S. A. SLAUSON.

GATE LATCH.

APPLICATION FILED MAR. 10, 1919. RENEWED OCT. 16, 1920.

1,360,040. **Patented Nov. 23, 1920.**

Fig. 1.

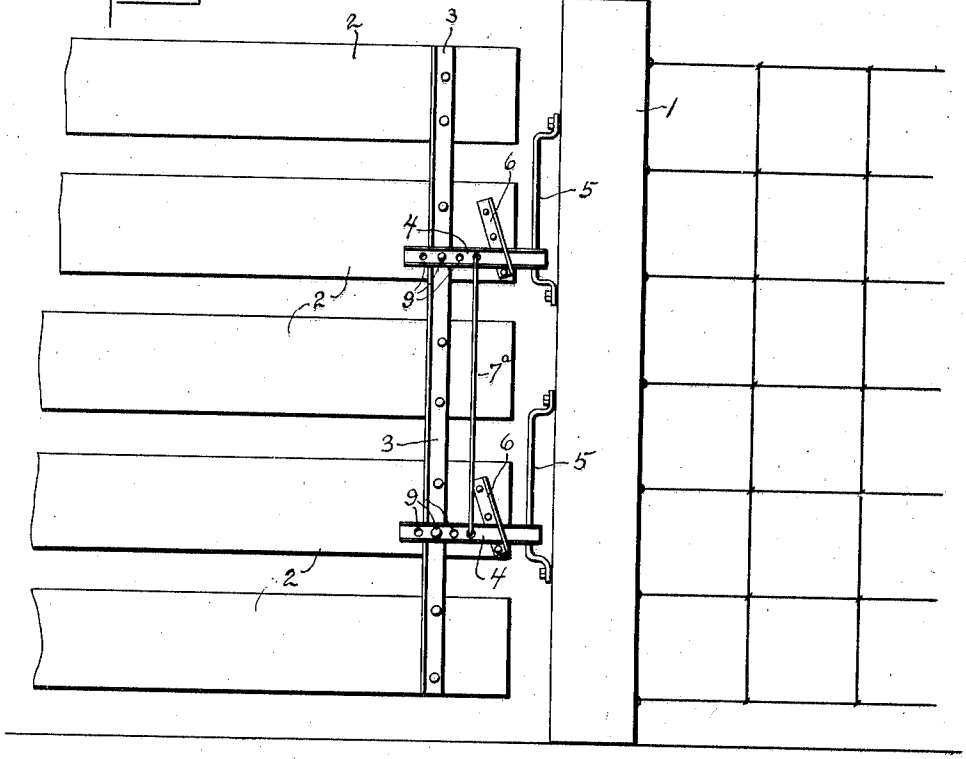
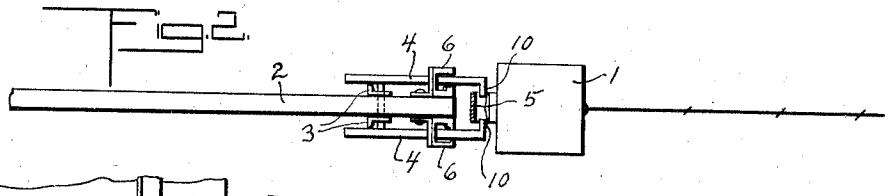


Fig. 2.



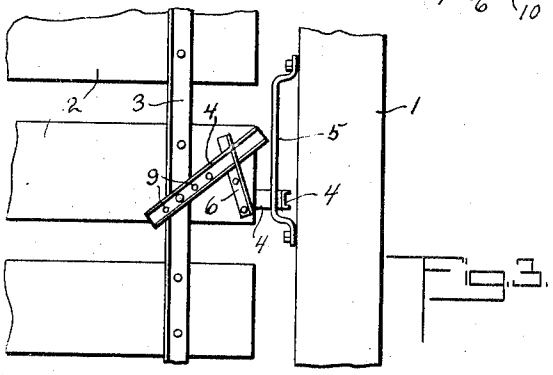
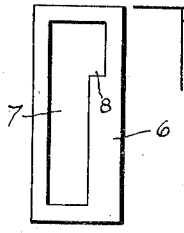


Fig. 3.

Fig. 4.



Witness

Frank W. Haskell

Inventor

Stephen A. Slauson.

By Walter N. Haskell,

his Attorney

UNITED STATES PATENT OFFICE.

STEPHEN A. SLAUSON, OF CEDAR RAPIDS, IOWA.

GATE-LATCH.

1,360,040. Specification of Letters Patent. Patented Nov. 23, 1920.

