J. KUNTZ & S. F. SCHROEDER.

Vehicle-Top.

No. 203,743. Patented May 14, 1878.

Fig. 1.

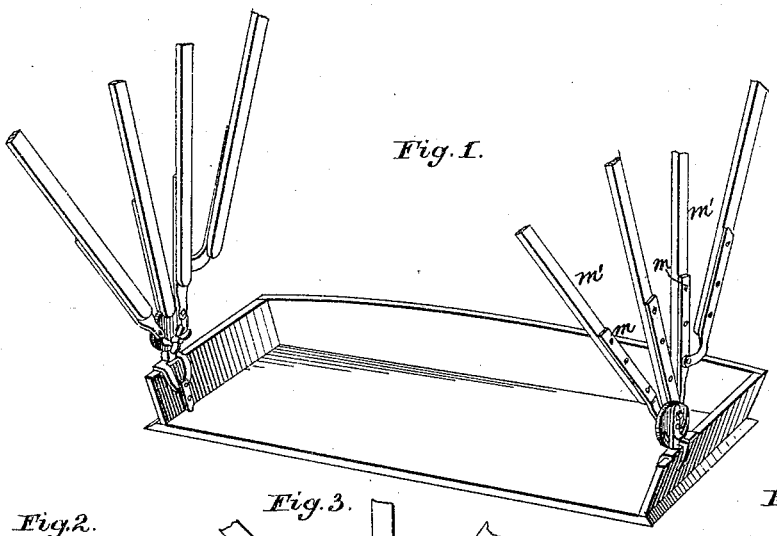


Fig. 2.

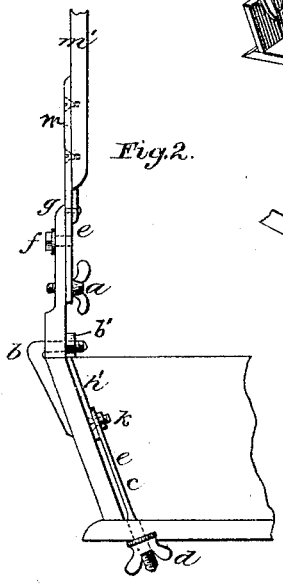


Fig. 3.

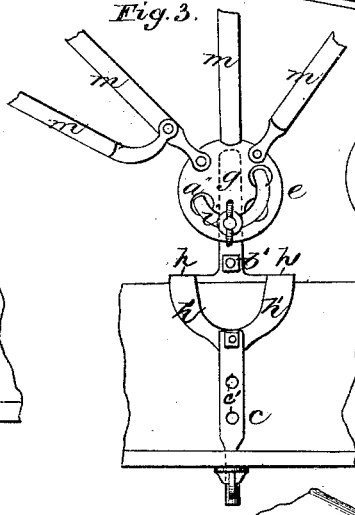


Fig. 4.

Fig. 5.

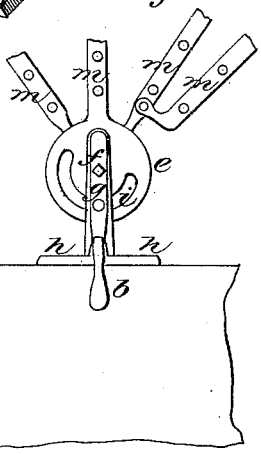


Fig 6

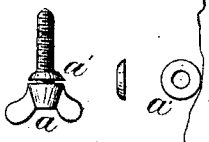


Fig 7

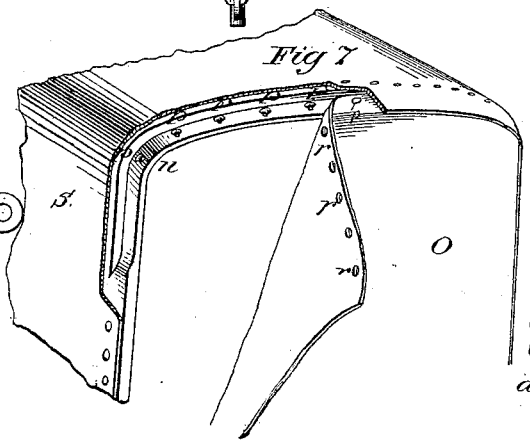
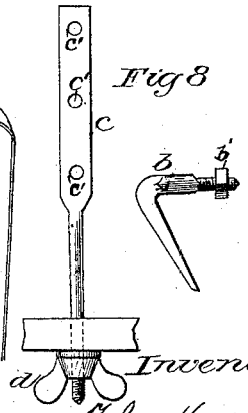


Fig 8



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UNITED STATES PATENT OFFICE.

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

IMPROVEMENT IN VEHICLE-TOPS.

Specification forming part of Letters Patent No. **203,743**, dated May 14, 1878; application filed January 22, 1878.

To all whom it may concern:

Be it known that we, JOHN KUNTZ and STEPHEN F. SCHROEDER, both of the city and county of Dubuque, and State of Iowa, have invented certain new and useful Improvements in Carriage-Tops, of which the following is a specification:

The object we have in view is to produce means for securing a carriage-top to the seat, so that it can be fitted and rigidly held to seats with sides of any thickness, and can be shifted from one carriage to another by a person of ordinary skill without injuring in the least the wood-work of the seats, and also to provide such a top with simple and convenient means for adjusting the top and holding the same at any desired point, and constructing the rear bow and so arranging the top covering and rear curtain that the joint between them will shed the water and prevent it from running down on the inside of the curtain; and our invention therein consists, first, in constructing the standards which support the bows with shoulders resting upon the top edges of the side pieces to the seats, and connecting to the lower ends of the same bolts, which pass through the bottom of the seat and have nuts on their lower ends, whereby the standard-irons can be drawn tightly down upon the sides of the seat, and will be rigidly held without driving screws into such sides; second, in a peculiar hook-bolt, extending down against the outside of each side of the seat, without being secured thereto, and having its upper end turned through the standard and provided with a nut, so as to clamp the standards securely to seats of any thickness and prevent them from being moved laterally; third, in the combination of the peculiarly-constructed standards and hook-bolts, and the bolt and nut for drawing the standards downwardly; and, further, in constructing the rear bow with a groove in its upper portion, and securing the top covering and rear curtain to the same, so as to shed the water onto the outside of the curtain, all as fully hereinafter explained.

