G. W. HEDRICK.

CARRIAGE TOP.

APPLICATION FILED OCT. 2, 1908.

955,512. **Patented Apr. 19, 1910.**

2 SHEETS—SHEET 1.

Fig. 1.

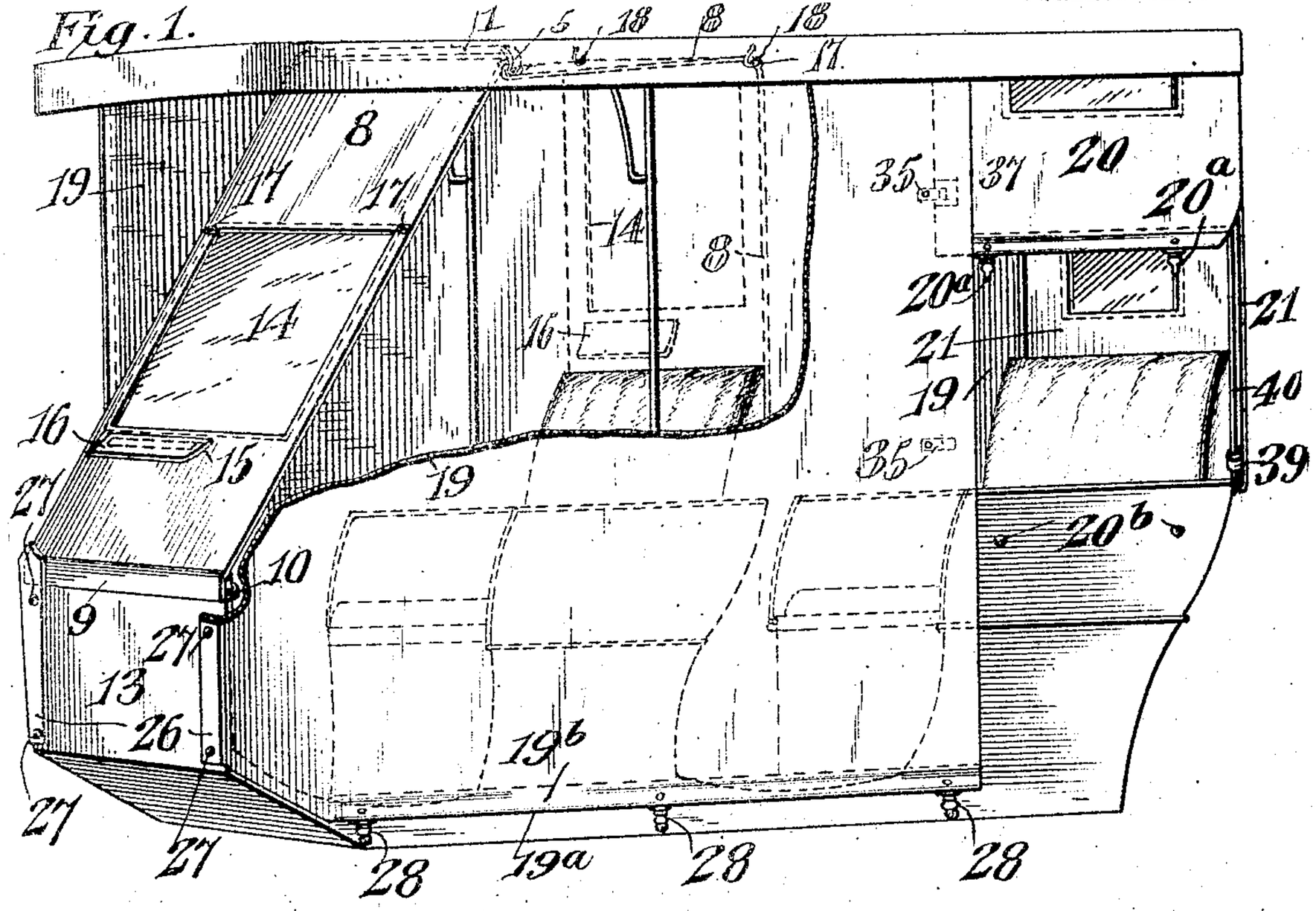


Fig. 2.

