B. B. THORSEN.

SPREADER FOR MUCILAGE AND OTHER LIQUIDS.

APPLICATION FILED JAN. 13, 1910.

1,000,053. Patented Aug. 8, 1911.

Fig. 1

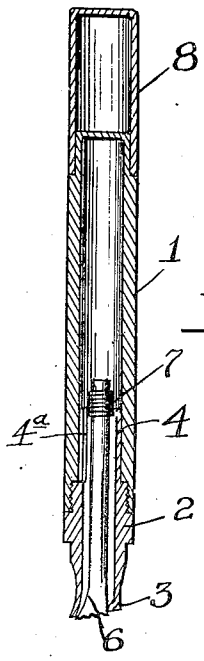


Fig. 2

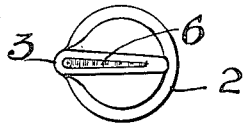


Fig. 3

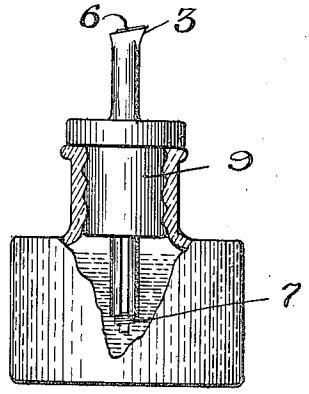


Fig. 4

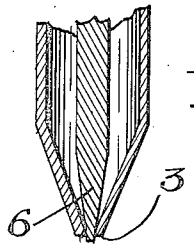


Fig. 5

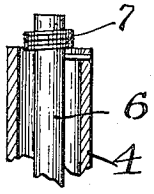


Fig. 6

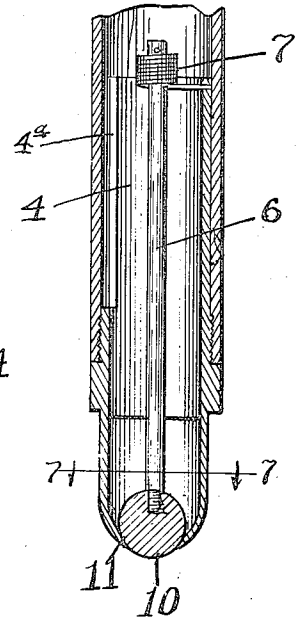
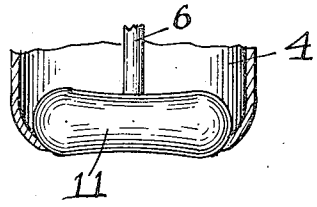


Fig. 7



Witnesses

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UNITED STATES PATENT OFFICE.

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SPREADER FOR MUCILAGE AND OTHER LIQUIDS.

1,000,053. Specification of Letters Patent. Patented Aug. 8, 1911.

Application filed January 13, 1910. Serial No. 537,827.

To all whom it may concern:

Be it known that I, BENJAMIN B. THORSEN, a citizen of the United States, and a resident of the city of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Spreaders for Mucilage and other Liquids; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the numbers of reference marked thereon, which form a part of this specification.

This invention relates to that class of spreaders adapted for use with viscid liquids or those having a tendency to clog the discharge orifice in such spreading or dropping devices as have heretofore been used.

The object of this invention is to afford a device of the class described adapted for use in spreading or dropping a liquid of any kind but more particularly adapted for use with viscous liquids.

It is also an object of the invention to afford a construction in which a movable part within the discharge orifice serves to afford a valve closure when the device is not in use and affords also a movable element to facilitate the flow when it is desired.

It is also an object of the invention to afford in connection with a device such as described, a receptacle adapted to contain a sufficient supply of fluid, said spreading device serving as the closure to prevent deterioration of the contents.

The invention consists in the matters hereinafter described and more fully pointed out and defined in the appended claim.

In the drawings: Figure 1 is a central, longitudinal section of a device embodying my invention. Fig. 2 is an enlarged end elevation thereof. Fig. 3 is a side elevation broken away, of a mucilage or paste bottle provided with a device embodying my invention. Fig. 4 is an enlarged sectional view of the spreading or dropping point. Fig. 5 is an enlarged sectional detail illustrating the connection of the dropping point or closure with the body of the receptacle. Fig. 6 is an enlarged longitudinal sectional view showing the point or closure of a different form than that illustrated in Figs. 1 to 4 inclusive. Fig. 7 is a fragmentary detail of another form of point.

