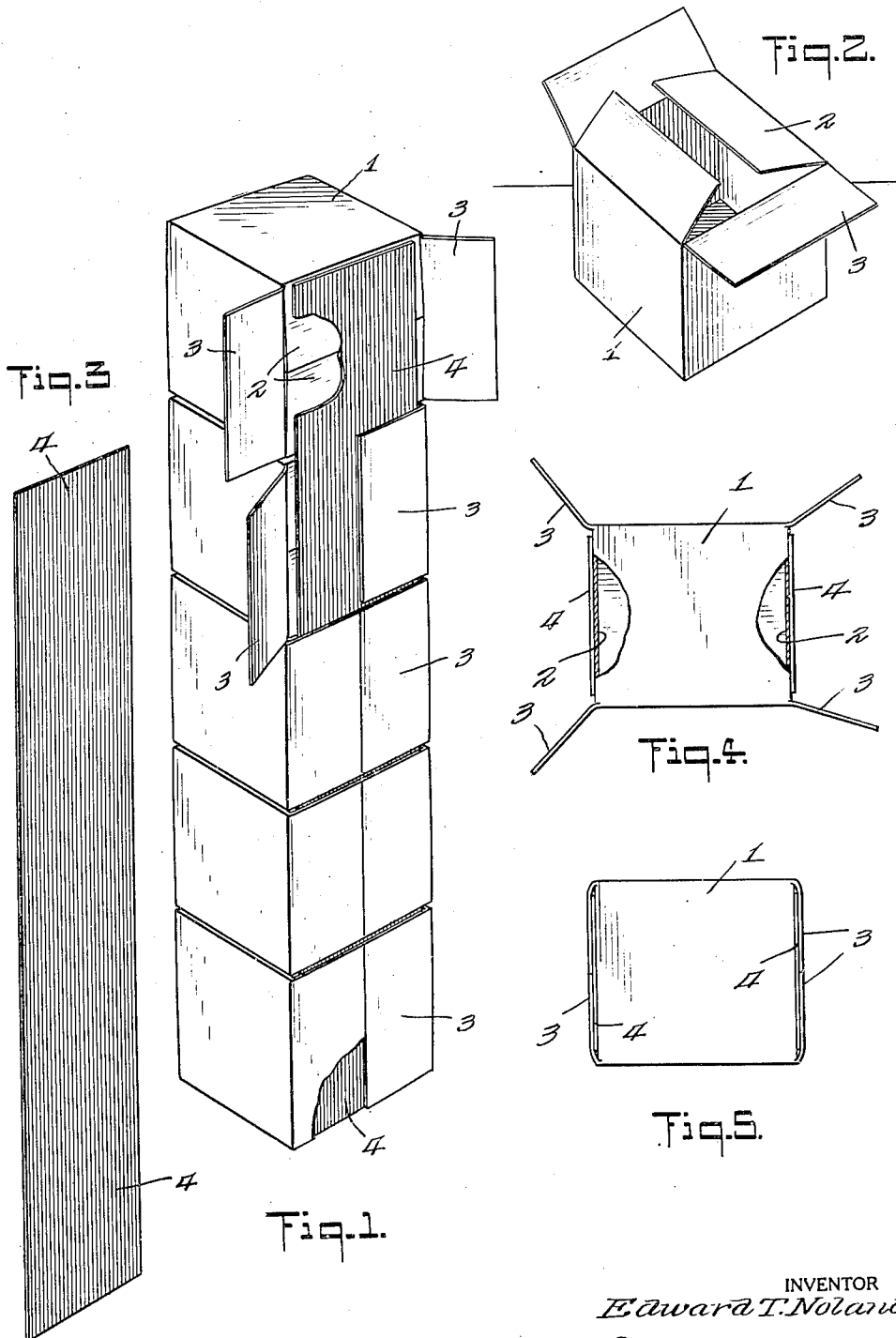


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PACKAGE AND METHOD OF PACKING

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PACKAGE AND METHOD OF PACKING.

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To all whom it may concern:

Be it known that I, EDWARD T. NOLAND, citizen of the United States, and resident of St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Packages and Methods of Packing, of which the following is a specification.

This invention is an improvement in methods of packing cartons for shipment, and in the package, and more particularly in methods of packing similar cartons provided with oppositely arranged sets of inner and outer closing flaps into a unitary package containing a selected number of cartons, easily separated without unpacking into its components parts.

