2 Sheets — Sheet 1.

O. E. MALLORY.

Improvement in Shifting Carriage-Tops.

No. 126,313. Patented April 30, 1872.

Fig. 1.

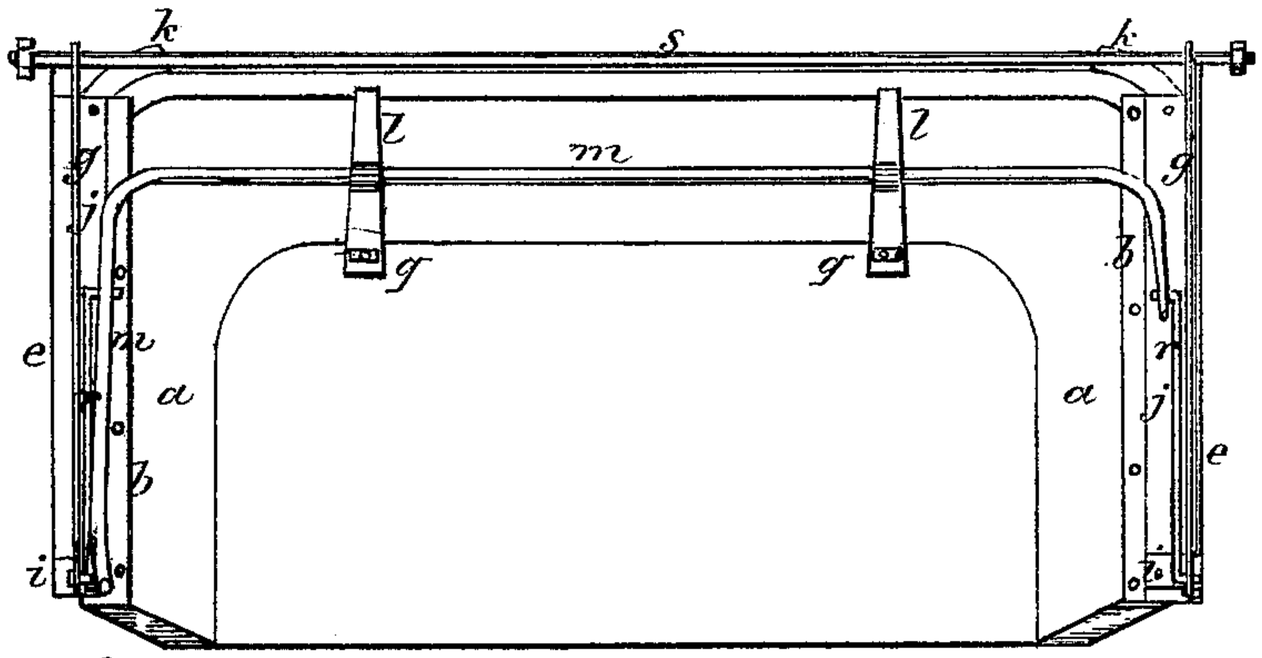


Fig. 2.

