

Feb. 17, 1953

M. N. RUBINSTEIN ET AL

2,628,764

READY WRAPPER

Filed Sept. 23, 1946

2 SHEETS—SHEET 1

Fig 1

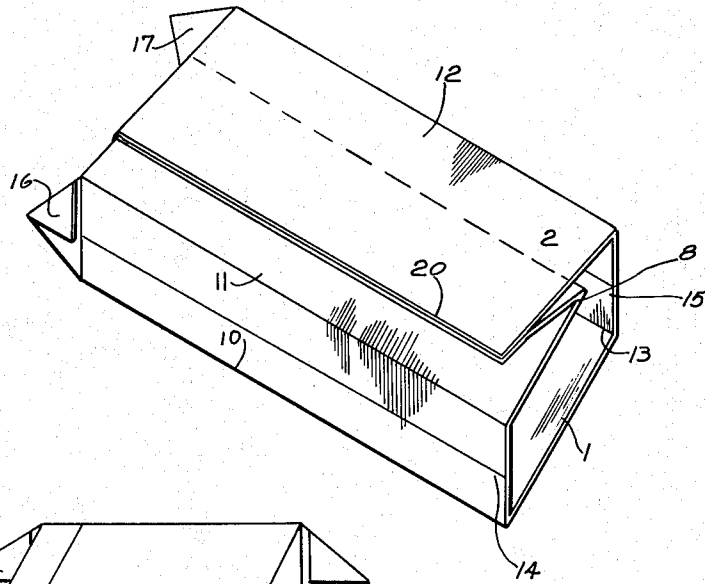


Fig 2

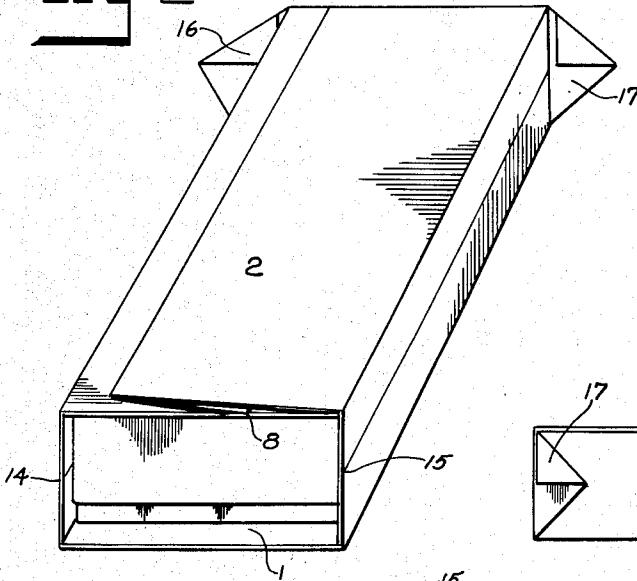


Fig 3

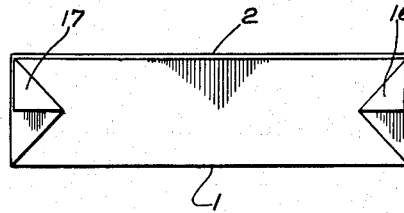
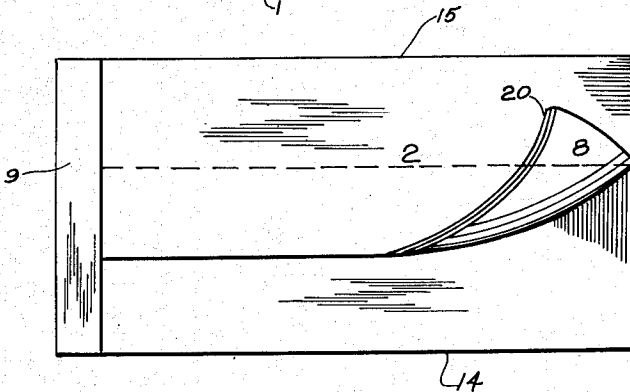


