Feb. 28, 1967 J. L. SZAJNA 3,306,493

DISPENSING CONTAINER

Filed Aug. 24, 1964

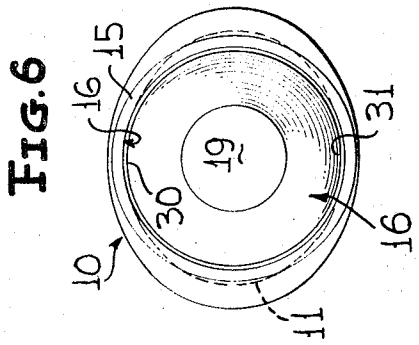


FIG. 6

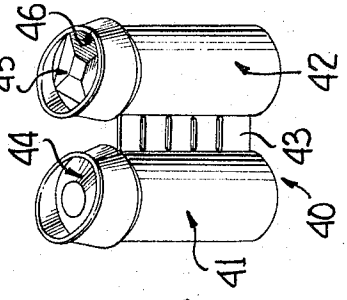


FIG. 7

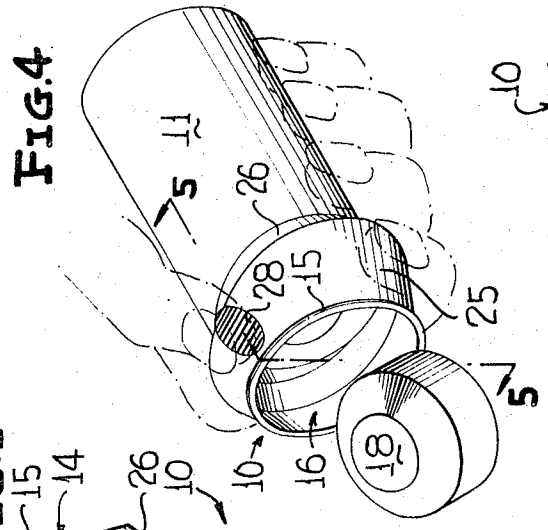


FIG. 4

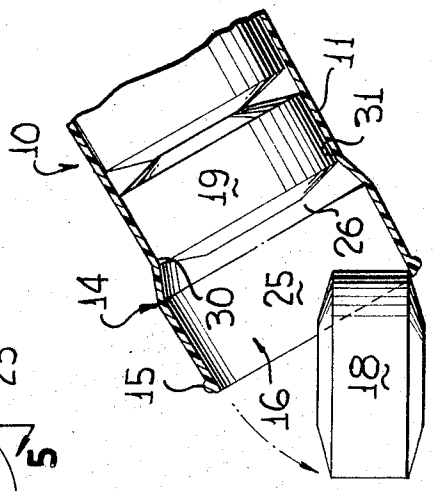


FIG. 5

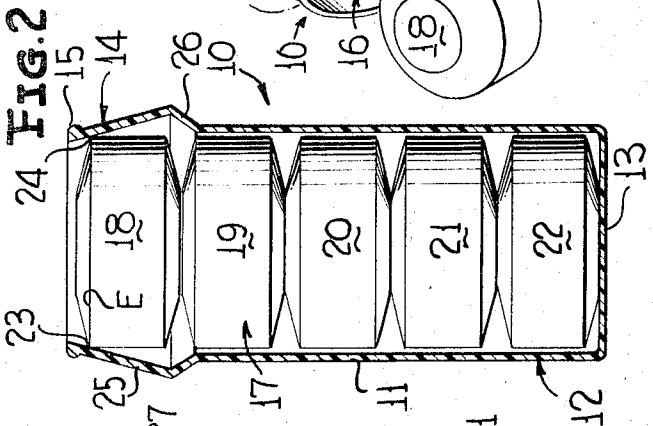


FIG. 2

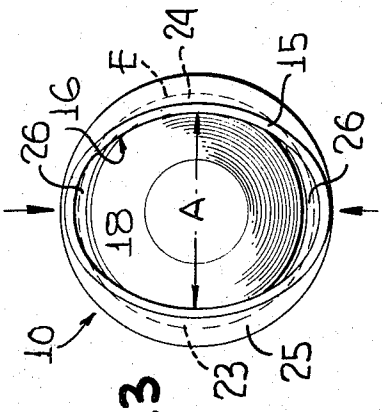


FIG. 3

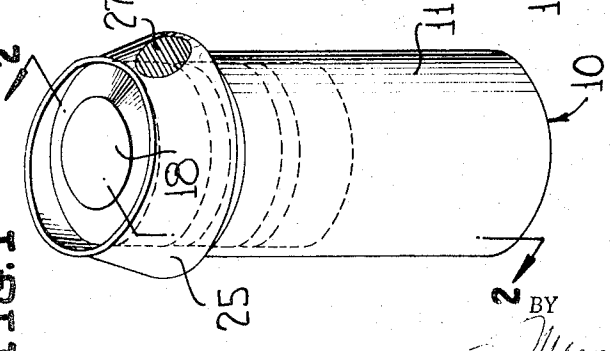


FIG. 1

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DISPENSING CONTAINER

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This invention relates to a novel dispenser for dispensing articles in a single fashion, and is particularly directed to a tablet dispenser of an integral one-piece construction which has no moving parts and which can repeatedly dispense singular tablets in a fool-proof manner while retaining all but a dispensed tablet confined in the dispenser.

