June 12, 1951 W. H. COLEMAN 2,556,361

MECHANICAL GATE AND LOCK

Filed Dec. 13, 1946

FIG. 1.

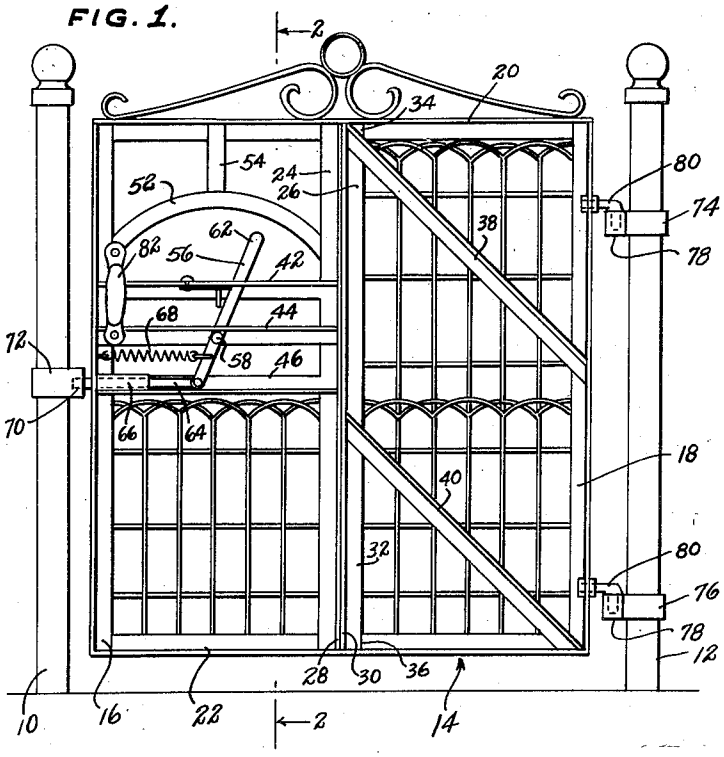


FIG. 2.

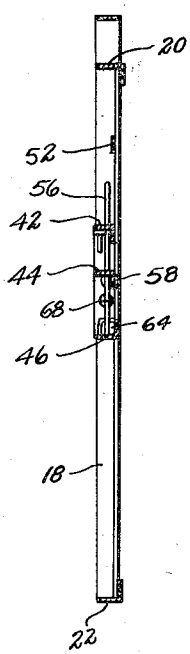
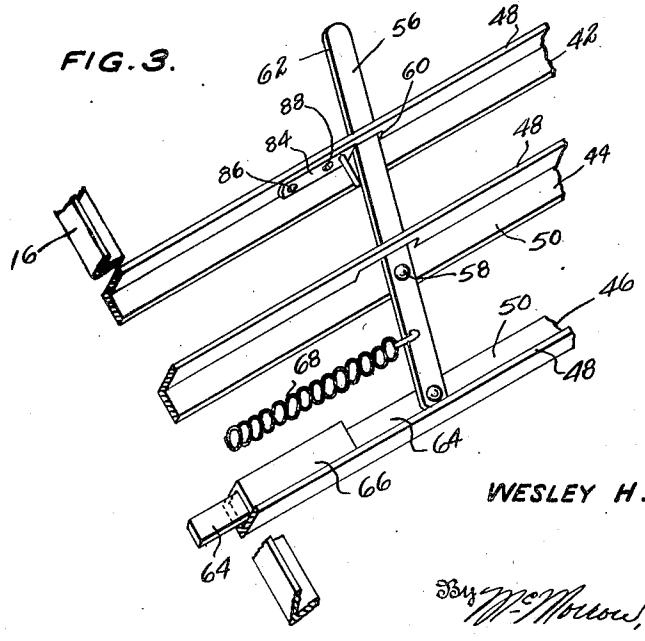


FIG. 3.



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MECHANICAL GATE AND LOCK

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1 Claim. (Cl. 39—28)

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This invention relates to gates and locks therefor.

An object of the invention is to provide a gate adapted for use in a fence or the like, and which has an improved locking device.

Another object of the invention is to provide a locking device for use in a gate and the like, by means of which the gate may be locked from the inside or the outside, as desired, and which is so constructed and designed as to effectively prevent its opening by small children and by animals.

A further object of the invention is to provide a fence gate which is simple in design, inexpensive to manufacture, and which is effectively locked and unlocked.

Other objects and advantages of the invention will become apparent from the following description of a preferred embodiment thereof, as illustrated in the accompanying drawings, in which:

Figure 1 is a front elevation of my improved gate.

Figure 2 is a sectional elevation taken on line 2—2 of Figure 1.

Figure 3 is a perspective fragmentary view of a portion of the gate, illustrating the locking device therein.

