(No Model.)

M. HAUGHEY.

CARRIAGE.

No. 404,405. Patented June 4, 1889.

Fig. I.

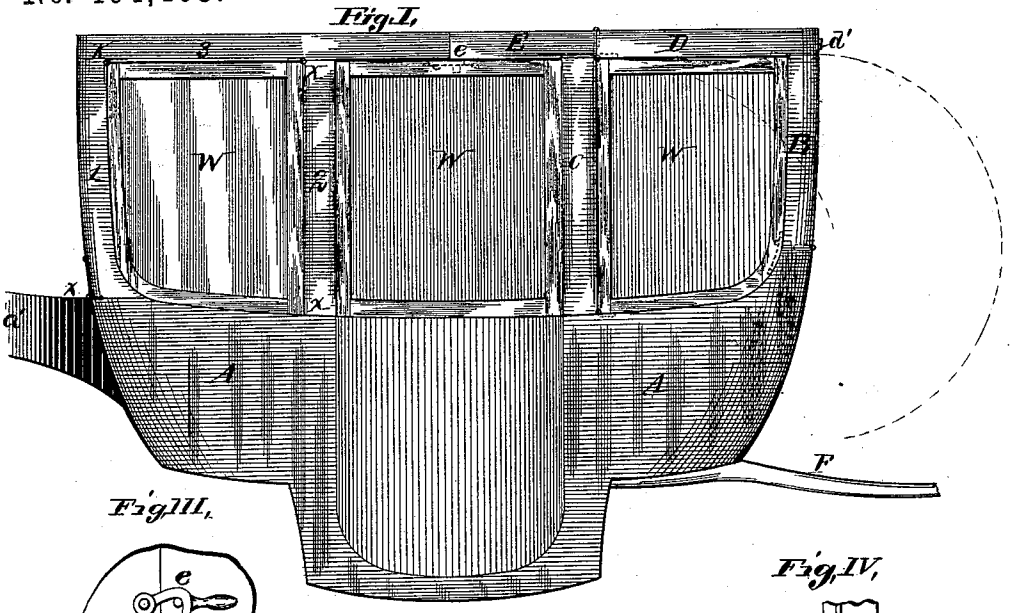


Fig. III.

Fig. IV.

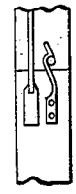
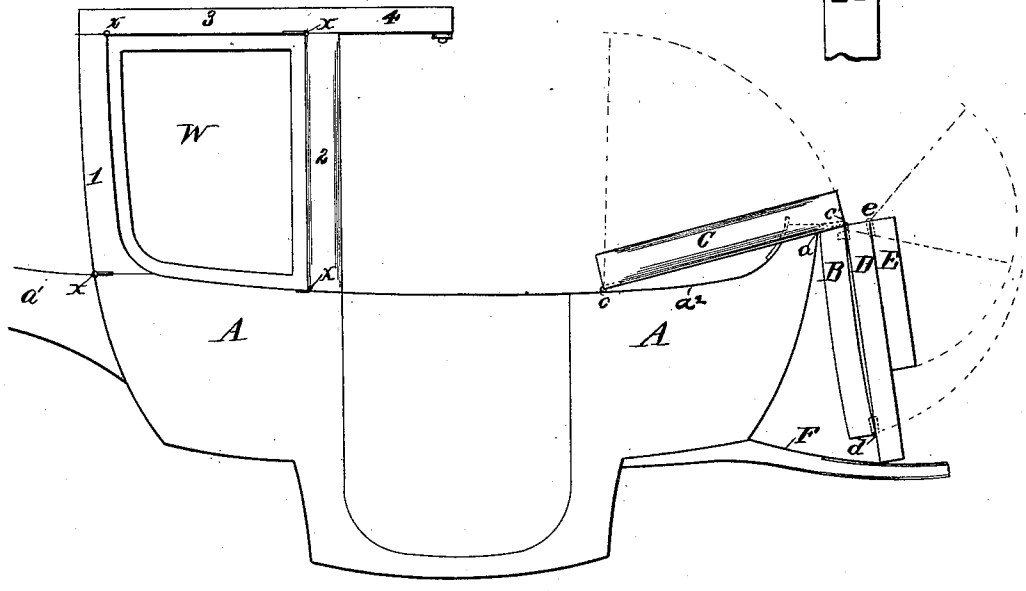


Fig. 2.



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UNITED STATES PATENT OFFICE.

MICHAEL HAUGHEY, OF ST. LOUIS, MISSOURI.

CARRIAGE.

SPECIFICATION forming part of Letters Patent No. 404,405, dated June 4, 1889.

Application filed October 31, 1888. Serial No. 289,663. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL HAUGHEY, residing at the city of St. Louis, in the State of Missouri, have invented a new and useful Improvement in Carriage-Tops, of which the following is a specification.

