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VEHICLE TOP CONSTRUCTION.

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1,065,010.

Patented June 17, 1913.

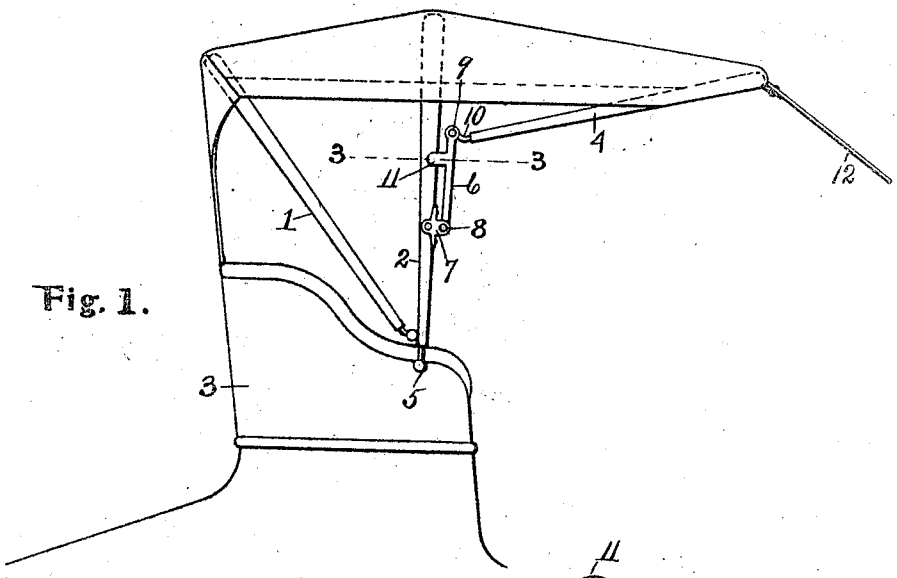

Fig. 1.

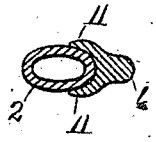

Fig. 3.

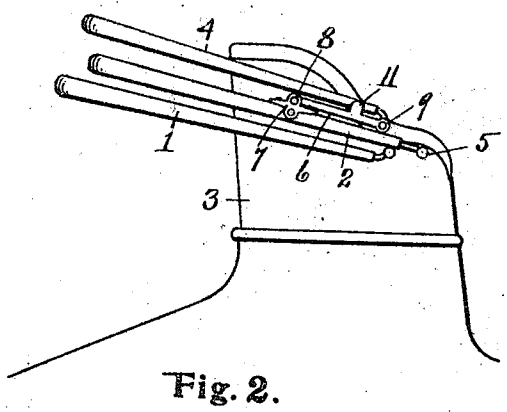

Fig. 2.

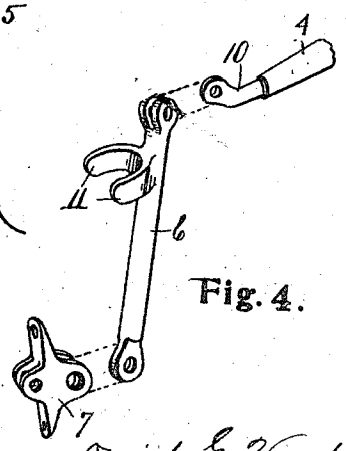

Fig. 4.

Witnesses.

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VEHICLE TOP CONSTRUCTION.

1,065,010. Specification of Letters Patent. Patented June 17, 1913.

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To all whom it may concern:

Be it known that I, DAVID E. VANDERVEER, a citizen of the United States, residing at Detroit, in the county of Wayne, State of Michigan, have invented certain new and useful Improvements in Vehicle Top Construction; 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 characters of reference marked thereon, which form a part of this specification.

This invention relates to a vehicle top construction, especially designed for use in connection with automobiles, and consists in the construction and arrangement of parts hereinafter more fully set forth and pointed out particularly in the claims.

