United States Patent [19]

Struble

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[54] **MULTI-USE GARMENT BOX**

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[73] Assignee: **Diamond International Corporation,** New York, N.Y.

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[52] **U.S. Cl.** ..... **229/16 R,** 206/7 R, 229/40, 229/52 AM, 229/DIG. 5, 229/DIG. 8

[51] **Int. Cl.** **B65d 85/18,** B65d 5/46

[58] **Field of Search** ..... 229/16 R, 33, 35, 229/36, 52 A, 52 AM, 40, 87 A, 87 S, DIG. 5, DIG. 8; 206/7 R, 7 A, 7 B

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[57] **ABSTRACT**

A one-piece multi-use garment box which lends itself to being carried in a completely closed condition or to being hung on a rack in a semi-closed condition, said garment box being formed from a blank having a plurality of foldable panels and flaps which cross the grain of said blank. The assembled garment box comprises a back panel, a pair of side panels, a bottom panel, and foldable flaps extending from each of said panels adapted to form a four-piece front wall section with locking members.

11 Claims, 8 Drawing Figures

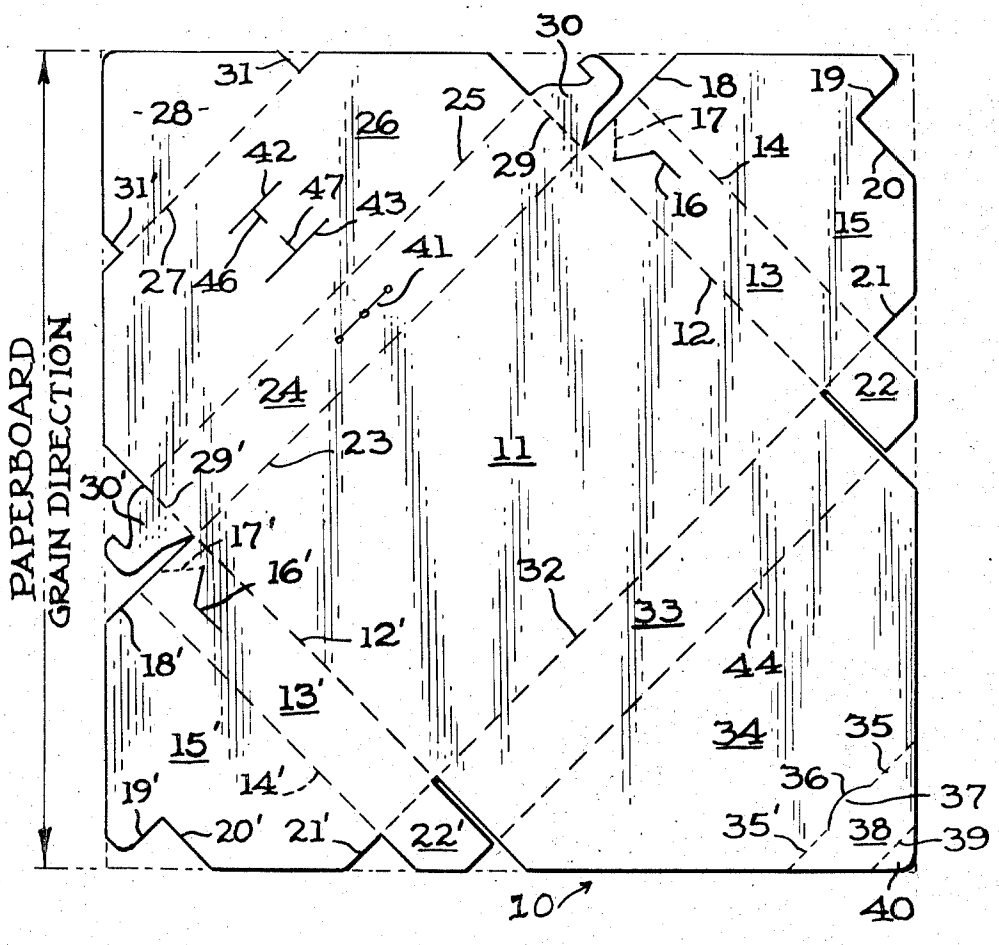


FIG. 1.

