May 27, 1924. 1,495,371

W. S. WITTEN

KEEPER FOR LATCH OR LOCK BOLTS

Filed April 5, 1920

Fig. 1.

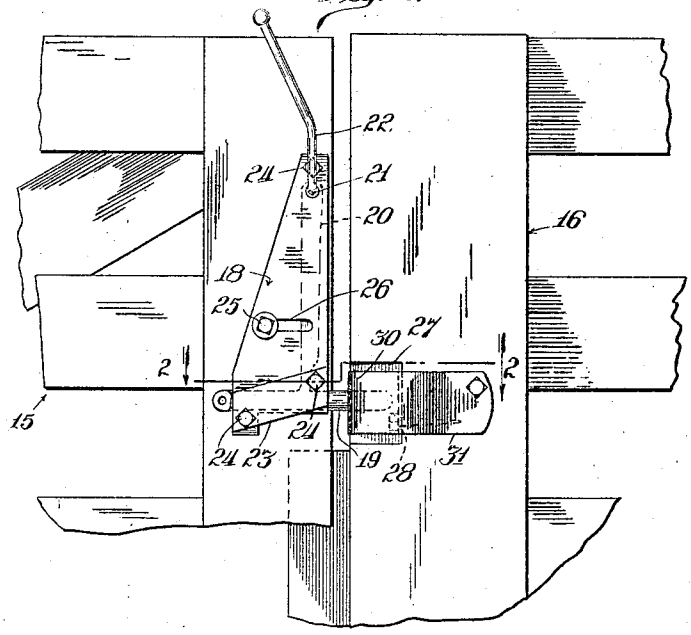
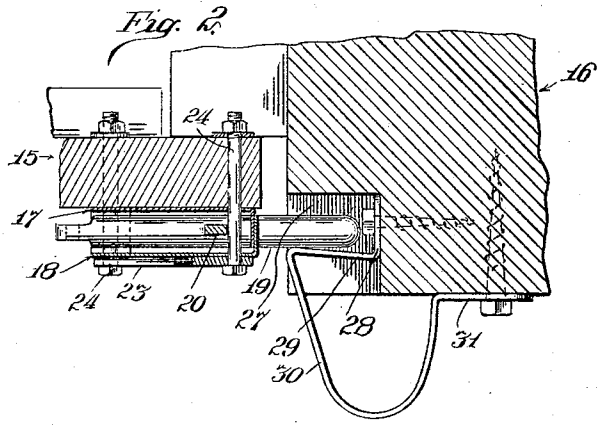


Fig. 2.



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Patented May 27, 1924. 1,495,371

UNITED STATES PATENT OFFICE.

WILLIAM S. WITTEN, OF CHICAGO, ILLINOIS.

KEEPER FOR LATCH OR LOCK BOLTS.

Application filed April 5, 1920. Serial No. 371,187.

To all whom it may concern:

Be it known that I, WILLIAM S. WITTEN, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Keepers for Latch or Lock Bolts, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to locks or latches and has especially to do with keepers adapted for use with latches which stand normally in their operative or projected position, and are adapted to be moved into inoperative or retracted position by engagement with the keeper by the closing of the door or gate to which they are applied. The object of my invention is to provide a keeper for use in exposed positions, as in connection with farm gates, which will be simple and cheap in construction, which will be rugged and capable of withstanding rough usage, which will be adjustable to a reasonable extent so that it does not have to be nicely fitted to the gate post or other part by which it is supported, and which will be elastic or flexible to some extent so that it will be less apt to be damaged if the door or gate be violently closed and will be less apt to damage the latch with which it is associated. I accomplish this object as illustrated in the accompanying drawings and as hereinafter described. What I regard as new is set forth in the claims.

In the accompanying drawings,—

Fig. 1 is a partial front elevation of a gate and gate post showing my improved keeper applied to a gate post in association with a gravity-operated latch mounted on the gate; and

Fig. 2 is a partial horizontal section on line 2—2 of Fig. 1.

Referring to the drawings,—15 indicates a gate, and 16 a gate post. 19 indicates a latch bolt which is carried at the lower end of a pendulous rod or bar 20 suspended from a rock-shaft 21 provided with an operating handle 22, as shown in Fig. 1. The rock-shaft 21 is journaled in the upper portion of a suitable casing, preferably composed of telescoping members 17, 18, which is secured to the marginal portion of the gate in such position that one end of the bolt 19 projects beyond the vertical margin of the gate, as shown in the drawings. 23 indicates a reinforcing bar secured at the lower marginal portion of the case in an oblique position, and 24 indicates screws which secure the case to the gate, the screws at the lower end of the case serving also to secure the bar 23 in place. One of the screws 24 also serves as a stop to limit the outward movement of the bolt 19, since, as shown in the drawings, it extends across in front of the lower portion of the bar 20. 25 indicates an adjustable bolt which extends transversely of the case back of the bar 20 and is adjustable laterally in slots 26. This bolt serves as a stop to limit the backward or inward movement of the bolt 19.