An object of this invention is to provide a novel tablet dispenser having a generally cylindrical tubular dispenser body closed at one end portion by a bottom wall and having an opposite end portion defining a normally generally oval-shaped opening, the oval-shaped opening being of a size and shape normally effective to prevent tablets from passing outwardly therethrough and being deformable to a shape to permit tablets to pass outwardly therethrough, a portion of the dispenser body adjacent the dispensing opening being normally effective to permit tablet movement toward the oval-shaped opening and being deformable to a shape to prevent tablets from moving toward the oval-shaped opening whereupon the application of manual pressure against the dispenser body, the oval-shaped opening is changed to a generally circular shape and the generally circular cross-sectional configuration of the cylindrical body portion is changed to a generally oval-shaped cross-section whereby a single tablet is dispensed through the dispensing opening and all of the tablets are retained in the dispenser body.

A further object of this invention is to provide a novel tablet dispenser of the type described which is of an integral construction and a body portion adjacent the dispensing opening includes a first wall portion converging toward a peripheral edge defining the dispensing opening and a second wall portion converging toward the bottom wall of the dispenser, and one of the first and second wall portions being deformable upon the application of manual pressure thereagainst during the performance of a dispensing operation to dispense a single tablet from the tablet dispenser while the remaining tablets are retained in the dispenser body.

Still another object of this invention is to provide a novel tablet dispenser of the type described in which both cylindrical, rectangular, square, hexagonal, octagonal and various other diverse shaped tablets or other articles can be packaged in and dispensed by the tablet dispenser without material changes in either the construction or operation of the dispenser.

With the above, and other objects in view that will hereinafter appear, the nature of the invention will be more clearly understood by reference to the following detailed description, the appended claims and the several views illustrated in the accompanying drawings:

In the drawing:

FIGURE 1 is a top perspective view of a novel tablet dispenser constructed in accordance with this invention, and illustrates a plurality of tablets packaged in a body of the dispenser.

FIGURE 2 is an enlarged sectional view of the dispenser body taken along line 2—2 of FIGURE 1 with the tablets shown in side elevation, and illustrates the integral construction of the dispenser and an uppermost peripheral edge defining a dispensing opening.

FIGURE 3 is a top plan view of the dispenser of FIGURE 2, and illustrates the normally generally global

shaped configuration of the dispensing opening prior to a dispensing operation.

FIGURE 4 is a perspective view of the tablet dispenser of FIGURES 1 through 3, and illustrates a single tablet being dispensed through the dispensing opening upon the application of manual pressure to a portion of the dispenser body to transform the oval-shaped opening to a generally circular configuration.

FIGURE 5 is a fragmentary sectional view of a portion of the dispenser taken along line 5—5 of FIGURE 4, and illustrates a single tablet being dispensed from the dispenser and the remaining tablets being positively retained in the dispenser.

FIGURE 6 is a top plan view of the dispenser of FIGURES 1 through 4 of the drawing, and more clearly illustrates the change in the configuration of the dispenser during a dispensing operation.

FIGURE 7 is a top perspective view of a tandem dispenser, and illustrates a web integrally connecting generally identical portions of the dispenser in spaced parallel relationship.

A novel article or tablet dispenser constructed in accordance with this invention is best illustrated in FIGURES 1 through 3 of the drawing, and is generally referred to by the reference numeral **10**.

The dispenser **10** comprises a generally tubular, cylindrical, integral dispenser body **11** constructed from flexible or deformable material such as polyethylene or similar plastic material. The body **11** includes a first end portion **12** closed by a bottom wall **13** and a second upper end portion **14** terminating in a thickened peripheral edge **15** which is normally of an oval-shaped configuration (FIGURE 3). The peripheral edge **15** defines a dispensing opening **16** of the dispenser **10**.