In assembling similar cartons of paper board or the like into shipping packages, it is usual to arrange the cartons into a compact bundle of symmetrical form, and secure them together by means of baling ties, of wire or the like, fastened about the bundle more or less tightly.

This method of packing is objectionable, in that the band or tie, usually of metal, is liable to damage the carton or its contents, by undue compression or by cutting through the carton wall. This is especially true when the package is much handled, for the baling tie offers a convenient grip for handling the package.

In addition loss frequently results from theft. The tie becomes loosened, or is loosened intentionally, and one or more of the individual cartons is removed, emptied, and replaced, usually with a filling of worthless material to enable it to hold its shape.

Usually the dealer buys in quantities, of a selected number of cartons of the same goods, for convenience, to take advantage of quantity discounts, or the like. He may desire to place the goods on sale a single carton at a time, but to remove this carton from the package the entire fastening must be removed, so that instead of a single compact easily handled, easily stored package, he has a collection of separate units.

One of the principal objects of the present invention is the provision of a method of packing similar cartons in a unitary, compact, easily handled package of symmetrical shape containing a selected number of units, without the use of binding ties.

Another object is the provision of a package wherein the individual cartons are so

inter-connected that no carton may be removed without destroying the package as a package, and wherein the cartons cannot be tampered with without leaving plain indications of such tampering.

Another object is the provision of a package of a character such that the individual cartons may be separated from the bundle or package one by one, without destroying the identity of the package as a unitary symmetrical structure.

With these and other objects in view, the invention consists in the package and the method of making the same, fully described hereinafter, illustrated in the accompanying drawings, and pointed out in the claims appended hereto, it being understood that various changes in the form, proportion, size and minor details of construction within the scope of the claims, may be resorted to without departing from the spirit of the invention.

In the drawings:

Fig. 1 is a perspective view of the improved package just prior to completion, and with parts broken away.

Fig. 2 is a perspective view looking at one end of one of the carton units.

Fig. 3 is a perspective view of one of the binding strips.

Fig. 4 is an end view of a package prior to the closing of the outer flaps, and with parts broken away.

Fig. 5 is an end view of the completed package.

In the present embodiment of the invention the cartons are such as are generally used for tobacco products. Each consisting of a tubular body 1 substantially rectangular in cross section, and usually composed of paper board or the like, and end flaps 2 and 3 to close the end of the body. In the present instance the flaps are arranged in pairs, a pair of oppositely arranged inner flaps 2 being provided, which are folded upon the contents of the carton, and a pair of oppositely arranged outer flaps 3, which are folded upon the inner flaps 2, and are sealed thereto in lapping relation. The flaps 2 are connected to opposite sides, which are at right angles to the sides to which the flaps 3 are connected.

The flaps are usually closed by machinery, the cartons being advanced in succession past mechanism which first fold the in-

ner flaps onto the contents of the carton, and afterwards fold the outer flaps onto the inner flaps, the outer flaps being provided with a suitable adhesive prior to folding.

5 While the cartons are being advanced past the folding mechanisms, they are similarly arranged. The cartons are abutted one with the other, and all are placed with the axes of their bodies parallel, and extending trans-
10 versely of the direction of movement of the cartons. Thus in the line of cartons, the flaps to be folded are at opposite sides of the line, with the extended flaps similarly arranged.

15 In the present method the same procedure is followed so far as the arrangement of the cartons is concerned, and the manner of their advancement in succession past folding mechanisms for the flaps, but instead of
20 folding the outer flaps onto the inner flaps, and gluing them thereto, they are folded onto a connecting member of semi-rigid material, and of a length to extend over a selected number of cartons, which is inter-
25 posed between the inner and outer flaps, and secured to both by a suitable adhesive.

The connecting means in the present instance is a strip 4 of semi-rigid material, preferably a thin veneer. This strip is of a
30 length to cover the ends of a selected number of abutted cartons, as for instance five, and it is of a width substantially that of the length of a flap. In the closing of the cartons, the flaps 2 are first folded onto the con-
35 tents. Then a pair of strips 4 having adhesive applied to both faces thereof as indicated in Figs. 1 and 3, as applied at each side of the line of cartons. The strips are arranged on the folded flaps 2 and immedi-
40 ately adhere thereto. As the line passes on, the flaps 3 are folded onto the outer adhesively coated faces of the strips, and adhere to the strips, simultaneously completing the closing of the cartons and the associa-
45 tion of a selected number into a unitary package.

