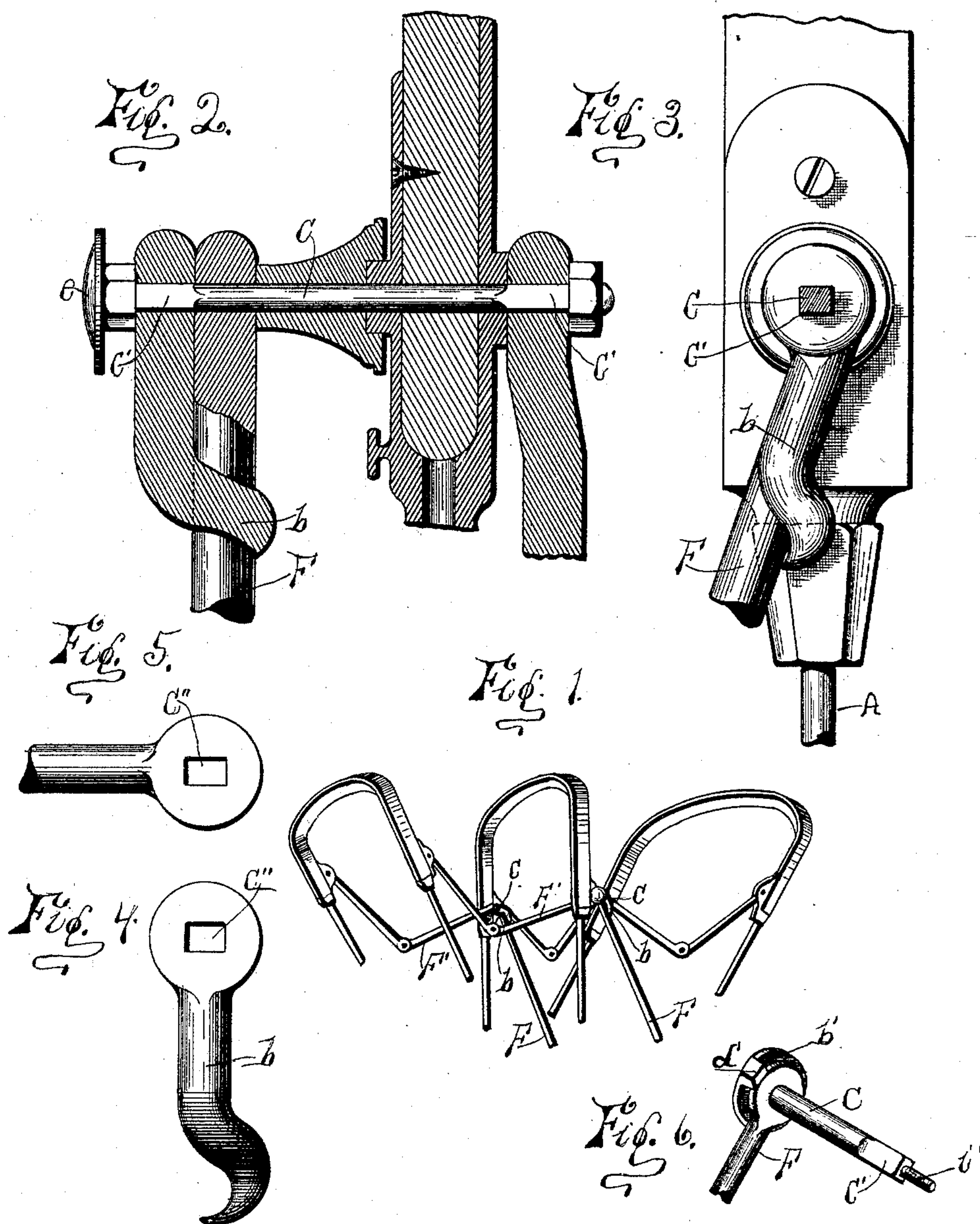


(No Model.)

J. D. WHITNEY.
CARRIAGE TOP.

No. 441,813.

Patented Dec. 2, 1890.



WITNESSES:

Ch. G. Latta
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UNITED STATES PATENT OFFICE.

JONAH D. WHITNEY, OF SYRACUSE, NEW YORK.

CARRIAGE-TOP.

SPECIFICATION forming part of Letters Patent No. 441,813, dated December 2, 1890.

Application filed October 23, 1889. Serial No. 327,902. (No model.)

To all whom it may concern:

Be it known that I, JONAH D. WHITNEY, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Carriage-Tops, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to improvements in carriage-tops; and it consists in certain details of construction whereby the raising and lowering thereof are easily and expeditiously effected by the occupant of the carriage without leaving his seat, all as hereinafter more particularly set forth, and specifically pointed out in the claims.

In the annexed drawings like letters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of a skeleton carriage-top provided with my improvement, showing said top raised and partly broken for lowering. Fig. 2 is a view, partly in section, of the working parts of my invention more enlarged. Fig. 3 is a side view of Fig. 2 with the outer nut removed. Fig. 4 is a view showing the operating-hook which controls the top braces. Fig. 5 is a view of the end of one arm of the top brace, which extends to the forward part of the top. Fig. 6 is an inverted view and shows a modified and simpler construction and arrangement of parts for accomplishing the same result.

