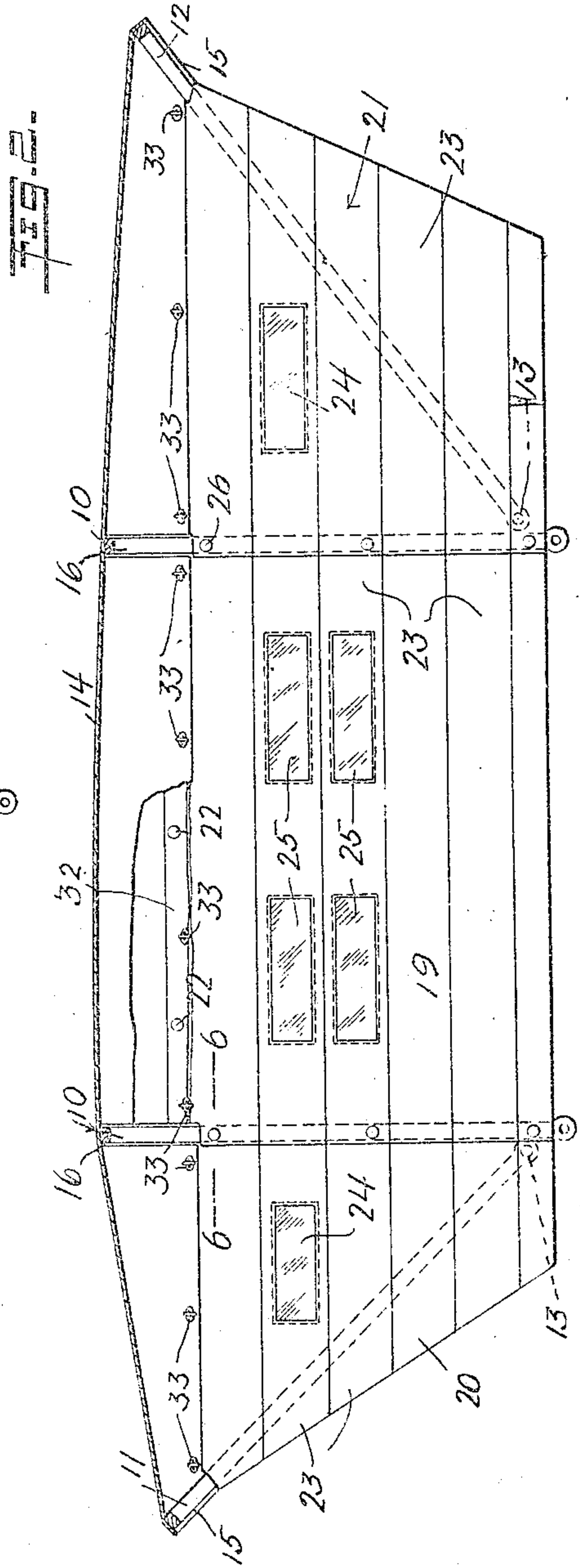
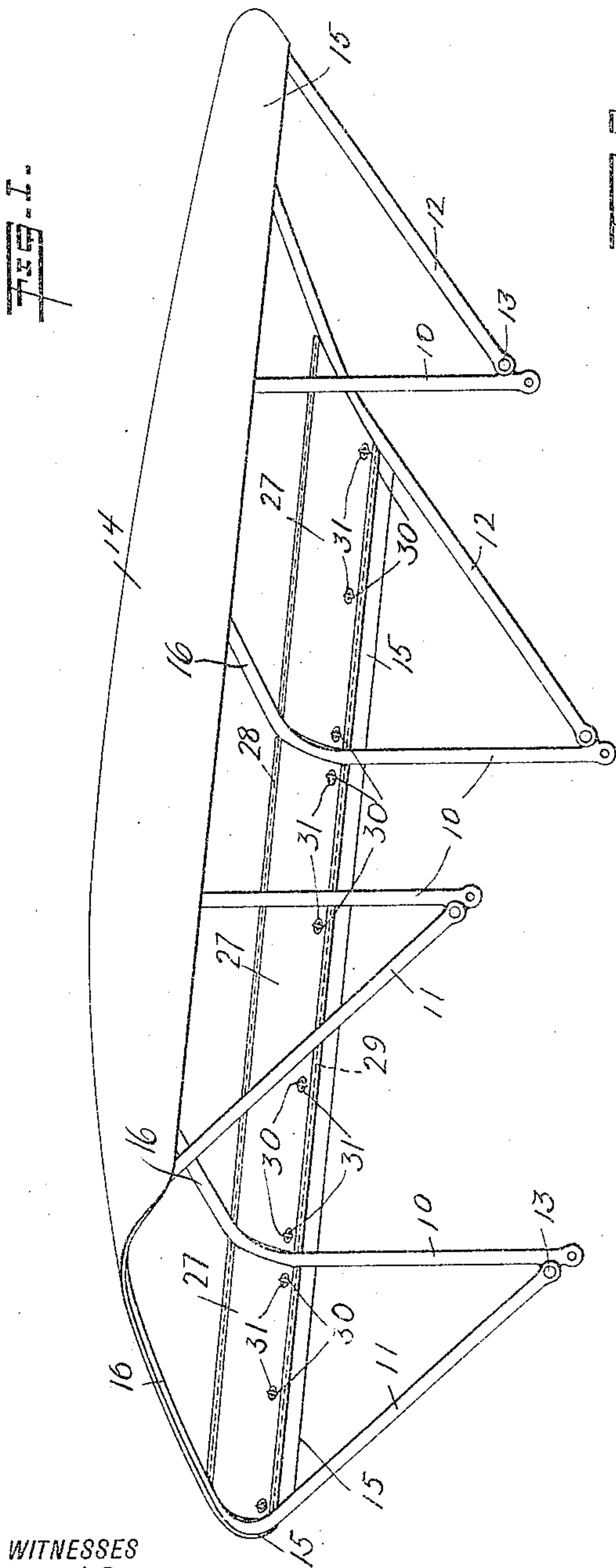


