W. H. SCHMEDLEN.

BUGGY TOP.

APPLICATION FILED NOV. 25, 1911.

1,068,454.

Patented July 29, 1913.

2 SHEETS—SHEET 1.

Fig. 1.

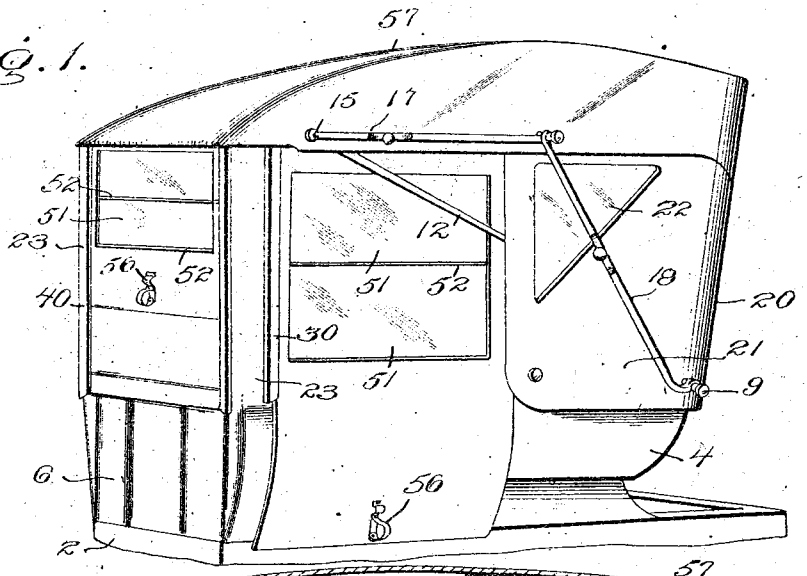


Fig. 2.

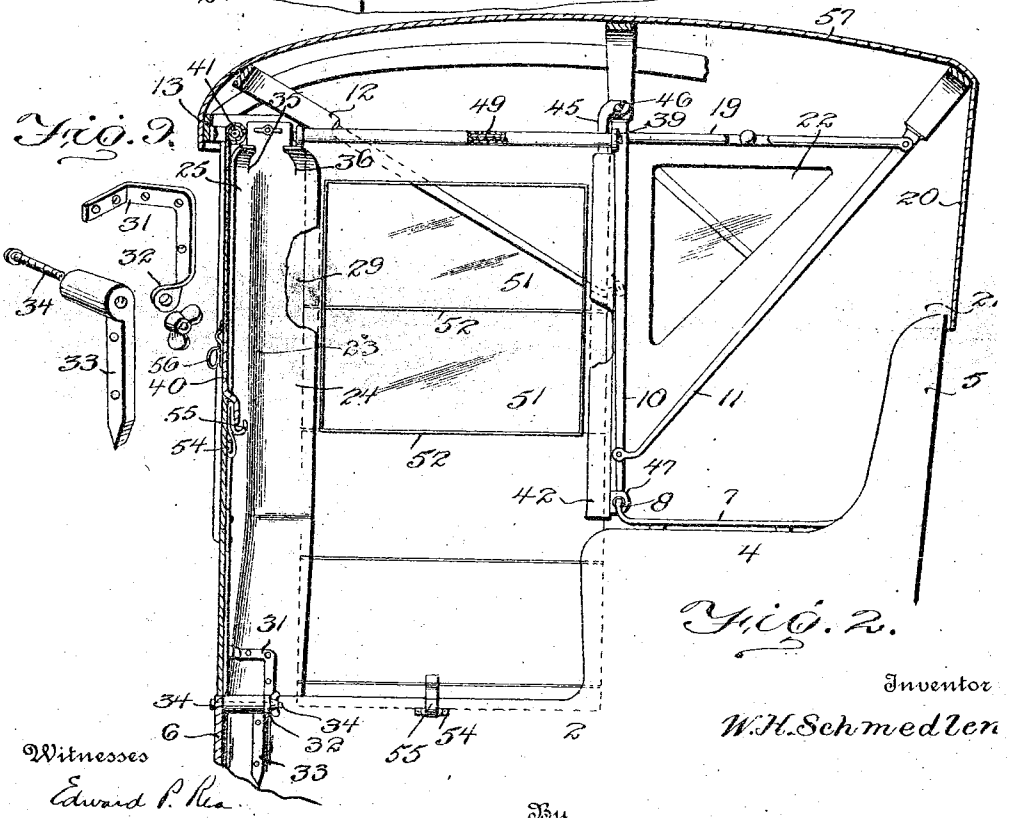


Fig. 2.