Carriage-tops are usually held in a raised or extended position by means of two side braces extending from the rear part of the seat-rail up and forward to the lower part of the bow-frame about the middle of the top, and two pairs of braces extending from thence to the forward and rear bows of the top. Said braces are provided with concealed joints at a point nearly midway their length and have usually been pivoted at the middle of the top, and the braces at the side and forward part of the top are left outside of the top covering of carriage. When so arranged great difficulty is experienced by the occupant in raising or lowering the top, because all four joints must be broken to lower the top and all four locked to secure it in an upright position, and the joints are so far dis-

tant from the seat that one person is unable to handle them with ease. In consequence of this the tops of carriages as at present constructed soon become worn out because of the jarring received in the manipulation thereof. By my improvement all this is overcome, and tops provided with the same will last longer and the users may manipulate the same with great ease from the inside of the carriage without leaving the seat.

Instead of placing the forward brace on the outer side of the top covering, I employ the long pivot-pin *c*, mounted pivotally on the top rod or bow-frame *A*, which pin I extend through to the inside of the top and fit the rear arm of the forward brace thereto, the pin *c* having flat-sided end portions *c' c'*, while the brace-arm has an eye *c''* corresponding thereto, so that the arm *F'* and pin *c* move together. On the outside of the covering-curtains the brace *F* is pivoted on said pin *c*, while the outer end of said pin near its extremity is flat-sided, and a hook-shaped piece *b*, with an eye corresponding to said flatsides, is placed on said pivot-pin and held in position by the nut *e*. The lower end of said piece *b* engages the upper end portion of the brace *F*, and when the parts are properly placed in position the hook *b* and brace *F* are in close contact.

In the modification shown in Fig. 6 the hook *b* and the nut *e* are dispensed with, and the pin *c* is provided with a head or flattened end portion *b'*, which has integral with it the stud *d'*. The head *b'* lies outside of the top frame and the stud *d'* rests against the side brace *F*. The forward top brace *F'* fits on the flattened portion *c'*, and is held there by a nut screwing onto the threaded extension *i'* of the pin *c*.

The operation of the form shown in Fig. 6 is substantially like the other arrangement shown, except that the stud takes the place of the hook *b* and less parts are required.

The operation of my improvement is as follows: Assuming the top to be in its raised position, all that is necessary to lower the same as flat as possible for it to go is to draw down the brace *F'* and break the joint, when the movement of said brace will cause the pivot-pin *c* to turn slightly, carrying with it the

hook *b* or stud *d'*, which presses against the upper arm of the brace *F* and breaks its joints, thus collapsing the top and allowing it to fall behind the seat. In raising, the

5 movement is reversed, and when the parts are properly put together any movement of one brace-rod (top or side) will cause a corresponding movement of the companion brace on the same side.

10 The forward top braces are placed on the inside of the cover, so that one person can reach both of them at the same time to assist in lowering or raising the top. By thus placing the forward top braces inside of the cov-
15 ering a much neater finish is imparted to the top as a whole.

It will be observed that by reason of the peculiar form of the hook *b* it is automatic in its operation of engaging the brace *F* and dis-
20 engaging itself therefrom, so that when the brace on the inside of the top is to be broken the hook engages the side brace on the outside and simultaneously breaks it, and when the top brace is to be distended independently
25 while the side brace is broken, the hook automatically disengages itself from the side brace.

It is apparent that by making slight changes in the detail construction and arrangement of
30 the separate parts—such as brace-rods, pin, and location of hook *b*—the construction here shown may be reversed and still be within my invention.

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

1. In a breaking-device for carriage-tops, the combination of the supporting-braces with a hook engaging the braces and posi-

tively actuated by the movement of one brace, 40 so as to control the movement of the other, substantially as described, and for the purpose shown.

2. In a carriage-top, the top braces and a hook operated thereby, in combination with 45 the side braces engaged and broken by said hook when the top braces are broken, substantially as described.

3. In a carriage-top, the top rods or bow-frames and the top braces thereof to be ar- 50 ranged inside the cover, and the side braces outside the cover, combined with the pin rigidly connected at its inner end to the top braces and carrying at its outer end a hook automatically engaging and disengaging the 55 side braces which are pivoted on said pin, substantially as and for the purpose set forth.

4. A carriage-top consisting of the top rods or bow-frames *A*, the pin *c*, mounted pivotally therein and having flattened ends, the top 60 braces *F'* and automatic hook *b*, secured on said flattened ends, and the side braces *F*, pivoted on the rod adjacent to the hook and engaged thereby, as set forth, so that the braces *F* are broken by the breaking of the 65 braces *F'*, and braces *F'* may be distended while braces *F* are broken, all substantially as described.

In testimony whereof I have hereunto signed my name, in the presence of two attest- 70 ing witnesses, at Syracuse, in the county of Onondaga, in the State of New York, this 11th day of September, 1889.

JONAH D. WHITNEY.

Witnesses:

FREDERICK H. GIBBS,
S. C. FISCHER.