(No Model.)

C. M. & J. H. SANDERS.

GATE LATCH.

No. 410,934. Patented Sept. 10, 1889.

Fig. 1.

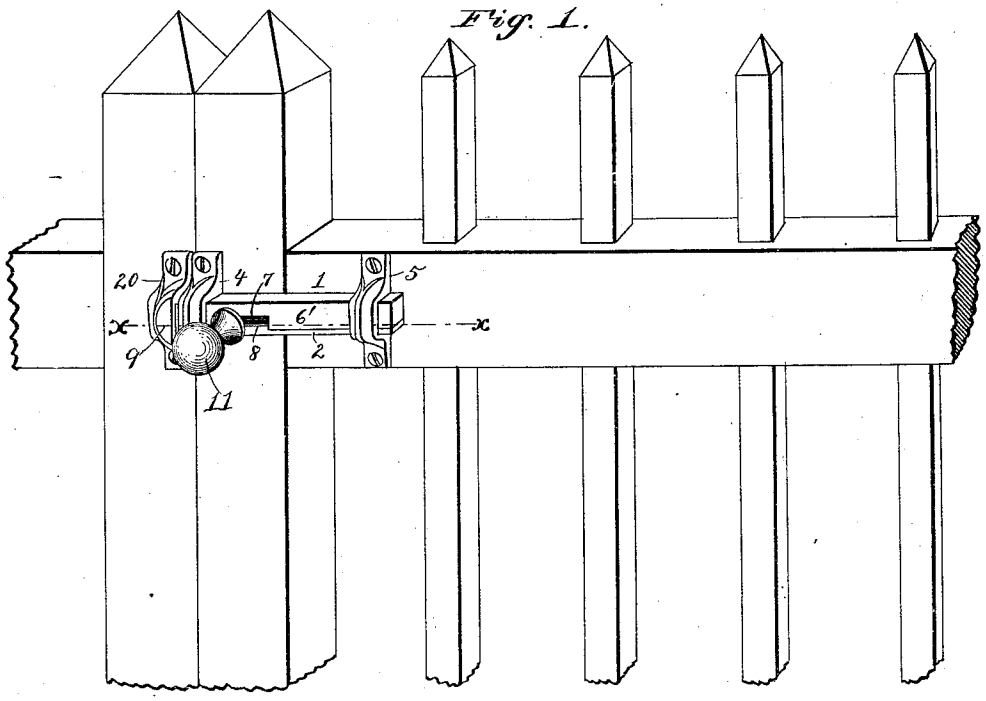


Fig. 2.

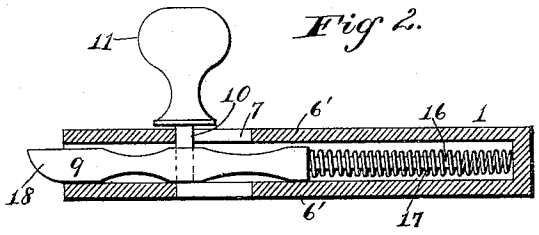


Fig. 4.

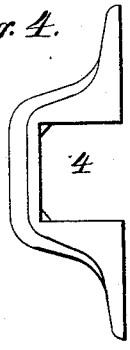
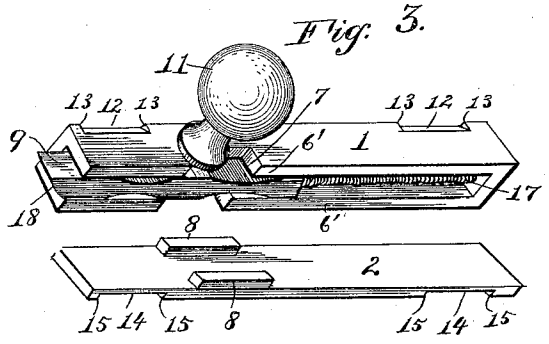


Fig. 3.



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UNITED STATES PATENT OFFICE.

CALVIN M. SANDERS AND JOHNSTON H. SANDERS, OF WOODLAND MILLS, TENNESSEE.

GATE-LATCH.

SPECIFICATION forming part of Letters Patent No. 410,934, dated September 10, 1889.

Application filed May 4, 1889. Serial No. 309,567. (No model.)

To all whom it may concern:

Be it known that we, CALVIN M. SANDERS and JOHNSTON H. SANDERS, citizens of the United States, residing at Woodland Mills, in the county of Obion and State of Tennessee, have invented certain new and useful Improvements in Gate-Latches; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Our invention relates to improvements in gate-latches of that class which employ a reciprocating spring-controlled bolt; and it has for its object to provide a reversible latch which can be expeditiously applied to either a right or left hand gate by a few simple and rapidly-executed changes in the positions of its parts, and to improve the parts in minor details with a view to promoting simplicity and durability of construction, efficiency of operation, and cheapness of manufacture.

With these ends in view our invention consists of a gate-latch comprising a shell or case having a removable side wall which is provided with lateral flanges at its side edges that are adapted to fit in recesses in the sides of said shell to hold the removable side against endwise movement and provide a complete shell or case of the desired symmetrical appearance, a sliding bolt, a detachable knob passing through one of the slots in the shell or case and adapted to be detached from the bolt to permit the latter to be reversed when it is desired to apply the latch to a right or left hand gate, and removable brackets which snugly embrace the shell or case near its ends and serve to hold the shell in place and confine the removable side thereof in proper position with relation to the shell.

