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E. C. HAAS

1,736,078

CARTRIDGE FOR USE IN MEDICINE APPLYING MEANS

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Fig. 1.

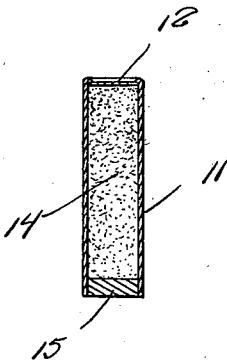


Fig. 2.

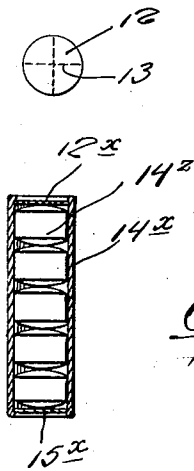
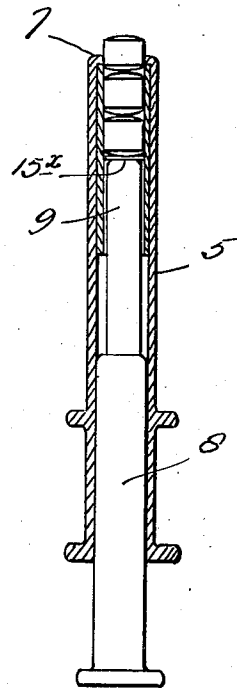


Fig. 3.

Fig. 4.



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CARTRIDGE FOR USE IN MEDICINE-APPLYING MEANS

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In Patent #1,642,950, dated September 20, 1927, I disclose a medical powder applicator.

My present invention consists in a cartridge or cartridges for use in the applicator 5 constituting the subject of my above mentioned patent, and its novelty and practical advantages will be fully understood from the following description and claims when read in connection with the drawings, in which:

10 Figure 1 is a diametrical section of the cartridge disclosed in my above mentioned patent and constituting an invention separate and independent from the applicator claimed in the patent.

15 Figure 2 is a detail plan view of the thin paper top wall of said cartridge.

Figure 3 is a diametrical section with parts in elevation illustrative of a modification.

20 Figure 4 is a sectional view, partly in elevation illustrative of the manner in which the modified cartridge is used in the applicator constituting the claimed subject matter of my said patent.

25 Similar numerals of reference designate corresponding parts in Figures 1 and 2, to which attention is now particularly directed.

At 11 is a heavy paper or cardboard cartridge of cylindrical formation and of a diameter such as to permit of the free movement of the same, within the cylinder 5 of the applicator, the said cylinder 5 being formed with an internal lip 7, and being combined with an elongated piston 8, the inner end portion of which is formed by a reduced stem 9. 30 The top wall of the cartridge is composed of thin paper 12 having crossed perforations 13 therein.

The perforations 13 are provided so that the paper may be easily moved when pressure 40 is applied to the medicinal powder 14 in the cartridge. Arranged within the lower end of the cylindrical cartridge is a plunger like wad 15, designed to be moved by the reduced stem 9 of the piston 8, when the same 45 is forced thereagainst, it being obvious that the reduced stem 9 is for the purpose of permitting the same to pass into the body of the cartridge during the forcing of the powder from the cartridge. Obviously, when the 50 cartridge shown in Figure 1 is to be employed,

the plunger portion 9 will be provided with a pin at its forward end as illustrated in my said Patent 1,642,950, and after the said stem has been forced through the wad 15, a further pressure upon the outer end of the piston 8 55 will cause said wad to so act against the powder 14 within the cartridge as to bring about the breaking of the wall 12 and the resultant projection of the powder from the cartridge.

Manifestly, by the means thus far described, medical powder may be projected 60 into different orifices of the body; and it will also be appreciated that impalement of the wad 15 on the plunger 10 will avert the wad 15 being left in the orifice while the wall 12 65 will be retained in the cartridge body by the lip at the upper end of said body, Figure 1.

In Figures 3 and 4 of the drawings, I illustrate a modified cartridge of my invention. The said modified cartridge comprises a cylindrical body 14^x, and soluble discs 15^x and 12^x removably arranged in the opposite end 70 portions of the body 14^x.

In the cylindrical body 14^x and between the discs or wafers 15^x and 12^x are arranged in 75 superposed relation a plurality of soluble tablets 14^z of medical powder.

The cartridge of Figure 3 is designed to be placed in the cylinder 5, after the manner shown in Figure 4, and manifestly, when the 80 plunger 8 is moved forwardly, the portion 9 of the plunger will displace the inner wafer 15^x as well as the tablets 14^z and the wafer 12^x from the body 14^x and bring about deposit of the same in an orifice of the body; the cylindrical body 14^x being retained in the cylinder 85 by the beforementioned lip 7 at the forward end of the cylinder. In this connection, it will be understood that within the purview of my invention, the discs or wafers 15^x and 12^x may be made of any readily soluble substance, and when deemed expedient, the said discs or wafers 15^x and 12^x may be composed of medical constituents similar to 90 the tablets 14^z.

As will be gathered from the foregoing, both types of cartridges disclosed are susceptible of ready production and are adapted to be packed in boxes or the like and handled 100 with facility as occasion demands, it being

simply necessary when one of the cartridges is to be placed in the cylinder 5 to first remove the plunger from said cylinder, and then drop the cartridge to its position against the lip 7 and then replace the plunger in the cylinder, whereupon when the applicator is inserted in a body orifice and the plunger is moved forward, the contents of the cartridge body will be displaced and projected into the body orifice.

I have specifically described both embodiments of my invention with a view to fully disclosing the same. I do not desire, however, to restrict myself to the specific construction disclosed, my invention being defined by my appended claims, within the scope of which modifications may be made without departure from my invention. For instance the medicine in the cartridge may, within the purview of my invention, be in any desired or appropriate form as powder, tablets, salve or liquid. Having thus described my invention, what I claim as new is:

1. As a new article of manufacture, a cartridge for use in a medicine applicator, comprising a cylindrical body, spaced retaining means in said body adjacent to the forward and rear ends thereof, and medicine in the body between said retaining means and displaceable from the body by means operable against the rearmost retaining means; the forward retaining means being displaceable by pressure directly exerted against it by said medicine.

2. As a new article of manufacture, a cartridge for use in a medicine applicator, comprising a cylindrical body, spaced retaining means in said body adjacent to the forward and rear ends thereof, and medicine in the body between said retaining means and displaceable from the body by means operable against the rearmost retaining means, the retaining means in the body being in the form of soluble wafers, and the medicine between the said retaining means or wafers being in the form of soluble tablets arranged end to end.

3. As a new article of manufacture, a cartridge for use in a medicine applicator comprising a body of hollow form, spaced soluble wafers in the ends of said body, and medicine in the body and between said wafers and displaceable from the body by means operable against the rearmost wafer.

In testimony whereof I affix my signature.
EARLE C. HAAS.