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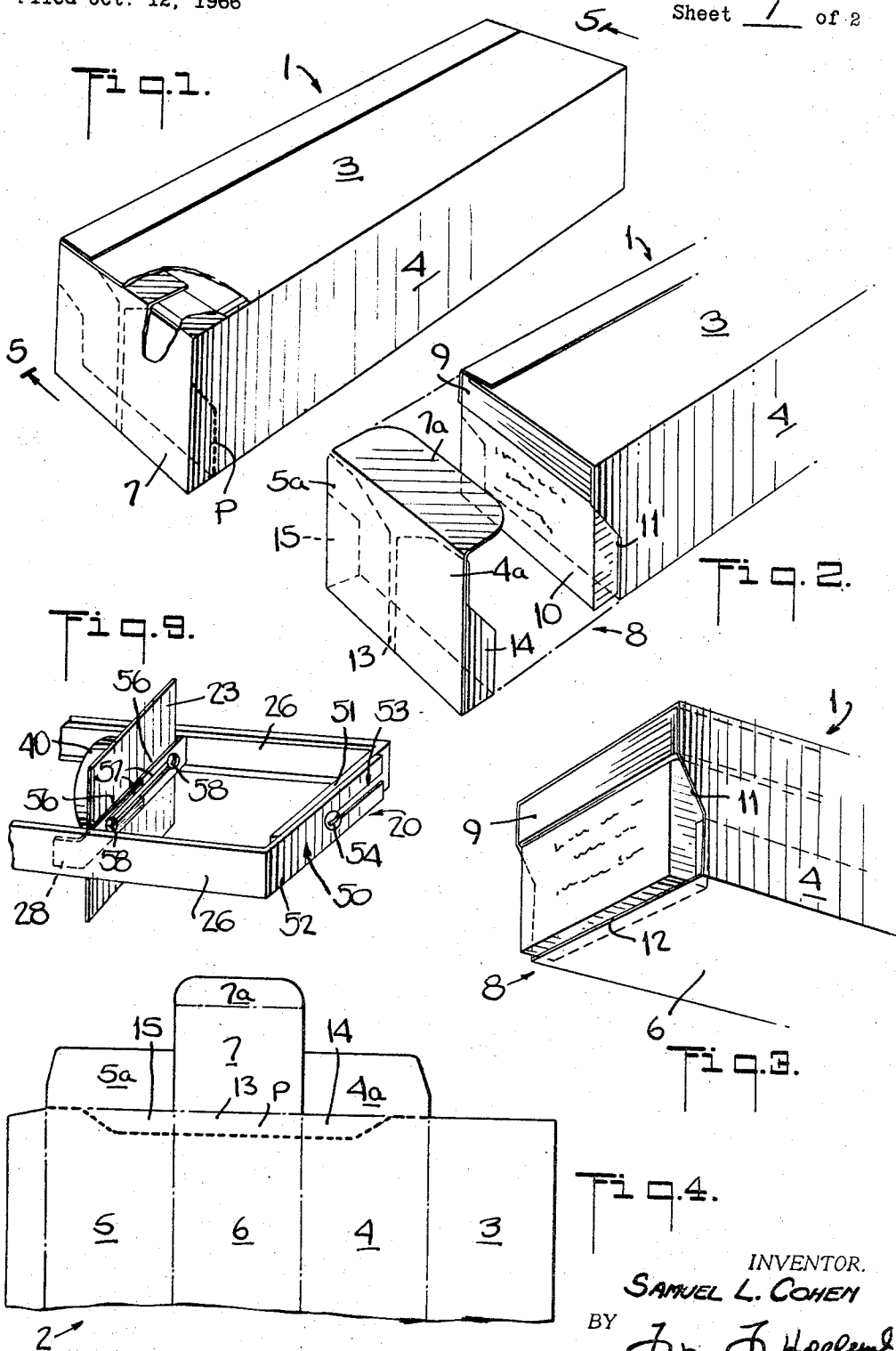
S. L. COHEN

