March 3, 1953 C. B. FOOTLICK 2,629,916

PACKAGE CLIP

Filed June 19, 1950

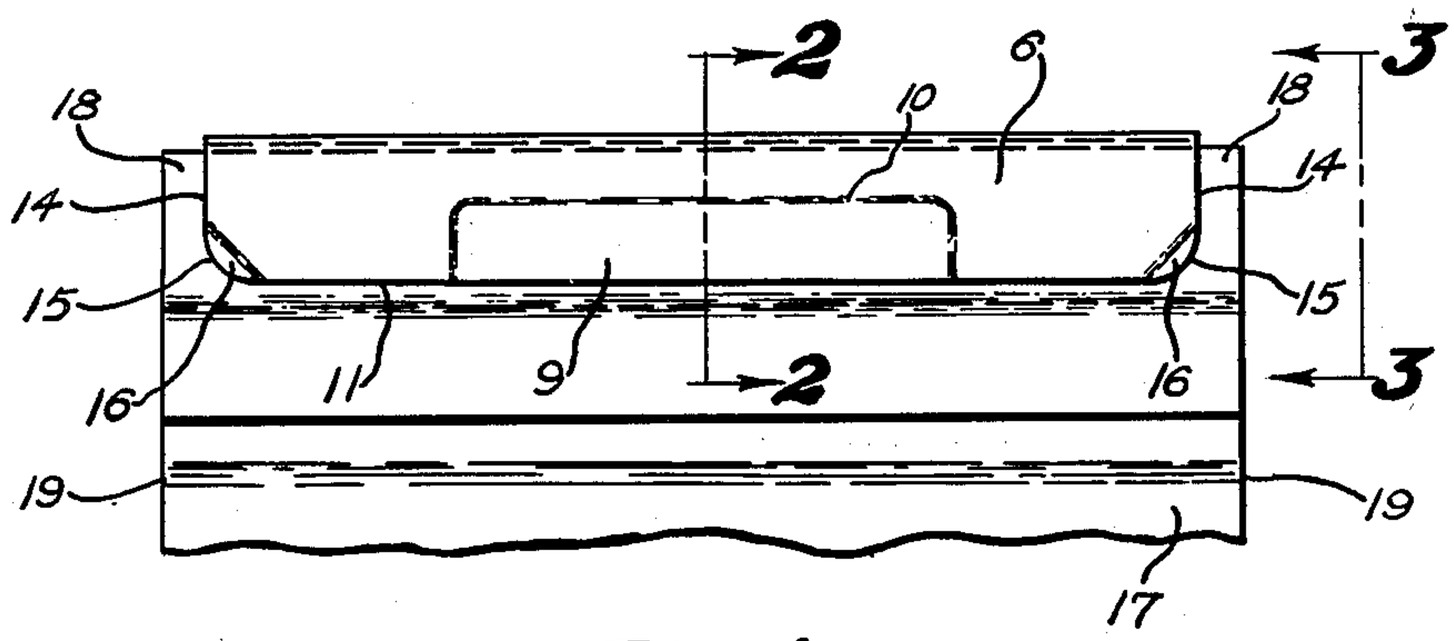

Fig. 1

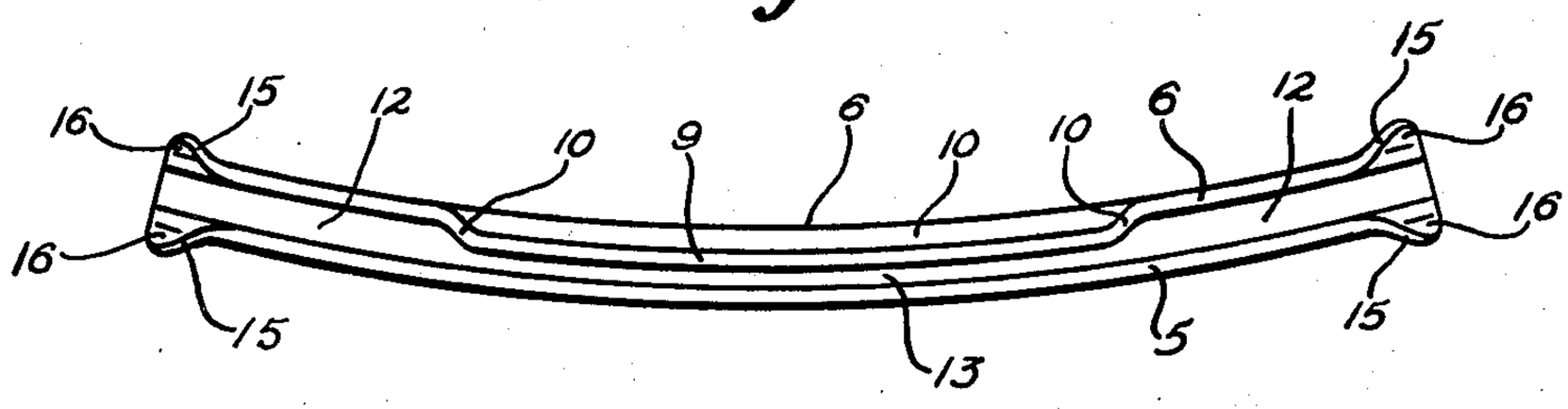

Fig. 4

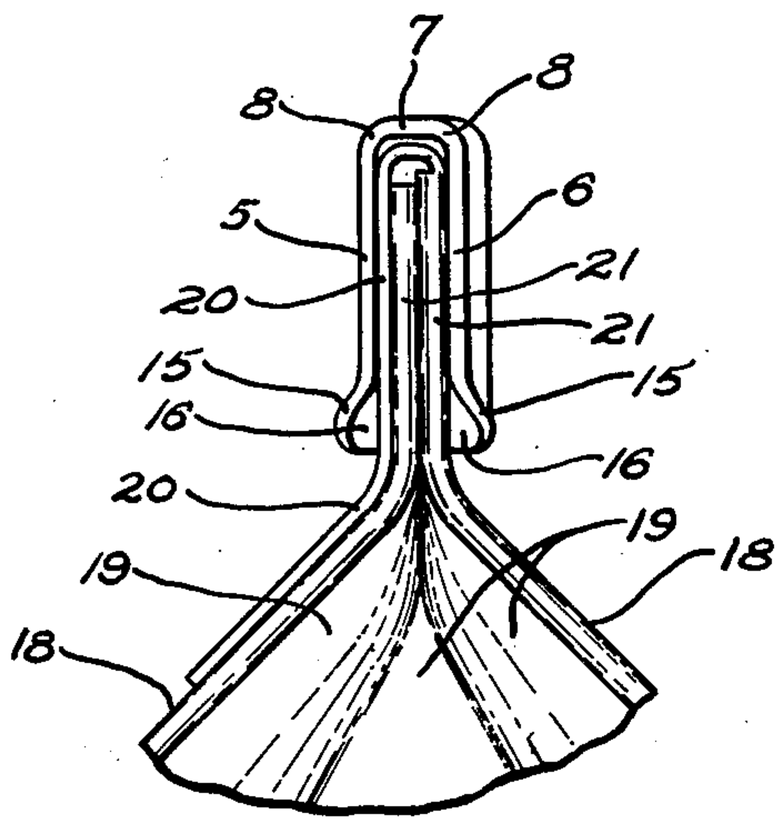

Fig. 3

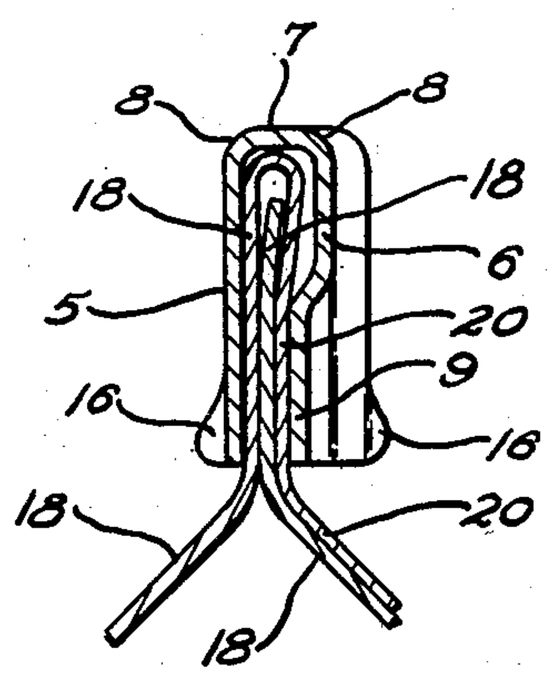

Fig. 2

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Patented Mar. 3, 1953 2,629,916

UNITED STATES PATENT OFFICE

2,629,916

PACKAGE CLIP

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Application June 19, 1950, Serial No. 169,000

3 Claims. (Cl. 24—255)

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My invention relates to a clip, and more particularly to a box closure clip.

