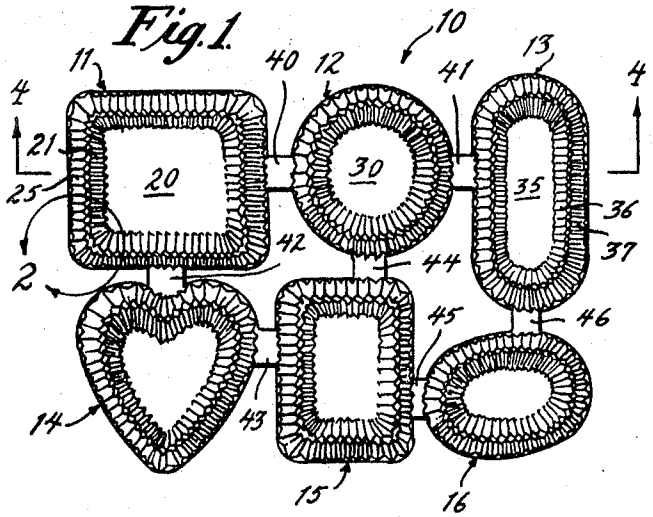
Aug. 5, 1969 G. C. SPARKS 3,459,356

CONFECTIONERY PACKAGE

Filed Nov. 29, 1967

Fig. 1.



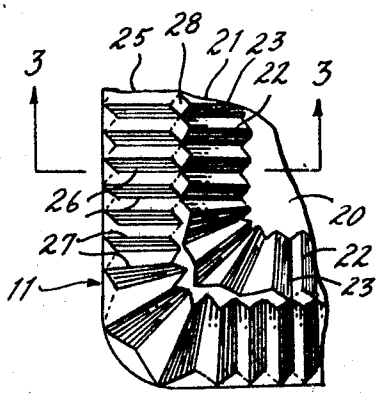


Fig. 2.

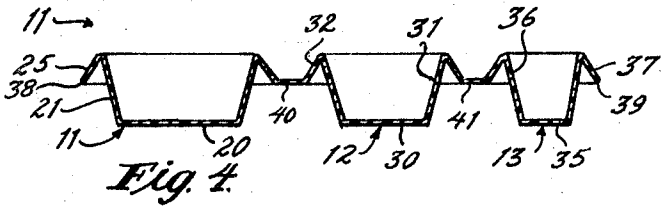


Fig. 4.

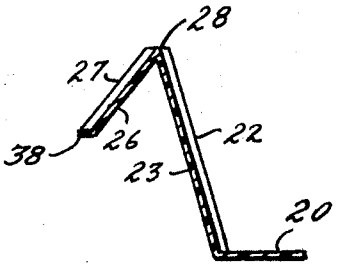


Fig. 3.

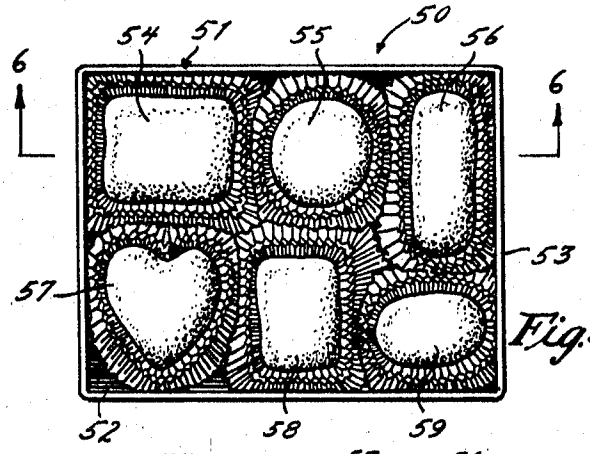


Fig. 5.

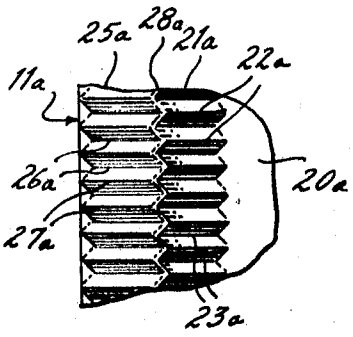


Fig. 7.

