

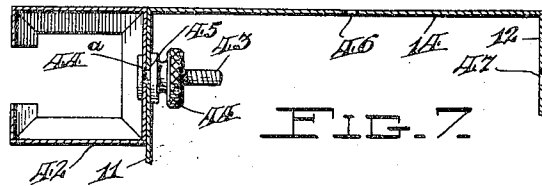
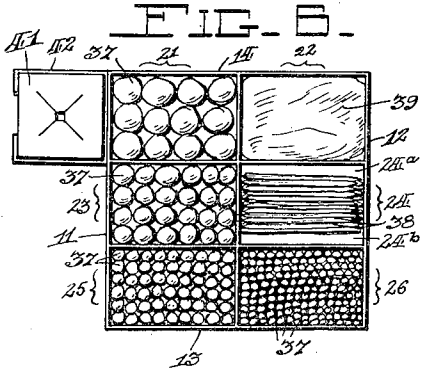
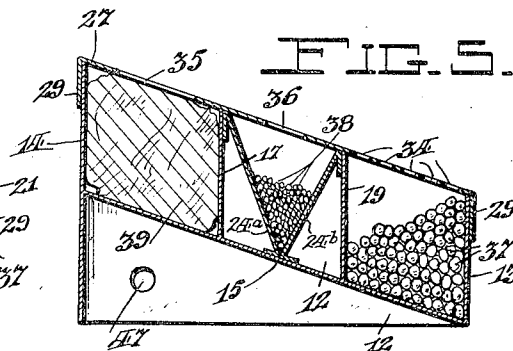
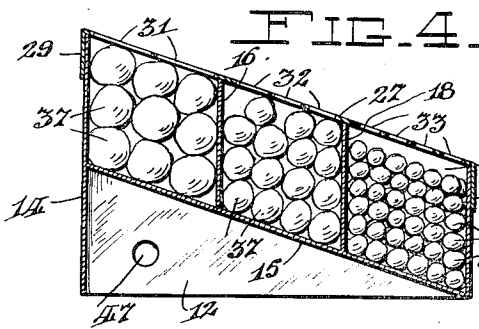
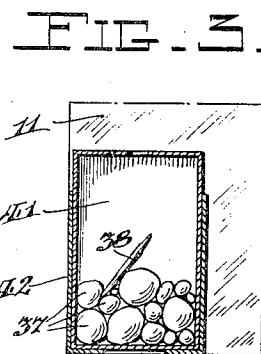
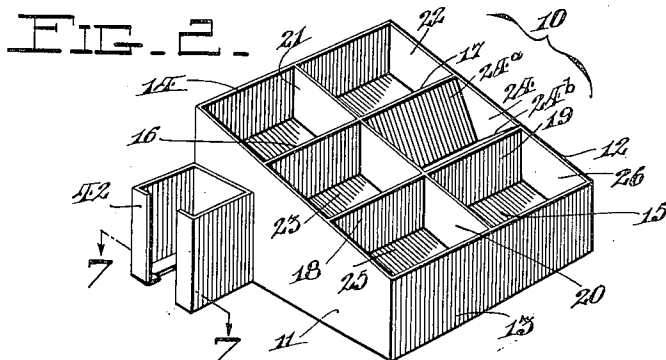
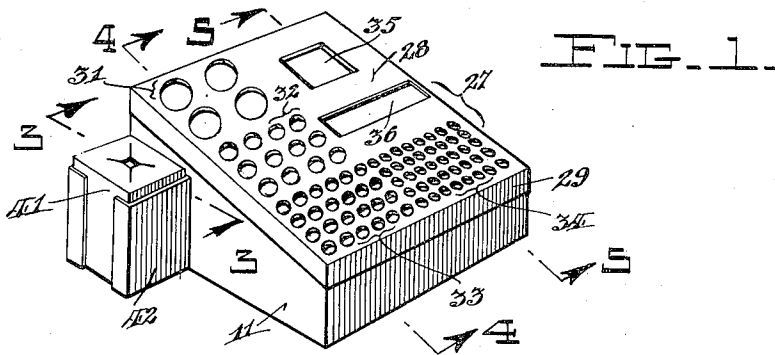
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K. N. YODER

1,998,481

DISPENSING DEVICE

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# UNITED STATES PATENT OFFICE

1,998,481

## DISPENSING DEVICE

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Application October 10, 1933, Serial No. 692,938

11 Claims. (Cl. 206—63.5)

This invention relates to devices adapted for dispensing fibrous material, such as cotton, in desired quantity and convenient form; and more particularly to the type useful in connection with dental work, or the like.

Devices for dispensing sterilized cotton in loose or pellet form in connection with dentistry are well known. However, the devices heretofore obtainable for this purpose were incapable of dispensing certain required absorbent articles, and were therefore all more or less limited in their usefulness, as well as inefficient, in that they were of such design that they did not satisfactorily expedite dispensing of the articles, or most effectively serve as an aid to a dentist in quickly selecting a desirable quantity and convenient form of absorbent material.

