

Sept. 26, 1944.

H. A. CARRUTH

2,358,790

CAPTIVE COVER CARTON

Filed Feb. 19, 1942

2 Sheets-Sheet 1

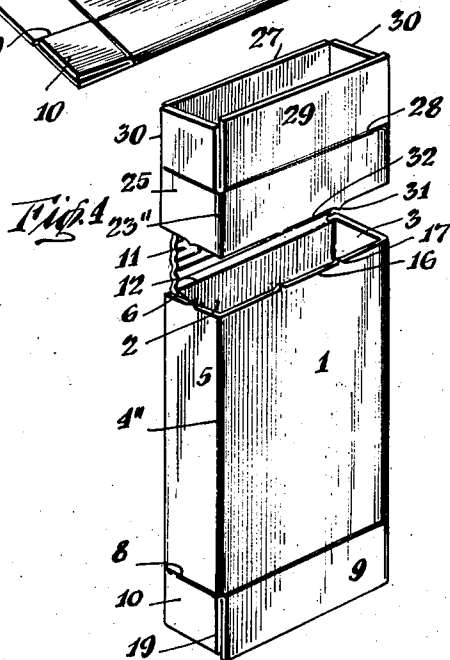
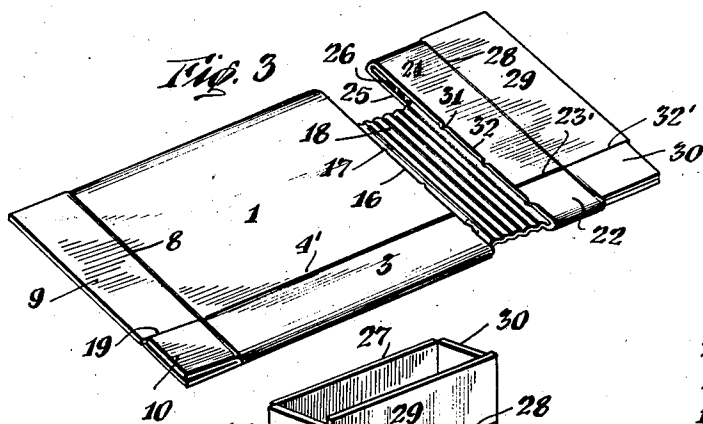
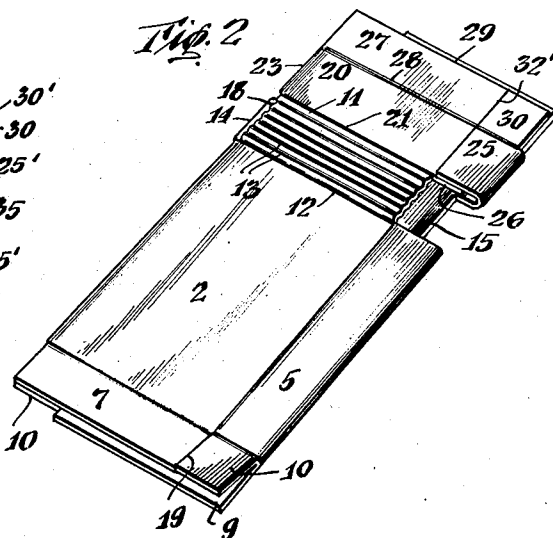
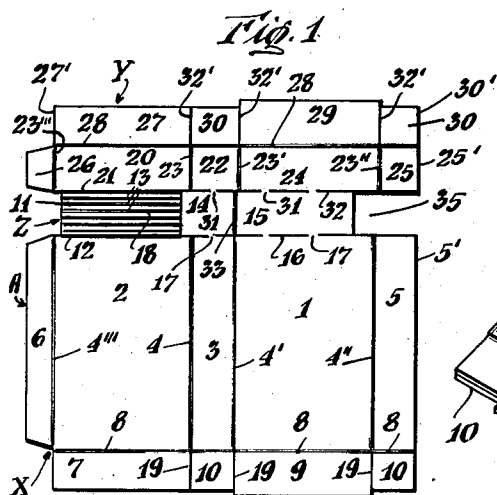
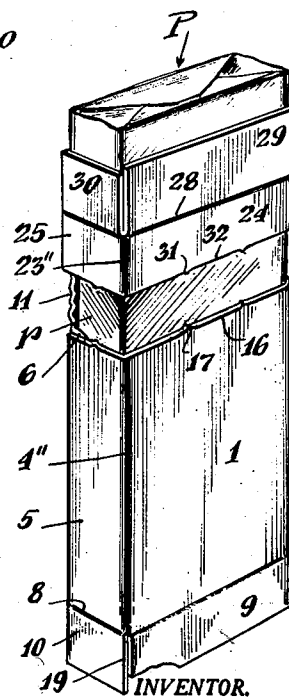