Application filed March 10, 1919, Serial No. 281,820. Renewed October 16, 1920. Serial No. 417,481.

To all whom it may concern:

Be it known that I, STEPHEN A. SLAUSON, a citizen of the United States, residing at Cedar Rapids, in the county of Linn and State of Iowa, have invented certain new and useful Improvements in Gate-Latches, of which the following is a specification.

My invention has reference to gate latches, and is more specially adapted for use with the heavier class of such closures, such as farm gates and the like. It can, however, be modified as to size or form so that it can be employed with gates or doors of a smaller type.

One of the purposes of my device is to provide a simple means for holding a gate at a central point, so as to be easily released from either side of the gate, and which will be self-locking upon the gate being swung shut in either direction. It can be provided in either simple or compound form, the purpose of the compound arrangement being to duplicate the latch mechanism at a point near the bottom of the gate, to prevent the smaller animals from pushing the lower part of the gate away from the post, and crowding through.

Another object of my invention is to provide a secondary locking means whereby the latch mechanism will be held from casual release by animals rubbing against the gate at the latch end thereof.

These and other purposes and advantages of my invention will more fully appear from the following specification, reference being had to the drawings accompanying the same, in which,

Figure 1 is a side elevation of the latch end of the gate and post to which the same can be secured, with my device shown in use thereon in compound form. Fig. 2 is a top plan view thereof. Fig. 3 is a view of the simple form of my device, in side elevation with one of the latches raised. Fig. 4 is a detail of one of the guide-plates 6, in front elevation.

Corresponding parts are indicated by similar reference characters throughout the several figures.

Referring to Fig. 1 of the drawings, 1 indicates a post or other fixture, and 2 2 the bars at one end of a gate of usual construction, such bars being united by a pair of cross-plates 3, preferably in the form of angle-plates and bolted to each of the bars for the purpose of bracing the same. Pivoted to the gate structure, by means of bolts or pins extending through the braces 3, are pairs of latches 4, projecting beyond the end of the gate, and normally in engagement with keepers 5 on the outer face of the post 1. The gate is thus held against a swinging movement upon its pivots in either direction.

Between the pivotal points of the latches 4 and the outer ends thereof there are attached to the gate guide-plates 6 provided with vertical slots 7, in which the latches 4 are permitted a limited vertical play. In the upper ends of the slots 7 are shoulders 8 upon which the latches 4 may be temporarily supported. As shown in the compound form, in Fig. 1, the upper and lower pairs of latches are united by a connecting rod 7^a, so that such latches on either side of the gate may be simultaneously operated. The lifting of the upper latch 4 will thereby result in the upward movement of the lower one, so that the keepers 5 will be disengaged by both of said latches at the same time, permitting the gate to be swung in the opposite direction therefrom. By supporting the upper latch 4 on the shoulder 8 of the guide-plate both of such latches will be retained in an elevated position, so that the same will not interfere with the closing of the gate again. A person passing through the gate will therefore not be put to the necessity of returning with the gate to the post to again raise the latches, but can merely swing the gate back to a closing position. When the gate returns to the post the latch 4 on the opposite side from the raised one comes in contact with the keeper 5, as shown in Fig. 3, arresting the movement of the gate. The jolt occasioned by the sudden stoppage unseats the raised latch and permits it to fall again into engagement with the keeper, so that the gate is again held in locked relation with the post.

It will be obvious that when it is desired to swing the gate to the other side of the post, the operation just described can be repeated with the latch on the opposite side of the gate, the latch which was elevated in the first instance being left in lowered position. It is also apparent that when the device is in use in its compound form, as shown in Fig. 1, it is only necessary to provide the upper guide-plate 6 with the shoulder 8.

The latches 4 may be provided with a series of openings 9, for pivotal purposes, so that the position of the latch can be adjusted to conform to the spacing between the end of the gate and the post.

It might be possible for an animal, in rubbing against the gate, to force the latch 4 upwardly until it would pass the keeper, permitting the gate to be pushed open. To prevent such a possibility I provide the outer ends of the latches with inwardly turned lugs 10, which are capable of engaging the inner face of the keeper 5, and hold the latches in engagement with the keeper. The more tightly either of such latches is held against the keeper the more securely it is held from release. In order to release either of the latches, when desired, it is necessary to swing the gate a slight distance in one direction or the other, until the lug on the end of the latch will not interfere with the upward movement thereof. As illustrated, the keeper is of greater width than the edge of the gate, and if the latches were attached closely against the face of such gate it would be impossible to swing the gate as just mentioned, to release the lugs. For this reason it is necessary to pivot the latches at a little distance from the gate, as appears in Fig. 2, the flanges of the plates 3 assisting in holding such latches at the proper distance from the gate. The slot 7 in the guide-plate is also established at such a distance from the gate as to hold the latch at the desired distance therefrom, and parallel therewith.

