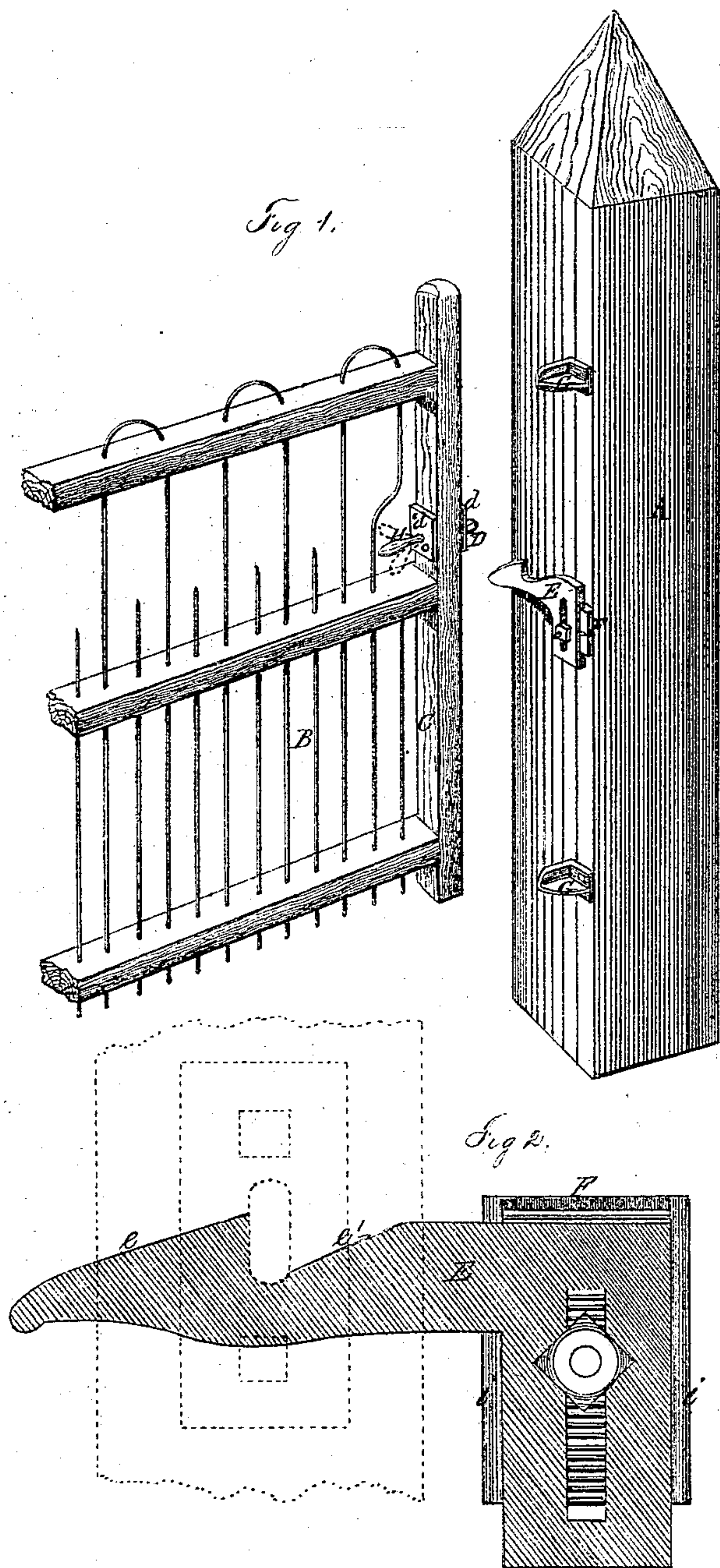


B. F. DICKEY.

Improvement in Gate-Latches.

No. 126,191.

Patented April 30, 1872.



Witnesses.
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BENJAMIN F. DICKEY, OF MARSHALL, MICHIGAN.

IMPROVEMENT IN GATE-LATCHES.

Specification forming part of Letters Patent No. 126,191, dated April 30, 1872.

SPECIFICATION.