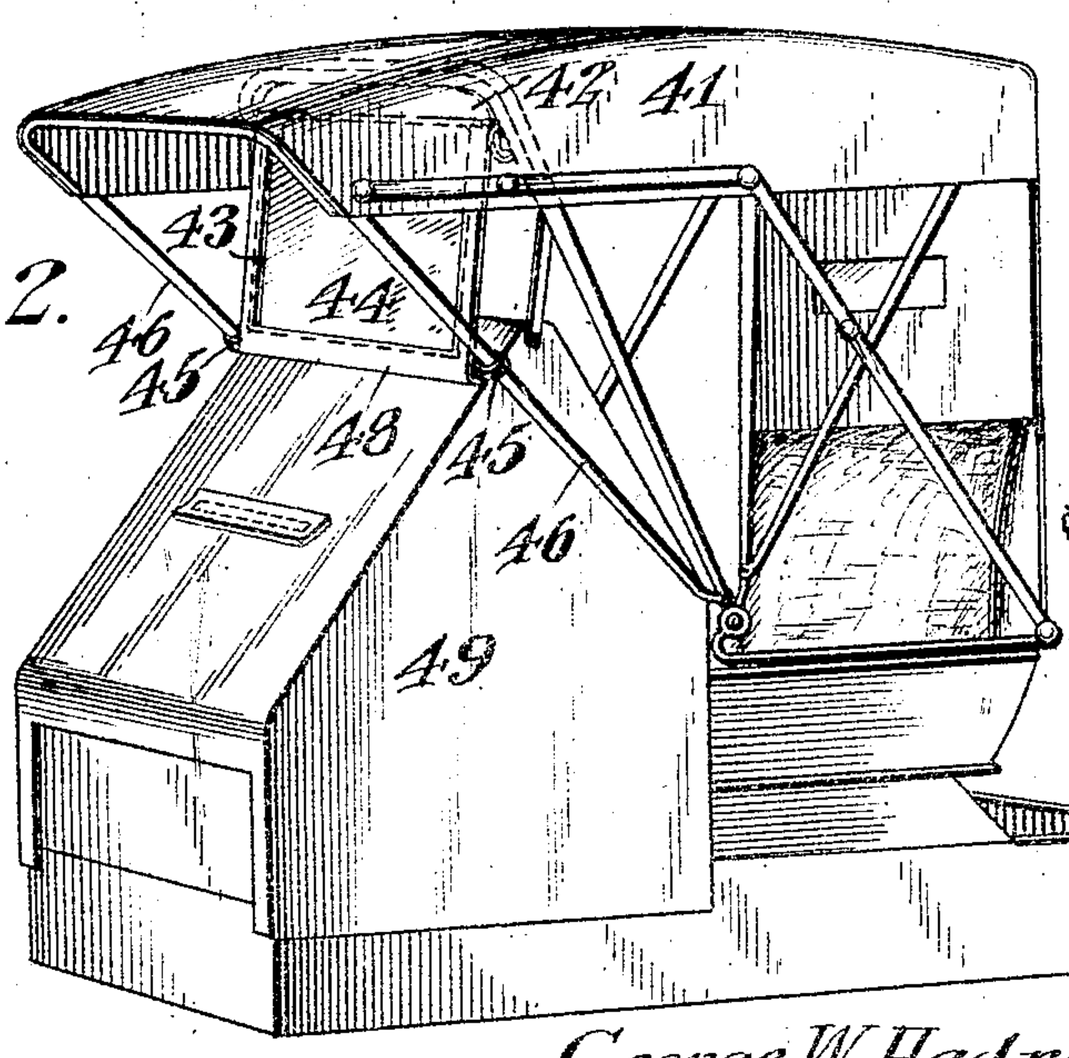


Fig. 10.