Witnesses

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2 SHEETS—SHEET 2.

Fig. 3.

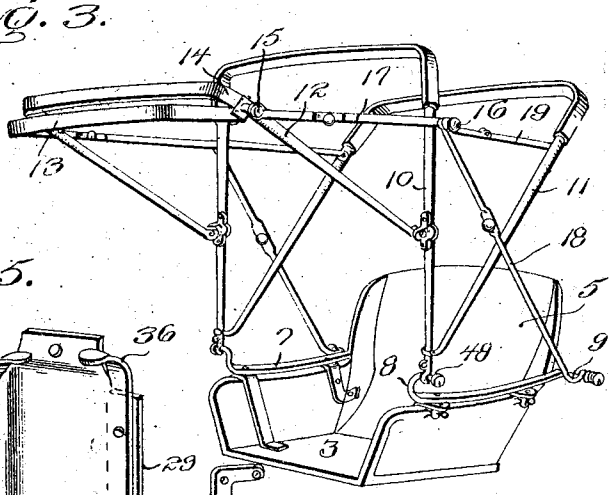


Fig. 5.

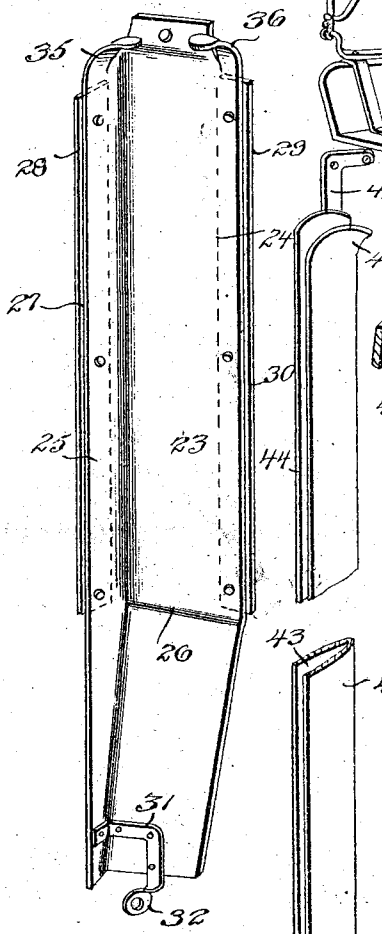


Fig. 4.

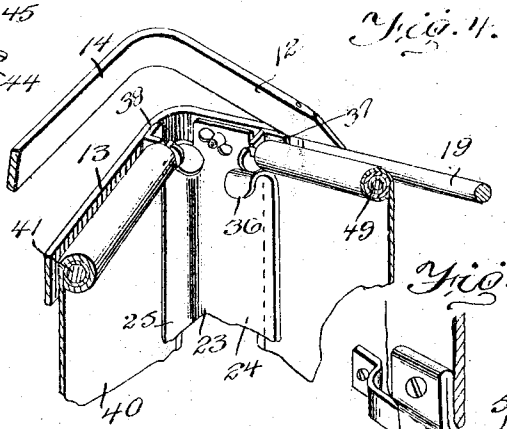


Fig. 8.

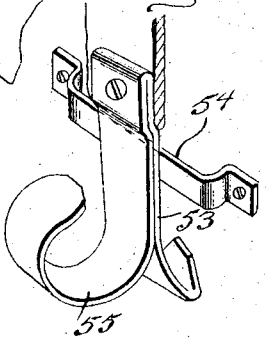


Fig. 7.

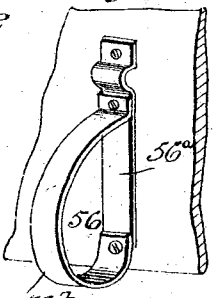


Fig. 6.

