J. H. WOODDELL.

FOLDING VEHICLE TOP.

APPLICATION FILED AUG. 1, 1910.

986,533.

Patented Mar. 14, 1911.

Fig. 1.

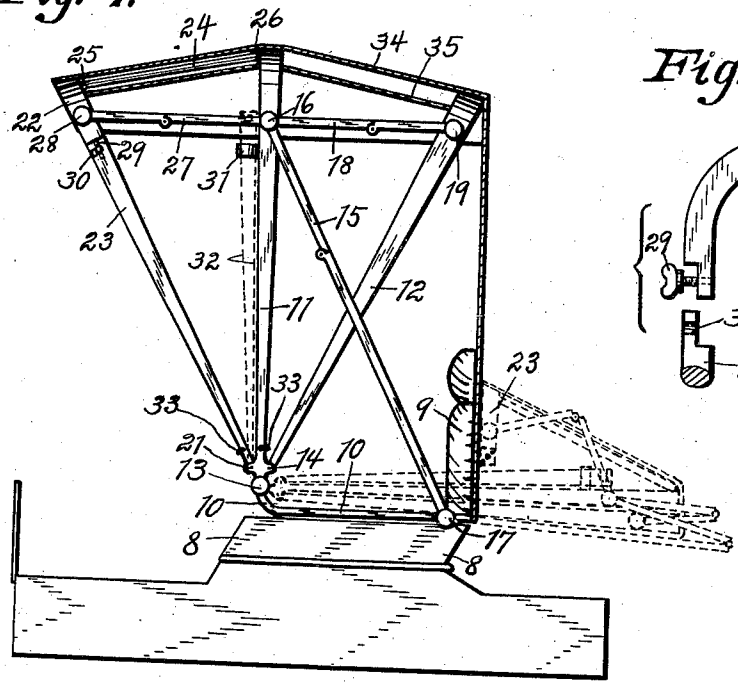


Fig. 2.

Fig. 3.

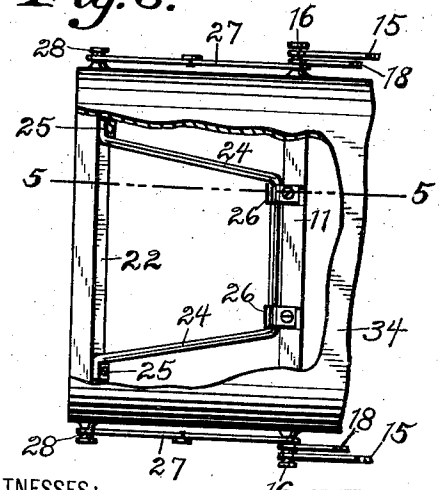


Fig. 4.

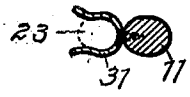


Fig. 5.

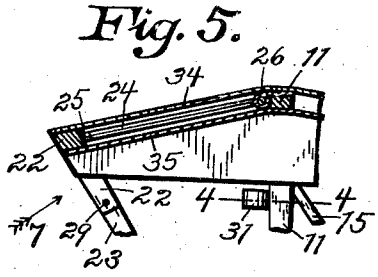
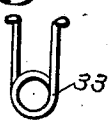


Fig. 6.



WITNESSES:

Myrtle E. Coleon

W. W. Defreez

INVENTOR

James H. Wooddell

BY

Thomas W. Coleon

ATTORNEY

UNITED STATES PATENT OFFICE.

JAMES H. WOODDELL, OF INDIANAPOLIS, INDIANA.

FOLDING VEHICLE-TOP.

986,533. Specification of Letters Patent. Patented Mar. 14, 1911.

Application filed August 1, 1910. Serial No. 574,885.

To all whom it may concern:

Be it known that I, JAMES H. WOODDELL, a citizen of the United States, and a resident of Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Folding Vehicle-Tops, of which the following is a specification.

My invention relates to folding vehicle-tops and is particularly adapted for use on that class of vehicles provided with only one seat.

One object of my improvement is to provide a means by which the lower portions of the front bow may be folded out of the way to allow persons to more easily enter or alight from the vehicle.

A further object is to provide a top which may be folded behind the back of the seat in a manner to prevent the lining of the top from becoming soiled while the top is folded.

I attain these objects by means of the vehicle-top illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of my improved top with a portion of the covering and a portion of the lining removed; Fig. 2 is an enlarged view of the means for removably securing the lower portions to the upper portion of the front bow, looking in the direction indicated by the arrow 7 in Fig. 5; Fig. 3 is a broken top view of the top with a part of the covering removed to show the top brace between the front and middle bows; Fig. 4 is an enlarged section of the spring-clip for holding one of the lower portions of the front bow taken on the line 4—4 in Fig. 5; Fig. 5 is a section of the portion illustrated in Fig. 3 taken on the line 5—5; and, Fig. 6 is an enlarged elevation of the spring provided to assist in folding the lower portions of the front bow.