A plurality of tablets collectively referred to by the reference numeral **17**, such as candy or similar edible or non-edible articles are packaged in the body **11** of the dispenser **10** in the manner best illustrated in FIGURE 2 of the drawing. Each of the individual articles **18** through **22** of the group of articles **17** are identical and are generally cylindrical in shape. The diameter of each of the articles **18–22** is slightly less than the normal internal diameter of the dispenser body **11**. In this manner each of the articles **18–22** is normally free to move toward the dispensing opening **16**. However, the diameter of each of the articles **18–22** is greater than the length of the minor axis A (FIGURE 3) of the dispensing opening **16** defined by the peripheral edge **15** (FIGURE 3). An outermost circumferential edge portion E (FIGURE 3) of the article **18** contacts diametrically opposite inner surface portions **23** and **24** of the second end portion **14** and retains the plurality of articles **17** in the dispenser **10** in the non-dispensing condition thereof.

The second end portion **14** of the dispenser body **11** includes a first generally truncated, conical wall portion **25** converging toward the peripheral edge **15** and an integral shorter inverted truncated conical second wall portion **26** converging toward the bottom wall **13** but terminating at a point remote therefrom. Generally oval-shaped areas **27, 28** at diametrically opposite portions on the exterior of the wall portion **14** in alignment with the major axis of the dispensing opening **16** are provided with a plurality of relatively shallow ribs, grooves or similar indentations to preclude slippage at these portions when manual pressure is applied thereto during a dispensing operation as will appear more fully immediately hereafter.

An article, such as the article **18**, is dispensed through the dispensing opening **16** by first grasping and inverting the dispenser **10** as shown in FIGURE 4 of the drawing with a thumb (unnumbered) positioned on either one of the portions **27, 28** and an index finger partially en-

circling the end portion 14 of the body 11. The thumb is depressed and manual pressure is applied across the major axis of the dispensing opening 16 in the direction of the headed arrows in FIGURE 3 of the drawing changing the normally generally oval-shaped configuration of the dispensing opening 16 to a substantially circular configuration (FIGURE 6) which is sufficient in cross-sectional area to permit the passage of the article therethrough, as shown in FIGURES 4 and 5 of the drawing. This same manual pressure deforms the body 11 of the dispenser 10 to a generally oval-shaped configuration, as is best illustrated in FIGURES 5 and 6 of the drawing, and the article 19 is gripped at diametrically opposite portions 30 and 31 of the dispenser body 11 as the generally circular transverse cross-sectional configuration thereof is forced out-of-round to a generally oval-shaped configuration. In this manner, the tablet or article 19 and the remaining articles 20 through 22 are retained in the dispenser 10. Upon the release of the manual pressure and the rebounding of the dispenser body 11 to the configuration shown in FIGURES 1 through 3 of the drawing the remaining tablets are again prevented from passing outwardly through the dispensing opening 16 by contact at the portions 23 and 24 of the body 11.

The remaining articles in the dispenser 10 can, of course, be similarly dispensed by merely repeating the dispensing operation just described until the body 11 is depleted of its supply of articles.

A tandem dispenser 40 (FIGURE 7) constructed in accordance with this invention includes a pair of identical article dispensers 41, 42, each of which is identical to the article dispenser 10, and a further description of the article dispensers or dispenser portions 41 and 42 is considered unnecessary for a complete understanding of this invention. The dispenser portions 41 and 42 are of integral construction and are maintained in spaced parallel relationship by a connecting web 43. This arrangement permits a plurality of articles, collectively referred to by the reference numeral 44, to be packaged in and dispensed from the dispenser portion 41 and a plurality of articles 45 similarly packaged in and dispensed from the dispenser 42. The plurality of articles 44, only one of which is illustrated in FIGURE 7, is cylindrical and the relative dimensioning of each with respect to the dispenesr 41 corresponds to the dimensions between the plurality of articles 17 and the dispenser 10. However, each of the articles 45, of which only one is illustrated is rectangular or square. A dispensing opening 46 of the dispenser portion 42 is normally oval-shaped and has a minor axis of a length less than the width of each of the articles 45. However, when the articles 45 are dispensed from the dispenser portion 42 in the manner heretofore described with respect to the dispenser 10, the dispensing opening 46 is deformed to a generally circular configuration having a diameter equal to the major dimension of the articles 45 whereupon each article is permitted to pass through the dispensing opening 46 while remaining articles are retained in the dispenser portion 42 in the manner heretofore described. In this manner dispensers constructed in accordance with the dispenser 10 or the tandem dispenser 40 can dispense articles which are not only cylindrical, but which are square, rectangular, hexagonal, octagonal and other diverse shapes of varying cross-sectional configurations without any material change in the normal oval-shaped configuration of the respective dispensing openings or body configurations.

From theforegoing, it will be seen that novel and advantageous provisions have been made by carrying out the desired end. However, attention is again directed to the fact that additional variations may be made in this invention without departing from the spirit and scope hereof as defined in the appended claims.