Fig 1A



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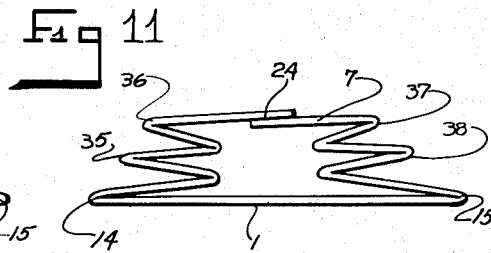
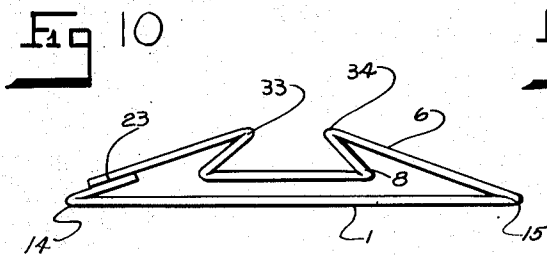
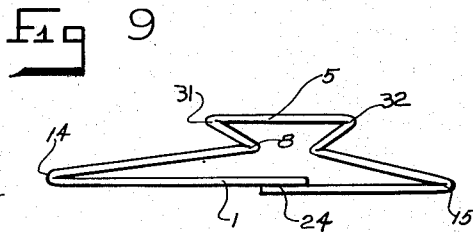
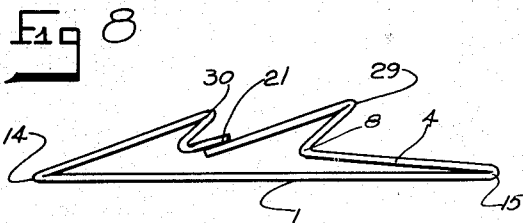
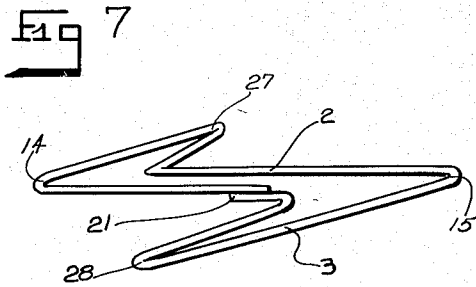
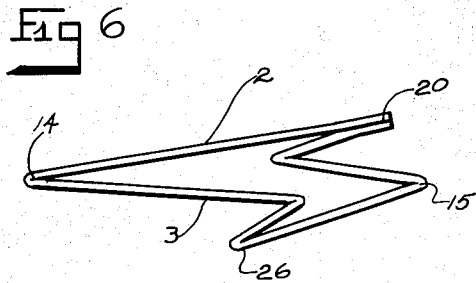
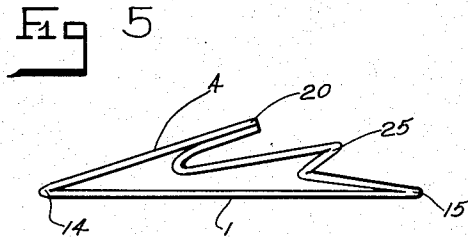
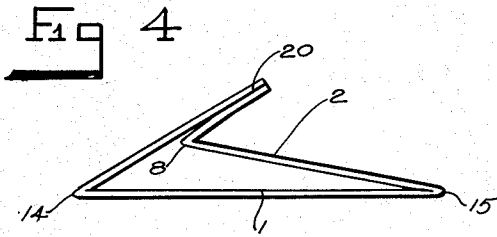
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READY WRAPPER

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2 SHEETS—SHEET 2



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# UNITED STATES PATENT OFFICE

2,628,764

## READY WRAPPER

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Application September 23, 1946, Serial No. 698,708

6 Claims. (Cl. 229—53)

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This invention relates to wrapping receptacles or wrappers and processes for making the same. More particularly it relates to a wrapper made of sheet material such as paper, cellophane, and so forth, which is so constructed that a prismatic object, such as a box or an article or plurality of articles of box-like shape, of the particular size for which the wrapper is made can be inserted therein without tearing the wrapper, and a neatly wrapped package formed therefrom.

This application is a continuation-in-part of applications Nos. 610,285, filed August 11, 1945, now abandoned, 648,586, filed February 19, 1946, now abandoned, and 658,324, filed March 29, 1946, now abandoned.

In the first of these applications (No. 610,285) there was disclosed for the first time a wrapper with an expandable mouth which was adapted to expand and admit a prismatic object of substantially the same size as the unexpanded wrapper so that a neatly tightly wrapped package could be formed by inserting the parcel to be wrapped and then closing the open mouth of the wrapper. In this application the mouth of the wrapper was made expandable by reason of the fact that between two of the sides of the wrapper or within one or more of the sides of the wrapper there was constructed a gusset or a triangular plait.