In the drawings, Figure 1 is a perspective view of a carriage-seat, showing the manner of supporting and adjusting the bows; Fig. 2, a front view of one side of the same; Fig. 3, a view from the inside of one side of the seat; Fig. 4, a separate view of one of the disks; Fig. 5, an elevation from the outside of one side of the seat; Fig. 6, a separate view of one of the thumb-screws and its conical washer; Fig. 7, a view, in perspective, of a portion of the carriage-top, showing the construction of the rear bow; Fig. 8, a separate view of the hook-bolt and the bolt for drawing the standard downwardly.

Like letters denote corresponding parts.

The bows m' of the top are secured at their lower ends to irons m, which are attached to the upper edge of circular disks e. If the top has three bows, the central iron m, on each side, will be rigidly connected to its disk, while the outside irons will be pivoted to the disks. If the top has four bows, the irons of the rear bows will be made of curved form and pivoted to the irons of the next bow, as shown. The upper portion of the rear bow is cut away or grooved from its rear edge, so as to form a depressed surface with a rib in front of it. The rear curtain O has eyes r in its upper edge, and is secured over studs p situated in this groove. The top cover S is tacked to the rib on the bow and has its edge projecting, so as to lap over the rear curtain.

By these means it will be seen that the rain will run over the joint onto the outside of the rear curtain, and will be prevented from leaking through to the inside of the curtain, as is the case with carriage-tops as ordinarily constructed. When the rear curtain is removed in fair weather, the flap on the top covering hides the groove and makes a neat finish.

The circular disks e, to which the bow-irons are secured, are mounted upon the inside of standards g, to which the disks are centrally pivoted by suitable bolts f. In the lower part of each disk e is formed a circular slot, i, which is provided, at short intervals, with rounded seats or depressions a''. A thumb-screw, a, is passed through each slot i, and turns in a hole in the standard behind the disk. Upon each of the thumb-screws a is slipped a loose conical washer, a', which enters one of the depressions a'' when the screw is turned up, and holds the disk rigidly to the

standard. The bolts *f* support the entire weight of the top, so that no strain is exerted upon the thumb-screws *a*.

The top can be adjusted to any angle by loosening the screws *a*, and when the desired position is attained by tightening up these screws the top will be rigidly held, and without liability of working loose. Each standard *g* is provided with offsets or shoulders *h*, extending on each side of the standard, which rest upon the upper edge of the side of the seat. From the outer ends of these offsets projects a piece, *h'*, of U form, which extends about half-way down against the inside of the side piece of the seat, and has connected centrally to its lower end a plate-bolt, *c*. The bolt *c* projects downwardly through the bottom of the seat, and has its lower end screw-threaded, to receive a nut, *d*. By turning these nuts the bolts *c* will be drawn downwardly, and the offsets *h* will be firmly seated upon the sides of the seat.

The bolts *c* are secured to the pieces *h'* by bolts *k*, and each bolt *c* is provided with a number of securing-holes, *c'*, so that the fastening can be adapted to seats having side pieces of different heights.

A hook-bolt, *b*, is placed on each side of the seat, and has its upper horizontal arm squared, and passing through a square hole in the standard *g* above the offsets *h*. The end of this arm of the hook-bolt is screw-threaded, and provided with a nut, *b*. The long arm of the hook-bolt projects down on the outside of the seat, and is kept from turning by the square form of its horizontal arm. The hook-bolts are not secured by screws to the sides of the seat, neither are the standards, nor any of their parts; and by turning the nuts *b'* the standards will be prevented from moving or being sprung inwardly off of top edges of the seat. The hook-bolts adapt the standards for attachment to seats with sides of any thickness, while the flat bolts *c* adapt them for seats with sides of any height.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. The combination, with a carriage-seat, of standards for supporting the bows, having offsets resting upon the top edges of the sides of the seat, and the bolts *c* and nuts *d*, for drawing the standards downwardly, substantially as described and shown.

2. The bolts *c*, for drawing the standards down upon the sides of the seat, having a number of holes, *c'*, for securing the bolts to the lower projections of the standards, whereby the standards are adapted for attachment to seats with sides of different heights, substantially as described and shown.

3. The combination, with standards for supporting a carriage-top, having projections extending down on the inside of the seat, of the hook-bolts *b*, not secured to the seat, and projecting down on the outside of the same, and having horizontal arms passing through the standards, and provided with screw threads and nuts, substantially as described and shown, for the purpose set forth.

4. The combination, with standards *g* and bolts *c*, passing through bottom of seat, of the hook-bolts *b*, constructed and arranged substantially as described and shown.

5. In a carriage-top, the rear bow provided with groove and rib, in combination with the rear curtain O, secured at its upper edge in this groove, and the top covering S, lapping over this groove, substantially as described and shown.

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STEPHEN F. SCHROEDER.

Witnesses:
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