

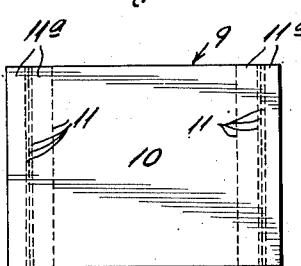
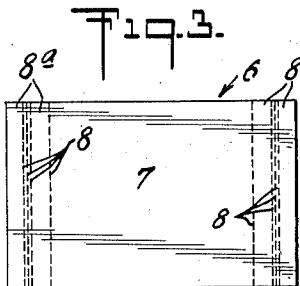
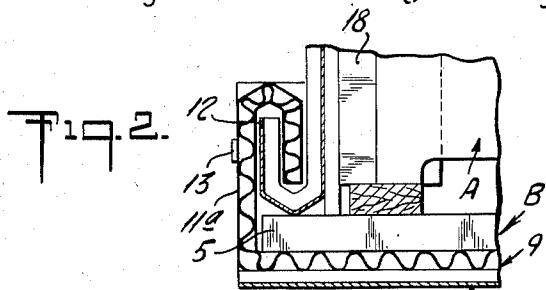
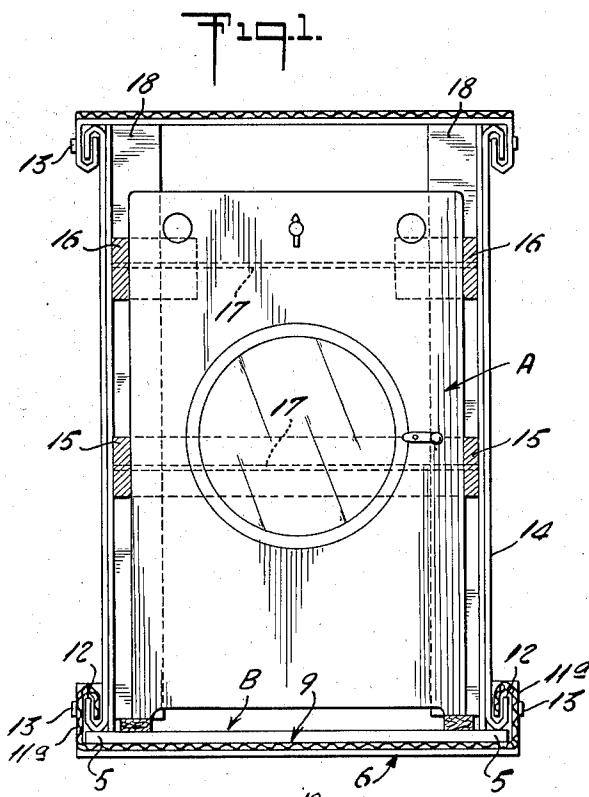
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M. BAUMANN

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SHIPPING CONTAINER

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## INVENTOR

MARTIN BAUMANN

BY  
Thomas E. Tate  
AGENT

## UNITED STATES PATENT OFFICE

2,575,784

## SHIPPING CONTAINER

Martin Baumann, Chicago, Ill., assignor to International Paper Company, New York, N. Y., a corporation of New York

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This invention relates to new and useful improvements in shipping packages and particularly seeks to provide a novel unitary package for the shipment of bulky but relatively light-weight manufactured articles such as washing machines or storage cabinets or the like.

An object of this invention is to provide a shipping carton particularly useful in connection with the transportation of manufactured cabinets and which may be readily assembled about and securely hold in place a cabinet and its mounting skid.

Another object of this invention is to provide a carton of the character stated which is fabricated from corrugated board or the like and maintained in its assembled condition primarily through the use of metallic straps.

Another object of this invention is to provide a carton of the character stated in which the bottom end closure thereof is formed from one or more corrugated board elements which include end flap portions adapted to be folded into interlocking relationship with similar flap portions carried by associated wall portions of the container, the dimensional relationship between the flaps carried by the closure-forming elements and those carried by the associated wall portions being such that an internally-disposed peripheral skid-receiving channel is formed immediately adjacent the closure so that the carton and its contents are locked together as a unitary body.

Another object of this invention is to provide a carton of the character stated in which the side wall portions, after the locking flanges thereof have been reverse-folded preparatory to the formation of the closure, rest upon the upper surface of the mounting skid for the manufactured article carried thereby so that the lower edges of the side wall portions together with the bottom closure-forming element define a receiving groove for the edge portions of the mounting skid.