Witnesses

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UNITED STATES PATENT OFFICE.

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BUGGY-TOP.

1,068,454. Specification of Letters Patent. Patented July 29, 1913.

Application filed November 25, 1911. Serial No. 662,511.

To all whom it may concern:

Be it known that I, WILLIAM H. SCHMEDLEN, citizen of the United States, residing at Coldwater, in the county of Branch and State of Michigan, have invented certain new and useful Improvements in Buggy-Tops, of which the following is a specification.

My invention relates to carriages, with special reference to buggies, and relates particularly to buggy tops.

The main object of my invention is to provide a combination storm buggy, top buggy, and runabout, by providing a removable top of special construction, light in weight and easily applied to or removed from the body of the buggy.

A further object is the provision of a top removable from the body of the buggy and so constructed that when raised it will project over the forward portion of the buggy to a point immediately above the dashboard, this top, however, being easily folded back in the manner of any ordinary buggy top, or the front portion or extension of the hood being foldable back upon the main body of the top, so as to decrease the amount the top projects over the body.

A further object of the invention is the provision of means whereby the front of the buggy from the dashboard to the hood may be closed, either partially or entirely.

A still further object is the provision of means whereby the sides of the buggy may be closed in from the rear of the seat to the dashboard, and whereby the sides and front of the buggy, either or both, as desired, may be closed or partially closed, the top when closed in entirely providing a storm top entirely inclosing the buggy, and preventing the inlet of rain or wind.

A further object is to provide in connection with the front and side closures, removable corner pieces easily put in place and easily removed, and forming supports for the front and side closures.

A further object is to provide in connection with a buggy top, rolling spring curtains at the front and sides, provision being made whereby these curtains are rendered removable.

A further object is the provision in connection with a buggy top, of removable curtain guides, removable rolling curtains and curtain reinforcing members mounted on the curtains and adapted to be received in slots in the guides so as to prevent the curtains from being blown out of the guides.

Other objects will appear in the course of the following description.

The invention is illustrated in the accompanying drawings, wherein:

Figure 1 is a perspective view of the body of a buggy, the running gear being omitted; Fig. 2 is a vertical longitudinal sectional view of the buggy top and a fragment of the side; Fig. 3 is a perspective view of the supporting frame of the buggy top and the buggy seat; Fig. 4 is a detail perspective view of the upper front bow, the lower front bow, and the upper end of one of the detachable corner posts; Fig. 5 is a perspective view of one of the detachable corner posts removed from the buggy top; Fig. 6 is a perspective view of one of the rear guides; Fig. 7 is a perspective view of the exterior handle or loop whereby the curtains may be lifted; Fig. 8 is a perspective view of the side loop and catch for the curtains; Fig. 9 is a perspective detail view of the dashboard brace and the clip whereby the corner post is attached to the dashboard brace.

Referring now particularly to Figs. 2 and 3, it will be seen that 2 designates the body of the buggy, 3 the seat thereof, 4 the side pieces of the seat, and 5 the back. All of these parts are of any ordinary or usual construction.

Mounted upon the seat in the usual manner are the oppositely disposed shifting rails 7, also of the usual construction. The forward end of each shifting rail is upwardly and then outwardly turned to form the goose neck 8, while the rear end of the shifting rails is also outwardly turned, as at 9. Rotatably mounted upon the goose neck is the middle bow 10, of usual construction, and pivotally mounted upon the lower ends of the legs of the center bow is the rear bow 11. Also pivotally mounted upon the legs of the middle bow 10, preferably midway of the height of the legs, is the upper forward bow 12. Rigidly connected to the upper ends of the legs of the upper forward bow 12 is the lower forward bow 13, as illustrated. Attached to the outside sides of the bows are the top props 15, each consisting of a plate provided with a slotted stem to receive the top joint brace and prop nut. Projecting from the upper end of the bow 10 are the headed bolts 16 and connecting bolts 15 with bolts 16 are the toggle braces

or stays 17, of usual construction found in carriages, these braces breaking upward. The middle bow 10 is braced by means of the upwardly and forwardly extending toggle braces 18, each pivoted at its lower end to the outwardly turned end 9 of the adjacent shifting rail and at its forward end being pivotally connected to the bolts 16. The rear bow 11 is braced from the middle bow 10 by means of the toggle braces 19 which break downwardly. The middle bow does not extend upward quite as high as the rear bow 11, and the forward bow 12 folds over the middle bow 10 so that the parts may be folded in compact form back upon the rear end of the body of the buggy.

