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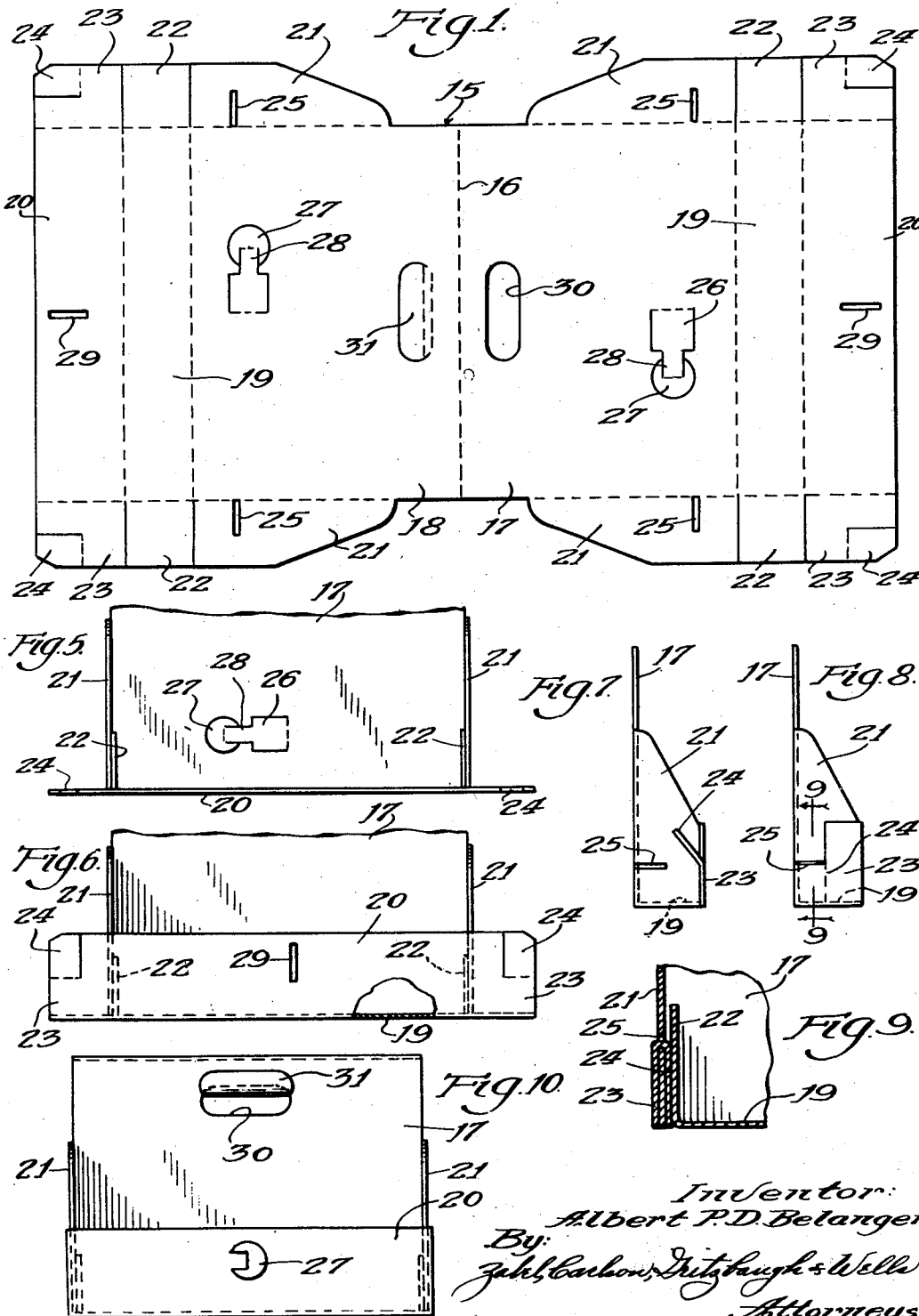
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2,445,202