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Patented Jan. 4, 1916  
 2 SHEETS—SHEET 1.



WITNESSES  
 G. Robert Thomas  
 J. Edwin Burch.

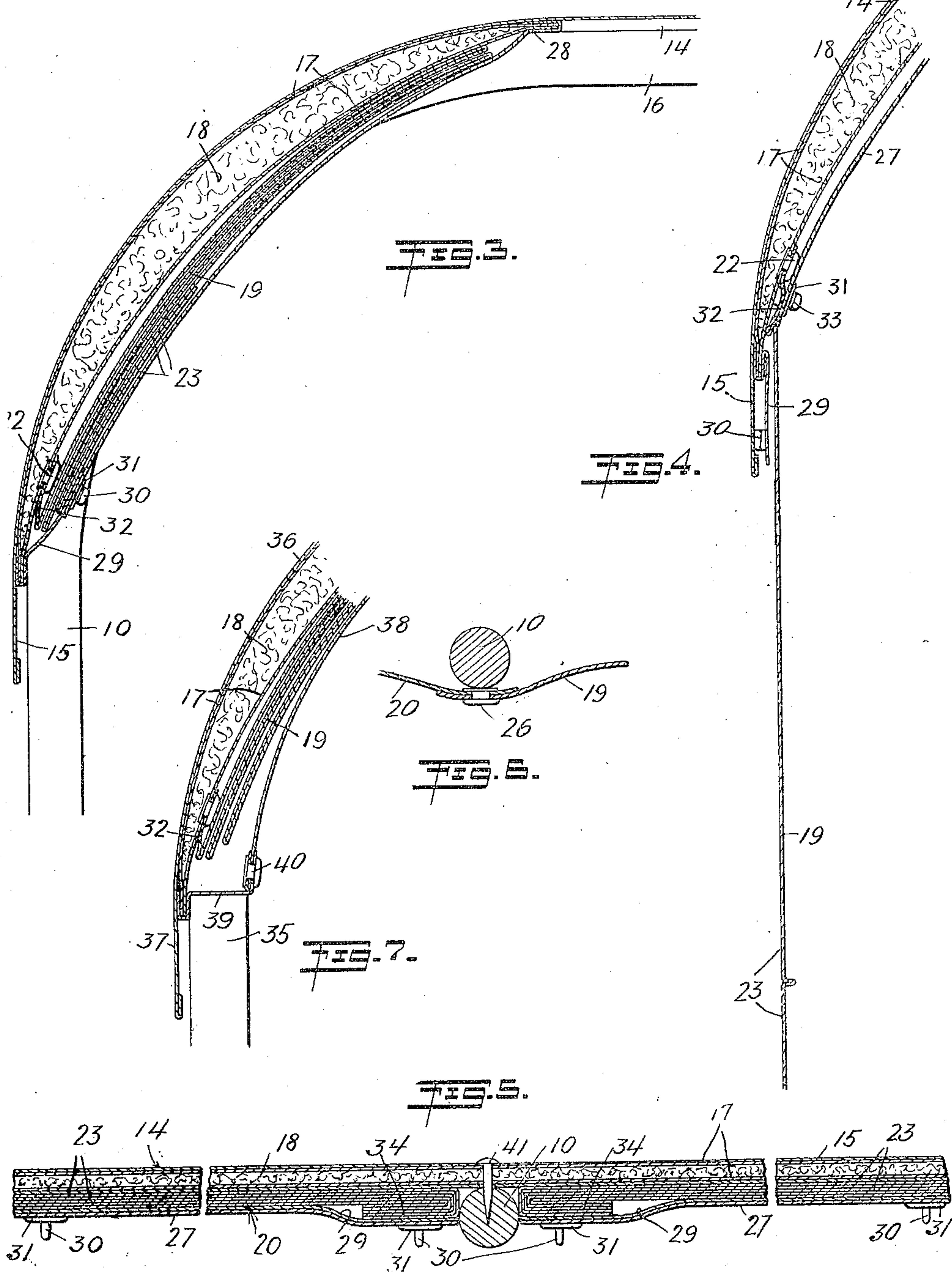
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# UNITED STATES PATENT OFFICE.

