July 15, 1969 B. F. WEINER 3,455,439

CONTAINER WITH REMOVABLE EASEL

Filed June 27, 1968 2 Sheets-Sheet 1

FIG. 2

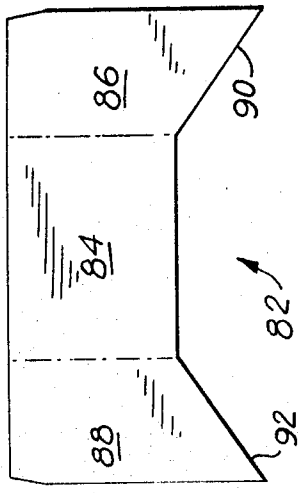


FIG. 4

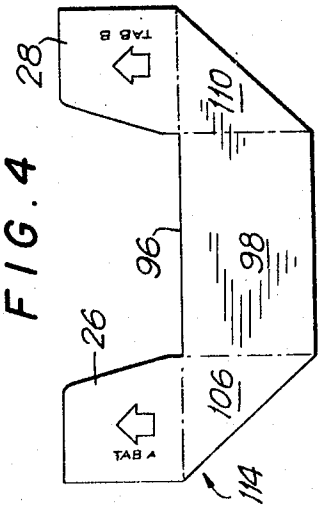


FIG. 1

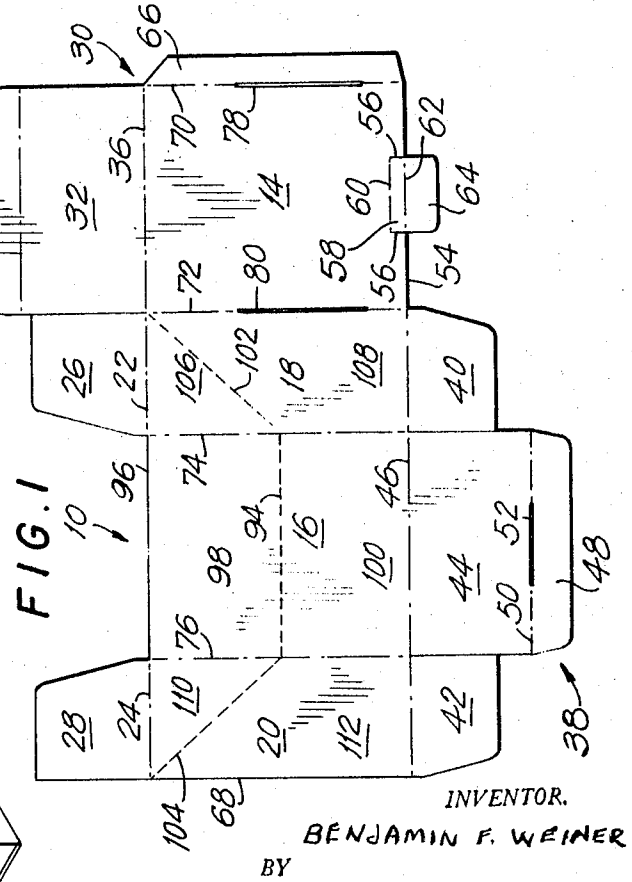
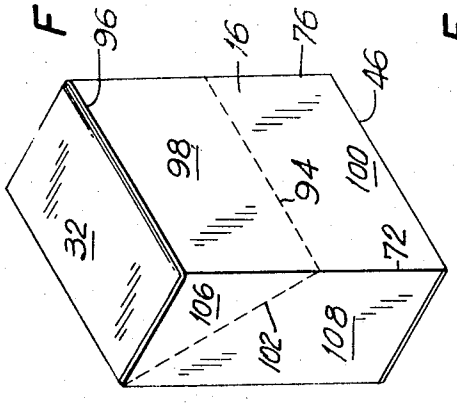


FIG. 8



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CONTAINER WITH REMOVABLE EASEL

