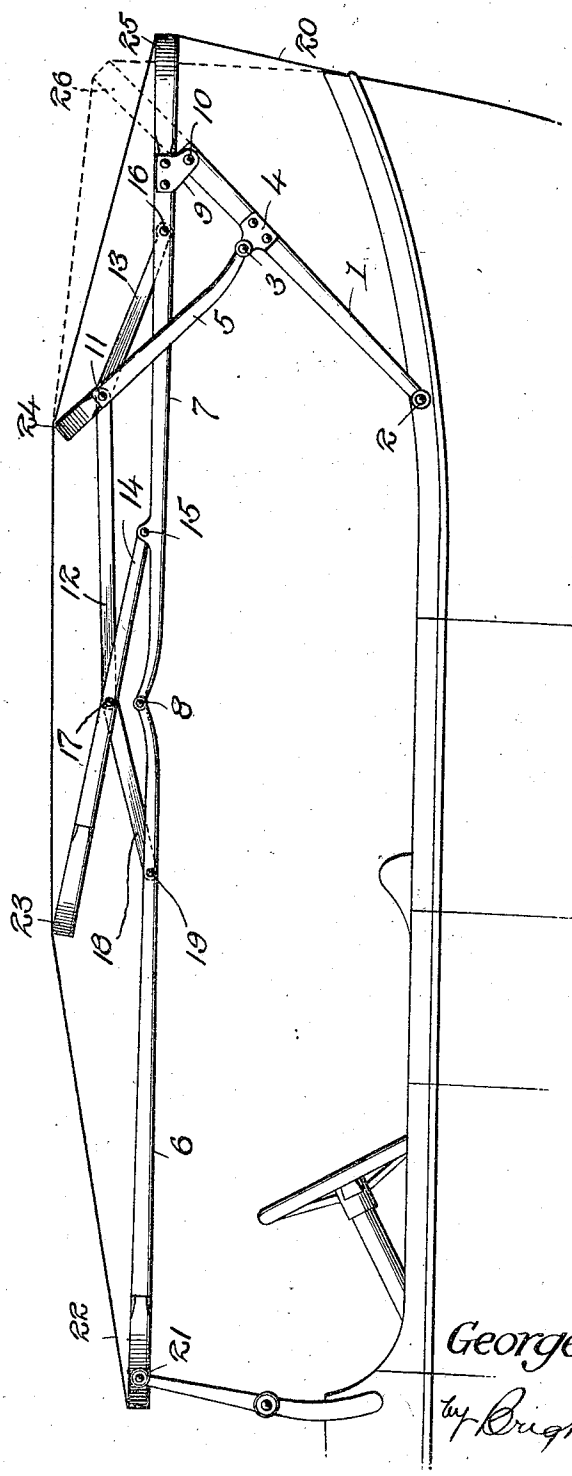
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G. L. SMITH

VEHICLE TOP FRAME

Filed July 28, 1921



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UNITED STATES PATENT OFFICE.

GEORGE L. SMITH, OF WASHINGTON, DISTRICT OF COLUMBIA.

VEHICLE TOP FRAME.

Application filed July 28, 1921. Serial No. 488,140.

To all whom it may concern:

Be it known that I, GEORGE L. SMITH, a citizen of the United States, and resident of Washington, in the District of Columbia, have invented certain new and useful Improvements in Vehicle Top Frames, of which the following is a specification.

It is my purpose to provide a collapsible top frame for touring cars which will resemble in appearance, at the rear corners, that produced by the frame outlined in my application 350,964, filed Jan. 12, 1920, in that the rear bow lies substantially in a horizontal direction, and to embody therein structure in which the supporting bow is not directly connected to the vehicle body, but to a rearwardly inclined standard supporting the rear end of the cover frame while at the same time retaining the same principle of support to the cover frame as that disclosed and claimed in my aforesaid application. This modification provides an unobstructed view to the side which is not obtained by the design outlined in my application 350,964.

Furthermore, in the present development, the downward movement of the rear bow, when collapsing the top, is under control, being dependent upon the angular movement of the front bow with respect to the rear bow, so that danger of the latter falling suddenly and hitting the sides of the vehicle body is avoided. Were such action permitted damage to the paint work is likely.

I will describe my invention with reference to the accompanying drawing disclosing a side view of the frame shown in erected position.

Referring now to the drawing 1 represents the supporting standard adapted to be pivotally connected to a vehicle body by the pivot 2. The bracket 4 secured to the standard 1 carries the pivoted end 3 of the supporting bow arm 5.

