

LE ROY B. WHEELER.
 AUTOMATIC FOLDING VEHICLE TOP.
 APPLICATION FILED OCT. 2, 1917.

1,287,155.

Patented Dec. 10, 1918.

Fig. 1.

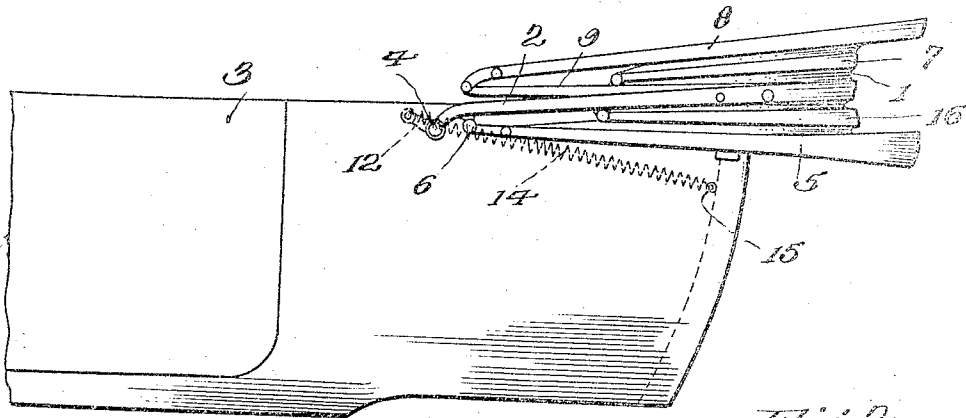


Fig. 2.

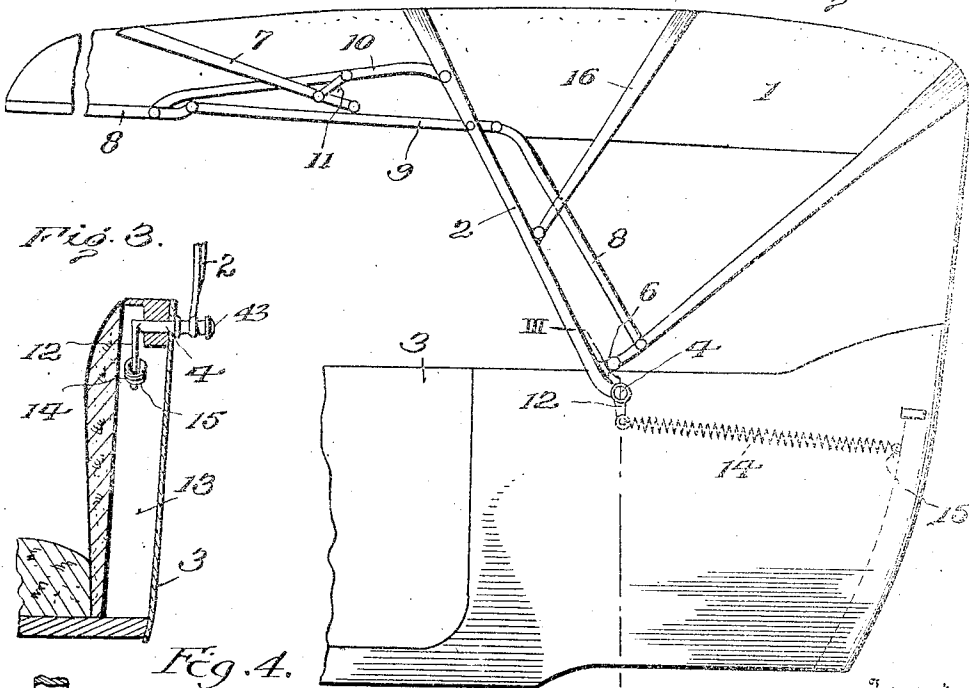


Fig. 3.

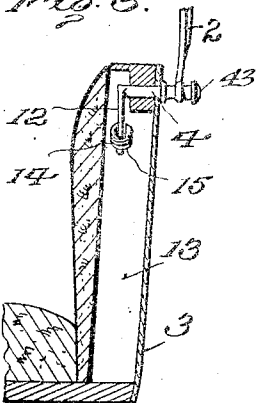
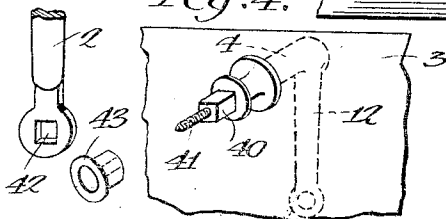


Fig. 4.