CARRIER DEVICE FOR BOTTLES AND THE LIKE

Filed March 22, 1944

2 Sheets-Sheet 1



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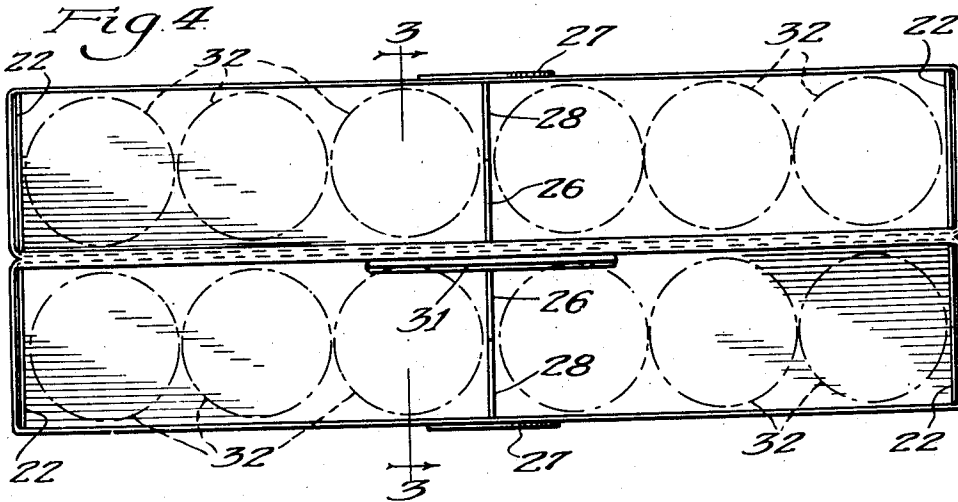
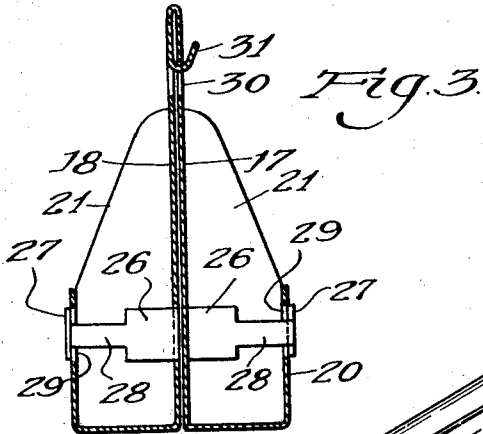
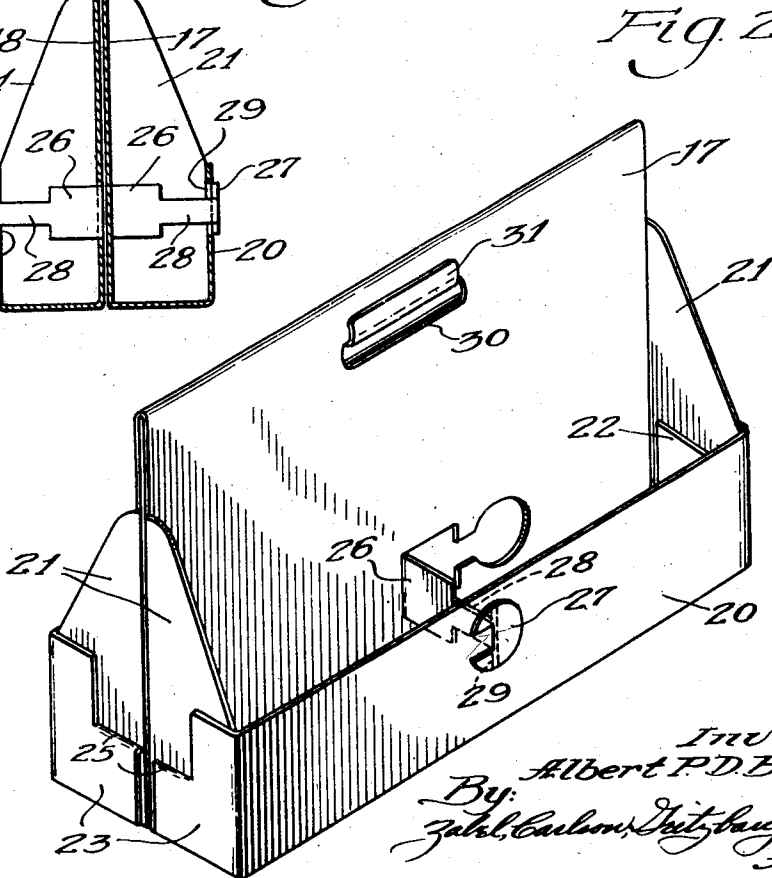
A. P. D. BELANGER

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2 Sheets-Sheet 2



Inventor:
By: Albert P. D. Belanger
Zahl, Culson, Ditzbaugh & Wells
Attorneys

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CARRIER DEVICE FOR BOTTLES
AND THE LIKE

Albert P. D. Belanger, Alton, Ill.