While cartons or boxes containing cereals and similar products are ordinarily so made that the some will be sealed air tight at the time the cereal is packed therein, it is extremely difficult to provide a dust tight and air tight package that is sealed sufficiently to prevent entrance of any foreign matter or insects into the same after the package has once been opened. It is the principal purpose of my invention to provide a clip for holding a package that is in the form of a box or carton tightly sealed after it has once been opened. My invention can be applied to any package of this character that it is desired to close tightly after the same has been opened.

My improved clip is provided for placing on a carton or similar container so that by folding the flap of the carton over the top edge of one of the side walls thereof and applying said clip, the carton will be tightly sealed. While the carton may not be hermetically sealed, it is sealed substantially air tight and is sealed dust tight and against access of other foreign matter or insects to the contents thereof, and at the same time it is sealed sufficiently against entrance of air that the normally dry contents of the package will not absorb moisture from the outer air sufficiently to lose the crispness thereof and become soggy or water-logged.

My improved clip is preferably made of a piece of sheet material that has sufficient resiliency to exert a gripping action on the folded material of the carton or container, being preferably made of a thermoplastic sheet material, or similar material, that can be readily molded into the desired shape and will retain that shape in use under ordinary room temperatures, and will have sufficient resiliency to exert a gripping action on the folded plies of the carton or similar container. While various materials can be used for forming said clip, the material should be of a character that if made from sheet material it can be shaped into the desired form by heating and forming the same into the desired shape while in a heated condition. While various synthetic resins can be used for making my clip, hard rubber and sheet metal are also suitable, and other methods of forming the same can be used, such as stamping or molding, dependent upon the material used.

My improved clip is provided with a pair of walls that extend substantially parallel to each other, connected at one edge thereof, but having free end edges and each having a free longitudinal edge so that the clip is generally of a U-shaped character and can be slipped either endwise of itself or sidewise of itself onto the folded material of the carton or package that it is to hold shut. A clip results that has a pair of sheet

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material jaws, and said jaws are preferably so made as to compensate for the differences in thickness of the material of the folded carton or package at the ends and at the middle thereof, and so that it can be readily passed over the folded material into gripping position.

Other objects and advantages of my invention will appear as the description of the drawings proceeds. I desire to have it understood, however, that I do not intend to limit myself to the particular details shown or described, except as defined in the claims.

In the drawings:

Fig. 1 is a view in side elevation of the upper end portion of a carton, showing my improved clip applied thereto.

Fig. 2 is a section taken on the line 2—2 of Fig. 1.

Fig. 3 is a fragmentary end view, taken on the line 3—3 of Fig. 1, and

Fig. 4 is an edge elevation of my improved clip.

Referring in detail to the drawings, my improved clip comprises a pair of substantially parallel walls 5 and 6 and a connecting portion 7 extending perpendicularly to said walls. Said connecting portion may be of any desired contour, but is preferably provided with a plane portion that extends perpendicularly to the side walls 5 and 6 and is connected with the side walls by means of curved portions 8. The wall portions 5 and 6 are curved on a gradual curve lengthwise of the clip, as will be obvious from Fig. 4, and said wall portion 6 has an inward offset 9 therein, said offset portion 9 lying much closer to the wall 5 than the main body portion of the wall 6. Said offset portion is narrower than the wall 6, as will be obvious from Fig. 1, and there is a shoulder 10 between said offset portion 9 and the main body portion of the wall 6. The offset portion 9 of the wall 6 also extends parallel to the wall 5 and is longitudinally curved, as is obvious from Fig. 4. The offset portion 9 extends to the free longitudinal edge 11 of the wall 6.

The free longitudinal edges of the wall portions 5 and 6 thus define a slot, which has a wider portion 12 at each end thereof and a narrower portion 13 in the middle thereof, the walls of said slot being parallel to each other and the edge portions of said slots lying in the same plane.

The free end edges 14 of said clip preferably are straight and extend in transverse alignment with each other, and are perpendicular to the free longitudinal edges of the walls 5 and 6. The end edges and the longitudinal edges of the walls 5 and 6 are connected by means of curved edge portions 15, and said clip is provided with outwardly flared lips or ears 16 at the curved corners 15 thereof to thus provide widened entrance portions to the slot at the ends of the clip.

