2 Sheets—Sheet 1.

W. H. POWER & C. T. ANDERSON.

CARRIAGE-TOP.

No. 169,579. Patented Nov. 2, 1875.

FIG. 1.

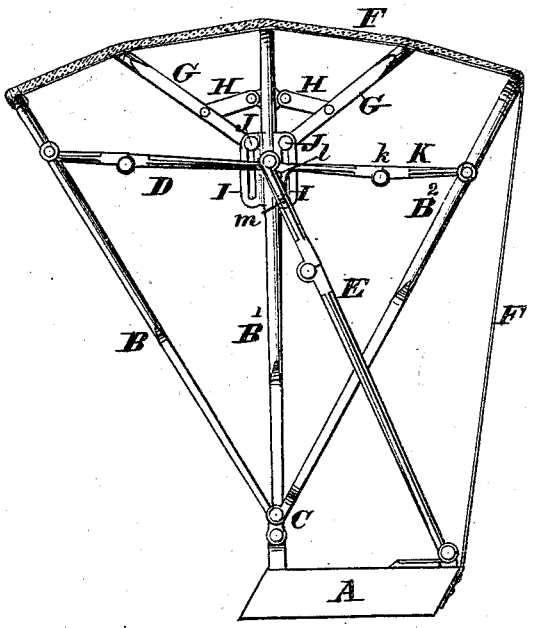
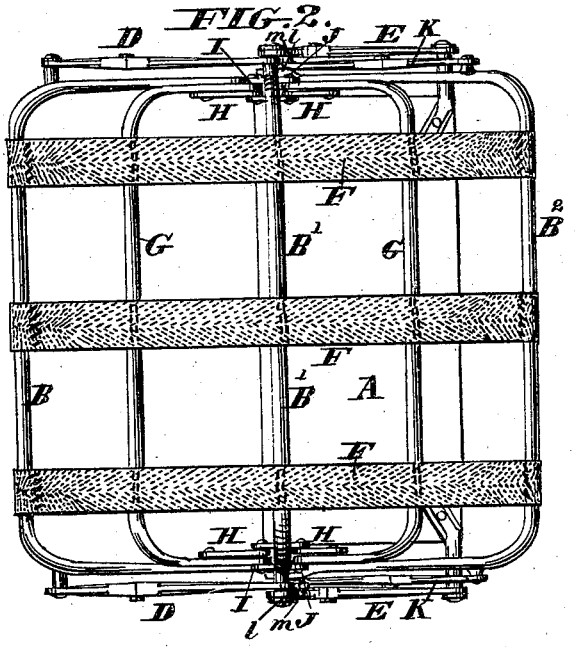


FIG. 2.



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2 Sheets—Sheet 2.

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FIG. 3.

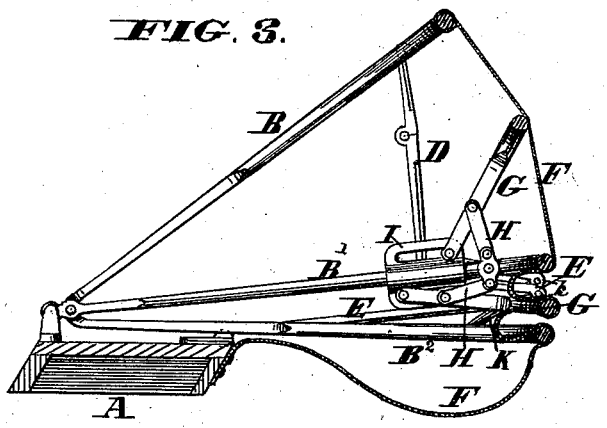
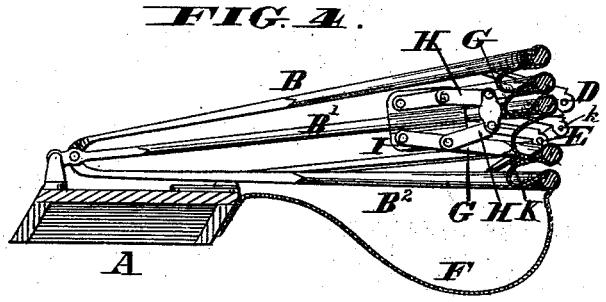


FIG. 4.



WITNESSES
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UNITED STATES PATENT OFFICE.

WILLIAM H. POWER, OF WASHINGTON, DISTRICT OF COLUMBIA, AND CHARLES T. ANDERSON, OF CLARKSBURG, MARYLAND.

IMPROVEMENT IN CARRIAGE-TOPS.

Specification forming part of Letters Patent No. **169,579**, dated November 2, 1875; application filed August 21, 1875.

