Dec. 8, 1942. W. F. ROSSITER 2,304,209

CAR CARD

Filed Oct. 27, 1941 2 Sheets-Sheet 1

FIG_2_

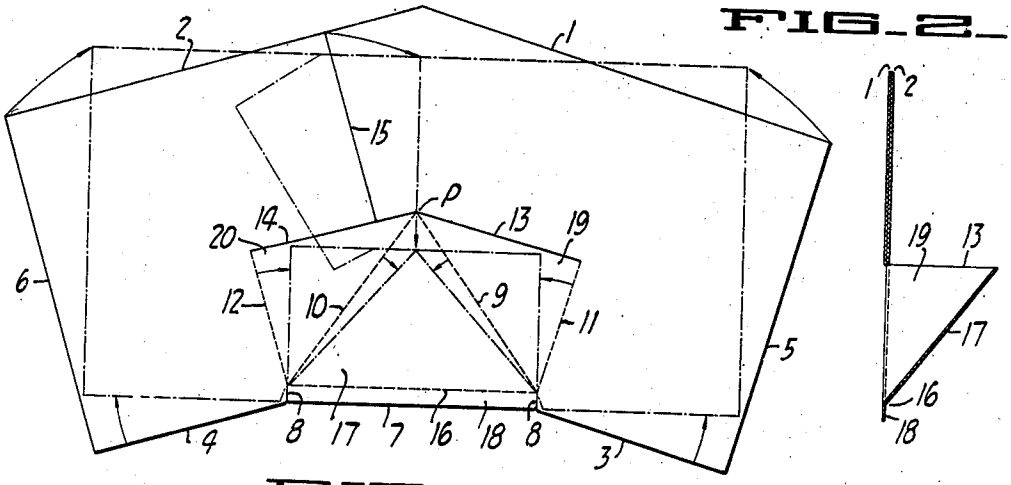



FIG_1_

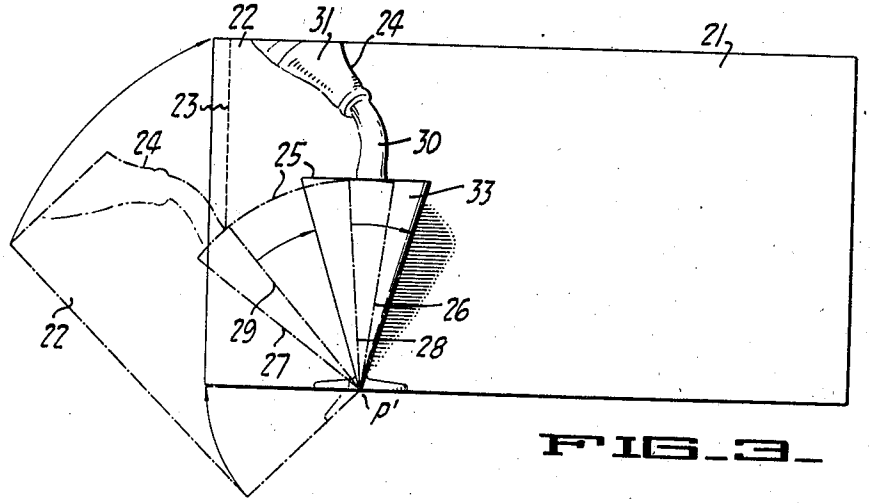



FIG_3_

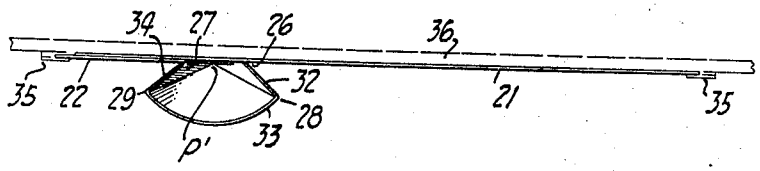



FIG_4_

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CAR CARD

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FIG_5_

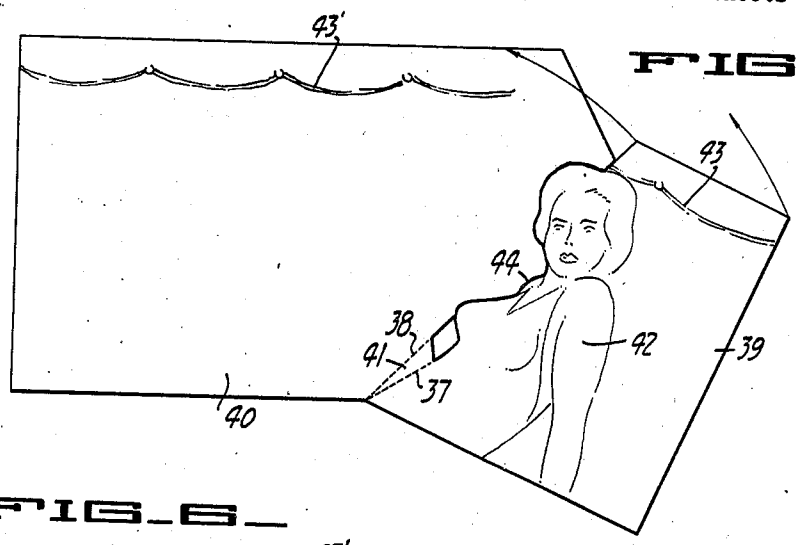
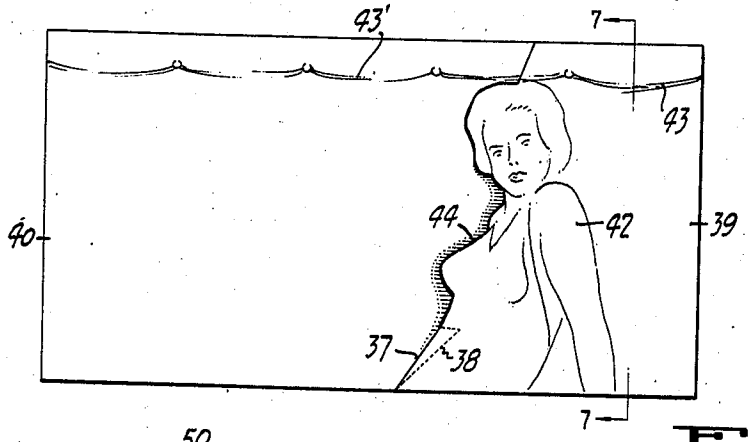



FIG_6_



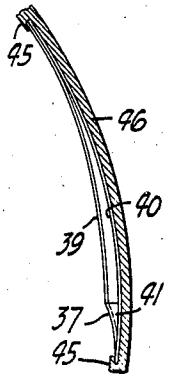




FIG_7_

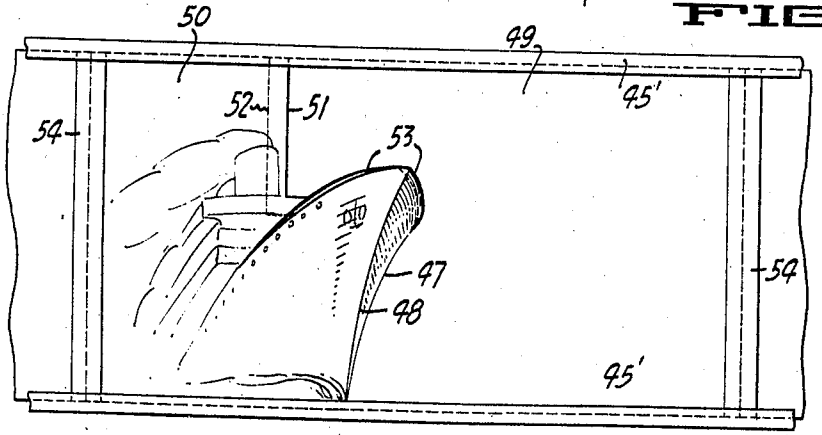



FIG_8_

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# UNITED STATES PATENT OFFICE

2,304,209

## CAR CARD

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Application October 27, 1941, Serial No. 416,634

6 Claims. (Cl. 40—12)

This invention relates to a car card of the type usually employed for advertising purposes in railway cars and the like, and which cards are held in frames with the main body of the card substantially planar or with the main body bowed rearwardly and fitting flat against a rear surface.

