June 10, 1958 R. F. SNYDER 2,838,204

PELLET DISPENSING DEVICES

Filed Dec. 20, 1954

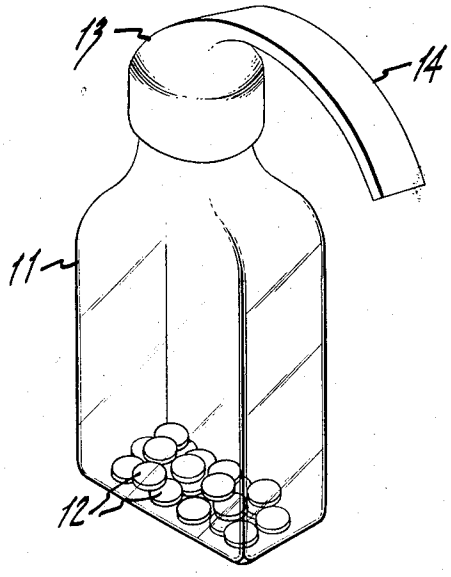


FIG. 1

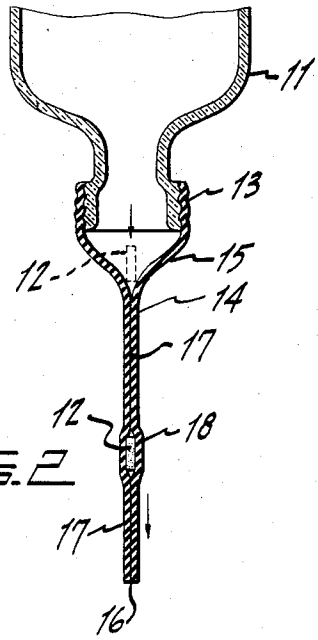


FIG. 2

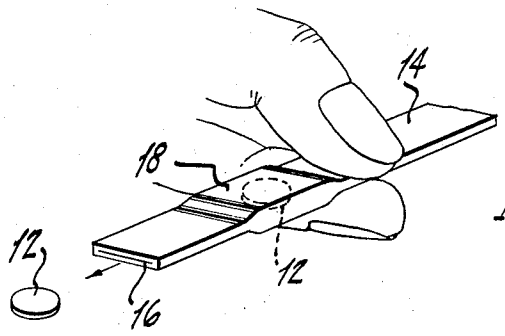


FIG. 3

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United States Patent Office 2,838,204 Patented June 10, 1958

2,838,204

PELLET DISPENSING DEVICES

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Application December 20, 1954, Serial No. 476,220

1 Claim. (Cl. 221—307)

My present invention relates to dispensing mechanisms and more particularly to dispensing means for pellets or tablets.

Some tablet dispensing mechanisms are quite intricate and expensive to manufacture. While they dispense pills or tablets in a desirable manner they offer little protection from moisture or other forms of contamination during use and standby conditions. For example, there are certain tablets useful in the analysis of urine-sugar that are hygroscopic. They react with water to generate sufficient heat to promote a chemical reaction with the sugar which results in a color indication of the percentage of sugar content. These tablets are available in several forms, being packaged in individual foil containers as well as in bulk form in various sized bottles. They become less expensive on a unit basis if purchased in the larger bulk forms.

I have found that these tablets are so hygroscopic that it is almost impossible to utilize fifty percent of the tablets in bottle form before the remainder are rendered useless or unreliable due to the moisture penetration in the bottle caused by repeated opening of the container for access thereto.

It is obvious that many chemical reagents and medicinals are similarly affected by contaminating atmospheres or particle penetration of the container.

It is therefore the object of my invention to provide a dispensing means which protects the contents of a bottle or container from moisture contamination.

Another object of the invention is to provide an inexpensive means to dispense pellets or tablets from a container.

A further object of the invention is to provide a closure for containers which will seal the contents thereof against contamination during periods of disuse yet permit the issuance of a tablet or pellet without exposing the contents to external contamination.

The characteristic features of my invention are defined in the appended claim and the preferred embodiment is described in the following specification and shown in the accompanying drawings of which—

Figure 1 is a perspective view of a bottle embodying the new dispensing closure.

Figure 2 is a fragmentary cross-sectional view of the dispenser embodying the present invention, showing a tablet in the process of issue.

Figure 3 is an enlarged perspective view of the dispensing portion illustrating the manipulating process for issue.

The preferred embodiment of my dispensing bottle closure has two major portions, the closure part 13 and

the dispensing part 14, both portions being made of a resilient material.

The closure 13 may be molded of resilient material during manufacture or may consist of only one part 14 elastically stretched over the neck of the bottle 11, or other container. The dispensing portion 14 is a flat-walled tube of resilient material having a longitudinal slit 16 through which the tablets 12, or pellets are individually manually manipulated. The inner wall surfaces of the flat-walled tube are in surface contacting relation when free of any passing tablet. As shown in Figure 2 the enlarged closure portion 13 and the dispensing portion 14 are connected by a funnel portion 15 which orients the tablet 12 on approach to slit 16 in order that it may be easily induced therein. The dispensing portion 14 has sufficient length to insure a closed portion 17 on all sides of a centrally located tablet 18 to prevent air or moisture from penetrating the bottle 11 during dispensing periods. The length of the portion 14 as shown in Figure 1 may be longer than is necessary to practice my invention. If more rapid dispensing action is desired and where atmospheric contamination is not of primary importance the length of the dispensing portion may be decreased, since any channel formed by a tablet during issue would be minor in comparison with bottlecap removal.

The weight of the dispensing portion 14 provides additional insurance against moisture creepage due to the resultant pinching action on slit 16 during standby condition as illustrated in Figure 1. Additional insurance against contamination developes after issuance of a portion of the contents 12 since the removal of the contents increases the volume within the bottle without increasing the amount of air therein, thereby creating a partial vacuum. Increased air pressure on the outside of the resilient material assists in maintaining complete closure of slit 16.

Although I have described my invention with a certain degree of particularity, it is understood that the present disclosure has been made only by way of example and that numerous changes in the details of construction and arrangement of parts may be resorted to without departing from the spirit and the scope of the invention as hereinafter claimed.

What is claimed is:

A storage and dispensing device for pellet-like objects subject to contaminating external influences comprising a container having an orifice therein, and a cooperating dispenser element connected thereto in an airtight manner and extending outwardly from said container, said element being a length of flat walled tubing of resilient material having a divergent section and a normally closed passageway section, said divergent portion being connected to said orifice and adapted to introduce and orient said object into the normally closed passageway section for manipulation therethrough, said normally closed section of tubing having a length to provide closed sections on both sides of a pellet which is centrally located therein to shield unused objects remaining within said container from contaminating external influences by sealing off said container before dispensing an object.

References Cited in the file of this patent

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