United States Patent [19]

Reinfeld

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[54] **GATE LOCKING DEVICE**

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[51] **Int. Cl.²** **E06B 3/80**

[58] **Field of Search** .... 292/113, 246, 247, DIG. 49; 49/381, 386; 160/328

[56] **References Cited**

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[57] **ABSTRACT**

A gate locking device particularly for wire fences and gates is mounted on a stationary fence post and has a portion thereof engageable with an end member of a fence gate for moving said end member toward the fence post upon selective movement of certain components of the gate locking device and then holding the end member adjacent the fence post. The gate locking device includes a mounting member secured to the fence post and having one end of a lever member pivotally mounted thereon and movable between a position depending from the mounting member and a position above and in engagement with a stop extending from the mounting member and movement of the lever member moves an arm therewith and the arm is pivotally connected to the lever member and has a flexible member thereon which is engageable with the end member of the gate to move same toward the fence post upon movement of the arm and lever member toward the stop. The lever, arm and mounting provide a toggle action which in locked position requires positive action to release.

2 Claims, 4 Drawing Figures

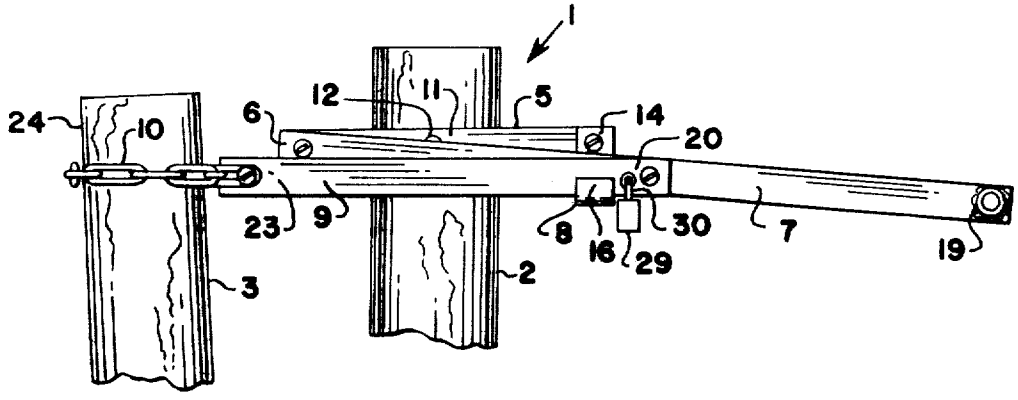


Fig. 1.

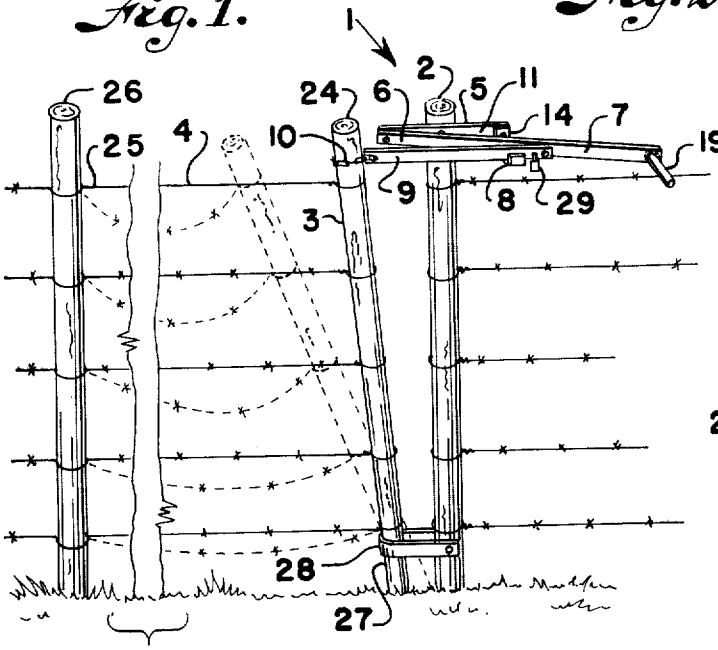


Fig. 2.