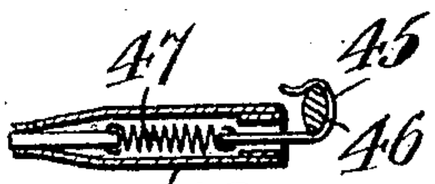
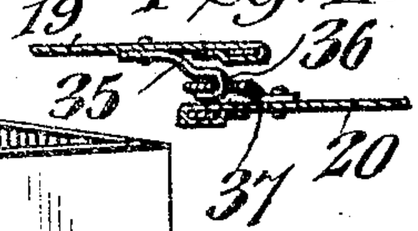


Fig. 11.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 3.

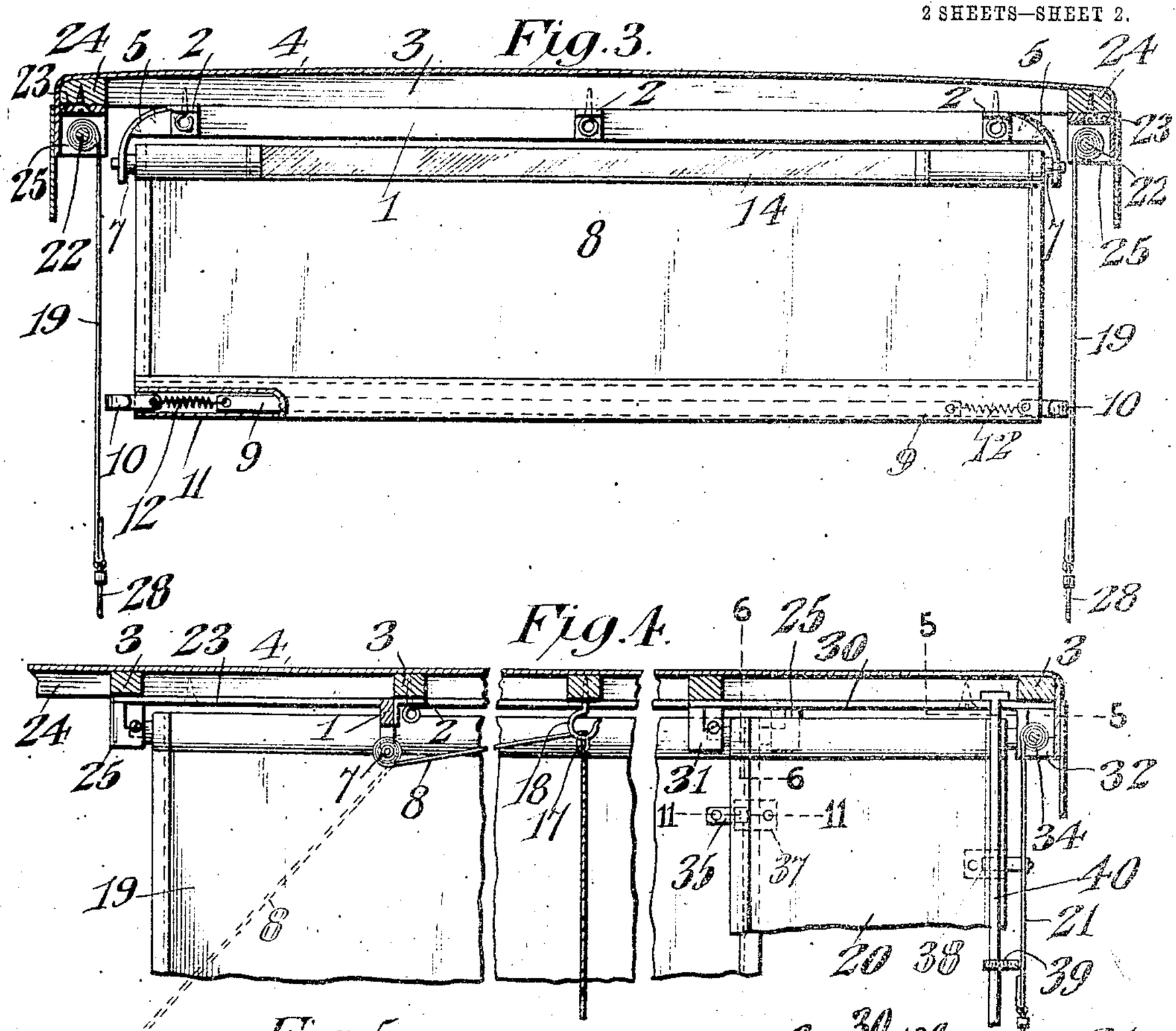


Fig. 4.

