Nov. 29, 1966 J. F. McCULLOUGH 3,288,353

WRAPPING MATERIAL AND THE FASHIONING OF PACKAGING BLANKS THEREFROM

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FIG. 1

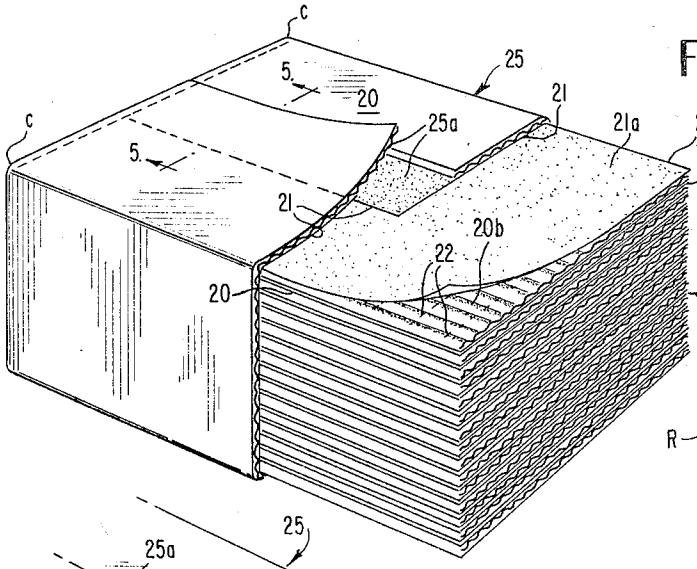


FIG. 2

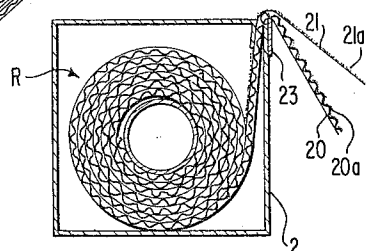
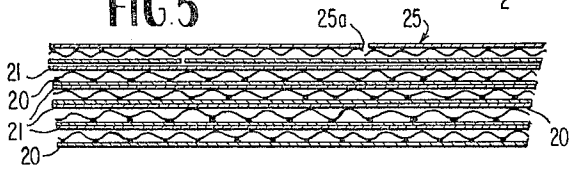


FIG. 5



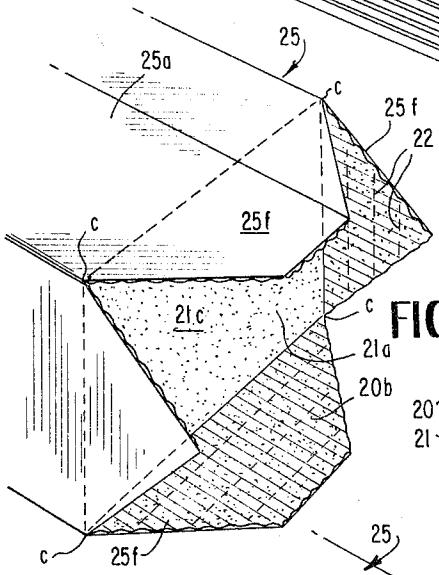


FIG. 3

FIG. 6

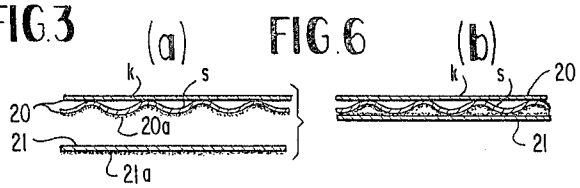
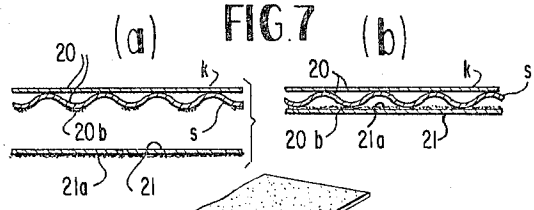


FIG. 7



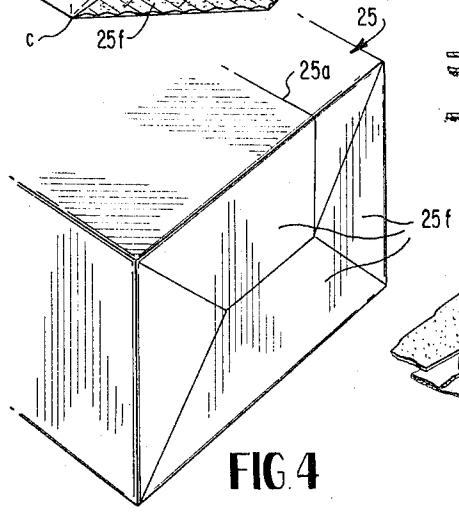


FIG. 4

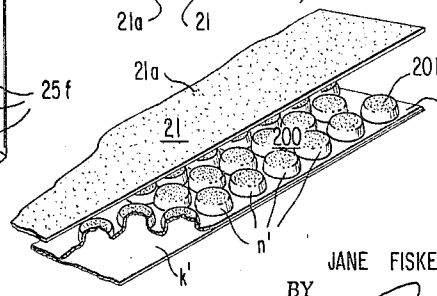


FIG. 7 x

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FIG.8

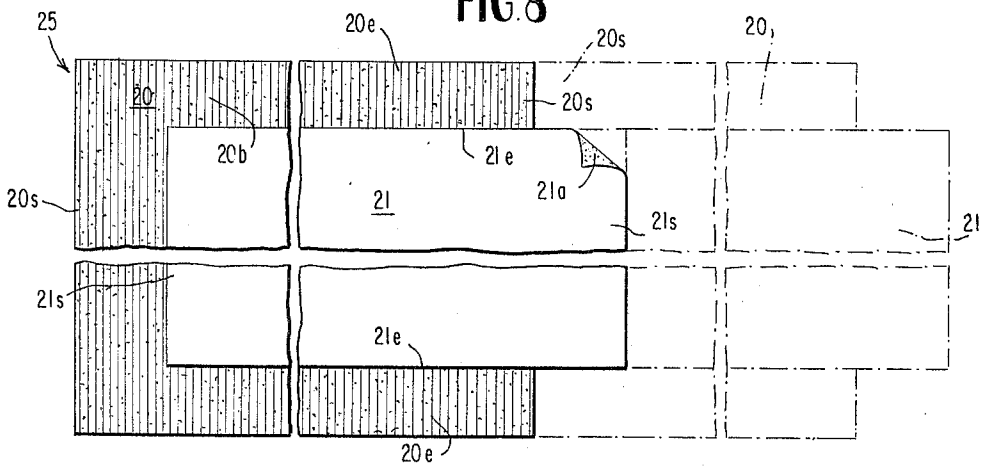


FIG.9a

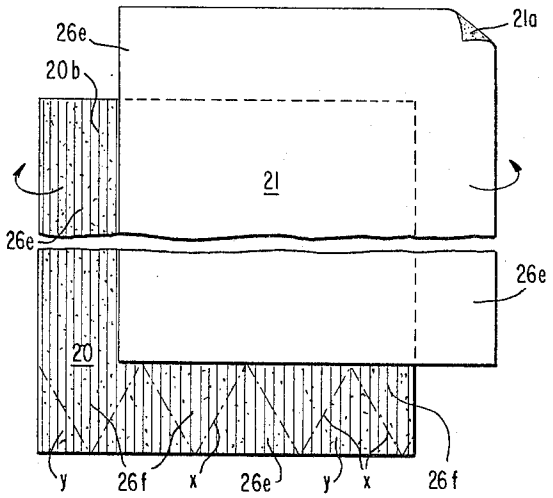


FIG.9b

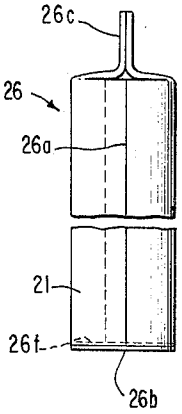


FIG.9c

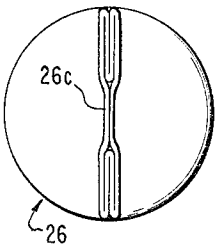


FIG.10a

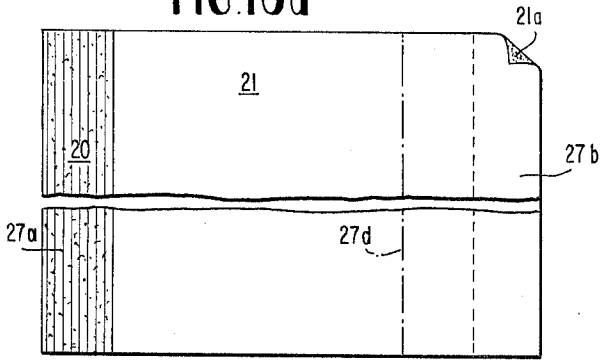
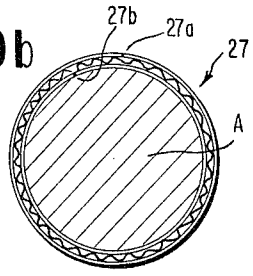