Fig. 5



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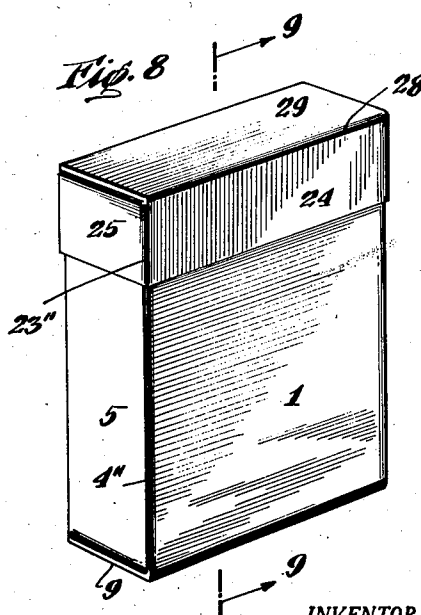
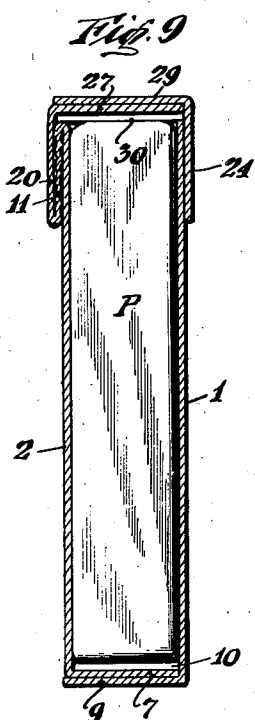
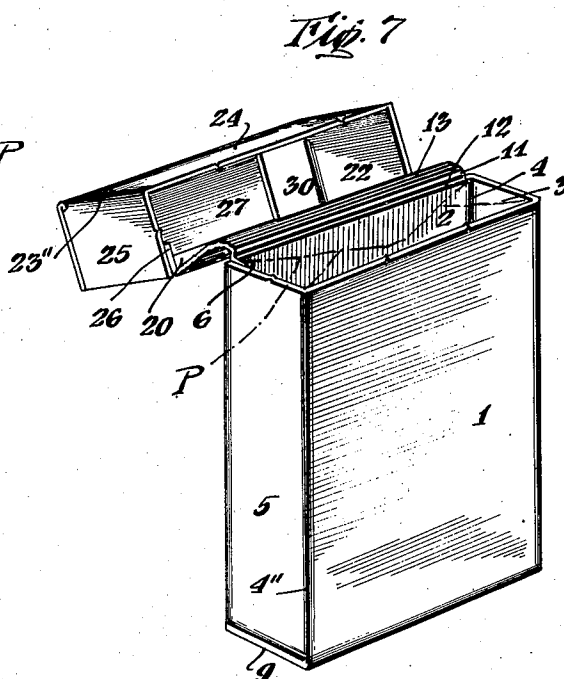
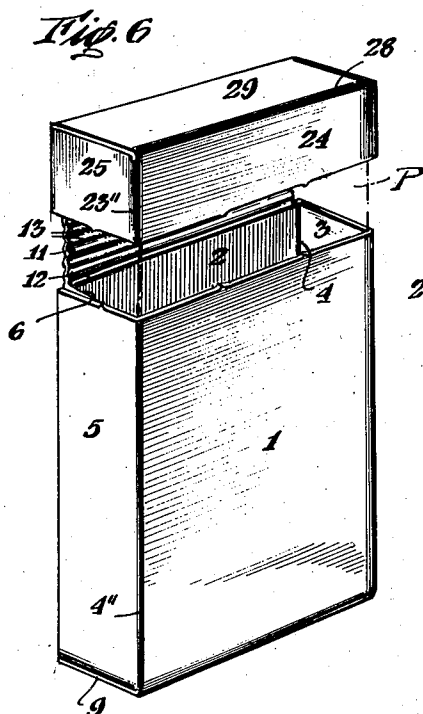
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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE

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CAPTIVE COVER CARTON

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Application February 19, 1942, Serial No. 431,521

14 Claims. (Cl. 229—43)

This invention relates to captive cover cartons, and more particularly to that type of carton which has a cover part hingedly connected to the box or containing part so that the cover part may be telescoped over the open end of the box part to close the same.

Captive cover cartons which have been commonly used are so constructed that the cover part has the same circumferential dimensions as the box part to which it is hinged, so that the lower edge of the cover part rests upon the top edge of the box part. Such cartons require insertion of a tubular sleeve or collar within the box part over which the enclosing walls of the cover part may telescope to retain the cover part in closed position by the frictional engagement between the enclosing walls of the cover part and the upper end of the sleeve or collar. Such cartons require considerable additional paperboard to provide the tubular sleeve or collar and the assembly and insertion cost of the tubular sleeve or collar is so great as to make this type of captive cover carton so expensive that its use has been limited to the packaging of relatively costly goods.

In accordance with my invention, the complete captive cover carton is made from a one-piece paperboard blank which is substantially rectangular in outline and from which the complete box part, the telescoping cover part and the connecting hinging section are formed. The wall-forming panels, tabs, closure flaps and glue flaps, as well as the cut and score lines, are so arranged and integrated with reference to one another that the one-piece blank may be assembled into a completed carton by a simple series of method steps which can be automatically performed at a high rate of production speed.

An object of this invention is to provide an improved one-piece paperboard blank of substantially rectangular outline from which a carton having a hinging cover part adapted to telescope over a box part may be easily and economically assembled.

Another object of this invention is to provide an improved one-piece paperboard blank having its panels, flaps, cut lines, score lines and parts so integrated and arranged as to permit high speed automatic assembly thereof into a sturdy and attractive captive cover carton.

Another object of this invention is to provide an improved one-piece blank having temporary parts which facilitate the assembly of a captive cover carton from the blank but which parts can

be easily removed after the carton has been glued in assembled form.

Another object of this invention is to provide an improved tubular shell from which a captive cover carton may be economically assembled.

Another object of this invention is to provide an improved captive cover carton whose parts are so arranged as to permit high speed automatic assembly thereof.

Other objects of this invention will become apparent as the disclosure proceeds.

Although the novel features which are believed to be characteristic of this invention will be particularly pointed out in the claims appended hereto, the invention itself, as to its objects and advantages and the manner in which it may be carried out, may be better understood by referring to the following description taken in connection with the accompanying drawings forming a part thereof, in which:

Fig. 1 is a plan view of the inside face of a prepared blank from which the captive cover carton is formed;

Fig. 2 is a perspective view of the paperboard blank shown in Fig. 1 assembled into the form of a collapsed tubular shell;

Fig. 3 is a perspective view of the collapsed tubular shell with the temporary sections which connect the front panel and one side wall panel of the box part to the corresponding front panel and side wall panel of the cover part removed;

Fig. 4 is a perspective view of the tubular shell expanded and erected from its collapsed position;

Fig. 5 is a perspective view of the erected shell showing the manner in which a wrapped article of merchandise may be telescoped therein;

Fig. 6 is a perspective view of the assembled carton having the end walls thereof closed and sealed, with the wrapped article extending into both the cover part and the box part of the carton;

Fig. 7 is a perspective view of the fully assembled carton with the cover part swung open and the wrapped article contained entirely within the box part of the carton;

Fig. 8 is a perspective view of the fully assembled carton with the cover part in closed telescoped position over the box part; and

Fig. 9 is a vertical cross-sectional view through the assembled carton with the cover part telescoped over the box part as it appears when looking in the direction of the arrows 9—9 of Fig. 8.