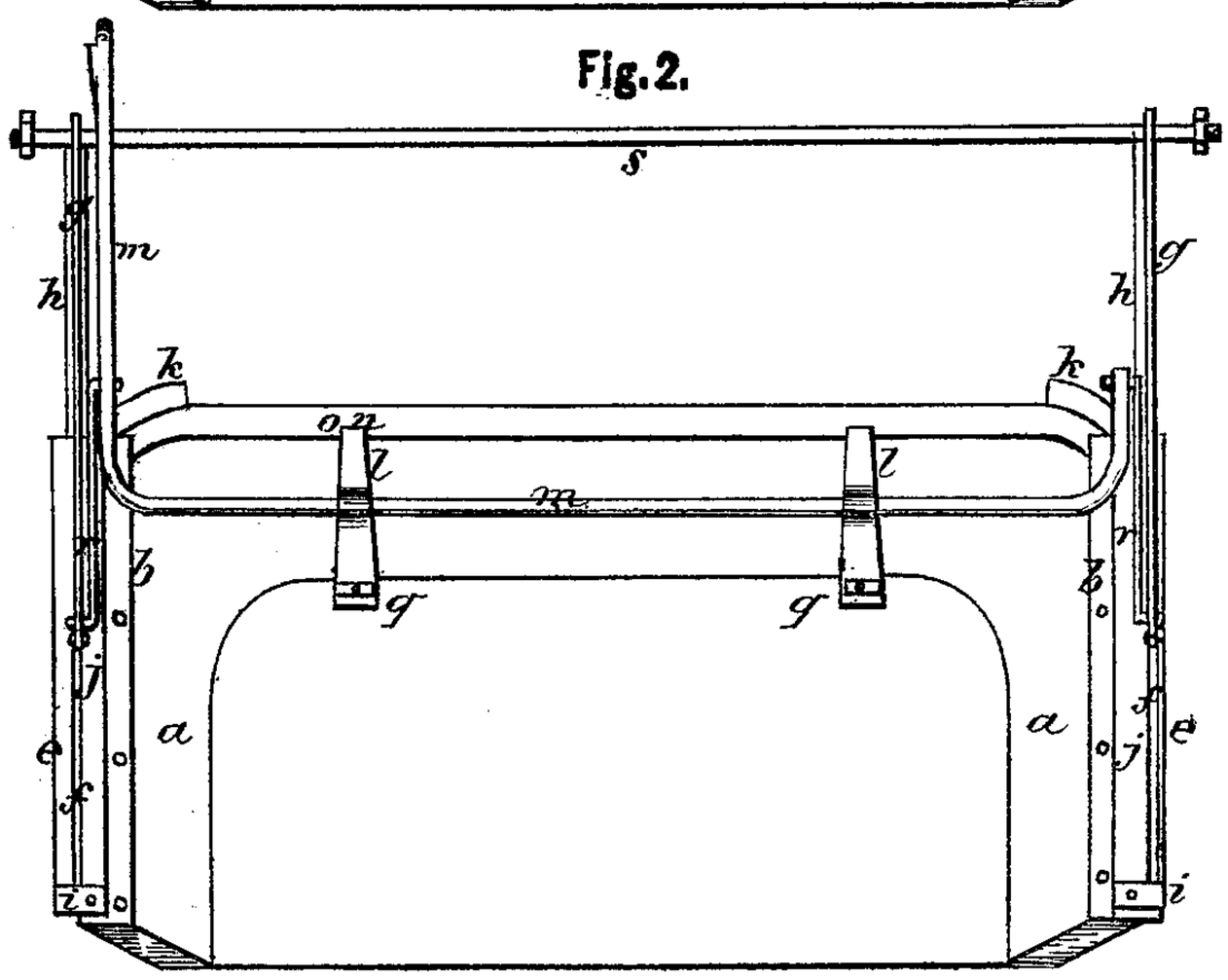
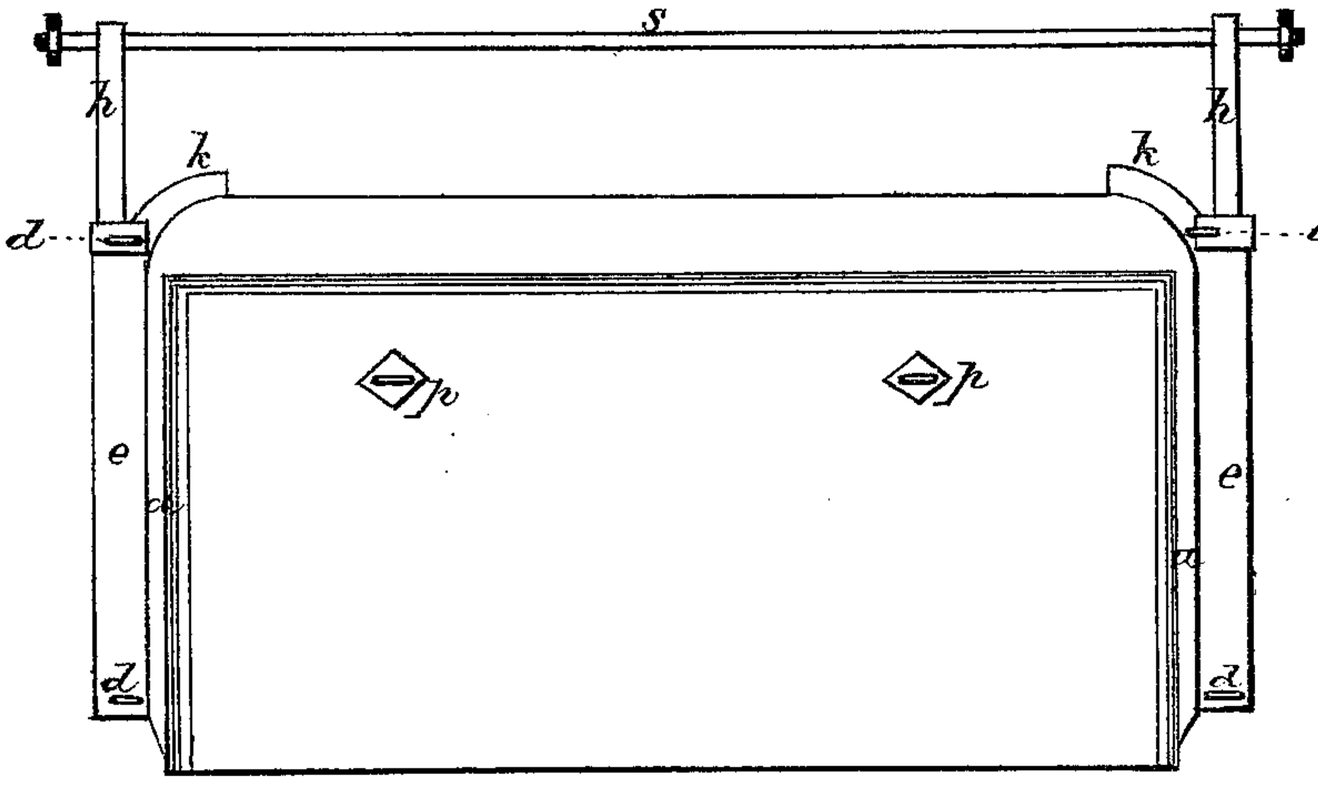


