Sept. 17, 1963 S. L. COHEN 3,104,137

DISPENSING CONTAINER

Filed July 13, 1961

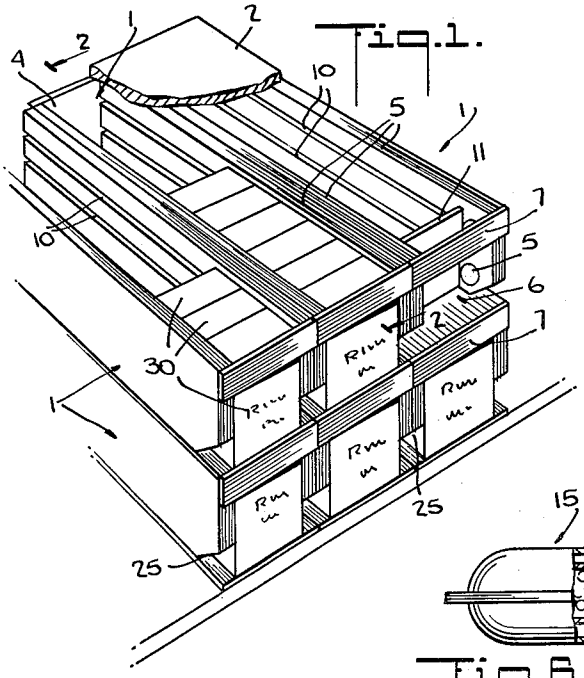


Fig. 1.

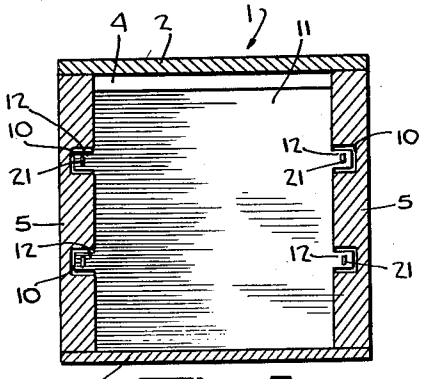


Fig. 5.

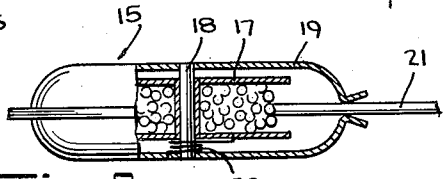


Fig. 6.

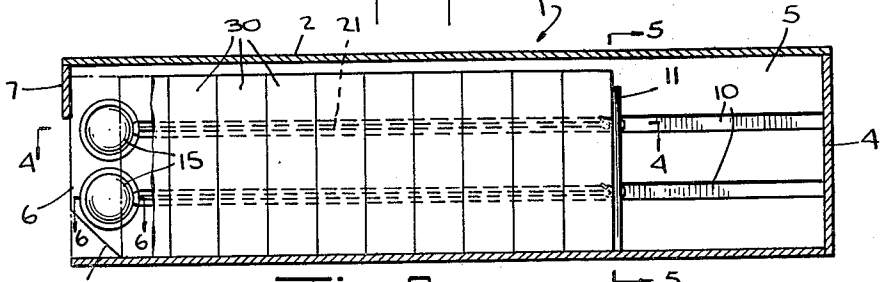


Fig. 2.

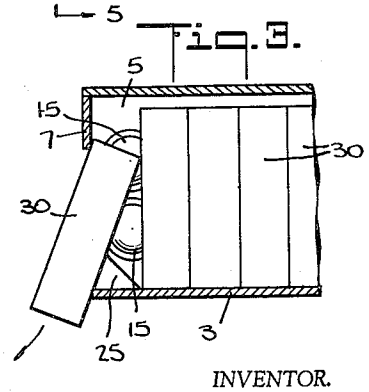


Fig. 3.

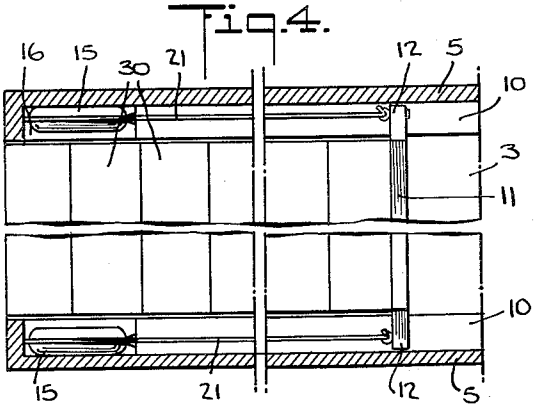


Fig. 4.

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DISPENSING CONTAINER

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The present invention relates to a container and more particularly to a dispensing container for storing a maximum number of articles in a minimum amount of shelf space.

In the sale of certain articles which are made in a variety of grades or brands, such as packages for typewriter ribbons or cigarettes, a storage problem is presented to the retailer by the fact that all of the brands or grades of the particular article should be displayed. At the same time, it is important that the articles be stored in such a manner as to be easily removed when desired.

Heretofore, these packages have been stacked vertically in dispensers having upright channels so that as the lowermost box is removed, the next higher box will move down to the removal position. However, to store all the different types of packages necessary for effective operation, an inordinate amount of shelf space is necessary. Moreover, as the variety in grades and brands of a particular article increases with modern needs, more space is necessarily required and present dispensing containers cannot supply the additional space needed.

The present invention provides an improved container in which the individual articles can be stored on a shelf one behind the other so that when the front article is removed the one immediately behind it will be pushed forward and placed into proper position to be removed.

Another object of the present invention is the provision of an improved dispensing container which will permit storage of a maximum number of packages in a minimum amount of space.

Another object of the present invention is the provision of an improved dispensing container which will eliminate the possibility of the packages being torn upon remvoal.

