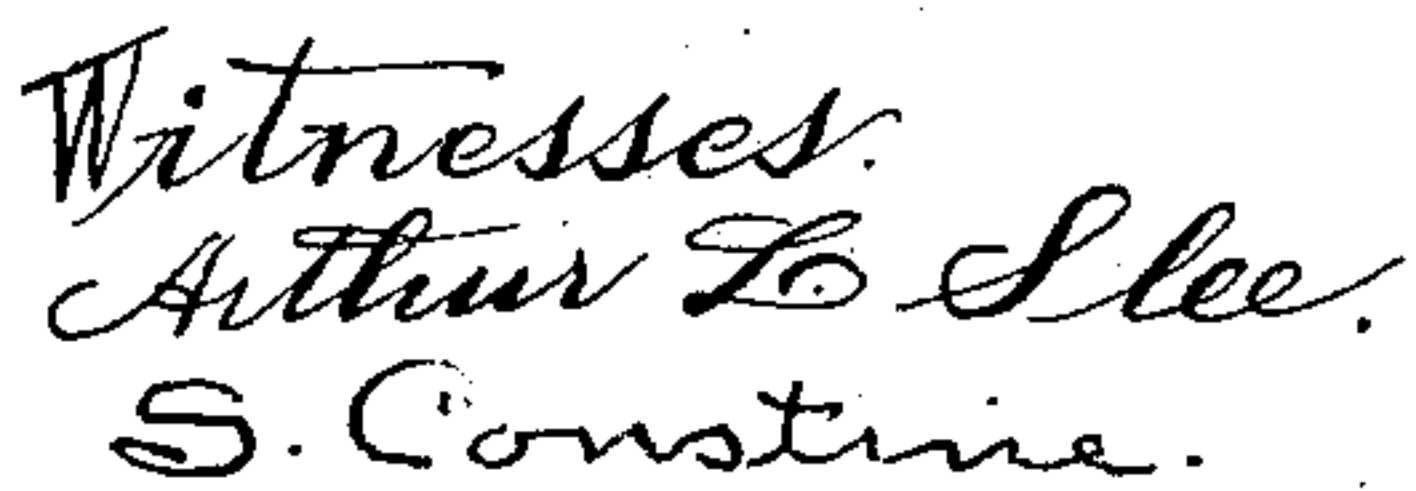


FOLDING CARTON.

934,602.

Patented Sept. 21, 1909.



Inventors.
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UNITED STATES PATENT OFFICE.

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Specification of Letters Patent. Patented Sept. 21, 1909.

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To all whom it may concern:

Be it known that we, JAMES W. GALVIN and GUSTAVE WALTERS, the latter a citizen of Germany and the former a citizen of the United States, both residing in the city and county of San Francisco and State of California, have invented certain new and useful Improvements in Folding Cartons, of which the following is a specification.

Our invention relates to the class of folding or knockdown cartons, and is particularly adapted for hat-cartons or boxes; in which connection we shall describe and illustrate it, though our invention is not confined to such special use.

Hat cartons necessarily take up much space. A large number of "empties" must be kept on hand for various uses, especially for the delivery of the goods. If these cartons can be folded into small compass, a much needed result will be reached.

The object of our invention is, therefore, to provide a practical carton of this nature, adapted to be folded to small compass and kept in any numbers in a space or store-room which would otherwise be unavailable for this purpose, said cartons being easily expanded and placed in shape for use, being then as strong and stiff as those, at present, employed.

Our invention consists in the novel construction of the carton which we shall now fully describe by reference to the accompanying drawings in which—

Figure 1 is a perspective view of our carton, partly broken. Fig. 2 is a detail, in elevation, and enlarged, of the lower part of the detachable coupling, which unites the ends of the body-strip. Fig. 3 is a sectional detail, enlarged, showing the wedge joint between the body and bottom and the spring catch to keep the bottom from rising. Fig. 4 is a top view of the body-strip, at its coupling, the latter being partly broken away. Fig. 5 is a detail of the upper part of the detachable coupling, showing the engagement about to be made.

The circumference of the carton consists of a body-strip 1 which when bent has its meeting ends provided with a suitable coupling which may be readily made and broken. The coupling we deem best for this purpose, comprises two interengaging members 2 and 3 each consisting of a metallic strip suitably secured to backing-strips 4 which are secured to the body strip 1, as seen best in Fig. 4.

One of these coupling strips, designated by 2, is made with a series of slots 5 each having an entrance opening 6. At its top it has a keeper lug 7. The other coupling strip 3, is made with a series of lugs 8. At its top it has a locking point 9, Fig. 5, and at its bottom it has a holding point 10, Fig. 2.