The latch above described is one which is well adapted for use on farm gates and in similar situations, and it has, therefore, been selected for illustration and description as an aid to the description and operation of my improved keeper. I wish it to be understood, however, that the keeper hereinafter described and claimed may be used with other forms of latches, as well as with locks, and the claims are to be construed accordingly.

My improved keeper comprises a strip of metal which is bent to the shape shown in Fig. 2,—that is to say, one end 28 of the strip is bent substantially at right angles to the adjacent portion 29 thereof to form an attaching wing by which that end of the keeper may be attached to its support, the adjacent portion 29 forming an abutment which engages the latch bolt and holds it in latched position. The other end of the strip is also bent substantially at right angles with the portion adjacent thereto to form a second attaching wing 31, and that portion of the strip between the inner end of the wing 31 and the outer end of the abutment portion 29 is shaped to form an inclined guide portion 30 leading to the abutment 29, and a rounded portion which connects with the inner end of the wing 31, the curvature of such intermediate portion being such that the two wings 28, 31 stand substantially at right angles to each other, as shown in Fig. 2. It will be apparent from the foregoing description that when the keeper is mounted on its support, which may be either a gate post or a gate, but which in the illustration is shown as a gate post, when the gate is being closed the latch bolt will first strike the inclined portion 30, and as the gate continues to close will be moved back until it passes beyond the abutment

portion 29 when it will be free to swing into operative engagement therewith, as illustrated in Fig. 2. If, during this operation, the inward movement of the latch bolt should be impeded, the inclined portion 30 is capable of yielding, owing to the loop formed by the intermediate portion of the keeper, and consequently there is less danger of breaking either the keeper or the latch. Another advantage of my improved construction is that the relative position of the two wings 28, 31 may be varied to a considerable extent to permit of their being adjusted to fit the support to which the keeper is attached. For example, if the screw which secures the wing 31 becomes loose because of the rotting of the wood or for any other reason which prevents it from obtaining a good hold, the position of the wing may be shifted sufficiently to permit the screw to be screwed in at a new place without changing the position of the wing 28, and the same is true of the latter wing. A further advantage is that the keeper has no pocket in which moisture may accumulate, so that it cannot be damaged by freezing if placed in an exposed position, and it has nothing to catch dirt. In the drawing I have illustrated the wing 28 as secured in a recess 27 in the gate post, but it need not be so mounted. The arrangement shown is used where it is desired to keep the abutment portion 29 from projecting outward beyond the surface of the gate post, but, of course, if desired the wing 28 could be mounted on the outer face of the gate post. In addition to the advantages pointed out, my improved keeper possesses the further advantage that it may be made very cheaply, as it is simply a strip of metal bent to the form described and having the wings bored to receive the screws or nails by which it is attached to its support.

What I claim as my invention and desire to secure by Letters Patent is:—

1. As a new article of manufacture, a keeper for latches, &c., comprising a metal strip bent to form wings at the end portions thereof adapted to be secured to a suitable support, said wings being substantially perpendicular to each other and being adjustable independently of each other, the portion of said strip adjacent to one of said wings being bent substantially at right angles to said wing to form an abutment, and a portion of said strip being shaped to form an inclined guide leading to said abutment.

2. As a new article of manufacture, a keeper for latches, &c., comprising a metal strip bent to form wings at the end portions thereof adapted to be secured to a suitable support, said wings being substantially perpendicular to each other and being adjustable independently of each other, the portion of said strip adjacent to one of said wings being bent substantially at right angles to said wing to form an abutment, and a portion of said strip being shaped to form a yielding inclined guide leading to said abutment.

3. As a new article of manufacture, a keeper for latches, &c., comprising a metal strip bent to form wings at the end portions thereof adapted to be secured to a suitable support, said wings being substantially perpendicular to each other and being adjustable independently of each other, the portion of said strip adjacent to one of said wings being bent substantially at right angles to said wing to form an abutment, and the balance of the intermediate portion of said strip being shaped to form an inclined guide leading to the abutment and a loop connected to the other wing.

WILLIAM S. WITTEN.