

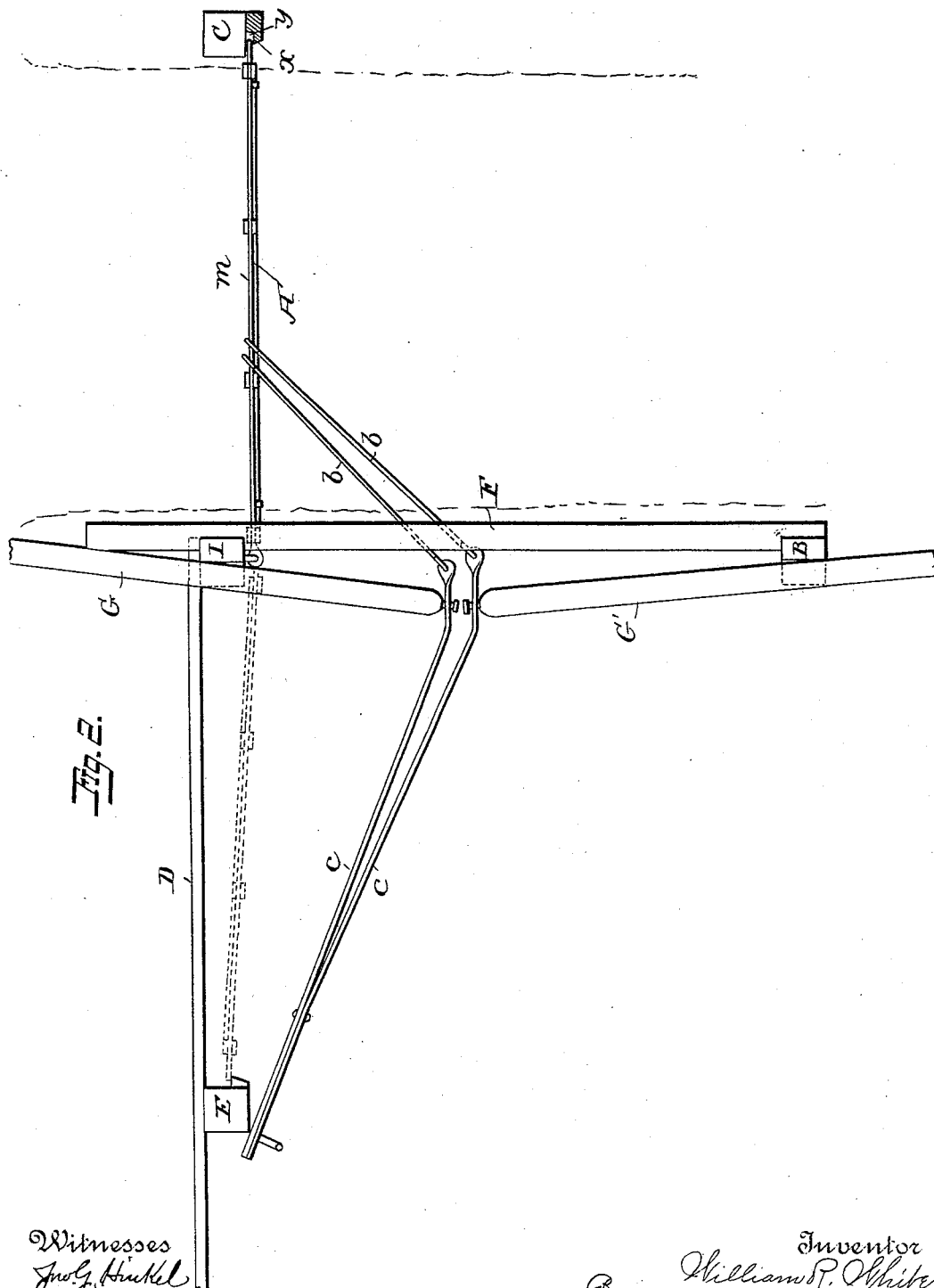
(No Model.)

2 Sheets—Sheet 2.

W. R. WHITE.
GATE.

No. 493,538.

Patented Mar. 14, 1893.



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UNITED STATES PATENT OFFICE.

WILLIAM RICHARD WHITE, OF BLOOMINGTON, ILLINOIS.

GATE.

SPECIFICATION forming part of Letters Patent No. 493,538, dated March 14, 1893.

Application filed June 3, 1892. Serial No. 435,381. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM RICHARD WHITE, a citizen of the United States, residing at Bloomington, in the county of McLean and State of Illinois, have invented certain new and useful Improvements in Gates, of which the following is a specification.

My invention relates to that class of gates which are operated through the medium of elevated levers connected by one or more rods with the gate; and my invention consists of certain improvements fully set forth herein-after whereby to prevent the gate from getting upon a dead center and whereby to automatically lock and unlock the same.

In the accompanying drawings: Figure 1 is an elevation of a gate illustrating my improvement. Fig. 2 is a plan view.

