(No Model.)

J. P. IRWIN.

GATE.

No. 456,956. Patented Aug. 4, 1891.

Fig. 1.

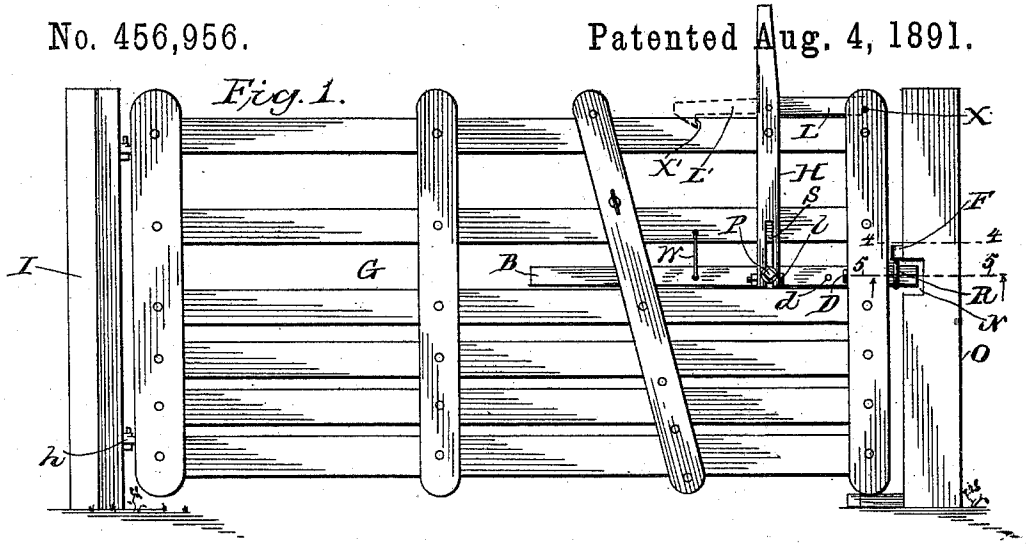


Fig. 2.

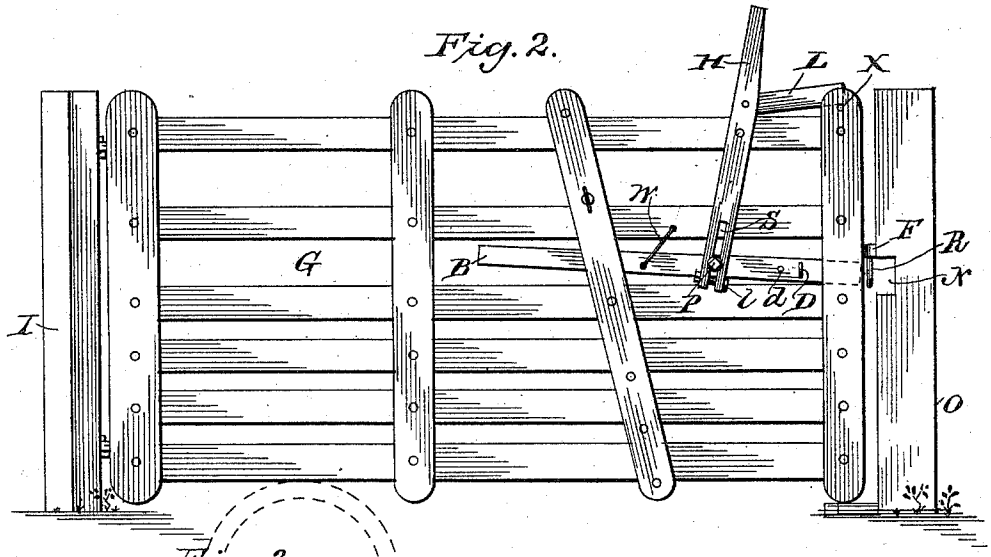


Fig. 3.

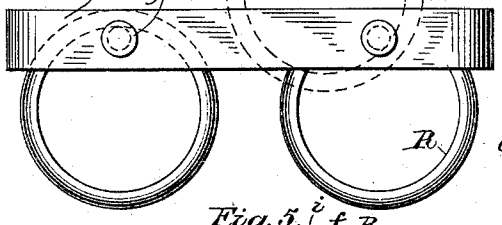


Fig. 4.

