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F. W. EWALD.
GATE LOCK.
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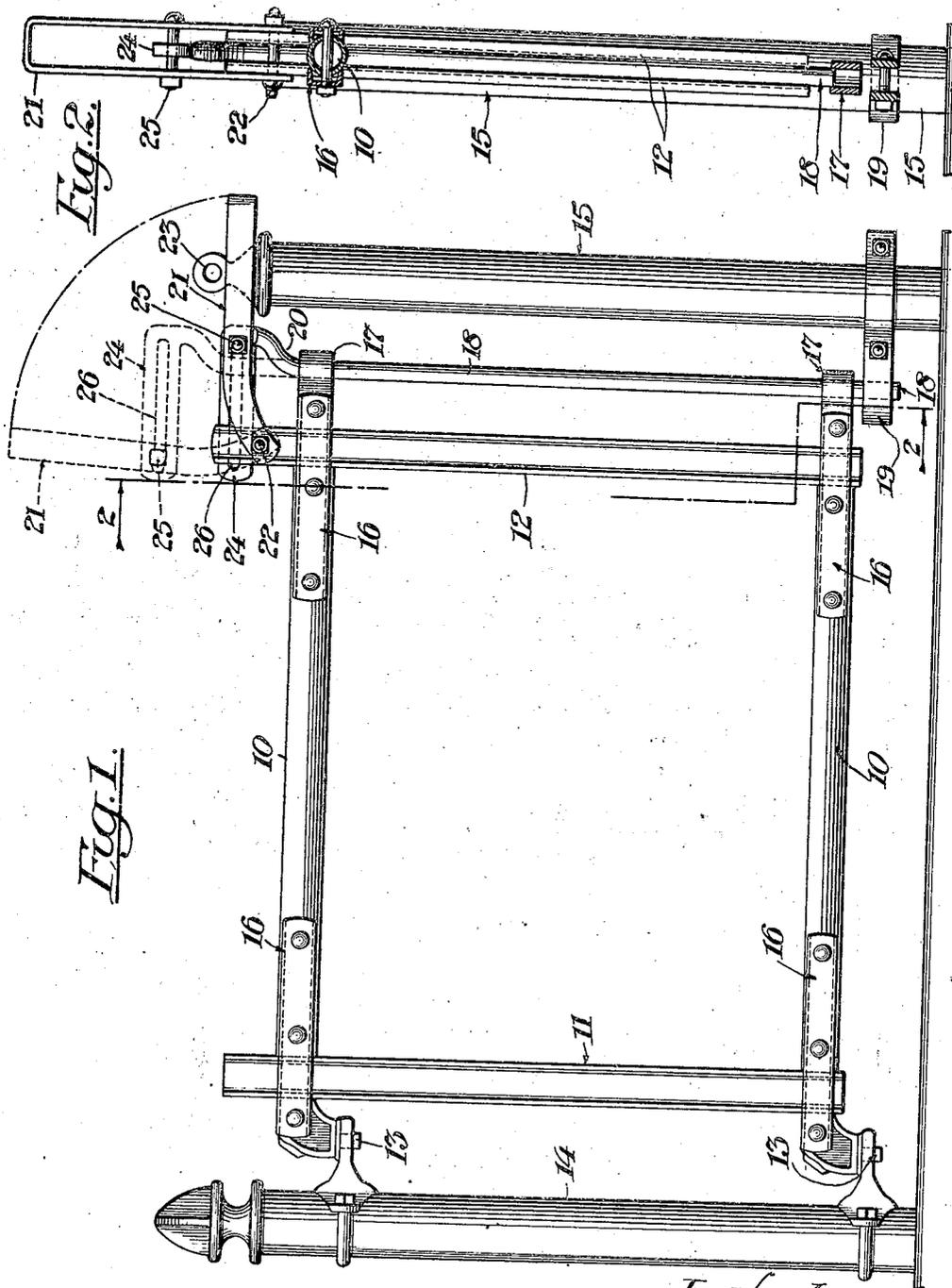


Fig. 2.

Fig. 1.

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GATE LOCK.

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To all whom it may concern:

Be it known that I, FREDERICK W. EWALD, a citizen of the United States, and resident of the borough of Garwood, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Gate Locks, of which the following is a specification.

This invention relates to locking mechanism for gates, and it has for its object to provide a simple, inexpensive and durable construction whereby a gate when closed can be readily locked or unlocked as desired.

With this object in view my invention comprises novel structural features and combinations of parts which will be hereinafter described and claimed.

In the drawings—

Figure 1 is a side elevation of a swinging gate structure equipped with locking mechanism embodying the preferred form of my invention; the full and dotted lines showing said mechanism in locking and unlocking positions, respectively.

Fig. 2 is a vertical section through the structure, as on the line 2—2 of Fig. 1, but showing the mechanism in unlocking position.