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2 Claims. (Cl. 229—52)

1 My invention relates to carrier devices for bottles and the like, and it has for its object the provision of a new and improved form of carrier which shall have very substantial strength and capacity in proportion to its weight, which can be produced very cheaply and easily, and which can be made up satisfactorily from materials available in large quantities without the necessity for using metal.

To this end it is one of the objects of my invention to provide a carrier device which can be made entirely of sheet material produced by a stamping operation. In my preferred embodiment of the invention the device is made from a single sheet of comparatively heavy and stiff paper or pasteboard which can be folded easily and quickly so as to be held strongly in its formed shape and condition without the use of any auxiliary clips or securing parts other than the paper itself. For accomplishing this purpose, it is one of the objects of my invention to provide a new and improved form and arrangement of panels and tabs whereby a doubled back portion of the sheet material may be firmly connected with end panels so as to form a pocket of a type adapted to receive a plurality of bottles or other objects.

It is one of the objects of the invention to provide a structure of this type so arranged that the interengaging parts can be quickly and easily moved to their operative holding positions with a minimum of distortion of normally flat portions of the paper, the bending being restricted almost entirely to the lines of fold between the adjacent parts. It is an object of the invention to provide in a device of this type such interengagement of the parts as will provide a maximum strength of structure by reason of which the device may be able to stand up for a long period of use.

It is another object of the invention to improve devices of this type in sundry details hereinafter pointed out. The preferred means by which I have accomplished my several objects are illustrated in the drawings in which—

Fig. 1 is a face view of the blank from which my improved carrier device is formed;

Fig. 2 is a perspective view of a carrier device made from a blank such as is shown in Fig. 1, the device of Fig. 2 being shown on a somewhat larger scale;

Fig. 3 is a vertical cross sectional view taken substantially at the line 3—3 of Fig. 4 but on a reduced scale as compared with said Fig. 4;

Fig. 4 is a top plan view of my improved carrier

2 device, with a plurality of bottles shown by dotted lines in position therein;

Fig. 5 is a view of one end portion of the blank of Fig. 1 but with some portions of the blank folded upwardly into changed position;

Fig. 6 is a view similar to Fig. 5 but with the panel portion at the end of the blank folded down parallel with the back portion of the blank;

Fig. 7 is an end view of the part shown in Fig. 6 as seen from the left in said Fig. 6 and with the end holding flaps in extended position;

Fig. 8 is a view similar to Fig. 7 but with the end holding flaps folded into their operative holding position;

Fig. 9 is a vertical sectional view taken substantially at the line 9—9 of Fig. 8; and

Fig. 10 is a face view of the carrier device as a whole.

Referring now to the several figures of the drawings, in which corresponding parts are indicated by the same reference characters, 15 indicates a heavy sheet of paper or other suitable material adapted to be folded along a middle line at 16 providing two sections 17 and 18 adapted to form the back wall panels of the carrying pockets of my improved carrier, such panels 17 and 18 having bottom wall portions or panels 19 formed integrally therewith, which panels 19 in turn have front wall panels 20 formed integrally therewith. The end wall portions of the pockets are formed by the use of end panels 21 formed integrally with the sections 17 and 18, end flaps 22 formed integrally with the bottom wall portions 19, and reinforcement and holding flaps 23 formed integrally with the front wall portions 20. The flaps 23 are split along their intermediate lines to provide tuck-in flaps 24 adapted to enter openings 25 in the end panels 21 as hereinafter described.