Filed June 27, 1968 2 Sheets-Sheet 2

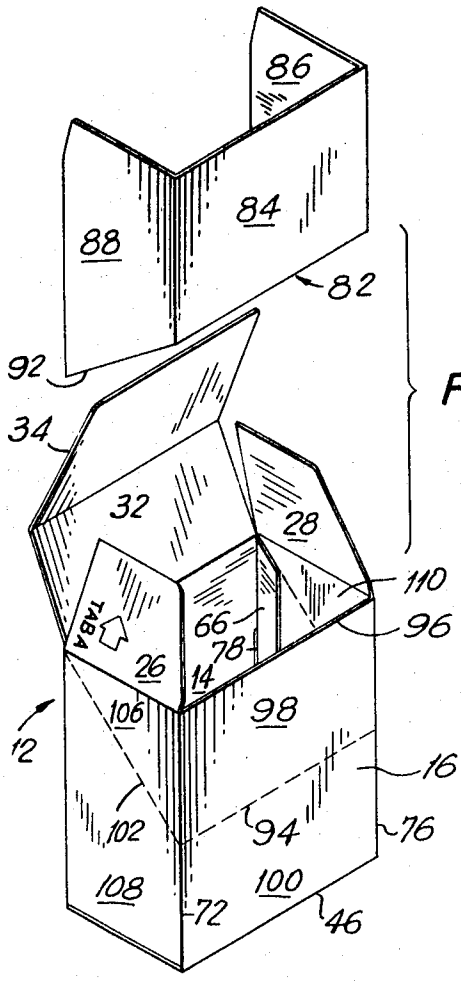


FIG. 3

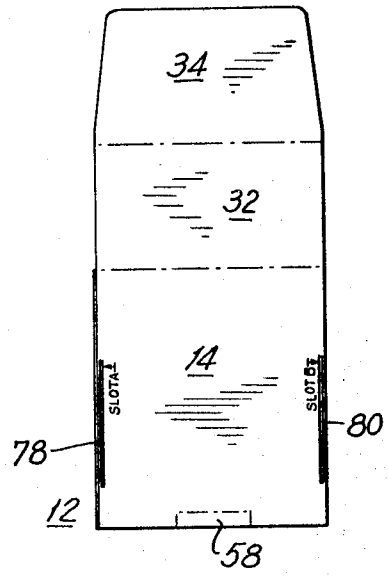


FIG. 5

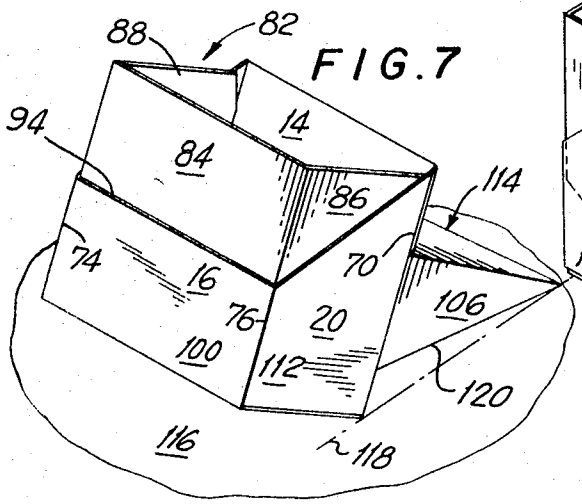


FIG. 7

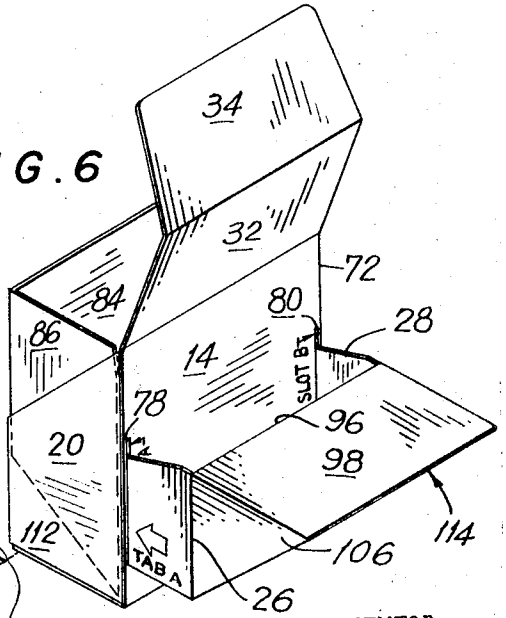


FIG. 6

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CONTAINER WITH REMOVABLE EASEL