I, BENJAMIN F. DICKEY, of the township of Marshall, in the county of Calhoun and State of Michigan, have invented certain Improvements in Latches for Automatic Gates, of which the following is a specification:

My invention relates to a latching-stud, connected rigidly with an automatic gate, and employed in combination with a double-inclined catch-bar having a double-incline bearing edge, said catch being adjusted, guided, and secured, on and to a metal lining-block fastened to the latching-post, for the double purpose of adjusting the catch from time to time to suit the latch, and also to reduce the momentum of the gate at or near the end of its path, that no injurious or disagreeable jar or shock will be produced by contact with the gate-stops.

My invention is shown in the accompanying drawing, in which Figure 1 exhibits the posts and parts embodying my invention in perspective. Fig. 2 is a side elevation of the catch and lining-plate, the gate-stile and latch being exhibited in dotted lines.

Similar letters of reference indicate corresponding parts in both figures.

A represents the post to which the gate is to be latched, and B is a broken section of the gate, in which C is the stile, carrying the fast-latch D. E is the catch-bar, and F the stationary lining-block or plate in which the catch-bar is guided, and to which it is adjustably bolted. G G are metal stops bolted to the post, and H is the handle, secured to the inner side of the stile, for the more convenient unlatching of the gate by hand.

The latch D is a short bar stud with rounded edge, cast on in the center of a plate, *d*, as shown. The handle H is cast on a similar plate, each plate having two bolt-holes to correspond, for the reception of two through-bolts, by which the latch-plate is secured to the outer face of the stile, and the handle-plate to the inner.

The catch-bar is cast in an L shape, with a narrowish horizontal arm, and a wider vertical arm. The extreme end of the horizontal branch is tapered to an incline, as at *e*, and a second incline, *e'*, is formed to ascend in the same direction from the bottom of the notch or seat, where the stud of the latch finally settles when the gate comes to rest.

The stops for the gate are secured to the post, one nearly opposite the upper, and the other the lower end of the gate, and in a line coinciding with the summit of the second incline *e'*. The vertical branch of the catch-bar is slotted, as shown, for the purpose of making an adjustable connection with the lining-plate F, which plate is fastened independently to the post, usually by two countersunk wood screws.

It is best to make horizontal serrations in the contact faces of the slotted branch and lining-plate, to prevent slipping, should the bolt slacken that connects them together, and the serrated face of the catch-branch should have sufficient projection to enable it to enter and slide between side guide-flanges *i*, cast on the lining-plate; and for better security, I usually cast dowel-pins, (one or more,) on the lining-plate and stops, to enter snugly into holes bored in the post.

When any obstruction (in the construction of the gate) prevents the use of the unlatching handle H, in the manner described, I employ two diverging handles cast on the plate, as shown by the dotted lines, by the use of which any obstruction can be readily avoided, and the gate unlatched from either side by a separate handle springing from a common base.

In regard to the operation and attendant advantages of latches, constructed as herein described, when applied to automatic gates, it will, perhaps, be sufficient to say that the momentum of such gate is quietly arrested, at or about the period of reaching the stop or stops, by reason of the gate, through the intervention of its latch-stud being first compelled to climb the incline *e*, then, after dropping over the notch in the catch-bar, to ascend the second and steeper incline *e'*, and when such momentum is lost, either in the act of ascending the last-named incline or at the summit, where the gate reaches the stops, the latch-stud will slide back to its seat at the bottom of the incline, and notch without noise or jar.

My latching devices necessitate a means of adjustment, as described, by which the catch-bar is readily shifted to maintain its proper relation with the fixed latch-stud on the gate, and is firmly secured, to resist displacement by the latching operation; and, for a similar

reason, the handles will be found a requisite convenience for lifting up the gate when it is unlatched by hand.

Claims.

I claim as my invention—

The catch-bar E having a double incline ee' , when adjustably fitted, in the manner de-

scribed, to the plate F i , formed with a roughened contact-surface and rigidly attached to the gate-post, substantially as and for the purposes set forth.

BENJAMIN F. DICKEY.

Witnesses:

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C. H. COOK.