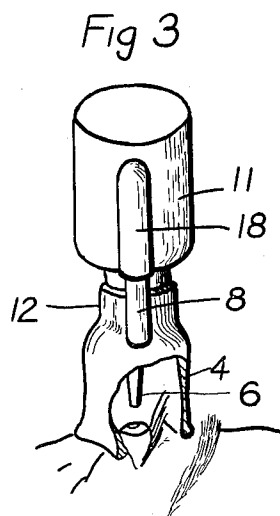
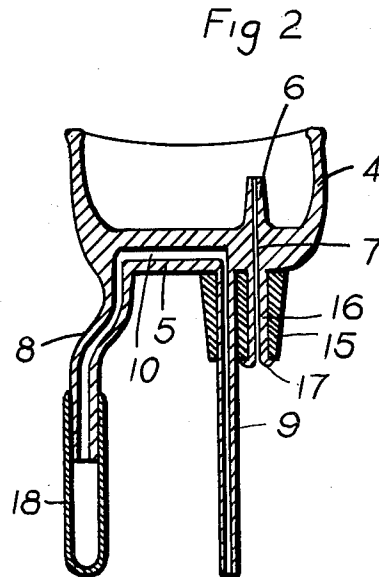
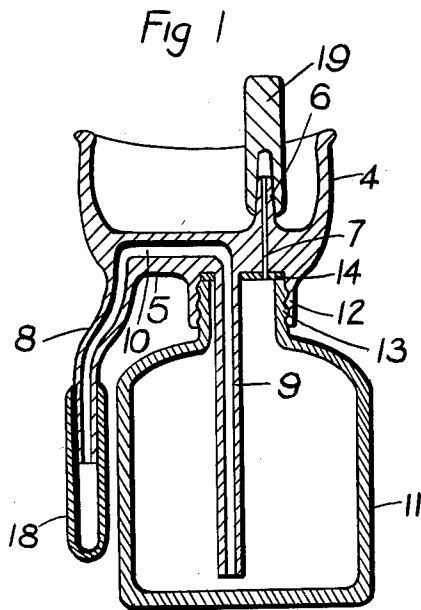


March 11, 1952

H. D. WINTLE, JR
MEDICAMENT APPLICATOR
Filed Nov. 15, 1949

2,589,178



INVENTOR.
Harry D. Wintle, Jr.
BY *John A. Seifert*
ATTORNEY

UNITED STATES PATENT OFFICE

2,589,178

MEDICAMENT APPLICATOR

Harry D. Wintle, Jr., Brooklyn, N. Y.

Application November 15, 1949, Serial No. 127,456

7 Claims. (Cl. 128-249)

1

This invention relates to a medicament applicator comprising a member removably mounted on a medicament carrying container with the container in medicament discharge communication with a drop dispensing portion of the member, and an air bulb adjustably carried by the member in air communication with the container to exert air pressure in the container and expel medicament in predetermined quantities from the container into the drop dispensing portion.

The object of the invention is to facilitate the administration of drops of medicament to a part of the human body, such as an eye or nose, without waste of the medicament and inconvenience to the user.

Another object of the invention is to dispense the medicament in desired quantities to the eye or nose.

Other objects and advantages of the invention will be described hereinafter.

In the drawing accompanying and forming a part of this application,

Figure 1 is a sectional view of a member forming the embodiment of the invention mounted on a medicament carrying container.

Figure 2 is a view similar to Figure 1 showing a modification of mounting the member on a container.

Figure 3 is a perspective view of the member applied to an eye with a side wall portion broken away to show a medicament dispensing portion of the member.

The embodiment of the invention is illustrated in the accompanying drawing as particularly adapted to dispense drops of medicament to an eye and comprises an eye cup member including a side wall 4 having a rounded edge conforming to the contour of the eye socket and an end wall 5.

The end wall 5 is provided with a tubular projection 6 extending from the inner face thereof into the eye cup member and adjacent to a portion of the side wall 4. The tubular projection is shown as integral with the end wall 5. The bore of the tubular projection 6 is extended through the end wall 5, as indicated at 7 in Figure 1. The end of the tubular projection 6 terminates within the rounded edge of the side wall 4. The tubular projection 6 is positioned in the eye cup member to discharge medicament adjacent to the corner portion or canthus of the eye.

The outer face of the end wall 5 is arranged with two tubes 8 and 9 integral with and extending from said end wall in spaced relation to each other. The tube 8 extends substantially in

2

the plane of the side wall 4 and the tube 9 is disposed in the end wall 5 between the bore 7 and the tube 8. The bores of the tubes 8 and 9 are connected in communication with each other through a passage 10 in the end wall 5 extending in the plane of said end wall.