FRANK GRUNDY, OF JERSEY CITY, NEW JERSEY.

ATTACHING AND CONCEALING MEANS FOR VEHICLE-CURTAINS.

1,166,677.

Specification of Letters Patent.

Patented Jan. 4, 1916.

Application filed August 25, 1913, Serial No. 786,416. Renewed November 20, 1915. Serial No. 62,641.

*To all whom it may concern:*

Be it known that I, FRANK GRUNDY, a citizen of the United States, and a resident of Jersey City, in the county of Hudson and State of New Jersey, have invented a new and Improved Attaching and Concealing Means for Vehicle-Curtains, of which the following is a full, clear, and exact description.

10 This invention relates to vehicle tops and more especially to an improved attaching and concealing means for the curtains thereof.

Broadly, the invention comprehends the provision of pockets along the edges of the top adjacent to which the curtains are attached and designed to be folded or otherwise compactly arranged to be retained in the pockets in a relatively concealed position but in such manner as to be capable of being readily lowered when they are desired to be used.

A still further object of the invention is to provide a vehicle top with improved pockets or storing spaces for the curtains when in raised and folded condition, such pockets being constructed in combination with the deck or roof commonly known as the top proper, and the side quarters or with the usual inside loose lining, and being so mounted as to be hidden from view and the curtains being so constructed as to be conveniently folded and retained in the pockets or receiving spaces provided therefor.

35 With the above and other objects in view the invention resides more particularly in the peculiar combination and arrangement of parts which will be illustrated as a preferred embodiment in the accompanying drawings and described in the claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views, and in which—

50 Figure 1 is a perspective view of a vehicle top including the frame and top or cover proper with the curtains retained in pockets constructed in accordance with the invention; Fig. 2 is a central longitudinal sectional view of the device shown in Fig. 1 with the curtains lowered and fastened together but with a fragmentary portion of the flap of one pocket broken away to show the manner of suspending or attaching the

curtains; Fig. 3 is an enlarged vertical sectional view taken through the top with the parts in the position shown in Fig. 1; Fig. 4 is a vertical sectional view of the outer portion of the top shown in Fig. 3 with the bow omitted and with the curtain in lowered position; Fig. 5 is a horizontal sectional view taken through one of the bows and adjacent portions of the cover and pockets with the curtains folded therein, the parts being broken away and the section being taken immediately above the fastening means for the flaps; Fig. 6 is a horizontal sectional view taken on the line 6—6 of Fig. 2; and Fig. 7 is a vertical sectional view of a fragmentary portion of a vehicle top having an inner lining which coöperates with the side quarters and deck to produce curtain receiving spaces or compartments.