The panel A of the gate is hinged to the upright post I so as to swing to and from the post C at the opposite side of the roadway in one direction, and to and from a post E which aids in supporting the fence D, which is in line with the gate when closed, the gate swinging beneath a cross bar F in its movement from one of the said posts to the other. The said cross bar is supported by the post I and by a post B situated beside the roadway, and to the posts I and B or to the cross bar F are pivoted the operating levers G, G', from the ends of which may depend the pulls or handles a. The inner ends of the two levers G, G', that is the ends which are opposite to the ends carrying the handles a, lie close together and are upon the same side of the gate, so that the gate in swinging from its open to a closed position or vice versa, necessarily passes directly beneath the inner ends of these operating levers G, G'. Two guide or connecting bars c, c, are pivoted to the post E and are connected to the ends of the levers G, G', the ends of these levers projecting by preference beyond their connection with the said levers and to the end of each of the said bars is connected the end of one of the connecting rods b, which extend downward to the gate A. The two bars c, c, are connected so that they must vibrate together or in unison when either of the operating levers G, G' is moved, the bolts or rivets c', c', serving as a means of connecting these bars, although they may be connected in other ways. As a result of this

connection, a downward pull upon the outer end of either lever G, G', will lift the inner ends of both levers and cause the gate to swing either from the post C to the post E or from the post E to the post C beneath the cross bar F and the inner ends of the levers G, G', opening or closing the gate as the case may be by a downward pull upon the said lever in either case.

In gate operating devices of the general character illustrated in the drawings difficulties result from the gate sometimes getting upon a dead center, in which case it is not possible either to close or to open it by either pulling or thrusting upon the end of either lever. To avoid this difficulty I so connect the gate with the lever that it can never be upon a dead center, that is I make use of two sets of connecting rods b, c, connected with the levers or attachments thereof at different points so that if one is upon a dead center with the gate the other will not be and consequently a downward thrust or an upward pull will always suffice to move the gate in one direction or the other.

The rods b, b, may be connected to brackets projecting from the levers G, G', I prefer, however, to connect them as shown to the projecting ends of the bars c, c, and for this purpose the said projecting ends are of different lengths, and the lower ends of the rods b, b, are connected to the gate at different points, and therefore as shown in Fig. 2, if the gate is in its mid position either one or the other of the rods b, and its connecting point will be at one side or the other of the gate, but both of them cannot be directly in the same plane with the gate at the same time.

It is of course desirable to maintain gates locked so as to prevent them from being opened by animals, and at the same time it is extremely undesirable for the occupants of a vehicle to have to get out either to lock the gate or unlock the same, and for this reason I provide means whereby the thrust or pull upon the levers G, G', will serve as a means for locking or unlocking the gate.

As shown the upper bar m, of the gate is arranged so as to slide and act as a latch, although an independent latch or bolt may be employed, and I connect the connecting rods b

to the said sliding bar so that a downward pull upon the outer end of either lever will be the means of exerting a draft to draw the said bar away from the recess *y* into which it entered to lock the gate, and when the gate is closed the momentum of the parts will cause the bar to slide forward, or a spring *g* may be used for this purpose, the bar or bolt being forced back by an inclined edge *x* as it comes to the post *C*, after which it will slip into the notch *y*. It will be evident that this arrangement of the latch may be employed even when there is only a single connecting rod *b*, and that any suitable intermediate connection may be made between the rod *b*, and the sliding bar or latch.

While I have shown the rods *b*, *b*, connected with the gate at different points they may if desired be connected at the same point at their lower ends with the gate, providing the upper ends have different points of connection with the levers so as not to be upon the same plane at the same time, or both may be connected to the same point at the upper ends and connected to different points at the lower ends with a like result. Thus, one of the rods may occupy the position shown at the right in full lines Fig. 1, and the other occupy the position shown in dotted lines.

It is apparent that the means which connect the two bars *c*, *c*, so that they vibrate in unison serve also as intermediate connections between the two bars *b*, and also between the two operating levers *G*, *G'*, so that the bars *b*, must operate simultaneously, and a pull or thrust upon either lever is communicated to both the bars *b*, by reason of such connection, the said bars therefore positively operating to move the gate whichever of the levers is operated.

Without limiting myself to the precise construction and arrangement of parts shown, I claim—

1. The combination of a swinging gate, the operating levers *G*, *G'* having their inner ends close together and both arranged at the same side of the gate, the gate in its movements being arranged to swing under the levers, and the connecting rods between the gate and the operating levers, the connection of the said rods with the operating levers being in different planes parallel to the plane of the gate when situated below the operating lever,

whereby both the said connecting rods can never, at the same time, be directly over or in the same plane as is the gate when it is under the operating levers, substantially as described.

2. The combination of a swinging gate, the operating levers having their inner ends close together and both arranged at the same side of the gate, the gate being arranged to swing beneath the inner end of the operating levers as it opens and closes, the connecting rods between the inner end of the levers and the gate, the connection of the said rods with the levers being in different planes parallel to the plane of the gate when situated below the operating levers whereby when the gate swings under the levers both of the rods are not directly above the gate, and means for connecting the rods whereby they positively operate together, substantially as set forth.

3. The combination of a swinging gate, the operating levers *G*, *G'*, the pivoted connecting bars *c*, *c*, having their free ends connected with the inner ends of the operating levers, and extending to different lengths beyond their connection with the said lever, and connecting rods *d*, connected with the ends of the bars *c*, and with the gate, substantially as set forth.

4. The combination of a swinging gate, the operating levers, the pivoted rods *c*, *c*, connected with the inner ends of the operating levers and extending to different distances beyond their connection with the said levers, and the connecting rods *b* connected with the projecting ends of the said bars *c*, *c* and at different points to the gate, substantially as set forth.

5. The combination with a swinging gate, of the operating levers *G*, *G'*, having their inner ends arranged adjacent to each other and both upon the same side of the gate, the sliding latch bar *m*, upon the gate and the connecting rods *b*, *b*, extending from the inner ends of the operating levers to the said latch bar, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM RICHARD WHITE.

Witnesses:

LILA E. WHITE,
G. C. WHITE.