Similar reference characters refer to similar parts throughout the several views of the drawings and the specification.

The captive cover carton is assembled from a one-piece prepared paperboard blank A which has been cut and scored as illustrated in Fig. 1. The carton blanks A may be cut and scored from large sheets or rolls of suitable paperboard material at a high production rate on a cutting and scoring machine. The paperboard sheets or rolls are preferably imprinted or lithographed on the finished side thereof before they are fed into the cutting and scoring machine and cut into carton blanks.

Referring more particularly to Fig. 1, the carton blank A comprises a box-forming part x and a cover-forming part y integrally joined by a connecting section z. The box-forming part x comprises a front wall panel 1 and a rear wall panel 2 which are connected by an intermediate side wall panel 3 along corner-forming score lines 4' and 4'' respectively. The other side wall panel 5 is hinged to the opposite side edge of the front wall panel 1 along the score line 4''' and a glue flap 6 is hinged along the score line 4''' to the opposite side edge of the rear wall panel 2. The bottom end wall of the box is formed by bottom flaps 7 and 9 hinged respectively to the lower ends of the rear wall panel 2 and the front wall panel 1 along the continuous horizontally extending score line 8. A tab 10 is hinged to the lower end of each of the side wall panels 3 and 5 along the continuous score line 8. The tabs 10 are separated from the bottom flaps 7 and 9 by cuts 19, one cut 19 aligning with score line 4', another cut 19 aligning with score line 4'', and the other cut 19 aligning with score line 4'''.

The cover part y of the carton is formed from the upper part of the blank as shown in Fig. 1, and presents when assembled enclosing walls adapted to telescope over the enclosing walls of the box part x and a top wall formed from a series of inturned flaps and tabs. The enclosing walls of the cover part comprise more particularly a rear wall panel 20 and a front wall panel 24 hinged to an intervening side wall panel 22 along the vertical score lines 23 and 23' respectively. The other side wall panel 25 is hinged to the opposite side edge of the front wall panel 24 along the score line 23'' and is arranged to be secured to a securing flap 26 hinged to the opposite side edge of the rear wall panel 20 along the score line 23'''.

The top wall of the cover part is formed from a pair of top wall flaps 27 and 29 hinged to the upper edge of the rear wall panel 20 and the front wall panel 24 respectively along the continuous horizontally extending score line 28. A tab 30 is hinged to the upper end of each of the side wall panels 22 and 25 along the continuous horizontally extending score line 28, the tabs 30 being separated from the top wall flaps 29 and 27 by cuts 32'. One of the cuts 32' is in alignment with the score line 23, another cut 32' is in alignment with the score line 23', and the third cut 32' is in alignment with the score line 23''.

An important feature of this invention is the construction and arrangement of the connecting section z provided between the box part and the cover part of the carton-forming blank. As illustrated in Fig. 1, the top edge of the rear wall panel 2 of the box part is separated from the lower edge of the rear wall panel 20 of the cover part by a linkage section 11 which has a height slightly less than the height of the rear wall panel 20 of the cover. The linkage section 11 is joined to the upper edge of the rear wall panel 2 of the box part by a horizontally extending score

line 12 and is joined to the lower edge of the rear wall panel 20 of the cover part by a similar horizontally extending score line 21, the score lines 12 and 21 being substantially parallel. To increase its flexibility the linkage section 11 is provided with a plurality of intermediate horizontally extending crease or score lines 13. The vertical edges of the linkage section 11 are free and each free edge is spaced inwardly from the adjacent corner-forming score lines 4 and 4''' respectively approximately the thickness of the paperboard from which the blank is made.

A temporary side section 14 is positioned between the upper edge of the side wall panel 3 of the box part and the lower edge of the side wall panel 22 of the cover part, and likewise a temporary section 15 is disposed between the upper edge of the front wall panel 1 of the box part and the lower edge of the front wall panel 24 of the cover part. The temporary sections 14 and 15 may be hingedly connected by a vertically extending score line 33 which forms substantially a straightline continuation of the score line 4' which connects the side wall panel 3 with the front wall panel 1 of the box part. The opposite vertical edge of the temporary side section 14 is separated from the adjacent vertical edge of the linkage section 11 by a vertically extending cut line 18 which is slightly out of alignment with the vertically extending score line 4' disposed between the side wall panel 3 and the rear wall panel 2 of the box part, so that the width of the temporary side section 14 is greater than the width of the box side wall panel 3 by approximately the thickness of the paperboard.

The lower edges of the temporary side section 14 and the temporary front section 15 are connected to the upper edges of the side wall panel 3 and front wall panel 1 of the box part by a horizontally extending perforated line which is composed of the spaced cuts 16 separated by narrow connecting necks 17 which can be easily torn. The upper edges of the temporary side section 14 and the temporary front section 15 are connected to the lower edges of side wall panel 22 and front wall panel 24 of the cover part by a horizontally extending perforated line comprising spaced cuts 32 whose ends are separated by narrow severable neck portions 31. It will be noted from Fig. 1 that the cuts 16 are generally in alignment with the score line 12 at the upper edge of the rear wall panel 2 of the box part and that the cuts 32 are generally in alignment with the score line 21 which defines the lower edge of the rear wall panel 20 of the cover part. The temporary connecting sections 14 and 15 serve a highly important purpose during folding and gluing of the blank into collapsed shell form whereby high speed automatic assembly of the carton is made possible.