Fig. 3.



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2 Sheets - Sheet 2

O. E. MALLORY.

Improvement in Shifting Carriage-Tops.

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Fig. 4.

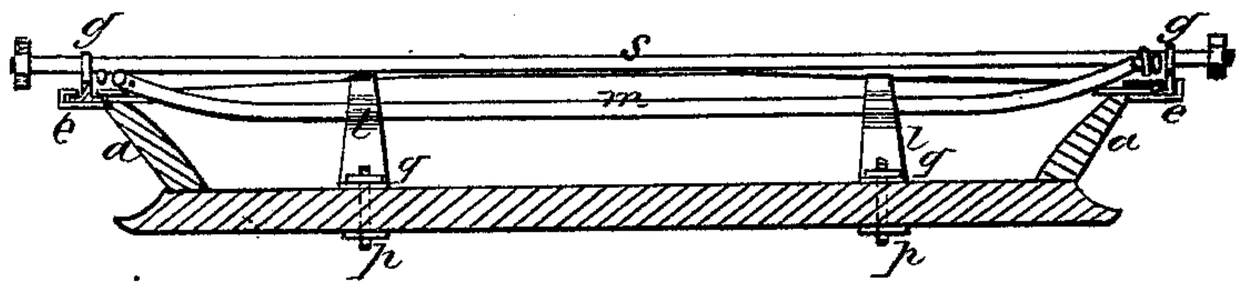


Fig. 5.