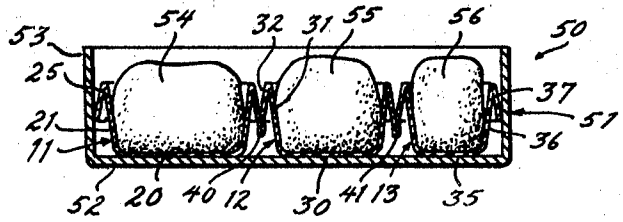


Fig. 6.

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CONFECTIONERY PACKAGE

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ABSTRACT OF THE DISCLOSURE

This inventiton relates generally to a confectionery package wherein an insert for a tray or box is fabricated of flexible sheet material being cut and formed to define a plurality of cups or cup-shaped receptacles for articles of confection, and flexible connector elements or strips between proximate portions of adjacent receptacles.

Background of the invention

As is well known to those versed in the art, it has been conventional for many years to employ individual paper cups having accordion like pleated side walls for containing separate pieces of candy, and the like. The candy-containing cups are snugly engaged in a relatively rigid box or tray, such that the cups impart a whimsically interesting and attractive appearance, while the crinkliness of the cups affords a sensation of freshness.

However, the operations involved in packaging confectionery products in individual paper cups are relatively expensive and time consuming. Even though substantially automated by complex equipment, it remains essential to perform the final packaging procedures by hand.

While there have, in the past, been proposed forms of multiple confectionery receptacles, say as a unit for a box or level of a box, these prior devices have been relatively expensive to manufacture, and have usually sacrificed certain of the above-noted desiderata of individual paper cups.

Accordingly, it is an important object of the present invention to provide a confectionery package wherein a plurality of receptacles for plural articles of confection may be manufactured and handled as a unit to achieve substantial economies in the packaging operation, and further wherein the whimsical configurations and fresh-and-crisp sensation of individual paper receptacles are retained.

It is another of the present invention to provide a confectionery package including a plurality of receptacles for respective articles of confection, which receptacles may be handled as a unit, each individually affording the ease of flexure to assume the configuration of a received piece of candy, and wherein the appearance of packaged confections utilizing the instant package accurately simulates the dainty, high-quality appearance of individual-paper-cup packaging.

Other objects of the present invention will become apparent upon reading the following specification and referring to the accompanying drawings, which form a material part of this disclosure.

The invention accordingly consists in the features of construction, combinations of elements, and arrangements of parts, which will be exemplified in the construction

hereinafter described, and of which the scope will be indicated by the appended claims.

Brief description of the drawing

FIGURE 1 is a top plan view showing a packaging unit of the present invention apart from the remainder of the package.

FIGURE 2 is a partial top plan view of the area designated 2 in FIGURE 1, enlarged for clarity.

FIGURE 3 is a partial sectional elevational view taken generally along the line 3—3 of FIGURE 2.

FIGURE 4 is a sectional elevational view taken generally along the line 4—4 of FIGURE 1.

FIGURE 5 is a top plan view showing the packaging unit of FIGURE 1 in its operative association with a complete package.

FIGURE 6 is a sectional elevational view taken generally along the line 6—6 of FIGURE 5.

FIGURE 7 is an enlarged fragmentary plan view similar to FIGURE 2, but showing a slightly modified embodiment of the present invention.

Description of the preferred embodiments

Referring now more particularly to the drawings, and specifically to FIGURES 1–4, a packaging component is there generally designated **10**, and comprises an insert for a relatively rigid box or tray, as will appear more fully hereinafter. The insert **10** may advantageously be integrally fabricated of flexible thermoplastic sheet material, as by thermoforming and cutting.

More particularly, the insert **10** may include a plurality of upwardly opening cup-shaped receptacles, as are respectively designated **11–16**. The several receptacles are arranged in adjacent, side-by-side relation, and may each be of identical size and configuration, or of different size and configuration as in the illustrated embodiment. Further the arrangement of the several receptacles may be rectangular, as illustrated, being in two rows of three receptacles each, or other suitable arrangement, as desired.