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Int. Cl. B65d 5/52, 25/24
U.S. Cl. 206—45.26 14 Claims

ABSTRACT OF THE DISCLOSURE

A container and easel assembly including an easel for supporting the container in a given inclined position. The container consists of sheet material having lines of perforations which form from walls of the container an easel which is removable from the container. Thus, the container may be used to ship articles to any desired location, and at this location the part of the container which will form the easel can be removed along the lines of perforations. The separated part of the container, which forms the easel unit, includes a pair of container tabs which formed part of the closure of the container during the shipping thereof. These tabs are received through slots in the sheet material of the container to attach the easel unit to the container in a position for supporting the container at an inclined attitude.

Background of the invention

The present invention relates to containers.

In particular, the present invention relates to that type of container which can be supported on an easel in an inclined position for rendering the contents of the container easily visible and removable therefrom.

As is well known, when articles in a container are shipped therein, the container is required to be closed. However, when the container arrives at its destination, it is often highly desirable to arrange the container in such a way that the articles can be conveniently removed therefrom which being displayed in such a way that they are easily visible. For this latter purpose it is known to provide easels which support the containers at suitably inclined attitudes.

However, considerable inconvenience and undesirable additional costs are involved in providing easels with which the containers are supported. It has, therefore, already been proposed to provide containers with special constructions which will enable easels to be derived from the material of the containers themselves when these containers reach their destinations.

However, all of the known structures provided for this purpose suffer from several drawbacks. The easels which are made from the material of the container itself do not always provide a suitable stable support. When they are removed from the container material, the remaining container structure often is too weak to provide a suitable support for the articles therein. Also, considerable inconvenience is very often involved in removing the part of the container which will form the easel, and in addition considerable inconvenience is involved in setting up such an easel in a position to support the remainder of the container. Also easel devices of this general type often have such complex structures as to be prohibitively expensive.

Summary of the invention

It is accordingly a primary object of the present invention to provide a container of the above general type which will avoid the above drawbacks.

In particular, it is an object of the invention to provide

an inexpensive container structure which incorporates into the sheet material of the container an easel unit which can conveniently be removed when the container reaches its destination.

Furthermore, it is an object of the invention to provide a simple inexpensive easel structure, made from the material of the container itself, and coacting with the container to provide an exceedingly stable support.

Another object of the invention is to provide a structure which improves the container upon removal of the easel therefrom.

Also, it is an object of the invention to provide a container structure of the above general type which will make it extremely convenient for the easel unit, after removal thereof from the container, to be attached in precisely the right way to the container so as to provide a stable support therefor.

In addition, it is an object of the present invention to provide a container structure where substantially the entire easel unit is formed by parts of the container which in any event are required by the container, so that there is no special material, in addition to that of the container itself, which is required to form the easel unit.

It is also an object of the present invention to provide for a container of the above type a liner which can be optionally used depending upon the nature of the articles within the container to improve the condition of the articles in the container after removal of the easel from the material of the container and during shipment of the articles in the container, this liner also contributing in certain cases to the security with which the easel unit is connected to the container.

A more specific object of the invention is to provide a container of the above type which in its entirety may be formed from a single body of sheet material, a portion of which forms the easel structure which is removed from the container when it reaches its final destination.

In accordance with the invention the container consists of sheet material having sections which respectively form top and bottom closures, a pair of opposed front and rear walls, and a pair of opposed side walls extending between the front and rear walls and between the top and bottom closures. The front wall has top and bottom edges and is formed between and parallel to the latter with a transversely extending line of perforations dividing the front wall into upper and lower portions. The side walls are also formed with lines of perforations extending thereacross, respectively. The lines of perforations of the side walls respectively extend from the ends of the line of perforations of the front wall across the side walls upwardly to corners where top edges of the side walls respectively intersect the top edge of the rear wall. The top edges of the side walls respectively have, swingably connected thereto, a pair of tabs around which the top closure extends when this top closure is in a closed position. When the top closure is displaced to its open position the tabs are exposed, and then the upper portions of the side and front walls can be removed along the lines of perforations from the lower portions thereof to form from these upper portions an easel unit which includes the tabs.

