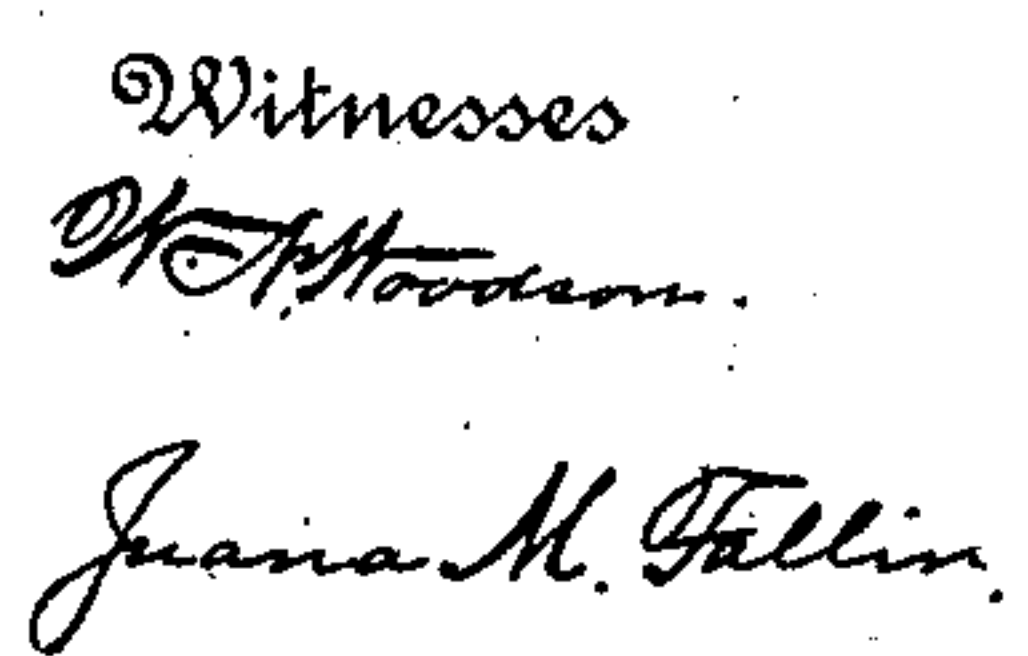


J. CARROLL.
GATE OR DOOR LATCH.
APPLICATION FILED FEB. 15, 1910.

2 SHEETS—SHEET 1.



James Carroll.

ਭੈੜ

Wm. N. Macy, Attorney.

GATE OR DOOR LATCH.

Patented Dec. 13, 1910.

2 SHEETS—SHEET 2.

[illegible]

Fig. 2.

විද්‍යා

H. A. Macy Attorneys.

UNITED STATES PATENT OFFICE.

JAMES CARROLL, OF PITTSFIELD, ILLINOIS, ASSIGNOR OF ONE-HALF TO GEORGE I. KENDRICK, OF PITTSFIELD, ILLINOIS.

GATE OR DOOR LATCH.

978,558.

Specification of Letters Patent.

Patented Dec. 13, 1910.

Application filed February 15, 1910. Serial No. 544,108.

To all whom it may concern:

Be it known that I, JAMES CARROLL, a citizen of the United States, residing at Pittsfield, in the county of Pike and State of Illinois, have invented certain new and useful Improvements in Gate or Door Latches, of which the following is a specification.

This invention relates to latches for gates, doors and similar closures and has for its object the provision of a comparatively simple and thoroughly efficient device of this character, the construction of which is such that a gate or other closure may be locked at both the top and bottom thereof.

A further object is to provide a latch including spaced locking members or bolts having pivotally united levers operatively connected therewith and movable simultaneously to extended or retracted positions.

A still further object of the invention is generally to improve this class of devices so as to increase their utility, durability and efficiency.

Further objects and advantages will appear in the following description, it being understood that various changes in form, proportions and minor details of construction may be resorted to within the scope of the appended claims.

