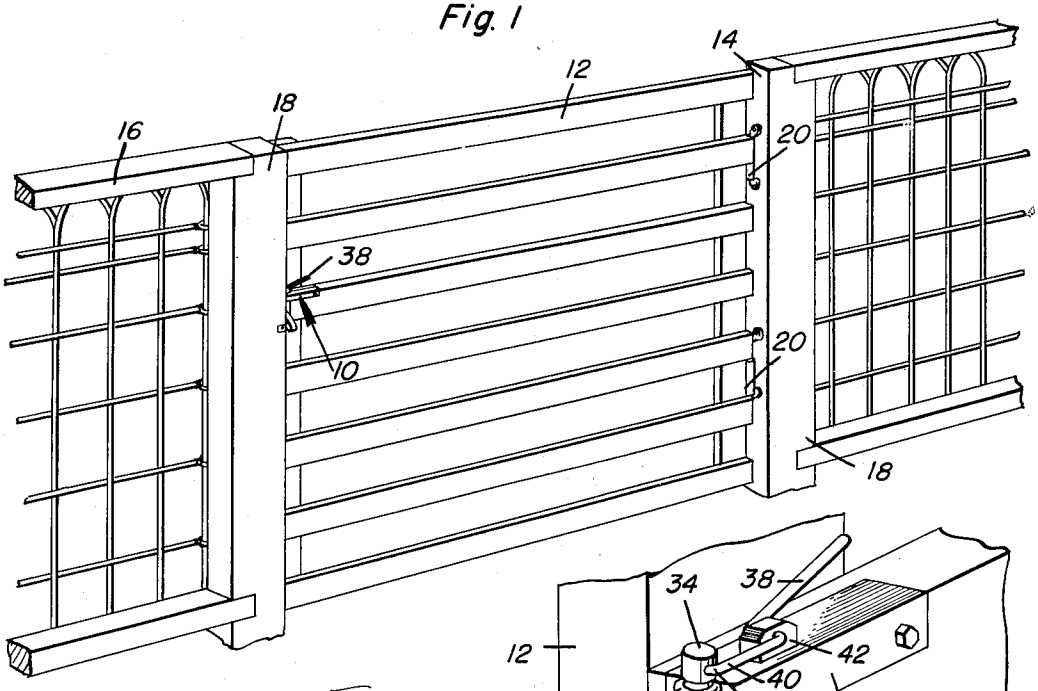
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NON-SAG GATE LATCH