One of the objects of the invention is to provide a car card adapted to be bowed and held in the usual frame of the character used for bowed cards, or to be supported in a planar frame with the main body of the card planar, in either of which cases a portion of the card will project from the surface thereof, giving a three-dimensional appearance to advertising material on the card.

Another object of the invention is to provide an advertising display card of non-rectangular outline that is cut and scored from opposite edges in a manner to effect outward bulging, bowing, or out-folding of a portion of the card adjacent one or more of the score lines when the portions of the card at opposite sides of a cut from one of said edges are moved to overlapped relation, and which card when said portions are so moved, will be rectangular in outline and its four-marginal portions will fit in a frame that supports the card against unbowing or outfolding to its original contour, outline or shape, thus enabling the outwardly bulged, bowed or outfolded portion to cooperate with advertising material on the card for producing a three-dimensional effect.

Other objects and advantages will appear in the specification and drawings.

In the drawings, in full line in Fig. 1 is shown a blank of cardboard preparatory to being manipulated to cause out-folding of a portion of the card along dotted crease lines. The dot-dash lines in Fig. 1 indicate the appearance of the card when so outfolded.

Fig. 2 is a vertical sectional view taken about centrally through the card showing the overlapped portions and the outfolded portion.

Fig. 3 is a plan view of a card of slightly different construction from that of Fig. 1, and which card, in full line, is shown in final position for supporting in a frame, while in dot-dash line one portion of said card is indicated in its position before manipulation to fit a generally rectangular frame.

Fig. 4 is an upper edge view of the card of Fig. 3.

Fig. 5 is a plan view of a blank of cardboard slightly different in structure from that of Figs. 1, 3, before manipulation of the card to bring its edges to a position in which they define a rectangular outline.

Fig. 6 is the blank of Fig. 5 with the edges in position forming said outline, and in which a portion of the card projects outwardly of one side of the main body of the card.

Fig. 7 is a sectional view taken along line 7—7 of Fig. 6, and in which the upper and lower sides of a car card frame are also shown in section together with the bowed support for one side of the card.

Fig. 8 is a plan view of a car card of slightly different construction from that of the preceding figures, and which card is shown supported in a rectangular frame.

In all of the illustrations, it is seen that there are several features common to all of the structures, namely (1) the blanks are all formed with one or more score lines extending from one edge of the blank, while (2) each card is cut inwardly from the opposite edge in direction generally toward the score line or lines, and then (3) such cut extends in a direction to enable overlapping of the portions of the card adjacent opposite sides of the line of cut from such opposite edge, while (4) the portion or portions of the card along such score line or lines will bow, or outfold, out of the plane of the main body of the card when said marginal portions are overlapped, and (5) the final outline of each card, when said marginal portions are in said overlapped relation, is rectangular so that the four marginal portions of the card in its final position will fit in a rectangular frame. Also in each card, the score lines, where more than one are shown, extend divergently relative to each other, meeting at a point adjacent the edge of the card from which said lines extend, and which point defines a central axis about which one or both of the marginal portions that are adapted to overlap each other will move when being moved to said overlapping relation.

The blank shown in Fig. 1 is cut from stock so as to be horizontally elongated with parallel, equally spaced, upper and lower edges at opposite end portions of the card. The upper of said edges are designated 1, 2, while the lower edges are designated 3, 4, with the even numbered edges at one end portion of the card and the odd numbered edges at the opposite end portion. Said edges at said opposite end portions extend upwardly from the opposite end edges 5, 6 of the card. End edge 5 connects between the outer ends of edges 1, 3, and is substantially at right angles to said edges, while end edge 6 connects

between the outer ends of edges 2, 4 and is substantially at right angles to said latter edges.

The upper edges 1, 2 meet at a point intermediate said end edges, while edges 3, 4 terminate at their adjacent ends short of each other and at opposite ends of a horizontal lower edge portion 7.

At opposite ends of edge 7, the card is cut upwardly and inwardly into the card from the lower free edge thereof along short parallel lines 8 of equal length, and from the upper ends of cuts 8 are formed folding scores 9, 10 that extend convergently toward each other meeting at a point P intermediate the upper and lower edges of said card. Also, extending from the upper ends of cuts 8 are folding scores 11, 12, which scores extend upwardly in direction outwardly relative to each other, and which scores extend divergently upwardly relative to scores 9, 10, respectively.