Another object of the present invention is the provision of an improved dispensing container which will do away with the necessity of opening large storage boxes in order to remove an article therefrom and thus reduces labor expenses.

Other and further objects of the invention will be obvious upon an understanding of the illustrative embodiment about to be described, or will be indicated in the appended claim, and various advantages not referred to herein will occur to one skilled in the art upon employment of the invention in practice.

A preferred embodiment of the invention has been chosen for purposes of illustration and description and is shown in the accompanying drawings, forming a part of the specification, wherein:

FIG. 1 is a perspective view showing a plurality of dispensing containers made in accordance with the present invention, and arranged in stacked relationship to each other on a shelf.

FIG. 2 is a sectional view taken along line 2—2 of FIG. 1;

FIG. 3 is a side sectional view showing the manner in which the front package can be removed from the dispensing container;

FIG. 4 is a sectional view taken along line 4—4 of FIG. 2;

FIG. 5 is a sectional view taken along line 5—5 of FIG. 2; and

FIG. 6 is a sectional view taken along line 6—6 of FIG. 2.

Referring to the drawings, the dispensing container 1 of the present invention comprises a top wall 2, a bottom wall 3, a rear wall 4, and a pair of side walls 5. The front part of the container 1 has a mouth 6 which is open except for a stop plate 7 which is mounted on the side walls 5 and extends across the upper part of the mouth 6 of the container for a purpose which will be more fully discussed hereinafter.

Each side wall 5 has a pair of elongated guide grooves 10 therein. A pressure plate 11 is mounted in the container 1 and has a pair of ears 12 protruding from each of its side edges. Each ear 12 extends into a guide groove 10 in the side walls 5 of the container to guide the pressure plate 11 lengthwise along the container 1 and to keep the plate 11 standing substantially upright.

At the forward edge of the container, a pair of spring elements 15 are imbedded in the notches 16 in the side walls 5. The spring elements 15 are shown in detail in FIG. 6, and comprise a spring biased spool 17 rotatively journalled on a shaft 18 mounted in outer housing 19 and spring biased by a suitable spring 20 to rotate in one direction. A cord 21 is attached to each spool 17 and has its free end extending out of an opening 22 in the housing 19. When the cord 21 is pulled, the spool 17 will be rotated against the pull of spring 20 so that when the cord 21 is released the spool 17 will rotate in the opposite direction under the action of spring 20 to pull the cord 21 inwardly and wind it up around spool 17.

The free end of each cord 21 is mounted on an ear 12 of pressure plate 11 as shown in FIG. 4, and lies in guide grooves 10 in the side walls 5 so that when the cords 21 are wound up by the spool 17 under the action of spring 20 the pressure plate 11 will be pulled in a forward direction toward the open end 6 of the dispensing container 1.

The individual articles 30, which may be packages for typewriter ribbons or cigarettes, are inserted into the dispensing container 1 through its open end 6 and are stacked one behind the other in front of pressure plate 11. The pressure plate 11 will apply pressure to the articles and move them forward until the forwardmost article strikes the front stop plate 7 mounted across the top of the mouth 6 of the container so that the articles 30 are held between front plate 7 and pressure plate 11. Since the front plate 7 extends across a small portion only of the mouth 6 of the container, most of the articles 30 are exposed so that the brand and grade of the article which is stored will be clearly visible to the user.

When an article is to be removed from the container, the user's fingers are inserted in the container 1 and the sides of the article 30 are grasped. The side walls 5 of the container 1 are cut away at the lower front edges as shown at 25 to permit the user's fingers to be inserted. The front article is then removed by angling the article is shown in FIG. 3. After the front article is removed, the pressure plate 11 moving under the tension of the spring elements 15 will move forward and push the remaining articles forwardly until the front article strikes against the front plate 7.

It will be noted that by placing the spring elements 15 at the front of the container 1 and imbedding them in the side walls 5 thereof, there is a saving in space since the full length of the container can be used to store articles 30.

In use, as shown in FIG. 1, a plurality of the dispensing containers 1 are stacked one on top of the other and in side-by-side relationship. The containers are preferably equal in length to the depth of the shelf to be used so that maximum shelf space is utilized. When the containers 1 are arranged as shown in FIG. 1, a greater number of articles of different grades or brands can be placed on display in a minimum amount of space and each brand or grade be easily reached by the user when desired.

It will thus be seen that the present invention provides an improved dispensing container which permits a maximum number of articles to be displayed in a minimum amount of space, and which permits articles to be easily removed from the containers when desired.

As various changes may be made in the form, construction and arrangement of the parts herein without departing from the spirit and scope of the invention and without sacrificing any of its advantages, it is to be understood that all matter herein is to be interpreted as illustrative and not in a limiting sense.

Having thus described my invention, I claim:

A dispensing container comprising a housing having a pair of side walls, top, bottom and rear walls, said top, bottom and side walls being of substantially the same length and terminating substantially at a common plane at the front of the housing, said housing having at its front an upper stop plate having its lower edge spaced above said bottom wall thereby providing a dispensing opening in the front of said housing, the lower portion of said side walls terminating short of the plane of said stop plate and thereby enlarging the lower portion of said opening, a pressure plate in said housing, upper and lower elongated guide grooves in each of said side walls, upper and lower ears extending from each side of said pressure plate and protruding into said upper and lower guide grooves respectively, upper and lower notches in each of said side walls adjacent the dispensing opening and communicating with said upper and lower guide grooves respectively, a spring wound spool rotatably mounted in each of said notches and having a cord extending rearwardly therefrom in one of said grooves and connected to one of said ears whereby said pressure plate and articles stacked in front of the same are biased by said spools toward said dispensing opening.

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