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AUTOMATIC FOLDING VEHICLE-TOP.

1,287,155.

Specification of Letters Patent.

Patented Dec. 10, 1918.

Application filed October 2, 1917. Serial No. 194,309.

To all whom it may concern:

Be it known that I, LE ROY B. WHEELER, a citizen of the United States, residing at New York, in the county and State of New York, have invented certain new and useful Improvements in Automatic Folding Vehicle-Tops, of which the following is a full, clear, and exact specification:

This invention relates to folding vehicle tops, and has for its object to provide a top, preferably of the extension type commonly known as a "one man top," which may be raised by a small child or anyone with very little or no exertion. The tops of this kind now generally in use are difficult to raise owing to the considerable weight of the several bows when-folded. This invention contemplates the provision of means for automatically operating the top, that is, moving it from folded to raised position, as soon as said top is given a slight raising movement. A further object is to retain the top in folded position against accidental displacement.

The invention will be first hereinafter described in connection with the accompanying drawings, which constitute part of this specification, and then more specifically defined in the claims at the end of the description.

In the accompanying drawings, wherein similar reference characters are used to designate corresponding parts throughout the several views:—

Figure 1 is a broken side view of portion of an automobile body with the top in folded position thereon.

Fig. 2 is a similar view, showing the top raised,

Fig. 3 is a section on the line III—III of Fig. 2, to better illustrate how the spring is concealed in the side of the vehicle body, and Fig. 4 is a detailed view of the detachable connection between the end of the bow and pivot pin, the parts being shown separated.

The top 1 is supported by a front bow 2, which is pivoted at its ends to the sides of the body 3 at 4, a rear bow 5 pivoted to the front bow near its ends, as at 6, and extension bows 7 and 8 adapted to be automatically actuated, when the bows 2 and 5 are raised, by the members 8¹, 9, 10 and 11, in the usual manner. The pivots 4 of the bow 2 are extended through the outer wall of the body 3, and on their inner ends carry fixed arms 12 arranged in cavities 13 in the body, it being understood that the arrangement of one of these arms, as shown in Fig. 3, is duplicated

on the other side of the body. A coiled spring 14, also housed in the cavity 13, is attached at one end to the arm 12 and at the other to a fixed portion of the body at 15.

When the top is folded, as illustrated in Fig. 1, the arms 12 extend slightly above the pivots 4, so that the springs 14 serve to retain said top in folded position against accidental displacement. To raise the top, it is only necessary to move the same upward far enough to bring the arms 12 below the pivots 4, whereupon the springs automatically raise the bows 2 and 5 and through the members 8¹, 9, 10 and 11 extend the extension bows 7 and 8.

Auxiliary bows, such as the bow 16 which extends rearwardly from the bow 2, may be employed, if desired, and are adapted to open and close with the main bows. The bow 2 may be detachably connected to the pivot pins 4 but is designed to turn with them. As illustrated in Fig. 4, the pivot pins 4 may have squared outer end portions 40 with screw threaded extensions 41, and the ends of the bow 2 may be provided with square openings 42 to fit said squared portions 40 of the pivot pins, the ends of said bow being retained in place by nuts 43 engaging the extensions 41. It will be observed that the pivot connection between the bow and body is waterproof with no slots in the upper edge of the body required. It will also be noted that the bow is connected to the body on the outside of the latter so that said bow is wide enough to clear the sides of the rear seat when folded.

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

1. The combination with a vehicle body, of pivot pins journaled therein and having their outer ends projecting on the outside of said body, a vehicle top having a bow connected to the outer ends of said pivot pins to turn therewith, arms fixed to the inner ends of said pivot pins, and coiled springs connected directly to said arms and to the body, said arms extending to one side of the pivot pins when the bow is folded and to the other side of said pivot pins when the bow is raised, for the purposes specified.

2. The combination with a vehicle body having waterproof cavities in the sides thereof, of pivot pins journaled in the outer walls of said cavities and having their outer ends projecting on the outside of said body, a

vehicle top having a bow connected to the
outer ends of said pivot pins to turn there-
with, arms housed in the cavities and fixed
to the inner ends of the pivot pins, and coiled
5 springs also housed in the cavities and con-
nected directly to said arms and to the body,
said arms extending to one side of the pivot

pins when the bow is folded, and to the other
side of said pivot pins when the bow is
raised, for the purposes specified. 10

In testimony whereof I have signed my
name to this specification.

LE ROY B. WHEELER.