Dec. 17, 1946. S. A. BLACKMAN 2,412,798

MULTISIDED SHIPPING CONTAINER WITH AUTOMATICALLY LOCKING SLIP COVER

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Fig. 1.

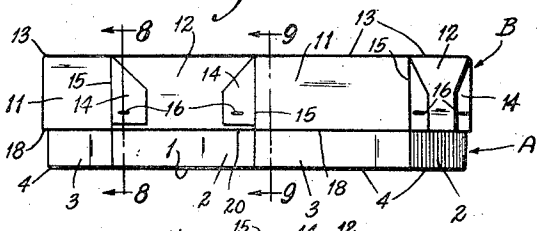


Fig. 2.

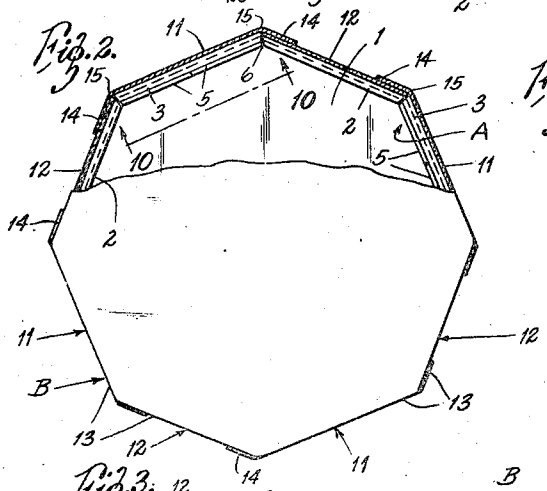


Fig. 3.

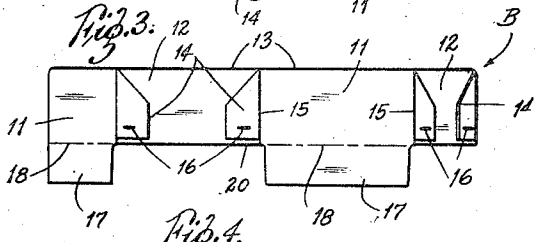


Fig. 4.

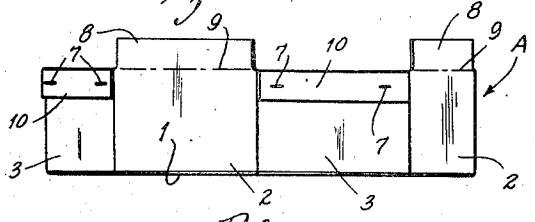


Fig. 5.

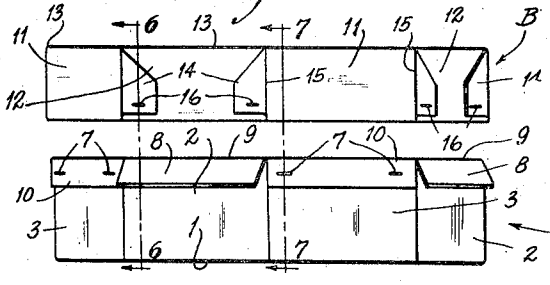


Fig. 6.

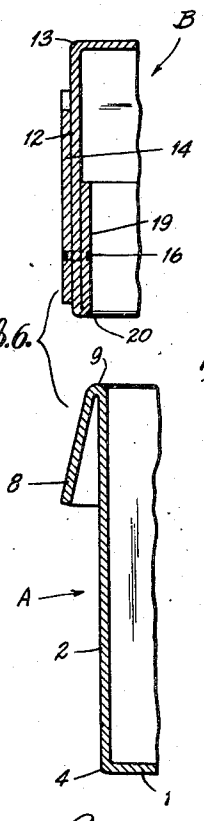


Fig. 7.

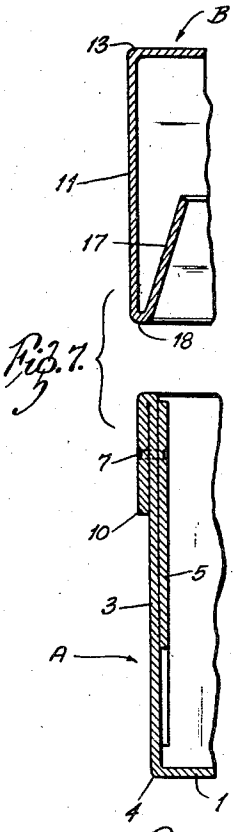


Fig. 8.