Each receptacle, such as the receptacle **11**, includes a bottom wall **20**, which may be generally flat and of the desired outline configuration, being generally rectangular in the illustrated embodiment. Integrally upstanding from the bottom wall **20** of the receptacle **11** is a side wall **21**. The side wall **21** is advantageously formed in a fluted or pleated configuration, best seen in FIGURE 2, having a plurality of folds extending vertically upward from the bottom wall **20** to the upper extremity of the side wall. It will be observed in FIGURE 2, that alternate folds, as at **22** in the side wall **21** are folded to extend inwardly, while the remaining, intermediate folds **23** are folded to extend outwardly.

Extending integrally from the upper extremity of the side wall **21**, peripherally thereabout, is a depending flange or skirt **25**. The skirt **25** is similarly accordion pleated or fluted, having alternate inwardly extending folds **26** and the remaining, intermediate folds **27** extending outwardly. In the embodiment of FIGURE 2 it will be apparent that the outwardly extending folds **23** of the side wall **21** are in substantial end-to-end alignment with the inwardly extending folds of skirt **25**, and that the inwardly extending folds **22** of the side wall are in substantial alignment

with the outwardly extending folds **27** of the skirt. This results in a somewhat flattened diamond-like configuration on the upper edge **28** defining the juncture of the side wall **21** and skirt **25**.

The remaining receptacles **10–16** are all of similar construction. For example, receptacle **12** is of generally circular construction, including a generally circular, substantially flat bottom wall **30** and an integral upstanding peripherally extending side wall **31**. Extending circumferentially about and integrally depending from the upper edge of the side wall **31** is a peripheral skirt **32**. The side wall **31** and skirt **32** are fluted or formed with accordion-like, generally vertically extending pleats. The receptacle **13** is similarly formed, including a generally flat, substantially oval-shaped bottom wall **35** and an integrally upstanding peripherally extending side wall **36**, from the upper edge of which depends a peripherally extending skirt **37**. The receptacle side wall **36** and skirt **37** are both advantageously formed with generally vertically extending pleats or flutes. The remaining receptacles **14–16** are similarly constructed.

As the insert **10** is advantageously fabricated by thermoforming a single sheet of thermoplastic material, the several receptacles **11–16** are separated by cutting of the receptacle skirts along their lower edges. For example, the skirt **25** of receptacle **11** is severed or cut along its lower edge **38**, while the skirt **37** of receptacle **13** is severed along its lower edge **39**. However, there remain connector elements or strips, as at **40–46** connecting adjacent portions of each adjacent pair of receptacles **11–16**. For example, connector element or strip **40** connects proximate portions of adjacent receptacles **11** and **12**, strip **41** connecting proximate portions of receptacles **12** and **13**, strip **42** connecting proximate portions of receptacles **11** and **14**, etc. In particular, each connector element or strip may be integral with and extend between adjacent lower edge portions of adjacent skirts. Thus, the connector element or strip **40** extends between adjacent lower edge portions of adjacent skirts **25** and **32** of receptacles **11** and **12**, while connector strip or element **41** extends integrally between adjacent lower edge portions of skirts **32** and **37** of adjacent receptacles **12** and **13**.

In practice, subsequent to or substantially concurrent with the thermoforming operation, the formed sheet may be severed along the lower edges of the several skirts, leaving only the receptacles **11–16** and their connecting elements or strips **40–46**.

By reason of the flexibility of the material of insert **10**, the several receptacles **11–16** may each be distended, contracted, or distorted or shaped to assume any desired configuration. Further, the overall shape and size of the unit **10** may be considerably varied and rearranged as by manipulation of the several receptacles relative to each other.