With this in view, one object of my invention is to provide a novel device for dispensing fibrous material, such as cotton, in desirable quantity and convenient form, and one which overcomes the mentioned and other detrimental features of the prior art devices.

Another object is to provide a device of this type which includes a multi-compartment container having an opening adapted to afford access to all the compartments, and a removably mounted lid for said opening provided with a group of similar apertures for each compartment, all the apertures of one group being of a different size from the apertures of another group and extending substantially across one entire wall of a respective compartment thereby to facilitate withdrawal of material from any material part of each compartment.

Another object is the provision of such a device having a single selecting panel or gauge plate arranged in full view of the user of the device and provided with one or more apertures for each compartment which indicate the approximate size and shape of the articles therein, so as to eliminate the possibility of mistakes occurring when selecting the desired quantity or form of material.

A further object is to provide such a device in the form of a multi-compartment container having an opening at its top adapted to facilitate determination as to the contents of each compartment and also afford ready access to all the compartments so that the same can be quickly and easily filled; the container being supported so that the compartments are at a different elevation relative to each other, with said opening conveniently inclined toward the user of the device so as to be completely within his line of vis-

ion; a removably mounted lid being provided for closing said inclined opening; the lid having shape and size indicating material withdrawing apertures therein also in full view when the device is in use, thereby making it unnecessary for the user to shift his gaze or the container when making a selection of the material within the various compartments of the device.

Another purpose is to provide a device of this character having a waste container support separably connected therewith in such manner that its position can be selectively changed to suit the convenience of the user.

Still another object is the provision of a device of this type which is simple in construction and which can be cheaply and easily manufactured.

With these and other objects in view, which will become apparent from the following detailed description of one illustrative embodiment of my invention, shown in the accompanying drawing, the invention consists in a dispensing device embodying the novel elements, features of construction and arrangement of parts in cooperative relationship as more particularly pointed out in the claims appended hereto.

In the accompanying drawing:

Fig. 1 is a perspective view of my novel dispensing device.

Fig. 2 is another perspective view of my device, similar to Fig. 1, but with certain parts omitted to more clearly show some of the structural details.

Fig. 3 is a vertical cross-sectional view taken substantially as indicated by the arrows 3—3 on Fig. 1.

Fig. 4 is a vertical cross-sectional view taken substantially as indicated by the arrows 4—4 on Fig. 1.

Fig. 5 is vertical cross-sectional view taken substantially as indicated by the arrows 5—5 on Fig. 1.

Fig. 6 is a top plan view of the device shown in Fig. 1, but with the selecting panel or gauge plate removed therefrom.

Fig. 7 is a plan sectional view as seen by looking in the direction of the arrows 7—7 on Fig. 2.

My novel dispensing device comprises a multi-compartment container, generally indicated by the numeral 10, having side walls 11 and 12 with sloping top edges, front and rear walls 13 and 14, a bottom plate 15, and compartment partitions 16, 17, 18, 19 and 20. The container 10, is open at its top so as to afford ready access to the various compartments 21, 22, 23, 24, 25 and 26, which, in the present instance are all of the same

size and shape; the compartment 24 having a V-shaped bottom formed by suitable members such as the plates 24<sup>a</sup> and 24<sup>b</sup> which may be rigidly connected to the partitions 17 and 19 and bottom plate 15, or merely placed thereagainst.

A closure member or lid 27 is provided for closing the top of the container 10, and is in the form of a selector panel or gauge plate 28, having a depending flange 29 adapted to contact with and lightly grip the upper ends of front and rear walls 13 and 14 and side walls 11 and 12 of the container 10. The gauge plate 28 is provided with groups of circular apertures 31, 32, 33 and 34, the individual apertures of each group being of a different size from the apertures of another group; a comparatively large square aperture 35; and a slotted aperture 36. The groups of apertures 31, 32, 33 and 34 progressively vary in size and each group extends substantially across the length and width of one of the compartments 21, 23, 25 and 26 when the lid 27 is in position on the top of container 10. The slotted aperture 36 likewise extends centrally substantially the full length of the compartment 24 while the large square aperture 35 is centrally located with respect to compartment 22.

With this arrangement of apertures in the gauge plate 28 it will be readily understood that fibrous material, such as cotton, in various forms can be readily withdrawn therethrough by means of a pair of dental pliers, tweezers, or other dental implement, which can be conveniently extended through the top of the apertures for the purpose of picking up the material in the compartments directly therebeneath.

As shown, the fibrous material, in the present instance, is in the form of differently sized pellets 37, in the compartments 21, 23, 25 and 26 respectively; so-called points 38 in compartment 24; and in loose unshaped form 39 in compartment 22. The fibrous pellets 37 are of absorbent aseptic cotton and are used by dentists, for insertion into tooth cavities, etc., while the points 38 are of the sterilized aseptic type used by dentists for drying the pulp canals of teeth. The loose unshaped fibrous material 39 is sterilized absorbent cotton and is provided in bulk form for use when any determined quantity in loose form is needed.

The apertures 31, 32, 33, 34, 35, and 36, in gauge panel 27 are of such size and shape that the respective materials in the various compartments therebeneath can be readily withdrawn there-through by the beforementioned dental implements.