For forming the carrying pockets, the sheet 15, cut as shown in Fig. 1, is spread out on a table. The end wall panels 21 and the end flaps 22 of one of the sections are then folded upwardly, after which the bottom wall panel 19 and the front wall panel 20 are folded upwardly together into the position as shown in Fig. 5, this serving to swing the end flaps 22 down into position with their edge portions engaging the back wall portion 17 or 18. The front wall portion 20 is then folded downwardly into the position as shown in Fig. 6, into engagement with the edges of the end flaps 21, as shown in Fig. 7, after which the flaps 23 are folded over into face engagement with the end wall panels 21, the tuck-in flaps 24 being directed into and through the slots 25 so that the

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flaps 23 and 24 together have snug engagement with a portion of the end wall panel 21, as best shown in Fig. 9. The flaps 24 are adapted to be directed into position very easily and quickly with very little tendency for any bending of the parts other than at the lines of fold. The arrangement is such, however, that after the flaps 24 are in position as shown in said Fig. 9, the pocket parts are held with great firmness so as to resist any normal pull on the parts up to the limit of the strength of the sheet material.

For reinforcing the pocket formation, I have provided intermediate links 26 struck from the back wall portions 17 and 18, such links having head portions 27 connected by means of neck portions 28 of reduced width. These links 26 are adapted to be threaded through openings 29 in the front wall portions 20, the head portions 27 being turned at right angles with respect to the neck portion so as to prevent withdrawal of the links, the front wall portions being moved backwardly beyond their normal positions for enabling the heads 27 to be given the desired folding movement.

For reinforcing the structure further to a limited extent, and for providing a hand hold, an elongated opening 30 is provided in one of the back wall sections 17 or 18, and a correspondingly shaped flap 31 is struck from the other back wall section in position to be folded through the opening 30 and upwardly along the face of the back wall section.

In Fig. 4 I have indicated by dotted lines a dozen bottles 32 in position in the pockets of my improved device. I have found that the carrier, while extremely light in weight, is of sufficient strength for supporting a heavy load from the back wall panels, so that the device is adapted to stand up during a long period of heavy use.

While I prefer to employ the form and arrangement of parts as shown in the drawings, the invention is not to be limited to such form and arrangement except as the claims may be so limited, it being understood that changes might well be made in the form and arrangement of parts without departing from the spirit of the invention.

I claim:

1. In a carrier device for bottles and the like, the combination of a back wall panel formed of sheet material, a bottom wall panel formed integrally with said back wall panel and folded at substantially right angles thereto, a front wall panel formed integrally with said bottom wall panel and folded upwardly opposite to said back wall panel in spaced relationship thereto, end wall panels formed integrally with said back wall panel and folded forwardly into position across

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the ends of said bottom wall panel, end-flaps formed integrally with said bottom wall panel and extending upwardly at the inner faces of said end wall panels, and other end flaps formed integrally with said front wall panel along their front edges and folded backwardly along the outer faces of the end wall panels, said other end flaps being split intermediately along lines parallel with the lines of fold to provide tuck-in flaps adjacent to the back wall panel adapted to be folded downwardly through horizontally positioned slits in the end wall panels about the upper edges of portions of said end wall panels and extending downwardly between said end wall panels and said second-named end flaps substantially to the bottom wall panel so as to hold the parts firmly in the form of a pocket, said tuck-in flaps serving by broad elongated bearings on the end wall panels to provide strong effective support for the bottom wall panel and the front wall panel from said back wall panel so as to prevent movement of such supported panels either downwardly or forwardly.

2. In a carrier device for bottles and the like, the combination of a back wall panel formed of sheet material, a bottom wall panel formed integrally with said back wall panel, a front wall panel formed integrally with said bottom wall panel, end wall panels formed integrally with said back wall panel and having horizontally positioned slits therein, end flaps formed integrally with said bottom wall panel and extending upwardly at the inner faces of said end wall panels, and means for holding the parts firmly in the form of a pocket, comprising other end flaps having integral connection with the front wall panel and doubled inwardly and downwardly through the slits in said end wall panels about the portions of the end wall panels below said slits and into engagement with the outer faces of said first named end flaps.

ALBERT P. D. BELANGER.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
884,149	Hahn	Apr. 7, 1908
1,039,619	Webb	Sept. 24, 1912
1,077,322	Ward	Nov. 4, 1913
1,171,228	Misroch et al.	Feb. 8, 1916
1,748,256	Tinsley	Feb. 25, 1930
1,983,010	Spees	Dec. 4, 1934
2,111,621	Gerking et al.	Mar. 22, 1938
2,333,244	Gordon	Nov. 2, 1943