Our invention further consists of the peculiar details of construction and arrangement of parts, as will be hereinafter more fully described and claimed.

To enable others to understand our invention, we will now proceed to describe the same in connection with the accompanying drawings, in which—

Figure 1 is a perspective view showing our improved latch applied to a gate. Fig. 2 is a longitudinal sectional view through the same on the plane indicated by the line $x\,x$ of Fig. 1. Fig. 3 is a detail perspective view of the sectional case or shell and sliding bolt, and Fig. 4 is a like view of one of the brackets.

Like numerals of reference denote corresponding parts in all the figures of the drawings, referring to which—

1 designates the shell or case, which has one of its walls 2 removable therefrom, and held in place by means of brackets 4 5, which fit snugly around and over the case at its ends, but are not directly connected or secured thereto, but are fastened by screws to the gate to confine the removable side wall of the shell in place and also hold the shell in position. The walls 6′ of the shell are recessed or cut out at 7 in the edges adjoining the removable side of the shell, and in these recesses are fitted longitudinal ribs or flanges 8 on the removable side 2 when the latter is adjusted or applied against the open side of the shell to close the latter and confine the reciprocating bolt 9 therein. The longitudinal flanges of the removable side 2 correspond in length to the length of the recesses 7 in the shell, so that the ends of the flanges abut against the shell and serve to confine the removable side 2 against endwise displacement; but these flanges or ribs are much narrower in width than said recesses 7 to avoid closing the latter, and thus leave longitudinal slots in the shell or case on both sides thereof, in one of which is fitted the shank 10 of a knob or handle 11, which is detachably secured to the reciprocating bolt 9. The shell or case is angular in cross-section, preferably rectangular in form, and the shell is provided in its solid angles or corners, at the ends thereof, with longitudinal recesses 12, which form abrupt shoulders 13. The removable side 2 is also provided near its ends with recesses 14 and shoulders 15, which conform to the corresponding parts on the shell, and which align therewith transversely across the shell, and in these recesses 12 14 are fitted the brackets 4 5, which conform to the contour of the shell and snugly embrace the latter to hold the same and its removable side 2 securely in place without fastening the shell and side to-

gether or the shell directly to the gate. These brackets are each cast in a single piece of metal and provided with perforated feet, through which are passed screws to fasten the brackets to the gate. The reciprocating bolt is proportioned to fit snugly within the shell and slide freely longitudinally therein, and at its inner end said bolt has a reduced shank 16, around which is fitted a coiled spring 17, which bears at one end against the closed end of the shell and at its other end against the shoulder formed by reducing the bolt to form the shank, whereby the spring serves to impel the front end of the bolt beyond and through the open end of the shell. The front of this bolt is inclined, as at 18, on one side to adapt it to readily ride against and clear the inclined surface 19 on a fixed closed keeper 20, that is to be secured to the gate-post in such a position as to receive the bolt when the gate is closed. The shank 10 of the removable knob 11 is preferably threaded and screwed into a threaded socket formed in the reciprocating bolt, so that the knob can be readily detached.

The operation of our invention is obvious from the foregoing description, taken in connection with the drawings. To withdraw the bolt from the keeper, it is only necessary to slide the knob back by hand, which moves the bolt rearward within the shell and compresses the spring; but when the knob is released the spring instantly projects the head of the bolt beyond the shell, so that when the gate closes and the bolt strikes the keeper it is automatically forced into the shell and likewise returned beyond the same to enter the keeper after its head passes or clears the latter. Should it become desirable to apply the latch from a right to a left hand gate, or vice versa, as is often found in the practical use of latches of this class, the device can be expeditiously adapted for service in its new relation by a few simple and rapidly-executed changes of location of its parts. The brackets are first detached to remove the latch from the gate, the wall 2 removed, and the position of the bolt reversed, so that its inclined head will face in the opposite direction, after which the side 2 is replaced and the latch secured by its brackets in its new position on another gate, and in such relation to the keeper as to permit the bolt to enter the latter in the same manner as that hereinbefore described.

We are aware that slight changes in the form and proportion of parts can be made without departing from the spirit of our invention, and hence we do not desire to restrict ourselves to the exact construction herein described.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. A reversible gate-latch consisting of a shell or case having a removable side 2 and the longitudinal slots 7 in its opposite sides, a reciprocating bolt fitted in the shell, the brackets fitted snugly around said shell and its removable side near the ends thereof to confine the shell and its removable side in place, a knob detachably connected to the bolt and operating in one of the slots in one side of the case, and a keeper, all arranged and combined for service substantially as herein shown and described.

2. A reversible gate-latch consisting of a shell or case having an open side and longitudinal recesses 7 formed in the edges of the walls thereof adjoining said open sides and the recesses 12 in the solid angles or corners thereof and forming the shoulders 13, a removable side 2, provided with the ribs or flanges 8, arranged to fit in the recesses 7, and with the recesses 14, the angular brackets fitted in the recesses 12 14 to confine the shell and its removable side securely in place, a reciprocating bolt, a knob detachably connected to said bolt, and a keeper, all arranged and combined for service substantially in the manner and for the purpose herein shown and described.

In testimony whereof we affix our signatures in presence of two witnesses.

CALVIN M. SANDERS.
JOHNSTON H. SANDERS.

Witnesses:
T. A. DOWELL,
T. D. BERRY.