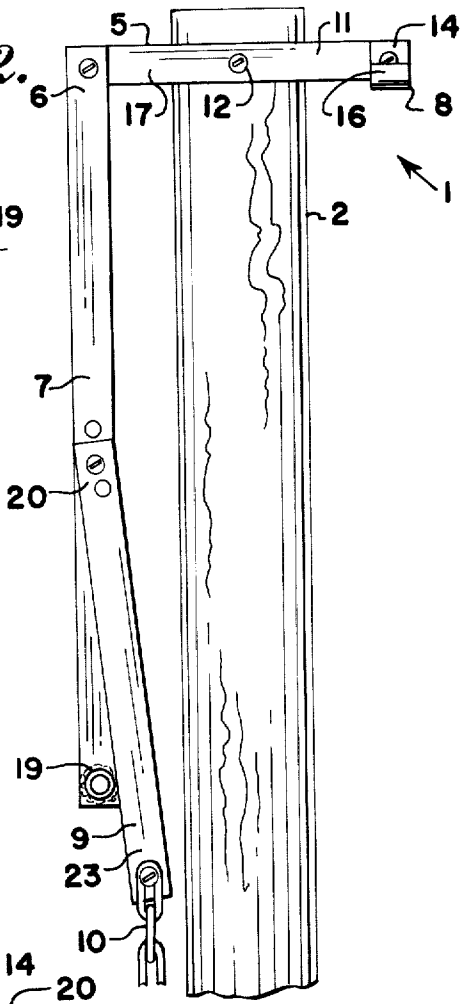


Fig. 3.

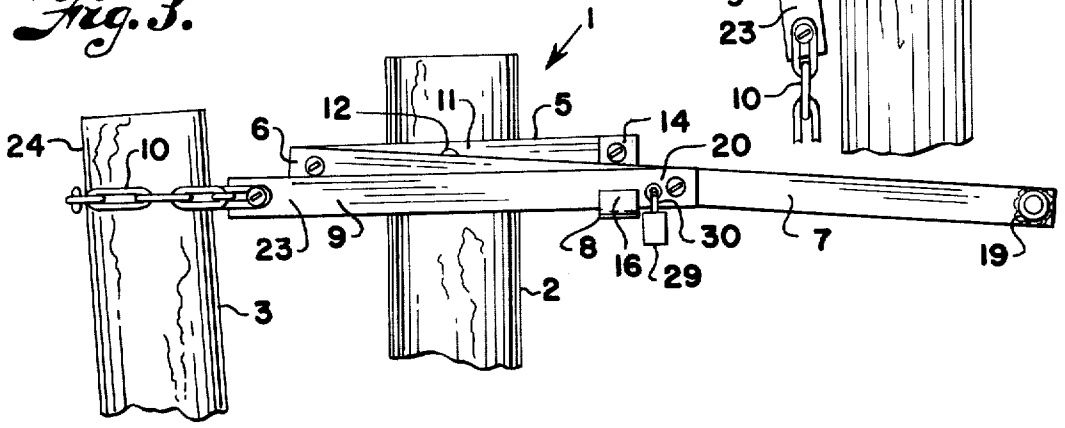
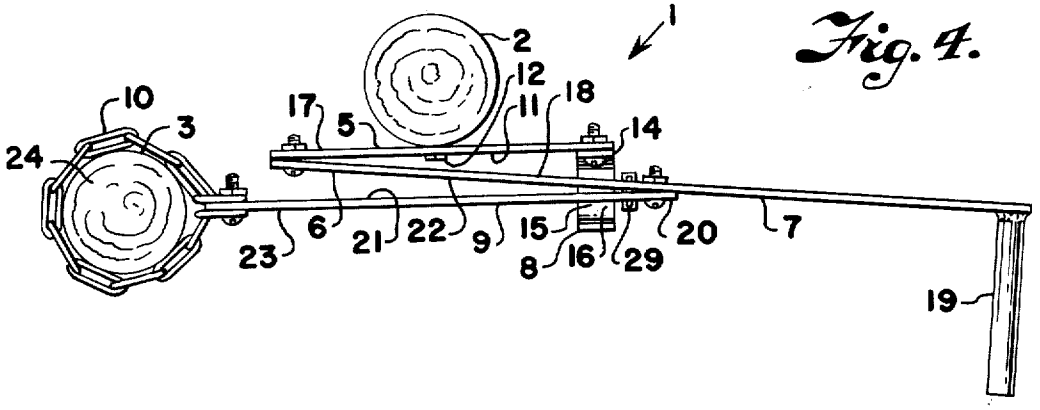


Fig. 4.