I claim:

1. A tablet dispenser comprising a tubular dispenser body having first and second end portions, a wall closing said first end portion, a peripheral edge of said second end portion defining a normally generally oval-shaped opening, said oval-shaped opening being normally effective to prevent tablets from passing outwardly therethrough, said body between said oval-shaped opening and said closing wall being generally normally circular in transverse cross-section, free of inward projections and of a size normally effective to permit tablet movement toward said oval-shaped opening, and depressible means forming an integral portion of said body adjacent said peripheral edge for changing the oval-shape of said opening to a generally circular shape whereby a single tablet can be dispensed through said opening and also changing the circular cross-section of the adjacent body portion to a generally oval-shaped cross-sectional configuration whereby remaining tablets in said body are retained therein, said depressible means comprising a depressible wall between said body portion and said peripheral edge, said depressible wall defining a tablet-receiving chamber having an axial length corresponding generally to the thickness of tablets packaged in said body.

2. A tablet dispenser of unitary construction comprising a tubular dispenser body having first and second end portions, a wall closing said first end portion, a peripheral edge of said second end portion defining a normally generally oval-shaped opening, said oval-shaped opening being normally effective to prevent tablets from passing outwardly therethrough, a portion of said body between said oval-shaped opening and said closing wall being generally normally circular in transverse cross-section, free of inward projections and of a size normally effective to permit tablet movement toward said oval-shaped opening, and depressible means forming an integral portion of said body between said body portion and said peripheral edge for changing the oval-shape of said opening to a generally circular shape whereby a single tablet can be dispensed through said opening and also changing the circular cross-section of the body portion to a generally oval-shaped cross-sectional configuration whereby remaining tablets in said body are retained therein, said depressible means comprising a depressible wall between said body portion and said peripheral edge, said depressible wall defining a tablet chamber, and said depressible wall including a first wall portion converging toward and ending in said peripheral edge and a second wall portion converging toward and joining said body portion.

3. A tablet dispenser comprising a tubular generally cylindrical dispenser body having first and second end portions, a bottom wall closing said first end portion, said second end portion including an enlarged body portion, said enlarged body portion terminating in a peripheral edge defining a generally oval-shaped dispensing opening of a size normally effective to prevent tablets from passing outwardly therethrough and being deformable to a shape to permit tablets to pass outwardly therethrough, a first wall portion of said enlarged body portion converging toward said peripheral edge, a second wall portion of said enlarged body portion converging toward said bottom wall, the second wall portion of said enlarged body portion being integrally joined to said body at a portion having a generally constant, projection-free circular transverse cross-sectional configuration of a size normally effective to permit tablet movement toward said opening, and said enlarged body portion being deformable upon the application of manual pressure against at least one of the first and second wall portions thereof to change the oval-shaped dispensing opening to a generally circular shape and the generally circular body portion to an oval-shaped transverse cross-sectional configuration whereby a single tablet is dispensed through said opening and remaining tablets are retained in said body.

4. A dispensing package comprising a generally tubular deformable dispenser body having first and second end portions, a wall closing said first end portion, a plurality of generally cylindrical articles housed in said body, a

peripheral edge of said second end portion defining a dispensing opening, said dispensing opening being normally oval-shaped and having a minor axis of a length less than the diameter of the articles in said body, said second end portion including an enlarged portion, said enlarged portion being defined by a first wall portion converging toward said peripheral edge and a second wall portion converging toward said closing wall, and said second wall portion being integrally joined to said body at a portion having a generally constant, projection-free circular transverse cross-sectional configuration having a diameter substantially equal to the diameter of the articles in the body whereupon the application of manual pressure against at least one of the first and second wall portions increases the length of the minor axis to permit the passage of an article through said opening and changes the circularly configured body portion to a generally oval shape having a minor axis of a length less than the diameter of the articles in said body whereby remaining articles are retained in said body.

5. A dispensing package comprising a generally tubular deformable dispenser body having first and second end portions, a wall closing said first end portion, a plurality of generally rectangular articles housed in a portion of said body, a peripheral edge of said second end portion defining a dispensing opening, said dispensing opening being normally oval-shaped and having a minor axis of a length less than that necessary to pass articles within said body therethrough, said second end portion including an enlarged annular portion, said enlarged annular portion being integrally joined to said body portion at a

portion having a generally circular transverse cross-sectional configuration having a diameter substantially equal to the diagonal of the articles in the body portion whereupon the application of manual pressure against said enlarged annular portion increases the length of the minor axis beyond the diagonal of the articles to permit the passage of an article through said opening and changes the circular configured portion to a generally oval shape having a minor axis of a length less than that necessary to pass articles within the body portion therethrough, whereby remaining articles are retained in said body portion.

6. A dispensing package as set forth in claim 5 wherein that portion of the body portion having a generally circular transverse cross-sectional configuration is projection-free.

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