FIG.10b



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FIG.11

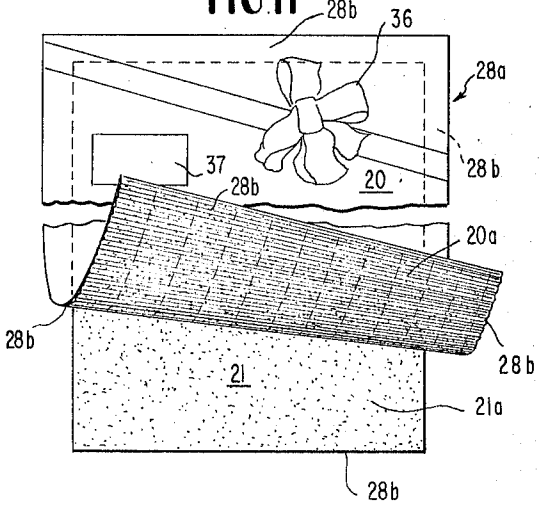


FIG.12

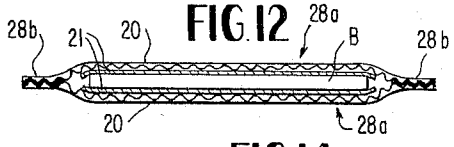
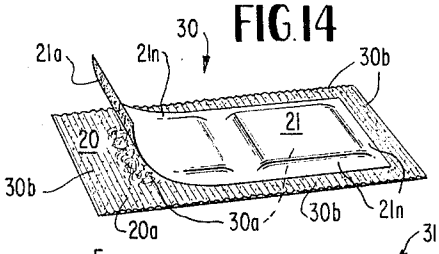


FIG.14



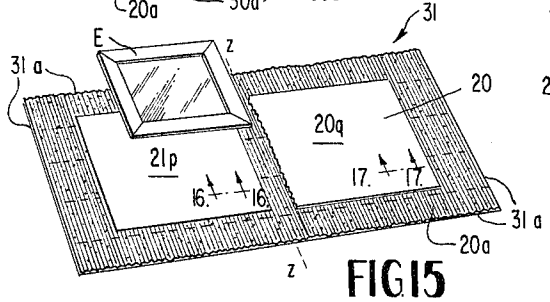


FIG.15

FIG.16

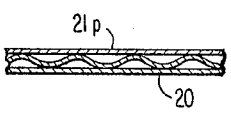


FIG.17

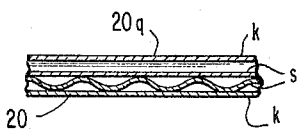


FIG.13a

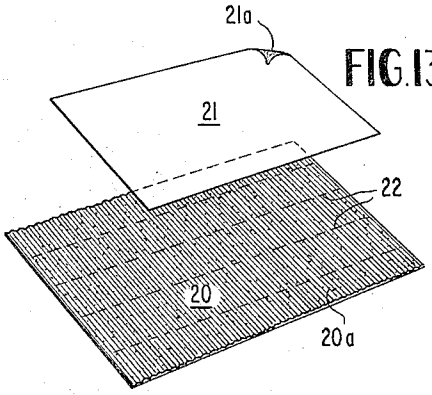


FIG.13b

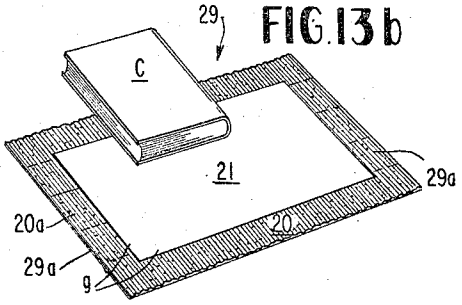


FIG.13c

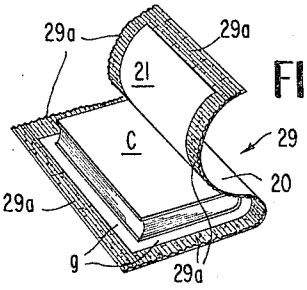
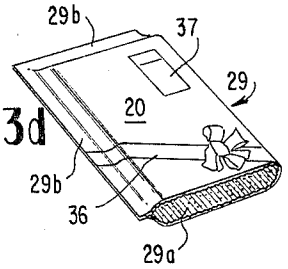


FIG.13d



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FIG.18a

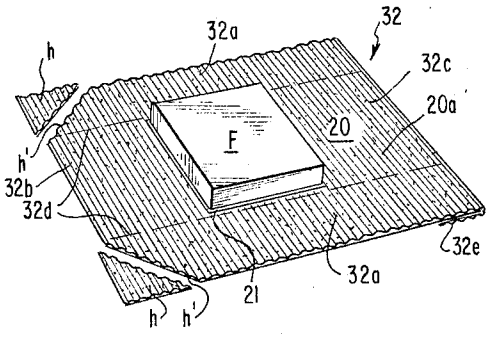


FIG.18b

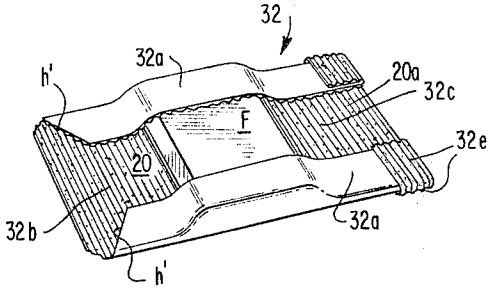


FIG.18c

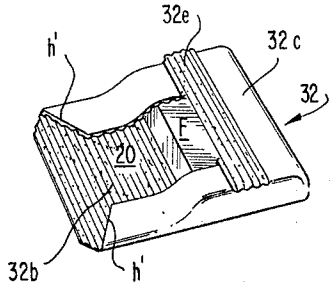


FIG.18d

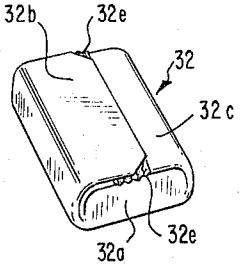


FIG.19a

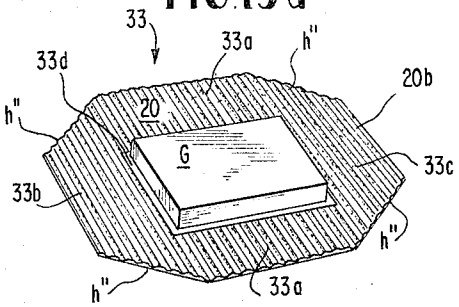


FIG.19b

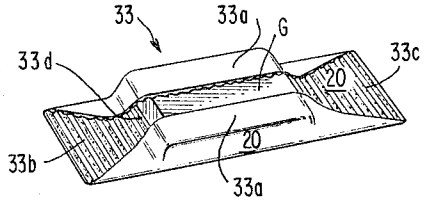
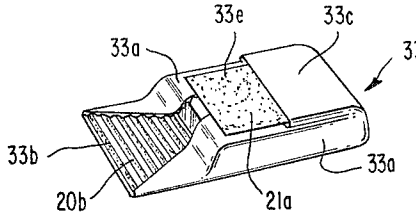