When the carton is finally assembled and erected, the cover part is so designed as to snugly telescope over the upper end of the box part as illustrated in Figs. 8 and 9. In order that this may be accomplished, it will be appreciated that the width of the side wall panel 22 and the width of the side wall panel 25 of the cover part must be greater than the width of the corresponding side wall panels 3 and 5 of the box part over which the side wall panels 22 and 25 of the cover part telescope by approximately two thicknesses of paperboard. The width of the rear wall panel 20 and the width of the front wall panel 24 of the cover part must likewise be greater than the width of the corresponding rear wall panel 2 and

front wall panel 1 of the box part by approximately two thicknesses of the paperboard. The enclosing walls of the cover part are given the necessary increased width so that when assembled into box form they will snugly telescope over the assembled enclosing walls of the box part by offsetting the corner-forming score lines of the cover part with respect to the corner-forming score lines of the box part, with one exception.

More particularly, the corner score line 23' of the cover part is substantially in accurate alignment with the corner score line 4' of the body part and is so made as to permit folding and gluing of the blank into the collapsed shell shown in Fig. 2. However, the corner score line 23' of the cover part is offset with respect to the corner score line 4' of the box part so as to make the width of the side wall panel 22 of the cover part greater than the width of the side wall panel 3 of the box part by approximately two thicknesses of the paperboard. The corner score line 23'' of the cover part is offset approximately four thicknesses of paperboard with respect to the corner score line 4'' of the box part, so that the width of the front wall panel 24 of the cover part which lies between the corner score lines 23' and 23'' is approximately two thicknesses of paperboard wider than the width of the front wall panel 1 of the box part which lies between the vertical score lines 4' and 4''. The vertical free edge 25' of the side wall panel 25 of the cover part may overhang the free edge 5' of the side wall panel 5 of the box part a distance equal to approximately five to six thicknesses of the paperboard, so that the side wall panel 25 when finally glued to the securing flap 26 of the cover part will be wider than the side wall panel 5 when secured to the glue flap 6 of the box part by approximately two thicknesses of paperboard. The corner score line 23''' of the cover part is offset with respect to the corner score line 4''' of the box part by approximately two thicknesses of the paperboard, so that the width of the rear wall panel 20 extending between vertical score lines 23 and 23''' of the cover part is wider than the rear wall panel 2 extending between the score lines 4 and 4''' of the box part by approximately two thicknesses of paperboard. It will be appreciated that the width of side wall panel 25 and flap 26 may be varied within rather wide limits dependent upon the amount of overlap desired when these parts are secured together, as long as the combined width of side wall panel 25 and flap 26 when secured together presents a side wall approximately two thicknesses of paperboard wider than the adjacent box side wall formed by joining side wall panel 5 to flap 6.

By thus arranging and offsetting the score lines 23', 23'' and 23''' defining the vertical corners of the enclosing walls of the cover part with respect to the corner score lines 4', 4'' and 4''' of the box part, the assembled enclosing walls of the cover part will snugly telescope over the assembled enclosing walls of the box part. The vertically extending cuts 32 which separate the returned tabs 30 from the top wall flaps 27 and 29 are, however, in true alignment with the respective score lines 23, 23' and 23'' of the cover part, the free edge 30' of the tab 30 is in true alignment with the free edge 25' of the side wall panel 25 of the cover part, and the free edge 27' of the top wall flap 27 is in true alignment with the vertical score line 23''' of the cover part.

By placing the score line 23 of the cover part in alignment with the score line 4 of the box

part, but offsetting the corner score lines 23', 23'' and 23''' of the cover part with respect to the corner score lines 4', 4'' and 4''' of the box part in the manner above described, and by further cutting the paperboard blank A so that the lower edge of the side wall panel 22 and the lower edge of the front wall panel 24 of the cover part are temporarily but severably connected to the upper edge of the side wall panel 3 and the front wall panel 1 of the box part, the one-piece blank may be automatically formed into a collapsed shell having its assembled box part x integrally connected to the assembled telescoping cover part y by the flexible linkage section 11 and the temporary sections 14 and 15. The temporary sections 14 and 15 are then ripped off from the collapsed shell as shown in Fig. 3, the shell expanded into tubular form as shown in Fig. 4, and the wrapped article of merchandise P is telescoped into the expanded shell as shown in Fig. 5. The merchandise article maintains both the box part and the cover part of the shell fully and rigidly expanded during closing and sealing of the end wall flaps as indicated in Fig. 6. The merchandise article P may then be pushed completely into the box part as indicated in Fig. 7. The enlarged cover part y will snugly telescope over the upper end of the assembled box part, as shown in Figs. 8 and 9, by reason of the fact that each of the enclosing panels of the cover part is approximately two thicknesses of paperboard wider than the width of the corresponding enclosing panels of the box part x.

In assembling the flat blank as shown in Fig. 1 into a set-up carton, the body of the box part and the body of the cover part are first assembled in collapsed tubular shell form as illustrated in Fig. 2. This operation may be automatically performed at a high production rate.

In assembling the collapsed shell, aligned strips of adhesive are first applied to the outside face of the securing flap 6 and to the outside face of the securing flap 26. The rear wall panel 20 is then folded about score line 23 and rear wall panel 2 is folded about score line 4 so that rear wall panel 20 will overlie the front wall panel 24 of the cover part and rear wall panel 2 will overlie the front wall panel 1 of the box part. The folding operation can readily be performed by reason of the fact that the score lines 23 and 4 are in true straightline alignment. This folding operation will also place the top cover flap 27 in overlying position with respect to the adjacent cover tab 30 and the top flap 29, and will place the bottom flap 7 in overlying position with respect to the adjacent bottom tab 10 and the bottom flap 9. This folding operation will further place the flexible linkage section 11 in superimposed relationship over the temporary side section 14 and the temporary front section 15. This folding operation can be smoothly performed without warping or twisting the blank by reason of the fact that the vertical score line 4 of the box part of the blank is in true alignment with vertical score line 23 of the cover part of the blank. The adjacent cut lines 18, 19 and 32 in no way interfere with this folding operation.