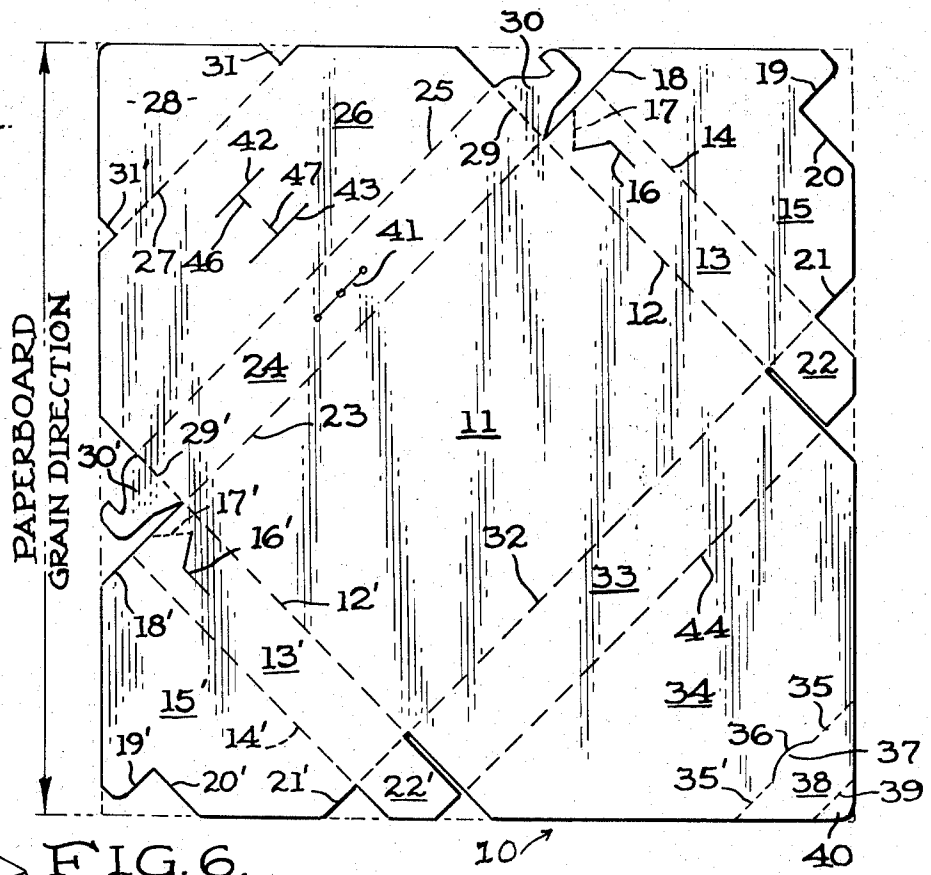


FIG. 6.

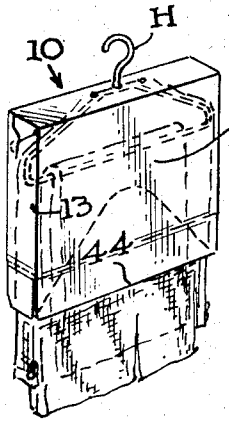


FIG. 2.