It will be seen that in the construction above described, the forward bow 12 may be folded back upon the bow 10, thus folding the buggy top whenever desired, or that the forward portion of the buggy top may be shifted forwardly to the position shown in Figs. 1, 2 and 3, extending the buggy top entirely over the forward portion of the body, and bringing the forward end of the hood immediately over the dashboard. By removing the cotter pins which hold the shifting rails to the seat braces, the entire buggy top may be removed when desired, thus converting the buggy into a runabout.

The rear end of the buggy is inclosed by means of a curtain 20 of any suitable description, and the sides of the buggy are closed by means of side curtains 21, which are detachably mounted in any suitable manner, as usual in buggies. Preferably, these side curtains 21 are each provided with a pane 22 of transparent material, the side curtains projecting down below the side pieces 4 of the seat slightly in advance of these side pieces.

For the purpose of entirely or partially closing in the front portion of the buggy, I provide oppositely disposed corner pieces adapted to be removably attached to the dashboard and to form curtain guides, and also provide a front curtain oppositely disposed to the said curtains, the front and side curtains being mounted upon spring rollers so that they may be either pulled down to their full extent, pulled down partially, or entirely rolled up. The inside curtains are also removable, but may be easily and quickly put in place when desired. One of the corner pieces is illustrated in Fig. 5, which corner pieces, designated 23, may be made of metal, leather, or other suitable material. Each corner piece is substantially angular in cross section to provide a lateral rearwardly extending wing 24 and a forward transversely extending wing 25. The wing 24 near its lower end slopes sharply inward from the line 26, so that the distance between the upper portions of the wings 24 of both corner pieces is wider than the distance between the lower portions thereof. The wing 25 at its outer edge is formed with a curtain-receiving groove 27 forming a guide for the curtain and extending from near the upper end of the wing to the bend 26. Preferably, this is formed by riveting or otherwise attaching a guide strip 28 along the margin of the wing 25. The edge of the wing 24 is also formed with a curtain receiving groove 29 formed by attaching a strip 30 to the outer face of the margin of the wing. The lower portion of the wing 25 abuts solidly against the dashboard and is supported by means of a clip 31 formed of an angle iron riveted to the wing and having a terminal outwardly bent end 32. Attached to the dashboard are oppositely disposed dash feet 33, as illustrated in Fig. 2, each having a tubular head at its upper end. A bolt 34 passes through the dashboard and through the head at that side, and through the terminal end 32 of the clip, this terminal end being secured to a bolt in the head by means of a wing nut. The upper end of each corner piece 33 is attached to the bow 13 by means of a bolt and wing nut 34, as shown in Fig. 4. Each margin of the upper end of the corner piece is longitudinally slitted to provide the outwardly bent guide tongues 35 and 36, which are outwardly bent to accommodate the curtain roller brackets 37 and 38 of the side and front curtains, respectively. The wings 25 of the opposite corner pieces 23, formed as before described, provide guides engaging the lateral edges of a front curtain 40 which is mounted upon a spring roller 41 rotatably supported in the usual curtain roller brackets 38. The detailed description of the front and side curtains will be later given.

Mounted upon each vertical leg of the middle bow 10 is a vertically extending side curtain guide 42, illustrated in detail in Fig. 6. Each of these guides 42 consists of a strip of suitable material, such as metal or stiff leather bent into U-shape to provide a curtain receiving groove 43 extending along one margin. One wall of the groove is outwardly bent, as at 44. Each guide 42 extends from the corresponding goose neck merely to the bolt 16 which connects the middle bow 10 with the toggle braces 17 and 19. Each of the guides 42 is provided at its outer end with an angular clip 45 having a perforation at its terminal end through which the bolt 46 passes, this bolt being provided with a wing nut. The lower end of each guide 42 is formed with an outwardly extending clip 47 perforated to receive a bolt 48 extending outward from the goose neck 8 and provided with a head or wing nut. It will thus be seen that the guides 42 are supported at their lower ends upon the goose neck 8 and at their upper ends by the bow 10.