Another object of this invention is to provide a carton of the character stated which is simple in design, rugged in construction and economical to manufacture.

With these and other objects in view, the nature of which will be more apparent, the invention will be more fully understood by reference to the drawing, the accompanying detailed description and the appended claims.

In the drawings,

Fig. 1 is a vertical section of the assembled package in which the contained article of manufacture is shown in elevation;

Fig. 2 is an enlarged detailed vertical section of one of the bottom corners of the carton;

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Fig. 3 is a plan view of the blank for one end closure; and

Fig. 4 is a similar view of the blank for another end closure.

5 This invention is an improvement over that disclosed and claimed in the co-pending application of Ralph L. Beach, Jr., Serial No. 710,385, filed November 16, 1946 (now Patent 2,474,968, issued July 5, 1949).

10 By referring to the drawings in detail it will be seen that the invention as illustrated comprises a shipping package in which a skid-mounted cabinet is supported preferably on double-walled bottom closure members. The body portion of the cabinet may be maintained in spaced relation from and cushioned against contact with the side walls of the packaging carton through the medium of suitably disposed padding strips. The corner portions within the carton may be

15 occupied by suitably folded corrugated board cushioning pads which augment the cushioning effect of the padding strips and assist in maintaining the cabinet in its proper position relative to the associated carton. The top closure of the package as a whole is formed from elements generally similar to those forming the bottom closure but as will be hereinafter more fully pointed out, the exact manner of forming the top closure is somewhat different from that of the bottom. However, in the illustrated embodiment it

20 will be noted that the four edge portions of the top and bottom closure members together with the associated edge portions of the side walls of the carton are folded into an interlocking relationship and secured therein by appropriately positioned girth straps.

25 In preparing a cabinet A or other object for shipment in accordance with this invention the bottom closure members are first placed in position on the shipping floor and the cabinet together with its mounting skid B is placed thereon.

30 It will be noted that the skid B is provided with at least two oppositely-extending feet or ledge portions 5 which are adapted to cooperate with the closure-forming elements in a manner to be

35 more fully described herein. The bottom closure preferably consists of a pair of generally rectangular closure elements formed from corrugated board or the like. The bottom element 6 includes a central panel portion 7 having dimensions to

40 completely underlie the cabinet and its associated mounting skid B. Each end of the member 6 is provided with a plurality of score lines 8 which define relatively long, narrow panels 8a which are adapted to be folded into interlocking relation with similar panels carried by associated

side wall portions of the carton. A similar bottom closure member 9 is in superimposed position over the member 8 with the corrugations of the corrugated board therein at right angles to those of the member 6. The member 9 similarly includes a central panel portion 10 having a plurality of score lines 11 adjacent the ends thereof which define relatively long, narrow panels 11a foldable along the score lines into interlocking relation with similar panels 12 carried by the other side walls of the associated body portion of the carton. It will be appreciated that by providing the two end closure members 6 and 9 disposed with the corrugations running at right angles to each other an end closure assembly is provided which is of double wall construction and which is provided around all four edges with relatively long, narrow panel portions which may be folded into interlocking engagement with associated portions of the side walls of the carton.

It will be noted that the bottom closure of a carton constructed in accordance with this invention is so proportioned that the panels 11a of the closure member 9 are somewhat deeper than the corresponding panel portions 12 of the associated side walls of the carton. In this manner provision is made for the interlocking flaps of the bottom closure elements to extend beyond and around the feet or ledge portions 5 of the mounting skid B and still interlock with the associated side wall portions in such a manner that not only is a secure closure formed but the reverse folds of the associated side wall portions of the carton overlie the upper face of the feet 5 of the mounting skid, and together with the flat portions of the bottom closure elements 6 and 9 define a peripheral groove into which the feet 5 of the mounting skid are received. In this manner the structure of the bottom closure serves to lock the carton as a whole and its contained cabinet together in order to further eliminate any possibility of any relative shifting taking place as between the shipping carton and the contained cabinet.

Flexible metallic strips indicated at 13 which pass entirely around each end of the carton may be employed to secure the several pieces in assembled relation.

