(No Model.)

C. A. BEHLEN.

BUGGY TOP.

No. 353,195. Patented Nov. 23, 1886.

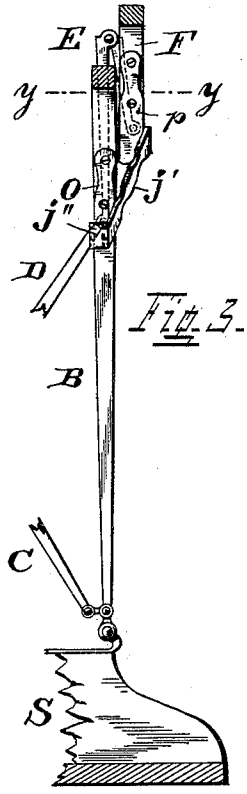


Fig. 3.

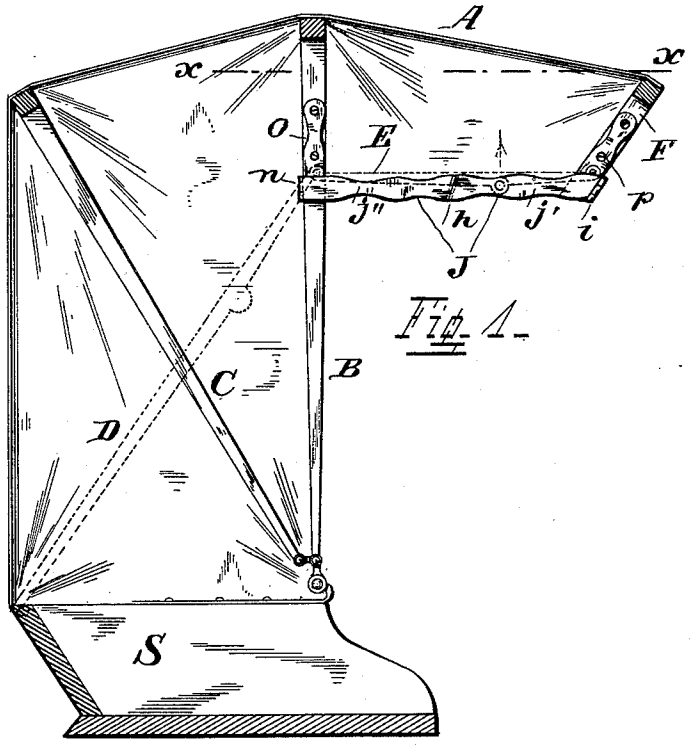


Fig. 1.

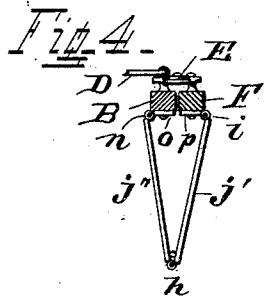


Fig. 4.

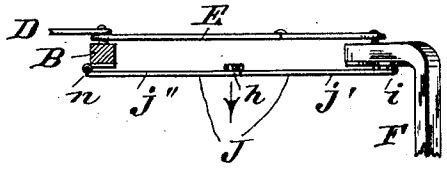


Fig. 2.

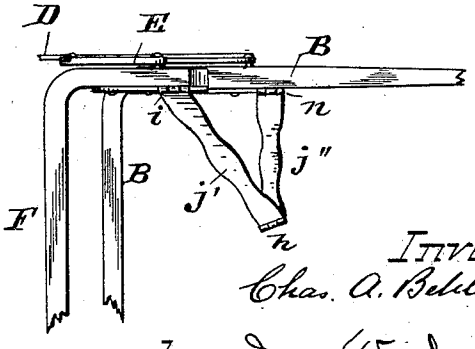


Fig. 5.

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UNITED STATES PATENT OFFICE.

CHARLES A. BEHLEN, OF CINCINNATI, OHIO.

BUGGY-TOP.

SPECIFICATION forming part of Letters Patent No. 353,195, dated November 23, 1886.

Application filed August 4, 1886. Serial No. 210,017. (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. BEHLEN, a citizen of the United States, residing in Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Buggy-Tops, of which the following is a specification.

My improvements relate more particularly to the manner in which a buggy-top may be supported or thrown back, and by the use of which the angular front frame-bow is dispensed with, thus facilitating the ingress to and egress from the vehicle.

The features of my invention will be understood from the description hereinafter given, and the accompanying drawings, forming part of my application, in which—

Figure 1 is a central longitudinal section of the buggy body and top when the top is raised and supported by my brace. Fig. 2 is a horizontal section taken through the line *x x*, Fig. 1. Fig. 3 is a central longitudinal section taken through the parts when the outside braces are bent and the front portion of the top is collapsed all ready to be tilted back. Fig. 4 is a horizontal section taken through the line *y y*, Fig. 3, and shows the position of my sustaining-brace when the top is to be thrown entirely back. Fig. 5 is a top view showing the top thrown entirely back, the hood being removed from the frame to more clearly show the parts and their positions.