My invention relates to improvements in carriages in which by means of joints and hinges the pillars, ends, and top of that part of the carriage above the seats and lazy-back and sides move forward and backward, respectively, from the middle, leaving the seats open, and by reversing the motion to close the same; and the object of my improvement is to provide means whereby the rear half of a carriage-top having no flexions between the parts of its frame may be thrown back on jointed and hinged bearings and safely and neatly bestowed and folded in the rear of and nearly even with the upwardly-extending line of the back panel without interference of the seat-back or window-sashes; second, to dispense with the cross-braces, toggle-arms, and flexible covered frame heretofore used for laying open the rear half of a carriage or landau top.

My improvement consists in so placing and arranging the joints or hinges whereby the several parts of the rear half of the top are connected that when said portion is given motion backward by the hands it will fold together, and so rest with the rear pillar and top at about right angles with the rear center pillars, and nearly on a line with the upwardly-extending lines of the back panel upon the backwardly-extended arms of the carriage-body supported upon the springs when the top is open, and by reversing the motion the top can be closed.

I attain the foregoing objects by the means illustrated in the accompanying drawings, in which—

Figure I is a side elevation of the body of a closed eight-windowed carriage. Fig. II is a similar view of the same, showing the operation of my improvement as applied to the rear half of the carriage-top. Fig. III is a form of top fastening, and Fig. IV a form of side fastening.

Similar letters and figures refer to similar parts throughout the drawings.

A represents the body of a carriage designed for eight windows—three on each side and one in each end. The windows W are set in the ordinary frame-work for such parts.

C represents the pillars, B the back, and D and E the rear half of the roof of the carriage-top, each of said parts being built separately and then hinged or jointed together at the points shown by the drawings—*i. e.*, the pillars, being placed in an upright position where they belong upon the rail a^2 of the carriage-body, are then hinged at their rear lower corners to the said rail by the hinges *c*, and again hinged at their rear upper corners to the forward lower corners of the roof part D of the top-frame by the hinges *c'*, said last-mentioned part being also connected near its rear end, and sufficiently therefrom to allow for the thickness of the back, to the forward upper corner of the back B by the hinges *d*. The back B is then connected to the carriage-body at its lower outer ends by the hinges *a*. The part E of the roof is attached to the part D thereof by the hinges *e*.

It should be borne in mind that the centers from which the rear half of top is pivoted for opening and closing in my device are on a plane, the one above or higher than the other, so as to afford a circular motion of about one-fourth of a circle to the pillars C and about one-half of a circle to the back pillars B and roof, which motion is imparted by the hinging of the pillars B at a point higher up at their lower part than the pillars C, as shown in the drawings at *a* and *c*, Fig. II. The said parts of the rear half of the carriage-top being joined together in the manner described and as shown in Fig. I, the operation of my improvement is as follows, viz: Having removed the windows W and placed them in a receptacle provided in the carriage, loosen the catch *e* of the roof, fold the part E over the part D, and recline the pillars and back toward the rear until they assume the position shown in Fig. II, folded together and resting securely on section D upon the backwardly-extended arms F of the carriage-body, or otherwise protected by the friction-knob *d'*. The auxiliary catch or lock shown in Fig. IV and the roof-catch shown in Fig. III are but well-known forms of roof and side fastenings, to which I make no claim.

The forward half of the carriage-top which

is used in connection with my improvement is shown in the drawings, Figs. I and II, by the hinged parts or sections marked in figures; but as I lay no claim to such part I have not specifically referred thereto.

Having thus described the mode by which a carriage containing my improvement may be opened in its rear top half, in order to close the same it is only necessary to raise the pillars and top by a forward movement of the hands, when all the parts will easily slide into the closed position and are then readily fastened in the manner shown.

I am aware that the use of hinges whereby the rigid frame-work of the rear half of a carriage-top may be opened and closed is not new; but I am not aware that such a construction and connection as mine for adjusting the rear half of a carriage-top having a rigid frame has ever before been known or used. The advantages, however, of my improvement over existing devices are (*a*) a permanent full-upholstered back, (*b*) dispensing with swinging windows, and (*c*) reducing the strain on hinged pillars and top by carrying the center line of top to the rear by a quarter-circle motion and the rear by a half-circle, thus carrying the same over and folding it behind the back panel in a vertical position, thus avoiding the vibration and unsteadiness of motion incident to existing modes, which extend the top horizontally beyond the rear of the carriage-body, thereby giving it increased weight, besides impairing its life and usefulness.

That, therefore, which I claim, and desire to secure by Letters Patent, is—

In a carriage-top, the jointing and hinging of the back B at a point higher than the front center pillar C, so that the top when open will fold in a vertical position outside of and parallel to the rear panel, all substantially as shown and described, and for the purposes set forth.

MICHAEL HAUGHEY.

Witnesses:
R. H. PHILLIPS,
G. B. MILES.