D. G. SAUNDERS, JR.

VEHICLE TOP.

APPLICATION FILED OCT. 25, 1915.

1,207,082. Patented Dec. 5, 1916.

Fig. I.

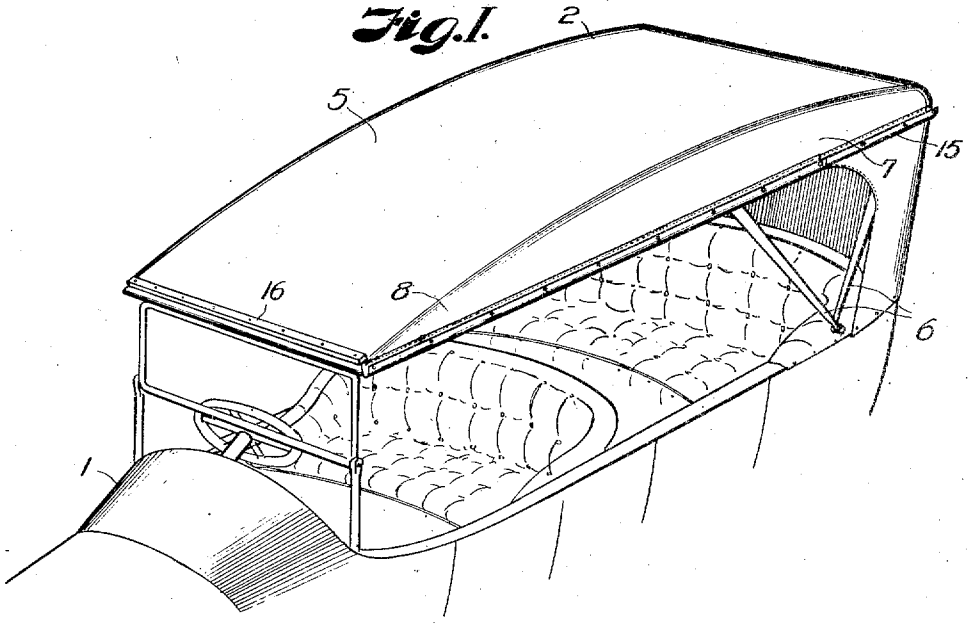


Fig. II.

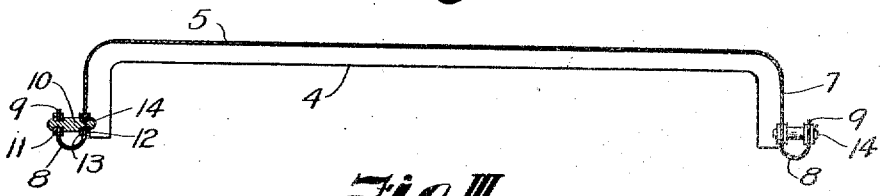


Fig. III.

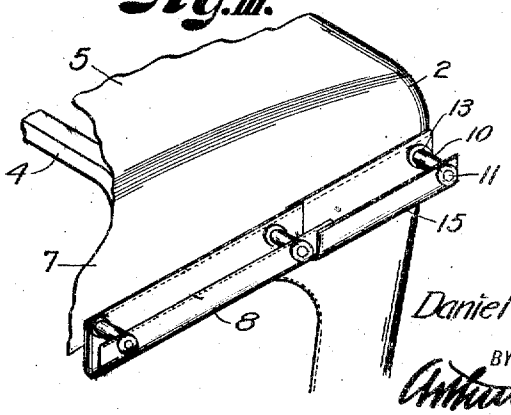
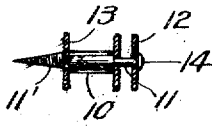


Fig. IV.



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VEHICLE-TOP.

1,207,082. Specification of Letters Patent. Patented Dec. 5, 1916.

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To all whom it may concern:

Be it known that I, DANIEL G. SAUNDERS, Jr., a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Vehicle-Tops; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to vehicle tops, and more particularly to collapsible tops for automobiles; the principal object of the invention being to prevent water that may flow down the sides of the top from dripping or flowing over the edge thereof into the vehicle or onto persons entering or leaving the same.

It is also an object of the invention to provide a drain of this character which will not interfere with the folding of the top.

In accomplishing these objects I have provided improved details of structure, the preferred forms of which are illustrated in the accompanying drawings, wherein:—

Figure I is a perspective view of part of a vehicle body equipped with a top wherein my improvements are embodied. Fig. II is a transverse section of the top, particularly illustrating the drains and their spacing members. Fig. III is an enlarged detail perspective of a part of a top, illustrating a modified form of drain and the combination of an extension member therewith. Fig. IV is a detail view of a modified form of stud.

Referring more in detail to the drawings: 1 designates a vehicle body and 2 a collapsible or folding top of any ordinary construction, except for the improvements in the top hereinafter noted.

The top shown comprises the bows 4, over which the top cloth 5 is stretched, and which is suitably supported at the back of the body by a frame 6; the bows 4 being arranged at suitable intervals throughout the length of the top to hold the cloth 5 stretched transversely, without interfering with its folding or collapse when it is to be lowered.

As the cloth 5 is turned over the ends of the bows, the top comprises side portions 7 of limited height, down which water may flow, which would, unless restrained, drip into the vehicle or onto persons entering or leaving the same, or which might be carried into the vehicle by natural currents of air or by those induced by movement of the vehicle. In order to obviate such dripping I provide the edges of the top with drain members 8 which are preferably formed by turning up the lower edges 9 of the top cloth, and spacing the same from the sides to form longitudinal channels at the lower edges of the top.