As shown in the drawings: 1, indicates an elongated receptacle adapted to be carried in the pocket and contains the liquid to be dispensed. Said receptacle is provided at its lower end with an internal screw thread adapted to receive therein a nozzle or dropping head 2, which is threaded therein and at its lower end is tapered downwardly and at its extremity affords a narrow transverse slit 3, said tapered end, as shown, being cut somewhat obliquely as indicated in Figs. 1 and 3, and extended at one side thereof. Integral with said dropping nozzle is a sleeve 4, which is slitted at one side at 4^a, and which extends upwardly in said receptacle and at the top of which is secured the spreader 6. Said spreader may be of metal or any suitable material and extends downwardly in the dropping nozzle to the orifice and at said orifice is provided with a relatively thin waved knife-like blade which fits in and is capable of closing said orifice. The shank of said spreader extends upwardly in the sleeve and is secured at the top of the sleeve by means of a spring 7, which acts at all times to hold the knife edge of said spreader slightly projected beyond the end of the nozzle 2, as illustrated in Figs. 1 and 4. By forming the nozzle 2 with the sleeve 4, and attaching the spreader 6 thereto at the upper end of said sleeve, I locate said spring 7 away from the discharge end, so that should the liquid tend to harden at that point, which will occur with viscous liquids like mucilage, said spring will be far enough away from said point not to be affected thereby. Furthermore, by slitting the sleeve 4 at 4^a I provide for the more ready flow of the liquid to the discharge point, an important feature when viscous liquids are used.

In the construction shown in Fig. 1, a cap 8, is adapted to be secured to cover the discharge orifice and when removed is capable of being secured on the upper or closed end of the receptacle, thus at all times sealing the device from evaporation.

The construction shown in Fig. 3, is as before described with the exception that the dropping device is incorporated with and affords a part of the stopper 9, for a mucilage bottle.

The construction illustrated in Figs. 6 and 7, is similar to that before described

with the exception that instead of a knife-like spreading and dropping blade the stem 6, may be threaded into or otherwise secured rigidly to a ball 10, or oblong rounded body 11, as shown, of greater dimension than the orifice in the nozzle, so that the spring at all times acts to hold the same in said nozzle except when applied with sufficient pressure upon the object to be moistened or pasted to force the same inwardly sufficiently to permit the escape of the liquid therepast. This construction obviously affords a perfect valve closure to prevent evaporation or loss when not in use and a desirable spreader inasmuch as the liquid flows down over the surface of the spreader permitting the thorough moistening and spreading of the liquid thereby with uniformity.

The operation is as follows: The liquid is contained either in a separate receptacle for which the dropper affords the stopper, or the receptacle may be constructed integral with the nozzle, and secured therein is the dropping point, which may be of any suitable material and when in its extended position under the influence of the spring 7, serves as a closure of the orifice to protect the fluid from leakage and also to prevent evaporation. When in use pressure on the extended portion forces the spreader inwardly affording a sufficient clearance for the liquid to escape past the same, a very slight inward pressure being sufficient. The surface of the spreader being moistened, movement along the surface to be treated serves to uniformly spread the liquid. This is assisted by the shape of the spreader which, not being straight, leaves sufficient liquid behind for the purpose required.

While I have described the device as intended primarily for use with viscous liquids such as mucilage or other more or less sticky substances or liquids, it is obvious that the construction may be utilized for any desired purpose for which adapted, that materials of any suitable kind may be employed, and that details of construction may vary without departing from the principles of this invention.

I claim as my invention:

A device of the character described, embodying a receptacle, a nozzle connected therewith and comprising a tapered outer end, an intermediate threaded portion and an extended inner sleeve slitted at one side, a movable spreader for said nozzle, and a spring acting to force said spreader outward to close said nozzle.

In testimony whereof I have hereunto subscribed my name in the presence of two subscribing witnesses.

BENJAMIN B. THORSEN.

Witnesses:

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