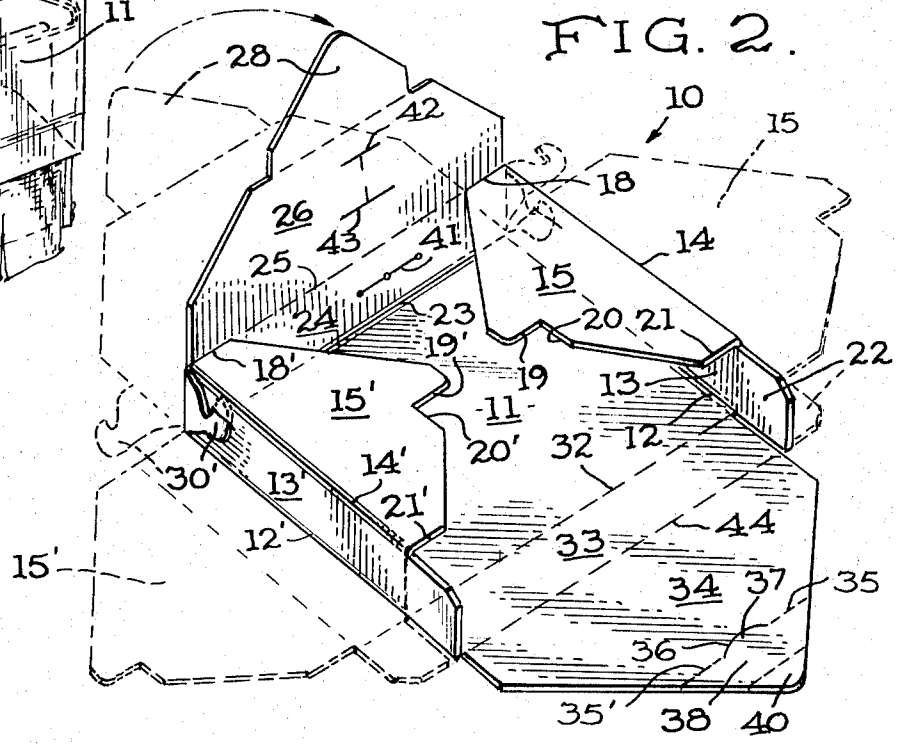


FIG. 3.

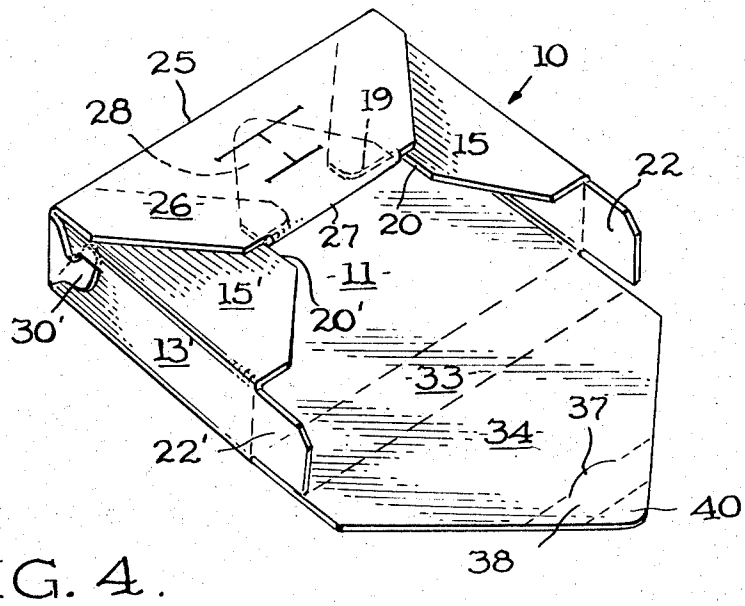


FIG. 4.

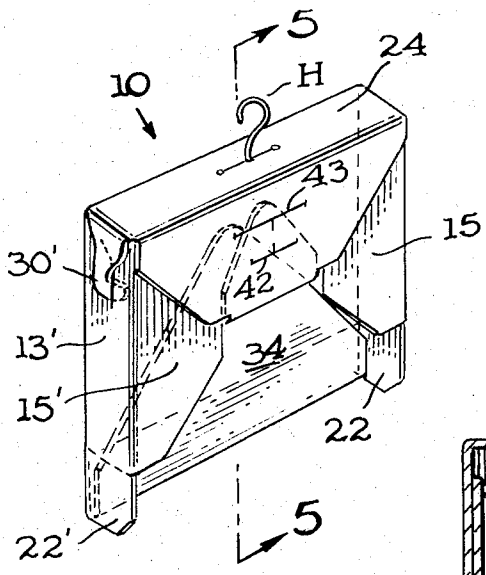


FIG. 5.

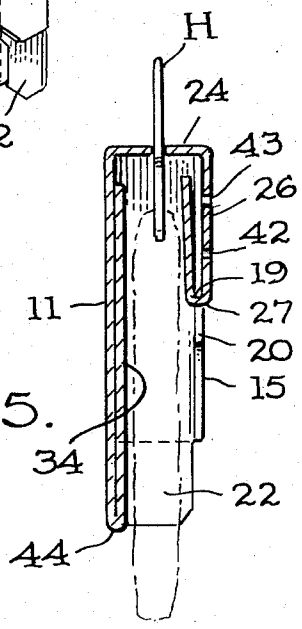


FIG. 7.