The object of the invention is to provide simple and efficient means for supporting the front extension of the top, and at the same time afford convenience and facility in getting into or out of the carriage or vehicle when the top is raised, provision being made for easily and quickly collapsing and lowering the top and for folding the bows of the top evenly and compactly when the top is lowered.

The above object is attained by the structure illustrated in the accompanying drawings, in which:—

Figure 1 is an elevation of a vehicle top constructed in accordance with my invention, showing the top extended. Fig. 2 is a similar view of the parts with the top in the folded position and the fabric covering omitted. Fig. 3 is a transverse section on line 3—3 of Fig. 1. Fig. 4 is a perspective view of a clip which is attached to the middle bow socket, a pivoted link which connects the end of the front bow socket with said clip, and a fitting at the end of the front bow socket which is connected to the upper end of the link, said parts being disassembled.

Referring to the characters of reference, 1 and 2 designate the rear and middle bow members or bow sockets, respectively, which are pivotally connected to suitable fittings on the body 3. It is ordinarily the custom to pivot the front bow members or bow sockets 4 upon the pivot 5 of the middle bow sockets or adjacent thereto, but in order to afford more room under the front bow sockets 4 so as to make it more convenient for the drivers of automobiles to leave and enter the front seat of a car when the top is raised, it is desirable to raise the front bow sockets so that they will lie in the plane shown in Fig. 1 when the top is extended. Where the front bow sockets are raised to afford more room thereunder, as shown in Fig. 1, it is necessary to provide for lowering the point of pivotal connection of the ends of said bow sockets in order to permit the top to fold, as shown in Fig. 2. To accomplish this result, the links 6 and clips 7 are employed, said clips being rigidly secured to the bow sockets 2 and the lower ends of said links being pivoted at 8 to said clips, while the upper ends of said links are pivoted at 9 to the fittings 10 at the lower ends of the front bow sockets. Upon the links 6 are formed the curved jaw members 11 which embrace the bow sockets 2 when the top is raised or extended and brace the links and the front bow sockets against lateral movement. When the top is extended, as shown in Fig. 1, and the ordinary straps 12 attached thereto, the front extension of the top is firmly supported in a manner which allows the driver to freely enter the car or alight therefrom without the annoyance of dodging under the front bow sockets, as in the common arrangement.

When it is desired to lower the top, the straps 12 are released and the links 6 swung downwardly, thereby carrying downwardly the lower ends of the front bow sockets 4 into a position to enable the top to be readily folded rearwardly, as shown in Fig. 2, the links 6 lying between and parallel with the bow sockets 2 and 4, and the lower ends of the front bow sockets lying in the jaws 11 to enable the parts to assume close proximity. When it is desired to raise the top, the links are swung upwardly and the top raised and extended in the customary manner. It will be noted that the relative position of the rear ends of the front bow sockets and the pivotal points of the links 6 are such that when the top is extended the links 6 cannot be swung downwardly until the straps 12 are released and the front bow sockets raised, whereby, when in service, the parts are held firmly in position.

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

1. In a carriage top, the vertical bow sockets, the front bow sockets lying in a substantially horizontal plane, vertically disposed links pivotally connected at their ends to the vertical bow sockets, the other ends of said links being pivoted to the inner ends of the horizontal bow sockets, which when the top is extended project from the upper ends of said links at substantially right angles thereto, said links serving wholly to support the inner ends of said sockets at a point well above the pivotal point of attachment of the lower ends of said links, and means for locking the upper ends of said links to the vertical bow sockets to hold them against lateral movement when supporting the pivoted ends of the horizontal bow sockets.

2. In a carriage top, the vertical bow sockets, the substantially horizontal bow sockets, vertically disposed links, said links being pivoted at their ends to the central portion of the vertical bow sockets to swing in either direction into parallel relation therewith, the other ends of said links being pivoted to the inner ends of the horizontal bow sockets to wholly support and carry the pivoted ends of said horizontal bow sockets when the top is extended, and means carried by said links engaging the vertical bow sockets and coöperating therewith to hold the upper ends of the links against lateral movement when supporting the pivoted ends of said horizontal bow sockets with the top extended, said holding means also serving to lock the parts against lateral movement when the top is folded.