FIG.19c



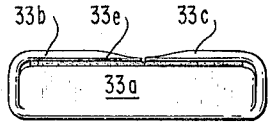


FIG.19d

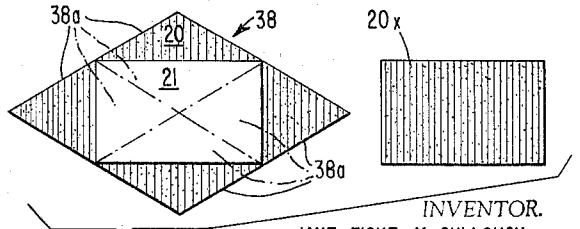


FIG.22

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FIG. 20a

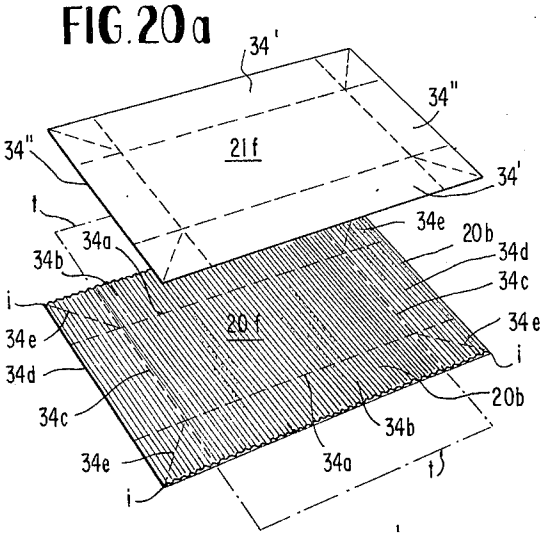


FIG. 20b

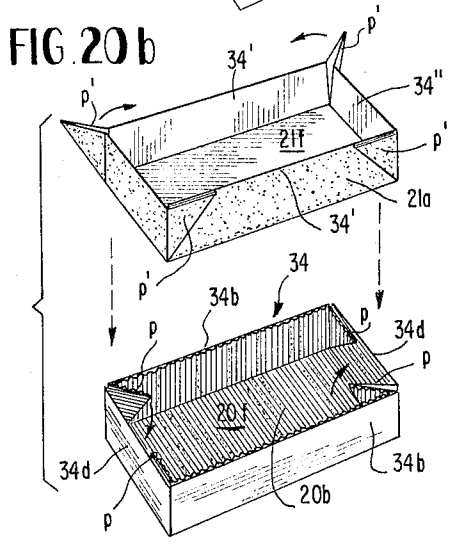


FIG. 20c

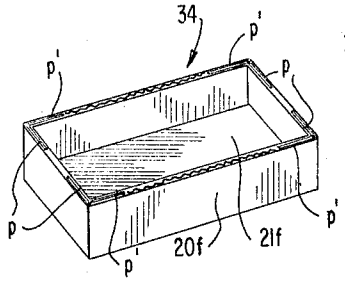


FIG. 21a

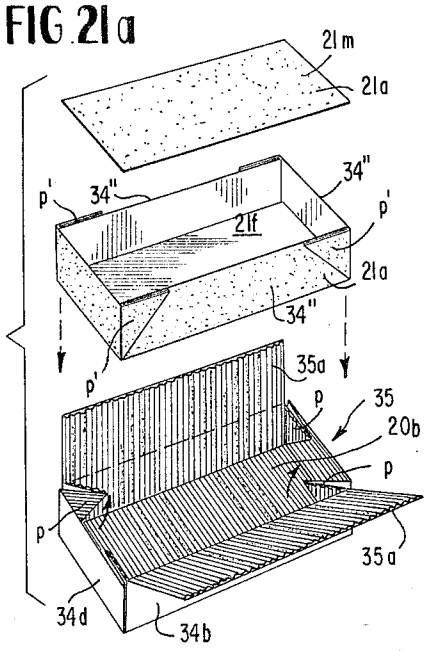
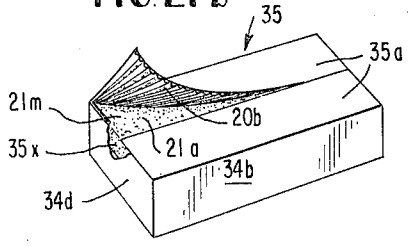


FIG. 21b



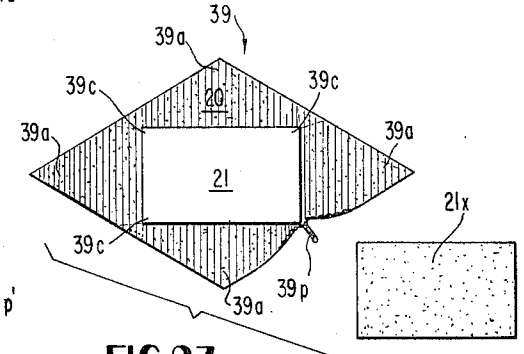


FIG. 23

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United States Patent Office 3,288,353 Patented Nov. 29, 1966

3,288,353

WRAPPING MATERIAL AND THE FASHIONING OF PACKAGING BLANKS THEREFROM

Jane Fiske McCullough, P.O. Box 31, North Bennington, Vt.

Filed Dec. 16, 1964, Ser. No. 418,617
13 Claims. (Cl. 229—87)

This invention relates to a versatile multi-purpose protective cushion-wrapping and self-sealing material for wrapping or packaging an indefinite number of different articles, which are to be stored, handled, protected, and/or transported through the mails, or by commercial shippers, or by other means of transportation, and to the manner of fashioning packaging blanks therefrom.

Although during the last twenty-five years or more various proposals have been made for a self-sealing wrapper sheets, such wrappers suffer from various limitations or drawbacks. They are, for instance, limited to a single-purpose wrapping or to a special-article wrapping, still leaving unfulfilled a long-felt want for a very simple and inexpensive wrapping-material versatile enough for general use by the public for a variety of different articles and at the same time affording a high degree of protection to the article, wrapped by it, while in storage or in transit. While this need is met in part by the wrapper-sheet disclosed in United States Patent No. 3,042,278, and which is available on the market, the present invention is an extension of and/or improvement upon the wrapper sheet disclosed in said patent.

The broad object of this invention is to create a less expensive reinforced wrapping and/or packaging means, that is inherently self-sealing comprising two separate and flexible cohesively-coated components as a new merchandisable article supplying all the needed material, which is convertible, by persons skilled or unskilled in wrapping or packaging of articles, into a variety of instantly self-sealing protectively-cushioned wrappers or packages for a variety of articles, such conversion requiring a minimum of labor and time and no extra accoutrements, such as glue, sealing tape, staples, cord or the like (except for the use of scissors, knife or pre-cutting machinery where applicable).

A more specific object of this invention is to provide, as a package or packet, an improved self-sealing article-wrapping material consisting of a sheet or web of flexible cushioning material, having its one face coated with a self-adhering-only adhesive, and of a flat flexible liner-sheet or web of suitable paper, foil or synthetic resinous material, also having a coating of said adhesive on, preferably, one of its faces only; and combining these sheets in a variety of arrangements whereby a certain desired area or areas are rendered more rigid and protective, allowing many different means of enfolding and self-sealing to be employed—thus imparting to the wrapping-material a greater versatility for the needs of the user in packaging innumerable types of articles.

The multi-purpose wrapping material of this invention may be supplied in flat sheets or rolled form, and would be usable in bulk by either large manufacturing or business establishments in the form of pre-cut sheets suitably scored for easy folding for specified manufactured or retail articles; or in convenient rolls or sheets for use in the household, small office, or specialty store, where precutting and scoring is less suited to the multitude of uses such users would have for an all-purpose wrapping material.

A further specific object of this invention, in simplifying the elements needed for adequate packing and wrapping, is to utilize the properties of the self-adhering-only adhesive for three-fold advantage; to render a flexible corrugated sheet or other protective cushioning sheet and a flexible liner sheet—which are more compact to ship, store, and merchandise—easily convertible into firm reinforced boxes or box-like wrappings; to allow these wrappings to be easily set up and handled by using the holding properties of the adhesive during forming; and to allow the wrappings or containers to be readily self-sealing by designing a variety of configurations that bring like-coated surfaces into contact.

A third specific objective of the improvement is to provide a versatile self-sealing wrapping and packing material, as specified, at the least possible cost to the general consumer and to the bulk user; and to do this specifically by creating original and economical combinations of basically economical materials, in simple but heretofore unperceived arrangements that make such economy an inherent part of the concept.

These and other objects, features and advantages of the invention will be apparent from the following description, as illustrated in the accompanying drawings, which show the invention by way of samples.

In the drawings:

FIGURE 1 is a perspective view of a sheaf of wrapping-material, according to this invention, in flat sheet form, illustrating one manner in which the sheaf may be bound into a self-sealed package made of the same wrapping material cut to a sheet size appropriate for the purpose, parts of wrapper being broken-away to illustrate to its construction;

FIGURE 2 is a traverse sectional view through a well-known type of dispensing container having a cutting edge and having suitable coextensive lengths of the wrapping material of this invention contained therein in roll form, from which desired lengths of both materials can be drawn and cut simultaneously;

FIGURE 3 is a perspective view of an end of the sheaf, shown in FIGURE 1, and illustrates one manner in which the wrapping material may be formed and arranged to effect a self-sealing package;

FIGURE 4 is a view similar to FIGURE 3 with the side-seam and end flaps in sealed position;

FIGURE 5 is a sectional view of the sheaf of wrapping material shown in FIGURE 1 and is taken substantially on line 5—5 of FIGURE 1;

FIGURE 6 embraces two enlarged cross-sectional views showing one form of the wrapping material of the invention disassembled and how it may be arranged for stacking purposes, view (*a*) thereof illustrating a single-faced flexible corrugated board sheet coated with a self-adhering-only adhesive throughout its exposed corrugated surface and a separate flat liner sheet similarly coated on one face only, and view (*b*) illustrating the two components of said wrapping material assembled in a bonded unitary structure;

FIGURE 7 embraces two enlarged cross-sectional views, similar to FIGURE 6, but illustrating another form of said wrapping material wherein the modification resides in having only the exposed crests of the fluted exposed face of the single-face corrugated board coated with the aforesaid adhesive;

FIGURE 7*x* is a fragmentary perspective disassembled view of another form of a protective-cushion wrapping material that may be employed instead of a single-faced corrugated material;

FIGURE 8 is a plan view of a blank made from the two components of this invention for producing the self-sealing package, wrapping, or carton shown in FIGS. 1, 3 and 4;

FIGURE 9*a* is a plan view of another blank made from the two components of the wrapping elements of this invention to produce a tubular type of self-sealing package;

FIGURE 9*b* is a side elevational view of the package formed from the blank shown in FIG. 9*a*;