The form of gate frame herein selected for illustration comprises upper and lower rails 10 and end bars 11, 12. One end of the frame is hinged, as at 13 to spaced-apart brackets on an adjacent post 14, and the other end of the frame is equipped with my improved mechanism whereby the gate when closed can be locked to the adjacent post 15. In the present instance the rails 10 and the bars 11, 12 are united by paired channelled check members 16, as set forth in Letters Patent of the United States No. 1, 273,359, dated October 29, 1918.

Fitted in and secured to the channels of the respective cheek members of the end bar 12 are the limbs of two guide brackets 17 for a vertically-movable gravity bar 18 which is adapted to be moved into and out of locking relation with a suitably disposed keeper when the gate is closed. In the present form of my invention the keeper comprises a metal loop 19 which is suitably located near the base of the post 15 so as to extend immediately under the lower guide bracket 17. The upper end of the locking bar 18 extends above the upper guide

bracket 17 and is bent or offset, as at 20, to afford a shoulder which co-acts with the top of the bracket in a manner to limit the downward movement of the bar, as shown. The upper end of the bar 18 is coupled to a vertically swinging member 21 which is pivoted at one end to the up-projecting portion of the frame-bar, as at 22, the coupling being of such character that the upward and downward motion of the member is positively translated to the locking bar so as to move the latter respectively into and out of locking engagement with the keeper. In the present instance the member 21 consists of a hasp which is mounted and arranged to be swung to and from the top of the adjacent post 15, which post has an up-standing eye-extension 23 which is embraced by the hasp when the latter is swung upon the post. The upper end of the bar 18 has formed on or otherwise fixed to it a longitudinally-slotted horizontal arm 24 which is loosely embraced by the limbs of the hasp, and the hasp is provided intermediate its ends with a cross-bolt 25 which extends freely through the longitudinal slot 26 of the arm 24, thus providing a pivotal slidable coupling between the arm and the hasp.

The construction and relative arrangement of the parts just described are such that when the hasp is swung toward and from the top of the post 15, the bar 18, by virtue of the connection between the hasp and the arm 24, is lowered and raised into and from locking engagement respectively with the keeper, as shown by the full and dotted lines, respectively, in Fig. 1. When the hasp is swung upon the post 15 a suitable padlock can be applied to the eye-extension 23 so as to lock the hasp to the post and the bar in engagement with the keeper, thus effectually locking the gate in closed position.

It is to be noted that when the hasp is swung upward to the position indicated by the dotted lines in Fig. 1 the bolt connection between the hasp and the slotted arm is to the left of the pivot 22 of the hasp, thus holding the bar 18 in its raised position until the hasp is manually swung toward the adjacent post in the locking operation.

The locking mechanism above described is extremely simple, effective and durable. The constituent parts being few and their connections positive there is little liability

of their getting out of order under the most severe conditions of service.

It is to be understood that I do not limit my invention to the specific details of construction herein disclosed as the same may be modified within the principle of the invention and the scope of the appended claims.

I claim—

1. The combination with a grate structure, of a vertically-movable locking bar thereon having an angularly-disposed member fixed on the bar, said member having a longitudinally extending guide portion, a stationary keeper for said bar, a swinging member pivoted to said structure, and a connector relatively fixed on said swinging member in spaced relation to the pivot of the latter and slidably mounted in said guide portion, whereby the bar is raised and lowered concurrently with the swinging member.

2. The combination with a gate structure, of a vertically-movable locking bar thereon having a longitudinally slotted angularly-disposed arm, a stationary keeper for said bar, a swinging member pivoted to said structure, and a bolt mounted on said member intermediate its ends and extending loosely through the slot of said arm, whereby the bar is raised and lowered concurrently with the swinging member.

3. The combination with a gate structure having guide members thereon, of a vertically-movable locking bar mounted in said members, a support located adjacent said bar when the gate is closed, said support

having a hasp-receiving element, a stationary keeper for said bar, a hasp member pivoted to the gate structure and movable to and from said element, and a coupling between said hasp and bar whereby the motion of one is transmitted to the other to effect the locking or the unlocking of the hasp and bar in relation to the hasp-receiving element and the keeper respectively.

4. The combination with a gate structure having guide members thereon, of a vertically-movable locking bar mounted in said members, a support located adjacent said bar when the gate is closed, said support having a hasp-receiving element, a stationary keeper for said bar, a hasp-member pivoted to the gate structure and movable to and from said element, an angularly-disposed arm on said bar, and a pivotal slidable coupling between the hasp and said arm.

5. The combination with a gate structure having guide members thereon, of a vertically-movable locking bar mounted in said members, a support located adjacent said bar when the gate is closed, said support having a hasp receiving element, a stationary keeper for said bar, a hasp-member pivoted to the gate structure and movable to and from said element, a longitudinally-slotted angularly-disposed arm on said bar, and a cross-bolt extending through the hasp and the slot of said arm.

Signed at Garwood, in the county of Union and State of New Jersey, this 15th day of March, 1921.

FREDERICK W. EWALD.