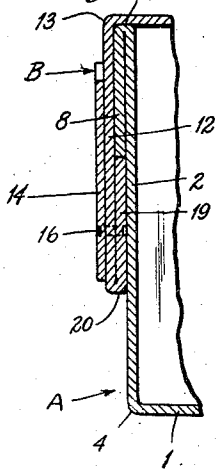
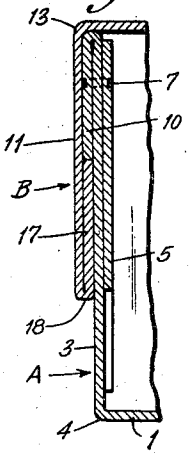


Fig. 9.



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Fig. 10.

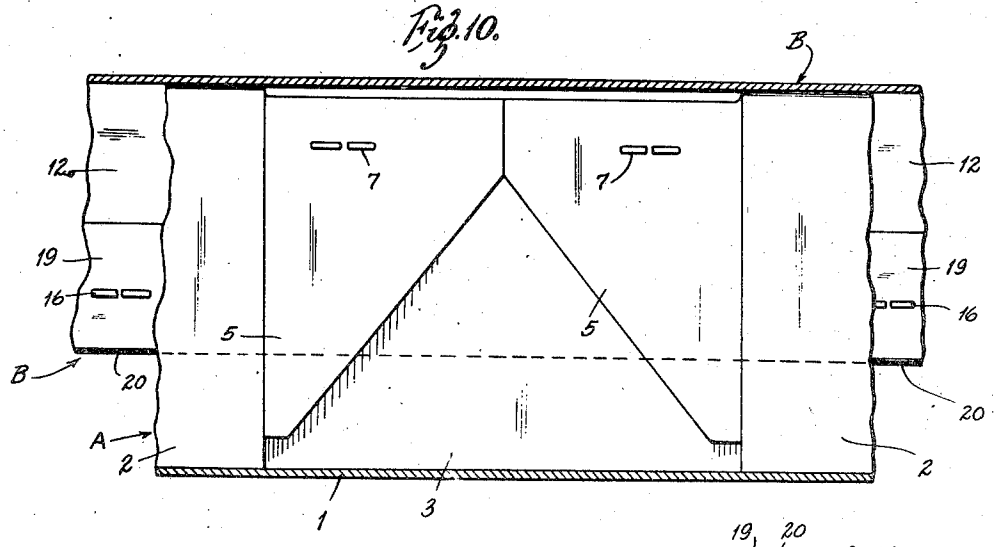


Fig. 11.

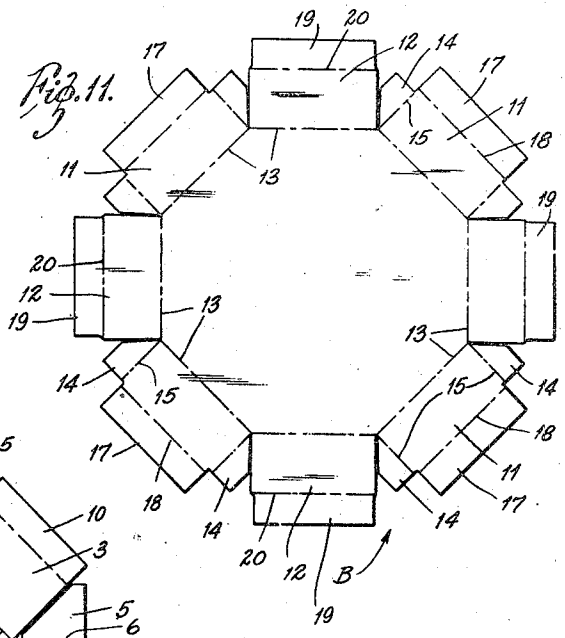
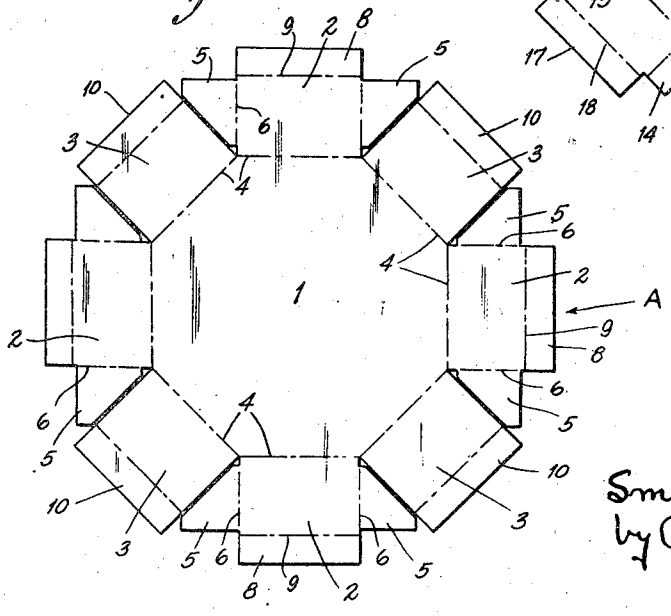


