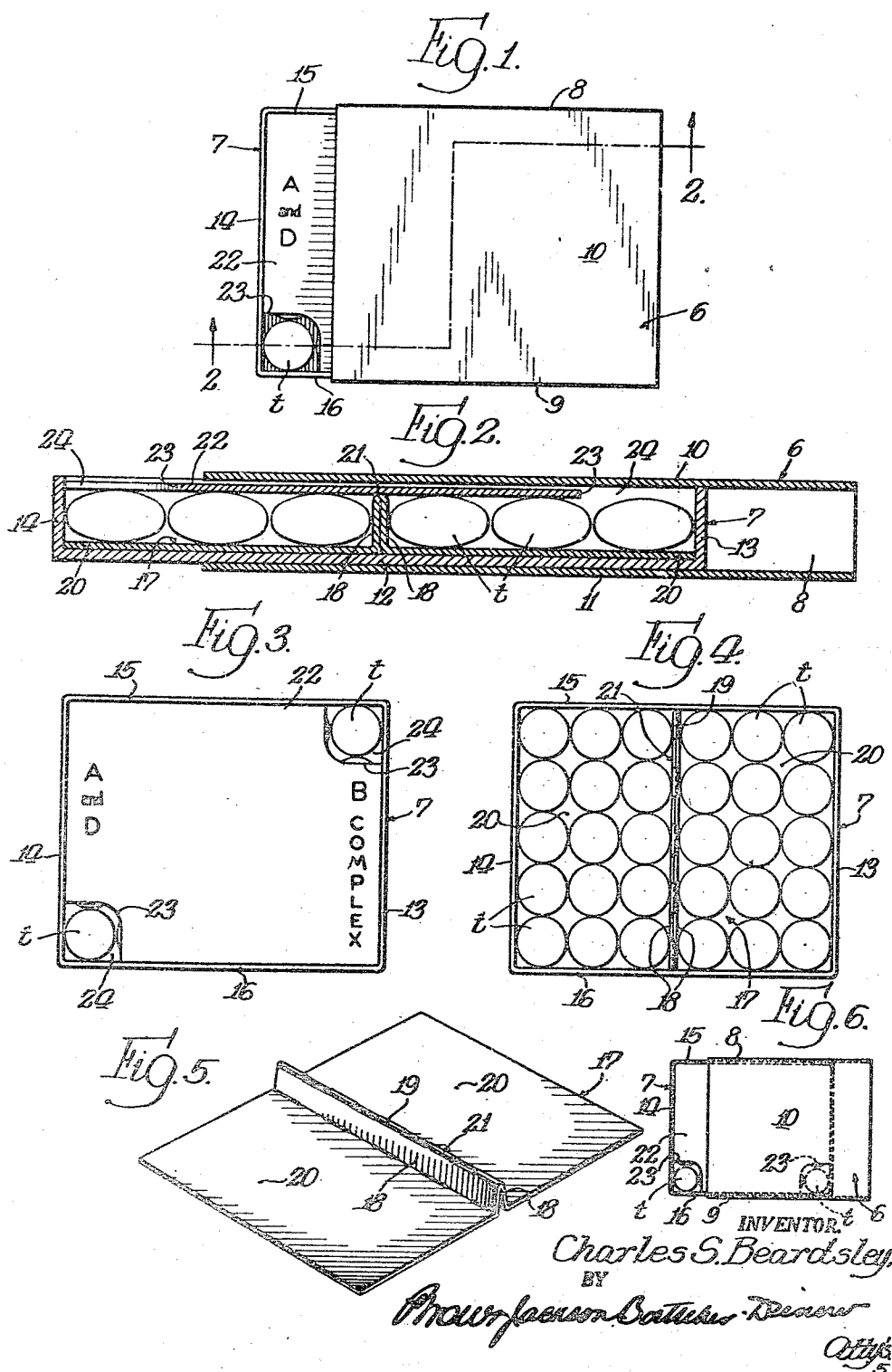


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DISPENSING CONTAINER

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DISPENSING CONTAINER

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This invention relates to containers, and has to do more particularly with dispensing containers for packaging articles such, for example, as vitamin-containing tablets and analogous articles, so as to facilitate dispensing of such articles in limited quantities for individual use.