When thus folded the glue bearing face of the securing flaps 6 and 26 will be facing upwardly with the securing flap 6 overlying the front wall panel 1 of the box part and the securing flap 26 overlying the front wall panel 24 of the cover part. The bottom flap 7 will also overlie the adjacent bottom tab 10 and the bottom flap 9 and

the top flap 27 will overlie the adjacent top tab 30 and top flap 29 and the linkage section 11 will overlie the temporary side section 14 and the temporary front section 15.

The side wall panel 25 of the cover part is then folded about score lines 23" over and into adhesive engagement with the glue bearing face of the securing flap 26 and the side wall panel 5 of the box part is folded about score line 4" over and into adhesive engagement with the glue bearing face of the securing flap 26.

This folding operation can be smoothly performed even though the score line 23" is not in alignment with the score line 4" because of the fact that the side wall panels 25 and 5 are completely separated by the cut-out notch 35 in the blank.

The collapsed assembled shells as shown in Fig. 2 may be stacked together so as to occupy a minimum of space and in this condition may be shipped to the user or merchandise manufacturer and stored until needed. It will be noted that the temporary side section 14 and temporary front section 15 positioned between the box part and the cover part of the collapsed shells may be still in place when shipped to the merchandise manufacturer, as shown in Fig. 2, or they may be removed from the collapsed shell before shipment, as shown in Fig. 3.

These temporary sections 14 and 15 are removed by grasping the free end of the temporary front section 15 by means of a suitable instrument and by a ripping action the front section 15 and the side section 14 may be torn loose from the assembled carton, as illustrated in Fig. 3. It will be noted that the temporary front section 15 and side section 14 are joined to the adjacent upper edges of the front wall panel 1 and the side wall panel 3 of the box part *x* by the narrow uncut necks 17 of the paperboard, which necks will readily break when a light pull is exerted on the temporary sections 15 and 14. Likewise the temporary sections 15 and 14 are secured to the front wall panel 24 and side wall panel 22 of the cover part *y* by the spaced narrow neck portions 31 which will also break when a light pull on the temporary sections 15 and 14 is exerted. It will also be noted that the vertical edge of the temporary side section 14 is free of the adjacent vertical edge of linkage section 11 by reason of the cut line 18, so that once the narrow neck portions 17 and 31 are torn, the strip comprising the temporary front section 15 and temporary side section 14 may be easily removed and discarded. It will be appreciated that in forming the blank shown in Fig. 1, the score line 33 may be eliminated so that the removable sections 14 and 15 form a continuous rigid piece, in which event the neck portions 17 and 31 which connect removable section 14 to panels 3 and 22 are eliminated so that section 14 is completely separated from the panels 3 and 22. In such event the temporary front section 15 along with the hinge section 12 would adequately serve to hold the cover part to the box part during assembly into collapsed shell form.

When merchandise is to be packed therein the collapsed shell may be expanded into the tubular form shown in Fig. 4 and at this stage the wrapped merchandise P as shown in Fig. 5 may be freely inserted into the expanded tubular shell through either end thereof. The wrapped merchandise P is preferably assembled in the form of a wrapped plug of the required shape and size so

as to snugly fit within the box part and cover part of the expanded shell. This insertion operation can be performed automatically or by hand.

The end walls of the tubular shell may be readily sealed when the plug of merchandise P has been telescoped therein. The merchandise plug P positioned within the expanded shell supports the expanded box and cover parts of the shell in rigid erect tubular form during the end sealing operation. The end walls of the expanded shell are preferably sealed by a sealing machine installed at the plant of the user or merchandise manufacturer so that the assembled shells may be shipped to and stored by the user while in the collapsed form illustrated in Fig. 2 or Fig. 3, thereby effecting substantial economies in shipping and storage space.

In sealing the bottom and top forming end walls, the bottom tabs 10 and top tabs 30 are folded inwardly so that they are substantially in parallelism. The bottom flap 7 and the top flap 27 are then folded to respectively overlie the intumed bottom tabs 10 and the intumed top tabs 30. Adhesive is then applied to the undersurfaces of the laterally projecting bottom folding flap 9 and top folding flap 29.

The bottom flap 9 is then folded into adhesive contact with the outside surface of the folded bottom flap 7 and the top flap 29 is folded into adhesive contact with the outside surface of the folded top flap 27, which completes the assembly of the carton as illustrated in Fig. 6.

The merchandise plug P may then be pushed into the box part to be completely contained therein. The cover part *y* may then be telescoped into closed position over the upper end of the box part, as illustrated in Figs. 8 and 9. As heretofore brought out, the width of each of the cover enclosing panels, comprising front panel 24, rear panel 20 and side panels 22 and 25, is approximately two thicknesses of paperboard material greater than the circumferential width of the corresponding enclosing panels of the box part, comprising front panel 1, rear panel 2, and side panels 3 and 5. Thus the cover part *l* is properly dimensioned so as to telescope snugly over the upper end of the box part.

As the cover part is telescoped over the upper end of the box part, the linkage section 11 will roll downwardly between the outside face of the box rear wall panel 2 and the inside face of the cover rear wall 20 to the point where the paperboard material of the linkage section between the hinge lines 12 and 21 will extend in a substantially straight line. When the cover part is in closed position, the linkage section 11 will thus be sandwiched snugly between the box rear wall panel 2 and the cover rear wall panel 20 so that the cover part is retained on the upper end of the box part with substantial holding friction.