FIGURE 9*c* is a top plan view of the package shown in FIG. 9*b*;

FIGURE 10*a* is a plan view of another arrangement of the wrapping elements to produce still an open ended tubular self-sealing wrapper;

FIGURE 10*b* is an end view of an article with the wrapper applied;

FIGURE 11 is a plan view of lengths of said wrapping components that have been arranged with the cohesive-film coated faces **20***a* and **21***a* opposing and pressed into a stiff unitary doubled faced corrugated board with opposite coated marginal end portions of the corrugated component being exposed or uncovered by the liner-sheet to form one side of a rigid self-sealing envelope;

FIGURE 12 is a cross-sectional view through the envelope formed by two of the units shown in FIG. 11;

FIGURES 13*a* to 13*d*, inclusive, illustrate consecutively in perspective the formation of a self-sealing reinforced folding wrapper for relatively flat articles, in accordance with the present invention;

FIGURE 14 is a perspective view of the wrapping material of this invention arranged to form a self-sealing padded wrapper similar to the wrapper shown in FIG. 13*c*;

FIGURE 15 is a perspective view smilar to FIGURE 13*b*, illustrating another modified use of the wrapping material of this invention arranged for packing relatively flat fragile or frangible articles requiring a more rigid enclosure;

FIGURE 16 is a cross-sectional view taken on line **16—16** of FIGURE 15;

FIGURE 17 is a cross-sectional view taken on line **17—17** of FIGURE 15;

FIGURES 18*a* to 18*d*, inclusive, are consecutive perspective views illustrating in sequence the formation of still another type of self-sealing cushion wrapper readily accomplished with the components of the wrapping material of this invention;

FIGURES 19*a* to 19*d*, inclusive, are consecutive perspective views, similar to FIGS. 18*a* to 18*d*, illustrating an alternate and further type of self-sealing reinforced cushion wrapper for articles acomplished with the components of the wrapping material of this invention.

FIGURES 20*a* to 20*c*, inclusive, illustrate consecutively in perspective the formation of traps or telescoping box sections with the wrapping-material of this invention; and

FIGURES 21*a* to 21*b*, inclusive, illustrate in perspective the formation of a self-seal top-flap carton type box in accordance with the present invention; and

FIGURES 22 and 23 illustrate another use of the wrapping material of the invention for forming flap-closed wrapping of the envelope type.

In the drawings, like characters of reference refer to similar and like parts throughout the several views.

The present invention, as stated briefly above, involves the use of a cushioning type material, such as generally indicated at **20** (FIGS. 6 and 7) and at **200** (FIG. 7*x*), or any similar type of cushioning sheet material; and a separate flat sheet or web **21** of kraft paper, foil or a synthetic resinous material to provide a liner therefore, or to otherwise cooperate therewith, through arrangements of cohesive surfaces that readily produce self-holding seams and self-sealing enclosures for articles to be wrapped, packaged, or protected.

For convenience and brevity, the cushion sheet is shown and described therein, with respect to the several illustrative figures of the drawings, as a single-faced corrugated sheet **20** because it is well known for this purpose and is relatively inexpensive as well as being advantageous in effecting certain self-sealing closures for certain types of wrapping as will appear later, where the nesting of corrugations at the closure portions is important. Otherwise, other types of cushioning sheets (one of such being shown in FIG. 7*x*) may be substituted for the single-faced corrugated sheet **20**.

When the single-faced corrugated sheet **20** is employed, it may be made, for example, of a corrugated straw-board material *s* (FIG. 6) of about 0.009 of an inch thick, to the crests of which, on one of its faces, is attached (by a suitable adhesive) a flat backing sheet or liner *k* (FIG. 6) of a good grade of kraft paper in the order of 40 to 50 pounds weight (or a sheet of foil or of a synthetic material of corresponding strength) so as to form a unitary sheet or web **20** with the liner sheet *k* spanning or bridging the valleys between the crests of the corrugations. The thickness and weight just mentioned are by way of example only and may vary according to the exigencies required. Also, the flutes or corrugations may be of any appropriate spacing and height that gives good cushioning results. The outwardly projecting crests of the corrugation or flutes on the exposed corrugated face of the single-faced sheet **20** may be kerfed or slit or scored transversely of their length for a slight distance along parallel lines, as at **22**, to permit easy bending on said lines, when a folding pressure is applied. The parallel lines **22** are preferably in modules of measurement—say 1, 2 or 4 inches apart—as may be selected for the size of the articles to be wrapped. For general sale to the public, for household, office use, and retail stores—it is preferred that the lines **22** be on ½ inch modules, if it is found desirable to provide the scoring at all.

The exposed fluted face of the corrugated sheet **20** is also coated over its entire area with a film of a self-adhering-only adhesive (sometimes called "cohesive cement") which adheres to nothing, when set, except to a surface coated with the same cement, as shown more particularly in FIGS. 6*a* and 6*b*. For certain purposes, as will be explained later herein, only the exposed crests of the flutes may be provided with a film of such a self-adhering-only adhesive, as shown in FIGS. 7*a* and 7*b*.

The flat separate liner-sheet **21** may be of a strength corresponding to kraft paper of 25 to 30 pounds weight, but may be of any strength meet the needs and is likewise coated over the entire area of one of its faces only with a film **21***a* of the aforesaid self-adhering-only adhesive. The thickness of said adhesive film **20***a*, **20***b* and **21***a* is in the order of 0.003 of an inch, but may be varied widely according to the needs in the use of the wrapping material.

These sheets **20** and **21** are, preferably, coextensive and may be dimensioned to a desired or required size and stacked alternately with their cohesive film surfaces **20***a* or **20***b* and **21***a* not in contact with each other, as shown at S in FIG. 1 (i.e. the coated surface of one sheet resting on the uncoated surface of the other sheet) or these sheets may be in the form of two superposed coextensive webs of suitable continuous lengths wound together, with their cohesive film surfaces in opposite positions, to form a roll R for easily dispensing desired lengths. Such rolls may be placed in a dispensing container or box **2** having a cutting-edge **23** for severing simultaneously desired lengths of the sheets **20** and **21** from the roll R, as shown in FIG. 2. One end of the liner sheet **21** may be pre-scored for easy tearing off of "sealing swatches" for various uses described herein.

The protective-cushion sheet **200** (FIG. 7*x*), that may be employed in lieu of the sheet **20**, comprises a lamination of two sheets of material, natural or synthetic, one being a flat smooth backer-sheet *k'* and the other sheet *s'* being deformed to produce a multiplicity of closely arranged nodes or nodules *n'* throughout its surface. These nodules *n'* may be circular, elongated or of any other configuration. The sheet *s'* is bonded to the backer-sheet *k'* in any suitable manner with the open sides of the nodules preferably facing the backer-sheet. If the sheet *s'* has sufficient rigidity itself, the backer-sheet *k'* may be omitted for certain types of wrappings. These sheets *s'* and *k'* may be made also of an air-im-

pervious material so that air is trapped in the nodules, when bonded to the backer-sheet *k'*, forming the nodules into air-cushions. At least the crowns or crests of the exposed nodules *n'* are coated with a film of the aforesaid self-adhering-only adhesive **20***b* to cooperate with the separate liner-sheet **21**, as will appear presently.

The cohesive film, referred to above, may be of a composition having the properties disclosed in the United States Patents No. 1,768,836 or No. 2,371,001 or that cohesive made and sold by American Latex Products Co. as No. W–599, or other such cohesives now sold on the market having the properties above defined. One such cohesive material or cement made and sold by Arabol Manufacturing Company of 110 East 42nd Street, New York City, New York, as industrial cement, is also satisfactory for the purposes of this invention.

In use, the above described wrapping material is capable of producing a multitude of wrapping or packages for a variety of articles, some of which will now be described.

Referring to FIGURES 1, 3 and 4, the stack S of wrapping-components **20** and **21** of this invention is contained in a wrapper or package **25** formed from the same wrapping material of larger size than those sheets of said material contained in said package **25**, so as to embrace and cover the stack. This package or wrapper **25** comprises a sheet **20** of said protective cushioning material, with its exposed corrugated and coated face covered by a liner sheet **21**. Their cohesive-film coated faces are in contact and their adjacent side-edges **20***s* and **21***s* are offset in lateral relation to each other, so that one edge portion of each sheet **20** and **21** extends a substantial distance beyond the adjacent side edge portion of the other sheet to form exposed film-coated marginal seam-flaps **25***a*. When the two sheets **20** and **21** are pressed together (by slight pressure from the hand or other implement), they immediately bond into a cohesive unitary structure, as shown in full lines in FIG. 8. Before arranging the sheets, as just stated, the edges **21***e* of the sheet **21** had been cut, or otherwise sized, to be set-in for a distance from both edges **20***e* of the corrugated sheet **20** to provide enclosing end flaps **25***f* for the package **25**, having their cohesive film-bearing surfaces **20***b* exposed.