The sheet material is formed at the region of the intersections between the side and rear wall with a pair of elongated slots extending substantially parallel to these intersections, and the tabs are respectively adapted to pass through these slots situating the upper portion of the front wall at a position where it extends perpendicularly from the rear wall with the top edge of the front wall engaging the rear wall and with the opposed edge of the upper part of the front wall, formerly located along the line of perforations, forming an edge on which the con-

tainer may rest while also resting on the bottom edge of its rear wall. Thus, by supporting the container on a suitable surface engaged by the bottom edge of the rear wall of the container and the edge of the upper front wall portion which is distant from the rear wall when the easel unit is attached to the container, it is possible to support the container in a position inclined at a suitable attitude. Because it is the upper portions of the front and side walls which are removed with the upper tabs to form the easel unit, the contents of the containers are exposed only at their upper portions so that the convenience which the articles in the container are exposed and can be removed from the container is enhanced by the removal of the easel unit.

Brief description of drawings

FIG. 1 illustrates the configuration of a blank of suitable sheet material from which the container of the invention is made;

FIG. 2 shows the configuration of a liner which may optionally be used in the container;

FIG. 3 is a perspective illustration of the container formed from the blank of FIG. 1, with the liner illustrated in the position it takes when oriented properly with respect to the container to enter into the latter;

FIG. 4 shows the easel unit of the invention after it has been removed from the container and laid flat, FIG. 4 showing that surface of the removed easel which is opposite to the surface visible in FIG. 1;

FIG. 5 shows an elevation the appearance of the rear wall of the container from the exterior thereof;

FIG. 6 is a perspective illustration of the manner in which the easel unit is inserted into the container to be joined thereto;

FIG. 7 shows how the container of invention is supported in an inclined position with the easel of the invention; and

FIG. 8 is a perspective view of the closed container.

Description of a preferred embodiment

Referring now to the drawings, there is shown in FIG. 1 a blank **10** of a suitable flexible sheet material, such as cardboard, from which the container **12** (FIG. 3) of the invention is made. This blank **10** is shown in FIG. 1 as it appears when looking at the surface of the blank which will form the inner surface of the container, so that it is the inside surface of the blank which is visible in FIG. 1, whereas the exterior surface is not visible in FIG. 1. This sheet material which forms the blank **10** and which preferably is cahdboard, as pointed out above, has a plurality of sections which respectively form the various parts of the container **12**. These sections include the rear wall section **14**, the front wall section **16** which is opposed to the rear wall section **14** in the finished container, and a pair of opposed side walls **18** and **20**.

The side wall sections **18** and **20** terminate in upper edges **22** and **24** to which tabs **26** and **28** are swingably connected. These tabs **26** and **28** are integral with the side wall sections **18** and **20** and are swingably connected to their top edges **22** and **24** simply by fold lines formed in the sheet material, so that the tabs **26** and **28** can fold inwardly toward each other and outwardly away from each other.

The blank also has a top closure **30** provided with a portion **32** which forms the top wall of the container when it is closed and with a flap **34** which becomes situated next to the inner surface of the front wall **16** when the closure **30** is in its closing position (FIG. 8). The top wall **32** is hingedly connected to the rear wall **14** by a fold line situated at the top edge **36** of the rear wall **14**, and when the container is closed the top wall **32** will extend across and over the tabs **26** and **28** with the flap **34** extending downwardly across the front edges of the tabs and into engagement with the inner surface of the front wall **16**.

