G. W. Beers,

Carriage Door Hinge.

No. 55,987. Patented July 3, 1866.

Fig: 1

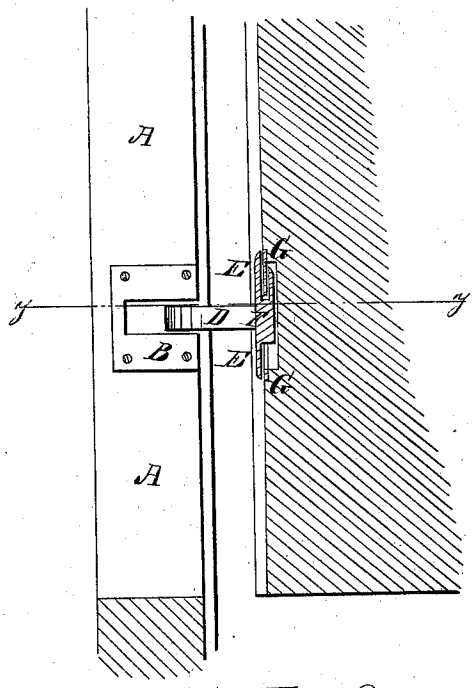


Fig: 2.

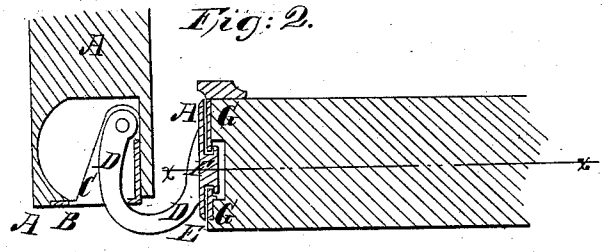


Fig: 3.

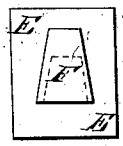
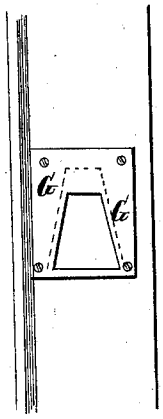


Fig: 4.



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UNITED STATES PATENT OFFICE.

GEORGE W. BEERS, OF BRIDGEPORT, CONNECTICUT.

IMPROVED CARRIAGE-HINGE.

Specification forming part of Letters Patent No. **55,987**, dated July 3, 1866.

To all whom it may concern:

Be it known that I, GEORGE W. BEERS, of Bridgeport, in the county of Fairfield and State of Connecticut, have invented a new and useful Improvement in Carriage-Door Hinges; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is an edge view of the part of the carriage-doorway to which the hinge is attached, together with a vertical section of the corresponding part of the carriage-door, taken through the line *x x*, Fig. 2. Fig. 2 is a horizontal section taken through the line *y y*, Fig. 1. Fig. 3 is a detail view of the inner side of the plate attached to the end of the swinging arm of the hinge. Fig. 4 is a detail view of a portion of the edge of a carriage-door, showing the plate by which the door is attached to the hinge.

Similar letters of reference indicate like parts.

My invention has for its object to furnish an improved hinge by means of which the carriage-door may be securely attached to the side of the doorway, and yet be readily removable when desired; and it consists in the combination of plates and a catch with the swinging arm of an ordinary concealed carriage-door hinge and with the edge of the door, as hereinafter more fully described.

A is the side of the doorway or the casing to which the hinge is attached. B is the plate by means of which the hinge is attached to the side of the doorway.

From the inner side of the plate B two arms, one of which is seen at C, Fig. 2, extend inward into a cavity formed in the side of the doorway for their reception. On the side toward the outside of the carriage the sides of the arms C are connected together by a plate, *c'*.

The plate B, the arms C, and the plate *c'* should all be cast in one piece.

The swinging arm D is made in the form represented in Fig. 2, and its end is pivoted to the ends of the arms C, as shown.

The cavity in which the arms C and D are placed should be made large enough to allow space for the play of the arm D in closing the door.

E is a plate attached to or made solid with the outer end of the arm D. To the other side of the plate E is attached a catch, F. This catch is made in the form represented in Fig. 3, and has a groove along its sides and top, as shown in Fig. 2 and in dotted lines in Fig. 3. This groove is made much deeper on the upper end than it is on the sides. This catch is made solid with the plate E, or it may be made separate and firmly attached to the said plate, as may be most convenient.

G is a plate attached to the edge of the door, as shown in Fig. 4. Through this plate is formed an opening of the same shape as the catch F, and large enough to admit the said catch. Beneath this plate G is formed a cavity large enough to receive the catch F.

On the under side of the plate G is formed a projection for the inclined edge of the catch F to rest against in supporting the door.

The door is hung by passing the opening in the plate G over the catch F, and then allowing the door to settle down upon the hinge, the edge of the plate passing into the groove formed on the sides of the catch F and resting against the bottom of said groove, and the edge of the catch F resting against the projections formed upon the under side of the plate G.

The plate G may be made without an opening, and with outwardly-projecting flanges, grooved to receive the catch F.

To remove the door from the carriage it is only necessary to raise the door and draw it away from the hinge.

By means of this improvement carriage-doors may be readily attached to and removed from the side of the carriage, and when attached the form of the catch and the weight of the door holding the said door securely in its place.

I claim as new and desire to secure by Letters Patent—

The plates E and G and the catch F, constructed as described, in combination with the swinging arm of an ordinary concealed carriage-door hinge, substantially as described, and for the purpose set forth.

GEORGE W. BEERS.

Witnesses:

CHAS. A. BEERS,

JOSHUA LORD.