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Fig. 1



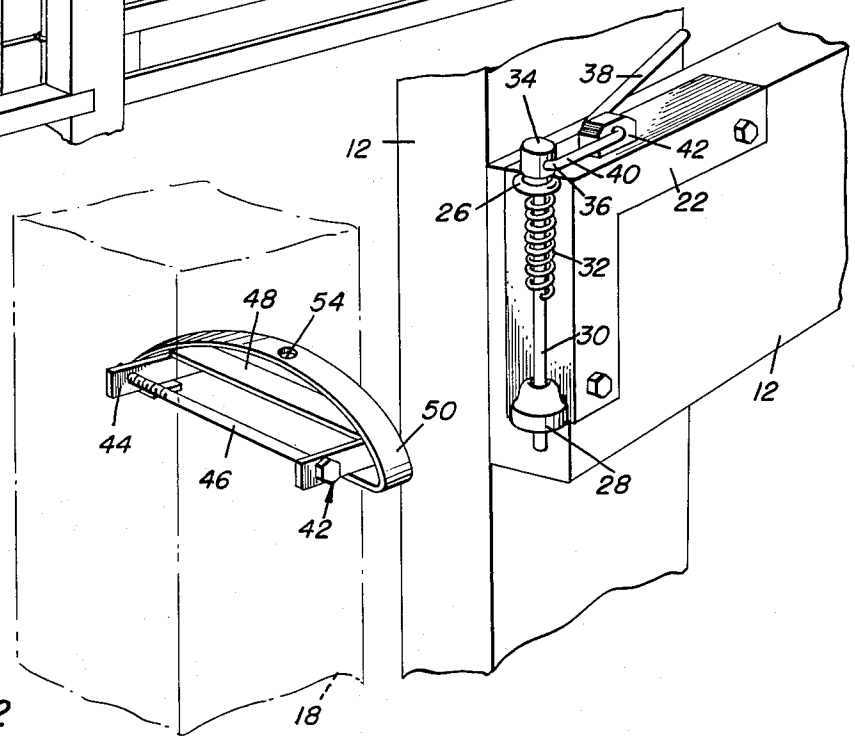


Fig. 2

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NON-SAG GATE LATCH

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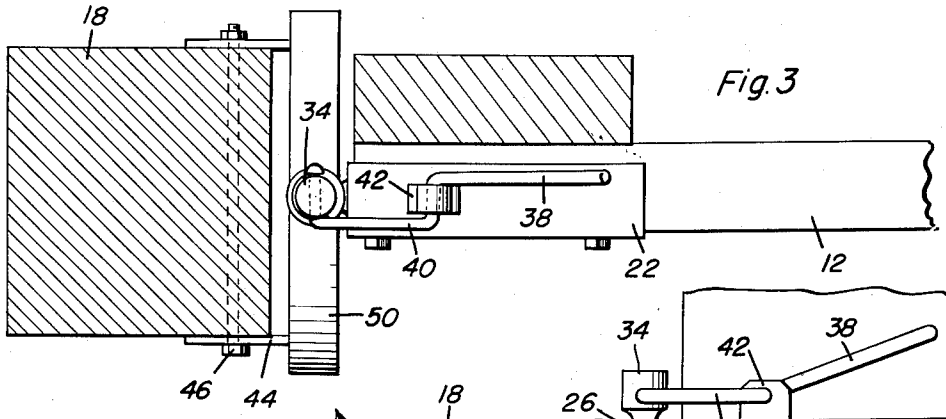


Fig. 3

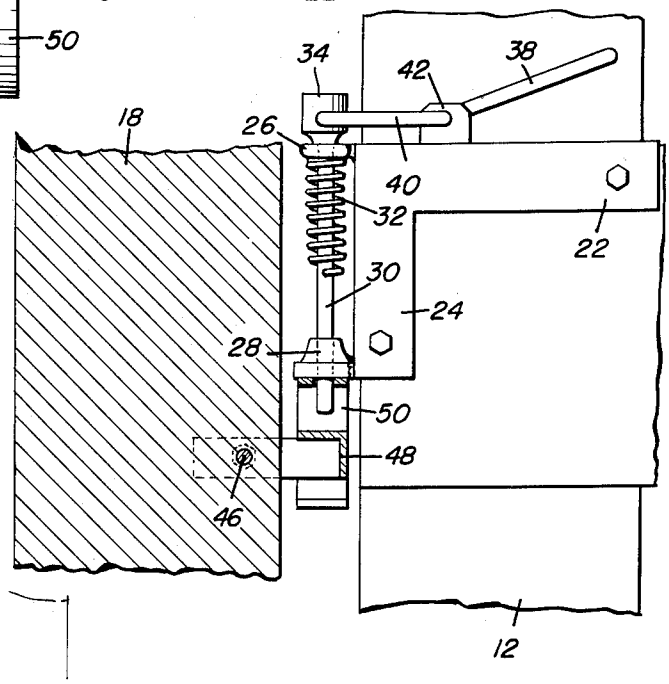


Fig. 5

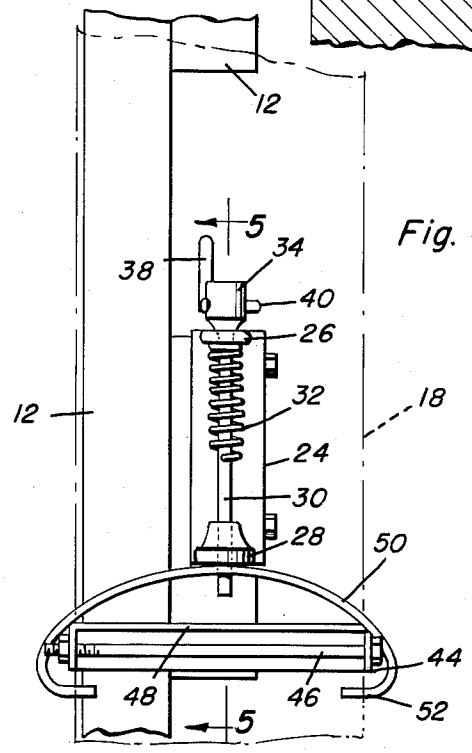


Fig. 4

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United States Patent Office 2,746,783 Patented May 22, 1956

2,746,783

NON-SAG GATE LATCH

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Application April 26, 1954, Serial No. 425,619

1 Claim. (Cl. 292—173)

This invention relates to a non-sag gate latch, and more specifically provides a device which is simple in construction, easy to operate, universal in application, constructed of conventional materials and relatively inexpensive to manufacture.

An object of this invention is to provide a gate latch having a pivotal operating handle and a resilient spring for continuously urging the latch into engagement with the retainer mounted on the stationary fence or the like.

Still another object of this invention is to provide a gate latch which operates when the gate is opened or closed in either direction due to the specific double cam construction of the retainer mounted on the stationary fence.

