F. STROSNIDER.

GATE LATCH.

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1,411,129. Patented Mar. 28, 1922.

Fig. 1.

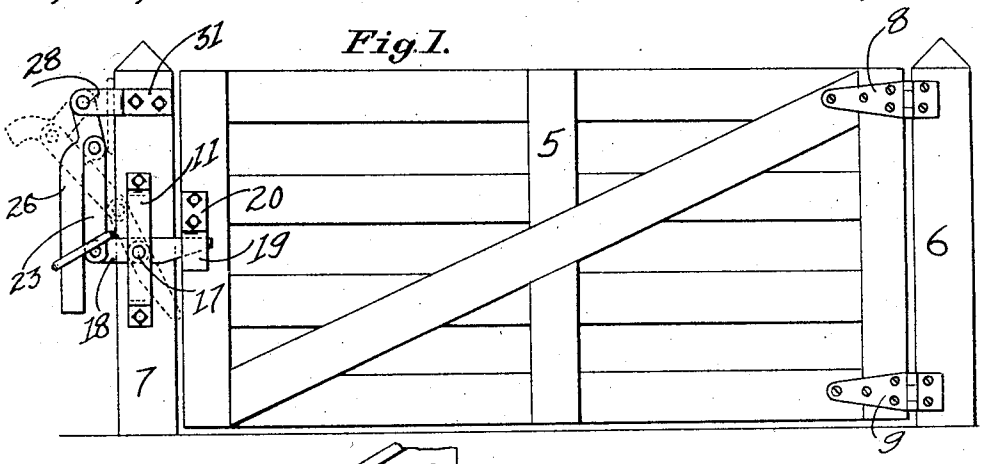


Fig. 2.

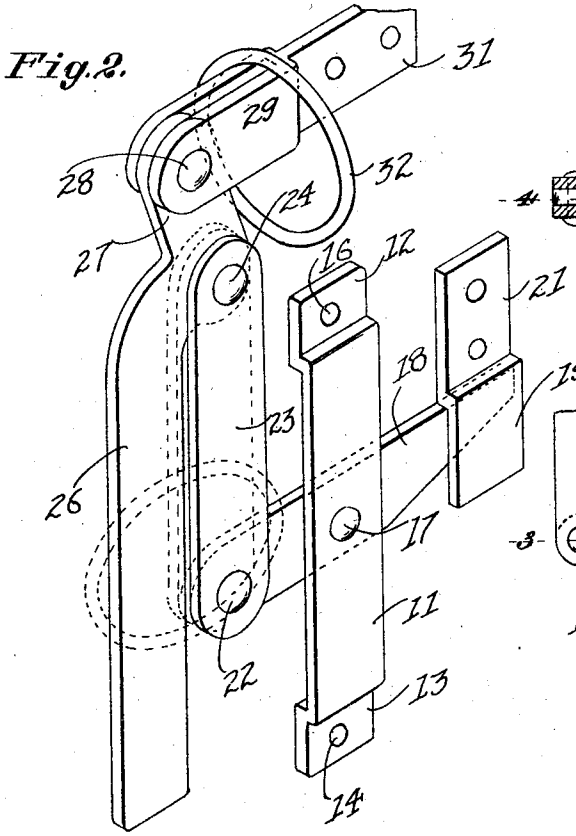


Fig. 3.

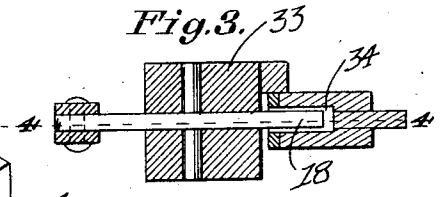
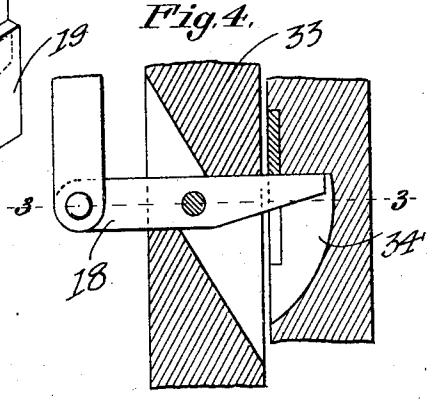


Fig. 4.



Inventor.
F. STROSNIDER.
By Victor J. Evans
Attorney.

UNITED STATES PATENT OFFICE.

FRED STROSNIDER, OF YERINGTON, NEVADA.

GATE LATCH.

1,411,129. Specification of Letters Patent. Patented Mar. 28, 1922.

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To all whom it may concern:

Be it known that I, FRED STROSNIDER, a citizen of the United States, residing at Yerington, in the county of Lyon and State of Nevada, have invented new and useful Improvements in Gate Latches, of which the following is a specification.