In preparing the package **25**, the user may employ either the corrugated sheet shown in FIG. 6 (which has its entire exposed corrugated face of the single-faced corrugated sheet **20** coated with a film **20***a* of cohesive cement) or the corrugated sheet **20** shown in FIG. 7 (which has only the exposed crests of its corrugated face so coated as at **20***b*). However, it would normally be preferable to employ the less expensive corrugated sheet shown in FIG. 7.

By arranging the sheets **20** and **21** as just described and shown in FIG. 8, a similar wrapper-sheet of unlimited length may be easily provided, when necessary, by placing two such unitary assemblies of sheets **20** and **21** in contiguous side-by-side relation, as shown by both the full and the dot-and-dash lines in FIG. 8 so that the adjacent marginal projections **20***s* and **21***s* of the two contiguous assemblies will overlap and adhere to each other when their opposing film-coated surfaces **20***a* and **21***a* are pressed into cohesive contact. The width may also be extended by applying the same principal to edge portions **20***e* and **21***e*.

In the case of either such arrangements of said sheet **20** and **21**, as shown in FIGURE 8, a unitary substantially rigid double-faced corrugated wrapper sheet or blank is formed in the areas covered by the liner-sheet **21**, to provide a carton-like wrapper or package **25**, having the cohesive films **20***a* and **21***a* on their relatively flexible marginal portions **20***s*, **21***s* and **20***e* which are exposed to form cooperating self-sealing seams **25***a* and closing flaps **25***f* for the package **25**.

In forming the wrapper or package **25** for the stack S, or for any other article of similar shape, the article S, to be wrapped, is placed upon the liner-sheet **21**, as shown in FIG. 1, or upon the backing face of the corrugated sheet **20**, centering it as nearly as possible, particularly relative to the marginal portions **20***e*. The unitary assembly of sheets **20–21** is then folded to fit around the article S and the side marginal portions **20***s* and **21***s* are brought into overlapping and self-sealing bond, forming seam **25***a*, as shown in FIGS. 1, 3 and 4. The extending marginal end portions **20***e* of the corrugated sheet **20** is, then, cut (with scissors or the like) to remove V-shaped portions therefrom to form triangular flaps **25***f* (FIG. 3), which fold over and fit together on a flat plane when the package is closed. The formation of the flaps **25***f* can be readily accomplished by using the corners *c* of the wrapping as the focal point or apex of the triangular portions to be removed and trimming the free ends of the flaps so that they will meet. Then, a rectangular piece of the liner-sheet **21***c* (which may have been cut from the liner-sheet **21** forming the package) is placed and fitted in each end of the package with its coated face **21***a* facing outward, as shown in FIGURE 3. The flaps **25***b* are folded upon the liner-sheet piece **21***c* bringing their opposing coated surfaces into self-sealing contact with one another, as shown in FIG. 4, thus providing a flat fully closed, tightly-sealed carton-like package, which has been wrapped about the article or stack S. Manifestly, this same packaging may be used for square, rectangular, cylindrical or irregularly shaped articles; and it is also obvious that the same type of carton-like box or package may be preformed by the user—i.e. without first wrapping the unitary assembly of sheets **20** and **21** about the article which it is to contain.

As shown in FIGURES 9*a*, 9*b* and 9*c*, another type of self-sealing tubular container **26** is produced with the wrapping material of this invention for the storage and/or transportation of various articles such as articles susceptible of being rolled upon themselves—as legal papers, newspapers, magazines, wall-paper, foil, cloth of all kinds, soiled clothes—or elongated or cylindrical articles of all types or powdered, granular or flake material. This is accomplished by arranging pieces of the corrugated sheet **20** and of the liner-sheet **21**, preferably rectangular and of substantially the same size or area, with their cohesive films **20***b* and **21***a* facing and obliquely offset relative to each other for a distance (FIG. 9*a*) so that a right-angled margin **26***e* of each sheet **20** and **21** extends beyond the adjacent edges of the other sheet to provide self-sealing seams **26***a*, end closures **26***b* and **26***c* of the wrapper container **26** (see FIG. 9*b*); and, when so arranged, the sheets **20** and **21** are pressed together into an adhering unitary blank. A marginal edge portion **26***e* of the corrugated sheet **20** is then cut (with scissors or other suitable implement) as indicated by dotted lines *x* to remove portions *y* in order to form triangular end closure flap **26***f*.

In shaping the container **26**, the wrapping unit **20–21** in FIG. 9*a* is bent in the direction of the arrows, around the article to be wrapped (or without the article being placed thereon) into a tubular shape bringing the film-coated surfaces of two marginal portions **26***e* together in an overlapping position where they are pressed together to form a side seam **26***a* (FIG. 9*b*). The stiff tubular container **26** may be sealed at one end by folding the flaps **26***f* inwardly of the tube to a planar position and, then, placing a corresponding dimensioned swatch **26***b* of the liner-sheet **21** (or of the corrugated sheet **20**) over the flaps **26***f* with the cohesive film-bearing faces of said flaps and of said swatch in opposing positions, then pressing them together with slight pressure. The other end of the tubular container **26** is sealed by pleat-folding opposite sides of the marginal portion **26***e* of the liner-sheet **21** at the other end of the container **26** (after the manner of bag-pleating) as shown in FIG. 9*c*

and, then, pressing together the flattened portions of said margins to form the self-sealing closure **26***c* as shown in FIGS. 9*b* and 9*c*.

Where a tubular stiffened shield **27** is desired to protect a shaft-like member—for instance, the legs or arms of chairs, the legs of tables, the pole of floor-lamps, finished poles or rods of any kind or material or other similar objects where the wrapper cannot or may not be closed at its end—while in storage or in transit, a stiff double-faced self-sealing cushioning wrapper is provided by this invention as shown in FIGS. 10*a* and 10*b*. This is accomplished by employing appropriate rectangular sheets **20** and **21** (one each of approximate equal size or area) with their cohesive film surfaces **20***b* and **21***a* facing and slightly offset laterally, one from the other, to provide flexible marginal portions **27***a* and **27***b*, at opposite ends respectively of the blank. After the two sheets have been pressed together to form a unitary blank wrapper (FIG. 10*a*), this wrapper **27** is then wrapper around an article A, to be protected, by bringing the offset marginal end **27***b* of the liner sheet **21** into overlapping position with the offset marginal end **27***a* of the corrugated sheet **20**, so that their cohesive-film surfaces **20***b* and **21***a* are pressed into instant cohering seal contact, thus forming the side seam **27***c*.

Should the user desire a simple and more flexible corrugated shield **27** that is nonetheless self-sealing, the liner-sheet **21** may be cut as a narrow strip wide enough to provide the flexible marginal portion **27***b* and to overlap the adjacent marginal portion of the sheet **20** sufficiently to form a good adhering bond therewith, thus terminating at or about the dot-and-dash line **27***d* (FIG. 10*a*).

There is frequently a need to package relatively flat articles—which may be frangible or rigid, flexible or resilient—in a rigid protective envelope-type package **28** (FIG. 12). The wrapping material of this invention permits this to be readily and easily accomplished by the use of two unitary blanks **28***a*, one of which is shown in FIG. 11. The blank **28***a* comprises a sheet **20** and a sheet **21**, taken from the stack S in FIG. 1 or from the roll R in FIG. 2, which sheets are substantially coextensive and preferably of the type shown in FIG. 6. These sheets **20** and **21** may be cut to the size required for the article to be packaged. The separate liner-sheet **21** is then trimmed along all its edges to remove from ½ inch to 1 inch (or more if required) of its marginal edge portions so that it will be of considerably less area than the sheet **20**. The two sheets **20** and **21** are then superposed with their cohesive-film surfaces **20***a* and **21***a* facing and are centered relative to each other so as to leave exposed and uncovered (by the sheet **21**) the four film-bearing marginal edge portions **28***b* of the sheet **20**. When so arranged, the sheets **20** and **21** are pressed together in cohering contact, thus forming a rigid double-faaced corrugated board surrounded by a flexible marginal portion **28***b* having one surface bearing a cohesive-film **20***a*. One or several relatively flat articles B may be then placed on the liner **21** of the blank **28***a* and covered by another similar sized blank **28***a*, as shown in FIG. 12, with the exposed corrugations of the marginal portions **28***b* of both blanks facing toward each other. The marginal portions **28***b* of both blanks are then brought together with their corrugations nested and into cohesive self-sealing contact by slight manual pressure or other convenient means.

Should it be desired to provide the enveloped package **28** for storage purposes, where the article may be removed from and reinserted in the package from time-to-time, only three marginal edge portions **28***b* of the blanks **28***a* need be provided so that the package will have only three sealed seams **28***b* and an open edge; or only two marginal edge portions **28***a* need be provided on opposite edges of the blanks **28***a* so that the package will be open at opposite ends.

