E. WALTER. BUGGY TOP ATTACHMENT. APPLICATION FILED APR. 9, 1902.

NO MODEL. Fig. 72.

United States Patent Office.

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BUGGY-TOP ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 719,538, dated February 3, 1903.

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To all whom it may concern:

Beit known that I, EDWARD WALTER, a citizen of the United States, residing at Keytesville, in the county of Chariton and State of Missouri, have invented a new and useful Buggy-Top Attachment, of which the follow-

ing is a specification.

This invention relates generally to carriagetops, and more particularly to an improved
means for opening and closing the same, the
object of the invention being to simplify the
construction of carriage-tops now in use and
provide a cushion attachment in connection
therewith, whereby as the top is quickly lowered all shock or jar incidental to such quick
lowering will be avoided, and another object
is to provide a mechanism which will not only
take up the shock or jar as the top is lowered, but also assist in the raising operation.

20 My invention also has for its object to provide a novel construction of bow or prop brace connection, whereby the side props and hinged braces are dispensed with, and another object is to provide an improved contached to the props or posts without the use of bolts or nuts.

With all of these various objects in view the invention consists in the novel features of construction and combination, all of which will be fully described hereinafter and point-

In the drawings forming part of this specification, Figure 1 is a perspective view showing a carriage-top constructed in accordance with my invention. Fig. 2 is a detail sectional view illustrating the construction of the rear upright. Fig. 3 is a detail perspective view illustrating the connection between the rear cross-bow and the rear upright. Fig. 4 is a perspective view of the same connection taken from the opposite side. Fig. 5 is a detail sectional view illustrating the construction and arrangement of the spring locking-bolt. Fig. 6 is a detail view, partly in section and partly in plan, showing the stop

section and partly in plan, showing the stop of the rear upright. Fig. 7 is a detail perspective view of the seat-bracket and rail. Fig. 8 is a detail view, partly in section and partly in plan, illustrating the hinge and brace connection between the two props. Fig.

9 is a side elevation of the same. Figs. 10 and 11 are detail perspective views illustrating one of the joints of the said brace or connection.

In carrying out my invention I employ an essentially L-shaped bracket A, which is attached to the seat-box by means of laterallyprojecting lugs A', while its upright member A² is securely fastened to the seat-back. The 60 upper end of the upright member A² terminates in a laterally-projecting stop A³, while the forward end of the lower member of the bracket is bent back upon itself and terminates in a pivot-post A4, which is connected 65 to the stop A^3 by a rail A^5 , and at the juncture of the horizontal and upright members of the bracket is another pivot-post A⁶. Pivoted upon this post A⁶ is the rear upright B and held in place by means of a nut B'. It 70 will of course be understood that a bracket is arranged at each side of the seat-box and that a rear upright B is attached to each pivoted post A⁶. Each rear upright consists of a solid or tubular lower section B² and the 75 tubular upper section B³, said tubular upper section sliding on the solid or tubular lower section, as most clearly shown in Fig. 2, and within the tubular section B³ is arranged a spiral cushion-spring C, the purpose of 80 such spring being to take up the shock or jar incidental to the dropping of the carriagetop when the said top is lowered and also assist in lifting the top when the said top is raised, as will be more fully explained 85 hereinafter. Each tubular section B³ has an opening B4, through which works a springactuated locking-bolt D, which is intended to engage an aperture D', produced adjacent to the upper end of the solid portion B2, for the 90 purpose of locking the said sections in their extended positions. The bolt D works in tubular extension D² and is surrounded by a spiral spring D³, held within the tubular extension by means of a cap D4, the end of 95 the bolt projecting through the cap and having a cord, strap, or chain D5 attached thereto and by means of which the spring-actuated bolt is operated for the purpose of disengaging the said bolt from the aperture D' 100 whenever it is desired to drop or fold the carriage-top. One strap, cord, or chain D⁵ connects the two spring-actuated bolts, so that | by pulling upon the said strap, cord, or chain both bolts can be disengaged at the same time.

