April 26, 1955 J. W. RITTER, SR 2,707,125

MEANS FOR LOCKING A GATE TO A GATEPOST

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Fig. 1

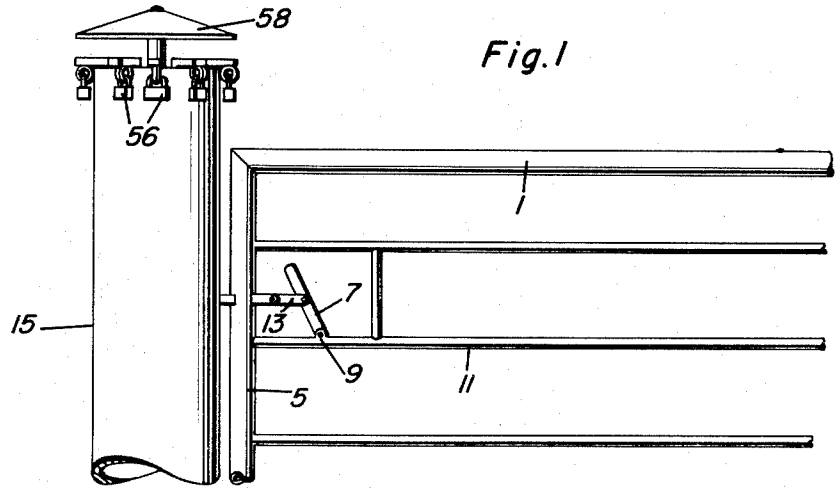


Fig. 2

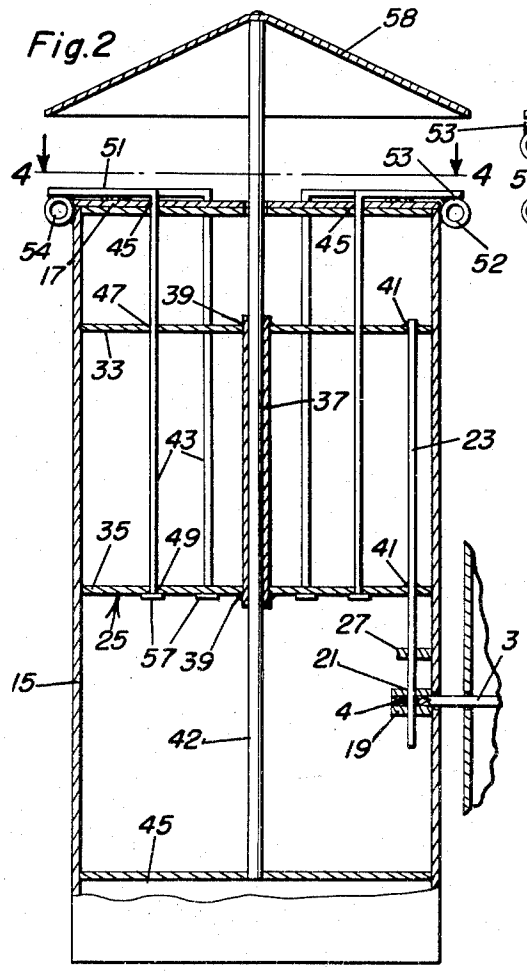
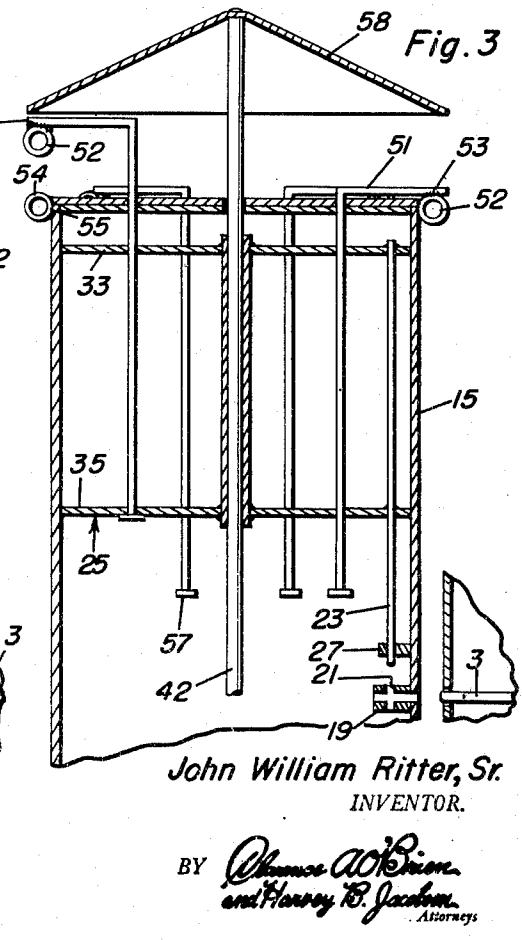


