No. 608,353. Patented Aug. 2, 1898.

L. VAN OLST.

GATE LATCH MECHANISM.

(Application filed Mar. 29, 1897.)

(No Model.)

FIG. 1.

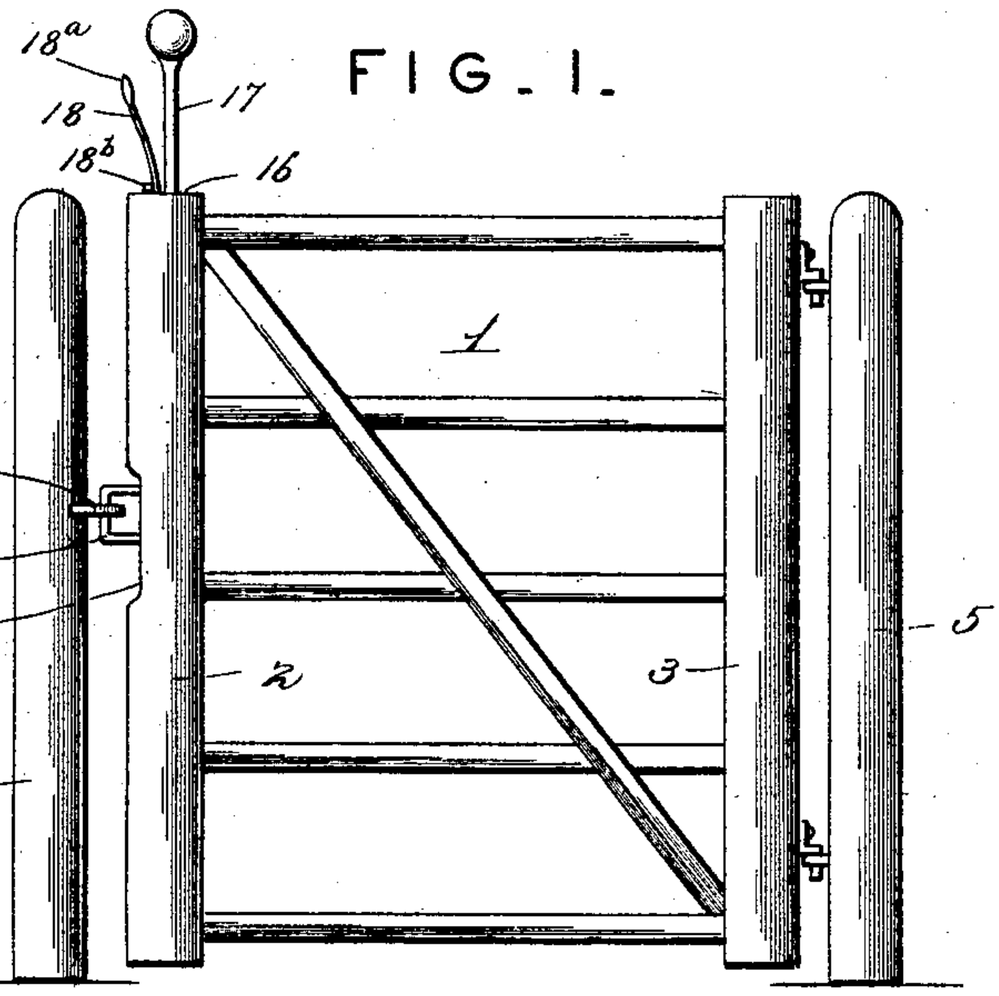


FIG. 2.

FIG. 3.