This wrapper has many advantages over the ordinary method of wrapping packages with a flat sheet of material. However, since it had to be made from a blank material of trapezoid shape it could not be made on the regular machines and this increased its cost of manufacture.

In the second of these copending applications (No. 648,586) an improvement was disclosed which considerably aided in the manufacturing process and which also aided in the formation of a neater package. This improvement consisted in the substitution of a rectangular plait for the gusset or triangular type of plait. This plait was inserted between two of the sides adjacent to the mouth of the wrapper. When using this construction the wrapper could be made from a rectangular blank of material and could be made on the regular machine for making wrappers with some slight modification.

The third of these applications No. 658,324 was similar as far as the plait construction is concerned with that of No. 648,586. In this third application, however, instead of placing the rectangular plait between two sides, the plait was included within one or more sides of the wrapper.

In these wrapping devices the square bottom, the satchel type bottom, or a self-opening bottom could be made in a wrapper as an end or the side which is opposite the open mouth. Another type of bottom was disclosed in which two opposite sides of wrapper, for example, were col-

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lapsed inwardly and the end or bottom was formed merely by folding over and sealing one end of the collapsed wrapper blank.

5 An object of this invention is to produce a wrapper of the type described which is still easier to manufacture than any of the wrappers described in the preceding paragraphs.

Another object of this invention is to produce a wrapper with an expandable mouth with less paper than is required to produce the same type wrapper according to the copending applications referred to above.

10 Another object of the invention is to produce a flat wrapper with an expandable mouth which is adapted to receive and form a neatly wrapped package with several sizes of packages to be wrapped. That is, the wrapper can be made to wrap any number of packages of different cross sectional area provided, however, that each package have a circumference which is the same and which corresponds to the size of the wrapper.

15 These and other objects are accomplished by constructing a plaited wrapper which has only two sides and which is folded over and sealed at the bottom or end. One of the sides must contain at least one plait which is substantially perpendicular to the open end or mouth of the wrapper and which permits the insertion of the prismatic object to be wrapped without causing the wrapper to tear. The two sides of this wrapper when the plait is collapsed have a width which is approximately equal to the circumference of the object to be wrapped. The plait in this new type of wrapper may be a triangular plait as in application No. 610,285 or it may be a rectangular plait as in application No. 648,586. In employing a wrapper of the present invention 20 two tabs are formed where the end of the object being wrapped is forced against the bottom. These two tabs, however, can be folded over and sealed and they give the appearance of a package which is wrapped by hand. Glue may be applied to the portions of the wrapper which will form the tabs so as to make the sealing of the tabs quick and easy.

25 The novel features characteristic of this invention are set forth with particularity in the appended claims. The invention itself, however, both as to its organization and its method of operation, together with additional objects and advantages thereof, will best be understood from the following description of specific embodiments when read in connection with the accompanying drawings, in which:

30 Figure 1 is a perspective view of the wrapper as it will look when an object to be wrapped is inserted therein.

35 Figure 1a is a top view of the wrapper as it is supplied to merchants having, however, a portion of the plait turned up to show the construction.

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Figure 2 is a perspective view of a package which has been partially wrapped in the wrapper of the present invention.

Figure 3 is an end view of a completely wrapped package.

Figures 4 to 11 show various end views of wrappers with different plait constructions. The plaits are shown expanded and for example:

Figure 4 is an end view of Figure 1.

Figure 5 is an end view of a wrapper having two plaits on the same side.

Figure 6 is an end view of a wrapper having one plait on each side.

Figure 7 is an end view of a wrapper having one plait on each side and so constructed as to conceal the seam.

Figure 8 is an end view of a wrapper having two plaits on one side, one of which is constructed to conceal the seam.

Figure 9 is an end view of another modification.

Figure 10 is an end view of another modification.

Figure 11 is an end view of still another modification.

Referring to the drawings, the wrapper of Figures 1 to 3 has a plan flat side 1 and a plaited side 2. The seam 20 of the wrapper is formed at the edge of the plait. As the wrapper is sold to a merchant it may be folded at only two places, 14 and 15, where the two sides of the wrapper meet. The bottom of the wrapper is formed simply by folding over and sealing one end. The plait in the wrapper is shown at 8. If desired, the wrapper may be scored as at end 11, 12, and 13 in such a way that these scorings will coincide with the edges of the object to be wrapped. However, it is preferred to omit these scorings.