Fig. 5.

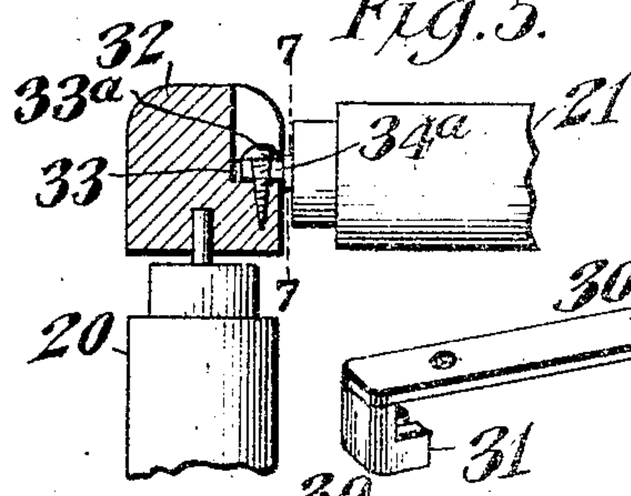


Fig. 8.

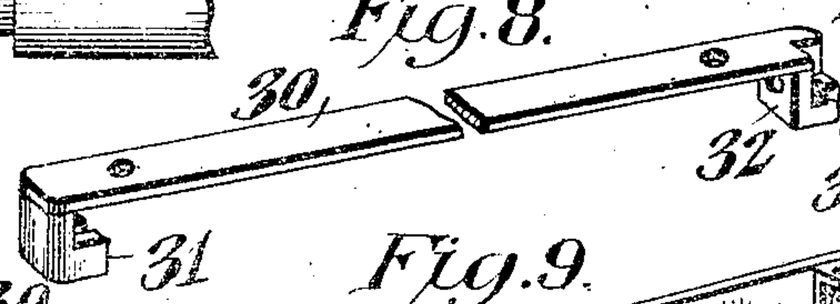


Fig. 6.

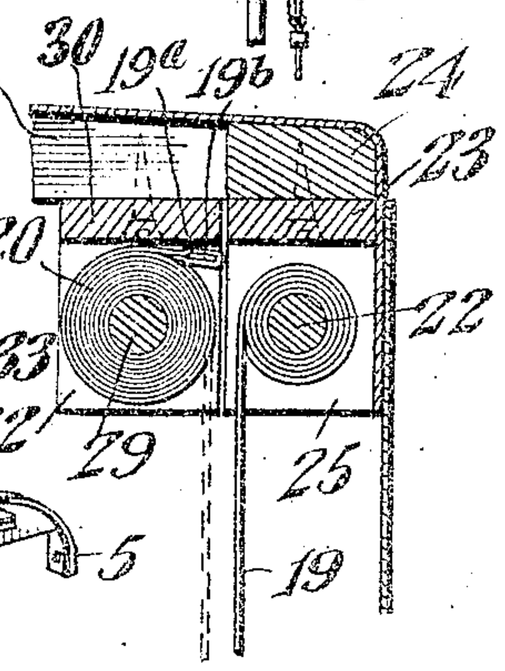


Fig. 7.