In the drawings, a conventional form of frame for an automobile or other vehicle top is illustrated, the same having intermediate bows 10 designed for attachment to the body in the usual manner through the instrumentality of goosenecks or other suitable fasteners, while the front bow is indicated by the numeral 11 and the rear bow by the numeral 12 and are illustrated as pivoted to the bows 10 in their lower extremities as at 13. The covering or top proper consists of a deck or roof 14 having depending side portions or quarters 15, the covering or top proper being secured in any desired way to the cross members 16 of the bows. In the construction of the top, strips are disposed longitudinally at either side where the side quarters are formed at the curved side portions of the cover, and in the present instance these strips are illustrated in the form of pads consisting of a closed covering 17 containing cotton or other soft filling 18 which gradually tapers in thickness toward their longitudinal edges. As will be clearly seen from the drawings, these pads are arranged between the covering and the bows and besides shaping the top serve to resist wear at their points of contact with the bows. An intermediate curtain 19 and front and rear curtains 20 and 21, respectively, are attached to said longitudinal strips or pads adjacent the lower edges thereof, as by means of button fasteners 22, at spaced distances between the respective bows and also to the bows in any desirable way, whereby the curtains may be



removed if desired. The curtains are designed to be arranged to occupy a minimum of space and for this purpose are preferably made of a number of sections 23 adapted to  
 5 fold vertically for raising and lowering the same, there being certain transparent sections 24 arranged within the area of the folds in the curtains 20 and 21 forming the curtain lights. The intermediate curtain 19  
 10 is provided with longitudinally spaced transparent sections or lights 25 in lieu of the usual continuous lights, the idea being to permit the curtains to be folded intermediate their ends when the sections 23 are folded  
 15 one upon the other. The ends or vertical edges of the curtains are designed to overlap each other in the manner indicated in Figs. 2 and 6 of the drawings, whereby they are fastened by glove fasteners or the like  
 20 26 and held in lowered positions, the forward curtain in each instance being fitted to overlie the edge of the curtain in rear thereof, whereby the entrance of rain, snow or air into the vehicle during the travel of the  
 25 latter is prevented.

To provide pockets or receiving spaces for the curtains, flaps 27 are secured to the upper edges of the longitudinal strips or pads, as shown at 28, or formed therewith to provide a binding, as indicated in Fig. 3 of the  
 30 drawings, so that the lower edges of the flaps will terminate at or near the lower edges of the strips or pads. Coöperating with the flaps 27 are relatively narrow flaps or strips  
 35 29 which are carried by the lower edges of the longitudinal strips or pads and which in turn are provided with rotatable button fasteners 30 designed to engage eyelets or openings 31 in the flaps 27 near their free longitudinal  
 40 edges, thus inclosing the curtains when the latter are folded in the manner shown in Figs. 3 and 5 of the drawings.

When it is desired to extend or lower the curtains in the manner shown in Figs. 2 and  
 45 4 of the drawings, after the same have been folded and inclosed in the pockets, the fasteners 26 are disengaged. The flaps 27 are then disengaged from the buttons 30 so that the curtains, which at their points of attachment and suspension from the fasteners 22  
 50 and the bows through the medium of a foldable extension 32, are lowered so that the flaps 27 are free and will hang from the points 28. To prevent this and to add to the attractiveness of the curtains, fasteners 33  
 55 are secured to the longitudinal strips or pads near the lower edges of the latter and normally above and inwardly of the flaps 29 so as to coöperate with the eyelets 31 in retaining the flaps 27 toward said longitudinal  
 60 strips or pads. It will further be obvious that the parts will occupy a limited space and when assembled in the manner shown in Fig. 3 of the drawings, will be perfectly invisible to an occupant of the automobile or

other vehicle and will be thoroughly protected from the weather by means of the side quarters 15 above which they normally lie.