FIGURES 13*a* to 13*d*, inclusive, illustrate a foldable self-sealing wrapper **29** for relative flat articles C, which is reinforced to offer greater protection to the article than does single-faced corrugated wrapper sheets. The wrapper **29** comprises a suitable length of the single-faced corrugated sheet **20** and of the liner-sheet **21**, taken either from the stack S in FIG. 1 or from the roll R in FIG. 2. The sheet **21** is dimensioned by cutting or trimming it, as described in connection with FIG. 11, to be of less area than the sheet but of greater area than the article C to be wrapped so as to extend beyond the article for a distance, as at *g* in FIG. 13*c*. The two sheets **20** and **21** are then arranged one over the other (FIG. 13*a*) with their cohesive-film bearing surfaces **20***a* and **21***a* facing and centered; then the said sheets are brought into cohesive unitary engagement (FIG. 13*b*) leaving exposed cohesive-film bearing marginal edge portions **29***a* of the sheet **20** so that they will cooperate with and engage folded portions of said sheet **20** to form the self-sealing seam **29***b*. The article C, to be wrapped, is then placed on the liner-sheet **21** (see FIG. 13) and the wrapper is folded upon itself, as shown in FIG. 13*c*, so that the article C is covered by the area thereof which is reinforced by the liner-sheet **21**. The flexible and opposing marginal edge portions **29***a* of the sheet **20** are then pressed together, by the fingers of the human hand, to nest the corrugations of said opposing marginal edge portions and to bring the cohesive-films thereon into adhering engagement to form the seal **29***b* (FIG. 13*d*). The sheet **20** is, preferably, of the type shown in FIG. 6.

A pad packaging wrapper **30** is illustrated in FIGURE 14 for articles which may require a relatively stiffer outer wrapper than paper and a greater cushioning than is afforded by corrugated board. This is accomplished by the wrapper material of this invention, by employing suitable lengths of sheet **20** and of sheet **21**, taken either from the stack S of FIG. 1 or from the roll R in FIG. 2, and dimensioning and arranging them the same as described in connection with FIG. 11 and with FIG. 13*a*. The difference is that before the sheets **20** and **21** are bonded together in a unitary wrapper blank, a desired thickness of kapok, raw-cotton or the like is disposed on the fluted cohesive-film bearing surface **20***a* of the sheet **20**, preferably in two spaced pads **30***a*, which are spaced a sufficient distance (in the order of 2 inches) from the edges of the said sheet **20** to lie within the confines of and be covered by the liner-sheet **21**. The marginal edge portions **21***n* of the sheet **21** extend beyond the pads **30***a* and cohere with the cohesive-film surface of the sheet **20**, but terminate considerably short of the marginal edges of the sheet **20** to provide the flexible sealing marginal edge portions **30***b* around the sheet **20**. The article or articles to be wrapped by the wrapper **30** are then placed on a padded portion of wrapper and the wrapper is then folded, as in FIG. 13*c*, and the marginal edge portion **30***b* brought into facing and sealing engagement as shown in FIG. 13*d*. As an alternate package, two such wrappers **30** may be provided, each with one continuous pad **30**, and arranged and sealed as disclosed in FIG. 12 to provide a more rigid internally-padded envelope-type package.

FIGURE 15 illustrates a further modification of the stiffened foldable wrapper shown in FIG. 13*a* to FIG. 13*d*, which is useful for packaging a framed or an unframed picture or mirror or other fragile articles E. The wrapper **31**, shown in FIGURE 15, comprises a suitable length of a single-faced corrugated sheet **20** (as above defined) which will be foldable about the sides and one end of the article E and have outwardly extending marginal portions **31***a* projecting for a distance (of about ½ inch to 1 inch or more) from the article, when so wrapped, to provide the self-sealing closure the same as the closures **29***b* in FIG. 13*d*. The sheet **20** of the wrapper **31**, however, is preferably of the type shown in FIG. 6 and is reinforced by two spaced sheet members **21***p* and **20***q*, one placed in each end portion between the marginal

portions 31*a*, respectively, as shown. The reinforcing member 21*p* may be a square or rectangular-piece of a sheet 21 (as above defined) slightly larger than the article E and the other member 20*q* is a similarly shaped and sized piece of a sheet 20, each spaced from and on opposite sides of the transverse medial line *z*—*z* of the wrapper 31. The corrugations of the member 20*q* are arranged at right angles to the corrugation of the sheet 20 and both the members 21*p* and 20*q* have their cohesive faces opposing and in cohering engagement with the sheet 20. This package affords a stiff foldable protective outer wrapper for most fragile articles of the type indicated. Where required the member 20*q* may be substituted for the member 21*p*, and vice versa.

Another form of reinforced self-sealing foldable outer wrapper 32 is shown in FIGURES 18*a* to 18*d*, inclusive, utilizing the cohesively-coated corrugations for a seal with or without need of the liner or swatch 21. It may be employed for bundle-wrapping most articles when, for ease of handling, it is desirable that the wrapping material both hold the object firmly in place and form an easy continuous folded enclosure with firm reinforced corners. This wrapper 32 comprises a length of single-faced corrugated and cohesively-coated sheet 20, of the type defined in connection with FIG. 6, and of a size that allows its longitudinal margins 32*a* to be folded in toward itself over the article to be wrapped, to overlay the article in the center and to cohere to the opposing portion of the sheet 20, at either side of the article, to hold the article firmly while the wrapping is completed (FIG. 18*b*) by bringing the ends together in a self-sealing bond.

Specifically, to accomplish this, the wrapper blank shown in FIG. 18*a*, is trimmed at one end (say end 32*b*) with scissors or other implement, so that its corners *h* are cut off at about a 45 degree angle, using the innermost fold lines 32*d* of the margin 32*a* as the focal point of each cutting. The other end 32*c* of the wrapper blank has its marginal outer edge portion folded back upon itself (for distance of an inch, more or less) to form an outwardly facing cohesively-coated corrugated "lip" 32*e* across the end of the blank. The book or other article F, to be wrapped, is then placed and centered on the exposed corrugated face of the blank, as shown in FIG. 18*a*, and the side margins are folded over the article (FIG. 18*b*), to which it does not adhere, and over the adjoining exposed flutes on either side of the article, to which it adheres with slight pressure. Then the end portion 32*c* is folded across the article as shown in FIG. 18*c*, followed by the folding of end portion 32*b* over 32*c* into the position shown in FIG. 18*d*, with its fluted marginal edge in contact with the exposed fluted "lip" 32*e* for an instant seal. Should it be desirable to reinforce the wrapper internally, a suitably dimensioned piece of liner sheet 21 may first be applied and bonded to the wrapper 32 under the article F, as shown as described in connection with reinforcement swatches 21*p* and 20*q* in FIG. 15.

FIGURES 19*a* to 19*d*, inclusive, disclose a further self-sealing foldable outer wrapper 33 similar to wrapper 32 in FIGS. 18*a* to 18*d*, for articles of most any kind, the difference being the manner in which the seal of the package is made with the wrapping materials employed by this invention. The wrapper 33 is prepared by providing a suitable length of single-faced corrugated sheet 20, as above defined in connection with FIG. 7, or other protective-cushion sheet that will form a wrapper for an article G in the manner shown in FIG. 19*b* (which is substantially the same as described in connection with FIG. 18*b*). However, both end portions 33*b* and 33*c* of the sheet 20 of the wrapper 33 have their corners cut obliquely on lines *h*'' (FIG. 19*a*) and, if needed, the central portion of the sheet 20 may be reinforced to provide a more rigid protecting area for the article G, by applying thereto a piece 33*d* of the liner-sheet 21. To wrap the article G, it is centered on the wrapper 33, as shown in FIG. 19*a*, and the side marginal portion 33*a* is folded as shown in FIG. 19*b*. A piece 33*e* of the flat liner-sheet 21 is then placed over the folded portions 33*a*, covering the article G, with its cohesive surface 21*a* facing outwardly; and the end portions 33*b* and 33*c* are then folded, as shown in FIGS. 19*c* and 19*d*, to bring them together in a flat plane with their coated surfaces 20*b* engaged and bonded with cohesive surface 21*a* of the seal-sheet 33*e*.

FIGURES 20*a*, 20*b* and 20*c* illustrate the manner in which a rigid tray or box-like member 34 may be formed from appropriately dimensioned coextensive lengths of the corrugated sheet 20, or other protective cushion sheet, and of the flat liner-sheet 21, selected either from the stack S in FIG. 1 or from the roll R in FIG. 2, to form blanks 20*f* and 21*f* shown in FIG. 20*a*. The crests of the corrugations of the blank 20*f* are lightly scored transversely (with an implement—such as a knife, scissors or the like—if they have not been provided with scoring 22 shown in FIG. 1) along two parallel lines 34*a*, each inset to provide verticle walls 34*b* of a height desired for a tray or a telescoping box section. The other two marginal end portions of the blank 20*f* each have a pencil line 34*c* drawn across them transversely at an inset point equal to the width of margin 34*a*, to provide end walls 34*d*. The crests of the blank 20*f* is then scored on a line 34*e* extending from the intersection of the lines 34*a* and 34*c* to the corners *i* of the blank 20*f*. These marginal portions are then bent (on said lines 34*a* and 34*c*) at right-angle position with respect to the body of the blank 20*f* to form the walls 34*b* and 34*d*, while one finger presses inwardly on the line 34*e* to form the corners of the blank into inwardly projecting pleats *p* (FIG. 20*b*) with the cohesive film surface 20*a* of the blank 20*f* outermost. These pleats *p* are then pressed flat against and parallel with the end walls 34*d* where they are bonded and firmly held. This folding of the blank 20*f* results in an open-top box or tray with its corrugated and cohesive-film-bearing face 20*b* being its interior surface.