Fig. 12.



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UNITED STATES PATENT OFFICE

2,412,798

MULTISIDED SHIPPING CONTAINER WITH AUTOMATICALLY LOCKING SLIP COVER

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Application October 16, 1944, Serial No. 558,817

1 Claim. (Cl. 229—45)

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This invention relates to containers, particularly multi-sided shipping cartons. The principal object of the invention is to provide a carton of the above type with a slip cover which becomes automatically locked permanently to the body when telescoped over the open end thereof. Other objects are to simplify and cheapen the carton construction and to increase the strength and rigidity thereof. The invention consists in the cover locking arrangement and in the parts and combinations and arrangements of parts hereinafter described and claimed.

In the accompanying drawings, which form part of this specification and wherein like symbols refer to like parts wherever they occur,

Fig. 1 is a side elevational view of a shipping carton embodying my invention,

Fig. 2 is a top plan view of said carton, a portion of the slip cover being shown broken away,

Fig. 3 is a side elevational view of the slip cover,

Fig. 4 is a side elevational view of the body,

Fig. 5 is a side elevational view showing the body and cover before assembly,

Figs. 6 and 7 are enlarged fragmentary vertical sectional views on the lines 6—6 and 7—7, respectively, in Fig. 5,

Figs. 8 and 9 are enlarged fragmentary vertical sectional views on the lines 8—8 and 9—9, respectively, in Fig. 1,

Fig. 10 is an enlarged fragmentary vertical sectional view on the line 10—10 in Fig. 2,

Fig. 11 is a plan view of the cover blank; and

Fig. 12 is a plan view of the body blank.

My carton comprises an open-top multi-sided body A and a multi-sided slip cover or closure B therefor. The body A comprises a bottom 1 of polygonal shape with side marginal flaps 2 alternating with the side marginal flaps 3. The side marginal flaps 2 and 3 are bent upwardly along score lines 4 and permanently secured together side edge to side edge in angularly disposed relation to form the multi-sided or paneled side wall of said body. The securing means for the side wall flaps 2 and 3 of the body A preferably comprises outstanding wing tabs 5 that extend on opposite sides of the flaps 2 and are bent along score line 6 and permanently secured by staples 7 or other suitable fasteners flatwise to the inner faces of the flaps 3. The two wing tabs 5 secured to each flap 2 are preferably disposed in endwise abutting relation midway of the sides thereof. The side wall flaps 2 of the body A have extensions or continuations 8 at their upper or outer ends that are marked off by

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means of score lines 9 and folded or rebent downwardly on the outer sides of said flaps to constitute locking flaps. Similar extensions or continuations 10 at the upper or outer ends of the side wall flap 3 are marked off by means of score or crease lines and folded or rebent downwardly on the outer sides of these flaps to constitute locking flaps. As shown in the drawings, the locking flaps or flanges 10 of the side wall flaps 3 are secured flatwise to the outside faces thereof by the staples 7 which secure the side wall flaps 2 and 3 together in side wall forming relation, while the locking flaps or flanges 8 of the side wall flaps 2 are left free and tend to spring outwardly away therefrom. By this arrangement, the fixed locking flaps 10 alternate with the loose locking flaps 8 around the open end of the body A.