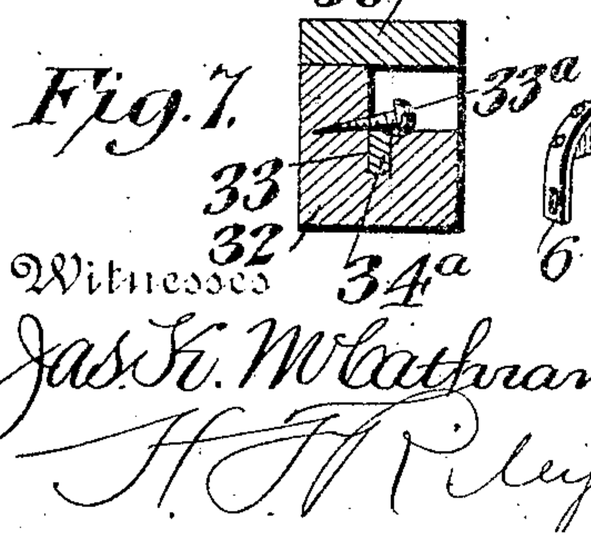
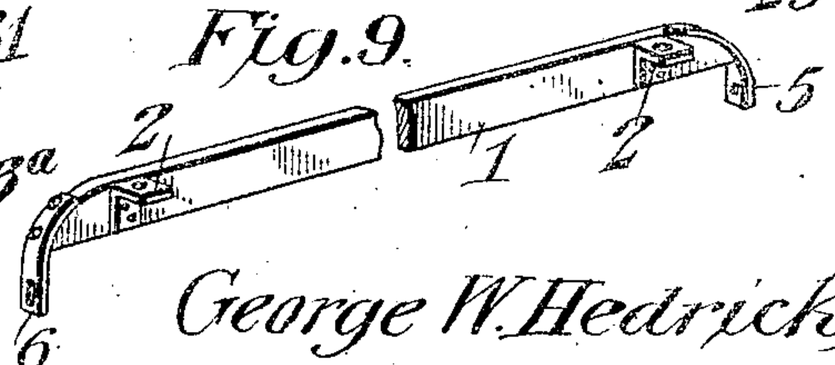


Fig. 9.



Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE W. HEDRICK, OF DAYTON, VIRGINIA.

CARRIAGE-TOP.

955,512. Specification of Letters Patent. Patented Apr. 19, 1910.

Application filed October 2, 1908. Serial No. 455,823.

To all whom it may concern:

Be it known that I, GEORGE W. HEDRICK, a citizen of the United States, residing at Dayton, in the county of Rockingham and State of Virginia, have invented a new and useful Carriage-Top, of which the following is a specification.

The invention relates to improvements in carriage tops.

The object of the present invention is to improve the construction of carriage tops, more especially the construction and arrangement of the curtains, and to provide a simple, inexpensive and efficient arrangement of curtains, adapted to be readily applied to various carriages, such as surreys, buggies, phaetons, etc., and capable of affording complete protection to the occupants.

A further object of the invention is to arrange the curtains so that they will be out of the way, when not in use, and to enable them to be quickly closed and secured when desired.

The invention also has for its object to provide a front or storm curtain, adapted to be arranged either at the extreme front of a surrey or analogous carriage, or at an intermediate point to shield the rear seat and expose the front seat when desired.

With these and other objects in view, the invention consists in the construction and novel combination of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended; it being understood that various changes in the form, proportion, size and minor details of construction, within the scope of the claims, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings:—Figure 1 is a perspective view of a surrey body and top provided with curtains, constructed in accordance with this invention. Fig. 2 is a similar view, showing the front curtain applied to a buggy. Fig. 3 is a transverse sectional view, illustrating the arrangement of the curtains when applied to a surrey, as shown in Fig. 1. Fig. 4 is a longitudinal sectional view, the front or storm curtain being shown at an intermediate point in full lines. Fig. 5 is a detail horizontal sectional view, taken substantially on the line 5—5 of Fig. 4. Fig. 6 is a vertical sectional view on the line 6—6 of Fig. 4. Fig. 7 is a detail sectional view on the line 7—7 of Fig. 5. Fig. 8 is a detail perspective view of one of the rear longitudinal curtain supporting bars. Fig. 9 is a detail perspective view of the transverse curtain supporting bar. Fig. 10 is a detail sectional view, illustrating the construction of the resilient hooks for holding the free end of the front curtain. Fig. 11 is a detail sectional view on the line 11—11 of Fig. 4, illustrating the means for connecting the adjacent side edges of the curtain.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a transverse curtain supporting bar, secured by suitable brackets 2 to one of the transverse top bars 3 of a surrey top 4, but the improvements herein shown and described are applicable to various forms and styles of carriages and analogous vehicles, as will be readily understood. The brackets 2 are preferably L-shaped and consist of vertical and horizontal portions, the vertical portions being secured to the curtain supporting bar 1, and the horizontal portions being attached to the transverse bar 3, as clearly illustrated in Fig. 4 of the drawings. The terminals of the curtain supporting bar 1 are rounded and are equipped with depending hangers 5 and 6, curved at their upper portions to conform to the configuration of the rounded edges of the supporting bar 1, and provided with apertures for the journals of a roller 7 of a front storm curtain 8. The roller, which is spring actuated, has a rounded journal at one end and is provided at its other end with a polygonal journal, which is connected with the spring of the roller in the usual manner. The aperture of the hanger 5 is rounded, and the other hanger 6 is provided with an oblong opening to conform to the configuration of the journals of the spring actuated curtain roller. The hangers 5 and 6 support the front curtain 8 in spaced relation with the supporting bar 1, and the free end of the curtain 8 is provided with a strip or bar 9, adapted to engage the supporting bar 1 to form a stop to limit the upward movement of the curtain. The space between the curtain 8 and the supporting bar 1 gradually lessens as the curtain winds around the roller, and after the curtain is wound up, the space is too small to admit of the strip or bar passing through it, so that the strip