3,433,546

DISPENSING CONTAINER

Filed Oct. 12, 1966

Sheet 1 of 2



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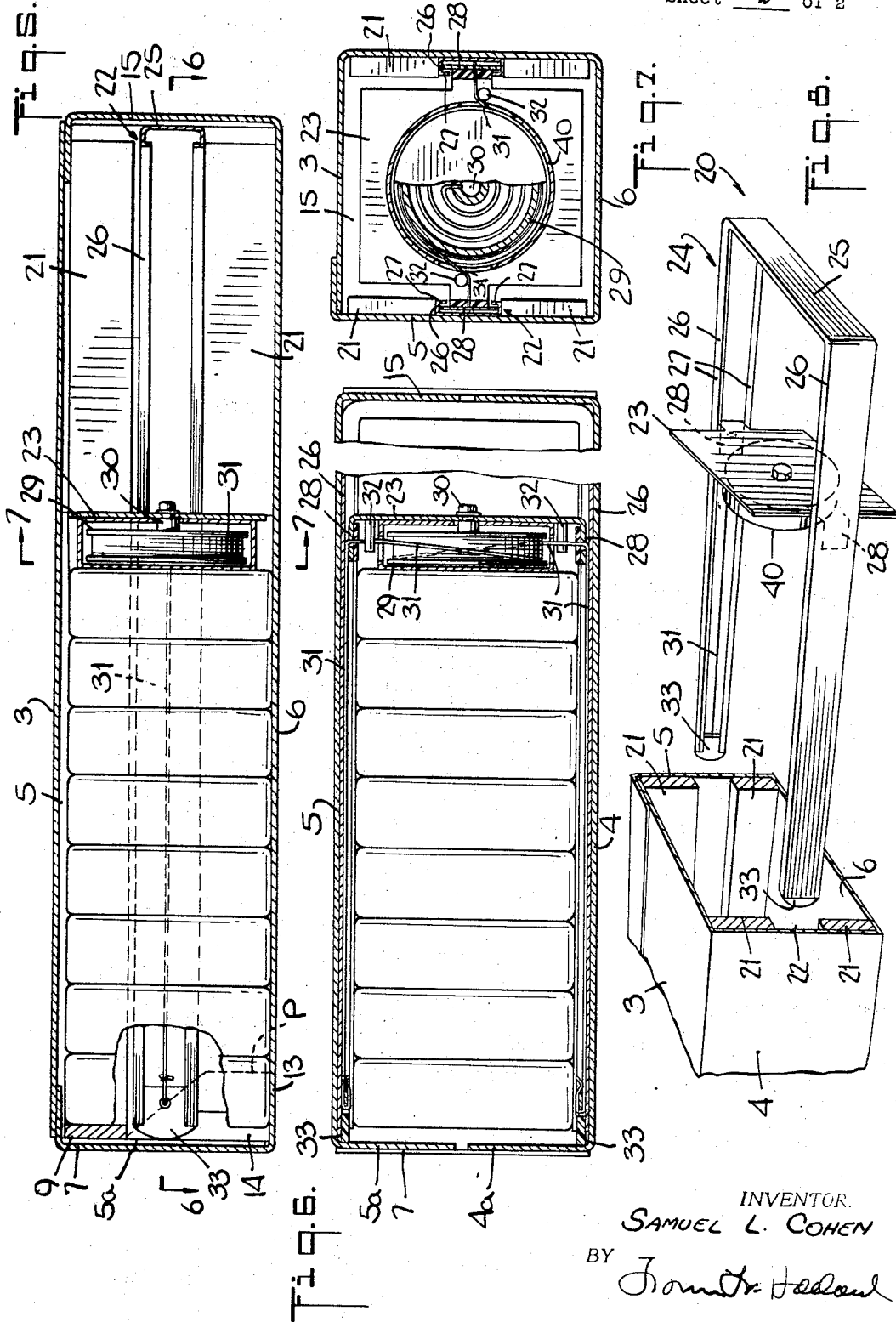
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1