The blank **10** also provides the container with a bottom closure **38** which coacts with tabs **40** and **42** respectively hingedly connected to the bottom edges of the side walls **18** and **20** by suitable fold lines in precisely the same way as the tabs **26** and **28**. The bottom closure **38** includes a portion **44** which will form the bottom wall of the container when it is closed, this portion **44** being swingably connected to the front wall **16** at its bottom edge **46** through a suitable fold line. Closure **38** has a rear flap **48** connected to the portion **44** by a fold line **50** which at its central region is formed with an elongated slot **52**. The rear wall **14** is formed at its bottom edge **54** with a pair of slits **56** which form for the rear wall a swingable depending portion **58** connected to the remainder of the rear wall **14** by a fold line **60** and also connected by a fold line **62**, which coincides with the edge **46**, to a flap **64**.

At its right side edge, as viewed in FIG. 1, the rear wall **14** is foldably connected to an integral fastening tab **66** to be adhesively connected to wall **20** at its inner surface and along its edge **68** with the exterior surface of the tab **66**, which is not visible in FIG. 1, being connected by a suitable coating of adhesive to the inner surface of the wall **20** along the edge **68** thereof.

The wall **14** has opposed vertically extending fold lines **70** and **72** by means of which it is pivotally extending fold with the tab **66** and the side wall **18**, respectively. The side wall **18** and the front wall **16** are interconnected by a line of intersection formed by the fold line **74**, and the front wall **16** and side wall **20** are interconnected by a fold line **76** which forms the line of intersection therebetween.

Thus, in order to form, from this blank of FIG. 1, the container **12** which is shown in FIG. 3 it is only necessary to bring the wall **16** around in front of and in alignment with the rear wall **14** with the edge **68** of the wall **20** extending along the fold line **70** and with the tab **66** engaging the inner surface of the wall **20** and adhesively connected thereto. Then the flaps **40** and **42** can be folded inwardly and the bottom wall **44** which forms part of the closure **38** can be folded horizontally with the flap **48** extending upwardly along the inner surface of rear wall **14** while the flap **64** is placed through the slot **52**, so that the parts will be maintained in this assembled condition. The container **12** is shown set up in this way in FIG. 3. FIG. 8 shows the closed condition of the container.

At the fold lines **70** and **72** which form the intersections between the rear wall **14** and the side walls **20** and **18** the sheet material **10** is formed with a pair of elongated slots **78** and **80** which are thus situated in the region of the intersections between the rear wall and the side walls and extend along the fold lines **70** and **72**.

As is apparent from FIGS. 2 and 3, it is also possible to provide for the container, as an optional addition thereto, the liner **82** formed of the same sheet material as the blank **10** and having a front wall portion **84** and a pair of opposed side wall portions **86** and **88** having, respectively, lower inclined edges **90** and **92**. This liner can be introduced into the container of FIG. 3 with the front wall **84** of the liner engaging the inner surface of the front wall **16** and with the side walls **86** and **88** of the liner engaging the inner surfaces of the side walls **20** and **18** respectively. Such a liner may be used depending upon the nature of the articles which are located in the container. If these articles are loose elongated articles, such as pencils, elongated pipette tubes, or the like, then the liner may be used to contribute to the reliable maintenance of these elongated articles in the container.

As is apparent from FIG. 1, the front wall **16** is formed with a line of perforations **94** parallel to the top edge **96** of the front wall **16** and the bottom edge **46** thereof and

extending therebetween, so as to divide the front wall **16** into an upper portion **98** and a lower portion **100**. Also, the side walls **18** and **20** are formed with lines of perforations **102** and **104**, respectively. These lines of perforations **102** and **104** respectively extend from the opposed ends of the line of perforation **94** across the side walls **18** and **20** up to the upper rear corners where they intersect the top edge **36** of the rear wall **14**.

When the container **12** closed as shown in FIG. 8, reaches its destination and is to be set up for display purposes and convenient removal of articles therefrom, the container is opened at its top end, and upper portion **98** of the front wall **16** will be removed therefrom along the line of perforations **94**. The line of perforations **102** divides the side walls **18** into an upper portion **106** and a lower portion **108**. When the upper portion **98** of front wall **16** is removed, the removal operations are continued along the line of perforations **102** so that the upper portion **106** of the wall **18** is also removed. In the same way the line of perforations **104** divides the side wall **20** into an upper portion **110** and a lower portion **112**, and the removal is continued along the line of perforations **104** so that, with the upper portions **98** and **106**, the upper portion **110** of the wall **20** will also be removed.