For a full understanding of the invention and the merits thereof and also to acquire a knowledge of the details of construction and the means for effecting the result, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a perspective view of a swinging gate provided with a double latch constructed in accordance with my invention; Fig. 2 is a side elevation of the forward portion of the gate; Fig. 3 is a detail perspective view of the front bar and co-acting members comprising one of the keepers; Fig. 4 is a rear view of the cross bar of the upper keeper; Fig. 5 is a perspective view of the front portion of the cross bar of the lower keeper; Fig. 6 is a front elevation partly in section showing one of the locking members in position between the co-acting members of the adjacent keeper; Fig. 7 is a vertical sectional view of the upper keeper, showing the adjacent locking member in extended or operative position; Fig. 8 is a side elevation illustrating a modified form of the

invention; Fig. 9 is a vertical sectional view taken on the line 9—9 of Fig. 8 and looking in the direction of the arrow.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The improved latch forming the subject matter of the present invention may be used in connection with gates, doors or similar closures and by way of illustration is shown in Fig. 1 applied to a swinging gate in which 5 designates the body of the gate and 6 the gate post. The gate 5 is preferably rectangular in shape, as shown, and formed of tubular metal, said gate being reinforced and strengthened by the provision of one or more vertical braces 7. Slidably mounted in openings 8 formed in the vertical brace and front bar 9 of the gate are spaced latch members or bolts 10, the free ends of which are normally projected beyond the front bar 9, for engagement with suitable keepers 11. The keepers 11 are pivotally mounted at 12 on the gate post 6 and are each formed of co-acting members having their adjacent faces spaced apart to form a pocket 13 for the reception of the end of the adjacent bolt. Pivotaly mounted at 14 on the lower portion of the brace 7 is an operating lever 15, the upper end of which extends through an eye or keeper 16 secured to the upper locking member 10 and is provided with a terminal finger piece or handle 17. Intersecting the lever 15 and pivotally connected therewith at 18 is a second lever 19 one end of which is pivotally connected at 20 to the lower latch member or bolt 10, while the upper end thereof is pivotally connected at 21 with the adjacent vertical brace 7. Interposed between the levers 15 and 19 at their points of intersection is an attaching lug 22 having an opening formed in the free end thereof to permit the attachment of an operating cord or cable 23 so that by exerting a longitudinal pull on the cable 23, the locking members or bolts 10 may be retracted simultaneously, thus to permit the gate to be moved to open position. It will here be noted that the pin 18 not only forms a pivotal connection between the levers 19 and 20 but also serves to retain the attaching lug in position between said levers. The upper end of the lower lever 19 is preferably

formed with a slot 24 so as to allow a slight vertical movement of said lever when the locking bolts are moved to extended or retracted positions.

5 Secured to the front bar 9 of the gate is one end of a coil spring 25, the opposite end of which is fastened in any suitable manner to the operating lever 15, the function of said spring being to automatically return the
10 locking members or bolts to extended position after the cable 23 or finger piece 17 has been operated to disengage the bolts from the keepers. Thus it will be seen that by
15 swinging the gate on its pivotal axis toward the post 6, the free ends of the latch members or bolts 10 will engage the adjacent members of the keepers and tilt the same so as to permit the free ends of the bolts to enter the pockets 13 of the keepers, thus to
20 lock the gate in closed position.

In order to open the gate, it is merely necessary to impart a slight rearward movement to the finger piece 17 or exert a longitudinal pull on the operating cable 23 when
25 both locking members will be simultaneously disengaged from the keepers, as will be readily understood.

In order to prevent sagging of the lower front end of the gate, there is provided a
30 collar 26 which encircles the front bar 9 of the gate and is provided with a laterally extending stop lip 27 adapted to bear against a projection 28 on the lower keeper when the gate is in closed position. The collar 26
35 is adjustable vertically of the front bar 9 and may be secured in adjusted position by means of a bolt or similar fastening device 29 extending through perforated lugs on the collar, as shown. Suitable cotter pins 30
40 pierce the inner ends of the locking members or bolts 10 and by engagement with the vertical brace 7 serve to limit the outward movement of said locking members.

In Fig. 9 of the drawings, the device is
45 shown applied to an ordinary wooden gate. In this form of the device, the lower end of the operating lever 15' is pivotally connected at 31 to one of the stationary panels 32 of the gate, while the upper end thereof
50 is pivotally connected at 33 to the adjacent sliding locking member or bolt 34. A mating lever 35 is pivotally connected at 36 to another stationary panel of the gate with its lower end pivotally connected at 37 with
55 the lower locking member 38. A slot 39 is formed in the intermediate panel of the gate to permit the passage of a pivot pin or bolt 40 so that by exerting a rearward pull on the finger piece of the lever 15'
60 both locking members may be simultaneously moved to retracted position, in the manner before described.

