(Model.)

G. L. SMITH.

GATE LATCH.

No. 261,635. Patented July 25, 1882.

Fig. 1.

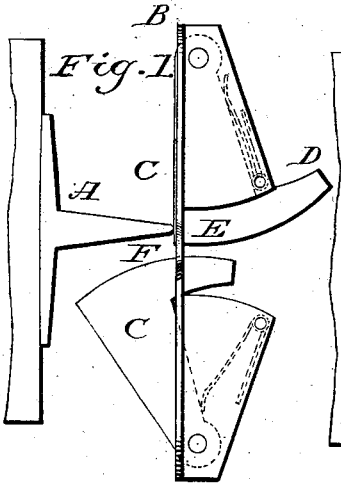


Fig. 2.

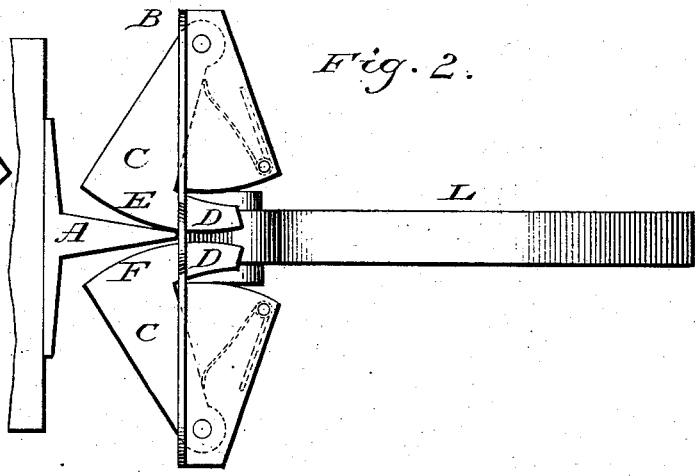


Fig. 3.

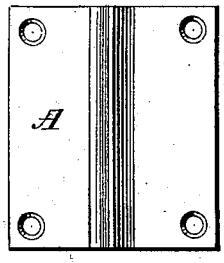


Fig. 4.

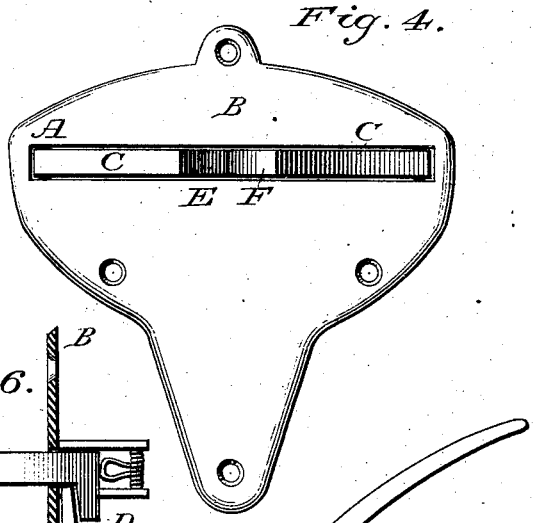


Fig. 5.

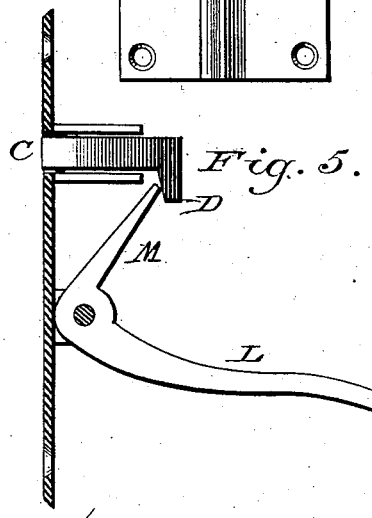
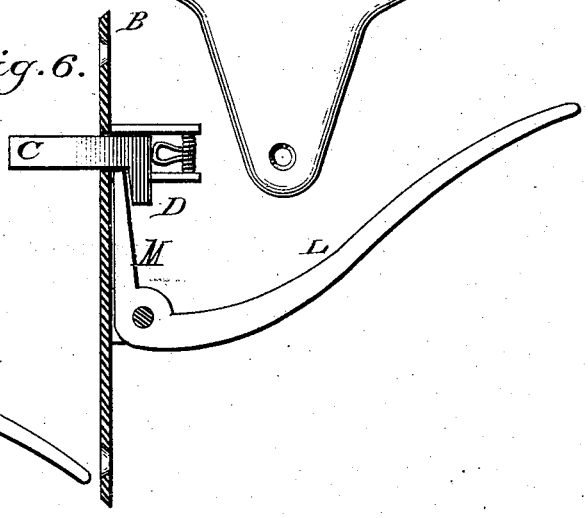


Fig. 6.