Mounted upon the middle bow 10 at a point directly opposite the bracket 37 is a bracket 39, one for each curtain. Corresponding brackets 37 and 39 rotatably support a curtain roller 49. This curtain roller is of any usual or desired construction, and preferably is of the spring roller type, the spring 50 being contained within the roller, as illustrated in Fig. 2. It will be seen that the ends of the roller 49 extend beyond the guide 42 on one end and the margin of the wing 24 on the other end, in such a position that the curtain carried by the roller may be readily drawn down into the guide grooves 43 and 29.

While the curtains may be of any suitable construction and material, I preferably provide the side curtains with one or more panes of transparent material, designated 51, and further provide the curtains with transversely extending reinforcing bars, designated 52. These reinforcing bars, as shown in Fig. 2, extend entirely across the curtain, so that they project into the guide grooves 43 and 29, and the same construction is used for both the front and the side curtains. By permitting the reinforcing rods or bars 52 to extend into the guide grooves, I engage the curtain strongly with the guides so that the curtains will not blow out of the guide grooves. This is a very important feature, particularly when taken in connection with the fact that the margins of the curtains project fully into the guide grooves in the guides, as it prevents rain from entering between the curtain and the guides, and prevents the curtains from blowing out of the guides. Each side curtain when pulled down has its lower portion extending over or on the outside of the adjacent corner piece 23, and the side 4 of the seat, as illustrated in Fig. 1, and the curtains may be pulled down to a point below the upper edge of the box, thus preventing the entrance of rain at this point.

For the purpose of lowering both the front and the side curtains and securing them in their lowered positions. I provide each curtain on its inside face with a hook, illustrated in Fig. 8, and designated 53, adapted to engage with a transversely extending loop or bar 54, attached to the inside of the wagon box and to the false dashboard, as illustrated in Fig. 2. Formed with this hook 53 is a curved finger piece or pull 55, carried on the inside of the curtain and permitting the curtain to be lowered. The curtains may also be lowered from the outside by means of a loop 56, illustrated in Fig. 7. This loop has a metal plate 56^a which is attached to the curtain and stiffens the same, and the lower portion of this loop 56^b is riveted to this strip of metal 56^a.

In the practical operation of my invention, it will be seen that the top may be entirely removed from the buggy when desired, in the same manner that other buggy tops may be so removed, and that in addition thereto the hood 57 of the top may be folded so as to provide a hood which shall not only project over the seat but may be opened out to its full extent so as to extend to a point forward of the dashboard, or that the hood or top may be folded back in precisely the same manner that an ordinary buggy top may be folded back. If there is danger of rain, the corner pieces 23 may be easily put in place and the side curtains 21 also put in place, in the usual manner. If it is desired to close in the front of the carriage, the front curtain roller 41 is placed in its brackets 28 and pulled down toward the dashboard to any desired extent. If it is desired to entirely close the top, the side curtain rollers 49 are placed in their brackets 37 and 39, and the curtain drawn down. It will be obvious that the curtain rollers may be put in place when the corner pieces 23 are attached and the curtain is left rolled up until it is desired to entirely close the top.

It will be plain from the foregoing that I have provided a top which is adjustable in many ways and that with this top my carriage may be converted from an ordinary buggy to a top buggy, and from a top buggy to a storm buggy, and it will further be seen that I have provided means for supporting the curtains, which may either be left up, and then drawn down to their full extent, or left partially drawn down.

A buggy of the character above described is attractive in appearance, and the top is relatively light in weight, as the entire storm equipment weighs less than twenty pounds.

Having thus described my invention, what is claimed is:

1. The combination with a carriage body, a hood supporting frame mounted thereon and including a middle bow and a forward bow, of a front curtain, oppositely disposed side curtains, and detachable guides for said curtains, each guide being connected at its lower end to the said body and at its upper end to one of said bows, each guide having a longitudinally extending curtain receiving groove, the front and side curtains being rotatably mounted upon said bows and operating within the grooves of the guides.