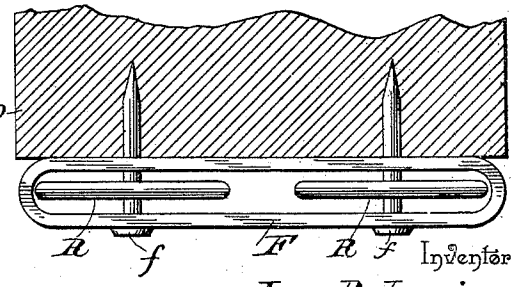
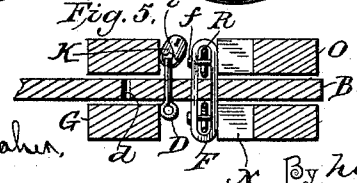


Fig. 5.



Witnesses

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GATE.

SPECIFICATION forming part of Letters Patent No. 456,956, dated August 4, 1891.

Application filed October 24, 1890. Serial No. 369,226. (No model.)

To all whom it may concern:

Be it known that I, JOHN P. IRWIN, a citizen of the United States, residing at Newark, in the county of Licking and State of Ohio, have invented a new and useful Gate, of which the following is a specification.

This invention relates to gates, and more especially to the latches thereof; and the object of the same is to provide improved devices for latching and locking a gate.

To this end the invention consists in the details of construction hereinafter more fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is an elevation of my improved gate, showing it as latched. Fig. 2 is a similar view, showing the gate as unlatched and ready to be swung on its hinges. Fig. 3 is a detail in elevation of my improved latch, shown on an enlarged scale. Fig. 4 is a section on the line 4 4 of Fig. 1 and on the same scale as Fig. 3. Fig. 5 is a section on the line 5 5 of Fig. 1, showing the means for locking the gate, and looking upward.

Referring to the said drawings, the letter I designates the inner post, to which the gate G is connected by means of hinges *h*, so that it can swing in the usual manner. This gate may be of any preferred construction, but it is preferably made in accordance with Letters Patent of the United States No. 390,127, granted to me September 25, 1888; or, the gate may be of any construction whereby it may be made of greater or less height by moving the points of connection between its rails and the vertical end bars of the gate, and inclined braces hold the rails in their adjusted positions.

Between two of the rails of the gate is arranged a locking-bolt B, which is connected by a link W with the rail immediately above, whereby it is permitted to swing; but its movement in either direction is limited and its complete dislocation prevented.

H is the operating-handle, which is pivoted between its ends to one of the upper rails and is provided at its lower end with a long slot S, by which it is practically bifurcated, the end of this slot being preferably closed, as by a bolt or pin *l*.

P is a pivotal bolt passing through said slot and seated in the locking-bolt B, as shown in Figs. 1 and 2. By this means when the upper end of the handle H is moved the bolt B is moved in the opposite direction, the link W swinging to permit the longitudinal movement of the bolt and the outer end of the latter passing through a hole in the outer bar of the gate or between the members of a double bar when used at this point, as seen in Fig. 5.

The letter L designates a latch pivoted to the handle H above the uppermost rail, the free end of which is adapted to fall behind a fixed stud or pin X, passed transversely through the upper ends of the members of the double bar of the gate. If preferred, this latch may be constructed as shown in dotted lines at L', Fig. 1, and may have a hooked end engaging a notch X' or some other fixed device. In either case when the bolt is shot forward to latch the gate, as shown in Fig. 1, the latch engages with the fixed catch and prevents the handle being moved in the opposite direction to retract the bolt unless the latch is first thrown out of operative position.

It is well known that stock often rub themselves or their noses against farm-gates, and if the latch L were not used it might happen that an animal in so rubbing himself would move the handle H and retract the bolt, thereby opening the gate when not desired. For this reason I consider the employment of the latch advisable, especially if the handle extends above the upper rail of the gate. The use of the slot S and pivot P is to permit the same handle to be used upon the gate even after its rails have been adjusted vertically to increase or diminish the height of the gate, as mentioned above, or after the gate has been racked out of rectangular shape, and also to permit the rising and falling of the bolt caused by the link W, as will be understood.