My invention is directed to a container of the character stated comprising parts so constructed and related that the container may readily be adapted for dispensing different kinds of tablets or tablets all of the same kind. For example, it often is desirable for a person to take tablets containing vitamin B complex, commonly termed vitamin B tablets, and tablets containing vitamin A and vitamin D, commonly termed vitamin A and D tablets. On the other hand, another person may require tablets of but one kind, such as either vitamin B tablets or vitamin A and D tablets. My invention is directed to a container readily adaptable to meet either condition referred to. In addition, the container of my invention is of such character that it may readily be charged or loaded with the tablets or analogous articles to be dispensed with a minimum of delay, preferably by means of an automatic charging machine. More specifically, I provide a container having an open top tray slidable within an enclosing member, the tray having a readily removable cover providing a closure therefor disposed to overlie the articles, this cover being restrained against outward movement by the overlying wall of the enclosing member, when the tray is in its normal closed position within such enclosing member, the tray cover being provided with an opening exposed by projection of the tray beyond the enclosing member, which opening is of a size to accommodate passage of an article there-through for dispensing of the articles as desired. In charging the tray, the cover therefor is removed thus providing an open top tray particularly suitable for machine charging. I also provide a partition member of a character to be removably mounted within the tray for separating it interiorly into a plurality of compartments, this partition member being readily removable so as to adapt the container for use with one kind of articles or tablets. More specifically, the partition member separates the tray interiorly into two compartments and spaces the tray cover from the bottom wall of the tray, this cover being provided adjacent each end with a dispensing opening whereby, by projecting the tray beyond either end of the enclosing member, a tablet of either kind desired may be dispensed from the tray. If it is desired to use the container for one

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kind of tablet only, the partition member may be removed, in which case the tray cover may rest upon the tablets within the tray and the tablets may be dispensed through the opening at either end of the tray cover. The container of my invention is of simple construction, comprises a minimum of parts, and may be produced at slight cost, all of which are important considerations in the packaging art. Further objects and advantages of my invention will appear from the detail description.

In the drawing:

Figure 1 is a plan view of a container embodying my invention, with the tray of the container projected into position for dispensing the articles carried thereby;

Figure 2 is a sectional view, on an enlarged scale, taken substantially on line 2—2 of Figure 1, the articles within the tray being shown in elevation;

Figure 3 is a plan view, on the same scale as Figure 1, of the tray completely removed from the enclosing member and charged with the articles to be dispensed;

Figure 4 is a plan view similar to Figure 3, but with the tray cover member removed, showing the partition member in place within the tray;

Figure 5 is a detail perspective view of the partition member; and

Figure 6 is a view, similar to Figure 1, of a modified form of container embodying my invention.

The container of my invention comprises an enclosing member 6 and a tray 7 slidable therein, both made of boxboard or any other suitable material. The enclosing member 6 is in the form of a tube of rectangular cross section comprising side walls 8 and 9, and top and bottom walls 10 and 11, respectively, together defining a tube open at its ends.

Tray 7 corresponds in length to the enclosing member 6, and is of proper width and height to fit slidably and snugly within member 6. This tray 7 comprises a bottom wall 12 and end walls 13 and 14 extending upward from wall 12 and connected together by side walls 15 and 16, also extending upward from bottom wall 12, the end walls and the side walls together constituting, in effect, an upwardly projecting flange extending about the periphery of bottom wall 12. In order to divide the tray 7 interiorly into separate compartments, I provide a partition structure or member 17 conveniently formed from a single piece of boxboard or other suitable material pos-

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sessing considerable rigidity, which is appropriately cut and scored so as to provide two flanges 8 hinged together at their upper edges at 19 and each hinged, at its lower edges, to a base flap 20. The enclosing tubular member 6 and the tray 7 are preferably of rectangular shape in plan, as shown, and the base portion of the partition member 17 is likewise of rectangular shape in plan and of proper dimensions to fit snugly within tray 7 with the flanges 18 in abutting relation, as shown in Figure 2. When the partition member 17 is thus disposed within the tray 7, the flanges 18 thereof together constitute a partition 21 extending transversely of tray 7 and separating the interior thereof into two separate compartments, as shown in Figure 4. The base flaps 20 of the partition member fit snugly between the side walls of the tray and between the end walls thereof and partition 21, so that the partition member 17 is thus restrained against relative movement lengthwise and transversely of the tray.