2

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DISPENSING CONTAINER

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ABSTRACT OF THE DISCLOSURE

The present invention comprises a carton for articles in which the enclosure has side walls and rear walls and a dispensing mouth at the front. A channel member is mounted within the enclosure. The channel member has a base mounted adjacent the rear of the enclosure and a pair of arms extending from each end of said base toward the dispensing mouth. Pressure means are mounted within the channel member and are movable away from the base and toward the dispensing mouth to urge articles mounted within the enclosure toward the dispensing mouth.

The present invention relates to a dispensing container and more particularly to an improved dispensing container which may be used as a shipping carton and for efficiently storing articles in a position where they are available for ready selection and dispensing.

The present invention is an improvement over the dispensing container disclosed in my Patent No. 3,104,137, dated Sept. 17, 1963, and my copending application Ser. No. 474,317, filed July 23, 1965.

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.

If, as heretofore, the packaged articles are stacked vertically it is difficult to read the identifying marks on the package fronts and more time is required to select a particular article. Moreover, vertical stacking represents inefficient use of space since it is not practical to position one dispenser behind another on a shelf.

These problems were solved by the use of a container which may be laid flat on a shelf and which is provided with a pusher means to move the articles forward toward the dispensing mouth as more fully described in my above-identified pending patent application.

However, these prior dispensing containers and their pusher means are permanent integral units which must be refilled when necessary. Refilling requires drawing the pusher means out of the container against the force of its tension member and inserting the articles from the mouth at the front while maintaining it under tension. If the container or pusher means becomes damaged a completely new unit is required.

The present invention is an improvement on such containers and provides an inexpensively constructed dispensing container which may be used as a shipping carton for the packaged articles. This container is further provided with a removable pusher assembly which permits ready interchangeability of containers and assemblies in the event of damage to either and facilitates the refilling operation. In addition, the assembly is adjustable to fit containers of different sizes.

An object of the present invention therefore is the provision of an improved dispensing container which is inexpensive to manufacture and easy to maintain.

Another object of the present invention is the provision

of an improved dispensing container which may be used as a shipping carton for the articles it dispenses.

Another object of the present invention is the provision of an improved dispensing container which is inexpensive to replace in the event of damage thereto.

Another object of the present invention is the provision of an improved dispensing container which contains a removable pusher assembly.

Another object of the present invention is the provision of an improved dispensing container which contains a removable pusher assembly that is adjustable to fit other containers.

A further object of the present invention is the provision of an improved container which may be easily refilled by the user when completely dismantled.

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 claims, 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 of a container made in accordance with the present invention;

FIG. 2 is a perspective view of a container showing the front removed in order to place the container in operative position;

FIG. 3 is a perspective view showing the container in operative position;

FIG. 4 is a plan view of the blank which may be used to form the container of the present invention;

FIG. 5 is a sectional view of a container taken along line 5-5 of FIG. 1;

FIG. 6 is a sectional view of a container taken along line 6-6 of FIG. 5;

FIG. 7 is a sectional view of a container taken along line 7-7 of FIG. 6;

FIG. 8 is a perspective view showing the manner in which the pressure means may be removed from the container when it is to be refilled; and

FIG. 9 is a perspective view showing another embodiment of the present invention in which the pressure means are adapted to be used with containers of different sizes.

FIGS. 1 to 4 illustrate the preferred manner in which the container 1 of the present invention may be constructed. Referring to FIG. 4, the container 1 is made from a blank 2 having a top wall 3, side walls 4 and 5 with flaps 4a and 5a, bottom wall 6 and a front wall 7 with a flap 7a. A rear wall 15 (FIGS. 5 and 6) is also provided to form a closed carton for shipping and to hold the pusher assembly in place.

