(No Model.)

G. QUICK.

WAGON END GATE.

No. 256,593. Patented Apr. 18, 1882.

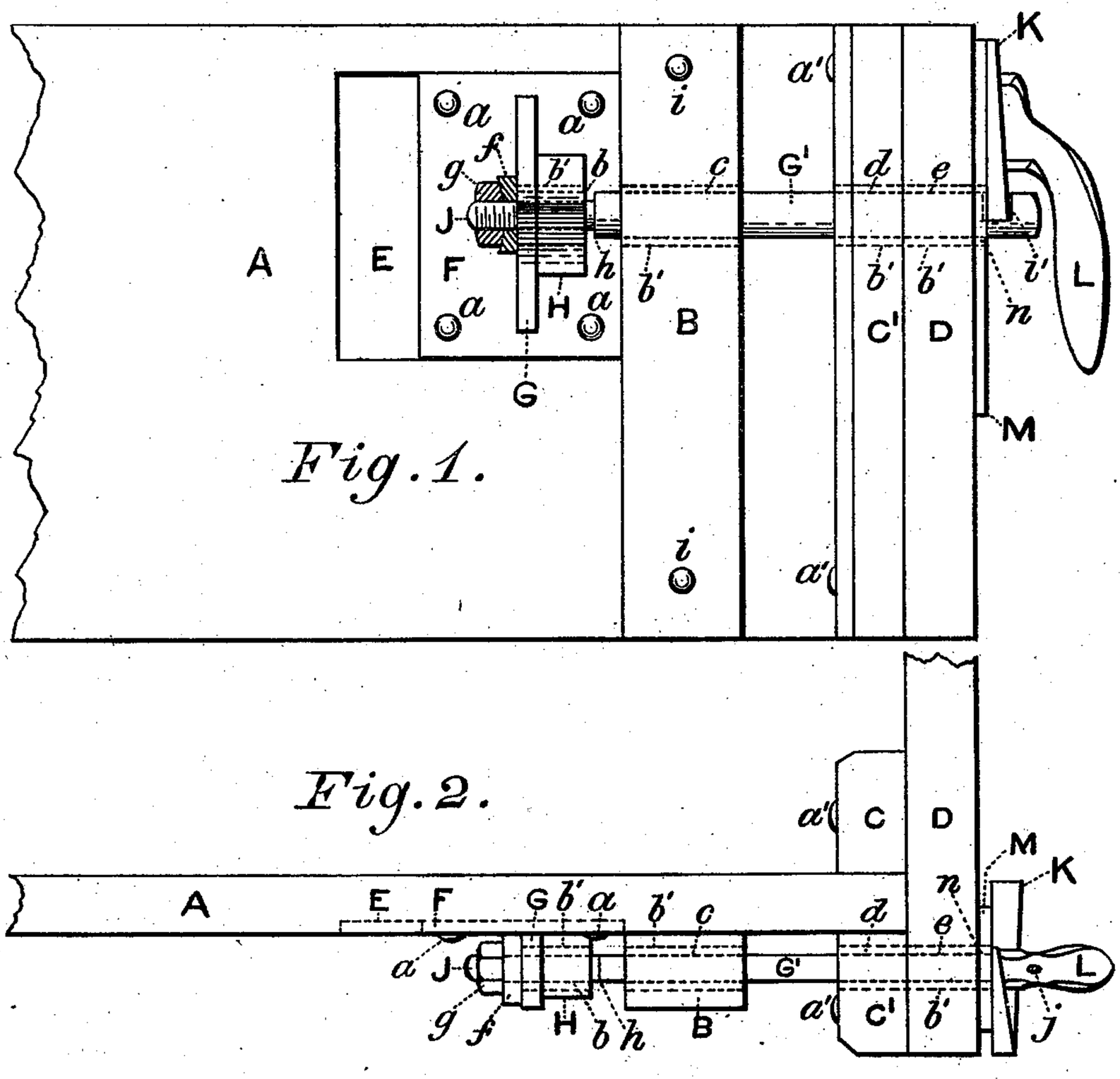

Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

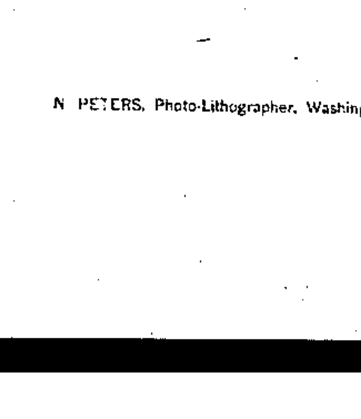

Fig. 5.

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UNITED STATES PATENT OFFICE.

GEORGE QUICK, OF AUBURN, NEW YORK, ASSIGNOR OF ONE-HALF TO GEORGE H. HOYLE, OF SAME PLACE.

WAGON END-GATE.

SPECIFICATION forming part of Letters Patent No. 256,593, dated April 18, 1882.

Application filed January 20, 1882. (No model.)

To all whom it may concern:

Be it known that I, GEORGE QUICK, a citizen of the United States, residing at the city of Auburn, in the county of Cayuga and State of New York, have invented a new and useful Improvement in Fastenings for End-Gates of Wagons, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is an elevation of one end of an end-gate to a wagon, together with the end of the side-board of the same. Fig. 2 is a plan view of Fig. 1. Fig. 3 is a view of the plate attached to the outside of the side-board, showing a flat locking-spring attached thereto. Fig. 4 is a view of Fig. 3, showing the locking scroll-cam having a mutilation and handle and attached thereto by pivot. Fig. 5 is an inside view of the locking scroll-cam, said side bearing against the plate, as shown in Fig. 4.