While the latches 4 are shown and referred to herein as having a connection with the gate through the braces 3, this is not essential, but any suitable means may be employed for holding such latches at a proper distance from the gate.

The keepers 5 are shown as possessing considerable length, this provision being made so as to allow for any vertical adjustment of the gate upon its hinges, such as is contemplated in the device shown and described in my companion application for improvements in hinge and gate structures, filed simultaneously herewith.

What I claim as my invention, is:

1. A device of the class described, comprising a latch adapted for normal engagement with a keeper, and capable of being given a limited lateral movement; a guide member for said latch, adapted for attachment to a gate, and provided near its upper end with a latch-rest from which the latch will be released by the jar resulting from closing the gate.

2. A device of the class described, comprising a pair of latch members adapted for attachment on opposite sides of a gate, and capable of normal engagement with a keeper in fixed position, such latch members being capable of independent release from said keeper, and means for holding either of said latches in an inoperative position so that the same will be released therefrom upon the contact of the other latch with the keeper.

3. A device of the class described, comprising a fixture; a closure adapted for use therewith; a keeper secured to said fixture; a pair of latches pivoted on opposite sides of said closure and normally in engagement with said keeper; and rests for supporting either of said latches out of engagement with said keeper, such supported latch being liable to release from its support upon contact of the other latch with the keeper.

4. A device of the class described, comprising a fixture provided with a latch-retaining means; a gate adapted for use with said fixture; a pair of latches pivoted on opposite sides of said gate, and normally in engagement with said retaining means; and guides for said latches, fixed to said gate, and permitting the latches to swing upwardly out of engagement with said retaining means, said guides being provided with means for holding either of said latches in an inoperative position until released therefrom by the impact of the companion latch against said retaining means.

5. A device of the class described, comprising a fixture; a gate adapted for use therewith; a keeper in form of a vertical bar attached to said fixture; and a pair of latches pivoted on opposite sides of said gate, normally in engagement with said keeper, and provided with inwardly turned lugs adapted to lock said latches against accidental disengagement with said keeper.

6. A device of the class described, comprising a fixture; a gate adapted for use therewith; a keeper in the form of a vertical bar attached to said fixture; a pair of latches pivoted to opposite sides of said gate, normally in engagement with said keeper, and provided with inwardly turned lugs adapted to lock said latches against accidental disengagement with said keeper; and means for supporting either of said latches in an inopertaive position so as to be automatically released upon the impact of the other latch against said keeper, upon the gate being swung to a closing position.

7. A device of the class described, comprising a fixture provided with a keeper; a gate adapted for use therewith; a pair of latches pivoted on opposite sides of said gate in spaced-apart relation therewith, and provided on their free ends with means for engagement with said keeper, to prevent accidental release of said latches therefrom.

8. A device of the class described, comprising a fixture provided with a suitable keeper; a gate adapted for use therewith; a pair of latches pivoted on opposite sides of

said gate at a little distance therefrom, normally in engagement with said keeper, and provided with means for locking the same against accidental release therefrom; and guide-plates on said plates, in which said latches operate, and holding the same in spaced-apart parallel relation with said gate.

9. A device of the class described, comprising a post provided with a suitable keeper; a gate adapted to be connected therewith; a latch adapted for attachment to said gate in adjusted positions, normally in engagement with said keeper; and means for holding said latch out of engagement therewith, liable to release upon closing of the gate.

10. A device of the class described, comprising a post and gate adapted for use therewith; a keeper on said post in form of a vertical bar; cross-plates on said gate having outwardly projected flanges; latches pivoted to said gate on opposite sides thereof, held at a desired distance from said gate at one end by said flanges, and normally in engagement with said keeper; guide-plates on said gate provided with means for holding said latches in desired position with relation to said gate; and lugs on the outer ends of said latches having opposite engagement with said keeper, and capable of holding said latches against accidental release therefrom.

11. A device of the class described, comprising a post; a gate adapted for use therewith; keepers on said post at different heights thereon; latches pivoted to the face of said gate, normally in engagement with said keepers; means for supporting said latches in an inoperative position liable to release from the jar caused by closing said gate; and means for connecting said latches so that they will operate simultaneously.

In testimony whereof I affix my signature.

STEPHEN A. SLAUSON.