A waste container 41 is removably supported in a mounting 42 which is separably connected with the container wall 11 by suitable means, such as a screw-bolt 43 and thumb-nut 44; the screw-bolt 43 passing through a hole 44<sup>a</sup> in the wall of mounting 42 and a similar hole 45 in container wall 11. In order that the mounting 42 may also be separably connected either to the rear wall 13, or side wall 12, two additional screw-bolt holes 46 and 47 are provided in these walls respectively, thereby permitting the waste container 41 to be selectively positioned relatively to the container 10 at either of the side walls 11 and 12 or adjacent the rear wall 13, to suit the convenience of the user.

The waste container 41 may be of rigid or flexible material and is preferably of the type known as a sanitary dental waste receiver which can be bought in collapsed form and when assembled can be easily slipped into the mounting 42 and

later withdrawn therefrom and thrown away when filled.

The device of my invention can be made partly or entirely of metal, celluloid, bakelite, hard rubber, or other suitable materials, and given a plain, plated or colored finish so as to enhance its appearance.

It will be noted that the dispensing device of my invention is particularly advantageous in connection with dental work in that the gauge or selector panel 27 is positioned in full view of the user, thereby preventing the occurrence of mistakes in the selection of the particular quantity and shape of material desired; is adapted to contain, for ready withdrawal, material in practically any quantity or shape ordinarily required in dentistry; is provided with a waste container which can be conveniently positioned to suit the user; and is quickly and easily refillable.

Of course, my novel device as specifically shown and described can be changed and modified in various ways without departing from the invention herein disclosed and hereinafter claimed.

I claim:

1. A device of the character described comprising a container structure including at least two compartments, the upper wall of each compartment being provided with apertures substantially throughout its entire extent, all the apertures of one compartment being of a different size from the apertures of another compartment.

2. A device of the character described comprising in combination a multi-compartment container provided with a substantially flat horizontally inclined top having therein a group of similar apertures for at least two compartments, all the apertures of one group being of a different size from the apertures of another group and arranged to substantially extend across the entire top wall of a respective compartment.

3. A device of the character described comprising in combination a multi-compartment container having a substantially flat wall part covering the compartments of the container and adapted to be in full view when the device is in use, at least two compartments being provided with a group of circular apertures in said wall part, the apertures of each group differing in size relative to another group and unitedly forming with said wall part a gauge panel adapted to indicate the approximate size of the material contained in the respective compartments.

4. A device of the character described comprising in combination a multi-compartment container provided with an opening adapted to afford access to all the compartments, one of said compartments being provided with a V-shaped bottom adapted to centralize elongated articles resting thereupon; and a removably mounted lid for said opening provided with material withdrawing apertures one for each compartment, one of said apertures being elongated and arranged above the compartment having a V-shaped bottom.

5. A device of the character described comprising in combination a multi-compartment container provided with an opening adapted to afford access to all the compartments; and a removably mounted lid for said opening provided with a group of similar apertures for at least two compartments, all the apertures of one group being of a different size from the apertures of another group.

6. A device of the character described com-

prising in combination a multi-compartment container provided with an opening adapted to afford access to all the compartments; means for supporting said container so that the compartments are at a different elevation relative to each other; and a removably mounted lid for said opening provided with a group of similar apertures for at least two compartments, all the apertures of one group being of a different size from the apertures of another group.

7. A device of the character described comprising in combination a multi-compartment container provided with an opening adapted to afford access to all the compartments; a removably mounted lid for said opening provided with a group of similar apertures for at least two compartments, all the apertures of one group being of a different size from the apertures of another group; a second container; and means for selectively positioning said containers relatively to each other.

8. A device of the character described comprising in combination a multi-compartment container provided with an opening adapted to afford access to all the compartments; a removably mounted lid for said opening provided with a group of similar apertures for at least two compartments, all the apertures of one group being of a different size from the apertures of another group; a support for a second container; and means for selectively positioning the support relatively to said first container.

9. A device of the character described comprising in combination a multi-compartment container provided with an opening adapted to afford access to all the compartments; a removably mounted lid for said opening provided with

a group of similar apertures for at least two compartments, all the apertures of one group being of a different size from the apertures of another group; a support for slidably engaging a waste container; and means for selectively positioning the support relatively to said first container.

10. A device of the character described comprising in combination a multi-compartment container provided with an opening adapted to afford access to all the compartments; means for supporting said container so that the compartments are at a different elevation relative to each other; a flanged lid for said opening provided with a group of similar apertures for at least two compartments, all the apertures of one group being of a different size from the apertures of another group; a waste container; a support for said waste container; and means for selectively positioning the support relatively to said first container and adjacent two sides thereof.

11. A device of the character described comprising in combination a multi-compartment container provided with an opening adapted to afford access to all the compartments; means for supporting said container so that the compartments are at a different elevation relative to each other; a lid for said opening provided with a group of circular apertures for at least two compartments, the apertures of one group being of a different size from the apertures of another group; a second container; a support for removably holding said second container; and means for selectively positioning the support relatively to said first container.

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