or bar is caused to engage the supporting bar 1 and limit the rotary movement of the roller and the curtain.

The front curtain, which extends substantially across the space between the sides of the surrey top, is provided at its free edge with a casing to receive the strip or bar 9, and it is equipped with spring actuated hooks 10. The hooks 10 extend into the casing 11 and are connected to the outer ends of coiled springs 12, which have their inner ends secured to the terminals of the strip or bar 9. The free end of the front or storm curtain is fitted against the exterior of the dash 13 at the top thereof, and the hooks embrace the side edges of the dash, whereby the free edge of the front curtain is firmly clamped to the same. The front curtain is equipped with a transparent window 14 of celluloid, or other flexible material, and it is provided below the window with a slot or opening 15 and is equipped at the exterior thereof with a flap 16 normally covering the opening. The slot or opening 15 permits the lines to extend through the front curtain to the seat occupied by the driver.

The front or storm curtain is equipped at opposite sides at an intermediate point with eyes 17, located adjacent to the side edges of the front or storm curtain and adapted to engage hooks 18, depending from one of the top cross bars of the vehicle top and adapted to support the front or storm curtain at an intermediate point to expose the front seat of the surrey and shield the rear seat. The lower portion of the front of storm curtain fits against the back of the front seat when arranged in the intermediate position, illustrated in Fig. 4 of the drawings, and any suitable means may be employed for fastening the free lower edge of the front curtain.

The carriage top is equipped at each side with a pair of front and rear curtains 19 and 20, and it has a back curtain 21. The front or main side curtain, which covers the major portion of the side of the surrey, as illustrated in Fig. 1 of the drawings, is mounted upon a spring actuated roller 22 and is supported by a front longitudinal supporting bar 23, secured to the adjacent longitudinal side bar 24 of the top of the vehicle and provided at its terminals with depending hangers 25, having suitable bearings for the reception of the roller 22. The curtains 19 are provided at their lower portions with front extensions 26, which are secured by buttons 27, or other suitable means to the front face of the dash 13, as clearly shown in Fig. 1 of the drawings. The lower edges of the side curtains 19 are provided with casings 19^a and interiorly arranged strips or bars 19^b, and are equipped with suitable fastening means 28 for securing them to the body of the vehicle. The strip or bar 19^b and the casing within which the same is arranged form a stop for engaging the supporting bar 23 to limit the rotary movement of the curtain 19. The fastening means 28 preferably consist of tabs or loops, extending from the lower edges of the curtains 19 and engaging suitable buttons or studs of the body of the vehicle.