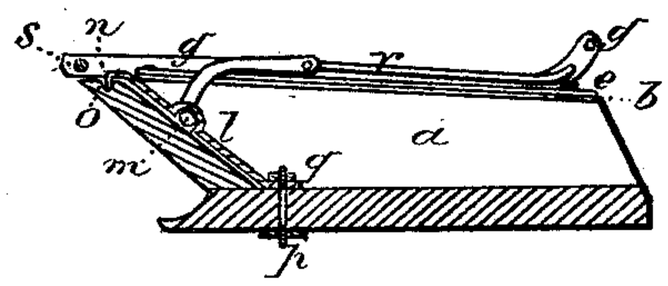
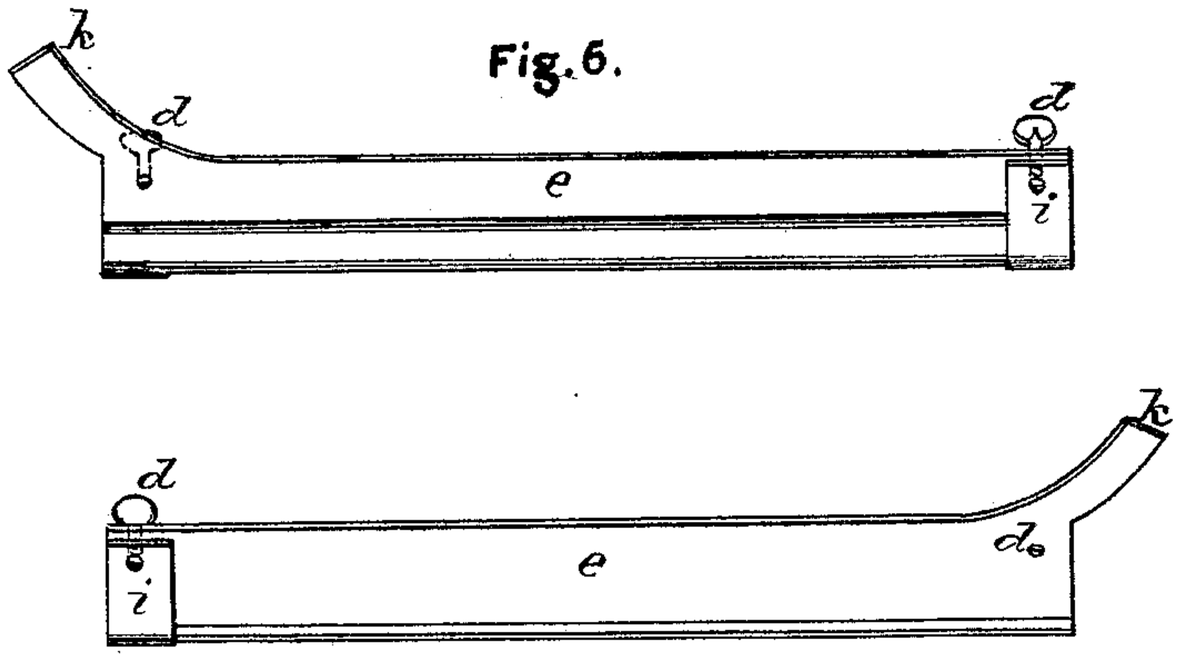


Fig. 6.



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126,313

UNITED STATES PATENT OFFICE.

ORSON E. MALLORY, OF BATAVIA, NEW YORK.

IMPROVEMENT IN SHIFTING CARRIAGE-TOPS.

Specification forming part of Letters Patent No. 126, 13, dated April 30, 1872.

To all whom it may concern:

Be it known that I, ORSON E. MALLORY, of Batavia, in the county of Genesee and State of New York, have invented a new and useful Improvement in Shifting Carriage-Tops, of which the following is a specification:

My invention relates to that class of carriage-tops which slide horizontally forward and backward over the seat, and in which the parts through which this sliding movement is effected are readily detached from the seat; and my said invention consists, first, in the peculiar construction of the sliding parts which carry the top, whereby a much larger bearing-surface is obtained for them, and the sliding movement rendered more even and steady, and whereby, also, the cost of attachment is greatly reduced and its construction simplified; second, in the manner of attachment of the parts constituting my improvement to the carriage-seat, whereby an easy attachment or detachment of the same is obtained; third, in the arrangement of the lever-arms operating the sliding carriage-top, whereby these arms fold inwardly out of sight when the top slides forward, and serve as stops, in connection with the curved ends of the lever, to limit the rearward movement of the top.

In the accompanying drawing, Figure 1 represents a top view of a carriage-seat provided with my improved top-sliding attachment, the latter being shown in position when the top is over the seat. Fig. 2 represents a similar view, the top-sliding attachment being shown in position when the top is moved back from the seat. Fig. 3 represents a bottom view of the seat with the attachment. Fig. 4 represents a vertical section of the same in line *x x*, Fig. 1. Fig. 5 represents a vertical section in line *y y*, Fig. 1; and Fig. 6 represents the sliding parts detached.