In case it is desired to provide for dropping the top without requiring the operator to turn around for the purpose of pulling the strap, cord, or chain D5, I employ a central strap, cord, or chain D6, which is connected 10 centrally to the said strap, cord, or chain D⁵ and passes upwardly through a guide D7, forwardly through a guide D⁸, and terminates in a depending portion overhanging the side of the vehicle, so as to be in convenient reach 15 of the occupant, and by pulling upon said central strap the spring locking-bolts can be withdrawn and the carriage-prop dropped.

The upper end of the tubular member B³ is pivotally connected between two parallel 20 ears E, formed integral with the curved plate E', which is attached to the rear cross-bow E², the said ears E being also connected at their rear sides by means of a stop-plate E3, which projects a short distance below the 25 pivot-point, and thereby acts as a stop to hold the uprights and the cross-bow in their proper

relative positions.

The main carriage-bow F is pivoted to the pivot-post A4, and the supplemental carriage-30 bows F' are pivotally connected to the main carriage-bows, and in order to properly brace and hold the carriage-bows in their proper position I employ a combined brace and connector G, composed of two members G' and 35 G², hinged at G³, the member G' having projecting lip G4, which serves as a stop to limit the upward movement of the members and to form a rigid brace. Each member G and G' terminates in a transverse cross-pin G14, 40 which fits into a socket G⁵ and is held therein by ears G6, said socket having integral fingers G7, which are adapted to be fastened around the side props. This combined brace and connector is attached to the carriage-45 bow at a point where it begins to curve and form the bow, and it will be noted that these braces or connectors are arranged beneath the cover or top of the carriage and are therefore concealed from view. It will also be 50 noted that by using braces constructed in this manner all side props and braces are avoided, and I am also able to dispense with all bolts and nuts. When the spring-bolts are withdrawn for the purpose of dropping the 55 carriage-top, the braces break downwardly and permit the top to fold, and when the top drops the upper section B³ slides down upon the lower section, the cushion-spring is compressed, and all shock and jar is taken up. In 60 raising the top the spring assists in the opera-

tion, and when the upper section is moved

upwardly a sufficient distance to bring the

spring locking-bolt opposite the aperture \mathbf{D}' . the spring causes the bolt to engage the aperture, thereby locking the two sections of 65 the rear upright together, and the upward and forward movement of the said upright is continued until it meets the stop A³, and when the said rear uprights meet the stops A³ the combined braces and connectors G will be 70 spread, as indicated in Figs. 8 and 9, thereby holding the props in their proper positions, and the carriage-top will then be properly extended.

It will be seen that I provide a novel con- 75 struction of carriage-top capable of carrying out all of the objects hereinbefore mentioned.

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

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1. In a carriage-top, the combination with the lower section, of the tubular upper section, the cushion-spring arranged within the said upper section, the spring-actuated bolt carried by the upper section and adapted to 85 engage the lower section, and the pivotal connection arranged at the upper end of the upper section of the rear upright and by means of which it is pivotally connected to the rear cross-bow, as specified.

2. In a carriage-top the combination with the upper and lower sections of the rear uprights, one of said sections being adapted to slide in the other, the spring-actuated locking-bolts adapted to lock said upper and lower 95 sections together and means common to both bolts for withdrawing them from engagement

with their respective sections.

3. In a carriage-top, the combination with an essentially L-shaped frame, a pivot-post roc formed at the front end of the frame, a stop at the other end, a connecting-brace between the stop and the pivot-post, a standard pivoted at the angle of the frame, an upright adapted to slide on said standard and rest 105 against the stop, carriage-bows extending from the forward pivot-post, and means for bracing said bows near their upper ends.

4. The combination with the lower sections, of the tubular upper sections, the cushion- 110 springs arranged in the said tubular upper sections, the tubular extensions carried by the tubular upper sections, the spring-actuated bolts arranged in said tubular extensions and adapted to engage an aperture in the up- 115 per end of the lower section, the strap connecting the spring-actuated bolts, and a central strap connected to the connecting-strap and passing through guides arranged in the carriage-top, substantially as specified. EDWARD WALTER.

Witnesses:

A. F. TOOLEY, H. C. MILLER.