Z. V. BERRY.

GATE LATCH.

APPLICATION FILED OCT. 13, 1916.

1,267,309.

Patented May 21, 1918.

Fig. 1.

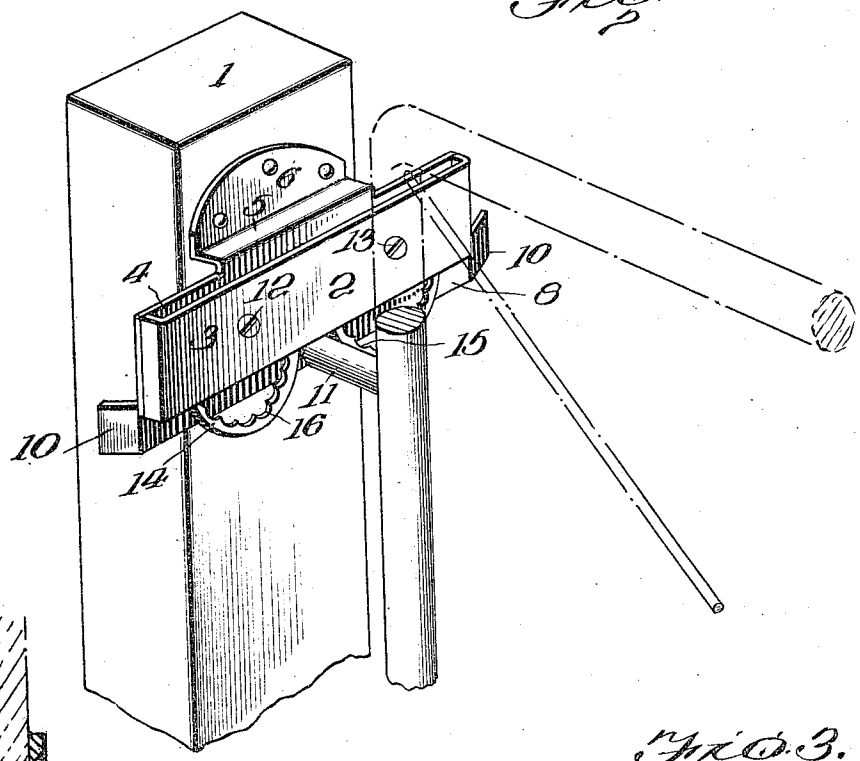


Fig. 2.

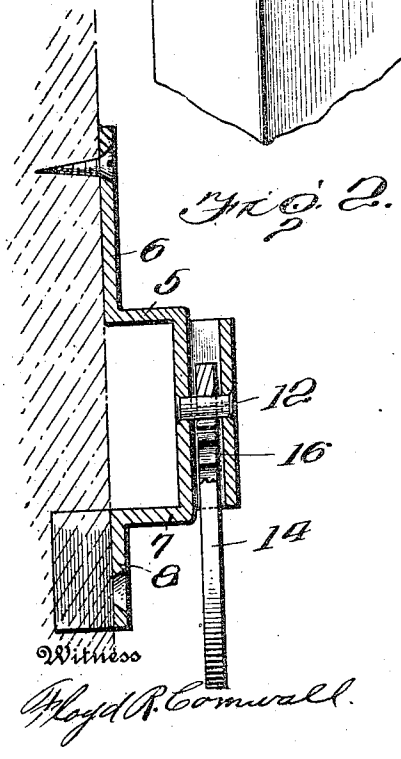
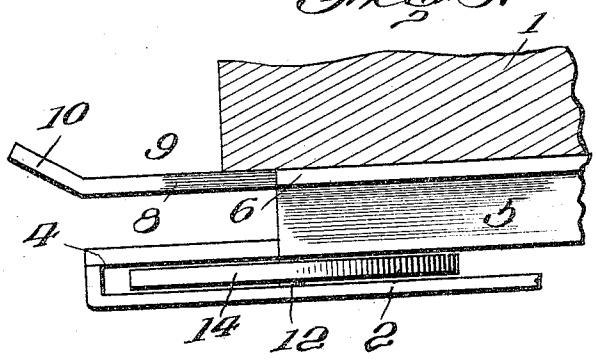


Fig. 3.



Witness

Lloyd R. Comwall.

Inventor

Zeb Vance Berry

By J. A. Evans

Attorney

UNITED STATES PATENT OFFICE.

ZEB VANCE BERRY, OF NORFOLK, VIRGINIA.

GATE-LATCH.

1,267,309. Specification of Letters Patent. Patented May 21, 1918.

Application filed October 13, 1916. Serial No. 125,457.

To all whom it may concern:

Be it known that I, ZEB VANCE BERRY, citizen of the United States, residing at Norfolk, in the county of Norfolk and State of Virginia, have invented certain new and useful Improvements in Gate-Latches, of which the following is a specification.

My invention relates to new and useful improvements in gate latches.

The object of my invention is to provide a gate latch in which the gate is securely held in its closed position and which can be readily operated to allow the gate to be opened either way and at the same time providing a latch which will perform its usual function should the gate sag.

Another object of my invention is to provide a simple, cheap and effective latch of this character which can be readily applied and having certain details of structure and operation hereinafter more fully described.

