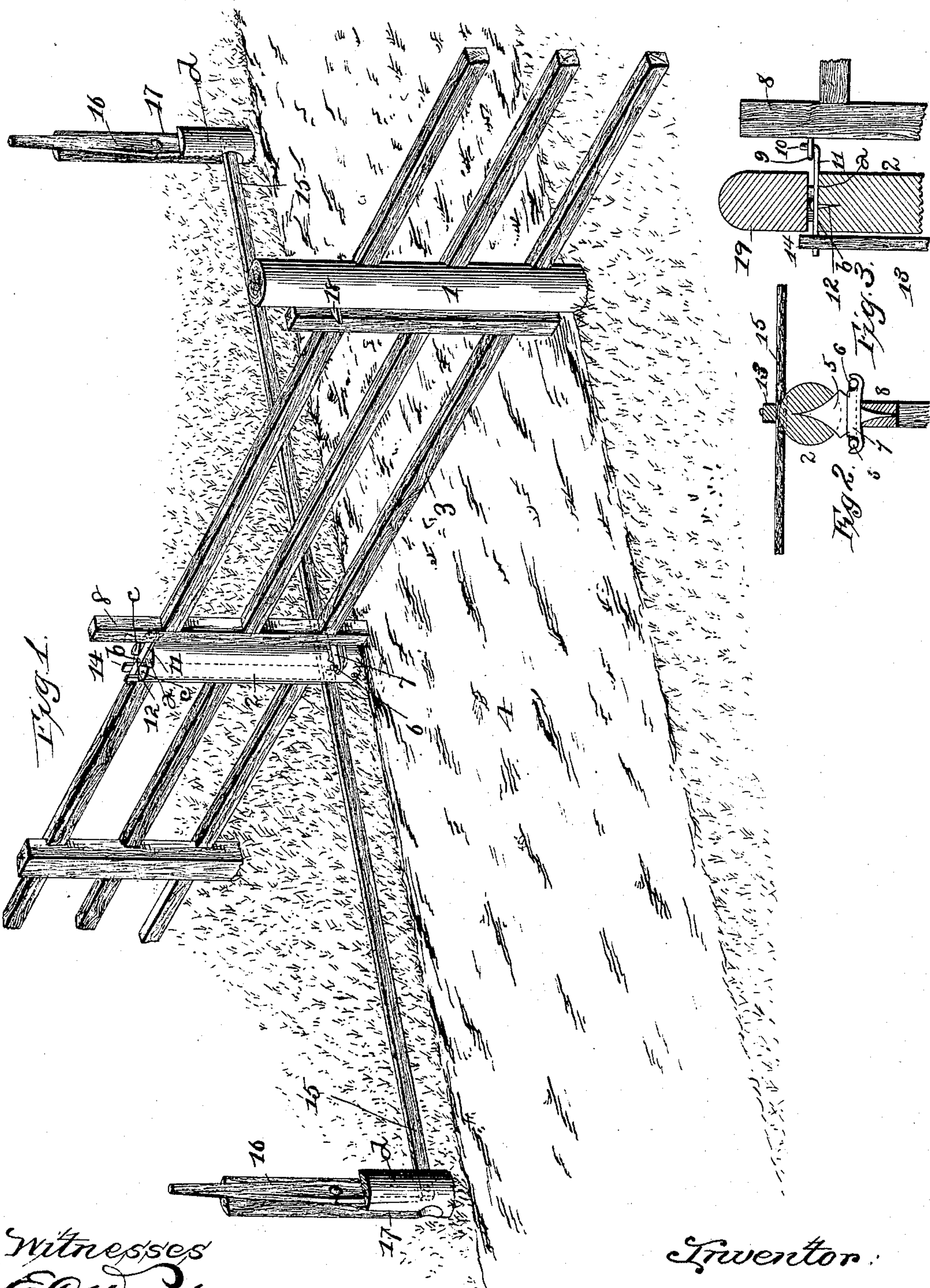


(No Model.)

T. DAVIDSON.
GATE.

No. 586,016.

Patented July 6, 1897.



Witnesses
E. C. Wurdeman
S. J. Williamson

Inventor:
Thomas Davidson
By Geo. H. Holgate
Attorney

UNITED STATES PATENT OFFICE.

THOMAS DAVIDSON, OF WEST CONSHOHOCKEN, PENNSYLVANIA.

GATE.

SPECIFICATION forming part of Letters Patent No. 586,016, dated July 6, 1897.

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To all whom it may concern:

Be it known that I, THOMAS DAVIDSON, a citizen of the United States, residing at West Conshohocken, in the county of Montgomery, State of Pennsylvania, have invented certain new and useful Improvements in Gates, of which the following is a specification.