The curtains may be fitted within the pockets or compartments in any desired way, but in the manner illustrated the ends thereof are folded upon themselves, as shown at 34 in Fig. 5 of the drawings, it being only necessary to fold the ends of the curtains at the points adjacent to the bows so that they  
 75 will fit within the pockets. This is due to the fact that the curtains overlap each other when they are down and are thus longer than the spaces between the respective bows and thereby longer than the pockets which  
 80 are equal in length to the lengths of these spaces. It is also apparent that the curtains operate as stiffening members when inclosed within the pockets and also serve to distend the sections of the top from the  
 85 bows when the top is folded or the frame is collapsed and the top is down.

In the construction shown in Fig. 7 of the drawing a bow is indicated by the numeral 35, the top or deck by the numeral 36 and  
 90 the side quarter by the numeral 37, there being the usual pad 18 having a curtain 19 attached thereto in the usual way. In this construction, however, the vehicle top is provided with an inner loose lining 38 which in  
 95 the usual construction is attached to the bows. It will be seen that this lining coöperates with the top to produce a pocket or curtain receiving space which, after the curtain is disposed therein, is closed by a flap  
 100 39 secured to the side quarter or body and detachably connected as shown at 40 to the lower edge of the lining at each side, thus totally excluding the curtain from view. A conventional manner of fastening the top  
 105 proper to the bows in the event that the latter are constructed of wood, is shown in Fig. 5 of the drawings, wherein the same are nailed thereto, as shown at 41.

Having thus described my invention, what  
 110 I claim as new and desire to secure by Letters Patent is:—

1. The combination with the spaced bows forming the frame of an automobile top and a covering therefor; of pads arranged between the covering and bows at the side portions thereof, flaps secured to the upper edges of the pads between the bows, flaps secured to the lower edges of the pads between the bows, means to detachably connect  
 120 the flaps, curtains carried by the pads to be inclosed within pockets formed by said flaps, and means to secure the upper flaps against the pads when the curtains are lowered.

2. The combination with a vehicle top including a frame and a covering and curtains removably carried therebeneath; of flaps arranged beneath the covering and designed to overlap each other to inclose and retain the curtains therein, means to detachably con-  
 130



nect the flaps, and means to detachably connect certain of the flaps to the covering above the curtains so as to hold said flaps toward the covering when the curtains are lowered.

3. The combination with a vehicle top and narrow padded sections attached thereto adjacent their longitudinal edges to contact with the usual bows; of curtains attached to said padded sections near their lower edges, flaps carried by the longitudinal edges of said sections to form narrow pockets terminating short of the transverse center of the top, and means to connect said flaps to inclose the curtains when folded, said means being located at points in horizontal alinement with the points of attachment of the curtains to the padded sections near the lower edges of the pockets whereby said curtains will form additional pads.

4. The combination with a vehicle top and padded casing sections secured to the inner faces thereof; of bows having transverse depending portions providing curved corners adapted to contact with the padded sections, curtains comprising foldable sections attached to said padded sections and divided by longitudinal folding lines with lights arranged within the area of said folds and spaced apart longitudinally on opposite sides of the bows, flaps carried by said sections along the edge portions of the latter and adapted when connected to form compartments of a width substantially equal to the normal width of the sections of the curtains when folded so as to receive the latter and preclude them from view between the bows at the corners of the top and spaced from the center thereof.

5. An attaching and concealing means for vehicle curtains embodying compartment-forming members cooperative with the vehicle cover, narrow pads longitudinally of the curved portions of the cover for attachment of the curtains at their upper edges to the lower edges of the pads, and means for closing said compartments to contain the curtains therein, said means embodying flexible strips forming flaps carried by the cover short of its longitudinal edges to detachably engage said compartment-forming members.

6. The combination with a vehicle top including a frame for a series of transverse bows, a cover and foldable sectional curtains detachably carried from beneath the top adjacent its longitudinal edges and the upper longitudinal edges of the curtains, said attaching means of the curtains being immovable with respect thereto; of sections cooperative with the cover to produce spaces between the bows to receive the curtains when folded, said cover depending from said curtains and sections when in the last named position certain of said sections hanging be-

tween the sides of the cover and the curtains when the latter are lowered, and means carried beneath the cover adjacent the upper portions of the curtains for engaging the other sections to hold them toward the cover.