Although the device is shown in connection with a gate, it will of course be understood that the same may be used with

equally good results on doors and other swinging or sliding closures, without departing from the spirit of the invention.

Having thus described the invention, what is claimed as new is:

1. The combination with a support having spaced keepers secured thereto, of a closure, latch members slidably mounted on the closure and movable to extended position into engagement with the keepers, co-
75 acting levers having their intermediate portions overlapped and pivotally united and their outer ends operatively connected with the latch members, and means for normally and yieldably holding the latch members
80 in extended position, one of the levers being provided with a terminal finger piece.

2. The combination with a support having spaced keepers secured thereto, of a closure, latch members slidably mounted on the closure and movable to extended position into engagement with the keepers, co-
85 acting levers having their intermediate portions overlapped and pivotally united and their outer ends operatively connected with
90 said latch members, a spring operatively connected with one of said levers for normally holding the latch members in extended position, an attaching lug pivotally
95 connected with both levers at the intersection thereof, and an operating cable secured to the attaching lug.

3. The combination with a support having spaced keepers secured thereto, of a closure, spaced latch members slidably mounted on the closure and movable into engagement with said keepers, pivotally united intersecting levers operatively connected with the latch members, an attaching lug pivotally connected with the levers at the intersection thereof, an operating cable secured to the attaching lug, and a coil spring having one end thereof secured to a fixed support and its other end fastened to one of the levers for normally holding the latch
100 members in extended position, one of said levers being provided with a terminal finger piece.

4. The combination with a support having spaced keepers secured thereto, of a closure including a front bar and intermediate brace having openings formed therein, latch members slidably mounted in said openings and movable to extended position into engagement with the keepers, pivotally connected intersecting levers, each having one end thereof pivotally connected to the intermediate brace and its opposite end operatively connected with the adjacent sliding latch member, and a spring having one end
115 thereof secured to the front bar of the closure and its other end connected with the adjacent lever.

5. The combination with a support having spaced keepers secured thereto, of a clo-
120 125 130

sure including a front bar and intermediate
brace having transversely alined openings
formed therein, bolts slidably mounted in
said openings and movable to extended posi-
5 tion into engagement with the keepers, one
of said bolts being provided with an eye,
pivotally connected levers, each having one
end thereof pivotally connected to the in-
termediate brace and its other end pivotally
10 connected to the adjacent locking bolt, one
of said levers being extended through the eye
and provided with a terminal finger piece,
an attaching lug interposed between the le-
vers at their points of intersection, an oper-
15 ating cable connected with the attaching lug,
a spring connecting the front bar of the clo-
sure with one of the levers, and a collar ad-
justable vertically of the front bar of the
closure and provided with a lip adapted to
20 engage one of the keepers for limiting the
downward movement of the forward end of
the closure.

6. The combination with a support hav-
ing spaced keepers secured thereto, of a clo-
25 sure including a front bar and intermediate
brace having transversely alined openings
formed therein, locking bolts slidably
mounted in said openings and movable to

extended position into engagement with the
keepers, one of said keepers being provided 30
with a projection, an operating lever hav-
ing one end thereof pivotally connected to
the intermediate brace and its other end ex-
tended through an eye on the upper locking
bolt and provided with a terminal handle, a 35
second lever pivotally connected with the
mating locking bolt, and first mentioned
lever, respectively, and provided with a slot,
a pin extending through said slot and en-
gaging the vertical brace, an attaching lug 40
disposed at the intersection of the levers, an
operating cable connected with the attach-
ing lug, a spring forming a connection be-
tween the front bar of the closure and one of
the levers, and a vertically adjustable collar 45
carried by the front bar of the closure and
provided with a stop lip adapted to bear
against the projection on said keeper for
limiting the downward movement of the
forward end of the gate. 50

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

JAMES CARROLL. [L. S.]

Witnesses:

T. W. FOREMAN,
G. H. HOWLAND.