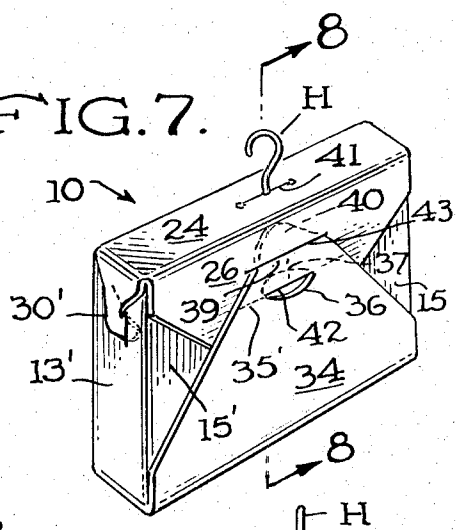
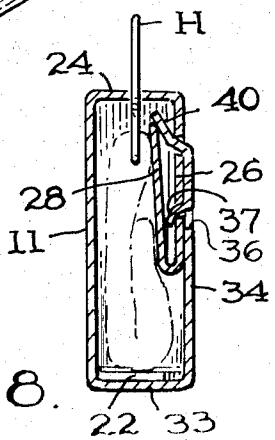


FIG. 8.



MULTI-USE GARMENT BOX

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates to foldable boxes, and particularly to a foldable box formed from a one-piece blank for carrying garments therein.

2. Description of the Prior Art

In the past, the most popular way of forming garment boxes has been by way of two-piece lock corner members. The manufacture of such two-piece boxes heretofore in popular use results in a considerable amount of wasted material. Also, such boxes lack versatility and when properly used generally must be in the completely closed condition.

SUMMARY OF THE INVENTION

The present invention relates to a new and improved garment box formed from a one-piece foldable blank comprising a plurality of panels and flaps which cross the grain of the fiberboard material of the blank. In this respect, the blank effects considerable savings as only the minimum material is cut away in forming the various panels, flaps and other portions of the blank.

The present invention further provides a versatile one-piece garment box which the purchaser may use to carry his garment home in a completely enclosed condition or which the merchant may use as a protective shipper in semi-closed condition to deliver garments while hung on a rack in a truck.

BRIEF DESCRIPTION OF THE DRAWING

In the accompanying drawing, in which there is illustrated one complete embodiment of a preferred form of the invention:

FIG. 1 is a plan view of a blank with which the garment box according to this invention may be assembled;

FIG. 2 shows in perspective the blank of FIG. 1 in its initial stages of assembly for forming the garment box according to this invention;

FIG. 3 shows in perspective the partially assembled garment box according to this invention;

FIG. 4 shows in perspective the garment box according to this invention in semi-closed condition and upright position;

FIG. 5 shows a section view in elevation of the garment box along line 5—5 of FIG. 4;

FIG. 6 is a view in perspective looking at the back of the garment box in semi-closed condition and upright position;

FIG. 7 is a view in perspective looking at the front of the garment box in completely closed condition and upright position; and

FIG. 8 is a sectional view in elevation of the garment box along line 8—8 in FIG. 7.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now more particularly to the drawings, the novel garment box according to the present invention is formed from a blank 10 that is shown in FIG. 1. The blank 10 as illustrated in FIG. 1 is a one-piece blank which essentially comprises a plurality of panels 11, 13, 13', 24, and 33, flaps 15, 15', 26, and 34, tabs 22 and 22', and lock members 30 and 30'. Panel 11 is defined by fold lines 12, 12', 23 and 32, and forms a back wall

of the assembled garment box. Integral with panel 11 and hinged thereto along fold lines 12 and 12' are the panels 13 and 13', respectively, which form side walls of the assembled garment box. Integral with panels 13 and 13' are side flaps 15 and 15' which are hinged thereto along fold lines 14 and 14', respectively. Also integral with panels 13 and 13' are a pair of tabs 22 and 22' hinged thereto along extensions of fold line 32. Angled-through slits 16 and 16' and weakened score lines 17 and 17' are formed in each of the side panels 13 and 13', respectively. The side flaps 15 and 15' are each formed with an upper edge 18 and 18' on a line extended from fold line 23; a lower edge 21 and 21' on a line extended from fold line 32; and right-angled cut-away shoulder edges 19 and 20 and 19' and 20', respectively.

