J. KUNTZ & S. F. SCHROEDER.

Carriage-Top.

No. 210,128. Patented Nov. 19, 1878.

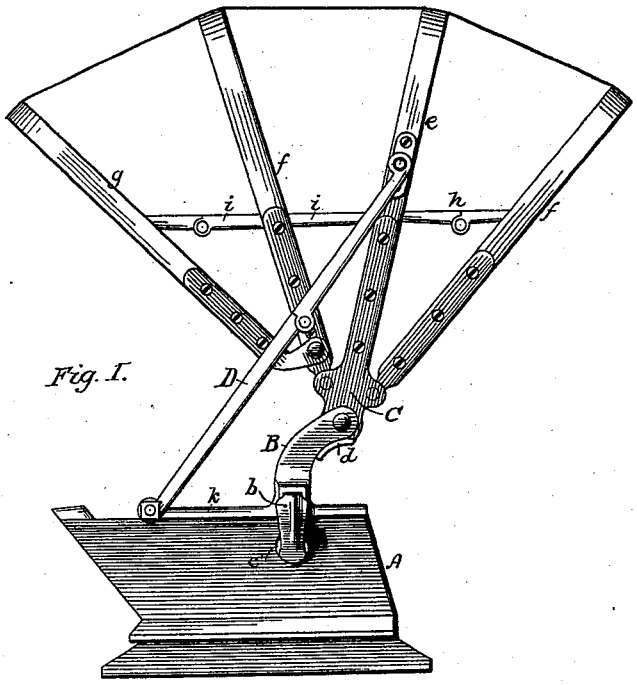

Fig. 1.

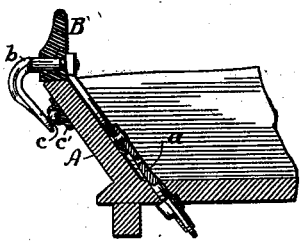

Fig. 3.

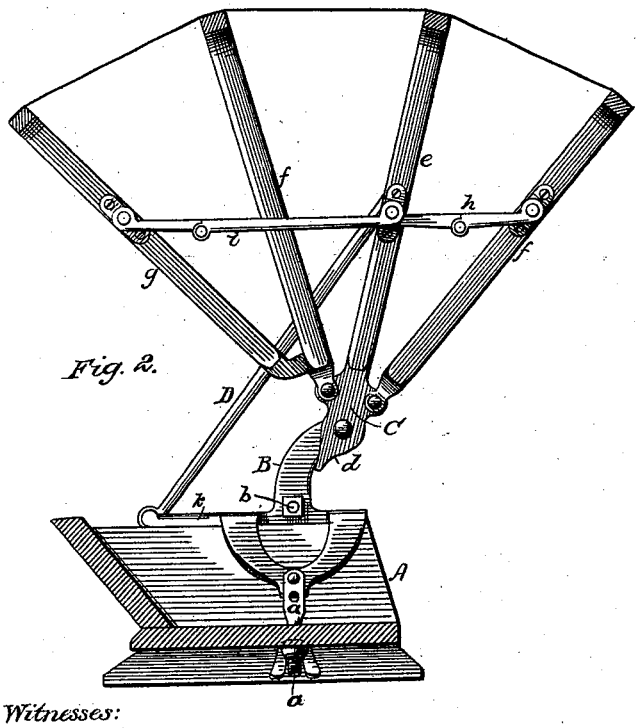

Fig. 2.

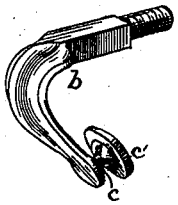

Fig. 4.

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UNITED STATES PATENT OFFICE.

JOHN KUNTZ AND STEPHEN F. SCHROEDER, OF DUBUQUE, IOWA.

IMPROVEMENT IN CARRIAGE-TOPS.

Specification forming part of Letters Patent No. **210,128**, dated November 19, 1878; application filed August 24, 1878.

To all whom it may concern:

Be it known that we, JOHN KUNTZ and STEPHEN F. SCHROEDER, of Dubuque, in the county of Dubuque and State of Iowa, have invented certain new and useful Improvements in Carriage-Tops; and we do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Our invention relates to that class of carriage-tops which do not tip forward of an upright position, and which are held up by jointed braces; and our invention consists, first, in providing the bow-plates with shoulders just below the points of pivotal connection with the standards, which strike against the front sides of the standards and prevent the top from tipping forward of a vertical position; second, in the peculiar construction of the parts for securing the standards to the seat, being an improvement upon the devices for the same purpose covered by Patent No. 203,743, granted to us May 14, 1878; third, in the combination, with the standards, secured to the seat without making holes in the sides of the same, and so that they can be entirely removed therefrom without marring the seat or leaving parts attached to the same, of arms extended rearwardly from the standards along the top of the sides of the seat, and having the jointed braces pivoted thereto, such arms not being secured to the seat, but being held entirely from the standards; and, further, in the construction, arrangement, and combinations of the irons for supporting the top, as fully hereinafter explained.