Referring more specifically to the various parts, A is the ordinary hood or covering, and B C are the frame or supporting bows.

D E are the usual jointed braces on the outside of the top.

F is the front bow, to which one end of the hood is attached.

S is the buggy-body.

J is my supporting-brace for sustaining the top when it is up and permitting same to be thrown back, enabling the parts to lie flat and neatly in a horizontal position. There are two of these braces attached to the top in the interior thereof and occupy a position as indicated in Fig. 1. These sustaining-braces are each of two (or more, if desired) sections, *j' j''*, joined together by means of a beveled hinge, *h*. These sections are in turn respectively attached by a beveled hinge, *i*, to the plate *p*, and by a vertical hinge, *n*, to the plate *o*, the beveling of the hinges *h* and *i* being in the same direction. By means of these plates each sustaining-brace is attached to the front bow, F, and the upright supporting-bow B, the plate *p* being fastened to the former, while the plate *o* is attached to the latter. The plates are perforated to receive nails or screws, thus insuring firmness and permitting ready attachment or removal.

The manner of operating a top which contains my supporting-braces is as follows: We will suppose the top to be up, as in Fig. 1, and the desire is to lower or throw it back. The jointed braces E on each side are first broken by shoving them up, as indicated by the arrow in said figure. This will permit the top, between the bows B and F, to become flexible and enable it to be collapsed between those points. This collapsing is effected by the occupant of the buggy drawing in each of the braces J, as indicated by the arrow in Fig. 2. The parts will then have assumed the position shown in Figs. 3 and 4—that is to say, by the drawing in of the braces the bow F will be carried up until it strikes the supporting-bow B, where further progress is arrested, the folds of the hood being within the arms or sections of the braces J and held there. The joints D may then be broken and the whole frame tilted back. When it has reached the backward limit, the parts will be, (that is, the frame and sustaining-braces,) as shown in Fig. 5, lying flat against each other in an even and symmetrical manner, the folds of the forward portion of the hood being held securely between the arms or sections *j' j''*. It is really not a material matter which of the joints D or E be broken first, the matter being left to the discretion of the rider.

The brace J may be provided with another joint similar to the rear portion shown, this additional joint to run between the bows C B, and while not strengthening the top will make the interior sides correspond throughout.

Referring again to the operation, it may be stated that after the joints D and E are both broken the braces J need not be touched by the operator, for when the frame is thrown back the braces in the operation will be collapsed and assume the position shown in Fig. 5.

The braces may be attached so as to be visible, as shown in the drawings, or they may be concealed by the top lining without impeding their action. When concealed, the attaching-plates, instead of being flat against the sections *j' j''*, as shown, are fastened to their respective bows at right angles, this for greater convenience.

The object of using the two sets of braces E and J is to prevent wabbling of the hood and to hold the same steady. If the exterior braces, E, were omitted, the hood would have a lateral horizontal movement, and if the interior braces were omitted and only the exterior braces used, the hood would have an up-and-down movement. By using the beveled hinges *h* and *i* the front bow of the hood is permitted to lie flat against the bow B, as shown in Fig. 3, thus enabling the hood to be folded into compact form. By the use of straight hinges this could not be accomplished, as the hinge *i* is in a higher plane than the hinge *n* when the parts are folded.

What I claim, and desire to secure by Letters Patent, is—

1. In combination with a buggy-top, a hood connected therewith by means of braces E and J, adapted and arranged to move approximately at right angles to each other, substantially as shown and described.

2. In a buggy-top, the combination, with a main bow, of a hood, F, connected therewith by means of horizontally-pivoted brace E and vertically-pivoted brace J.

3. In a buggy-top, the combination, with a main bow, of a hood, F, and a brace, J, connecting the hood to the main bow, made in two parts, *j'* and *j''*, and adapted to swing horizontally.

4. In a buggy-top, the combination, with body S, of bows B C, pivoted thereto, a hood, F, connected with bow B by means of a hinged brace, E, and a hinged brace, J, the former adapted to move vertically and the latter horizontally, as and for the purpose set forth.

5. In a buggy-top, the combination, with the bows B C, of a hood, F, a hinged brace, E, connecting the bow B and the hood, and a brace, J, also connecting the hood and bow, and provided with a beveled or inclined hinge, substantially as shown.

6. In combination with a buggy-top, a hood connected therewith by means of braces E and J, the latter comprising two parts, *j'* and *j''*, connected by a beveled hinge, *h*, and provided at their outer ends, respectively, with a beveled and a vertical hinge, substantially as and for the purpose set forth.

7. In a buggy-top, side braces, J, provided with beveled hinges *h i*, and vertical hinge *n*, attachment-plates *o p*, in combination with supporting-bows and jointed exterior braces, whereby the top can be sustained or thrown back, substantially as shown and described.

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Witnesses:
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LIPMAN LUY.