A still further object of this invention is to provide a non-sag gate latch having a novel construction wherein the latch is operated by merely depressing the handle grip thereby withdrawing the latch from the retainer.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a perspective view showing a gate closure mounted in a fence and employing the gate latch of the present invention;

Figure 2 is a detailed perspective showing the gate latch and the retainer of the present invention;

Figure 3 is a top plan view of the gate latch of the present invention;

Figure 4 is a side elevational view of the gate latch of the present invention; and

Figure 5 is a vertical section taken substantially along section line 5—5 of Figure 4, showing the details of construction of the latch and the retainer.

Referring now specifically to Figure 1, it will be seen that the numeral 10 generally indicates the gate latch of this invention for retaining a gate 12 in closed position in an opening 14 in a fence 16. The opening 14 is defined by vertical posts 18 with one of the posts 18 having hinge members 20 on one vertical edge thereof for permitting pivotal motion of the gate 12 in either direction in relation to the post 18.

As specifically shown in Figures 2–5, it will be seen that the gate latch 10 includes a bracket member 22, having a depending vertical right angle portion indicated by the numeral 24, which fits on one edge and end of a horizontal member of the gate 12. The horizontal portion of the bracket 22 is constructed of right angular material with a portion of the horizontal member extending across the top of the longitudinal beam of the gate 12. Adjacent the upper end of the vertical portion 24 is positioned a ring 26 and vertically spaced therebelow is a guide member 28 which is in alignment with the ring 26. An elongated latch 30 is slidably positioned in the rings 28 and 26 for vertical sliding movement. A coil spring 32 is secured at one end adjacent the mid-

point of the latch 30 between the ring 26 and the guide 28 and at its other end engages the ring member 26 thereby retaining the latch 30 in a downwardly urged position with the remote end of the latch 30 projecting below the guide 28. The upper end of the latch 30 is provided with an enlarged head portion 34 having a transverse bore therein for receiving the end portion 36 of a handle member 38. The handle member 38 includes a right angularly bent portion 40 which is pivotally received in a pivot lug 42 for pivoting on a horizontal axis. The angle bent portion 36 of the handle 38 fits in the transverse bore on the enlarged head 34 of the latch 30 and due to the specific spacing of the two horizontal axes, the latch 30 will be raised when the handle 38 is depressed to a position against the upper surface of the bracket 22. A spring 32 automatically returns the latch 30 to its lowermost position.

A retainer 42 is secured to the vertical post 18 adjacent the latch 10 and includes a U-shaped member 44 positioned over the edge of the post 18 and secured thereto by a suitable bolt 46 which passes through the post 18 and the two legs of the U-shaped member 44. The bight portion of the U-shaped member 44 is provided with a reenforcing member 48 coextensive with the bight portion thereof. A double cam member 50 is secured to the U-shaped member 44 and has reversely bent end portions 52 and a centrally disposed aperture 54 at its uppermost position. It will be understood that the upwardly sloping surfaces of the double cam member 50 provides a surface for engagement of the lower end of the latch 30 for urging the latch 30 upwardly until the end of the latch 30 engages the aperture 54 wherein the spring 32 will urge the latch 30 downwardly into engagement with the aperture 54 and lock the latch 10 to the retainer 42. It also will be noted that the under surface of the guide member 28 will engage the surface of the double cam member 50 thereby relieving the gate hinges 20 of the weight of the gate 12 thereby preventing any tendency for the gate to sag after extensive use. By merely depressing the handle 38, the latch 30 will be retracted from the aperture 54 wherein the gate 12 may be opened in either direction and when the handle 38 is released, the latch 30 will automatically engage the aperture 54 when it passes thereover thereby forming an automatic latch for closing the gate 12.

It will be understood that the various components of this gate latch will be constructed of readily obtainable and relatively inexpensive materials thereby enhancing the economic feasibility of the device. The simplicity of construction lends itself to efficient manufacturing processes and the gate latch of this invention may be utilized on any type gate and utilized in any position regardless of the orientation of the retainer 42 and the latch 10.

From the foregoing, the construction and operation of the device will be readily understood and further explanation is believed to be unnecessary. However, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction shown and described, and accordingly all suitable modifications and equivalents may be restored to, falling within the scope of the appended claim.

What is claimed as new is as follows:

A gate latch comprising an angle bracket of right angled cross section to fit over a corner of a gate and against one side of a gate and to provide vertical and horizontal portions, a pair of vertically spaced rings on the vertical portion, a latch bolt slidable upwardly and downwardly in said rings into and out of latching relation to a keeper, a coil spring on said bolt fixed at one end thereto and bearing against the upper ring to urge

said bolt downwardly, a transversely apertured lug upstanding from said horizontal portion, a transversely apertured head on said bolt above and seating on said upper ring to limit downward sliding of said bolt, and a handle for sliding said bolt upwardly comprising an intermediate bent portion extending through the aperture in the lug to pivot the handle on the lug and a right angled terminal portion extending through the aperture in said head to pivotally connect the handle to said bolt.

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