

(No Model.)

E. A. SOMMERFRUECHTE.
CARRIAGE TOP.

No. 518,746.

Patented Apr. 24, 1894.

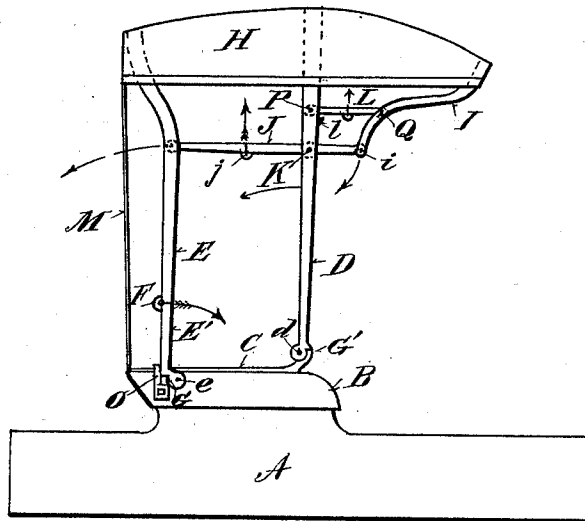


Fig. 1.

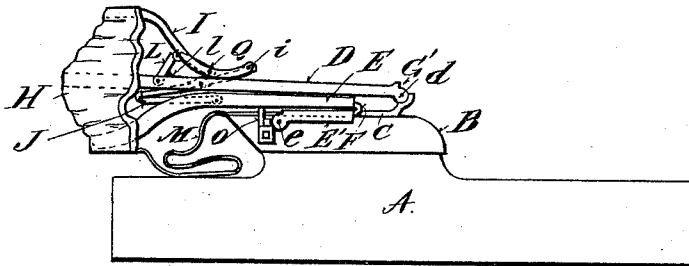


Fig. 2.

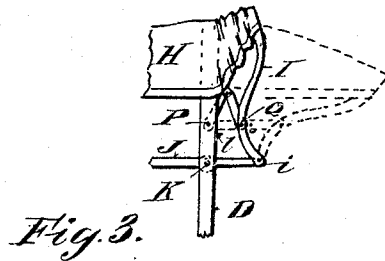


Fig. 3.

WITNESSES:

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UNITED STATES PATENT OFFICE.

EMIL A. SOMMERFRUECHTE, OF ST. LOUIS, MISSOURI.

CARRIAGE-TOP.

SPECIFICATION forming part of Letters Patent No. 518,746, dated April 24, 1894.

Application filed December 26, 1893. Serial No. 494,722. (No model.)

To all whom it may concern:

Be it known that I, EMIL A. SOMMERFRUECHTE, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Carriage-Tops, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to certain new and useful improvements in carriage tops.

My improvements have reference to a top supported on a plurality of bows having their arms substantially vertical and pivotally supported, and suitably braced; have reference to a front bow and its support on a lever brace; have reference to jointed side arms for one of said bows, and to other points hereinafter set forth and claimed.

In the accompanying drawings on which like reference letters indicate corresponding parts, Figure 1 represents a side view of a carriage top of my construction, raised; Fig. 2, a similar view, dropped; and Fig. 3, a partial side view with the front bow thrown back.

The letter A designates the body of a vehicle having a seat B, and side rail C. The ends of the side arms D and E, are attached to the rail, or otherwise supported above the seat, by horizontal pivots *d* and *e*. The rear bow is jointed on each side at F, so that the lower end, E', may throw forward. A heel and stop G, prevents backward movement of the part E' and a similar heel and stop, G', prevents the bow D from throwing forward. Other means for bracing the top as a whole may be employed.

The top proper, H, is supported on the bows as usual, but the front bow I, supporting the hood, has short arms which are preferably curved as shown to give clearance in entering and leaving the vehicle. The lower ends are pivotally supported at *i*, on the forward ends of jointed side braces J, which have a lever action on the front bow. The lever portion of this brace is fulcrumed at K on the bow arm D near the top, and the other portion is pivoted to the bow arm E, with the joint *j*, between the said bows, and preferably breaking upward. A secondary jointed brace L, braces the front bow outward, and also breaks upward; its ends are pivoted at P and Q.

When the frame work is in the position shown in Fig. 1, the heels and stops, G G', assisted by the back strips M, maintain the structure from tipping forward or backward as a whole. The tension of the top H, and the outward thrust of the brace J, prevents the joint F in the rear bow from breaking in till the joint *j* is broken upward as indicated by the arrow. This throws downward the outer end of the lever portion of the brace, to which is pivoted the front bow, and allows the lower part E' of the rear bow, to throw forward alongside the rail, while the upper part doubles up and throws backward thereon, as shown in Fig. 2. A rubber cushion O, supports it when down. The bow D throws backward simultaneously and lays parallel to E, as shown, while the front bow is drawn in by the action of the lever brace J; thus the whole frame work collapses at once on breaking up the said brace J, which is the key to the structure on each side. It is understood that the other side of the carriage is in duplicate.

Fig. 3 shows how the brace L may be broken upward independently and the front bow thrown back without disturbing the remainder of the top; but it is not necessary to touch this brace in collapsing the top. The rectangular space below the brace L, is shortened on one diagonal and lengthened on the other, as the pivot point *i* is thrown down in an arc about K; this causes the brace L to break up automatically, assisted if necessary by a projection, *l*, on the bow D. The rear bow is curved backward at the top and drops below the level of the seat when down, while the arms of the front bow lie against the adjacent bow D. As the braces are inside they can be easily operated without rising from the seat; the open side below the main brace gives a clear view; the short arms of the front bow facilitate entering and leaving the carriage, while the lever-brace mount operates the bow automatically in collapsing. The simplicity of construction renders it easy to operate and manufacture.

I lay broad claim to the construction herein shown and described.

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

1. The combination with a collapsible top, of a pair of substantially vertical side arms on each side, each arm pivoted at its lower end and adapted to turn toward its mate, and
5 one arm of each pair having a hinge-joint breaking inward, and a horizontal brace for each pair near the top to press them apart and put said top under tension.
2. In a carriage top, the combination with
10 the main bows and a front bow having short side arms, of a jointed brace pivoted to said main bows,—the forward portion constituting a lever-support for said front bow pivotally secured thereto, and a secondary brace for
15 said front bow.
3. In a carriage top, the combination with a pair of main bows having substantially vertical side arms pivotally supported at their lower ends,—one bow having hinge-joints in
20 the side arms,—and a front bow with short arms, of a jointed lever-brace on each side of the top pivotally secured to the main bow arms and extending forward to support the corresponding end of the front bow arm, and a secondary jointed brace for said front bow,
25 adapted to be broken at the joint when the said lever brace is broken.
4. In a carriage top, the combination with the seat-rail having opposing stops, of the main bows and their side arms, D, and E E'
30 having the joint F, the brace J fulcrumed at K, the front bow I, the secondary brace L, and the top proper H,—all substantially as shown and described.

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

EMIL A. SOMMERFRUECHTE.

Witnesses:

H. M. PLAISTED,
C. H. TALMAGE.