From the upper ends of scores 11, 12, the card is cut along lines 13, 14, that extend upwardly toward each other and that meet at point P, which is the juncture of scores 9, 10. At a point along the line of cut 14 the card is cut from said point along a line 15 extending to edge 2, which cut 15 may be about parallel with end edge 6, although there may be considerable variation.

From the foregoing, it will be seen that a portion within the main body of the card is defined by scores 11, 12, cuts 13, 14, and lower edge 7.

In forming the card for positioning in a rectangular frame, the edges of the stock of the card along cut 15 are offset so as to clear each other, and the portions along said edges are then moved oppositely in the plane of the card a sufficient distance in overlapping relation to bring edges 1, 2 into alignment with each other, and to bring edges 3, 4 into alignment with edge 7, when the main body of the card outwardly of scores 11, 12 and cuts 13, 14 will be rectangular in outline and substantially in planar relation. By the said movement and manipulation, the portion defined by scores 11, 12 and cuts 13, 14 will automatically move outwardly of the plane of the main body, to the position indicated in Fig. 2. Between the upper ends of cuts 8 the card is horizontally scored along line 16, and the portion 17 of the card, which is defined by scores 9, 10, 16, is clearly seen in Fig. 2 as extending outwardly from the marginal portion 18 that lies between edges 7 and score 16, while portions 19, 20 that are defined by scores 9, 11 and cut 13, and by scores 10, 12 and cut 14, respectively, also extend outwardly of the main body of the card to support portion 17 in the outwardly extending position of the latter.

In Fig. 1, in dot-dash line, the outline and contour of the card, after manipulation to bring the card to a position in which its outline is rectangular, is indicated. In substance, what occurs when the card is manipulated as above described, is that the end portions swing about the junctures of scores 9, 11, and 10, 12, respectively, in substantially the plane of the card, while portions 17, 19, 20 swing outwardly of said plane along scores 11, 12, 16. The card, after the aforesaid manipulation, may readily be positioned in a car card frame, or in any rectangular frame, and it may also be bowed in a vertical plane that extends at right angles to the plane of the card, so as to substantially fit against the usual curved backing of a car card frame. The outwardly projecting portion of the card provides structure suitable for coaction with surface illustration or printing on the card for producing a three dimensional representation.

In Fig. 3, the blank illustrated in full line in the final position for insertion into a frame comprises opposite end portions 21, 22. The dot-dash lines indicate portion 22 prior to folding, while the full lines defining portion 21 remain in the same relative position to the dot-dash outline of portion 22.

The card of Fig. 3 in folded position, depicts a taper-sided glass into which a beverage is being poured from a bottle. The portion representing the glass is formed to progressively project outwardly of the plane of portions 21, 22 when the left hand portion 22 (in dot-dash line) is moved to bring the upper and lower parallel edges of said portion into alignment with the parallel upper and lower edges of portion 21. Thus, the glass will appear to be in three dimensions, as seen in full line in the figure.

Instead of a straight cut from the upper edge of the blank, such as in 15 in Fig. 1, the original blank is notched out from the upper edge, one side of such notch being indicated in dotted line 23, which also corresponds to the edge carried by portion 21, and the opposite edge of the notch is indicated by the dot-dash line 24. Across the apex of the edges defining said notch the card is cut along the line 25 (dot-dash line) the upper edge of the cardboard stock along said line 25 defining the upper edge of the glass to be depicted when the card is finally brought to the full line position.

From the ends of the cut 25 the cardboard blank is scored along lines 26, 27 that extend convergently to a point at the lower edge of the card, and between score lines 26, 27 there may be formed another pair of scores 28, 29 converging to the same point. These scores are indicated in dot-dash line in Fig. 3, and their positions when the card is in its final position are indicated by the same numbers in Fig. 4. P' indicates the point from which these scores diverge.

The edge 24, indicated both in full line and in dot-dash line in Fig. 3, is formed to define the contour of one side of the surface printing illustrating the liquid 30 that is pouring into the glass, and the bottle 31 from which the liquid is being poured.