The top of tray 7 is closed by a cover member 22 in the form of a flat sheet of boxboard or other suitable material of considerable rigidity. Cover member 22 fits snugly within tray 7, as shown in Figure 3, so as to be confined thereby against objectionable relative movement either lengthwise or transversely of the tray. When the partition member 17 is employed, partition 21 serves to space cover member 22 from the bottom of the tray to accommodate tablets *t* or analogous articles placed in the tray to be dispensed therefrom. The parts are so proportioned that cover member 22 is restrained against objectionable outward movement relative to tray 7, by top wall 10 of the enclosing member 6, as will be clear from Figure 2. Cover member 22 is provided, at each end portion, with an opening of suitable size for discharge therethrough of one of the articles or tablets *t*. In Figure 3 cover member 22 is shown as provided, at diagonally opposite corners thereof, with substantially L-shaped notches 23 which, together with the contiguous portions of the side and the end walls of tray 7, provide openings 24 of a size to accommodate ready passage therethrough of one of the tablets *t*. It will be understood that, within the broader aspects of my invention, the openings for dispensing the tablets may be otherwise suitably disposed, though I preferably form these openings in the manner shown and described, since location thereof at the corners of the tray cover 22 facilitates dispensing of the articles, as will appear more fully presently.

It may be assumed, for purposes of description, that the left hand compartment of tray 7 contains A and D vitamin tablets, and that the right hand compartment contains B vitamin tablets, the left hand end and the right hand end of the tray cover 22 being marked accordingly, as in Figure 3. Normally the tray 7 is disposed entirely within the enclosing member 6, at which time the dispensing openings 24 of tray cover 22 will underlie top wall 10 of enclosing member 6, wall 10 then serving as a closure for opening 24 so as to prevent passage therethrough of the tablets *t*, while also serving, as above noted, to restrain tray cover 22 against objectionable outward movement relative to tray 7. In order to dispense the A and D tablets, tray 7 is projected beyond the left hand end of enclosing member 6, as viewed in Figure 1, into substantially the position shown in that figure, so as to dispose opening 24 outward beyond the enclosing member. Then by tilting the container downward and forward toward or in

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the direction of the exposed opening 24, and shaking it slightly, one of the tablets *t* is readily discharged or dispensed through that opening. Obviously, as many tablets as desired may be dispensed successively in that manner. The side and the end walls of the tray which converge toward the opening 24, in addition to closing the sides of this opening, also function as guide elements to direct one of the tablets *t* into position underlying opening 24 for discharge therethrough. In like manner, by projecting tray 7 beyond the right hand end of enclosing member 6 to the proper extent, one or more of the vitamin B tablets may be dispensed from the container.

In the above description of the container and its use, it has been assumed that it is desired to charge the container with two different kinds of tablets. But in many cases it is desired to charge the container with only one kind of tablet. In such cases, the partition member 17 may be removed or omitted from the tray 7, which then receives one kind of tablet, the top of the tray being then closed by the tray cover member 22, this member then resting upon the tablets *t*. With that arrangement the tray 7 may be projected beyond either end of the enclosing member 6 for dispensing the tablets from the container. When the container is to be used for but one kind of tablet, I preferably dispose the notches 23 at the same side of cover member 22, as shown in Figure 6. The container shown in this figure is otherwise the same as that shown in Figure 1, with, of course, the partition member omitted, and requires no further description. If desired, the container of Figure 6 may be used to dispense two different kinds of tablets, by placing the partition member 17 therein. Preferably, however, I use the container of Figures 1 to 5, inclusive, for dispensing two different kinds of tablets, since the diagonally opposite arrangement of the notches 23 facilitates selection of the desired kind of tablet.