In the completed package of FIGURES 5 and 6, there generally designated **50**, there is included a relatively stiff or rigid tray or box **51**, which is shown as of generally rectangular configuration, but which may assume other configurations, as desired. The tray or box **51** may include a generally flat bottom wall **52**, and a relatively rigid upstanding, peripherally extending side wall **53**. Contained in each receptacle **11–16** is an article of confection, as at **54–59**. The insert **10** and its contents **54–59** are longitudinally and laterally compressed for conforming engagement in the tray **51**. That is, the insert **10** and its contents rests on the tray bottom wall **52** in conforming engagement with the peripheral side wall **53** of the tray. By the use of existing automatic machinery, the insert **10** may be filled with its contents **54–59**, and the filled insert placed in the tray, completely without manual handling.

When the filled insert **10** is disposed within the tray **51**, it will be appreciated that the several receptacles **11–16** each snugly receives its respective article of contents, and that the receptacle skirts are deflected inward. Effectively, this presents to the consumer's view only the upper edges of the several receptacle side walls, so as to conceal the connecting elements or strips **40–46** and afford an accurate simulation of the conventional paper candy cups. Further, the material of the insert **10** may be sufficiently frangible, so that individual receptacles may be removed from the tray **51**, as by severance of the connector elements without disturbing the remaining receptacles. Toward this end, the connector elements may be notched, serrated or otherwise weakened.

Referring now to FIGURE 7, there is shown a slightly modified embodiment wherein a receptacle **11*a*** includes a generally flat bottom wall **20*a***, an integral upstanding peripherally extending side wall **21*a***, and a peripheral skirt **25*a*** depending integrally from the upper edge of the side wall. The side wall **21*a*** and its skirt **25*a*** are formed with generally vetrically extending pleats, flutes or folds for free flexure of the receptacle. However, the inwardly extending folds **22*a*** of the side wall **21*a*** are in substantial end-to-end alignment with the inwardly extending folds **26*a*** of the skirt **25*a***. Correspondingly, the outwardly extending folds **23*a*** of the side wall **21*a*** are in substantial end-to-end alignment with the outwardly extending folds **27*a*** of the skirt **25*a***. This produces a relatively sharp, zigzag upper edge or juncture **28*a*** of the side wall **21*a*** and **25*a***, if desired.

From the foregoing, it is seen that the present invention provides a package construction for confections which fully accomplishes its intended objects, is well adapted to conditions of manufacture, filling, and use by the consumer.

Although the present invention has been described in some detail by way of illustration and example for purposes of clarity of understanding, it is understood that certain changes and modifications may be made within the spirit of the invention.

What is claimed is:

1. A confectionery package comprising a relatively rigid tray; and an insert in said tray for receiving articles of confection, said insert being fabricated of flexible sheet material and comprising a plurality of upwardly opening cup-shaped receptacles arranged in adjacent side-by-side relation and each having a bottom and peripheral side wall for receiving an article of confection, a plurality of flexible connector strips each connected between proximate sidewall portions of an adjacent pair of said receptacles, and a skirt of flexible sheet material depending from the upper edge of each receptacle side wall, said connector strips each extending between proximate skirt portions of an adjacent pair of said receptacles, for effective concealment of said connector strips between adjacent receptacles.

2. A confectionery package according to claim **1**, said skirts each extending peripherally about the respective receptacle side wall and combining therewith to present a uniform upper side-wall edge.

3. A confectionery package according to claim **2**, said receptacle side walls and skirts being formed with generally vertically extending pleats, to facilitate expansion, contraction and flexure of said side walls and skirts.

4. A confectionery package according to claim **2**, said skirts each terminating at its lower edge short of the lower end of the adjacent receptacle side wall.

5. A confectionery package according to claim **2**, said insert receptacles, skirts and connector strips being integrally formed of thermoplastic sheet material.

6. A confectionary package according to claim **2**, said receptacle side walls and skirts being formed with generally vertically extending folds, the inward and outward folds of each side wall and its associated skirt being respectively aligned to present at their juncture a relatively sharp upper edge.

7. A confectionary package according to claim **2**, said receptacle side walls and skirts being formed with gen-

erally vertically extending folds, the inward folds of each side wall being substantially aligned with the outward folds of the associated skirt to present at their juncture a somewhat flattened upper edge.

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U.S. Cl. X.R.

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