The arrangement provides for a symmetrical package, and one from which the individual cartons may be easily separated
50 in succession, leaving the remainder in what is yet a unitary package, by cutting through the strips 4 at opposite sides of the package between the cartons to be removed and the remainder.

55 A carton cannot be abstracted in transit, without destroying the symmetry of the package as a collection of a selected number of units, or leaving the package in a condition such that the abstraction will be
60 evident at a glance. Referring to Fig. 1 it will be seen that the ends of the strip. 4 are spaced slightly within the ends of the package, so that the said ends do not protrude beyond the package. When however
65 a carton is cut away by cutting the binding

strips, the ends of the veneer will protrude slightly, enough to call attention to the fact that a package has been removed.

Neither can a package be broken into by loosening the flaps, and afterwards replac- 70
ing them. The cartons to be broken into must be detached from the package or an entire binding strip must be removed, before the contents of the package are acces- 75
sible.

The improved package is of compact form, of neat appearance, and may be easily handled. It occupies a minimum of floor space, and the binding strips serve as reinforcements for the ends. One or more cartons 80
may be removed for display or sale, without destroying the unity of the package, and the removal of a package is at once evident. Furthermore there need be no radical departure from the usual methods of pack- 85
ing, the improved method being capable of super-addition to the usual, without change in the machinery with which such usual method is carried out.

It will be understood that with the im- 90
proved package the inner flaps might be omitted, the semi-rigid strips serving as inner flaps, and the outer flaps adhesively secured thereto. Such a connection would anchor the flaps together, and would anchor 95
the cartons to the binding strips.

I claim:

1. The method of connecting in sidewise abutting relation similar cartons having foldable end flaps by means of semi-rigid 100
strips of area sufficient to substantially cover the ends of the cartons, which consists in securing the strips to the flaps of all of the cartons with sundry of the flaps of each carton on the inner faces of the strips and 105
other flaps of each carton on the outer face.

2. The method of connecting a selected number of similar cartons of material such as paper board having foldable end flaps into a unitary package, which consists in 110
arranging the cartons side by side in abutting relation and placing strips of semi-rigid material along the ends of the selected number, folding the end flaps thereon, and sealing them to the strips. 115

3. The method of connecting a plurality of similar cartons of material such as paper board, having inner and outer enclosing flaps adapted to be folded together in lap- 120
ping relation, into a unitary package, which consists in arranging the cartons side by side in abutting relation and inserting between the inner and outer flaps strips of semi-rigid material, of a length to cover the ends of a selected number of cartons, and 125
sealing the strips to both inner and outer flaps.

4. The method of connecting a plurality of similar cartons of material such as paper board having inner and outer foldable end 130

flaps adapted to be folded together in lapping relation into a unitary package, which consists in arranging the cartons side by side in abutting relation, folding the inner flaps in succession, placing on the folded flaps of the selected number adhesively coated strips of semi-rigid material of area to substantially cover said ends, and folding the outer flaps onto the strips.

10 5. The method of connecting similar cartons having foldable end flaps, which consists in arranging the cartons in a row side by side, with the flaps at opposite sides of the row, and closing and sealing the flaps with strips of semi-rigid material, extending the full length of the row at each side thereof, and with one flap at each end of each carton, outside the adjacent strip and secured thereto.

20 6. The method of connecting similar cartons having foldable inner and outer end flaps, which consists in arranging the cartons in a row side by side with the flaps at opposite sides of the row, closing the in-

ner flaps, placing an adhesively coated strip of semi-rigid material at each side of the row, and extending the full length thereof, and folding the outer flaps onto the strips thereby to seal the flaps and strips together.

7. A unitary package containing a selected number of similar cartons having folded end flaps, and arranged side by side in abutting relation, and connected by strips of semi-rigid material of a length to extend across the ends of all of the cartons, and sealed beneath the flaps.

8. A unitary package containing a selected number of similar cartons having lapping inner and outer end flaps, the cartons arranged side by side in abutting relation, and held together by strips of semi-rigid material on the ends of the cartons, of a length to extend across the ends of all the cartons, and sealed between the inner and the outer flaps.

Signed at St. Louis, in the State of Missouri this 16th day of March A. D. 1925.
EDWARD T. NOLAND.