Similar numerals of reference indicate similar parts throughout the several views.

The vehicle seat 8 is provided with the back 9 and the seat-rail 10 all of which are of the common forms now in general use.

The middle bow 11 and the rear bow 12 of the top are of the usual inverted U-shaped design, the end portions of said middle bow are hingedly secured to the seat-rail 10, as at 13, and the lower ends of the rear bow are hingedly secured to points near the lower ends of the middle bow, as at 14. The jointed braces 15, one on each side of the top, are hingedly secured at their top ends to the middle bow 11, as at 16 and their lower ends are similarly secured to the seat-rail 10, as at 17, in a manner to support the top in an upright position. Said rear bow 12 is braced from said middle bow 11 by means of the jointed braces 18, one on each side of the top, each having one of its ends hingedly secured to said middle bow, as at 16, and its other end similarly secured to the rear bow, as at 19. The front bow is substantially the same size and shape as the rear bow 12 and also hingedly secured to the middle bow 11, as at 21, in a similar manner, but is composed of three portions removably secured together. The upper portion 22 substantially comprising the horizontal and curved parts and the two lower portions 23 comprising the vertical or leg parts of such inverted U-shaped front bow. The central part of said portion 22 is braced from the middle bow 11 by means of the substantially U-shaped brace 24, which latter has its ends rigidly secured to the horizontal part of said portion 22, as at 25, and its central part hingedly secured to the horizontal portion of said middle bow 11, as at 26, and the ends of said portion 22 are braced from said middle bow by means of the jointed braces 27, one on each side of the top, and each having one end hingedly secured to the middle bow 11, as at 16, and its other end similarly secured to a point near the end of said portion 22, as at 28.

Each end of the portion 22 of the front bow is formed to fit the corresponding top end of the lower portions 23 of such front bow as indicated in Fig. 2, and the former is provided with the clamping screws 29 to engage the notches 30 formed in the latter to removably secure said lower portions to said upper portion of the front bow. A spring clip 31, is secured to each vertical leg of the middle bow in a convenient position to receive and hold the lower portions 23 of the front bow when they are folded as indicated by the dotted lines 32 in Fig. 1.

Each hinged joint 21 is provided with an extension on the inner side of the top (not in view in the drawings) to receive the coiled portion of one of the coiled springs 33 and the ends of such spring are curved in a manner to engage the lower portion 23 of the front bow and the adjacent leg of the

middle bow 11 (Fig. 1) to swing said lower portion 23 to the position indicated by the dotted line 32 in Fig. 1.

The covering 34 and the lining 35 of the top are made of any suitable materials, such as leather and fabric respectively, and are secured to the top in the usual manner.

The lower portions 23 of the front bow are folded out of the way, so that one may more easily enter or alight from the vehicle, by loosening the clamping screws 29, when the springs 33 automatically swing such lower portions 23 to the position indicated by the dotted line 32 in Fig. 1. Either of said lower portions 23 of the front bow may be thus folded without disturbing the other when so desired. Said lower portions 23 are replaced by manually swinging them back to their normal positions and tightening the clamping screws 29 to fasten them there.

The top is folded by breaking the jointed braces 15, 18 and 27 and letting it down in the usual manner, when the top will take the position indicated by the dotted lines in Fig. 1, with the upper portion 22 of the front bow resting against the back of the seat 9 to form a covering to protect the lining of the top from dust and dirt while the top is folded.

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

A vehicle-top comprising a substantially U-shaped middle bow, a substantially U-shaped rear bow hingedly secured to the lower portion of said middle bow, a jointed brace hingedly secured to each side of said middle bow to support the top, a jointed brace having one end hingedly secured to the middle bow and its other end similarly secured to the rear bow on each side of the top to brace the rear and middle bows apart, a substantially U-shaped front bow hingedly secured to the lower portions of the middle bow, said substantially U-shaped front bow being formed in three parts and removably secured together in a manner so that the two lower portions may be folded out of the way to allow one to more easily enter or alight from the vehicle, a brace rigidly secured to the horizontal part of the front bow and hingedly secured to the horizontal part of the middle bow, a jointed brace having one of its ends hingedly secured to the middle bow and its other end similarly secured to the front bow on each side of the top, a spring on each side of the top engaging the lower ends of the middle bow and the front bow in a manner to fold the lower portions of said front bow against said middle bow when they are released from engagement with the upper portion of said front bow, and a spring-clip secured to each leg of the middle bow in a position to receive and hold a lower portion of the front bow when such portion of the front bow is folded against the middle bow, substantially as set forth.

In testimony whereof I, the above named JAMES H. WOODDELL, have signed my name in the presence of two witnesses.

JAMES H. WOODDELL.

Witnesses:
CORNELIA LUESCHE,
FRANCIS M. SPRINGER.