When the object to be wrapped is inserted in the wrapper (by expanding the plait) and is forced against the closed end of the wrapper two tabs 16 and 17 appear. (These tabs do not appear with the wrappers of the copending applications referred to above.) The tabs must be folded back and adhered to the bottom or the side in some way. The wrapper of this invention requires this additional folding and adhering step not necessary on the wrapping operation with the wrappers of said copending applications referred to above. However, whatever disadvantage results from the necessity of the additional operation is more than overcome by the fact that the wrapper of this invention may be manufactured easier.

After the package to be wrapped has been inserted, the plait is collapsed, the open end is sealed, and the tabs are adhered to the end or the side of the package to complete the wrapping. A small amount of glue which can be activated by moistening, for example, may be applied to the tabs 16 and 17 during the manufacturing operation so that it is only necessary to moisten the tabs to cause them to adhere to the end of the package. Where the wrapper is to be used for wrapping only one size of object the wrapper may be properly scored and, if desired, the tabs may be adhered to the ends before the object is inserted.

The modifications shown in Figures 4 to 11 are practically self-explanatory. These modifications show end views of various constructions of wrappers having one or more plaits. Figure 4, for example, is an end view of the wrapper of Figures 1 to 3. If desired, an extra plait may be inserted as shown at 25 in Figure 5. It is also

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possible to make the wrapper with a second side 3 containing a plait 26 as shown in Figure 6.

Figure 7 shows two sides, 2 and 3, containing plaits 27 and 28 respectively. The seam 21 of the two sides is constructed so that it will be concealed when the plait 28 is collapsed.

According to Figure 8 the wrapper is constructed of the flat side 1, and the side 4 having two plaits 29 and 30 and seam 21. The seam 21 is so located with respect to the plait 30 that the seam will be concealed when 30 is collapsed.

According to Figure 9 the wrapper is constructed with a flat side 1 which includes the seam 20 and the other side 5 contains two plaits 31 and 32 which expand in opposite directions.

According to the modification shown in Figure 10, the wrapper is constructed with a flat side 1 and a plait side 6 containing plaits 33 and 34 which are opposed to each other and which are adapted to meet when they are collapsed. A seam 23 at one edge of the side 6 is also shown.

As shown in Figure 11, the plaited side 7 may contain a plurality of plaits 35, 36, 37 and 38, for example. An exposed seam 24 is also shown in this figure.

It can be seen that the type of construction shown herein can be readily manufactured. For example, a tubular blank may be made, a plait folded therein, the tube collapsed or flattened while retaining the plait, and the bottom or the end of the collapsed tube (containing the plait) may finally be folded over and sealed to form the completed wrapper of the invention.

Although we have shown and described certain specific embodiments of our invention, we are fully aware that many modifications thereof are possible. Our invention, therefore, is not to be restricted except insofar as is necessitated by the prior art and by the spirit of the appended claims.

We claim:

1. As an article of manufacture a normally collapsed, flat, bag-type paper wrapper for initially wrapping one or more prismatic shaped objects to form a tight, close-fitting wrapping about the same, said bag in its collapsed condition consisting of two superposed, flat rectangular sides connected together by a single fold at each of two of the parallel edges of the rectangles, and folded over and sealed at a third pair of edges to form a closed bottom, the fourth pair of edges being unconnected so as to provide an opening or mouth in said bag, at least one of the two sides containing at least one normally collapsed plait therein which runs perpendicular to the closed bottom and which is freely expandable from the open end of said bag, the total width of the two sides when the plaits thereof are collapsed being substantially equivalent to the perimeter of the object to be wrapped so that on expansion of the said plait the object to be wrapped can be easily inserted and so that after insertion of the object the plait can be collapsed to cause the wrapper to fit tightly about the said object, with no wrinkles or extending portions except for two triangular ears at the bottom at opposite sides thereof.

2. As an article of manufacture a normally collapsed, flat, bag-type paper wrapper for initially wrapping one or more prismatic shaped objects to form a tight, close-fitting wrapping about the same, said bag in its collapsed condition consisting of two superposed flat rectangular sides connected together by a single fold at each of two of

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the parallel edges of the rectangles and folded over and sealed at a third pair of edges to form a closed bottom, the fourth pair of edges being unconnected so as to provide an opening or mouth in said bag, only one of the two sides containing a centrally located normally collapsed plait therein which runs perpendicular to the closed bottom and which is freely expandable from the open end of said bag, the total width of the two sides when the plaits thereof are collapsed being substantially equivalent to the perimeter of the object to be wrapped so that on expansion of the said plait the object to be wrapped can be easily inserted and so that after insertion of the object the plait can be collapsed to cause the wrapper to fit tightly about the said object with no wrinkles or extending portions except for two triangular ears at the bottom at opposite sides thereof.