GATE LOCKING DEVICE

The present invention relates to a gate locking device and more particularly to a gate locking device having a portion thereof engageable with an end member of a wire fence gate for moving the end member toward an adjacent fence post upon selective movement of certain components of the gate locking device and then holding the end member adjacent the fence post.

The principal objects of the present invention are: to provide a gate locking device which is easy and simple to operate and particularly adapted to hold a fence gate in a closed position; to provide such a gate locking device adapted to maintain a fence gage in tension while holding the fence gate in a closed position to thereby substantially eliminate gate sage; to provide such a gate locking device including a linkage having a lever member movable in an arc past a longitudinal axis of a mounting member and movable to a position below the axis so that force on an arm of the linkage tends to hold the lever member in engagement with a stop position below the longitudinal axis of the mounting axis; to provide such a gate locking device having a flexible member mounted on the arm and sleeved on an end member of a fence gate and adapted to accommodate difference sizes of end members; and to provide such a gate locking device which is economical to manufacture, easy to install, positive in operation, durable in construction, and particularly well adapted for the proposed use.

Other objects and advantages of this invention will become apparent from the following description taken in connection with the accompanying drawings wherein are set forth, by way of illustration and example, certain embodiments of this invention.

The drawings constitute a part of this specification and include an exemplary embodiment of the present invention and illustrate various objects and features of the gate locking device.

FIG. 1 is a perspective view of a wire fence and gate therein and showing a gate locking device embodying features of the present invention.

FIG. 2 is a front elevational view of the gate locking device and shown in an unlocked position.

FIG. 3 is a front elevational view of the gate locking device and shown in a locked position.

FIG. 4 is a top plan view of the gate locking device and shown in a locked position.

Referring more in detail to the drawings:

As required, detailed embodiments of the present invention are disclosed herein. However, it is to be understood that the disclosed embodiments are merely exemplary of the invention which may be embodied in various forms. Therefore, specific structural and functional details disclosed herein are not to be interpreted as limiting but merely as a basis for the claims and as a representative basis for teaching one skilled in the art to variously employ the present invention in virtually any appropriately detailed structure.

In the disclosed embodiment of the present invention, the reference numeral 1 generally designates a gate locking device which is mounted on a stationary fence post 2 and the gate locking device 1 has a portion thereof engageable with an end member 3 of a fence gate 4 for moving the end member 3 toward the fence post 2 upon selective movement of certain components of the gate locking device 1 and then holding the end member 3 adjacent the fence post 2. The gate locking device 1 includes a mounting member 5 secured to the fence post 2 and having one end 6 of a lever member 7 pivotally mounted thereon and movable between a position depending from the mounting member 5 and a position above and in engagement with a stop 8 extending from the mounting member 5 and movement of the lever member 7 moves an arm 9 therewith and the arm 9 therewith and the arm 9 is pivotally connected to the lever member 7 and has a flexible member 10 thereon which is engageable with the end member 3 of the fence gate 4 whereby the gate locking device 1 is operative to move the end member 3 and the gate 4 toward the fence post 2 upon movement of the arm 9 and the lever member 7 toward a position above and in engagement with the stop 8.

The mounting member 5 is secured to the generally upstanding post 2 of a wire fence and is positioned adjacent a top thereof. The mounting member 5 is positioned substantially normal to the fence post 2 and the stop 8 is mounted adjacent one end thereof. The mounting member 5 is positioned in a generally level position and has an outwardly facing surface 11.