The outer or latch post O may be either a single post having a vertical slot therein or a double post, although I prefer the latter. It is provided with a horizontal notch N in its front face, and through this notch the protruding end of the bolt B is adapted to pass as the gate swings from side to side. Above this notch is a metallic ring or frame F, which is secured to the inner face of the post by two bolts, pins, or screws *f*, which pass horizontally through said frame and into the post,

and on these pins are hung rings R, which in their normal positions stand against the ends of the frame F, as seen in Fig. 4. As the gate is swung shut the protruding end of the bolt B strikes one of the rings R, raises it to the dotted position of Fig. 3, passes under it, and strikes the inner side of the other ring, whereby the swinging of the gate is stopped. The first-mentioned ring drops meanwhile behind the end of the bolt and the gate is held in latched position. The length of the frame F is less than the width of the outer post O, so that there is no projecting portion of the latch to strike on passing vehicles or cause injury to stock, and the rings R by being inclosed within the frame F are so surrounded thereby that they cannot be moved by the stock so as to permit the opening of the gate.

Through the locking-bolt B are a number of holes *d*, and through one of these holes is passed a removable stud D, by which the movement of the locking-bolt is limited.

Referring now to Fig. 5, I will describe the manner in which I propose to lock my improved gate. The stud D being removed and the bolt B shot a little farther than to its latching position, Fig. 1, the stud D is reinserted in the outermost hole *d* alongside the outer edge of the end bar of the gate, and a padlock K is locked through an eye *i* in the small end of the stud. This padlock prevents the removal of the stud, and until such removal the bolt cannot be retracted.

To unlock this improved gate, the latch L is disengaged from the fixed catch X and the handle H moved in the proper direction to draw the bolt B inwardly, so that its outer end shall be moved from between the rings.

Although I have shown and described my improved latch and lock as used in connection with a farm-gate, I desire it understood that the same can be employed upon a door.

What is claimed as new is—

1. The combination, with a gate or door, a locking-bolt therein projecting beyond the free end of the gate or door, and means for retracting said bolt, of a latch-post having a vertical slot, and also having a notch in its inner edge, a latch, substantially as described, hanging over said notch, and a stud removably seated through said bolt, as and for the purpose set forth.

2. The combination, with a gate or door, a locking-bolt therein projecting beyond the free end of the gate or door, and means for retracting said bolt, of a latch-post having a vertical slot, and also having a notch in its inner edge, a latch, substantially as described, hanging over said notch, a stud removably seated through said bolt farther from the end of the latter than the distance between the bottom of the said notch and the outer edge of the end bar of the gate, said stud having an eye through its smaller end and a padlock in said eye, as and for the purpose set forth.

3. The combination, with a gate or door, a locking-bolt therein projecting beyond the free end of the gate or door and having holes through its body, means for moving said bolt longitudinally, and a latch-post having a slot engaging the end of the bolt when the latter is projected, of a stud adapted to fit in the holes though said locking-bolt, said stud having an eye through its smaller end and a padlock in said eye, substantially as described.

4. The combination, with the latch-post having a latch, the supporting-post, and a swinging gate or door hinged thereto, of a locking-bolt moving through the outer end bar of the gate or door, a pivot-pin through said bolt, a handle pivoted between its ends and having a slot in its body engaging the pivot in the bolt, and a latch pivoted to the handle and engaging a fixed catch on the gate or door, as and for the purpose set forth.

5. The combination, with the latch-post having a latch, the swinging gate or door, and a locking-bolt moving therein and adapted to engage said latch, of a pivoted handle engaging said bolt, a retaining-latch pivoted at one end to said handle, and a fixed pin between the two members of the outer end bar of the gate or door, the free end of the retaining-latch engaging said fixed pin when the locking-bolt engages the catch, substantially as described.

6. The combination, with the gate or door comprising the rails, the end bars to which said rails are pivotally connected, and means for locking the rails at different angles to the end bars, of a locking-bolt moving longitudinally between two of said rails, and having a pivot-pin through its body, a latch-post having a vertical slot receiving the tip of the bolt, a latch on the latch-post adapted to be engaged by said bolt when the gate stands at its usual height, a removable stud holding the bolt out of the slot at this time, and an operating-handle pivoted between its ends to the upper rail and having a bifurcated body engaging the pivot-pin through the bolt, as and for the purpose hereinbefore set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JOHN P. IRWIN.

Witnesses:
J. H. SIGGERS,
R. J. MARSHALL.