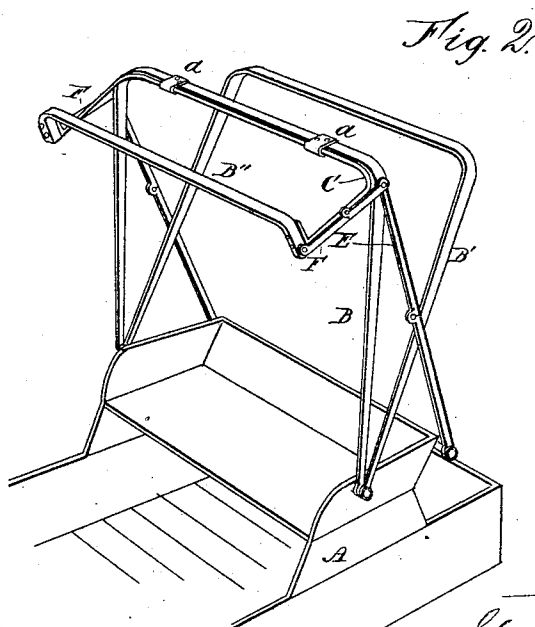
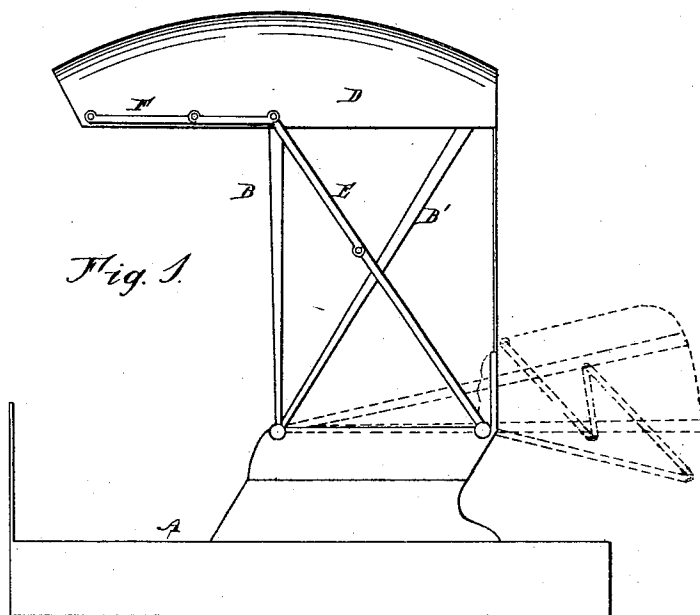


(No Model.)

G. B. ST. JOHN.
CARRIAGE TOP.

No. 480,295.

Patented Aug. 9, 1892.



Attest

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Inventor
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Att'y.

UNITED STATES PATENT OFFICE.

GARLAND BRAINARD ST. JOHN, OF KALAMAZOO, MICHIGAN.

CARRIAGE-TOP.

SPECIFICATION forming part of Letters Patent No. 480,295, dated August 9, 1892.

Application filed January 31, 1891. Serial No. 379,858. (No model.)

To all whom it may concern:

Be it known that I, GARLAND BRAINARD ST. JOHN, a citizen of the United States, residing at Kalamazoo, in the county of Kalamazoo and State of Michigan, have invented certain new and useful Improvements in Carriage-Tops; and I do hereby 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.

The object of my invention is to so construct a carriage-top as to admit of its being folded down, so that a portion of the canopy serves as a hood to protect the remainder from rain and dust in an improved, simple, neat, and substantial manner.

The invention consists in the construction, combination, and arrangement of parts, as hereinafter fully set forth and claimed.

In the accompanying drawings, forming a part of this specification, Figure 1 is a side elevation of a carriage-top embodying my invention, and Fig. 2 is a view of the skeleton of the same in perspective.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A is the body of a common carriage, and to this is pivoted in the usual manner a pair of bows B B'. To the forward bow B is pivoted in suitable bearings a a a bail C, the forward extremities of which are firmly attached to a short bow B''. This bail is in practice made, preferably, of spring-steel to give it great strength and lightness, and is bent, as will be seen in Fig. 2, to conform to the shape of the middle bow, so that when the top is folded it works freely between the cover and inside lining and hinged at the forward edge of bow B and flush with the upper surface thereof in thin sheet-iron bearings a a. This construction, as will be readily seen, admits of the necessary folding down of the forward portion of the canopy (as respects the whole top) without unduly straining the cover or lining, the spring yielding sufficiently to relieve the natural strain. In

the same manner the bail holds the forward bow taut, allowing the cover to shrink or stretch slightly in the sun or rain without either tearing or sagging. It is further to be noted that this bail running across the top and rigidly secured by its forwardly-projecting arms to the forward bow makes the top extremely strong laterally and prevents it from swaying in the least.

The foregoing advantages secured by the use of a steel-wire bow have not, I believe, been realized in tops of this type as heretofore constructed. On these bows is mounted the canopy D. When elevated, the top is held in position by diagonal rule-jointed braces E E, extending from the rear part of the seat to near the top of the bow B. Two pairs of shorter braces F F extend from the bow B to the bow B'', and when locked in their normal position support the said bow B'' and its connected bail.

The operation of the device will clearly appear by reference to Fig. 1. The breaking of the joint of the braces E E allows the top to swing back and down, the bows B B' closing together in the usual manner. Now by breaking the joint of the braces F F the forward portion of the canopy folds forward and down over the other part thereof, as indicated by the dotted lines in Fig. 1, thus protecting the parts from rain, dust, &c.

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

In a carriage-top, the combination, with the bows B B'' and their connecting-braces, substantially as described, of an interposed spring-bail rigidly secured to the bow B'' and hinged to the bow B, substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

GARLAND BRAINARD ST. JOHN.

Witnesses:

H. B. COLMAN,
H. B. FISHER.