When access to the merchandise contents is desired, an upward pull is exerted on the cover part causing the linkage section 11 to roll in opposite direction until the cover part has been released from the top edge of the box part so that the cover part can be swung completely off from the mouth end of the box part as shown in Fig. 7 to provide unobstructed access to the merchandise in the box part. Since the cover part is hingedly connected to the box part by the linkage section 11, the cover part need not be held or supported either during insertion of the contents into or removal of the contents from the box part. Thus opened, the wrapper enclosing the merchandise

can be torn open to give free access to the contents in the box part *x*, or the merchandise plug may be removed from the carton, as desired.

By cutting and scoring the blanks, as illustrated in Fig. 1, by means of a standard cutting and scoring die, the carton assembly operations can be performed automatically at a high speed of production and at very low cost. By reason of the fact that the corner score line 4 and the corner score line 23 are in straightline alignment, the rear wall panel 2 of the box part and the rear wall panel 20 of the cover part may be smoothly folded over the complementary front wall panels 1 and 24. The glue flaps 6 and 26 are so positioned that a strip of adhesive may be applied thereto by a strip gluer. While the side wall panel 5 is hinged to front panel 1 by the score line 4'' which is out of alignment with the score line 23'' which hinges the side wall panel 23 to the front wall panel 24, the side wall panels 25 and 5 may be consecutively folded into adhesive contact with the corresponding glued strips 26 and 6 because of the fact that the side wall panels 25 and 5 are wholly independent of each other and separated by the deeply notched cut-out 35. The offset position of the score lines 23', 23'' and 23''' with respect to the score lines 4', 4'' and 4''' respectively in no way interferes with the automatic assembly of the blanks into collapsed shell form. The temporary connecting sections 14 and 15 secure the cover part of the blank to the box part with sufficient rigidity so that the blank can be operated upon by a folding machine as if it were a solid rectangular blank.

As shown in Fig. 3, when the temporary sections 14 and 15 have been removed from the collapsed shell, and the collapsed shell then erected into expanded form as shown in Fig. 4, the corner score lines 23, 23', 23'' and 23''' of the cover part will automatically align themselves over the outer surfaces of the corresponding corner score lines 4, 4', 4'' and 4''' of the box part, so that the merchandise plug may be telescoped into the expanded shell so as to extend partly into the expanded cover part and partially into the expanded box part. The front wall panel 24 and the rear wall panel 20 of the cover part will have a width approximately two thicknesses of paperboard greater than the width of the corresponding front wall panel 1 and rear wall panel 2 of the box part. Likewise the side wall panels 22 and 25 of the cover part will have a width approximately two thicknesses of paperboard greater than the width of the corresponding side wall panels 3 and 5 of the box part. The scores formed in the blank by the cutting and scoring die have a width which substantially equals the thickness of the paperboard so that the corner folds which are formed will adjust themselves to telescoping requirements.

The top and bottom end panels of the expanded tubular shell may be automatically and simultaneously closed and sealed by reason of the fact that the merchandise plug retains both the cover part and the box part rigidly expanded and rectangular in cross-section. Since the cover forming part and the box forming part of the shell are connected by the linkage hinge section 11 and are held rigidly erect by the merchandise plug P, the end sealing machine can function as though it were operating upon a rigid one-piece tubular body.

It will now be appreciated that the temporary sections 14 and 15 perform a highly important and useful function during assembly of the blank

in collapsed tubular form. When merchandise is to be packed in the carton, the temporary sections 14 and 15 are removed from the collapsed shell, the shell expanded into tubular form and the merchandise plug inserted. The linkage section 11 retains the cover part and the box part rigidly connected and the merchandise plug serves to retain the cover part and box part in rigid erect position so that the ends of the carton may be closed and sealed simultaneously at a high production speed on the end sealing machine. The assembled carton is strong and sturdy in construction, pleasing in appearance, and accurately formed as to size.

While certain novel features of the invention have been disclosed and are pointed out in the annexed claims, it will be understood that various omissions, substitutions and changes may be made by those skilled in the art without departing from the spirit of the invention.

What is claimed is:

1. An improved paperboard blank for forming a captive cover carton having a box-forming part and a cover-forming part joined by a connecting part, said box-forming part having front, rear and side wall panels arranged in side-by-side relationship and hingedly connected by substantially parallel corner-forming creases, said cover part having front, rear and side wall panels each approximately two thicknesses of paperboard wider than the corresponding front, rear and side wall panels of the box part, said front, rear and side wall panels of the cover part being arranged in side-by-side relationship and hingedly connected by substantially parallel corner-forming creases, said connecting part including a hinge section hingedly connecting the lower edge of the rear wall panel of the cover part to the upper edge of the rear wall panel of the box part, and a temporary section removably connected to the lower edge of the front wall panel of the cover part and to the adjacent upper edge of the front wall panel of the box part.

2. A one-piece paperboard blank for forming a captive carton having a box-forming part and a cover-forming part joined by a connecting part, said box-forming part having front, rear and side wall panels arranged in side-by-side relationship and hingedly connected by substantially parallel corner-forming creases, said cover part having front, rear and side wall panels each approximately two thicknesses of paperboard wider than the corresponding front, rear and side wall panels of the box part, said front, rear and side wall panels of the cover part being arranged in side-by-side relationship and hingedly connected by substantially parallel corner-forming creases, said connecting part including a hinge section hingedly connecting the lower edge of the rear wall panel of the cover part to the upper edge of the rear wall panel of the box part, and a temporary section removably connected to the lower edge of a side wall panel of the cover part and to the adjacent upper edge of a side wall panel of the box part, a bottom-forming flap hinged to the lower edge of each of the front and rear side wall panels of the box part, and a top-forming flap hinged to the upper edge of each of the front and rear wall-forming panels of the cover part.