The outer face of the end wall 5 is also arranged for mounting a medicament carrying container 11 thereon in communication with the bore 7 and tube 9.

In Figure 1, there is shown one form of mounting the container 11 on the end wall 5 comprising an annular skirt 12 extending from and integral with the outer face of the end wall 5 and surrounding the area of said face occupied by the bore 7 and tube 9. By this arrangement of parts, the container is in medicament discharge communication with the eye cup member through the bore 7 and in air communication with the bore of tube 8 through the bore of tube 9 and the passage 10. The skirt 12 is internally screw threaded to receive corresponding screw threads on the neck portion of the container and secure the eye cup member to the container, as indicated at 13 in Figure 1. To provide a liquid tight seal, a gasket 14 is engaged between the outer face of the end wall 5 within the skirt 12 and the mouth of the container 11. The gasket 14 is arranged with appropriate openings for the bore 7 and tube 9.

In Figure 2, there is shown another form of mounting the container 11 on the end wall 5 comprising a plug 15 of resilient material, such as rubber or cork, to fit into and seal the mouth of the container 11. Said plug 15 is provided with a pair of parallel openings therethrough for the tube 9 and a tubular extension 16 extending from the outer face of the end wall 5 with the bore of said tubular extension 16 in axial alignment and communicating with the bore 7. The end portion of the tubular extension 16 is extended from and peened over the end of the plug 15 to retain the plug on the outer face of the end wall 5, as shown at 17 in Figure 2.

In the structures shown in Figures 1 and 2, the tube 9 is of a length to extend to the lower portion of the container 11. The length of the tube 8 is shorter than the tube 9 and the tube 8 is bent to extend parallel to the container 11 to permit the slidable engagement of an air bulb 18 of resilient material, such as rubber, on the end of the tube 8. The slidable engagement of the bulb 18 on the tube 8 permits adjustment of the bulb 18 longitudinally of the tube 8 to vary the amount of air pressure delivered to the container

3

11 and the quantity of medicament discharged from the container 11 through the bore 7 into the eye cup member by the compression of the bulb 18.

When the device as shown in Figures 1 and 2 is not in use, the tubular projection 6 is closed by a removable closure cap 19, as shown in Figure 1.

When it is desired to use the device for dispensing drops of medicament to a nostril of a nose, the side wall 4 of the cup member is permanently removed to permit the engagement of the tubular projection 6 in said nostril.

Having thus described my invention, I claim:

1. In a medicament applicator, a member having one face arranged for the mounting of a medicament container thereon, a tubular projection on the opposite face of the member having a bore extending through said member within the mounting for the medicament container to receive medicament from the container, a tube extending from the first face of the member within the mounting for the medicament container to extend into said container, a second tube extending from the first face of the member exteriorly of the mounting for the medicament container and communicating with the first tube through a passage in the member, and an air bulb mounted on the end of the second tube to exert pressure in the medicament container and force a predetermined quantity of medicament through the tubular projection.

2. A medicament applicator as claimed in claim 1, wherein the tubular projection and tubes are integral with the member.

3. A medicament applicator as claimed in claim 1, wherein the air bulb is adjustably mounted the second tube to discharge predetermined quantities of medicament through the tubular projection.

4. A medicament applicator as claimed in claim 1, wherein the mounting for the medicament container comprises an annular skirt integral with the member and arranged to be secured on the neck portion of the medicament container.

5. In a medicament applicator as claimed in

4

claim 1, a tubular extension extending from the first face of the member and having the bore thereof communicating with the bore of the tubular projection, and the mounting for the medicament container comprising a plug of resilient material mounted on the first tube and the tubular extension and adapted to be engaged in the mouth of the medicament container with the end portion of the first tube extending from the end of the plug and the end of the tubular extension peened over the end of the plug to secure the plug to the member.

6. A medicament applicator as claimed in claim 1, wherein the tubular projection is adjacent to a side of the member, the second tube is adjacent to the opposite side of the member, and the first tube is between the tubular projection and the second tube.

7. In a medicament applicator, a member having an end wall arranged with a bore extending therethrough and a passage in said end wall extending in the plane thereof, tubes communicating with the opposite ends of said passage and extending from one face of the end wall, a medicament container removably mounted on said face of the end wall in communication with the bore and one of the tubes, and an air bulb mounted on the other tube, in communication with the passage, whereby compression of the air bulb exerts pressure in the medicament container and expels medicament from the container through the bore.

HARRY D. WINTLE, JR.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,855,653	Strauss	Apr. 26, 1932
2,524,720	Watrous	Oct. 3, 1950

FOREIGN PATENTS

Number	Country	Date
125,795	Great Britain	May 1, 1919