In the drawings, Figure 1 is a side view of a carriage-seat with our top attached; Fig. 2, a sectional view, showing the inside of one of the standards; Fig. 3, a central section of a portion of one standard, the tightening and clamping bolts; and Fig. 4, a separate view of the clamping-bolt.

Like letters denote corresponding parts in all the figures.

To each side A of the carriage-seat is secured a standard, B, preferably curved forward, as shown, to which the top is pivoted. Each standard has a plate or offset at its lower end, cast therewith, which rests upon the top of the side A, and from the inside of this plate projects downwardly a U-frame placed in contact with the inner surface of the side of the seat.

To the lower end of the U-frame one or more bolts, *a*, are connected, which pass down through the bottom of the seat, and are screw-threaded to receive thumb-nuts to draw the standard tightly down upon the side of the seat, and to adapt the device to be applied to seats with sides of different heights. Each standard is clamped laterally to its side of the seat by a hook-bolt, *b*, which has an inwardly-turned square upper end passing through the standard, and held by a nut on the inner face of the standard. By turning this nut the standard is securely clamped to the seat, and this fastening and the downwardly-drawing bolt *a* prevent the parts from working loose and rattling; or, if the standard should become at all loose, the nuts can be readily tightened. The hook-bolt *b* also allows the standard to be attached to seats with sides of various thicknesses. The means for securing the standards to the seat, the seat-fastener, and the standard-irons themselves, with the exception of their curved form, are all shown in Patent 203,743, before referred to.

To apply this seat-fastener to carriage-seats where, for ornamentation, the exterior planes of the sides of the seat are not parallel with the interior faces, the downwardly-extending arm of the hook-bolt is curved outwardly somewhat to avoid the molding, and its lower end has a ball, *c*, projecting inwardly, on which is placed a plate, *c'*, having fingers which partially inclose this ball. This plate *c'* rests against the side of the seat, the hook-bolt being held out of contact with the same, and is capable of a rocking movement on the ball *c*, so as to fit seats with exterior surfaces at different angles. The plate is preferably round, without angles, and is large enough not to mar the seat.

The bow-plates C are pivoted to the upper ends of the curved standards by suitable bolts, and such bow-plates are extended downwardly on the inside of the standards and turned outwardly under the curved ends of the standards, forming shoulders *d*, which conform to the shape of the standards. These shoulders are

in contact with the standards when the top is in an upright position, and prevent it from tipping forward, relieving the braces and the rear curtain, when one is used, from all strain, and steadying the parts of the top.

It is evident that this shoulder can be made on the bow-plates above the points of pivot, and engagement made with projecting ends of the standards, or that the standards could be constructed with these shoulders either above or below the pivot, without departing from our invention, if the parts worked together to prevent the forward tipping of the top.

A four-bow top is shown, with the second bow, *e*, rigidly secured to the bow-plates, and the first and third bows, *f*, pivoted to the bow-plates, and the fourth bow, *g*, pivoted to the third, the first and second bows being rigidly connected by jointed bars *h* and the second and fourth by jointed arms *i*, which are inside of the curtain.

The top is held up by jointed braces D, which are connected at their upper ends to the bows *e* and at their lower ends to arms *k*, which extend along the sides of the seat, forming an extension of the plates or offsets of the standard-irons, and cast therewith. These arms *k* are held entirely by the seat-fastener, and are not themselves secured to the sides of the seat, so that the whole top can be removed from the seat without injuring the sides A, and without leaving any irons attached to it. These jointed braces and the seat-fastener can be used with the ordinary calash top by extending the arms *k* farther back. These devices make a strong and stiff top, which does not work loose, is easily applied to a carriage and removed therefrom, and can be conveniently adjusted.

What we claim as our invention is—

1. In a carriage-top, the combination of the standard B and the bow-plate C, having the shoulder *d* of the brace D, and the arm *k*, for the purpose of preventing the top from tipping forward and of holding it stationary in an upright position, substantially as described and shown.

2. The hook-bolts *b*, having pivoted bearing-plates *c* on their lower ends, substantially as and for the purpose set forth.

3. In a carriage-top, the combination, with the standards clamped to the sides of the seat, of the rearwardly-extending arms *k*, cast with the standards, and the jointed braces for holding the top, substantially as described and shown.

This specification signed and witnessed this 12th day of August, 1878.

JOHN KUNTZ.
STEPHEN FRANK SCHROEDER.

Witnesses:
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