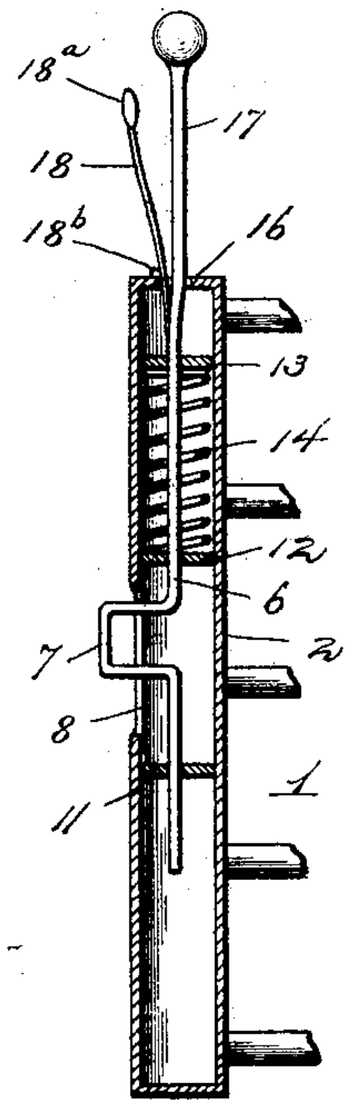
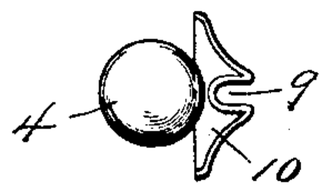
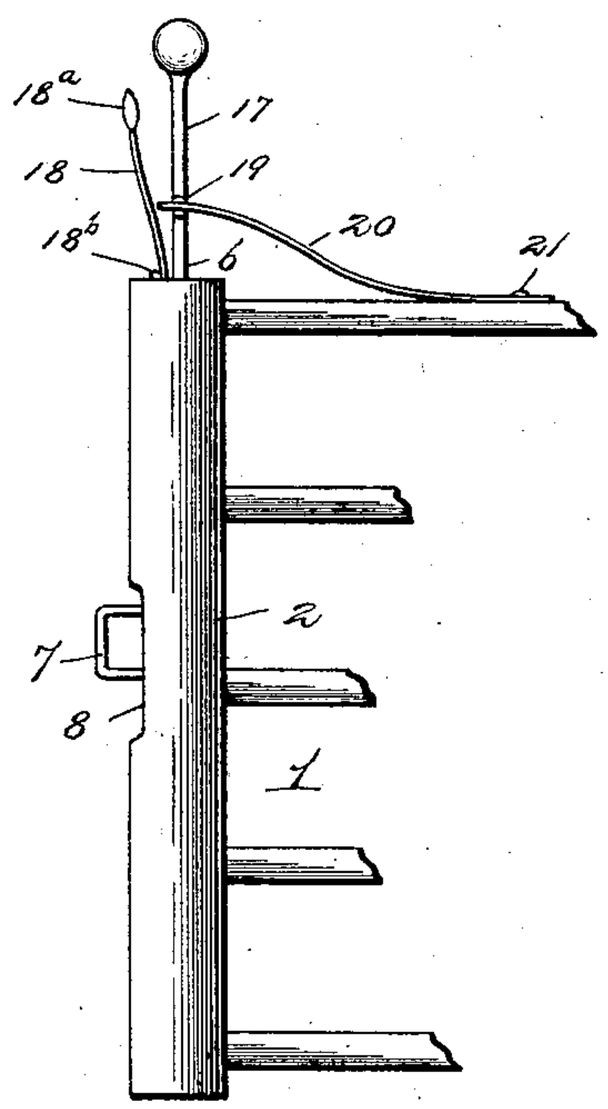


FIG. 4.





WITNESSES

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GATE LATCH MECHANISM.

SPECIFICATION forming part of Letters Patent No. 608,353, dated August 2, 1898.

Application filed March 29, 1897. Serial No. 629,694. (No model.)

To all whom it may concern:

Be it known that I, LAMMERT VAN OLST, of Orange City, in the county of Sioux and State of Iowa, have invented certain new and useful Improvements in Gate Latch Mechanism; and I 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.

The object of the present invention is the provision of an improved latch mechanism for fence-gates of simple and inexpensive construction and capable of easy manipulation by adult persons which, owing to the peculiar construction, arrangement, and coöperation of its parts, will when latched prevent unlatching or opening thereof by children.

The invention consists of a latch mechanism comprising certain improved features and novel combinations more fully set forth hereinafter and embodied in the appended claims.

In the accompanying drawings, illustrating the invention, Figure 1 is a side elevation of a fence-gate equipped with my invention, showing the latch and hinge posts of a fence. Fig. 2 is a sectional elevation of the latch-post of the gate. Fig. 3 is a side elevation of a portion of the gate, showing a modified form of the invention; and Fig. 4 is a plan view of the latch-post and keeper.

Like numerals designate like parts throughout the various figures of the drawings.

Referring to the drawings, the numeral 1 designates a gate, which is provided, as usual, with a latch-post 2 and a hinge-post 3, and the numerals 4 5 designate, respectively, the latch and hinge posts of the gateway of the fence.

The gate and fence may be constructed of wood or iron, plain or ornamental, as desired; but I contemplate employing an ornamental fence designed to inclose a plot of ground or a garden. Preferably, in this instance, the fence will be constructed of iron suitably ornamented, and the latch-post 2 of the gate will be hollow or tubular. A vertically-disposed latch-bar 6 of suitable size and material to be springy or resilient is located within the latch-post and provided adjacent its lower end with a bail-shaped latch 7, which projects through a vertical elongated slot 8 in said post and is adapted for reception in a slot or opening 9 in a horizontal keeper 10, connected with the latch-post 4 of the fence and provided with the usual inclines leading to the said slot on opposite sides thereof. This latch-bar has its lower end projecting loosely through a guide-opening in a stationary plate or washer 11 in the post below the said slot. The upper portion of the latch-bar passes loosely through a stationary washer 12 in the latch-post. A washer 13 is secured to the latch-bar above washer 12. A spiral spring 14 incloses the latch-bar between the said two washers 12 13 and serves to normally hold the bail-shaped latch up in position for engagement with the keeper.