3. As an article of manufacture a normally collapsed, flat, bag-type paper wrapper for initially wrapping one or more prismatic shaped objects to form a tight, close-fitting wrapping about the same, said bag in its collapsed condition consisting of two superposed, flat, rectangular sides connected together by a single fold at each of two of the parallel edges of the rectangles, and folded over and sealed at a third pair of edges to form a closed bottom, the fourth pair of edges being unconnected so as to provide an opening or mouth in said bag, at least one of the two sides containing at least one normally collapsed plait therein which runs perpendicular to the closed bottom and which is freely expandable from the open end of said bag, the total width of the two sides when the plaits thereof are collapsed being substantially equivalent to the perimeter of the object to be wrapped so that on expansion of the said plait the object to be wrapped can be easily inserted and so that after insertion of the object the plait can be collapsed to cause the wrapper to fit tightly about the said object with no wrinkles or extending portions except for two triangular ears at the bottom at opposite sides thereof, a single sealed seam running perpendicular to the sealed bottom, said sealed seam forming one of the edges of said plait.

4. As an article of manufacture a normally collapsed, flat, bag-type paper wrapper for initially wrapping one or more prismatic shaped objects to form a tight, close-fitting wrapping about the same, said bag in its collapsed condition consisting of two superposed, flat rectangular sides connected together by a single fold at each of two of the parallel edges of the rectangles, and folded over and sealed at a third pair of edges to form a closed bottom, the fourth pair of edges being unconnected so as to provide an opening or mouth in said bag, only one of the two sides containing a normally collapsed plait therein which runs perpendicular to the closed bottom and which is freely expandable from the open end of said bag, the total width of the two sides when the plaits therefore are collapsed being substantially equivalent to the perimeter of the object to be wrapped so that on expansion of the said plait the object to be wrapped can be easily inserted and so that after insertion of the object the plait can be collapsed to cause the wrapper to fit tightly about the said object, with no wrinkles or extending portions except for two triangular ears at the bottom at opposite sides thereof, a single sealed seam running perpendicular to the sealed bottom, said sealed seam forming one of the edges of said plait.

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5. As an article of manufacture a normally collapsed, flat, bag-type paper wrapper for initially wrapping one or more prismatic shaped objects to form a tight, close-fitting wrapping about the same, said bag in its collapsed condition consisting of two superposed, flat rectangular sides connected together by a single fold at each of two of the parallel edges of the rectangles and folded over and sealed at a third pair of edges to form a closed bottom, the fourth pair of edges being unconnected so as to provide an opening or mouth in said bag, at least one of the two sides containing at least one normally collapsed plait therein which runs perpendicular to the closed bottom and which is freely expandable from the open end of said bag, the total width of the two sides when the plaits thereof are collapsed being substantially equivalent to the perimeter of the object to be wrapped so that on expansion of the said plait the object to be wrapped can be easily inserted and so that after insertion of the object the plait can be collapsed to cause the wrapper to fit tightly about the said object, with no wrinkles or extending portions except for two triangular ears at the bottom at opposite sides thereof, a single sealed seam running perpendicular to the sealed bottom, said sealed seam being spaced from the edges of said plait.

6. As an article of manufacture a normally collapsed, flat, bag-type wrapper for initially wrapping one or more prismatic shaped objects to form a tight, close-fitting wrapping about the same, said bag in its collapsed condition consisting of two superposed, flat, rectangular sides connected together by a single fold at each of two of the parallel edges of the rectangles and folded over and sealed at a third pair of edges to form a closed bottom, the fourth pair of edges being unconnected so as to provide an opening or mouth in said bag, each of the two sides containing a single, centrally-located, normally collapsed plait therein which run perpendicular to the closed bottom and which are freely expandable from the open end of said bag, the total width of the two sides when the plaits thereof are collapsed being substantially equivalent to the perimeter of the object to be wrapped so that on expansion of the said plaits the object to be wrapped can be easily inserted and so that after insertion of the object the plait can be collapsed to cause the wrapper to fit tightly about the said object with no wrinkles or extending portions except for two triangular ears at the bottom at opposite sides thereof.

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