Fig. 3



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MEANS FOR LOCKING A GATE TO A GATEPOST

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Fig. 4

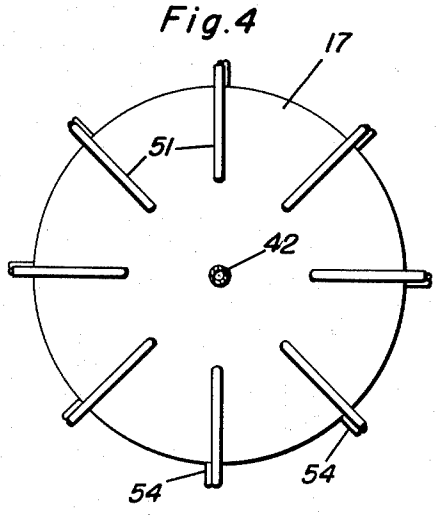


Fig. 5

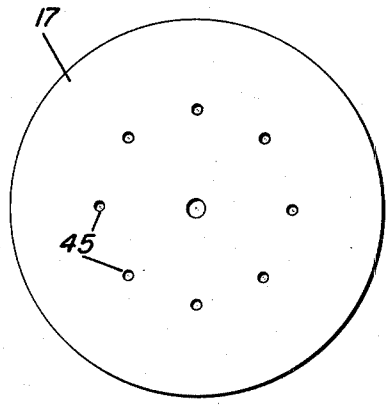


Fig. 6

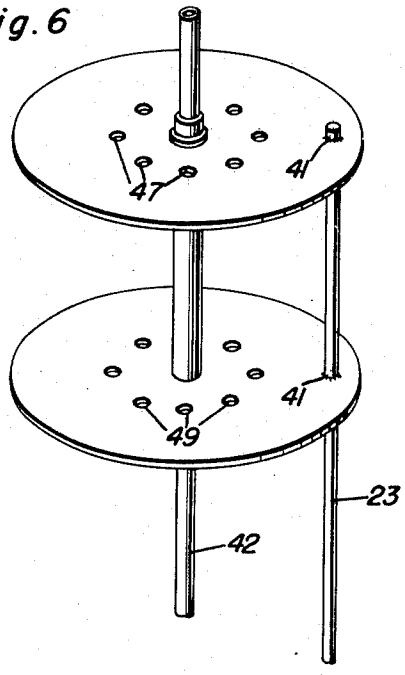
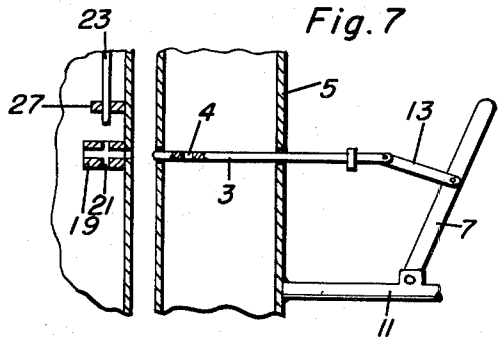


Fig. 7



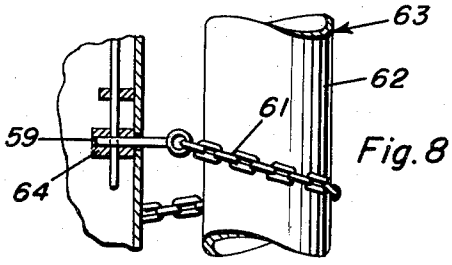


Fig. 8

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2,707,125

MEANS FOR LOCKING A GATE TO A GATEPOST

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Application July 9, 1953, Serial No. 367,041

7 Claims. (Cl. 292—341.15)

My invention relates to improvements in means for locking a horizontally swinging gate to a gatepost.