Integral with panel 11 and hinged therewith along fold line 23 is top panel 24. Extending from opposite sides of top panel 24 and integrally hinged thereto along fold lines 29 and 29' are lock members 30 and 30', respectively. Also integral with top panel 24 and hinged thereto along fold line 25 is upper flap 26 which includes a foldable lock tab 28 hinged thereto along fold line 27. The foldable lock tab 28 is further defined by cut-away shoulder portions 31 and 31' on opposite sides thereof. Also, integral with panel 11 and hinged thereto along fold line 32 is panel 33 which forms the bottom wall of the assembled garment box. Integral with panel 33 and hinged thereto along fold line 44 is lower flap 34. Lower flap 34 includes a first insert lock lug 37 defined by an arcuate slit 36 and is hinged about fold lines 35 and 35'. A second insert lock lug 40 is provided on the free end of lower flap 34 and is connected to the first lock lug 37 by a bridge portion 38. The second insert lock lug 40 is hinged to bridge portion 38 along fold line 39 and faces in the opposite direction from the first lock lug 37.

The panel 24 is provided with a slit 41 through which the hook of a hanger H may be inserted. Upper flap 26 is provided with a generally H-shaped slit including lock lug receiving slit portions 42 and 43 and auxiliary slits 46 and 47 respectively. The slits 46 and 47 may be a single continuous slit.

To erect and assemble the garment box 10, side panels 13 and 13' and top panels 24 are folded at right angles to panel 11 along fold lines 12, 12' and 23, respectively. Lock members 30 and 30', which are hook-shaped, are then folded at right angles along lines 29 and 29', respectively, and inserted through the respective angled slits 16 and 16' by applying inward pressure on members 30 and 30' in the vicinity of weakened score lines 17 and 17' which deflect inwardly of the box and facilitate entry of the lock members 30 and 30' into the slits 16 and 16', respectively, all as shown in FIG. 2.

Referring to FIGS. 3–6, it is seen that the box 10 is assembled in semi-closed condition. This semi-closed condition of box 10 is effected by folding side flaps 15 and 15' at right angles to side panels 13 and 13' along fold lines 14 and 14', respectively, and then folding upper flap 26 at a right angle to top panel 24 along fold line 25 over side flaps 15 and 15' and finally swinging folded lock tab 28 along fold line 27 and passing it through and around the opening defined by right angled cut-away shoulder edges 19, 20, and 19', 20'. With the garment box 10 thus partially assembled the edges 18 and 18' are seen to substantially abut against fold

line **25.** This together with close tolerance in the spacing between cut-away edges **31** and **31'** and the opening formed by the cut-away right-angled edges **19, 20** and **19', 20'** provide a relatively rigid and stable box. Lower flap **34** is folded 180° along fold line **44** and inserted into the box **10** against panel **11** to provide a semi-closed protective shipper container for delivery of garments, as shown in FIGS. **4** and **6** with the hook portion of the hanger H passing through the top panel of the box and ready to be hung on a rack.

Alternatively, the garment box **10** may be used with the garment completely enclosed therein as shown in FIGS. **7** and **8.** When used in this manner, the garment is inserted into the box with the tabs **22** and **22'** turned in toward the center of the box, the bottom panel **33** folded at a right angle to panel **11** along fold line **32,** from the position shown in FIG. **3.** Lower flap **34** is then folded at right angle to panel **33** along fold line **44** over upper flap **26.** Lock lug **37** is applied to and inserted through slit **42** by turning bridge portion **38** back and away from upper flap **26** at substantially a right angle thereto. After the first lock lug **37** is applied to slit **42,** the second insert lock lug **40** may be applied by directing its tip into the slit **43** and applying inward pressure against the bridge portion **38** toward upper flap **26.** The inherent friction provided by the slits **42** and **43** against the respective lock lugs **37** and **40** inserted therein is substantial and provides a very secure locking arrangmenet. Lower flap **34** and upper flap **26** together with side flaps **15** and **15'** thus form a four-piece front wall section of the complete closed box **10.**

Although I have described my invention with a certain degree of particularity, it is understood that the present disclosure has been made only by way of example and that numerous changes and details of construction and the combination and arrangement of parts may be resorted to without departing from the spirit and scope of the invention as hereinafter claimed.