This invention relates to improvements in latches, and particularly to that type of latch which may be applied to a swing gate, commonly used in the country to prevent stock from passing from one field to another.

The principal object of this invention is to provide a simple, efficient latch which may be applied to any gate now in use.

Other objects are to provide a latch which will relieve the strain upon the hinges of the gate and to provide a latch which cannot be operated by cattle rubbing against the same.

Still further objects are to provide means whereby the sagging of the gate can be taken care of so that the gate will always maintain a horizontal position when latched and to provide means for raising the gate, should it have sagged from this horizontal position, without undue effort on the part of the operator.

Simplicity of construction and consequent cheapness of manufacture are also important features of my invention and likewise other objects and advantages will be apparent during the course of the following description.

In the accompanying drawings forming a part of this specification and in which like numerals are employed to designate like parts throughout the same;

Figure 1 discloses a gate having my latch attached to one end thereof,

Figure 2 is a perspective view of the latch construction proper,

Figure 3 is a horizontal cross-section taken on the line 3—3 of Figure 4 showing my latch placed through the center of a post,

Figure 4 is a cross-section taken on the line 4—4 of Figure 3.

Applicant realizes that many latches have been devised for use on farm gates and the like, but so far as applicant is aware these latches have failed in their purpose for the reason that due to the weight of the gate it has been difficult to secure hinges which would prevent sagging and which thus tend to throw the gate out of true. The latches did not attempt to rectify this sagging and, in most instances, were so constructed that cattle in rubbing against the latch could manipulate the same, thereby unfastening the gate and escaping.

In the drawings wherein for the purpose of illustration is shown a preferred embodiment of my invention, the numeral 5 designates a gate having a post 6 and a post 7, the post 6 being the hinge post and the same is attached to the gate by hinges 8 and 9, which are of the usual construction. The post 7 is the latch post and has secured thereto a plate 11, having offset end portions 14 and 16 for the reception of bolts which form the securing means.

This plate 11 carries a pivot 17 to which is secured a latch 18. This latch has its forward end protruding into the path of the gate 5 and is adapted to engage beneath the offset end 19 of the plate 21, which is secured to the gate 5. The opposite end of this latch 18 is connected by a pivot 22 to links 23, which links when the gate is closed are adapted to lie parallel with the side of the post 7. There are preferably two of these links, as shown in Figure 2, one being shown by the full lines and one being shown by dotted lines.

A pivot 24 extends between these links and serves to connect an operating lever 26 therebetween. The contour of this operating lever is best shown in Figure 2, and is provided with an extension 27, which is pivoted upon a pivot 28, passing through the bifurcated end 29 by a securing member 31. A ring 32 is adapted to be rested upon the bifurcated end 29 of this securing member when the lock is in its open position, as shown in Figure 1. When it is in its closed position, as shown in Figure 2, this ring is adapted to be moved to its dotted line position shown in this view.

In Figure 1, the full line position of the latch shows the position the different parts will take when the latch is closed while the dotted line position shows the position the parts will take as a whole, when the latch is open and the gate is free to be moved or swung open.

In Figure 3 the numeral 33 represents a latch post similar to that shown at 7 wherein the latch 18 is placed through the center

of the post and engages a recess in the gate, as shown at 34; otherwise, the construction of the latch is the same as above described.

It will be seen that, by placing a latch of this character upon the side of the post, that should the gate have sagged when the same is swung to its closed position, the act of closing the latch will cause the pivoted latch 18 to lift the gate into a horizontal position. This action is very easy owing to the toggle arrangement of the links 23 and the operating handle 26.

After the latch has been closed the ring 32 is dropped to its full line position in Figure 1, and it will then be impossible for the gate to be suddenly opened.

It is to be understood that the form of my invention herewith shown and described, is to be taken as a preferred example of the same, and that various changes in the shape, size and arrangement of the parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined claim.

Having thus described my invention, I claim:—

In a gate latch, the combination of a gate and a post adjacent thereto, a plate secured to the side of said post, a latch pivoted to said plate and having one end extending outwardly therefrom into the path of said gate, a plate secured to said gate and adapted to be contacted by said latch in such a manner as to exert upward pressure on said gate, links secured to the opposite end of said pivoted latch, a securing member attached to said post at a point above said pivoted latch, said securing member having a bifurcated end, an operating lever pivoted between said links and said bifurcated end in such a manner as to form a toggle connection between said links and said bifurcated end, and a ring adapted to be manually moved over said operating lever and said links for the purpose of securing said operating lever.

In testimony whereof I affix my signature.

FRED STROSNIDER.