The primary object of my invention is to provide a gate and a gatepost with means for locking the gate to the post adapted to be unlocked by any one of a limited number of persons possessing different keys and authorized to use the gate.

Another object is to provide locking means for the purpose above set forth adapted to be locked and unlocked by any one of a number of padlocks each requiring a different key.

Still another object is to provide locking means of the type and for the purpose above set forth which is simple in construction, strong and durable and inexpensive to manufacture and install.

Other and subordinate objects together with the precise nature of my improvements will become apparent when the succeeding description and claims are read with reference to the drawings accompanying and forming part of this specification.

In said drawings:

Figure 1 is a fragmentary view in front elevation of a gate and gatepost embodying my improved locking means in the preferred form thereof;

Figure 2 is a fragmentary enlarged view in vertical section of the gate and gatepost and illustrating the locking means in locking position;

Figure 3 is a similar view illustrating the locking means in unlocking position;

Figure 4 is an enlarged view in horizontal section taken on the line 4—4 of Figure 2;

Figure 5 is an enlarged view in plan of the crown plate for the gatepost;

Figure 6 is an enlarged view in perspective of the plunger and locking rod;

Figure 7 is an enlarged fragmentary view in vertical section illustrating the locking means on the gate in unlocking position, and

Figure 8 is a fragmentary enlarged view partly in vertical section and partly in elevation of a modified embodiment of the invention.

Referring to the drawings by numerals and first to the preferred embodiment shown in Figures 1 to 5, the gate 1 according to my invention is provided with locking means comprising a horizontally slidable lock bolt 3 in a front upright frame part 5 of the gate adapted to be projected and retracted forwardly and rearwardly into locking and unlocking positions by operation of a hand lever 7 pivoted, as at 9, in upright position on a horizontal frame part 11 of the gate and operatively connected to the lock bolt 3 by a pivoted link 13. The bolt 3 is provided with a front end slot 4.

The gatepost 15 according to my invention is tubular and formed of suitable metal and is closed at its upper end by a circular crown plate 17 of double thicknesses of metal set into and resting on said post and suitably secured in place as by welding, not shown.

The locking means on the gatepost 15 comprises a horizontal, hollow keeper 19 in the post on one side of said post having a vertical opening 21 therethrough and into which the front end of said bolt 3 is slid to vertically align the slot 4 of said bolt 3 with the vertical opening 21, when said bolt is projected into locking position.

A locking rod 23 in the post is carried in upright depending position in vertical alignment with the opening 21 by a plunger 25 adapted to descend by gravity

to thrust said rod downwardly through the opening 21 and slot 4 to lock the lock bolt 3 in forwardly projected locking position. The plunger 25 is adapted to be moved upwardly to retract the locking rod out of the slot 4 to free the lock bolt 3 for retraction into unlocking position. A guide lug 27 for the locking rod 23 inside and on the post 15 and above the keeper 19 prevents rotation of the plunger 25 for a purpose presently seen and holds said rod 23 vertically aligned with the opening 21 when said rod is retracted.

The plunger 25 comprises a pair of upper and lower disks 33, 35 connected together by an axial tube 37 and the locking rod 23 suitably welded thereto, as at 39, 41, and the tube 37 is vertically slidable on a fixed axial shaft 42 rising out of the post 15. The shaft 42 is fixed at its lower end to a horizontal disk 45 suitably fixed in the post 15 below the keeper 19.

Means for moving the plunger 25 upwardly to retract the locking rod 23 into unlocking position is provided comprising a plurality of vertical plunger lift rods 43 rising out of the post 15 and grouped in a circular concentric series around the axis of said post and the plunger 25 in equidistantly spaced relation. The lift rods 43 are slidable vertically and rotatable in apertures 45 in the crown plate 17, and the plunger 25 is vertically slidable on the lift rods 43 which extend through apertures 47, 49, in the upper and lower disks 33, 35.