What is claimed is:

1. A one-piece, multi-use garment box formed from a blank comprising a back panel having a pair of side fold lines, an upper and a lower fold line to which are hingedly connected a pair of side panels, a top panel and a bottom panel, respectively, said side panels each having a slit in which is lockingly received a hook member extending from each end of said top panel, said side panels each having a side flap integral therewith and extending toward each other from said side panels and parallel to said back panel, each of said side flaps being provided with a shoulder formed by cut-out portions, said top panel having an upper flap integral therewith, extending down over portions of each of said side flaps and including an extension passing between and through said cut-out portions, said extension being folded around said shoulders and against the inside of said side flaps, said back panel having a bottom panel integral therewith and extending from its lower fold line, said bottom panel having a lower flap integral therewith and extending from a fold line spaced from but parallel to the fold line from which said bottom panel extends, said lower flap being foldable to form a complete enclosure, with said complete enclosure being effected when said bottom panel is folded at a right angle to said back panel and said bottom flap extends from said bottom panel against said side flaps and said upper flap, and said garment box being assembled to a locked condition with said locked condition being effected by lock means provided on said upper and said lower flaps.

2. The garment box according to claim **1,** wherein said lock means includes a first lock slit extending generally from side to side on said upper flap and a second lock slit extending substantially parallel to and above said first lock slit when said upper flap is pointing in a downward direction.

3. The garment box according to claim **1,** wherein said lock means further includes a lug defined by a slit extending around said lug in said lower flap between the sides thereof and an end portion of said lower flap with said lug being cooperable with said first lock slit and said end portion being cooperable with said second lock slit to effect said locked condition.

4. The garment box according to claim **3,** wherein said lug extends in a downward direction and said end portion of said lower flap extends in an upward direction when said lower flap is extending in an upward direction.

5. The garment box according to claim **4,** wherein score lines extend from opposite ends of the slit defining said lug to facilitate flexing and insertion of said lug into said first lock slit.

6. The garment box according to claim **5,** wherein a score line extends from side to side of said lower flap, between said score lines of said lug and said end portion to facilitate flexing and insertion of said end portion into said second lock slit.

7. The garment box according to claim **6,** wherein said upper flap has at least one slit substantially bisecting said first and second lock slits, extending normally thereto and toward the other of said lock slits to facilitate spreading of said at least one lock slit.

8. A garment box according to claim **7,** wherein an additional slit substantially bisecting the other of said first and second lock slits extends normal thereto and toward said at least one lock slit to facilitate spreading of said other one of said lock slits.

9. The garment box according to claim **8,** wherein said lock slits and said bisecting slits generally outline the form of the letter "H".

10. A blank for forming a one-piece, multi-use garment box generally in the form of a square and comprising a central panel in the form of a rectangle for forming a back panel of said garment box, said back panel having integral therewith and hinged along fold lines on opposite sides thereof a pair of side panels each having a side flap integral therewith and hinged along a fold line, said back panel also having integral therewith a top panel and a bottom panel integral therewith along parallel fold lines, each of said side flaps including right-angled cut-away shoulder portions to cooperatively form a locking opening, said side panels each including a pair of angled slits, said upper panel including a hook-shaped lock member extending from opposite ends thereof which are adapted to cooperate with said slits in said side panels in the erection of said box, said top panel having a portion integral therewith for forming an upper flap, said upper flap including a foldable extension with cut-away shoulder portions to be inserted through the opening to be formed by said side flaps and folded therearound 180° against the inside of said side flaps, said bottom panel including a lower flap integral therewith along a fold line including a lock lug defined by an arcuate slit directed toward the center of said blank and an end lock portion connected to said lock lug by a hinged bridge portion, said upper flap including a pair of substantially parallel lock slits for insertion of said lock lug and end portion.

11. The blank according to claim **10,** wherein said panels and flaps are oriented across the grain of the material of said blank.

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