In the final position, the tapered sides of the glass are portions 32, 33, 34 (Fig. 4) that are disposed between scores 26, 28; 28, 29; and 29, 27. These portions automatically move outwardly away from the line of cut 25 when the upper part of portion 22 is moved to overlie the upper part of portion 21, and as the free edge 24 that defines one side of the pictorial representation of liquid 30 and bottle 31 overlies said portion 21, a three-dimensional impression is given to said liquid and bottle, while the portions 32, 33, 34 give a very real three-dimensional appearance to the glass into which the liquid is represented as being poured.

The actual outfolding of portions 32 to 34, inclusive, occurs about point P' as a hinge or pivot, and when the full line position of Fig. 3 is formed from swinging portions 21, 22 relative to each other about point P', it will be seen that the main body of the card is rectangular in outline and is substantially in one plane to enable positioning the margins under a frame, the two sides of which are indicated at 35 in Fig. 4, in dotted line, while the back of the frame is indicated in dotted line in the same figure at 36.

In Fig. 5, is shown a blank card of generally the

same structure as that of Fig. 4, except that scores 37, 38 (dotted line) that extend divergently from the bottom edge of the card, function to merely raise one free edge portion of right hand end portion 39 of the card from the left hand portion 40 when said portion 39 is swung from the full line position of Fig. 5 to the full line position of Fig. 6 so as to bring the upper and lower edges of portion 39 into alignment with the upper and lower edges of portion 40. The triangular part 41 of the card, that is positioned between scores 37, 38 is best seen in Fig. 7, in the position in which it supports the said free edge of portion 39 outwardly of portion 40.

In this structure, as shown in Figs. 5 to 7, the line 44 along which the card is cut from its upper edge to the portion 41 is irregular, and defines the contour of one side of a figure 42 that is printed on portion 39. The arrows in Fig. 5 represent the path of movement of the straight upper free edge of portion 39 to its full line position in Fig. 6, while the upper margins of portions 39, 40 may bear imprinting as at 43, 43' respectively which will come into registration at their adjacent ends when portion 39 is brought into overlapping relation with portion 40 along their adjacent edges that are formed by the aforesaid irregular cut 44.

In Fig. 7, the card of Fig. 6 is shown in a car card frame 45 having the usual curved back 46. The vertical sides of said frame (not shown) are merely the conventional flat, resilient strips, such as indicated in Fig. 8 and later described, that engage at their opposite ends in under the top and bottom sides 45 of the frame against the opposite vertical margins of the card.

In Fig. 8, is illustrated a card that is scored as at 47, 48 along curved lines that extend from a point adjacent the bottom of the card. The blank from which this card is formed has end portions 49, 50 that normally, before folding, extend at an angle to each other in a manner similar to the positions of portions 21, 22 of Fig. 3, or portions 39, 40 of Fig. 5. The card is cut from the upper end of score 47 across score 48 and to a point past the lower end of the generally vertically extending free edges 51, 52 that are formed by a cut extending downwardly from the upper edge of the card to a point between the ends of the cut 53 that extends to the upper end of score 47.

Upon bringing the end portions 49, 50 to the position where their upper and lower edges respectively are in alignment, the portion at opposite sides of score 48 will bow outwardly, to give a three dimensional appearance to the surface illustration on the card.

This card in Fig. 8 is supported at its upper edges below the upper and lower frame members 45', and vertical strips 54 from the vertical side members of the frame, which strips may be secured at their ends under frame members 45', as is usual in car cards, or the rectangular frame formed by the members 45', 54 may be of any conventional structure disposed in one plane or the frame members 54 may be curved to correspond to the curve of the back of a frame as indicated at 46 in Fig. 7.

There are other variations possible in structure adapted to accomplish the desired result, which would come within the scope of this invention, but most of which would constitute modifications of one or more of the examples herein illustrated. It is important to note, however, that the card when formed should be rectangular in shape so as to fit in a rectangular frame, the sides of which cooperate with the card to hold the card in its form having a rectangular outline. And it is further important to this invention that the margins of the card, when in the frame, be either planar, or that the two pairs of opposite edges, be similarly disposed, so that the opposite vertical marginal portions may be disposed below a vertically bowed frame, as in Fig. 7, and that the opposite horizontal edges may be positioned below straight upper and lower frame members connecting at their ends with the bowed frame members. Also, the card itself should be so formed, as occurs in all of the figures shown, where used in a curved frame, so that the necessary portions of the card itself may be bowed sufficiently when in the frame, to enable main body of the card to generally follow the curvature of the back of the frame.