In closing the upper end of the package, closure elements similar to those described above in connection with the bottom closure may be employed if desirable. Since it is not too likely that a top skid or its equivalent would be used in connection with the packaged cabinet there should be no need to provide an upper skid-receiving groove immediately adjacent the top closure. For this reason it generally would not be necessary to have the interlocking flanges of the closure elements proportioned any wider than the corresponding reverse fold flaps of the upper part of the carton body. It will be observed, of course, that the carton body comprises a generally rectangular sleeve 14 preferably formed from corrugated board and provided at both its top and bottom ends with the required reverse fold flaps for forming the top and bottom closures.

In order to minimize any scuffing that might otherwise take place on the surface of the cabinet contained within the shipping carton a horizontally positioned pad 15 may be secured around the cabinet near the middle thereof and possibly a three-quarter pad 16 may be provided adjacent the upper end of the cabinet. Each of these pads or cushioning elements may be secured around the cabinet as by appropriate

straps 17. In order to provide additional protection at each corner of the finished package vertically disposed padding strips 18 may be included.

Inasmuch as the principal feature of this invention resides in the provision of an internally disposed peripheral skid-receiving groove adjacent the bottom closure it will be appreciated that this invention may be placed into effect through the use of a single-wall bottom end closure as well as by the double wall end closure above described in detail. Of course, if the contents of the carton are to be "floated" in the central portion of the same a top spacer equivalent to a skid could be provided, in which case the upper end closure of the carton would also be formed with the skid-receiving groove so that the contents of the carton would be even more firmly supported against relative movement with respect thereto. Furthermore, it should be apparent that if the article or cabinet carried by the carton has a flanged base or top the presence of such flange probably would make it unnecessary to use a separate mounting skid in order to package the article in accordance with the principles of this invention.

It is, of course, to be understood that various details of arrangement and proportions of parts may be modified within the scope of the appended claims.

I claim:

1. A shipping package formed from paperboard and comprising an article-carrying skid, an article mounted on said skid, and a carton surrounding said skid and said article and including side and end walls and top and bottom closures, the lower edge portions of said side and end walls being reverse-folded outwardly to provide closure-locking flanges and being positioned on top of said skid adjacent the edges thereof, said bottom closure consisting of a pair of generally rectangular sheets of paperboard disposed in superposed relation with their longer dimensions at right angles to each other and having end portions extending outwardly beyond the planes of the respectively associated side and end walls and skid edges and folded into interlocking engagement with the said reverse-folded edge portions of said side and end walls whereby the said bottom closure and the lower edge portions of said side and end walls together define an internally-disposed groove encompassing edge portions of said skid, and means to hold all of said interlocking end portions in interlocked relation.

2. A shipping package formed from paperboard and comprising an article-carrying skid, an article mounted on said skid, and a carton surrounding said skid and said article and including side and end walls and top and bottom closures, the lower edge portions of said side and end walls being reverse-folded outwardly to provide closure-locking flanges and being positioned on top of said skid adjacent the edges thereof, said bottom closure consisting of a pair of generally rectangular sheets of corrugated board disposed in superposed relation with the corrugations thereof at right angles to each other and each sheet having opposed end portions extending outwardly beyond the planes of the respectively associated side and end walls and skid edges and folded into interlocking engagement with the said reverse-folded edge portions of said side and end walls whereby the said bottom closure and the lower edge portions of said side and end walls together define an internally-disposed

groove encompassing edge portions of said skid, and means to hold all of said interlocking end portions in interlocked relation.

3. An end closure for a shipping carton adapted to carry flanged articles and having side and end walls including marginal end edge portions reverse-folded outwardly to provide closure-locking flaps adapted to contact face portions of the article-flanges adjacent the edges thereof, comprising a pair of generally rectangular sheets of corrugated board disposed in superposed relation with the corrugations thereof at right angles to each other and each sheet having opposed end portions extending outwardly beyond the planes of the flanges of the article to be packaged and beyond the respectively associated side and end walls and folded into interlocking engagement with the said reverse-folded edge portions of said side and end walls, the said interlocked end portions of said sheets being of greater depth than the said reverse folded edge

portions of said walls whereby to define after the interlocking relationship therebetween has been established an internally disposed peripheral flange-receiving groove, and means to secure all of said interlocking end and closure portions in interlocking position.

MARTIN BAUMANN.

#### REFERENCES CITED

10 The following references are of record in the file of this patent:

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