The bottom wall 6 and side walls 4 and 5 may be perforated at P straight across the bottom wall 6 to form removable portion 13 and along a portion of side walls 4 and 5 to form removable adjacent portions 14 and 15.

When assembled carton 1 arrives at a point where it is to be used and the front wall 7, the bottom portion 13 and the adjacent portions 14 may be removed to expose the dispensing mouth 8.

The dispensing mouth 8 comprises the front opening of the container having a stop portion 9 across the top to hold the article 10 to be dispensed in an exposed position and cut away portions 11 in the side walls formed by removing portions 14 and 15 and cutaway portion 12 in bottom wall 6 formed by removing portion 13. This permits the articles to be gripped on either side for removal.

Thus the container 1 may be easily assembled out of paperboard and may be shipped in the closed configuration shown in FIG. 1. The user upon receiving it need

only detach the front wall 7, adjacent portions 14 and 15 and bottom portion 13 of the respective side and bottom walls 4, 5 and 6, along the perforations P, before placing the container on the shelf in operative position ready for use.

It will be seen that a number of these cartons of the same or different sizes may be stacked on a shelf and ready access is provided to each type of article contained therein.

The dispenser container 1 is fitted with a pusher assembly 20 for forcing the articles 10 forward when the foremost one has been removed. This pusher assembly will be described with reference to FIGS. 5 through 8.

Within the container a pair of spacer members 21 is mounted on each side wall 4 and 5 forming elongated slots 22 which run axially thereof to act as guides for the pusher assembly 20. The pusher assembly 20 comprises a plate 23 mounted on a generally U-shaped channel member 24 having a base 25 and arms 26 adapted to be mounted within the slots 22 formed by the spacers 21. The wall slots 22 extend for substantially the length of the container 1 and the arms 26 of channel member 24 are substantially co-extensive, with the ends of the arms 26 being adjacent the dispensing mouth.

The channel member 24 may be a single piece or be in two halves fitted together at the base 25 and is provided with re-entrant depending flanges 27 adapted to hold slide projections 28, therein.

The pressure plate 23 has a spring-loaded wheel 29 rotatably mounted thereon as at 30. An outer casing 40 is adapted to house the wheel 29. The pressure plate 23 has bracket-like slide projections 28 formed on its sides and at right angles thereto which are slidably received within the channels formed on the arms 26 of the channel member 24.

The spring-loaded wheel 30 has a pair of cords, cables or similar means, 31 wound thereon which are guided over guides 32 and are directed along the inner edges of the channels 26 and anchored to the abutment members 33 at the front portions thereof. The cords 31 may be two pieces anchored to the drum and wound thereon in the same direction. If desired, a single rope or cable may be used by passing it through the drum so that its ends are fastened at the respective ends of the assembly arms and its center sector is wound in one direction as the drum rotates.

With either construction the spring acting on the drum 29 will tend to rotate it in such a manner as to wind the cord 31 thereon and thereby cause the drum 29 and pressure plate 23 composite to be drawn toward the mouth 8.

It will be seen then with this construction that the entire channel member 24 may be completely removed from the carton or container from the rear for purposes of refilling. During refilling the articles are placed or stacked therein without any obstructions and the channel member 24 may then be inserted in the container through the rear end with its arms 26 in the wall slots 22. As the channel member 24 is inserted the casing 40 of the drum 29 will abut the rearmost package and be forced back along arms 24 of the channel member 24 against the action of the spring (not shown) until the front ends of arms 26 reach the dispensing mouth 8.

The drum 29 of the channel assembly 20 exerts a force against the packages 10 tending to push them toward the dispenser mouth 8 so that as each article is removed from the front end, the pusher drum 29 through casing 40 presses the articles forward into position where the next one is readily accessible to the user from the dispenser mouth 8.