In the accompanying drawings—

Figure 1 is a perspective view of my improved latch applied to a gate post and showing the gate in dotted lines;

Fig. 2 is a vertical transverse sectional view showing the ring supported by the pin;

Fig. 3 is a top plan view of Fig. 1 partly broken away.

Applicant is aware that it is not new to use a ring supported by a pin for holding a gate in its closed position. as this is clearly shown in Patent No. 970,345, but in this patent the sagging of the gate brings the pin carried thereby in a position so that the opening operation of the gate would tend or lift the ring upwardly so that the gate would not be held closed against outward movement. It is the object of this invention to so construct the rings that they can not be moved upwardly by the outward movement of the pin carried by the gate against the ring.

Referring now to the drawings, 1 represents the post to which my improved latch 2 is secured by screws or any other means. The latch 2 is preferably made of sheet metal and comprises a main body portion 3 of a considerable width and having a vertical opening 4 extending therethrough. This opening 4 is of an elongated form extending the entire length of the body portion. Connected to the upper end of the rear wall of the body portion 3 at the center is a horizontal flange 5 to the rear end of which is connected the vertical portion 6 having openings by means of which the latch is secured to the post. By this arrangement, it will be seen that the body portion 3 is spaced a distance from the post. The lower end of the body portion 3 is provided with a horizontal flange 7 carrying the vertical portion 8 which rests against the post and by means of which the latch is further secured to the post. The portion 8 has at each end the outwardly extending portion 9, extending beyond the end of the body portion and turned at an angle, as indicated at 10, so as to form a guide for the pin or projection 11 carried by the gate, as will be readily understood.

The main body portion 3, adjacent each end, is provided with horizontal pins 12 and 13, which extend across the opening 4. Within the body portion and surrounding the pins 12 and 13 are the rings 14 and 15. These rings, as shown, are of such a diameter that they extend a considerable distance below the body portion but leave a space between the same when in their normal position. A slight space is also left at the end of the body portion on the outside of the ring, so that it will not jam within the body portion. The inner periphery of the rings 14 and 15 are provided with semi-circular grooves 16 which are of a diameter approximately that of the pins 12 and 13.

In operation the pin or projection 11 carried by the gate engages the outer periphery of the ring and forces it inwardly and upwardly, as shown in dotted lines Fig. 1, and after the pin or projection 11 has passed the ring, the ring by gravity falls on the outside of the pin. Any outward pressure on the pin or projection 11 causes the ring to move outwardly against the end walls of the main body portion and, owing to the grooves 16 engaging the pins 12 or 13, the ring is absolutely prevented from any upward movement. Should the gate sag and the point of contact be at a point some distance below the body portion the groove 16 prevents the rings from having any upward or inward movement to allow the projection 11 to pass outwardly.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. A latch of the character described comprising a body portion, a pin carried by the

body portion, a ring supported by the pin and having semi-circular grooves in its inner periphery of a diameter approximately that of the pin.

2. A latch of the character described comprising a body portion having an elongated opening therein, a pin extending through said opening adjacent one end, a ring within the opening and having semi-circular grooves of a diameter approximately that of the pin and in which the pin extends, whereby the ring can be moved inwardly to allow the gate to be closed, but held against outward movement.

3. A latch of the character described comprising a body portion having an elongated vertical opening therein, pins carried by the body portion and extending through said opening adjacent the ends of the body portion, two rings within the opening and having semi-circular grooves in their inner periphery adapted to receive the pin of a diameter approximately that of the pin and a guide plate below the body portion and having beveled ends adapted to guide the projection carried by the gate inwardly to engage the rings.

4. A latch of the character described comprising a body portion having an elongated vertical opening therein, laterally extending flanges carried by the upper and lower ends of the body portion, attaching means carried by the outer ends of the laterally turned portions, a guide below the body portion and having beveled ends beyond the same horizontally arranged pins carried by the body portion adjacent its end and extending through the vertical opening, and rings within the said opening and surrounding the pins and having semi-circular grooves in their inner peripheries, of a diameter approximately that of the pin, whereby the rings are prevented from sliding over the pins.

5. A latch of the character described comprising a body portion having an elongated opening therein, a pin extending through said opening, a ring within the opening and extending below the body portion and surrounding the pin, said ring having semi-circular grooves of a diameter approximately that of the pin in which the pin extends, whereby the ring can not slide over the pin.

6. A latch of the character described comprising a body portion having an elongated vertical opening therein, attaching means carried by the body portion, a guide carried by the lower end of the body portion, pins carried by the body portion and extending through said opening adjacent the ends, two rings within the opening and surrounding the pins and extending below the lower end of the body portion, said rings having semi-circular grooves in their inner periphery of a diameter approximately that of the pin and adapted to receive the pins, whereby the rings can not slide on the pins.

7. A latch of the character described comprising a body portion having a vertical opening therein, a pin carried by the body portion and extending through the opening, a ring within the opening in the body portion and surrounding the pin and extending below the same, said ring having semi-circular grooves in its inner periphery of a diameter approximately that of the pin to receive the pin, and a guide carried by the body portion.

In testimony whereof I affix my signature in the presence of two witnesses.

Z. VANCE BERRY.

Witnesses:
CHARLES T. MORRIS,
THOS. A. WILLIAMS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."