3. A substantially rectangular one-piece paperboard blank for forming a captive cover carton having a box-forming part and a cover-forming part joined by a connecting part, said box-forming part having front, rear and side wall panels

and a glue flap arranged in side-by-side relationship and hingedly connected by substantially parallel corner-forming creases, said cover part having front, rear and side wall panels and a glue flap arranged in side-by-side relationship and hingedly connected by substantially parallel corner-forming creases, each of the front, rear and side wall panels of the cover part being approximately two thicknesses of paperboard wider than the corresponding front, rear and side wall panels of the box part, said connecting part including a hinge section hingedly connecting the lower edge of the rear wall panel of the cover part to the upper edge of the rear wall panel of the box part, and a temporary section removably connected to the lower edge of the front wall panel of the cover part and to the adjacent upper edge of the front wall panel of the box part.

4. A substantially rectangular one-piece paperboard blank for forming a captive cover carton having a box-forming part and a cover-forming part joined by a connecting part, said box-forming part having front, rear and side wall panels and a glue flap arranged in side-by-side relationship and hingedly connected by substantially parallel corner-forming creases, said cover part having front, rear and side wall panels and a glue flap arranged in side-by-side relationship and hingedly connected by substantially parallel corner-forming creases, each of the front, rear and side wall panels of the cover part being approximately two thicknesses of paperboard wider than the corresponding front, rear and side wall panels of the box part, said connecting part including a hinge section hingedly connecting the lower edge of the rear wall panel of the cover part to the upper edge of the rear wall panel of the box part, and a temporary section removably connected to the lower edge of the front wall panel of the cover part and to the adjacent upper edge of the front wall panel of the box part, said box part and cover part each having one of its side wall panels positioned along the same side of the blank and its glue flap positioned along the opposite side of the blank, the glue flap and the opposite side wall panel of the cover part being conveniently separated by a notch cut-out from the glue flap and the opposite side wall panel of the box part.

5. A one-piece paperboard blank for forming a captive cover carton having a box-forming part and a cover-forming part joined by a connecting part, said box-forming part having front, rear and side wall panels arranged in side-by-side relationship and hingedly connected by substantially parallel corner-forming creases, said cover part having front, rear and side wall panels arranged in side-by-side relationship and hingedly connected by substantially parallel corner-forming creases, each of the front, rear and side wall panels of the cover part being approximately two thicknesses of paperboard wider than the corresponding front, rear and side wall panels of the box part, one of said corner-forming creases in the box part being substantially in alignment with one of said corner-forming creases in the cover part, the other corner-forming creases in the box part being out of alignment with the other corner-forming creases in the cover part, said connecting part including a hinge section hingedly connecting the lower edge of the rear wall panel of the cover part to the upper edge of the rear wall panel of the box part, and a temporary section removably connecting the lower edge of a side

wall panel of the cover part to the upper edge of the adjacent side wall panel of the box part.

6. A one-piece paperboard blank for forming a captive cover carton having a box-forming part and a cover-forming part joined to the box part by a connecting part, said box-forming part having front, rear and side wall panels arranged in side-by-side relationship and hingedly connected by substantially parallel corner-forming creases, said cover part having front, rear and side wall panels arranged in side-by-side relationship and hingedly connected by substantially parallel corner-forming creases, said connecting part including a hinge section hingedly connecting the lower edge of the rear wall panel of the cover part to the upper edge of the rear wall panel of the box part, and a temporary section removably connecting the lower edge of a side wall panel of the cover part to the upper edge of the adjacent side wall panel of the box part, one of said corner-forming creases in the box part being substantially in alignment with one of said corner-forming creases in the cover part, the other corner-forming creases in the box part being out of alignment with the other corner-forming creases in the cover part an amount sufficient to make the front, rear and side wall panels of the cover part each approximately two thicknesses of paperboard wider than the corresponding front, rear and side wall panels of the box part, said blank being foldable longitudinally thereof along the aligned creases in said box part and cover part.

7. An improved one-piece paperboard blank for forming a captive cover carton having a box-forming part and a cover-forming part joined by a connecting part, said box-forming part having front, rear and side wall panels arranged in side by side relationship and hingedly connected by substantially parallel corner-forming creases, said cover part having front, rear and side wall panels arranged in side by side relationship and hingedly connected by substantially parallel corner-forming creases, said connecting part including a linkage section hingedly connecting the lower edge of the rear wall panel of the cover part to the upper edge of the rear wall panel of the box part and a temporary section removably connected to the lower edge of the front wall panel and a side wall panel of the cover part and to the adjacent upper edge of the front wall panel and a side wall panel of the box part.

8. An improved paperboard blank for forming a captive cover carton having a box-forming part and a cover-forming part joined by a connecting part, said box-forming part having front, rear and side wall panels arranged in side by side relationship and hingedly connected by substantially parallel corner-forming creases, said cover part having front, rear and side wall panels arranged in side by side relationship and hingedly connected by substantially parallel corner-forming creases, said connecting part including a linkage section hingedly connecting the lower edge of the rear wall panel of the cover part to the upper edge of the rear wall panel of the box part and a temporary section removably connected to the lower edge of the front wall panel and one side wall panel of the cover part and to the adjacent upper edge of the front wall panel and one side wall panel of the box part, the lower edge of the other side wall panel of the cover part being free of and spaced from the upper edge of the other adjacent side wall panel of the box part.

9. An improved paperboard blank for forming a captive cover carton having a box-forming part and a cover-forming part joined by a connecting part, said box-forming part having front, rear and side wall panels arranged in side-by-side relationship and hingedly connected by substantially parallel corner-forming creases, said cover part having front, rear and side wall panels arranged in side-by-side relationship and hingedly connected by substantially parallel corner-forming creases, one of said corner-forming creases which connects the rear wall panel to the adjacent side wall panel of the box part being substantially in alignment with the corner-forming crease which connects the rear wall panel to the adjacent side wall panel of the cover part, said other corner-forming creases in the box part being out of alignment with the other corner-forming creases of the cover part an amount sufficient to make the front, rear and side wall panels of the cover part each approximately two thicknesses of paperboard wider than the corresponding front, rear and side wall panels of the box part, said connecting part including a flexible linkage section hingedly connecting the lower edge of the rear wall panel of the cover part to the upper edge of the rear wall panel of the box part and a temporary section removably connected to certain of the other panels of the cover part and to adjacent other panels of the box part whereby said temporary section and said linkage section serve to rigidly connect the cover part to the box part during the folding assembly of the carton.