My invention relates to a new and useful improvement in gates, and has for its object to provide such a device that will be cheap in construction and effective in operation and which may be opened or closed by the manipulation of levers at a distance from the gate, so that a person riding may pass through and close the gate without dismounting; and with these ends in view it consists in the details of construction and combination of elements hereinafter set forth, and then specifically designated by the claims.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, I will describe its construction and operation in detail, referring by number to the accompanying drawings, forming a part of this specification, and in which—

Figure 1 is a perspective of a portion of a fence with my improved gate applied thereto; Fig. 2, a section of one upright and post, showing in plan the lower hinge; and Fig. 3, a vertical section of the hinge-post, showing the upper hinge in its relative position to the gate and operating-lever.

Similar numbers denote like parts in the several views of the drawings.

1 and 2 represent the fence-posts, between which the gate 3 is swung across the road-bed 4. To the post 2 is secured the double-pintle hinge 5, provided with the upright pintles 6 and the gate-section 7. This section is secured to the upright 8 and provided with suitable notches adapted to bear against the pintles 6. Secured to the upright 8 is an eye 9, adapted to receive the lug 10, formed upon the outer end of the upper hinge 11. This hinge consists of a lever having a suitable central opening, by which it is pivoted to the post 2 by means of a spike or screw 12. In the upper end of the post 2 are formed two recesses *a b*, which are separated by the triangular-shaped projections *c*, which do not

meet at the center, but have sufficient space between their points to allow the upper-hinge lever to rest and move between them. This lever projects a suitable distance beyond opposite sides of the post and is limited in its movements by the triangular projections, which both act as stops and to support the cap 19, which serves to protect the top hinge from ice and snow in the winter. The projections *c* are higher than the lever is thick, so that when the cap is in place it will not interfere with its movements. From this description it will be seen that the gate is free to swing upon the lug 10 and one or the other of the pintles 6, according to the direction in which the gate is opened, after the manner of a double-pintle hinge.

13 is a lever pivoted to the post 2 and provided at its upper end with a fork 14, which embraces the free end of the hinge 11, so that upon the movement of this lever 13 the hinge 11 will be swung horizontally about its pivot-point. When the upper hinge is in its central position, the gate 3 will be held closed or caused to swing to its closed position by its gravity, since it turns upon one of the pintles 6 and the lug 10, for the reason that a line drawn between said lug and pintle is off the center of gravity of the gate, and therefore the gate in seeking its center of gravity will swing about this line until the section 7 comes in contact with the other pintle, when the weight of the gate will be balanced, and it will be understood that this will take place in swinging the gate to either side, or should the upper hinge be swung about its center, so as to bring the lug 10 to the opposite side of one of the pintles 6, the center of gravity of the gate will be changed to that side and the gate will therefore swing in that direction, and as this may be brought about upon either side of the central line of the gate it will be seen that the gate may be opened in either direction by the proper manipulation of its upper hinge. In order to utilize this action of the upper hinge to open the gate at a distance, I pivot a connecting-bar 15 to the lower end of the lever 13 and connect the free end of this bar to the operating-handle 16, pivoted to a suitable post 17, so that a person riding, when approaching the gate and desiring to

pass therethrough, has only to grasp the upper end of one of the handles 16 and swing it through a sufficient arc, when the lever 14 will be caused to operate the hinge 11 to open the
 5 gate, as before described, and when said person has passed through the gate and desires to close the same he may do so by moving the other handle 16 to a central position, as shown in the drawings, thereby establishing
 10 a normal center of gravity of the gate, which causes it to swing closed, as before set forth.

The posts 17 are slitted down from the tops of the cut-away portions *d*, so as to receive the lower end of the lever 16 and the ends of
 15 the operating-rods 15. At the points where the ends of the rods enter the posts they are bored transversely, so as to give room for connecting the rod and the levers and to enable the rod to move freely without binding.
 20 The portions *d* of the post serve as protectors for the levers and rod and prevent them from being injured by the hubs of wagons, which have to be driven close to the posts to enable the drivers to catch hold of the upper ends
 25 of the levers in order to open the gate. Were it not for these protecting portions *d* the levers and rods would be liable to constant injury from careless drivers.

The gate may also be opened and closed by
 30 the manipulation of the latch 18 after the usual manner in connection with gates of ordinary construction.

Having thus fully described my invention, what I claim as new and useful is—

1. The post 2, having the triangular pro- 35
 jections *c*, of greater height than the thickness of the top hinge, the cap 19 placed on the projections, and the top hinge 11, pivoted upon the top of the post 2, between the inner
 40 ends of the triangular projections, and projecting at both ends beyond the sides of the post; combined with the gate provided with the eye 9, the notched lever 14 pivoted on the post and engaging with the outer end of the
 45 top hinge; the rod 15, lever 16, post 17, and the lower hinge, substantially as shown.

2. In a gate, the post 17 cut away at *d*, and having vertical slits to receive the lower ends of the levers, and transverse openings to receive the ends of the connecting-rod, com- 50
 bined with the vertical levers 16 pivoted upon the posts, and the horizontal connecting-rod, which is connected to the lower ends of the levers in the transverse openings, and to the lever 14 pivoted upon the post 2, substan- 55
 tially as described.

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses.

THOS. DAVIDSON.

Witnesses:

S. S. WILLIAMSON,
 WM. STURGIS.