The mounting member 5 may be secured to the fence post 2 at any desired position along the length of the mounting member 5 by clamps, bolts, screws or suitable fastening devices. In the illustrated structure, the mounting member 5 is secured by a bolt 12 extending therethrough and through the fence post 2. The bolt 12 is positioned intermediate the ends of the mounting member 5 and is adapted to hold the mounting member 5 in clamped engagement with the fence post 2.

The stop 8 is mounted on one end of the mounting member 5 and is positioned on the fence side of the post 2. The illustrated stop 8 includes an upstanding leg 14 suitably secured to the one end of the mounting member 5, as by welding, bolts, screws or the like. The stop 8 includes an outstanding leg 15 extending outwardly from the upstanding leg 14 and the outstanding leg 15 is adapted to support thereon the lever member 7 and the arm 9. The outstanding leg 15 of the stop 8 is positioned sufficiently below a longitudinal axis of the mounting member 5 to provide a toggle action with the lever member angled in locked position to be below center for positive locking, as best seen in FIGS. 2 and 3. The stop 8 includes an upstanding lip 16 extending upwardly from an outer edge of the outstanding leg 15 and the upstanding lip 16 is adapted to retain the lever member 7 and the arm 9 in engagement with the outstanding leg 15 and in position adjacent the mounting member 5.

The elongated lever member 7 has one end 6 thereof pivotally mounted on the other end 17 of the mounting member 5. The lever member 7 is movable between a position depending from the other end 17 of the mounting member 5, as best seen in FIG. 2, and a position above and in engagement with the stop 8, as best seen in FIG. 3. The lever member 7 is illustrated as a generally planar member having one surface 18 thereof in facing relation with the outwardly facing surface 11 of the mounting member 5.

The lever member 7 has a handle 19 on the other end thereof and the handle 19 is positioned below the longitudinal axis of the mounting member 5 when the lever member 7 is above and in engagement with the outstanding leg 15 of the stop 4.

The arm 9 has one end 20 thereof pivotally mounted on the lever member 7 at a point intermediate the ends

of the lever member 7 and the arm 9 is movable with the lever member 7. The arm 9 is illustrated as a generally planar member and is movable to a position having one surface 21 thereof in facing relation with the other surface 22 of the lever member 7.

The one end 20 of the arm 9 is positioned closer to the handle 19 than to the one end 6 of the lever member 7. When the lever member 7 and the arm 9 are above and in engagement with the outstanding leg 15 of the stop 8, the one end 20 of the arm 9 is positioned closer to the handle 19 than the spacing between the one end 20 of the arm 9 and the other end 17 of the mounting member 5.

The flexible member 10 provides means on the other end 23 of the arm 9 which is engageable with an upper end portion 24 of the end member 3 of the fence gate 4. A lower end portion 25 of the end member 3 of the fence gate 4 is retained in a position adjacent the fence post 2 and the flexible member 10 is adapted to move the upper end portion 24 of the end member 3 toward the fence post 2 upon movement of the lever member 7 and the arm 9 toward and into engagement with the outstanding leg 15 of the stop 8 and the flexible member 10 is adapted to hold the upper end postion 24 of the end member 3 adjacent the fence post 2.

The flexible member 10 may be any suitable member adapted to be sleeved on the upper end portion 24 of the end member 3. The flexible member 10 is illustrated as a chain formed in a loop by having opposite ends thereof pivotally mounted on the arm 9 at the other end 23 thereof.

The position of the components of the gate locking device 1 when in an unlocked position is illustrated in FIG. 2. The mounting member 5 is secured on the fence post 2 adjacent the upper end thereof and the mounting member 5 is positioned substantially level and the lever member 7 depends from the other end 17 of the mounting member 5. The lever member 7 is positioned on the gate side of the fence post 2 and the stop 8 is on the fence side of the fence post 2. The arm 9 depends from the intermediate portion of the lever member 7 and is in engagement with the handle 19 and is positioned on the fence side of the lever member 7. The flexible member 10 is depending from the other end 23 of the arm 9.