To make the coupling, the strip 3 first enters its top point 9 under the keeper-lug 7 of the strip 2. At this time, as seen in Fig. 5, the lugs 8 of the strip 3 are in the entrance openings 6 of the slots 5 of strip 2. The lugs are then forced down into the slots 5, as seen in Fig. 2, and the two are interlocked, the strip 3 partly entering under the strip 2. Finally to maintain the coupling against accidental displacement, the lower point 10 of strip 3 is to be bent around under the lower edge of the body strip. To uncouple, the point 10 is bent out again, and the operations performed in the reverse order. A fly 17, Fig. 1, is best pasted to the body strip 1. It is adapted to cover the coupling joint and to enter a keeper flap 18 on the other side. This gives a slightly appearance.

The bottom 11 of the carton is independent of the body strip, and provision is made for readily fitting it to place, holding it well when in place, and easily releasing it when required. The best construction to this end is as follows:—The body strip 1 on the inner surface of its lower edge is formed or provided with a tapering or wedge portion 12 the inclination being such that the diameter at the lower edge of said portion is less than at its upper end, Fig. 3. This wedge portion 12 may be of any suitable character, say, for example, a strip or strips glued to the body and easily bendable with the body strip 1. A strip or binding 13, Fig. 3, may cover this wedge portion and extend around the lower edge to the outer side to make a neat appearance.

The rim of the bottom 11 is formed or provided on its outer surface with a wedge portion 14, complementing the wedge portion 12 of the body strip, and adapted to fit down within it. The bottom is fitted to the body by inserting it from the top and pressing it down, until the wedges seat well and firmly, and the bottom will then be held tightly and cannot be pressed out by the weight of the contents of the carton. In order to insure the bottom from movement in the other direction, that is, by pressure applied to its under surface, we provide the

spring catch 15 in the body strip. There may be one or more of these catches and they lie on the inner surface of the circumferential body 1, just above the bottom 11. They yield before the bottom, when the latter is being pressed down to its seat, and spring out above it, when it is seated. By pressing them in, the bottom may be made to pass them, in removing it from the body. 16 is the ordinary lid or cover of the carton the rim of which fits outside of the body-strip. As it fits over the body 1, while the bottom 11 fits within said body, it follows that, in packing the knock down cartons, the bottom will nest within the top, and thus, though there are three pieces of the carton, to-wit, the body, the bottom and the cover, the carton may be packed away in two parts, namely the body strip, lying out flat, and the nested bottom and cover.

Having thus described our invention what we claim as new and desire to secure by Letters Patent is:—

1. In a folding carton, the combination of a body having on the inner surface of its lower edge a wedge portion thickest at said lower edge; and a separable bottom the rim of which has on its outer surface a wedge portion thickest at its upper edge; said last named wedge-portion complementing the wedge portion of the body, and adapted to seat within it.

2. In a folding carton, the combination of a body-strip; a detachable coupling to unite the ends of said strip; a wedge portion on the inner surface of the lower edge of the body-strip thickest at said lower edge; and a separable bottom the rim of which has on its outer surface a wedge portion thickest at its upper edge, said last named wedge-portion complementing the wedge portion of the body-strip, and adapted to seat within it.

3. A folding carton, comprising a body-strip; a detachable coupling to unite the ends of said strip; a wedge portion on the inner surface of the lower edge of the body-strip thickest at said lower edge; a separable bottom adapted to fit inside the body the rim of said bottom having on its outer surface a wedge portion thickest at its upper edge, said last named wedge-portion complementing the wedge portion of the body-strip, and adapted to seat within it; and a cover the rim of which fits over the top of the body.

4. In a folding carton, the combination of a body having on the inner surface of its lower edge a wedge portion thickest at said lower edge; a separable bottom having a wedge rim complementing and adapted to seat within the wedge portion of the body; and spring catches on the inner surface of the body above the bottom to prevent it from rising from its seat.

5. A folding carton, comprising a body-strip; a detachable coupling to unite the ends of said strip, said body-strip having on the inner surface of its lower edge a wedge portion thickest at said lower edge; a separable bottom adapted to fit inside the body and having a wedge rim complementing the wedge portion of the body-strip and adapted to seat within it; spring catches on the inner surface of the body-strip above the bottom to prevent it from rising from its seat; and a cover adapted to fit over the top of the body-strip.

6. In a folding carton, a body-strip having at its meeting ends coupling strips, one of said strips having slots with entrance openings, and a top keeper lug, and the other having lugs engaging the slots of the first strip and a top locking point engaging the top keeper lug of said first strip; and a separable bottom and cover for said body-strip.

7. In a folding carton, a body-strip having at its meeting ends coupling strips, one of said strips having slots with entrance openings and a top keeper lug, and the other having lugs engaging the slots of the first strip and a top locking point engaging the top keeper lug of said first strip; said other strip having also a bendable holding point at its lower end, adapted to engage the lower edge of the body strip.

8. A folding carton comprising a body-strip; a detachable coupling to unite its ends; a fly and keeper-flap to cover the coupling joint; and a separable bottom and cover for the body-strip.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

JAMES W. GALVIN.
GUSTAVE WALTERS.

Witnesses:

WM. F. BOOTH,
S. CONSTINE.