Having described my invention, I claim:

1. A display card of substantially rectangular outline formed from a single flat sheet of cardboard; a portion of said card disposed inwardly of its edges projecting laterally relative to the normal plane of said card; said card being scored along lines extending divergently from a point adjacent one of said edges and terminating within the main body of said card; a pair of said scores defining the outline of part of said portion, and the edges of the card being arranged and adapted to be secured in a substantially rectangular frame.

2. A display card of substantially rectangular outline formed from a single flat sheet of cardboard, a portion of said card disposed inwardly of its edges projecting laterally relative to the normal plane of said card; said card being scored along lines extending divergently from a point adjacent one of said edges and terminating within the main body of said card and said card being cut along a line extending between the terminating ends of said scores; one of said scores defining part of the outline of said portion and one of the edges formed by said cut defining another part of the outline of said portion; and the edges of said card being arranged and adapted to be secured in a substantially rectangular frame.

3. A display card of substantially rectangular outline formed from a single flat sheet of cardboard cut inwardly from one edge partially across the card and with the portions along the edges defined by said cut disposed in overlapped engaging relation; a portion of said card between the end of said cut and the edge of the card opposite said one edge being scored along lines extending divergently from said opposite edge; the opposite edges of the card from which said cut and said scores extend being disposed substantially in one plane, and the portion of the card between a pair of said scores projecting laterally from the normal plane of said flat sheet.

4. A blank for forming a rectangular car card comprising a single, generally horizontally extending flat sheet of cardboard cut and scored partially across the width thereof from opposite edges, respectively, said cut and said scoring cooperating to divide the sheet into opposite end portions; each of said end portions having three straight edges defining complementary portions of a rectangle at opposite ends of said sheet outwardly of said cut and said scoring; said end portions extending angularly relative to each other; the end edges of the sheet being one of said three edges of each portion and the other two of said edges of each portion extending at right angles to said end edges; said scoring in-

cluding a plurality of scores extending divergently relative to each other generally toward said cut and arranged and adapted to outfold outwardly of one side of the plane of said sheet upon swinging said end portions in the plane of said blank to a position with the said two edges of each end portion parallel for forming said rectangular car card.

5. A car card comprising a single sheet of cardboard scored along a set of diverging lines extending from one edge of the sheet partially across the latter and cut inwardly from the edge of the sheet that is opposite said one edge to a point within the body of the sheet adjacent the terminating ends of said scores; said sheet being cut within the body thereof along a line extending from said point and between the said terminating ends of said scores; the portions of said sheet outwardly of the scores of said set and extending away from the edges defined by said first mentioned cut having outer edges defining the outline of said sheet and also defining outlines of complementary portions of a rectangle and cooperating to form the outline of a complete rectangle; the part of said sheet between the outermost scores of said set being outfolded to project from a side of the plane in which the edges defining said rectangle are disposed; a rectangular frame securing opposite pairs respectively of said last mentioned edges in parallel relation, and the portions of said sheet extending along said first mentioned cut being disposed in overlapping engaging relation.

6. A horizontally elongated, flat, integral blank of cardboard having two opposite, planar end portions that are integrally connected at their adjacent edges for a predetermined distance across the width of said blank from one of the edges of the latter, and said end portions being disconnected for the remainder of said width; said card being generally vertically disposed, and the upper and lower edges of said end portions being equally spaced apart; the said edges of each end portion being parallel and extending angularly relative to the said edges of the other; said blank being formed with a plurality of divergently extending scores in the portion of the blank integrally connecting between said end portions; said scores being positioned to relieve the said portion between the outermost of said scores for lateral outfolding of said portion relative to the plane of said end portions upon movement of said end portions to their plane to positions in which the upper and lower edge of both of said end portions are in alignment; the marginal portion of said blank extending along the adjacent disconnected edges of said end portions being arranged and adapted to move to overlapping relation upon said movement; the end edges of said blank defining the outer end edges of said end portions being straight and at right angles to the upper and lower edges of each end portion, whereby upon said movement of said end portions a card of rectangular outline will be formed.

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