2. The combination with a carriage body and a hood supporting frame mounted thereon, of oppositely disposed forward curtain guides angular in cross section, oppositely disposed curtain guides mounted rearward of the forward guides, all of said curtain guides being detachably connected at their upper and lower ends to the hood supporting frame and the body respectively, a front curtain operating within the forward guides, and side curtains operating within the forward guides and the rear guides, and rollers

for said curtains mounted upon the inside faces of the hood supporting frame.

3. The combination with a carriage body, of a hood supporting frame mounted thereon and comprising a vertically disposed middle bow, a forwardly and upwardly extending forward bow, and a lower forward bow attached to the forward end of the forward bow, curtain guides angular in cross section and detachably connected at their upper and lower ends to the extension bow and to the forward end of the wagon body respectively, each of said forward curtain guides being formed on its opposite margins with curtain receiving grooves, vertically extending detachable side curtain guides, each detachably connected at its upper end to the inside of the middle bow and at its lower end to the wagon body and each formed with a curtain receiving groove, roller supports mounted on the inside of the hood supporting frame, and spring actuated roller curtains mounted in said roller supports and operating between said guides.

4. The combination with a carriage body, a hood supporting frame mounted thereon and a hood, of detachable corner pieces each angular in cross section and extending between the forward corners of the body and the hood, each of said corner pieces being formed on its opposite margins with a curtain receiving groove, each corner piece at its upper end being provided with lateral outwardly curved guiding tongues, vertically disposed members detachably mounted on the supporting frame at the sides of the carriage and co-acting with the corner pieces, each of said members being formed with a marginal groove, curtain roller supports disposed on the inside face of the hood supporting frame between the corner pieces and between said corner pieces and the side members, detachable spring actuated curtain rollers mounted in said roller supports, and curtains on said rollers, the margins of the curtains adapted to engage the grooves of the said guiding members and the corner pieces.

5. The combination with a carriage body, a hood supporting frame mounted thereon and a hood, of oppositely disposed corner pieces angular in cross section, having attaching means at their opposite ends engaging with the body and supporting frame respectively, the lateral margins of each corner piece being formed with a curtain receiving groove, the inner wall of each groove at its upper end being outwardly curved to provide a curtain receiving tongue, co-acting curtain guides spaced from the corner pieces and mounted upon the body and the supporting frame, each guide being formed with a marginal curtain receiving groove, curtain roller brackets mounted upon the supporting frame behind the outwardly turned tongues on the upper ends of the corner pieces, spring actuated curtain rollers mounted in said brackets, and curtains mounted upon said rollers, the margins of the curtains being received within the guide grooves in the guiding members and the corner pieces.

6. The combination with a carriage body, a hood supporting frame mounted thereon, and a hood, of detachable corner pieces each angular in cross section and extending between the forward corners of the body and the hood, each of said corner pieces being formed with a curtain receiving groove, angular irons attached to the lower end of each corner piece and projecting below the corner piece and there deflected at right angles to the side face thereof, and supporting members attached to the body of the vehicle at the forward corners thereof and including bolts adapted to pass through said eyes and nuts.

7. The combination with a carriage body, a hood supporting frame mounted thereon, and a hood, of detachable corner pieces each angular in cross section and extending between the forward corners of the hood, each corner piece being formed on its margins with a curtain receiving groove, each corner piece being formed on its outer end with curved guiding tongues extending from the inner wall of the groove, the upper end of the corner piece between said tongues being formed with an eye and the eye engaging a stud projecting from the hood supporting frame, the lower end of each corner piece being provided with means whereby it may be connected to the carriage body, vertically disposed members detachably mounted on the hood supporting frame at the sides of the carriage and detachably connected at its lower end to the lower portion of said hood supporting frame, each having a curtain receiving groove opposing the corresponding curtain receiving groove of the corner piece, the upper end of each of said members having an inwardly curved tongue forming an extension of the inner wall of the groove, detachable spring actuated curtain rollers mounted upon the supporting frame above the tongues of said supporting members and corner pieces, and curtains on said rollers, the margins of the curtains being adapted to engage the grooves of said corner pieces.

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

WILLIAM H. SCHMEDLEN. [L. S.]

Witnesses:
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ILAH M. GOWDY,
STANLEY E. WEAGE.