The clip is shown as being applied to the ordinary paper board carton 17 having a pair of wide side walls 18 and a pair of narrow side walls 19, and an end flap 20 that serves as the top or end closure of the package prior to the opening of the same. It will be noted upon reference to Fig. 2 that the mid-portion of the clip having the offset wall portion 9 grips between the wall 5 and the offset portion 9 of the wall 6 three plies of the material of the container comprising portions of the two wide side walls 18 and a portion of the end flap 20. It will further be noted upon reference to Fig. 3 that the end portions of the clip grip between the main body portion of the side wall 6 and the side wall 5, the end flap 20 and the folds 21, which comprise two plies, as the walls are each made up of a narrow side wall portion 19 and a wide side wall portion 18, these being folded inwardly in an obvious manner. As a result, there are five plies of the material of the carton at the ends of the fold at the top of the box or carton and only three plies in the middle portion of said fold.

It is in order to accommodate this variation in thickness between the side portions of the container 17 and the mid-portions of the container 17 at the folded top thereof that the wide portions 12 and narrow portions 13 of the slot are provided, by providing an offset wall portion 9 in one of the side walls or jaws of the clip. Furthermore by providing a longitudinal curvature to the entire clip and thus to the two gripping jaws thereof, the inherent resiliency of the fibrous material of which the carton or container is made is utilized to help hold the clip in gripping position. Inasmuch as the shape of the carton has to be somewhat distorted by the clip in being placed in position, the assembly of the clip with the folded top portion of the carton is facilitated by providing the outwardly flaring lips or ears 16 at the end corners of the clip. The clip will accordingly firmly clamp or hold the various plies of the carton in overlapped sealing relation throughout the entire length of the clip, which preferably, is substantially the same as the width of the wide side wall of the carton. The contents of the carton are thus readily accessible and at the same time when no access is desired to the carton it can be firmly and securely sealed against entrance of foreign matter, insects or moisture, and the contents of the carton preserved in a fresh and crisp condition.

What I claim is:

1. A clip U-shaped in cross section having a long narrow body portion, comprising a pair of walls of greater length than width connected together by an integral wall along one of the long sides of said body portion, said walls having free marginal edges at the opposite ends and at the other long side of said body portion, one of said walls having a longitudinally elongated rectangular area thereof intermediate the ends thereof lying closely adjacent the other of said walls and extending substantially parallel thereto, said area extending inwardly from the free marginal side edge of said wall a substantial distance and cooperating with said other wall to provide a pair of closely adjacent parallel jaws extending lengthwise of said body portion, said first mentioned wall having an offset therein away from said other wall at opposite ends of said area at points spaced from the ends of said clip to provide wall portions more widely spaced from and substantially parallel to said other wall forming therewith jaw portions at opposite ends of said closely adjacent jaws more widely spaced than said closely adjacent jaws, said clip having flared lips at the corners between the ends and the free longitudinal marginal edges of said walls.

2. A clip U-shaped in cross section having a long narrow body portion, comprising a pair of walls of greater length than width longitudinally curved on a gradual curve connected together by an integral wall along one of the long sides of said body portion curved longitudinally of said body portion, said walls having free marginal edges at the opposite ends and at the other long side of said body portion, one of said walls having a longitudinally elongated rectangular area thereof intermediate the ends thereof lying closely adjacent the other of said walls and extending substantially parallel thereto, said area extending inwardly from the free marginal side edge of said wall a substantial distance and cooperating with said other wall to provide a pair of closely adjacent parallel longitudinally curved jaws extending lengthwise of said body portion, said first mentioned wall having an offset therein away from said other wall at opposite ends of said area at points spaced from the ends of said clip to provide wall portions more widely spaced from and substantially parallel to said other wall forming therewith jaw portions at opposite ends of said closely adjacent jaws more widely spaced than said closely adjacent jaws.

3. A clip U-shaped in cross section having a long narrow body portion, comprising a pair of walls of greater length than width connected together by an integral wall along one of the long sides of said body portion, said walls having free marginal edges at the opposite ends and at the other long side of said body portion, one of said walls having a longitudinally elongated rectangular area thereof intermediate the ends thereof lying closely adjacent the other of said walls and extending substantially parallel thereto, said area extending inwardly from the free marginal side edge of said wall a substantial distance and cooperating with said other wall to provide a pair of closely adjacent jaws having wide parallel clamping faces, said jaws extending lengthwise of said body portion, said first mentioned wall having an offset therein away from said other wall at opposite ends of said area at points spaced from the ends of said clip to provide wall portions more widely spaced from and substantially parallel to said other wall forming therewith jaw portions at opposite ends of said closely adjacent jaws extending to the opposite ends of said clip and having wide parallel clamping faces more widely spaced than said closely adjacent jaws.

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