Witnesses:
Chas. A. Reed
James F. Deem

Inventor:
Gustavus L. Smith

UNITED STATES PATENT OFFICE.

GUSTAVUS L. SMITH, OF TAUNTON, MASSACHUSETTS.

GATE-LATCH.

SPECIFICATION forming part of Letters Patent No. 261,635, dated July 25, 1882.

Application filed July 7, 1881. (Model.)

To all whom it may concern:

Be it known that I, GUSTAVUS L. SMITH, a citizen of the United States, residing at Taunton, in the county of Bristol and State of Massachusetts, have invented certain Improvements in Gate-Latches, of which the following is a specification.

My invention relates to improvements in gate latches and guards in which two reciprocal catches by their opposite faces operate upon a stop and are controlled by a single lever and by springs which withdraw the catches from the stop or cause them to project so as to locate the gate at these catches; and the objects of my improvement are, first, to provide a self-acting latch protected entirely from the weather and from liability to breakage; secondly, to provide a latch that shall be effectual, notwithstanding the sagging of the gate; thirdly, to provide a latch which shall be equally effectual, whichever way the gate may swing, and which shall avoid breakage when shut in ordinary usage; and, fourthly, to provide a latch which may be entirely controlled with the greatest convenience and advantage by a single lever. I attain these objects far better than by any other prior improvement in gate-latches known to me by the mechanism exhibited and illustrated in the accompanying drawings, in which—

Figure 1 is a top view of my improved latch as it operates on the stop A, wherein the course by which the stop A passes into the V-space formed by the two faces E and F of the two reciprocal catches C and C is shown. Fig. 2 is also a top view of the same, showing the position of the reciprocal catches C and C and the stop A when the gate is closed, and the position of the two faces E and F. This figure also shows the bearing of the lips D and D at the same time upon the extremity of the short arm L of the lever. Fig. 3 shows the stop, which may be of any desired length, and the ridge may vary in form and height, at the convenience of the maker. Fig. 4 represents the face-plate B, through which the catches C and C play, and through which these catches project when they are left at rest by reason of the pressure of the springs, as shown in Figs. 1, 2, and 6, which springs are so attached to the back of the face-plate as not to be exposed to the weather or to breakage, and operate upon the catches in line with the bearing of the stop A upon the faces E and F of the catches, as shown in Figs. 1 and 2. Fig. 5 is a side view, partly in section, showing the operation by which the catches C and C are both at the same time depressed by the lever L M so as to allow the gate to open. Fig. 6 is also a top view, partly in section, showing the position of the lever L M and the reciprocal catches C and C when at rest, the top view of the same being exhibited in Fig. 2. In both Figs. 5 and 6 is shown the lip D at the inner extremity of each catch and the manner in which the short arm M of the lever acts upon the two lips D D. This operation is also shown in Fig. 2; also, the widened extremity of the short arm M of the lever, which bears at the same time upon both lips D and D, is clearly shown. In Figs. 5 and 6 is shown the office of the lips D and D and the extremity of the short arm M of the lever to hold in place and to keep from being thrown outward the catches C and C when the faces E and F, or either of them, are violently struck by the stop A from a sudden or violent closing of the gate or otherwise.

Similar letters refer to similar parts throughout the several views.

The face-plate B, Fig. 4, is so attached to the stile of the gate as to present a smooth surface with the outer surface of the stile when the catches C and C are pressed back by the lever L M, as shown in Fig. 5; but these catches project when the lever L M is at rest, as shown in Figs. 6 and 2, and thus, whether these catches project or are depressed, the interior portion of the latch is not exposed to the weather, the gathering of water or ice, or subject to breakage by ill usage or accident. The catches C C are so hung upon pivots at each end of the oblong space in the face-plate B, on its inner side, as to play through this space reciprocally opposite each to the other and to present to the stop A the faces E and F in such manner that neither catch can be thrown from its pivot or position by the force of the gate. The stop A is made of such length as to operate upon the catches C C, to whatever extent the gate may sag, and these catches are

left free to be depressed by the stop A without its depressing the opposite catch, as shown in Fig. 1, so that when the stop A passes one of the catches into the V-space, formed by both catches when at rest, the gate is closed and kept closed without other action.

I am aware that prior to my invention gate-latches have been made to operate with opposite catches, and I do not claim the mere combination of two catches broadly; but

What I claim as my invention, and desire to secure by Letters Patent, is—

The spring-catches C C, pivoted to the rear of plate B, and having faces E and F, projecting through said plate, and lips D D at their inner extremities, in combination with stop A and lever L M, which controls both catches, but allows either to be depressed upon the closing of the gate, substantially as described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 4th day of July, A. D. 1881.

GUSTAVUS L. SMITH.

Witnesses:
JAMES H. VIZER,
EUGENE A. RICHARDSON.