7. The combination with a vehicle top including a frame, a covering therefor having narrow longitudinal strips at the corners and foldable curtains comprising a plurality of sections and means carried by the strips near the bottom edges thereof to detachably connect the curtains thereto; of flaps arranged beneath the covering and designed to overlap each other to inclose and retain the curtains therein, means to detachably connect the flaps and means to detachably connect certain of the flaps to the covering above the curtains so as to hold said flaps toward the covering when the curtains are lowered.

8. The combination with a vehicle top including a frame, a covering therefor having narrow longitudinal strips at the corners and foldable curtains comprising a plurality of sections and means carried by the strips near the bottom edges thereof to detachably connect the curtains thereto, said curtains having narrow attaching portions depending from the attaching means; of flaps arranged beneath the covering and designed to overlap each other to inclose and retain the curtains therein and means to detachably connect the flaps when the curtains are folded and permitting the curtains to drop between the flaps when they are lowered.

9. The combination with a vehicle top, a curtain detachably carried thereby and a section secured to the inner face of said top and terminating at a spaced distance from the lower edge of the latter of a flap below the point of attachment of the curtain for connecting the top and section to form a pocket to inclose the curtain when the latter is folded therein.

10. The combination with a vehicle top, a curtain detachably carried thereby and a section secured to the inner face of said top and terminating at a spaced distance from the lower edge of the latter; of a flap below the point of attachment of the curtain for connecting the top and section to form a pocket to inclose and conform to the width of the curtain when the latter is folded therein.

11. The combination with a vehicle top and padded casing sections secured to the inner faces thereof; of bows having transverse depending portions providing curved corners adapted to contact with the padded sections, curtains, flaps carried by said sections along the edge portions of the latter and adapted when connected to form compartments of a width substantially equal to the normal width of the sections of the



curtains when folded so as to receive the latter and preclude them from view between the bows at the corners of the top and spaced from the center thereof.

12. The combination with a vehicle top including pivoted bows and a covering therefor; of longitudinal strips along the inner faces of the covering outwardly of the bows and adjacent to the bent portions of the latter, button fasteners carried by said strips adjacent to their lower edges at spaced points longitudinally, curtains adapted to be suspended therefrom, said curtains having narrow upwardly extending foldable parts at their upper edges removably connected to the strips through the medium of said fasteners, means carried by the strips for inclosing the curtains and means for connecting the vertical edges of the curtains in overlapped relation to the bows.

13. The combination with a vehicle top including pivoted bows and a covering therefor; of longitudinal strips along the inner faces of the covering outwardly of the bows and adjacent to the bent portions of the latter, button fasteners carried by said strips adjacent to their lower edges at spaced points longitudinally, curtains below said strips, said curtains having narrow upwardly extending foldable parts at their upper edges removably connected to the strips through the medium of said fasteners and means carried by the strips for inclosing the curtains.

14. The combination with a vehicle top including a frame for a series of transverse bows, a cover, foldable sectional curtains and means whereby said curtains are detachably carried from beneath the top adjacent its longitudinal edges and the upper longitudinal edges of the curtains, said attaching means of the curtain being immovable with respect thereto; of sections cooperative with the cover to produce spaces between

the bows to receive the curtains when folded, said cover depending from said curtains and sections when in the last named position, certain of said sections hanging between the sides of the cover and the curtains when the latter are lowered.

15. The combination with a vehicle top including a frame having a series of transverse bows, a covering and foldable sectional curtains detachably carried from beneath the top adjacent to its longitudinal edges and the upper longitudinal edges of the curtains; of sections cooperative with the covering to produce spaces between the bows to receive the curtains when folded and cover means cooperating with the sections to inclose and exclude the curtains from view when received in said spaces, said cover means also supporting the curtains in the last named position.

16. The combination with a vehicle top including a frame and a covering therefor; of curtains detachably carried by said covering and comprising sections adapted to be folded vertically for raising and lowering the same, sections beneath said top and terminating short of the bottom edges of the covering and means for connecting the lower edges of the sections and covering at spaced distances from the bottom edge of the latter and inwardly thereof to form spaces to receive the curtains when folded and adapted to permit the latter to be lowered when the sections are disengaged, whereby the curtains will hang between the covering and sections.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRANK GRUNDY.

Witnesses:

JOHN E. BURCH,  
PHILIP D. ROLLHAUS.