In order to understand clearly the nature of the invention and the best means for carrying it out, reference may now be had to the drawings in which like reference characters denote similar parts throughout the several views. As shown, there is a pair of upright fence posts 10 and 12, which are securely set into the ground therebelow.

A gate is generally indicated at 14 and is supported by the fence or gate post 12, as will be more fully explained. The gate 14 may be formed of left and right end upright side rails 16 and 18 which are interconnected at their upper and lower ends by means of top and bottom lateral rails 20 and 22. The rails are made of any suitable structural material, such as angle iron, and may be secured together by rivets, bolts, or by means of welding.

Two angle irons 24 and 26 have flanges 28 and 30 joined together, as shown in Figure 1, and to form a central vertical T-shaped angle iron 32 which is secured at its upper and lower ends 34 and 36 to the intermediate portions of the top and bottom rails 20 and 22. Oblique angle iron struts 38 and 40 are secured at their ends to the right end rail 18 and the central vertical member 32 to stiffen the entire gate structure.

Angle irons 42, 44 and 46 are secured at their

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ends to the vertical member 32, and to the left end rail 16, said angle irons being parallel to each other and to the top and bottom rails 20 and 22. As best seen in Figure 3, it will be observed that the horizontal flange 48 on the two upper members 42 and 44 is also uppermost, while that on the lower member 46 is lowermost with respect to the vertical flanges 50.

An arched member 52 is secured at its ends to the angle irons 18 and 24, and is given vertical support by means of the strut 54, which is secured therto and to the top rail 20. An actuating lever 56 is pivoted intermediate its ends to the vertical flange 50 of the intermediate angle iron 44 by means of pivot pin 58, and the upper end extends upwardly thereof through elongated aperatures or slots 60 which is formed in the horizontal flanges 48 in the angle 44 and also the uppermost angle iron 42, the topmost end portion 62 of the lever forming a handle.

A plunger 64 is pivoted at its right hand end, as seen in Figures 1 and 3, to the lower end of the actuating lever 56, the plunger extending slidably through a guide channel 66 which is carried securely upon the lowermost angle iron 46 adjacent its left hand end, the left end of the plunger also extending through an aperture formed in the left vertical rail 16 in registry with the guide channel. A tension spring 68 is secured at one end to the actuating lever 56, and at its other end to the vertical rail 16, in order to bias the lever in a clockwise direction, with the left end of the plunger 64 protruding out of the aperture in the left vertical rail 16 and into a socket 70 formed in a collar 72 carried on the post 10.

The post 12 is provided with collars 74 and 76 having extensions 78 with vertical hinge bearings formed therein. These bearings are adapted to receive the vertical portions of hinge pins 80 which are secured to the right side rail 18, as shown in Figure 1, thus supporting the gate and permitting it to be turned in either direction about the vertical axis of the hinge bearings. A handle 82 is secured to the gate to permit it to be pulled or pushed on its hinges, it being necessary first to withdraw the plunger 64 from its socket 70 by grasping the lever handle 62 and pushing it to the left.

For locking the gate against being opened by animals or small children, a latch lever 84 is provided, being pivoted at 86 to the horizontal flange 48 of the upper angle iron 42. The latch lever has an aperture 88 through which and the slot 60 a lock, not shown, may be inserted to prevent pivoting of the lever 84 about its pivot 86, thus

blocking unlocking movement of the lever 56. A finger piece 90 may be fixed to latch lever 84 to facilitate the manipulation thereof. The gate may be suitably ornamented, as illustrated in Figure 1.

Although I have described a preferred embodiment of my invention in specific terms, it is to be understood that various changes may be made in size, shape, materials and arrangement without departing from the spirit and scope of the invention as claimed.

I claim:

In a gate, the combination with a latch bolt for locking said gate, an actuating lever pivoted to said gate intermediate its ends, and said lever including a lower end pivoted to said bolt, of a horizontally-disposed angle iron fixed to said gate in vertically-spaced relation to said bolt, said angle iron including a horizontal flange formed with a longitudinally-extending closed slot therein, said actuating lever including an upper end providing a handle extended through said slot, said slot comprising means limiting pivotal movement of said lever in both a bolt-advancing direction and in a bolt-retracting direction, a latch member pivoted to said flange in the region of said slot, said latch member being horizontally movable from an inoperative position clear of said slot to an operative position

overlying part of said slot, said latch member when in said operative position serving a block movement of said actuating lever in a bolt-retracting direction, said latch member having an aperture therein in alignment with said slot in said angle iron when the latch member is in said operative position overlying said slot, said aperture being adapted to have a padlock engaged therethrough and through said slot to lock said latch member in said operative position.

WESLEY H. COLEMAN.

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