The bow arms 6 and 7 are pivoted together at 8 and the rear bow arm 7 is pivoted to the standard 1 by suitable clips 9 as at 10.

The supporting bow arm 5 crosses the rear bow arm 7 and carries on its side a pivot 11 to which the links 12 and 13 are pivoted. The auxiliary bow arm 14 is pivoted to the rear bow arm at 15. The link 13 is also pivoted to the rear bow arm at 16 and the link 12 is pivoted to the auxiliary bow arm at 17. An additional link 18 is also pivoted to the bow arm 14 at 17 and to the bow arm 6 at 19. Wood top bows 22, 23, 24, 25 are secured to the ends of the bow arms to complete the cover frame and form a support for the top material.

While I prefer to carry the rear bow 25 in substantially a horizontal position, I wish to point out that it is possible to place this bow in a diagonal position, as shown by dotted lines and designated 26, by driving it into the standard 1 which is of tubular construction and similar to the rear bow arm 7. This change will involve no change in the construction or operation of the frame, but will produce a top similar in general appearance to those now commonly in use. My preference for the first named position of the rear bow is based upon the change resulting in the general appearance of the top, thus introducing a new style; also upon the fact that the curve of the rear corners of the vehicle body can be more easily matched with a bow horizontally disposed.

Connecting members 20 connect the rear bow to the vehicle body and clamps 21 are provided to connect the front bow to the vehicle wind shield.

It will be seen that the bow arm 5 acts as a compression member and that the link 13 together with that part of the structure between the pivots 10 and 16 constitute a tension member holding up the pivot 11 in much the same manner as a derrick boom is supported on its mast. The bow arm 6 is held up by the link 18 which acts through the links 12 and 13 to exert a pull on the upper end of the standard at the pivot 10. These three links constitute an arch in tension, supported from the pivot 11. The rear bow is supported by the front bow arm 6 and in the preferred construction by the downward pull of the member 20, which latter is connected at its lower end to the vehicle body.

In collapsing, the pivot 8 flexes, the front bow arm swings back, and the rear bow arm swings down carrying with it the pivots 15 and 16 and the frame then assumes its collapsed position.

While only one auxiliary bow arm is shown and described, it is manifest that two or more can be used if desired.

As the right and left sides of my frame are symmetrical the following claims, for the sake of brevity, are worded to apply to one side only.

I claim:—

1. A collapsible top frame for vehicles, including a supporting standard adapted to be pivotally connected to a vehicle body, an arm extending substantially in a horizontal direction and pivotally connected to the upper end of the standard, a forwardly extending bow arm directly pivoted to said first named arm, a supporting bow arm crossing said first named arm and pivotally connected to the supporting standard at a point intermediate its ends and links pivotally connected to the supporting bow arm, said first named arm and the forwardly extending bow arm at points intermediate their ends, said supporting standard and said first named arm being adapted to selectively receive the rear top bow.

2. A collapsible top frame for vehicles including a supporting standard, a supporting bow arm pivotally connected to said standard at a point intermediate its ends, front and rear bow arms extending substantially in a horizontal direction and pivotally connected together, the rear arm crossing the supporting bow arm without connection thereto and being pivotally connected to the upper end of the standard and links pivotally connected to the supporting bow arm and to the front and rear bow arms, said links forming an arch in tension suspended from the supporting bow arm.

3. A collapsible top frame for vehicles including a supporting standard adapted to be pivotally connected to a vehicle body, a rear bow arm extending substantially in a horizontal direction and pivotally connected adjacent its rear end to the upper end of the supporting standard, a supporting bow arm crossing the rear bow arm and pivotally connected to the supporting standard at a point intermediate its ends, a front bow arm pivotally connected to the rear bow arm, an auxiliary bow arm pivotally connected to the rear bow arm and links pivotally connected to the front, auxiliary, supporting and rear bow arms, said links forming an arch in tension suspended from the supporting bow arm.

4. A collapsible top frame for vehicles including supporting standards adapted to be pivotally connected to a vehicle body, a rear bow the arms of which extend substantially in a horizontal direction and are pivotally connected at their rear ends to the upper ends of the standards, a supporting bow, the arms of which cross the rear bow arms and are pivotally connected to the supporting standards at points intermediate their ends, a front bow, the arms of which are pivotally connected to the arms of the rear bow, an auxiliary bow, the arms of which are pivotally connected to the arms of the rear bow, links pivotally connected to the front, auxiliary, supporting and rear bow arms, said links forming an arch in tension suspended from the supporting bow arms.

In testimony whereof I hereunto affix my signature.

GEORGE L. SMITH.