The slip cover B for the top of the body comprises a top portion or panel of polygonal shape with side marginal flaps 11 alternating with side marginal flaps 12 that are bent downwardly along score lines 13 and are permanently secured together side edge to side edge in angularly disposed relation to form the multi-sided or paneled rim portion of said cover. The securing means for the rim flaps 11 and 12 of the cover A preferably comprises wing tabs 14 on both side edges of the flaps 11 that are bent along score lines 15 and secured by staples 16 or other suitable fasteners flatwise to the outer side faces of the flaps 12. The flaps 11 have continuations 17 at their outer or lower ends that are marked off by means of scores or creases 18 and folded or rebent upwardly on the inner sides of said flaps to constitute locking flaps. The flaps 12 have similar extensions 19 that are marked off by scores or creases 20 and folded or rebent upwardly on the inner sides of said flaps to form locking flaps. The locking flaps 19 are secured flatwise to the rim flaps 12 by the staples 16, while the locking flaps 17 of the rim forming flaps 12 are left free to spring outwardly away therefrom, the fixed locking flaps alternating with the loose locking flaps around the rim of the slip cover.

In applying the slip cover B to the body A, the cover is preferably positioned with its loose locking flaps 17 opposite the fixed locking flaps 10 of the body and then telescoped over the open end of the body. During this operation, the loose outstanding locking flaps 17 of the cover B are forced against the rim portion thereof by the fixed locking flaps 10 of the body A and then snap beneath the lower edges of said fixed body flaps, while the fixed locking flaps 19 of the cover

ride over the loose body flaps 8 which yield inwardly and then spring outwardly across the upper ends of the fixed cover flaps 18. By this arrangement, the substantially continuous internal shoulder formed in the rim of the slip cover B by the locking flaps 17 and 19 abuts against the under side of the substantially continuous external shoulder formed on the body A by the locking flaps 8 and 10, thus permanently locking said slip cover to said body.

The hereinbefore described construction has several important advantages. It is simple and economical and permits the slip cover of the carton to be quickly and easily secured permanently to the body thereof merely by telescoping said cover over the open end of said body. The side wall flaps of the body, as well as the rim flaps of the cover, are rigidly connected together to maintain the polygonal shape thereof; and the joints between adjacent side walls flaps of the body and between adjacent rim flaps of the cover are covered by the wing tabs of alternate flaps. The fixed locking flaps of the body and cover contribute greatly to the strength and rigidity thereof; and the free locking flaps are adapted to spring into locking position despite side play occasioned by a loosely fitting cover.

Obviously, the hereinbefore described carton construction admits of considerable modification without departing from the invention. Therefore, I do not wish to be limited to the precise arrangement shown and described.

What I claim is:

A carton comprising a body having a bottom panel with a plurality of upstanding side marginal flaps forming a multi-sided wall, alternate flaps having outstanding side tabs that overlap and are secured flatwise to the inside faces of the flaps therebetween, all of said flaps having downturned exterior locking flaps at the upper ends thereof, the locking flaps of the wall flaps between said alternate wall flaps being rigidly fixed flatwise to the outside faces thereof and the locking flaps of said alternate wall flaps being left free, and a slip cover for said body comprising a top panel having a plurality of depending side marginal flaps forming a multi-sided rim for said cover, alternate rim forming flaps having outstanding side tabs that overlap and are secured flatwise to the outside faces of the rim flaps therebetween, all of said rim forming flaps having upturned internal locking flaps at the lower ends thereof, the locking flaps of the rim flaps between said alternate rim flaps being rigidly fixed flatwise to the inside faces thereof and the locking flaps of said alternate rim flaps being left free, said cover being telescoped over said body with the upper edges of its free locking flaps disposed in abutting relation to the lower edges of the fixed locking flaps of said body and with the upper edges of its fixed locking flaps disposed in abutting relation to the lower edges of the free locking flaps of said body.

SMITH A. BLACKMAN.