Lift rods 43 are provided with right angled handle portions 51 for lifting and lowering the same and which terminate in depending upright ring members 52 welded as at 53 thereon. Ring members 54 are spaced circumferentially around the top of the post 15 and suitably secured thereto in upright position as by welding 55. The ring members 54 are associated with the ring members 53 the arrangement being such that when the lift rods 43 are fully lowered the handle portions 51 may be rotated into substantially radial position relative to the post 15 to swing the ring members 52 against and in axial alignment with the associated ring members 54 fixed on the post 15.

Padlocks 56 requiring different keys are provided for locking the ring members 52 to associated ring members 54 and form therewith means for locking said rods down in fully lowered position in which collars 57 on the lower ends of the lift rods seat the plunger 25 thereon in lowered position with the locking rod 23 in locking position. The collars 57 together with said rods 43 provide manual means for lifting the plunger 25 upwardly by upward sliding of any one of the lift rods 43 with the plunger sliding upwardly on the other lift rods.

A metal canopy 58 is provided on the upper end of the shaft 42 to prevent water, snow and ice from accumulating on the crown plate and the described lift rod locking means.

In the modified embodiment shown in Figure 8 the lock bolt 59 corresponding to lock bolt 3 is secured to the gatepost 60 by a chain 61 adapted to be passed around the end upright 62 of the gate 63 and said bolt 59 is adapted to be manually projected into the keeper 64. The construction is otherwise the same as in the preferred embodiment.

The operation of my invention will be readily understood. Any lift rod 43 may be unlocked by unlocking and removing the padlock 56 forming part of the locking means for that lift rod and the unlocked lift rod lifted by the handle portion 51 to lift the plunger 25 and thereby retract the locking rod 23 out of the slot 4 in the locking bolt 3 so that the lift bolt 3 may be retracted out of the keeper 21 to unlock the gate as shown in Figure 3. The remaining lift rods 43 may remain locked and the plunger 25 will slide freely up the same. With the gate 1 closed and the lock bolt 3 projected into the keeper 21 the lifted plunger will gravitate into lowered position on the locked lift rods 43 when the lifted unlocked lift rod 43 is released so that the locking rod 23 will be projected or lowered into locking position for coaction with the bolt 3 to lock the gate 1 as shown in Figure 2. The released lift rod 43 will also gravitate into lowered position for lock-

ing in the manner described.

As will be seen a number of persons corresponding to the number of lift rods **43** may lock and unlock the gate each with a key for a different padlock **56** which one person only is authorized to unlock by possession of the proper key.

The foregoing will suffice to impart a clear understanding of my invention without further explanation.

Manifestly the invention as described is susceptible of modification without departing from the inventive concept and right is herein reserved to modifications falling within the scope of the appended claims.

Having described the invention, what is claimed as new is as follows:

1. In a latching mechanism for a gate latch, the latching mechanism adapted to be mounted in a hollow gatepost having a gate latch slide bolt projecting into the same, said latching mechanism comprising, a vertically movable member slidable in said post for lifting and lowering, said bolt and member coacting when the member is lowered to lock said bolt, said member being liftable upwardly into bolt unlocking position, and means for lifting said member comprising a plurality of lift rods slidable in said post for lifting upwardly and grouped around the axis of the post in a circular series, and individual locking means for locking each lift rod to the post each unlocked by a different key.

2. In a latching mechanism according to claim 1, said member comprising a locking rod.

3. In a latching mechanism according to claim 2, said slide bolt being apertured for projection of said locking rod therethrough for coaction of said bolt and member to lock said bolt.

4. In a latching mechanism according to claim 1, said means further comprising a plunger in said post carrying said member, and to which said lift rods are operatively connected to each lift the plunger independently of the other lift rods.

5. In a latching mechanism according to claim 1, said individual locking means each comprising a ring member on the rod and a ring member on the post and a padlock for securing said ring members together.

6. In a latching mechanism according to claim 4, and a vertical shaft in said post on which said plunger is slidably mounted.

7. In a latching mechanism according to claim 4, said lift rods slidably extending through said plunger and having collars thereon beneath said plunger for lifting of said plunger by each lift rod independently of the other lift rods.

References Cited in the file of this patent

UNITED STATES PATENTS

1,364,757	Herrman	Jan. 4, 1921
2,538,398	Thompson et al.	Jan. 16, 1951
2,556,361	Coleman	June 12, 1951

FOREIGN PATENTS

95,958	Switzerland	Aug. 16, 1922