This tray or box section may be, and preferably is, stiffened by lining its interior surface with liner material 21 in the form of the blank 21*f*, which is folded in the same manner as the blank 20*f* except that its cohesive-film surface 21*a* is outermost and its pleated corners *p*' project outwardly therefrom and are then folded back into sealing contact with its side wall 34' to distribute the pleated thickness at the corners of the tray or box section. The liner blank 21*f*, thus formed, is then inserted in the formed tray or box section 20*f* (FIG. 20*b*), so that their opposing cohesive-film-bearing surfaces engage, thus both lining and stiffening the tray or box section 34, as shown in FIG. 20*c*. In cases where the corners of the tray or box section do not need additional reinforcement by the pleats *p*' of the liner blank 21*f*, said pleated corners may be removed before inserting the liner in place by cutting them off with scissors or by die-cutting the blank 21*f*. Also, to provide the box 34 with a telescoping top, it is only necessary to form another box-like member 34 of slightly larger size so that their walls will have a sliding telescoping fit.

FIGURES 21*a* and 21*b* illustrate a reinforced double-faced carton type box 35 made from the wrapping material of this invention and having self-sealing flaps 35*a*. This box 35 requires substantially coextensive blanks of the corrugated sheet 20 and of the liner-sheet 21 folded and assembled in the same manner as shown and described in connection with FIGS. 20*a* and 20*b*, except that the upper edges of the side walls 34*b* are each provided with an extension *t* (FIG. 20*a*) which form flat abutting top flaps 35*a* of the container 35. To seal the top flaps 35*a*, a piece of the liner-sheet 21, of a shape corresponding with the shape of the container 35, is placed upon the contents within the container 35 with its cohesive-film-coated surface 21*a* uppermost to provide a seal member 21*m*; then the flaps 35*a* are folded downwardly against the cohesive surface of the seal member 21*m* to adhere to it and seal the container 35, as shown in

FIG. 21*b*. The marginal edges of the seal member **21***m* is preferably dimensioned to be larger than the top opening of the container or box **35** so that its coated margins may be tucked-in against the upper interior marginal portions of the walls **34***b* and **34***d* of the box-body and adhere thereto, thus sealing the box from dirt and dust as shown at **35***x* in FIGURE 21*b*.

FIGURES 22 and 23 show forms of blanks, made of the wrapping material of this invention, for producing flapped-envelope type of wrapping or packages **38** and **39**, respectively, for various articles. Each of these wrappings employs a square of the aforesaid cohesively-coated single-faced corrugated sheet **20**, or other protection cushion sheet, which may be reinforced by a rectangular piece of the aforesaid cohesively-coated flat sheet **21**. This flat reinforcing liner **21** in FIG. 22 is dimensioned and angularly positioned over the square **20** (with their coated surfaces facing) so that the corners of the reinforcing liner **21** extend, or substantially extend, to the mid-point of the side edges of the corrugated piece **20** respectively; and, then, the pieces **20** and **21** are pressed into a firm bond, thus providing flexible triangular flaps **38***a*. A relatively flat article, to be wrapped, may be placed upon the reinforced area **21** of the wrapping **38** and a rectangular sealing piece **20***x* (which may be either of the sheet material **20** or **21**) is dimensioned to match the rectangular reinforcing piece **21** (see FIG. 22) and superimposed upon the article with its cohesive-film coated surface facing upwardly or outwardly from the package **38**. The triangular flaps **38***a* are then folded over the sealing piece **21***x* in cohesive engagement therewith and in planar relation to each other, as indicated by the dot-and-dash lines in FIG. 22, to close and seal the packaged article.

The difference between the wrappings **38** and **39** is that the wrapping **39** in FIG. 23 has the reinforcing piece **21** (if said piece is used) dimensioned so that its corners **39***c* are inset a distance from the adjacent edges of the corrugated sheet **20**, as shown in FIG. 23, in order that the corrugated sheet **20** may be pleated between the flaps **39***a* at points adjacent the corners **39***c* of reinforcing swatch **21**, as shown at **39***p* in FIG. 23. This pleating may be accomplished conveniently by pinching the material of sheet **20** together at the mid-points of its edges so as to bring into facing and bonded contact the coated surfaces of said pinched portions. Thus, the pleats **13***p* give depth to the package **39** for enclosing more bulky articles. The sealing swatch **21***x* in FIG. 23 is then superimposed on the article, to be wrapped, and the flaps **39***a* are folded in the same manner as described in connection with FIG. 22.

Wrapping and packages, produced by the use of two nested pieces of the cohesively-coated single-faced corrugated wrapping-sheet disclosed in United States Patent No. 3,042,273, may be more costly than necessary and offer more rigidity than required for many uses as well as increasing the weight of the package and, hence, its cost of transportation.

I have discovered that wrappers or packages, having the requisite strength, rigidity and cushioning characteristics for most general purposes, can be provided by using only one single-faced corrugated sheet **20**, or other cushioning sheet material, and one separate flat liner-sheet **21** (both coated as before defined), said sheets being placed in relation to each other (either manually or by machine) in various ways to provide integral unitary blanks having both reinforced article-protective areas and flexible marginal sealing portions that instantly form self-sealing seams and closures, when the coated surfaces are brought into contact with each other or with a separate piece of the same coated material, thus greatly reducing the expense of the wrapper, time and labor in wrapping and the weight of the package, and, in addition, permitting the formation of a variety of self-sealing packages or wrapping by the user, which heretofore were not available to him.

Thus, by the combination of two cohesive, film-coated sheets, it is possible, in accordance with this invention, to achieve at least four varied, and extremely versatile, combinations of cohesive elements, namely, a liner sheet with a corrugated sheet, or one corrugated sheet with another corrugated sheet, a liner sheet with another liner sheet, or a liner sheet with other types of protective cushioning sheets, any of which may be employed to provide a wrapper having desired form and packaging characteristics, all as hereinbefore more particularly described.

The wrapping material **20–21**, defined above, may be pre-cut and scored by the manufacturer or supplier to provide flat blanks of convenient formations and of required sizes as disclosed above (or of any formation having the features claimed herein) for any predetermined use by the user, who will assemble the sheets **20** and **21** into structural blank units for wrapping or packaging purposes; or this assembling of the sheets **20** and **21** may be performed by the manufacturer or supplier prior to delivery to the user as flat blanks. However, for uses by the general public, which may have need at different times to employ the wrapping material **20–21** to make any one or all of the types of wrapping or packaging disclosed above, as well as others of his own devising, it is proposed to make available to him packages of such material in sheet or web-form, as shown in FIGS. 1 and 2, together with a list of instructions and illustrations for forming wrappings or packages of various types.

In such wrapping and packages, where all self-sealing is performed by the joint-sealing cooperation of the cohesive film-bearing surfaces of the sheets **20** and **21**, respectively (for example, as shown in FIGS. 1, 3, 4, 8, 9, 10, 19*a* to 19*c*, through 23), it is preferable to employ a single-faced corrugated sheet **20** or another type of cushioning material, such as indicated in FIG. 7*x*, which need have only its crests of its exposed corrugated face coated with a film of the cohesive cement, as at **20***b* in FIG. 7, because it achieves the objective of the instant self-sealing action of such cohesive cement and at the same time conserves this relatively expensive cement, thus further reducing the cost of the wrapping material. However, in wrappings where the self-sealing is performed only by the joint cooperation of opposing portions of the cohesive-film-bearing surfaces of the exposed corrugated faces of the sheet **20** (for example, as shown in FIGS. 11, 12, 13*a* to 13*d*, 14, 15, and 18*a* to 18*c*), it is preferable to employ a single-faced corrugated sheet **20** which has its entire exposed corrugated face coated with the cohesive cement film **20***a*, as shown in FIG. 6, because the flutes or corrugations on the opposing portions, which form the seal of the wrapping or package, when nested together, adhere throughout their entire areas. This is preferred, because the nested corrugated cohering portions form a stronger and tigher seal over a greater area than if only the opposing crests of said opposing portions were in sealing contact.

Either the flat backing face *k* (FIGS. 6 and 7) of the single-face corrugated sheet **20** or the uncoated face of the separate liner-sheet **21**, or both, may be decorated or colored in any suitable manner to render the same attractive for given occasions as indicated at **36**; and the backing face *k*, which ordinarily will form the outer skin or surface of the wrapper or package, may have printed upon it "To and From" address areas **37** (FIGS. 11 and 13*d*).

Since this invention is directed to a protective cushioning wrapping material, the conventional single-faced corrugated sheet **20**, specifically, has been shown and described as one of the components of such wrapping material, it being readily available and relatively inexpensive. However, other protective cushioning material may be substituted for such single-faced corrugated sheet as specifically disclosed, and such substitute may be of natural or synthetic material, with or without surface configurations, now or hereafter available, and offering the same

or comparable protective properties to the article wrapped.

