

(No Model.)

H. ECKERT.

DEVICE FOR LOWERING OR RAISING CARRIAGE TOPS.

No. 553,154.

Patented Jan. 14, 1896.

Fig. 1.

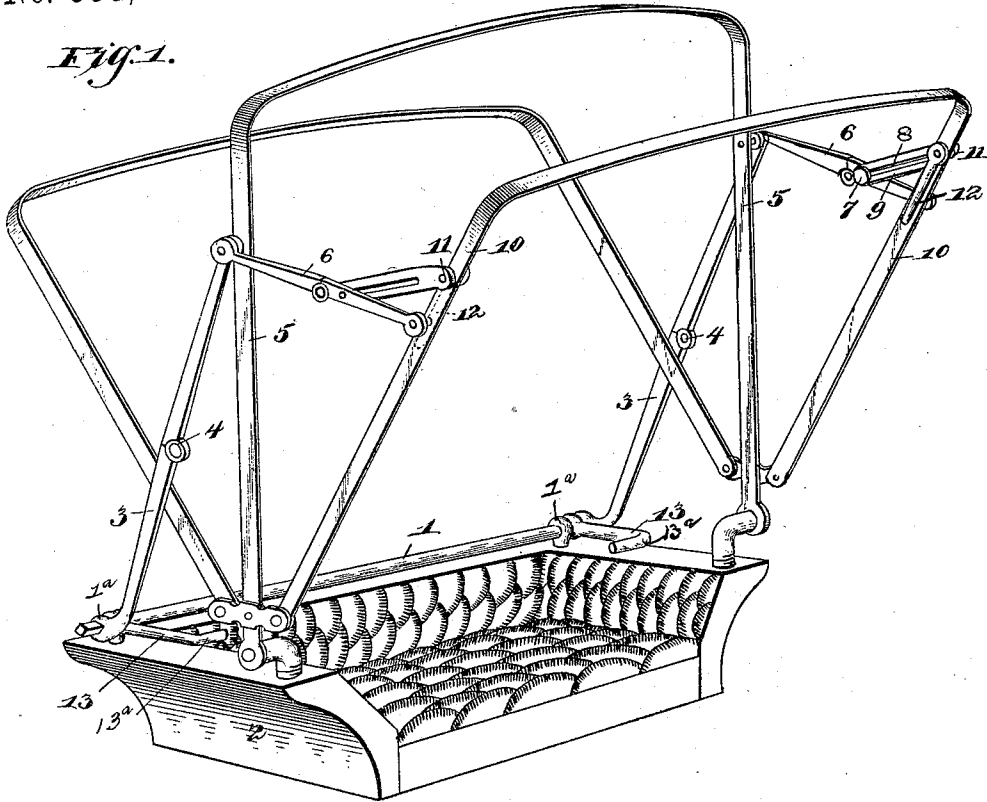
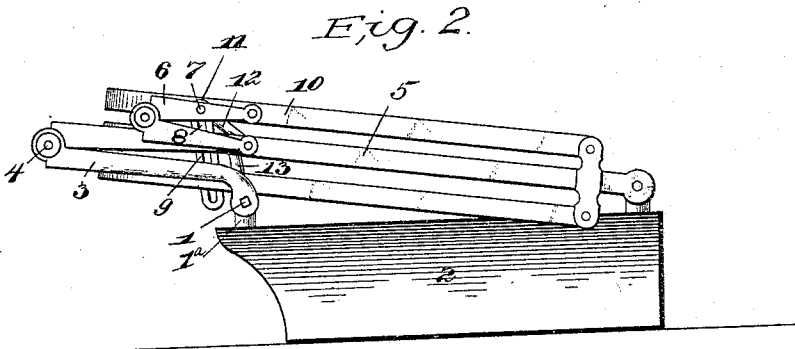


Fig. 2.



Inventor

Hiram Eckert.

Witnesses

W. J. Doyle
J. H. Riley

By his Attorneys,

C. Snow & Co.

UNITED STATES PATENT OFFICE.

HIRAM ECKERT, OF MARINE CITY, MICHIGAN.

DEVICE FOR LOWERING OR RAISING CARRIAGE-TOPS.

SPECIFICATION forming part of Letters Patent No. 553,154, dated January 14, 1896.

Application filed April 28, 1894. Serial No. 509,362. (No model.)

To all whom it may concern:

Be it known that I, HIRAM ECKERT, a citizen of the United States, residing at Marine City, in the county of St. Clair and State of Michigan, have invented a new and useful Device for Raising and Lowering Carriage-Tops, of which the following is a specification.