The upper end of the latch-bar projects through a slot 16 in the top of the post and is provided with a handle end 17, preferably provided at its extremity with a head or enlargement. A leaf-spring 18 extends through the said slot in the post and is connected with the latch-bar, and the upper end thereof is bent or curved to form a handle 18^a. This spring is also provided with a lug or locking projection 18^b, adapted to rest upon the top of the post and prevent the latch-bar from being forced down to unlock the gate until the leaf-spring is pressed toward the latch-bar, when the lug or projection 18^b will be brought in register with slot 16 and the latch-bar and spring may be forced down together, thereby disengaging the bail 7 from the keeper and unlocking the gate.

In the form of device shown in Fig. 3 the handle end of the latch-bar is provided with a lug or lateral projection 19, and a leaf-spring 20, having one end secured to the top rail or bar 21 of the gate, has its free end bearing against the lug in order to hold the latch-bar up or support it so as to keep the bail-shaped latch in position for engagement with its keeper. This spring 20 takes the place of the spiral spring 14.

In both constructions the bail-shaped latch is withdrawn from locking engagement by forcing it down below the keeper.

It will be observed that the spring normally holds the latch-bar pressed upward, so that the latch is in position for engagement with the keeper, and hence when the gate is closed this bail, after riding on the incline of the

keeper and being pressed back by the latter, will, by reason of its inherent resiliency, snap into the slot or opening thereof and thus lock the gate. In unlatching the gate two operations are necessary—*i. e.*, first, pressing the locking leaf-spring back until the lug is disengaged from the latch-post and, second, forcing the latch-bar and said spring downward. As these operations require some strength and skill, as well as a knowledge of the construction of the mechanism, and, further, because of the position of the parts at the top of the gate, it is obvious that the gate cannot be unlatched by small children, and hence they may be safely permitted to play in the plot of ground inclosed by a fence whose gate is equipped with my improvements.

While in the present instance I have shown the improvements as applied to a metal gate, it is obvious that they could be used with as good results on wooden gates without in any manner changing the invention. In the latter instance the tubular post instead of forming part of the gate itself would be fastened to the latch-post of the gate.

Having thus fully described the invention, what I claim, and desire to secure by Letters Patent, is—

1. In a gate latch mechanism, the combination with a gate, and a latch-post equipped with a keeper, of a movable latch-bar adapted for engagement with the keeper, and a releasable locking device which normally locks the latch-bar against manipulation when the latter is in engagement with the keeper or in position for engagement therewith.

2. In a gate latch mechanism, the combination with a gate, and a latch-post equipped with a keeper, of a movable latch-bar, a spring coacting with the latch-bar and normally maintaining it in position for engagement with the keeper, and a spring-actuated releasable locking device normally locking the latch-bar against manipulation when said latch-bar is engaged with the keeper or in position for engagement therewith.

3. In a gate latch mechanism, the combination with a gate, and a latch-post equipped with a keeper, of a vertically-movable latch-bar adapted for engagement with the keeper, and a normally-acting locking device located at the upper portion of the latch-bar which locks the latch-bar when the latter is engaged with the keeper or in position for engagement therewith.

4. In a gate latch mechanism, the combination with a gate, and a latch-post equipped with a keeper, of an upright tubular member connected to the gate and provided with a vertical slot in its side, a vertically-movable latch-bar located within the tubular member and carrying a latch which projects through and is adapted to travel in the slot, a spring which holds the latch-bar raised so that its latch is normally in position for engagement with the keeper, and an automatically-acting releasable locking device which normally prevents depression of the latch-bar.

5. In a gate latch mechanism, the combination with a gate, and a latch-post having a keeper, of a vertically-disposed, depressible latch-bar adapted to yield or give laterally when engaging the keeper and which works in guideways on the gate, means for automatically holding the latch-bar normally in position for engagement with the keeper, and automatically-acting locking mechanism normally securing the latch-bar against depression.

6. In a gate latch mechanism, the combination of a gate hinged to the hinge-post of a gateway and provided with a tubular latch-post having a slot, a latch-bar movable in guideways in the post and provided with a bail-shaped latch adapted to engage with a keeper on the latch-post of the gateway, said latch-bar having its upper end projecting through a slot in the top of the post, and a spring connected with said bar and provided with a lug adapted to rest on the top of the post and prevent the bar from being forced down to disengage the latch, substantially as described.

7. In a gate latch mechanism, the combination of a gate hinged to the hinge-post of a gateway and provided with a tubular latch-post having a slot formed therein, a latch-bar movable in guide-openings in plates or washers in said tubular post and provided with the bail-shaped latch projecting through said slot to engage a keeper on the latch-post of the gateway, and the upper end of said latch-bar projecting through a slot in the top of the post, a spiral spring inclosing the latch-bar between one of said plates or washers and a plate or washer secured to the latch-bar and serving to normally hold the latch engaged with its keeper and a leaf-spring connected with the said latch-bar and provided with a lug or projection adapted to bear on the upper end of the post and prevent the latch-bar from being pressed downward until said leaf-spring is drawn toward it in order to permit the lug to clear the slot, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

LAMMERT VAN OLST.

Witnesses:
J. M. OGGEL,
A. J. KUYPER.