FIG. 9 shows another embodiment of the pusher assembly which may be used for containers of different sizes. The base 50 is comprised of two arms 51 and 52 which are slidable relative to each other by means of the cooperation of slot 53 and bolt 54. The pressure plate 23 is mounted on a pair of slides 56 having slots 57 cooper-

ating with bolts 58 on the pressure plate 23 and having slides 28 extending therefrom insertable into arms 24.

With this construction the same assembly may be mounted within containers of different sizes by merely loosening the bolts 54 and 58 in the cooperating slots 53 and 57, respectively, and moving them relative to each other until the proper width is reached. The bolts 54 and 58 are then tightened and the frame inserted in the carton ready for use.

It will thus be seen that with the present invention an improved container is provided which may be manufactured simply and inexpensively and which may be easily maintained. The invention also provides a container which may be easily refilled by the user when necessary without contending with a complicated assembly device. This is made possible in part by the improved pusher assembly which is completely removable and adjustable.

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:

1. A carton for articles comprising an enclosure having top, bottom, front, rear and side walls, a tear line formed in the bottom wall and at least a portion of said walls adjacent to said front wall so as to permit the front wall to be pulled away to form a dispensing mouth at the front and cutaway portions on the bottom wall and at least a portion of the side walls, stop means at the top of said dispensing mouth to hold articles in said carton, a channel member mounted within said enclosure, said channel member comprising a pair of arms each having one end connected together by a base and the other end thereof extending away from said base, said base and arms thereby constituting a U-shaped arrangement, the base of said channel member being located adjacent the rear of said enclosure and said pair of arms extending along the side walls of said enclosure toward said dispensing mouth, pressure means mounted within said channel member and movable along said arms away from said base for urging the articles toward the dispensing mouth and away from said rear.

2. A carton as claimed in claim 1, wherein the base of said channel member is adjustable in length.

3. A carton as claimed in claim 1, wherein said channel member has a pressure plate mounted thereon adapted to cooperate with the arms thereof and wherein said urging means are mounted on said pressure plate.

4. A carton as claimed in claim 3, wherein said pressure plate has guides extending therefrom adapted to cooperate with said arms.

5. A carton as claimed in claim 4, wherein said pressure plate has a drum rotatably mounted thereon, cord means wound on said drum, the ends of said cord means being mounted adjacent the front end of said carton whereby the winding of the cord on the drum produces a force tending to urge the articles toward the dispensing mouth.

6. A carton as claimed in claim 5, wherein guide slots are formed in said side walls extending the length thereof and wherein the arms of said channel member are mounted in said guide slots.

7. A carton as claimed in claim 6, wherein said drum is a spring-loaded drum.

8. A carton for articles comprising an enclosure having sides, rear and a dispensing mouth at the front, a channel member mounted within said enclosure, said channel member comprising a pair of arms each having one end connected together by a base and the other end thereof extending away from said base, said base and arms thereby constituting a U-shaped arrangement, the base of said channel member being located adjacent the

5

rear of said enclosure and said arms extending along the sides of the enclosure toward said mouth, pressure means mounted within said channel member and movable along said arms away from said base for urging articles toward said dispensing mouth and away from said rear.

9. A carton as claimed in claim 8, wherein the base of said channel member is adjustable in length.

10. A carton as claimed in claim 8, wherein said channel member has a pressure plate mounted thereon adapted to cooperate with the arms thereof and wherein said urging means are mounted on said pressure plate.

11. A carton as claimed in claim 10, wherein said pressure plate has guides extending therefrom adapted to cooperate with said arms.

12. A carton as claimed in claim 11, wherein said pressure plate has a drum rotatably mounted thereon, cord means wound on said drum, the ends of said cord means being mounted adjacent the front end of said carton whereby the winding of the cord on the drum produces a force tending to urge the articles toward the dispensing mouth.

6

13. A carton as claimed in claim 12, wherein said carton has side walls having guide slots formed therein extending the length thereof and wherein the arms of said channel member are mounted in said guide slots.

14. A carton as claimed in claim 13, wherein said drum is a spring-loaded drum.

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