My invention relates to means for operating carriage-tops, the objects in view being to provide a simple and inexpensive device adapted to be applied to an ordinary form of carriage-top without material change in the construction of the frame of such top, whereby the occupant of the vehicle may manipulate the operating device to raise and lower the top.

Further objects and advantages of the invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claim.

In the drawings, Figure 1 is a perspective view of a carriage-top provided with operating devices embodying my invention. Fig. 2 is a side view of the same, showing the top collapsed.

Similar numerals of reference indicate corresponding parts in both figures of the drawings.

In the construction illustrated, the carriage-top frame comprises front, rear, and intermediate ribs, of which the intermediate or main rib 5 is pivotally connected to the sides of the seat 2 by means of any suitable form of bracket, while the front and rear ribs are pivotally connected to and supported by the intermediate or main rib. The front rib is connected near its top to the intermediate rib by means of the sectional hinged front brace 6, of the ordinary construction, comprising sections adapted to be folded upon each other. The rear brace 3 is pivotally connected at its upper end to the intermediate or main rib, and is provided at an intermediate point with a joint 4, this brace also being of the ordinary construction.

Instead of pivotally connecting the lower ends of the rear braces independently to the seat-frame, I employ a common rock-shaft 1 extending parallel with the back of the seat and mounted in bearing-eyes 1^a, the portions of the rock-shaft which extend beyond said bearing-eyes being angular in cross-section

and being fitted in similar openings in the lower extremities of the rear braces. Also fitted upon these angular extremities of the rock-shafts, between the ends of the rear braces and the bearing-eyes, are the operating-levers 13 provided at their free ends with lateral inwardly-extending terminal studs 13^a, which normally lie in contact with or contiguous to the surfaces of the sides of the seat-frame, whereby they are in position to receive pressure by the elbows of the occupant or occupants of the seat.

The extremity or handle portion 13^a of the operating-lever is thus arranged within reach of the occupant without turning in the seat and at an intermediate point of the side of the seat, whereby the elbow may be rested thereon to prevent the top from being thrown back in case of a sudden lurch caused by the abrupt starting of the horse.

In order to provide for folding the front portion of the top a pivotal arm 9 having a longitudinal slot 8 is secured to one end of a pivot 11 mounted in the front rib of the frame above the pivotal point of the front end of the brace 6, the slot in said arm engaging the shank of a headed stud 7 arranged upon the front section of the brace 6 adjacent to the pivotal connection between the sections of the brace. The pivot 11 extends through the front rib, and to the inner end thereof is attached an operating-handle 12 accessible from the interior of the vehicle and within reach of the occupant of the seat when the top is in its operative position, as shown in Fig. 1, and also when the top has been partly collapsed by the breaking of the rear ribs 3.

The peculiar form of operating device above described for the front brace 6 performs the additional function of a brace for the front rib and brace, especially when the rear brace is broken or folded and the top is arranged in the partially-collapsed position frequently adopted. Furthermore, the above-described construction of operating-arm for the front brace is adapted to be applied to a carriage-top after the manufacture of the latter without materially changing the construction thereof and without weakening the brace. The operation of the slotted arm 9 in connection with the front brace does not mar or scratch the surface of said brace upon its

outer or exposed side, and hence possesses an advantage over those forms of operating devices which have eyes encircling and sliding upon the braces.

5 From the above description it will be seen that the construction embodying my invention is applicable to any ordinary form of carriage-top frame without altering the construction of such frame, except in the matter of
 10 applying the stud 7 to the front brace and perforating the front rib to receive the pivot 11, and the operation of either of the levers 13 causes the simultaneous breaking of both of the rear braces and the immediate collapse
 15 of the carriage-top when required in an emergency, as when the horse becomes unmanageable.

Various changes in the form, proportion, and the minor details of construction may be
 20 resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having described my invention, what I claim is—

25 The combination with a carriage-top having a frame comprising pivotal ribs, and front and rear hinged braces for holding said ribs

in operative position, of spindles extending through and mounted for rotation in the front ribs above the plane of the front braces, swinging-arms secured to the outer extremities of
 30 said spindles and provided with longitudinal slots, headed studs projecting inwardly from the front braces near their central or hinged points and engaging the slots of said arms, 35 whereby in operation the outer surfaces of the braces are not marred by contact with the swinging-arms, and handles secured to the inner extremities of the spindles within reach of the occupant of the vehicle, said
 40 swinging-arms being adapted to communicate motion to the braces to deflect them at their hinged points and also adapted to serve as braces to strengthen the joints between the front ends of the front braces and the front
 45 ribs, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

HIRAM ECKERT.

Witnesses:

GEO. W. CARMAN,
 J. HEISLER.