It will be noted that with this removal the tabs **26** and **28** are also removed to form with the portions **110**, **98**, and **106** the easel unit **114** which is shown in FIG. 4 as it appears at the side thereof which is not visible in FIG. 1. As is apparent from FIG. 4 the tabs **26** and **28** respectively have identifying indicia in the form of arrows and designations TAB A and TAB B.

Furthermore, it is apparent from FIG. 5 which shows the rear wall **14** as it appears at the exterior of the container, the slot **78** is designated as SLOT A, while the slot **80** is designated SLOT B. In this way the identifying indicia on the exterior surface of the rear wall **14** of the container **12** coacts with the identifying indicia on the tabs **26** and **28** to identify particular tabs with particular slots, respectively. Thus, the tab **26** will necessarily be identified with the slot **78** while the tab **28** will necessarily be identified with the slot **80**.

With the easel unit **114** thus removed from the container, the wall **98** is situated so that it extends perpendicularly to the wall **14** (FIG. 6) and the upper portions **106** and **110** of the side walls are bent downwardly to extend at right angles downwardly from the wall **98**. The tabs **26** and **28** will thus be aligned with the slots **78** and **80** and introduced into the latter in the manner shown in FIG. 6. This introduction is continued until the top edge **96** of the front wall **16**, now forming an inner edge of the upper portion **98** of the front wall, engages the exterior surface of the wall **14**. In the case where the liner **82** is situated in the container the tabs **28** and **26** can extend between the side walls **18** and **20** and the liner side walls **86** and **88**. However, this liner **82** may be removed at any time, to facilitate access to the articles. It is to be noted that this access is enhanced by removal of the easel unit **114** since in this way the upper portions of the front and side walls are removed to provide for a free and easy access to the interior of the container and the articles therein.

With the easel unit **114** thus joined to the container, it may be set up, as indicated in FIG. 7, on any suitable supporting surface **116**. It is to be noted that a line **118**, shown in dot-dash lines in FIG. 7, situated in the plane of the surface **116** and extending perpendicularly across the bottom edge **54** of the rear wall and the edge of wall **98** which engages the surface **116** defines with the edge **70** at the intersection between the side wall **20** and the rear wall **14** a space within which the free edge **120** is located, so that this free edge **120** is situated above the surface **116**. In the same way the free edge of the upper portion **110** of the wall **20** is situated above the surface **116** when the container is set up in the manner shown in FIG. 7. It is preferred to extend the lines of perforations **102** and **104** at an angle where they will make 45° angles with the lines of intersection **74** and **76** between the side walls and front wall and also 45° angles with the top edges **22** and **24** of the side walls **18** and **20**.

It will be noted that tab **26** is initially at the side **18** opposite from slot **78** and tab **28** is initially at the side **20** opposite from slot **80**.

Also, top wall **32** and flap **34** are folded against the exterior surface of wall **14** to be situated between the latter and edge **96**.

What is claimed is:

1. A container consisting of sheet material having sections which form a top closure, a pair of opposed front and rear walls and a pair of opposed side walls extending between said front and rear walls, said front wall having a top edge which coacts with said top closure and said side walls respectively having at the elevation of said top edge of said front wall freely swingable tabs around which said top closure extends when in a closed position, said tabs being exposed when said top closure is displaced to an open position giving access to the interior of the container, said front wall being formed with a transverse line of perforations extending across said front wall to divide the latter into upper and lower portions separable from each other along said line of perforations, said side walls respectively being formed with lines of perforations extending from opposed ends of said line of perforations formed in said front wall angularly across said side walls to said rear wall, so that lines of perforations of said side walls also divide each of the latter into upper and lower portions separable from each other, whereby upon separation of said upper portions of said side and front walls from the said lower portions thereof along said lines of perforations, the separated upper portions of said front and side walls will form a unitary easel which includes said tabs, said opposed side walls forming with said rear wall a pair of intersections, and said container being formed with a pair of slots respectively extending substantially in the direction of said intersections and having a length sufficiently great to receive said tabs, so that upon insertion of said tabs respectively through said slots said separated upper portion of said front wall can be located at a position extending rearwardly from said rear wall to support said rear wall in an inclined position resting on its bottom edge and on said separated upper portion of said front wall with at least a portion of the edge of said front and said wall upper portion which formerly extended along the line of perforations of said front and side walls engaging a supporting surface in common with the bottom edge of said rear wall.

