March 31, 1931. H. W. NAYLOR 1,799,059

PACKAGING DILATOR

Filed Feb. 21, 1930

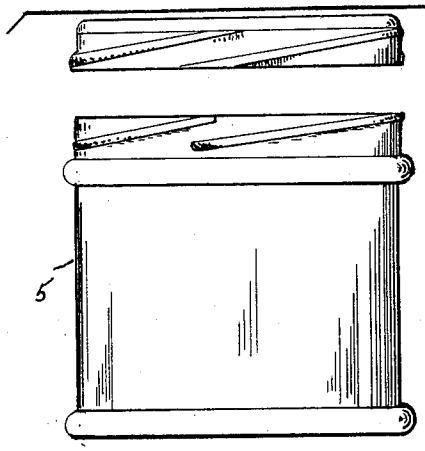


Fig. 1

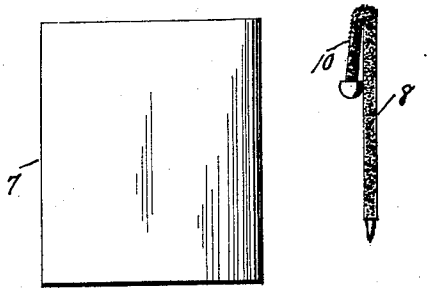
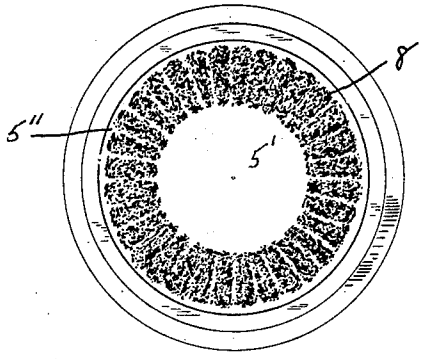


Fig. 2

Fig. 3



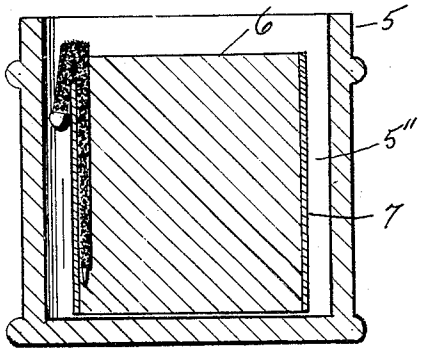
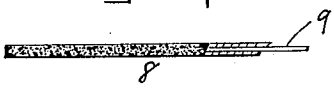


Fig. 4

Fig. 5



INVENTOR
HOWARD W. NAYLOR
BY Jacob Richmond
ATTORNEY

Patented Mar. 31, 1931 1,799,059

UNITED STATES PATENT OFFICE

HOWARD W. NAYLOR, OF MORRIS, NEW YORK

PACKAGING DILATOR

Application filed February 21, 1930. Serial No. 430,322.

The principal objects are to provide for packaging teat dilators in such way as to provide for keeping their tips or points and the major portions of their bodies immersed in a sterile, medicated, moist state, and their handle portions in a dry state; and in such way that while prepared or standardized, as to length, for average use they may be lengthened in emergency by simple manipulation of the dry handle portion.

The nature, characteristic features and scope of the invention more readily will be understood by reference to the following description taken in connection with the accompanying drawings forming a part hereof, wherein

Figure 1 is an elevational view showing in detail relation the novel assembly of my invention, namely, the main receptacle, centering shell or inner receptacle and dilator.

Fig. 2 is a top view of the package with the cover removed.

Fig. 3 is a vertical section.

Fig. 4 is a detail showing the absorbent sheath partly removed to expose the ductile core.

Fig. 5 is an elevational view of one of the improved dilators lengthened by returning the handle portion to the plane of the body.

In the practice of my invention, the main receptacle 5 is divided by a suitable partition to provide a central space, well or area 5′ designed for the reception of the usual grease, medicament or sterile agent 6, wherein the dilators are disposed, and to form a surrounding dry space or compartment 5″ in which, by design, there is no grease and which according to my practice receives the handle ends of the dilators and also serves to insulate or protect the contents of the well or inner compartment from deleterious action of heat or cold. A simple way of accomplishing this is by the provision of a cylindrical shell 7 of a diameter such as readily will pass the mouth of the receptacle and when lodged therein will form with the receptacle, a dry repository for the handle portions of the dilators, the shell performing the further offices of a carrier for the dilators and also a well for the medicament or sterile agent which receives the pointed ends of the dilators.

In further accordance with my inventive thought and to promote its ultimate purpose, the dilators 8, which as usual are formed or provided with absorbent covering, are constructed with an adjustable or bendable core 9. The latter might well be copper, aluminum or other ductile metal. In any event, the construction is such that, without regard to the details of the tip, handle and body coverings, the handle end may be doubled upon itself, as at 10, in crook or hairpin fashion. The purpose of this is twofold, namely, to provide for mounting or centering the dilator on the rim of the cylindrical shell 7 so that the tipped ends of the dilators are directed into the wet compartment and the opposite ends are directed into the dry compartment; and, while providing for standard length, to inherently provide for increase of length by straightening the handle portion or restoring it to the plane of the body, as shown for example, in Fig. 5.

Having described my invention, I claim:

1. A package of teat dilators comprising a receptacle having wet and dry compartments, and a centering device for the dilators whereby they are supported so that their tip portions are in the wet compartment and their handle portions are in the dry compartment.

2. A package of teat dilators comprising a receptacle having separate wet and dry compartments, a dilator support defining said compartments, and dilators having their handle portions in a plane outside that of the body portions whereby they straddle the support.

3. A package of teat dilators comprising a receptacle having separate wet and dry compartments, a dilator support defining said compartments, and extensible dilators cooperating with said support whereby their tips are directed into the wet compartment and their handles are directed into the dry compartment.

4. A package of teat dilators comprising a receptacle having separate wet and dry compartments, a partition defining said com-

partments and affording a marginal support for the dilators, and dilators of standard length having bendable hooked portions which may be straightened in the plane of the dilator to increase its effective length, said hooked portions overlying said marginal support so that the dilators are received contemporaneously partly in the wet compartment and partly in the dry compartment.

5. A package of teat dilators comprising a receptacle having separate wet and dry compartments, a cylindrical shell defining said compartments and adapted to support an annular series of dilators whose handle portions are bent over the rim thereof towards the tip end of the dilators whereby, while providing for storage in small compass of dilators of standard length, the effective length may be increased by restoring the handle portions to the plane of the body.

6. A package of teat dilators comprising a receptacle having separate wet and dry compartments, a dilator support detachable with relation to the receptacle and when in position defining therewith the compartments stated, said support comprising a cylindrical shell having a core of medicament, and dilators of standard length having bendable hooked portions which may be straightened in the plane of the dilator to increase the effective length thereof, said hooked portions straddling the rim of the shell so that the tips are imbedded in the core and the handles are directed into the dry compartment.

7. A package of teat dilators comprising an inner receptacle containing application material in which the dilators are received and adapted marginally to support the dilators so as normally to keep their handle portions out of contact with said material, and an outer receptacle in spaced relation with the inner receptacle to accommodate the handle portions to the dilators and to insulate the contents of the inner receptacle.

In testimony whereof I affix my signature.

HOWARD W. NAYLOR.