted in the manner described and the outer end of the tube 6 inserted in position for applying the preparation the nut 12 is loosened which will permit the tube 6 to be retracted, thus forcing the preparation out of the perforations in the tip 17 and onto the parts to which the same is to be applied.

In arranging the parts for inserting and applying a suppository, the tip 17 is removed from the outer end of the tube 6 and the suppository placed in said end as shown in Fig. 4 of the drawings, after which the parts are adjusted and the end of the tube inserted in the same manner as previously described after which the tube is retracted thus causing the plunger rod to eject the suppository at the desired place.

From the foregoing description taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention as defined in the appended claims.

Having thus described my invention what I claim is:

1. In an applicator of the character described, a tubular casing, a plunger tube slidably arranged in said casing and having its outer end projecting beyond the same, a stop adjustable longitudinally on the inner end of the tube to engage the casing and limit the outward movement of the outer end of the tube, a plunger projecting into said tube and means for actuating said tube.

2. In an applicator of the character described, a casing having on its outer end a cup shaped enlargement, a hollow head formed on the opposite end of said casing, a plunger tube slidably mounted in said casing, said tube having on its inner end an operating head to work in the hollow head on the casing, a stop nut adjustably mounted on said tube to regulate the distance to which the outer end thereof projects beyond the cup

shaped end of the casing and a plunger arranged in said tube and adapted to eject a medicinal preparation therefrom when said tube is retracted.

3. In an applicator of the character described, a tubular casing, a hollow head formed on one end of said casing, a cap arranged on said head, a plunger tube slidably mounted in said casing, a head arranged on the outer end of said tube and slidably mounted in said hollow casing head, means to guide said head and tube, a stop nut having a screw threaded engagement with the outer portion of said tube whereby the latter is held in position to project the outer end thereof the desired distance beyond the outer end of the casing and a plunger adjustably secured in said cap whereby a medicinal preparation may be ejected from said plunger tube when the latter is retracted.

4. In a suppository applicator a tubular casing having an enlarged cup shaped outer end, a hollow head formed on the opposite end of said casing, said head being cut away on its opposite side to form openings and the remaining sides of said head having formed therein guide slots, an apertured cap on the outer end of said head, a plunger tube slidably mounted in said casing, a head arranged on the inner end of said tube and having a sliding engagement with said guide slots, a stop nut having a screw threaded engagement with said tube whereby the movement of the same in said casing is limited, a plunger arranged in said tube and having a screw threaded engagement with said apertured cap on the head of the casing and an operating knob on the outer end of said plunger.

5. In an applicator of the character described, a tubular casing, a plunger tube slidably mounted in said casing and having its outer end projecting beyond the outer end of the casing, a slotted guiding means on the inner end of the casing, a member carried by the inner end of the tube and working through the slot in said guiding means, said member having a threaded projecting end, a clamping nut on the threaded projecting end of said member to serve as a handle, and clamp the tube against movement with respect to the casing, a stop adjustable longitudinally on the inner end of the tube for engagement with the casing to limit the outward movement of the tube, and a plunger carried by the casing and projecting into the tube.

6. In an applicator of the character described, a tubular casing, a plunger tube slidable in said casing and having its outer end projecting beyond the outer end of the casing, a clamping device between the inner ends of the tube and casing whereby the former may be held in adjusted position with respect to the latter, and a plunger car-

ried by the casing and projecting into said tube.

7. In an applicator of the character described a tubular casing, a plunger tube  
5 slidable in said casing and having its outer end projecting beyond the outer end of said casing whereby the former may be held in adjusted position with respect to the latter, a stop longitudinally adjustable on the inner  
10 end of the tube to co-act with the casing and

limit the outward movement of the tube in the casing, and a plunger carried by the casing and projecting into the tube.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses. 15

RALPH W. AMMONS.

Witnesses:

A. A. ROOMHOWER,

F. R. ROGAN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."