In either case—that is, whether the container is to be used for dispensing one kind of tablet or two kinds of tablets—the tray cover 22 is omitted from the tray during the operation of charging or filling the tray with the articles to be dispensed, which operation, as above noted, preferably is performed by automatic machinery of known type. The container is thus well adapted for charging by automatic machinery, whether it is to be used for dispensing one kind of tablet or two kinds of tablets. By placing the partition member 17 in the tray 7, the container is adapted for receiving and dispensing two kinds of tablets and, by omitting the partition member 17 from the tray, the container is adapted for receiving one kind of tablet. Obviously, if desired, the partition member may be utilized when the container is to receive but one kind of tablet, though that is not necessary, and the omission of the partition member where but one kind of tablet is to be dispensed is conducive to reduced cost, an item of importance in the packaging of tablets and like articles in large volume and on a quantity production basis. It will be understood, of course, that the tray cover 22 may be appropriately marked to indicate the particular kind or kinds of tablets or analogous articles with which the container is charged and which are to be dispensed therefrom. It will also be understood that changes in details of construction and arrangement of parts of my invention may be resorted to without departing from the field and scope thereof, and I intend to include

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all such variations, as fall within the scope of the appended claims, in this application, in which the preferred form only of my invention has been disclosed.

I claim:

1. In a dispensing container, a tubular enclosing member of substantially rectangular cross-section comprising side and top and bottom walls, an open top tray for articles to be dispensed slidably mounted in said enclosing member and comprising a bottom wall and side and end walls, said tray substantially conforming in length to said enclosing member and the latter being open at its ends for projection beyond either end thereof of said tray, a transverse partition separating said tray lengthwise into two compartments each unobstructed interiorly for free movement of the contained articles from each side of said partition to the corresponding end of said tray, and a cover member disposed in the upper portion of said tray, said partition comprising a separating element of a height to extend above the articles to be dispensed and being effective for supporting said cover member spaced from the bottom wall of said tray, said cover member being restrained by said side and end walls of said tray against relative transverse and endwise movement, said cover member being free from said tray for removal therefrom and having adjacent each end an opening for dispensing the articles.

2. In a dispensing container, a tubular enclosing member of substantially rectangular cross-section comprising side and top and bottom walls, an open top tray for articles to be dispensed slidably mounted in said enclosing member and comprising a bottom wall and side and end walls, said tray substantially conforming in length to said enclosing member and the latter being open at its ends for projection beyond either end thereof of said tray, a partition structure comprising a separating element of a height to extend above the articles to be dispensed and base flaps extending from the lower portion of said element fitting within said tray and removably

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seating on the bottom wall thereof with said element extending transversely of and separating said tray lengthwise into two compartments each unobstructed interiorly for free movement of the contained articles from each side of said partition to the corresponding end of said tray, and a cover member disposed in the upper portion of said tray spaced from the bottom wall thereof by said separating element and restrained by said side and end walls of said tray against relative transverse and endwise movement, said cover member being free from said tray for removal therefrom and having adjacent each end an opening for dispensing the articles.

3. In a dispensing container, a tubular enclosing member of substantially rectangular cross-section comprising side and top and bottom walls, an open top tray for articles to be dispensed slidably mounted in said enclosing member and comprising a bottom wall and side and end walls, said tray substantially conforming in length to said enclosing member and the latter being open at its ends for projection beyond either end thereof of said tray, a partition structure comprising a sheet of material of considerable rigidity folded to provide two central upwardly extending flanges disposed substantially in face to face contact together constituting a central upwardly extending separating element of a height to extend above the articles to be dispensed and flat base flaps extending from the lower portion of said element fitting within said tray and removably seating on the bottom wall thereof with said element extending transversely of and separating said tray lengthwise into two compartments, and a cover member disposed in the upper portion of said tray spaced from the bottom wall thereof by said separating element and restrained by said side and end walls of said tray against relative transverse and endwise movement, said cover member being free from said tray for removal therefrom and having adjacent each end an opening for dispensing the articles.

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