Similar letters refer to similar parts throughout the several views.

The object of my invention is to furnish a simple, economical, and effectual device for fastening the end-gates of vehicles to the side-boards of the same; and it consists of a plate having an ear and bearing attached thereto and forming a part of the same, said plate being secured in the desired position upon the end-gate; a spindle of oval form having at one end a nut and at the other a notch; a cleat fastened in proper position on the end-gate and having a bearing for said spindle, and a plate having a locking-spring and a locking mutilated scroll-cam pivoted thereto, said plate being secured in proper position to the outside of the side-boards of the vehicle.

In the drawings I have shown but one end of the end-gate with my improvement thereon, the opposite end having a precisely similar attachment, as has also the opposite side-board, said parts being constructed right and left handed, if deemed desirable.

Referring to the drawings, A represents a broken end of the end-gate, having a seat, E, formed therein near its upper edge. In the seat E is fastened by the round-headed bolts *a a a a* the plate F, which carries a projecting ear, G, and a bearing, H, said plate, ear, and bearing being formed in a single piece. In the ear G and hub H is formed an oval hole, *b*, in which is placed an oval metallic bushing, *b'*, through which the spindle G' passes. A cleat, B, is fastened in proper position by the bolts *i i* to and near the ends of the end-gate. This cleat is also provided with an oval hole, *c*, in which is placed a metallic bushing, *b'*, and through which the spindle G' passes.

C and C' are cleats fastened to the inside of the side-board D and placed far enough apart to allow of the uninterrupted passage of the end of the end-gate A, said cleats being secured to the side-board by the bolts *a' a'*. The cleat C' has an oval hole, *d*, in which is placed a metallic bushing, *b'*, through which passes the oval spindle G'.

D is the end of the side-board of the wagon, also having an oval hole, *e*, and a bushing, *b'*, of the same form, and which extends to the outside face of the plate M, and through which the spindle passes. The bushing of the oval holes *d*, *e*, and *n* may be of a single piece, when so desired.

The spindle G' is of an oval shape, so as to prevent it from turning in the holes *b*, *c*, *d*, *e*, and *n*, by which means the notch *i'*, formed on the upper edge of its outer end, is always kept in effectual working position. The inside end of the spindle G' has a shoulder, *h*, beyond which it (G') is extended into a round threaded end, J, upon which screws the adjusting-nut *g*. This adjusting-nut *g* may have its inner face of convex form and screw against a washer having its outer face of a concave form, as shown, said washer being affixed permanently to the ear G; or the washer may be dispensed with and a nut having flat faces used, if so desired.

M is a plate secured in proper place to the outside of the side-board D by screws or bolts *d' d' d' d'* passing through the holes *c' c' c' c'*. It also has a pivot-point or hole for pivot *j'*, a locking-spring, *l*, fastened in working position thereto by the rivet *o*, a bushing, *b'*, and hole *n*.

To the plate M is fastened by a pivot, *j*, the mutilated scroll-cam K at the pivot-point *j'*. This mutilated scroll-cam has a recess, *k*, on its inner face and an operating-handle, L. This cam K has its edge formed into the shape of, and virtually is, a circular wedge, the ends of

which are at the mutilated portion thereof, and the same is so adjusted as to work in the notch *i'* of the spindle G'.

Having thus fully described my invention, I will now explain its operation.

In Fig. 1 the end-gate is shown as locked. To release the same I press upon the locking-spring *l* and push the handle L from me until the mutilation *m* in the scroll-cam K is immediately over the notch *i'* of the oval spindle G'. This allows of my withdrawing the oval spindle G' completely through and from the side-board D and cleat C', when the end-gate A is free to be lifted out. To lock and fasten the end-gate in the position as shown I first see that the scroll-cam K has its mutilated portion in proper adjustment for the passage of the oval spindle G'. I now push the oval spindle through the cleat C' and the side-board D, which, when the nut *g* is properly adjusted, brings the notch *i'* in the outer end of the oval spindle directly under the influence of the circular wedge of the scroll-cam. I now push forward and downward upon the handle until the seat *k* of the scroll-cam has come opposite the spring *l*, which now flies to place and effectually locks and retains the end-gate to place.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. As an improvement in end-gate fasteners, the plate M, having a locking-spring, *l*, and an oval hole, in combination with a mutilated scroll-cam having a wedge-shaped edge, a spring-seat, *k*, and an operating-handle, L, said cam being pivoted to said plate, as and for the purposes herein described and specified.

2. The combination, in an end-gate, of a plate secured thereto and having an ear and hub having oval holes with bushings, and a cleat having an oval hole and bushing, substantially as described and set forth.

3. An oval locking-spindle having at one end a notch and at the other a threaded extension of round form, upon which is screwed an adjusting-nut, substantially as and for the purposes described and specified.

4. The combination of the mutilated scroll-cam having a spring-seat and handle, with an oval spindle having a notch at one end and a threaded extension at the other, as and for the purposes described and specified.

In testimony whereof I have hereunto set my hand this 17th day of January, 1882.

GEORGE QUICK.

Witnesses:
HORACE T. COOK,
JOHN L. HUNTER.