On the upper edge of the sides *a* of the seat are secured metal plates *b*, extending outwardly beyond the sides *a* for a short distance. These plates may be secured in any suitable manner, and where sheet-iron seats are used on carriages the sides of such seats may be formed with a rim on their upper edges to take the place of the plates *b*. To these plates *b* are secured removable parallel plates *e* by means of thumb-screws *d*. These plates *b e* form slots *f*, in which T-shaped beads *g* of the sliding attachment move forward and backward, the two plates *b* and *e* forming, unitedly, ways for the sliding plates *h*, from the center of which the T-shaped beads *g* extend upwardly. On one side of the seat I have shown a modification, the outer edge of the plate *e* being turned up merely at right angles to its body, and the L-shape bead *g* being formed on the outer edge instead of on the center of the plate *h*, forming, however, the same way and slot for the plate *h* and its L-shaped bead *g* to move in. The forward end of plates *e* are provided with projections *i*, extending inwardly, so that the forward ends of plates *e* are secured to the plates *b* and their projections *i*, with the thumb-screws *d* passing through the forward ends of the plates *e b*, projections *i*, and strengthening-plates *j*, the single thumb-screws holding all these parts together. From the inner edge of the rear part of the plates *e* are curved pieces *k*, extending inwardly, which pieces conform in shape to the rounded corners of the seat, and, bearing against the same, serve to brace and strengthen the plates *e*. The rear thumb-screws *d* pass upwardly through plates *e b* and the rear ends of the strengthening-plates *j*, and these thumb-screws—one at the forward end and one at the rear end—hold these parts together and admit of the removal of the top sliding attachment. The strengthening-plates *j* may have their outer edges bent over and around the outer edges of plates *b* so as to strengthen the same and to receive the friction of the plates *h* and beads *g*. The bearing-pieces *l*, in which the lever *m* has its bearings, are formed to conform to the shape of the back of the seat, their upper ends being provided with projections *n*, which fit into recesses *o* formed in the upper edge of the back of the seat, while thumb-screws *p*, passing upwardly through the bottom of the seat and their lower ends *g*, draw the latter down firmly to the seat while their upper ends cannot be removed from the recesses *o* without first releasing their lower ends. The ends of the lever *m* are bent at right angles and parallel with the sides, one end extending to the forward end of the seat and acting as a hand-lever. To the other end, and also at a corresponding point in the handle end of the lever *m*, are pivoted the rear ends of arms *r*, their front ends being pivoted in the forward ends of the beads *g*, the rear

ends of which latter are connected to each other by a bar, *s*, passing through them. The top is attached to the ends of the bar *s* and to the forward ends of the beads *g* in the usual manner, and by elevating or depressing the lever the arms *r* will force out or in the plates *h* with their beads and bar *s*, carrying the top. By the arrangement of the arms *r*, which are pivoted to the forward ends of the beads, all the operative parts are kept within the confines of the seat, and are hid by the usual cushions of the seat when the top is over the latter; and when the top is moved back the arms *r* do not move out with the top beyond the rear of the seat, as in my previous patents, but remain within its confines. The arrangement of the lever *m* on the inner face of the back of the seat, in connection with the curved ends of the lever, it will be observed, forms a stop to limit the rearward extension of the top, while at the same time the hinged portion of the lever is concealed beneath the back cushion of the seat. To prevent any rattling of the parts I use rubber cushions inserted in the front end of the slides.

Having described my invention, I claim—

1. The combination of the removable plates *e* with the fixed plate *b* to form grooved ways or guides and supports for the sliding top carrying plates *h*, essentially as described.

2. The arrangement of the arms *r* with respect to the lever *m* and the top-carrying sliding plates *h g* to allow the folding in of said arms out of sight when moved forward, and to act as stops to the rearward motion of the top when extending it, essentially as described.

3. In a carriage-seat provided with a shifting top, I claim the combination of the fixed plate *b* and removable plate *e*, the sliding top carrying plates *h g*, the connecting arms *r*, the operating lever *m* and its removable bearing-pieces *l*, the several parts being constructed and arranged to operate as described.

Witnesses: ORSON E. MALLORY.

WM. H. NOTT,

ALLEN BUELL.