The spacers for the drains are preferably composed of studs 10, having rivet shanks 11 that project through the cover cloth and through the upturned edges 9, and carry washers 12—13 that bear against the inner and outer surfaces of the cover body and drain edges respectively, and form extended bearing surfaces for the cloth and for the rivet beads 14 that are formed on the ends of the shanks 11 and hold the cloth firmly to the studs, the studs being so arranged relative to the drain channel that the bodies of the studs are located above the bottom of the drain and leave channels therebeneath, through which water draining from the sides of the top may flow.

As the rear portions of most tops of this character are cut on curved lines and extend below the ends of the bows 4, I provide extensions for the drains so that the drains mentioned may terminate at the commencement of the downward curve of the rear curved portions and empty into the extension members, such extension members comprising cloth troughs 15 that may be sewed or otherwise attached to the sides of the top by studs 10, as are the drains on the body of the top (Fig. III), the forward ends of the extensions being attached to the rear ends of the body drains so that the latter may deliver into the extensions and prevent dripping at the joints.

In order to prevent dripping at the front of the top and obviate flow of water from the top onto the windshield or into the vehicle, I provide a drain member 16, which extends along the front edge of the top and is adapted for delivery into the side drains, so that water flowing down the inclined front of the top will flow laterally along the cross bar and into the side drains 7.

As forward travel of the car will induce rearward flow of water through the drains to the rear of the vehicle, so that the con-

tents of the drains may escape at the rear where it will cause no inconvenience, it is not essential that the front ends of the drains be closed, and they may, if desired, be left open, as illustrated in the drawings.

It is apparent that, if desired, the studs may be adapted for mounting on the bows 4, and for this purpose may comprise screws 11′ at their inner ends, as illustrated in Fig. IV. With this construction the inner washers 12 are omitted as the inner washers 13 will bind the cloth against the outer faces of the bows.

It is also apparent that by forming the drains of cloth of the same material of which the top is composed and sustaining them at intervals throughout the length of the top, the presence of the drains will not interfere with folding or installation of the top, as the drains may fold with the top cloth, and may be extended therewith.

It is also apparent that, if desired, the body drains may be formed separately from the top and attached thereto, as are the extension members.

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

1. A vehicle top comprising a foldable cover, having downturned sides, drain members at the lower portions of said sides and foldable with the top, and spacers carried by the sides of the cover and connected with the outer portions of the drain members to hold the drain members in channel form and permit their folding with the cover.

2. A vehicle top comprising a foldable cover, having downturned sides, drain members at the lower portions of said sides, and studs for holding the outer walls of said drain members from the sides of the top.

3. A vehicle top comprising a cloth cover having downturned sides, drain members at the lower portions of said sides, and studs carried by the sides of said cover and connected with the outer walls of said drain members to hold said walls from the sides of the top.

4. A vehicle top comprising a cloth cover having downturned sides, drain members at the lower edges of said sides, and studs carried by the sides of the cover and extending through the upturned edges of the drain members for holding said upturned edges from the sides of the top, for the purpose set forth.

5. In a vehicle top, a foldable cover having a trough along its side; said trough being foldable with the cover, spacers in the trough; said spacers having shoulders, and means for binding the side walls of the trough to or against the shoulders of the spacers to maintain the trough in channel form when the top is in functional position.

6. In a vehicle top, a foldable cover having a trough along its side; said trough being foldable with the cover, spacers comprising body members, and means coöperating with the body members and extending through the side walls of the trough to bind the side walls to or against said body members to maintain the trough in channel form when the top is in functional position.

7. In a vehicle top, a foldable cover having a trough along its side; said trough being foldable with the cover, and spacers having reduced portions extending through the walls of the trough and adapted to bind the walls of the trough to the spacers to maintain the trough in channel form when the top is in functional position.

8. A vehicle top comprising a cloth cover, and transverse, spaced bows, drain members at the lower edges of the cover, and studs having shanks extending through the outer portions of said drains and through the sides of the cover, the bodies of the studs being larger than the shanks, to space the outer portions of the drains from the sides of the top, and the said shanks having head members for anchoring the same to the sides of the top and to the drain portions.

9. A vehicle top comprising transverse, spaced bows, a cloth cover supported on the bows, drain members on the lower edges of the top, and studs having shanks extending through the drain members and through the sides of the cover, washers on said shanks at opposite sides of the cover and drain portions, and heads on the shanks bearing on the end washers, the bodies of the studs serving to space the outer portions of the drains from the sides of the top to form troughs, and said bodies being located above the bottoms of the troughs to form channels therebeneath.

10. A vehicle top comprising transverse, spaced bows, a cloth cover fixed on said bows and having vertical sides, and spacing studs on said sides at the lower edges thereof, the lower edges of the cover being turned upwardly and supported by the ends of the studs to form drains longitudinally of the cover and at the lower edges of the top.

11. A vehicle top comprising transverse, spaced bows, a cloth cover fixed on said bows and having vertical sides provided with upturned edges, studs on the lower portions of said sides, spacing the upturned edges to form drains, and a trough member on the front of said top adapted for draining into the forward ends of said drains.

In testimony whereof I affix my signature.

DANIEL G. SAUNDERS, JR.