2. The combination of claim **1** and wherein a single body of flexible sheet material forms all of said sections.

3. The combination of claim **2** and wherein said sheet material is cardboard.

4. The combination of claim **1** and wherein said slots are situated between top and bottom edges of said rear wall.

5. The combination of claim **4** and wherein said slots are situated substantially at and extend along said intersections between said side and rear walls.

6. The combination of claim **1** and wherein a liner having a pair of opposed end walls and a front wall portion extending therebetween is situated with said end walls thereof located between an engaging said opposed side walls and with said front wall of said liner located inwardly of and engaging said front wall of said sheet material, said liner having an upper portion which is exposed upon removal of said upper portions of said front and side walls to form said easel.

7. The combination of claim **6** and wherein said slots are situated substantially at intersections between said side and rear walls and between top and bottom edges of said rear walls, and said tabs, after passing through said slots, being situated outwardly of and in engagement with said end walls of said liner and inwardly of and in

engagement with said side walls of said sheet material.

8. The combination of claim 6 and wherein said liner only frictionally engages said sheet material to be removable therefrom at any time.

9. The combination of claim 1 wherein said lines of perforations respectively extend across said side walls from the opposed ends of said line of perforations formed in said front wall and respectively terminating at the upper rear corners of said side walls where the latter intersect said rear wall.

10. The combination of claim 1 and wherein said lines of perforations which respectively extend across said walls respectively form substantially 45° angles with the intersections between said front and side walls and with the top edges of said side walls.

11. The combination of claim 1 and wherein free edges of said upper portions of said side walls, which respectively formerly extended along the lines of perforations of said side walls, are located, when said easel unit is connected to said sheet material with said tabs respectively passing through said slots thereof, between said rear wall and a plane which contains the bottom edge of said rear wall and the edge of said upper portion of said front wall distant from said rear wall.

12. The combination of claim 1 and wherein said sheet material has at its exterior surface in the region of said slots predetermined indicia and said tabs respectively having at their exterior surfaces predetermined indica which coact with the indicia in the region of said slots for identifying said tabs with said slots, respectively, so that said tabs can be placed through the slots which are respectively identified therewith.

13. The combination of claim 12 and wherein before removal of said upper portions of said front and side walls the tabs extending from said side walls are respectively identified by said indicia thereto with the slots which are respectively located in the region of the opposite side walls, so that when the easel is attached to said sheet material a tab initially located at one side wall will be passed through a slot situated in the region of the other side wall.

14. A container consisting of sheet material having sections which form a top closure, a pair of opposed front and rear walls and a pair of opposed side walls extending between said front and rear walls, said front wall having a top edge which coacts with said top closure and said side walls respectively having at the elevation of said top edge of said front wall freely swingable tabs around which said top closure extends when in a closed position, said tabs being exposed when said top closure is displaced to an open position giving access to the interior of the container, said front wall being formed with a transverse line of perforations extending across said front wall to divide the latter into upper and lower portions separable from each other along said line of perforations, said side walls respectively being formed with lines of perforations extending from opposed ends of said line of perforations formed in said front wall angularly across said side walls, so that lines of perforations of said side walls also divide each of the latter into upper and lower portions separable from each other, whereby upon separation of said upper portions of said said side and front walls from said lower portions thereof along said lines of perforations, the separated upper portions of said front and side walls will form a unitary easel which includes said tabs, a pair of spaced slots in said rear wall, each having a length sufficiently great to receive said tabs, so that upon insertion of said tabs respectively through said slots said separated upper portion of said front wall can be located at a position extending rearwardly from said rear wall to support said rear wall in an inclined position resting on its bottom edge and on said separated upper portion of said front wall.

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