

Carriage-Top.

Patented Jan. 12, 1858.

UNITED STATES PATENT OFFICE.

NEWTON BENEDICT, OF AURELIUS, NEW YORK.

CARRIAGE-TOP.

Specification of Letters Patent No. 19,065, dated January 12, 1858.

To all whom it may concern:

Be it known that I, NEWTON BENEDICT, of Aurelius, in the county of Cayuga and State of New York, have invented a new and Improved Mode of Extending and Contracting Carriage-Coverings; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings and the letters of reference marked thereon, in which drawings—

Figure 1 is a perspective view representing the carriage body and top with the top and front extended and the cloth removed from the sides or lower part of the bows; Fig. 2 another view of the same with the extension part of the front down, and the bows in the act of falling back and down, and Fig. 3 a view of the middle and front portion of the bottom of the carriage body.

The shaft A passes across the lower part of body, having its bearings at B, B, and the arms C proceeding from this shaft up along the sides of the box are attached by hinges *h* to the lower part of the front or main bow. The fixed metallic loops N limit the action of the hinges. The shaft A has a notched wheel or detention piece *d* and the lever L a projection or catch which is borne into the notches by the action of the spring *s* thus stopping the backward motion of *c* at any required point. The rod *r* which is attached to the forward end of L and passes through to the inside of the carriage enabling the passenger by pulling up on it to disengage the catch at the other extremity from its notch in C. The spring D coiled about the shaft A gives it a tendency to revolve in the direction 1, 2, 3, indicated in the dotted line.

F, E, *i*, represent parts of the sliding or extension front, the main sides of which are retained in the grooves *g g* of the frame of the lower fixed part. Additional side pieces *i i* attached to the sliding part outside of the grooves and coming in front of the lower side pieces *j j* meet the sides of the front bow in the same plane with the lower or fixed front. The window E is hung by hinges at the top and is adjusted or thrown outward and open by the strap F which passes through the main part over the edge of a flat spring which prevents it from passing back.

Now when the bows and sliding part of the front are torn down as represented in

Fig. 2 and the cloth attached to the sides of the bows, and it is desired to entirely close up the inside of the carriage; taking hold of any part of the front bow or of one of the arms C and pushing it forward will cause the whole top to be raised and the motion of the arms C will carry the foot of the front bow forward to R at the same time that the top of it is raised and by means of the cloth and stays pulls the other bows to their proper places. The catch of the lever L catching into a notch in the detention piece *d* prevents the revolving of the shaft A so that the arms C and consequently bows are retained in the positions represented in Fig. 1. The upper front is closed by simply sliding up the extension part till its top meets the top of the front bow in which position it is retained by a projection from a small spring attached to the side upright piece of the fixed part, which projection passes through the inner edge of the grooved part into a suitable notch in the sliding frame. The lines may be passed through the cuttings *f f* in the window frame if it be desired to have the window entirely closed. When more air is desired the windows may be adjusted as shown in Fig. 1 still excluding the storm while admitting the air.

To throw back and down the bars, all that is necessary is to pull up on the rod *r* disengaging the catch from the detention piece *d* as previously stated, when the action of spring D rotating the shaft A in the direction 1, 2, 3, and by a corresponding motion of the extremities of arms C carrying the lower ends of the front bow back as shown in Fig. 2, the hinges *h* allowing the ends of C contained in the loops N to move away from the bow while the latter lies horizontally and the loops N prevent the top of the bow from tipping too far forward or swaying from side to side in the act of passing back and forth. Without the spring D the top might be very easily put down by hand, having a suitable handle or leather loop attached to the front bow inside of the carriage, or by taking hold of one of the arms C when out of the carriage, after disengaging the catch underneath by means of the cord O O seen in Fig. 3, but the spring D greatly facilitates operation of folding the top, thus avoiding all danger to the passengers from being so closely shut up. Dispensing with the shaft A the arms C would still afford a very convenient means of ex-

tending and contracting the top. The particular shape of the arms from B to *h* is unimportant as it respects their operation but it is convenient to have them bent to such
 5 shape as will allow them to be most out of the way when the top is folded. If the front or main bow is made sufficiently stout and also the arms C and the shaft and catch; and all of the bows well connected with cloth
 10 or leather, there will be no need of jointed side braces, such as generally used in folding tops; for such braces only push against the strength of the cloth while the same effect results from the pulling forward of a
 15 strong front bow as described. For convenience in adjusting the lever L its pin-plates H are set by screws passing through the slots *m* thus allowing them to be moved forward or back. When the sliding or extension part of the front is down as in Fig. 2,
 20 a dash of the ordinary shape and dimensions is presented.

The difference between this extension front and an ordinary sliding window for
 25 carriages, is this, that the sliding down of said front effects an entire removal of the whole upper portion of that side of which it forms a part, of course carrying its window with it. The window is opened on its
 30 hinges outward from the bottom to exclude the storm while admitting the air, while such sliding windows as are used, are moved up or down without any change of position

in the upper part of the sides to which they belong; which arrangement is equivalent to
 35 having the front permanently fixed in the position represented in Fig. 1, and having its window slide instead of opening and closing as described.

I do not claim the extension front referred to in the drawings and description by the letters F, *i i*, E, *f, f, j, j*, and *g, g*, which part is connected as a sliding part with the dash of the carriage; but

I do claim—

1. The arrangement for operating the carriage bows, substantially as described.

2. I claim the arms C connected with the main bow and with the shaft A in the manner and for the purpose set forth.

3. I also claim connecting the spring D with the carriage body and causing it to act upon the shaft A in the manner and for the purpose set forth.

4. I also claim the combination and arrangement of the detention piece *d*, with the catch-lever L and its spring *s* whereby the shaft A is held at the proper point from rotating, substantially as set forth.

5. I also claim the combined uses of the hinges *h*, and loops N, in the manner and for the purposes substantially as set forth.

NEWTON BENEDICT. [L. s.]

In presence of—

E. B. MARVIN,

JOHN A. LOCKE.