To all whom it may concern:

Be it known that we, WILLIAM H. POWER, of Washington, in the District of Columbia, and CHARLES T. ANDERSON, of Clarksburg, in the county of Montgomery and State of Maryland, have invented a certain new and useful Improvement in Falling Tops for Carriages, of which the following is a specification:

The subject of our invention is a simple and effective expedient to brace and strengthen the falling tops of buggies and other carriages, and relieve them from the unsightly and injurious effect of the sagging of the leather between the bows without the use of a large number of main or complete bows, which necessarily add much to the weight and costliness of the top.

Our invention consists, first, in the employment of one or more supplemental bows, connected to one of the main bows by struts or links, which, when the supplemental bow is drawn apart from the main bow by the action of the customary stretchers, cause the heels of the supplemental bow to climb on the main bow, deriving a firm support therefrom, as hereinafter described.

The invention further consists in the employment of slotted plates for confining the heels of the supplemental bows, mounted and attached as above set forth.

The invention further consists in the employment of supplemental jointed props or struts between the central and back bows of the frame, said supplemental struts being connected at their forward ends to the back props, and formed with shoulders or projections bearing against the pivots which attach the upper ends of the back props to the center bows, so that the customary deflection of the back props will throw up and deflect the supplemental struts, as hereinafter described.

In the accompanying drawing, Figure 1 is a side elevation of the frame of a buggy-top, illustrating the invention. Fig. 2 is a plan of the same. Fig. 3 is a vertical section thereof, showing the top partly lowered. Fig. 4 is a vertical section, showing the top completely lowered.

A may represent a portion of the bed or body of a buggy or other carriage, and B B^1 B^2 bows of customary form pivoted to lugs C thereon, in the usual manner. D E are customary knuckle-jointed props or braces. F F F are the stretchers, attached to the bows B B^1 B^2 and to the bed A. G G′ are short supplemental bows, connected to the central bow B^1 by links or struts H, pivoted to each. The heels of the supplemental bows G G′ are further connected to the central main bow B^1 by slotted plates I I′, projecting from said main bow, and receiving headed studs J to confine the heels of the supplemental bow to the plates, and guide them in their movement. K K represent supplemental jointed props or struts, pivoted at their rear ends to back bow B^2, and at their front ends *m* to the back props E, near the upper ends thereof. The said struts are formed with the customary knuckle-joints *k*, and with shoulders *l* resting against the upper pivots of the props E, when the top is up, so that when the prop E is deflected to lower the top, the bar *m l k*, forming the front member of the strut K, will act as a lever turning on *l* as a fulcrum, and bending the joint *k* of the strut, so as to permit the bows B^1 B^2 to fall together.

The bows may be made of wood or metal, as preferred.

The operation is as follows: From the above description, it will be seen that the struts or supplemental jointed props K serve, when the top is up, to brace the bows B^1 B^2 firmly apart, but release them automatically when the back props E are deflected. When the top is lowered, the heels of the supplemental bows G G′ are caused to pass down to the lower ends of the slots in the plates I I′, so that the tops of the bows are brought in line with the tops of the main bows B B^1 B^2, as shown in Fig. 4. When the top is raised, the stretchers draw the supplemental bows G G′ away from the main bow B^1, and this movement, acting on the struts H as fulcrums, causes the heel studs J to rise within the slots of the plates I I′, so that the struts H and the adjacent portions of the bows which they connect, form together a triangular brace, rendering the top of the supplemental bow as firm and strong to support the pressure of the top leather as are the tops

of the main bows, the bracing-struts causing the heels of the supplemental bows to bear and press firmly against the sides of the supplemental main bow B^1.

The device permits the bows to be set as a half-top, in the manner illustrated in Fig. 3, with as great simplicity and convenience, and with more, security, than the falling tops in common use.

The invention is applicable to falling-top carriages of all descriptions in which bows are used, and is of great value in extension-tops, as the top leather is retained in its proper symmetrical form without any superfluous weight of metal.

The following is claimed as new:

1. A falling top for carriages constructed with one or more supplemental bows, G, connected to one of the main bows by hinged struts or links H, causing the feet of the said supplemental bows to slide up and down on the main bow by the action of the stretchers F, as explained.

2. The combination, with the main bows B B^1 B^2, braces D E, and stretchers F, of the supplemental bows G, (one or more,) connecting links or struts H, and the slotted plates I, for confining the heels of the supplemental bows, as explained.

3. The supplemental jointed props or struts K, formed with shoulders *l* resting against the upper pivots *e* of the props E, but disconnected therefrom, so as to be free to leave said pivots when the top is lowered, and connected to said props at *m*, so as to be thrown up and deflected by the deflection of the said props E, as explained.

In testimony that we claim the above as our invention we hereunto set our hands.

WILLIAM H. POWER.
CHARLES T. ANDERSON.

Witnesses to signature of W. H. POWER:
OCTAVIUS KNIGHT,
CHAS. J. GOOCH.

Witnesses to signature of C. T. ANDERSON:
JAS. H. HILTON,
W. W. DRONENBURG.