10. An improved paperboard blank for forming a captive cover carton having a box-forming part and a cover-forming part joined by a connecting part, said box-forming part having front, rear and side wall panels and a glue flap arranged in side-by-side relationship and hingedly connected by substantially parallel corner-forming creases, said cover part having front, rear and side wall panels and a glue flap arranged in side-by-side relationship and hingedly connected by substantially parallel corner-forming creases, one of said corner-forming creases which connects the rear wall panel to the adjacent side wall panel of the box part being substantially in alignment with the corner-forming crease which connects the rear wall panel to the adjacent side wall panel of the cover part, said other corner-forming creases in the box part being out of alignment with the other corner-forming creases of the cover part an amount sufficient to make the front, rear and side wall panels of the cover part each approximately two thicknesses of paperboard wider than the corresponding front, rear and side wall panels of the box part, said connecting part including a flexible linkage section hingedly connecting the lower edge of the rear wall panel of the cover part to the upper edge of the rear wall panel of the box part and a temporary section removably connected to the lower edge of the front wall panel and one side wall panel of the cover part and to the adjacent upper edge of the front wall panel and one side wall panel of the box part whereby said temporary section and said linkage section serve to rigidly connect the cover part to the box part during the folding assembly of the carton.

11. A one-piece paperboard shell from which a captive cover carton may be assembled having a box-forming part and a cover-forming part joined by a connecting part, said box-forming part having front, rear and side wall panels

hingedly connected in side by side relationship by substantially parallel corner-forming creases, bottom-forming flaps extending from the lower edge of said front and rear wall panels of the box part, said cover part having front, rear and side wall panels hingedly connected in side by side relationship by substantially parallel corner-forming creases, top closing flaps extending from the upper edge of said front and rear wall panels of the cover part, said connecting part including a flexible linkage section hingedly connecting the lower edge of the rear wall panel of the cover part to the upper edge of the rear wall panel of the box part and a temporary section removably connected to the lower edge of the front wall panel and a side wall panel of the cover part and to the adjacent upper edge of the front wall panel and a side wall panel of the box part whereby said temporary section and said linkage section serve to rigidly connect the cover part to the box part during assembly of said shell.

12. A one-piece paperboard shell from which a captive cover carton may be assembled having a box-forming part and a cover-forming part joined by a connecting part, said box-forming part having front, rear and side wall panels and a glue flap hingedly connected in side by side relationship by substantially parallel corner-forming creases, said glue flap being adhesively secured to one of said side wall panels, bottom-forming flaps extending from the lower edge of said front and rear wall panels of the box part, said cover part having front, rear and side wall panels and glue flaps hingedly connected in side by side relationship by substantially parallel corner-forming creases, said glue flap of the cover part being adhesively secured to one of the side wall panels of the cover part, top closing flaps extending from the upper edge of said front and rear wall panels of the cover part, said connecting part including a flexible linkage section hingedly connecting the lower edge of the rear wall panel of the cover part to the upper edge of the rear wall panel of the box part and a temporary section removably connected to the lower edge of the front wall panel and one side wall panel of the cover part and to the adjacent upper edge of the front wall panel and one side wall panel of the box part whereby said temporary section and said linkage section serve to rigidly connect the cover part to the box part during assembly of said shell, the front, rear and side wall panels of the cover part each having a width approximately two thicknesses of paperboard greater than the width of the corresponding front, rear and side wall panels of the box part, whereby the cover part may be telescoped over the box part upon removal of said temporary section.

13. A captive cover carton formed from a one-piece substantially rectangular blank of paperboard material having a box-forming part and a cover-forming part joined by a connecting part, said box-forming part having front, rear and side wall panels hingedly connected in side-by-side relationship by substantially parallel corner-forming creases, bottom-forming flaps extending from the lower edge of said front and rear wall panels forming the bottom wall of the box part, said cover part having front, rear and side wall panels hingedly connected in side-by-side relationship by substantially parallel corner-forming creases, top closing flaps hingedly connected to the upper edge of said front and rear wall panel of the cover part forming the top end wall of

the cover part, said connecting part including a flexible linkage section connecting the lower edge of the rear wall panel of the cover part and the upper edge of the rear wall panel of the box part, the front, rear and side wall panels of the cover part each having a width approximately two thicknesses of paperboard greater than the width of the corresponding front, rear and side wall panels of the box part whereby the cover part may be telescoped over the box part.

14. A captive cover carton formed from a one-piece substantially rectangular blank of paperboard material having a box-forming part and a cover-forming part joined by a connecting part, said box-forming part having front, rear and side wall panels hingedly connected in side-by-side relationship by substantially parallel corner-forming creases, adhesively joined bottom-forming flaps extending from the lower edge of said front and rear wall panels forming the bot-

5 tom wall of the box part, said cover part having front, rear and side wall panels hingedly connected in side-by-side relationship by substantially parallel corner-forming creases, adhesively joined top closing flaps hingedly connected to the upper edge of said front and rear wall panel of the cover part forming the top end wall of the carton, said connecting part including a flexible linkage section connecting the lower edge 10 of the rear wall panel of the cover part and the upper edge of the rear wall panel of the box part, the front, rear and side wall panels of the cover part each having a width approximately two thicknesses of paperboard 15 greater than the width of the corresponding front, rear and side wall panels of the box part whereby the cover part may be telescoped over the box part.

HERMAN A. CARRUTH.