The rear or supplemental side curtains 20 are mounted upon spring actuated rollers 29, and are supported by rear longitudinal bars 30, secured to the adjacent cross bars of the top of the vehicle and provided at their terminals with depending hangers 31 and 32, having bearings for the curtain rollers 29. The rear hangers 32 are also provided at their inner sides with bearing recesses 33, which receive the journals of the spring actuated roller 34 of the rear curtain 21. The spring journal 34^a of the back curtain is secured in the recess 33 by means of a screw 33^a, or other suitable fastening means. The corresponding recess 33 of the other rear longitudinal supporting bar is circular to receive the rounded journal of the curtain roller. The front and rear side curtains 19 and 20 and their spring actuated rollers are mounted in different longitudinal planes, and the adjacent ends of both the rollers and the curtains extend beyond each other so that the rear side curtains overlap and fit against the inner faces of the rear portions of the front side curtains, and when closed, they are connected with the same by suitable fastening devices preferably consisting of hooks 35, secured to the front curtains and engaging apertures 36 of the plates or pieces 37 of the rear side curtains. The side edges of the back curtain are also connected with the rear edges of the rear side curtain by fastening means 38, preferably consisting of hooks and openings. The lower edges of the rear side curtains are secured to the body of the surrey by means of tabs or loops 20^a, extending from the free lower edges of the side curtains 20 and arranged to engage buttons or studs 20^b of the bottom of the vehicle. The lower edges of the rear side curtains are reinforced by strips or bars, arranged in suitable casings and forming stops for engaging the rear supporting bars 30 to limit the rotary movement of the curtains 20. The back curtain is also equipped with loops 39, which slidably receive and embrace the rear posts or rods 40 of the carriage top.

In Fig. 2 of the drawings the front storm curtain is shown applied to a buggy top 41, and it is secured to the same by means of a transverse supporting bar 42, constructed similar to that heretofore described. The curtain 43 is provided with a transparent window 44 and is equipped at its lower edge with spring actuated hooks 45 for engaging the front bow 46 of the buggy top, the bar 42 being preferably secured to the second

bow. The spring 47, which is connected with the hook 45, is concealed within the bottom casing 48 of the front curtain, as clearly shown in Fig. 10 of the drawings. The front curtain 43 coöperates with the storm apron 49, which may be of any preferred construction.

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

1. The combination with a vehicle top having a transverse bar, of a curtain supporting bar extending across the front of the vehicle top and arranged adjacent to and in advance of the said transverse bar and having its ends rounded at their upper edges, angular brackets secured to the transverse bar and to the supporting bar and connecting the latter with the former, curved metallic hangers secured to and fitting the rounded ends of the supporting bar and depending below the lower edge thereof and having bearings, and a curtain provided with a roller mounted in the said bearings.

2. A vehicle body having front and rear seats and including a storm curtain provided with a roller mounted within the vehicle top, said curtain also having intermediate eyes located at opposite sides of the curtain, and supporting means carried by the top of the vehicle and located in rear of the curtain roller and at a point in advance of the rear seat for suspending the curtain from the vehicle top at an intermediate point, whereby the storm curtain may be arranged directly in front of either the front or rear seat.

3. A storm curtain for shielding either the front or rear seat of a vehicle including supporting means for the curtain designed to be located above the front portion of the front seat, hooks designed to be secured to the top of the vehicle at points above the back of the front seat, means carried by the storm curtain and located at a point intermediate of its ends for engaging the hooks to support the storm curtain when the same is arranged for shielding the rear seat, and means for securing the free edge of the storm curtain to the dash of the vehicle when the curtain is arranged for shielding the front seat.

4. A vehicle top including front and rear longitudinal curtain supporting bars having depending hangers, front and rear side cursaid hangers, and a back curtain provided tains provided with rollers mounted in the with a roller mounted in the adjacent hangers of the rear longitudinal supporting bar.

5. A vehicle top including longitudinal curtain supporting bars provided with front and rear hangers having bearings, the rear hangers being also provided with side recesses, and side curtains provided with rollers mounted in the bearings of the hangers, and a back curtain having a roller mounted in the side recesses of the rear hangers.

6. A vehicle top including a front storm curtain, front and rear side curtains overlapped at their adjacent edges and provided with means for connecting them together, hangers for the said curtain, and a back curtain supported by the hangers of the rear side curtains and having loops slidably connected with the vehicle top.

In testimony, that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

GEORGE W. HEDRICK.

Witnesses:
W. J. CAMPBELL.
H. T. WHARTON.