Having thus described the invention and the manner in which it may be performed, it is to be understood that certain changes and variations may be made in the exact details shown and described herein, as examples, without departing from the spirit of this invention; and that all such changes or modifications as fall within the scope of the appended scope of the appended claims are contemplated as part of this invention.

That which is claimed, as new and to be secured by Letters Patent, is:

1. In a merchandisable assembly of self-sealing article-wrapping material to provide an outer enclosure for articles to be packaged, the combination of at least two separate sheets of wrapping material each having a film coating of a self-adhering-only adhesive on one of its surfaces, one of said sheets being a web of flexible cushioning material and another of said sheets being a flat flexible liner sheet, each sheet being capable of being separately dimensioned by the user to the need for forming a wrapper when the coated surfaces of said sheets are brought into bonding contact with selectable margin portions of at least one of said sheets extending beyond the other of said sheets to form flexible marginal flaps which form cohesive instantly self-sealing seams or closures for the package, one of said two sheets of wrapping material being a single-faced sheet having the said film coating on its exposed face and the other of said sheets being a flat flexible liner sheet having the said film coating on one of its faces so that when brought together their coated surfaces are a portion of the cover and cohesively bond to an area of the other sheet to form an instantly firm and rigid structure with a coated portion of at least one sheet forming said flexible marginal sealing flaps.

2. A self-sealing wrapping blank for enclosing articles to be packaged for storage or transportation, comprising the combination of two separate sheets of wrapping material each having a film-coating of a self-adhering-only adhesive on one of its surfaces, one of said sheets being a protective cushion sheet and the other being a liner-sheet, said sheets being dimensionable to conform as a protective wrapping for objects of varying shapes and sizes, said sheets being dimensioned and disposed with their coated surfaces facing each other and placed with a portion of one sheet covering and cohesively bonded to an area of the other sheet to rigidize said area and with the projecting uncovered portions of at least one of said sheets forming relatively flexible sealing marginal means, whereby, when said sealing marginal means is brought together in contact in the wrapping of the article with said self-adhering-only adhesive will instantly form a cohesive self-sealing seam or closure for the package, said sheets being arranged offset to each other with a side of one sheet projecting laterally beyond the other sheet to form said relatively flexible cooperative sealing means when coated faces are brought into contact under slight pressure.

3. A self-sealing wrapping or packaging blank as set forth in claim 2, wherein the said flat liner-sheet, has its other two opposite edges spaced inwardly a substantial distance from the adjacent edges of the said protective sheet to provide end sealing flaps for the package that cohesively cooperate with an appropriately-shaped piece of said wraping material, having its coated surface positioned to cohesively engage the coated surfaces of said flaps, when said flaps are closed.

4. A self-sealing cushion wrapping or packaging blank as set forth in claim 2, wherein said two sheets are rectangular and are positioned relative to each other so that two right-angular corner marginal portions are offset of the blank forming four marginal self-sealing elements, one pair of said sealing elements being adapted to form a longitudinal self-sealing seam of package when brought into contact, the other two sealing elements being adapted to form self-sealing end closures at opposite ends of the package, respectively.

5. A self-sealing cushion wrapping or packaging blank, as set forth in claim 2, wherein said protective sheet is a single-face corrugated sheet having said film-coating on its exposed corrugated face and the liner sheet is of less area than the corrugated sheet and placed to cover and cohesively bond with the central portion of the corrugated sheet, leaving a substantial uncovered film-coated marginal sealing element on at least two opposite edges of said corrugated sheet, whereby two such prepared blanks may be brought together with the article, to be wrapped between the liner faces of said blanks and the opposing coated corrugated marginal sealing elements of said blanks sealed together, or whereby one such blank may be folded medially upon itself over the article, to be wrapped, with said opposing marginal sealing elements of the fold blank sealed together.

6. A self-sealing cushion wrapping or packaging blank as set forth in claim 2, further characterized by the protection sheet having two swatches of said sheet material being dimensioned and disposed in spaced relation to each other on the film-coated face of a length of said protective sheet and cohesively bonded therewith to rigidize the areas covered by said liner-sheet portions, with the coated marginal edge portions of the protection sheet exposed and uncovered, whereby, upon folding the corrugated sheet along a line between said swatches, an article may be wrapped and the package instantly sealed by pressing together said opposing coated marginal edges of the blank.

7. A self-sealing cushion wrapping or packaging blank comprising two sheets of wrapping material, one sheet being of single-faced corrugated material having a film coating of a self-adhering-only adhesive on its exposed fluted face and the other sheet being of flexible liner material coated on one face with the same adhesive and of less area than the corrugated sheet, said sheets being arranged with the film-coated faces facing each other and with the marginal edges on said corrugated sheet uncovered by the liner-sheet to provide exposed cohesive-sealing portions, a loose padding material interposed between said sheets and within the edges of liner sheet, the edges of the liner sheet being in self-bond contact with the corrugated sheet, whereby the blank may be folded upon itself about an article to bring the exposed film-coated marginal edge portions of the corrugated sheet together in a nesting, sealing bond, or two such blanks may be arranged to sandwich an article between them before their marginal edge portions are nested and sealed together.

8. A self-sealing cushion wrapping or packaging blank as set forth in claim 7, wherein the padding material is arranged in two spaced pads, whereby the wrapping may be folded upon the article to be wrapped on a line between said pads and the cohesive bearing margins of the folded portions of the corrugated sheet are brought into opposing and instant self-sealing engagement.

9. A self-sealing cushion outer wrap-blank for articles comprising a general rectangular blank of single-faced corrugated material coated on its fluted face with a film of self-adhering-only adhesive; one end of said sheet is folded back upon itself to form a corrugated lip across the backing face of said sheet; whereby, when said blank is wrapped over and around an article, the film-coated margin of the opposite end portions of the blank may be brought onto and overlap the coated lip for instant sealing, said opposite end portion of the blank having sides, an extension of certain of said side walls of the corrugated sheet to form integral closure flaps for a container, in combination with a piece of a liner-sheet dimensioned to at least cover the end-open of the container when inserted therein with its coated face outermost to cooperate with and cohesively seal the flaps in closed positions, when the container is to be closed.

10. A self-sealing wrapping or packaging blank as set forth in claim 2, further characterized by one of said

sheets being a single-faced corrugated sheet having said film-coating on its fluted face and having an uncovered flexible sealing flap portion on each of its edges adapted to fold over the article to be wrapped, and a swatch of said wrapping material shaped for use as a cooperating sealing member when placed over the article to be wrapped with its film-coated surface facing outwardly of package; whereby, when the flap portions are folded over and upon the article to be wrapped, their film-coated surfaces engage the underlying sealing member and bond thereto by light manual pressure, thus sealing the package.

11. A self-sealing wrapping or packaging blank as set forth in claim **10**, wherein the corrugated sheet is rectangular and the flap portions are formed by corner segments thereof dimensioned and adapted to be folded toward each other to a planar position with their cohesive-film coated surfaces cooperating with the coated surface of said sealing member to bond thereto, when the package is to be sealed.

12. A self-sealing wrapping or packaging blank as set forth in claim **11**, and wherein the liner-sheet is set-in from each edge of the corrugated sheet to allow a midpoint triangular area of said corrugated sheet to be pressed into a self-sealing pleat, thereby to give depth to the package.

13. As a new article of manufacture a merchandisable assembly of self-sealing cushion packaging material to provide an outer wrapper or enclosure for articles to be packaged, the combination of a plurality of separate lengths of substantially coextensive wrapping material of two kinds, one being a single-faced corrugated material having a substantially dry self-edhering-only adhesive on its exposed fluted face and the other being a flat flexible liner-sheet having a film coating of the aforesaid adhesive on one of its faces only; the said two kinds of sheets being alternately superimposed in said assembly with their coated faces in non-confronting relation and a packaging container for said assembly, said lengths of said corrugated and liner-sheets being separable from the assembly and removable from said container and adapted to be dimensioned and disposed to form wrapping blanks with their coated surfaces facing each other and with a portion of one sheet covering and cohesively bonded to an area of the other sheet to rigidize said area, and, further, with the uncovered and coated portions of at least one of said sheets forming flexible marginal sealing elements, whereby, when wrapping of an article or when two similarly formed blanks are superimposed, said marginal sealing elements form cohesive instant-self-sealing seams or closures for the package.

References Cited by the Examiner

UNITED STATES PATENTS

1,592,824	7/1926	Fairchild.	
2,000,763	5/1935	Lane	229—48
2,078,446	4/1937	Grigg	229—48
2,502,749	4/1950	Reid	229—87
2,744,624	5/1956	Hoogstoel et al.	206—65
2,833,404	5/1958	Jacobs et al.	
3,042,278	7/1962	McCullough.	
3,176,900	4/1965	Ciganenko	229—31
3,184,144	5/1965	Green et al.	229—37
3,203,618	8/1965	Andrews et al.	229—40

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