3. In a carriage top, the vertical bow sockets, the front bow sockets lying in a substantially horizontal plane, vertically disposed links, pivotally connected at their lower ends to the vertical bow sockets to normally lie substantially parallel thereto, the upper ends of said links being pivoted to the inner ends of the horizontal bow sockets, which, when the top is extended project from the upper ends of said links at substantially right angles thereto, said links serving wholly to support the inner ends of said horizontal sockets at a point well above the pivotal point of attachment of the lower ends of said links, means for securing the upper ends of said links to the vertical bow sockets to hold them against lateral movement when supporting the pivoted ends of the horizontal bow sockets, and a strap connected with the front ends of the horizontal bow sockets to exert a downward strain thereon.

4. In a carriage top, the vertical bow sockets, the front bow sockets lying in a substantially horizontal plane, vertically disposed links pivotally connected at their ends to the vertical bow sockets, the other ends of said links being pivoted to the inner ends of the horizontal bow sockets, which when the top is extended project from the upper ends of said links at substantially right angles thereto, said links serving wholly to support the inner ends of said sockets at a point well above the pivotal point of attachment of the lower ends of said links, and means for preventing lateral movement of the links relative to the bows when the top is in either its extended or collapsed position.

5. In a vehicle top having a vertically-disposed bow and a diagonal or brace bow, a shortening device connecting said bows and comprising a lever pivotally connected at one end to said vertically-disposed bow and at its other end to said diagonal or brace bow, said lever having a U-shaped extension at its outer end adapted to embrace said vertically-disposed bow when the top is raised and to embrace said diagonal or brace bow when the top is folded.

6. In a vehicle-top, and in combination with its forward main bow and front bow, a link pivotally connected at one end to the main bow above its lower end and at its other end pivotally connected to the lower end of the front bow, and adapted by its swinging movement to shift the lower end of the front bow upwardly when the top is up and downwardly when the top is lowered, said link being provided with steadying flanges engaging the main bow when the top is up.

7. In a vehicle top construction, a main bow member and a top extension bow member, a link extending between and having a pivotal connection with each of said bow members said link and main bow member being substantially parallel when the top is extended, and means for holding the link and main bow member together when the top is extended so as to prevent relative lateral movement of said parts.

8. In a vehicle top construction, a main bow member and a top extension bow member, a link extending between and having a pivotal connection with each of said members, and means for preventing relative lateral movement between the main bow member and link when the top is extended, comprising a device associated with one of said parts and adapted to interlock with the other of said parts.

9. In a vehicle top construction, a main bow member and a top extension bow member, a link member extending between and having a pivotal connection with each of said bow members and adapted to be swung upwardly to a position substantially parallel to the main bow member when the top is extended and to be swung downwardly to

a position substantially parallel to the main bow member when the top is collapsed, and means for preventing relative movement between said members when the link member is in a position substantially parallel to the main bow member, comprising a device carried by one member and adapted to interlock with another member.

10. In a vehicle top construction, a main bow member, a top extension bow member, a link extending between and having a pivotal connection with each of said bow members and adapted to lie substantially parallel to the main bow member when the top is either extended or collapsed, and means for holding the link and one of said bow members together when said parts are substantially parallel.

11. In a vehicle top construction, a main bow member and a top extension bow member, a link member extending between and having a pivotal connection with each of said bow members, and adapted to be swung from an upper position substantially parallel to the main bow member to a lower position substantially parallel to the main bow member, and means for holding said members together when the link member is substantially parallel to the main bow member, comprising means carried by one of said members and having a recessed portion which receives another of said members.

In testimony whereof, I sign this specification in the presence of two witnesses.

DAVID E. VANDERVEER.

Witnesses:
I. G. HOWLETT,
E. S. WHEELER.