The relative positions of the components of the gate locking device 1 when in a gate locking position is illustrated in FIGS. 3 and 4. The outstanding leg 15 of the stop 8 is positioned below the longitudinal axis of the mounting member 5 and the lever member 7 is above and in engagement with the outstanding leg 15 of the stop 8. The one end 6 of the lever member 7 is positioned above the outstanding leg 15 of the stop 8 and the lever member 7 is inclined downwardly from the other end 17 of the mounting member 5 and the handle 19 is positioned on the fence side of the post 2. The arm 9 is positioned below the longitudinal axis of the mounting member 5 and at an acute angle with the lever member 7 so that force transmitted from the arm 9 to the lever member 7 is operative to hold the lever member 7 in engagement with the outstanding leg 15 of the stop 8. The one end 20 of the arm 9 is positioned on the fence side of the stop 8 and the flexible member 10 is on the gate side of the fence post 2. The stop 8 is thereby positioned between the one end 20 of the arm 9 and the one end 6 of the lever member 7 when the lever member 7 is above and in engagement with the outstanding leg 15 of the stop 8.

In using a gate locking device as illustrated and described, with a gate consisting of a plurality of spaced wires 25 connected to a fixed post 26 forming one side of the gate opening and to a gate end member 3 which is a post like member with the wires from gate open position to a gate closed position, the gate is closed by inserting the lower end portion 27 of the end member 3 of the wire fence gate 4 in a ring 28 mounted on a lower end portion of the fence post 2. The arm 9 and the lever member 7 are moved to a position permitting placing of the flexible member 10 on the upper end portion 24 of the end member 3. The lever member 7 is then moved in an arc about the other end 17 of the mounting member 5 and past the longitudinal axis of the mounting member 5 to a position in engagement with the outstanding leg 15 of the stop 8. The lever member 7 thereby moves from a position above the mounting member 5 to a position below the mounting member 5. When the fence gate 4 is to be left unattended for long periods of time, a suitable padlock 29 may have a keeper portion 30 thereof extended through alignable apertures in the lever member 7 and the arm 9 to thereby hold the gate locking device 1 in a position maintaining the fence gate 4 in tension to thereby substantially eliminate slack or sag in the gate 4 when closed.

It is to be understood that while I have illustrated and described one form of my invention, it is not to be limited to the specific form or arrangement of parts herein described and shown.

What I claim and desire to secure by Letters Patent is:

1. A gate locking device for use with a fence gate, having a plurality of spaced wires connecting a post at one side of a gate opening and a gate end member with the wires being of a length that the gate extends substantially across the gate opening, said gate locking device comprising:

a. an elongated mounting member secured to a generally upstanding fence post and positioned adjacent a top thereof in a substantially level position, said fence post being at the other side of a gate opening, said mounting member being substantially normal to the fence post and having an upwardly opening generally U-shaped stop mounted adjacent one end thereof in depending relation thereto;

b. an elongated lever member having one end thereof pivotally mounted on the other end of said mounting member, said lever member being movable between a position depending from the other end of said mounting member and a position above and in engagement with said stop, said lever member having a handle on the other end thereof;

c. an arm having one end thereof pivotally mounted on said lever member at a point intermediate the ends of said lever member, said arm being movable with said lever member;

d. a flexible means on the other end of said arm movable over and engageable with an upper end portion of an end member of a fence gate having a lower end portion thereof retained in a position adjacent the fence post for moving the upper end portion of the end member toward the fence post upon movement of said lever member and arm toward and into engagement with said stop and for holding

the upper end portion of the end member adjacent the stationary fence post;

e. said stop extending outwardly from adjacent the one end of said mounting member and being adapted to support thereon said lever member and said arm when in gate closing position;

f. said stop being positioned between the one end of said arm and the one end of said lever member when said lever member is above and in engagement with said stop; and

g. said stop being positioned below the other end of said mounting member whereby the pivotal mounting of the one end of said lever member on said mounting member is positioned above the pivotal mounting of the one end of said arm on said lever member when said lever member is above and in engagement with said stop and gate retaining force on said arm acts to retain the lever member engaged with said stop.

2. A gate locking device as set forth in claim **1** and including:

a. lock means having a keeper portion;

b. said lever member and arm having portions adjacent said stop engageable by said lock keeper portion for securing the lever member and arm in gate closing position.

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