(No Model.)

L. W. WEBB.

GATE.

No. 427,647. Patented May 13, 1890.

Fig. 1.

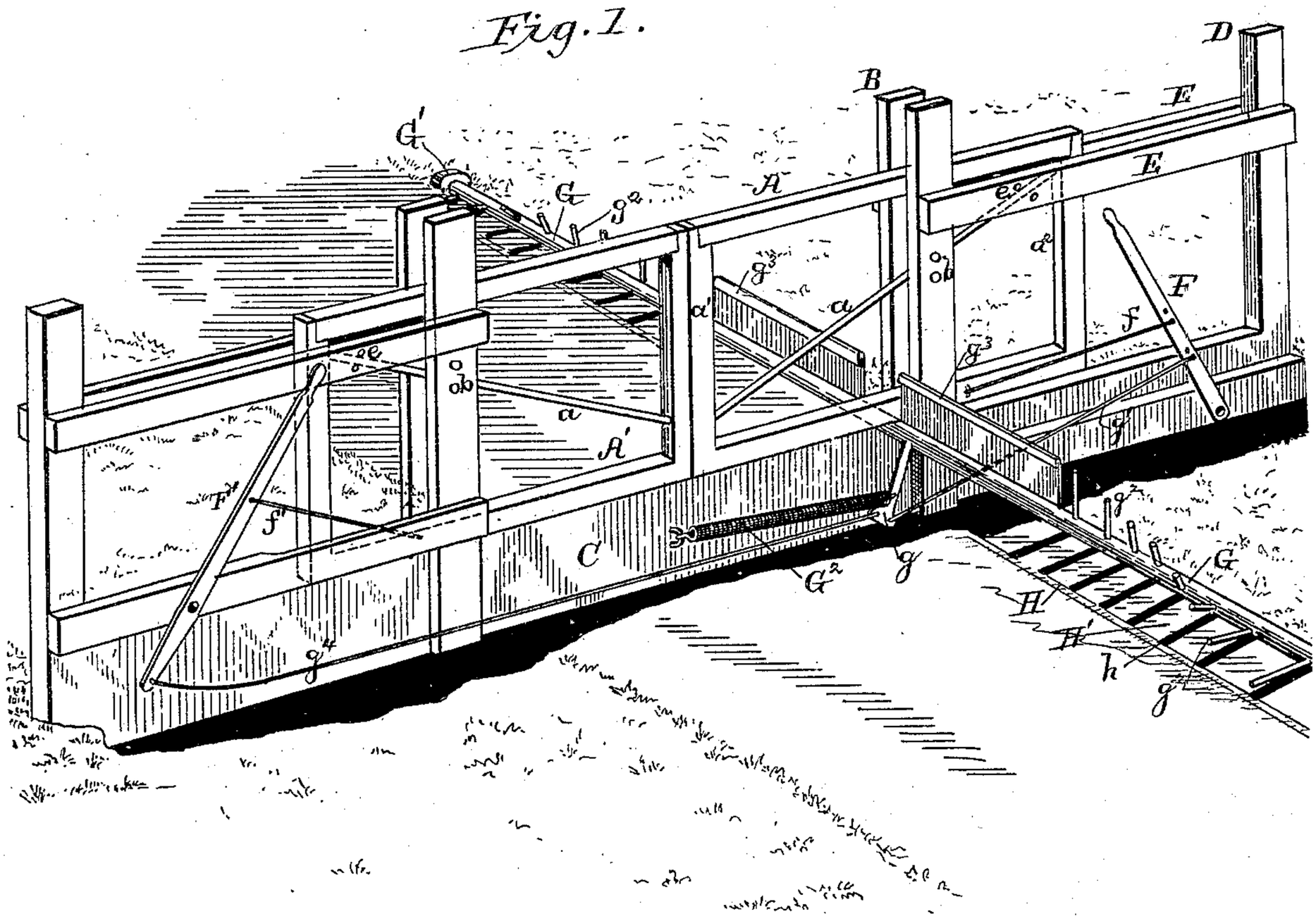
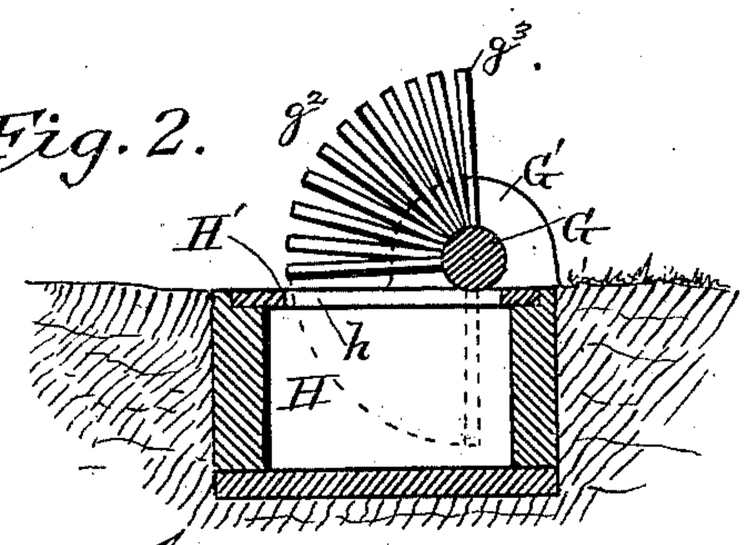


Fig. 2.



WITNESSES

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GATE.

SPECIFICATION forming part of Letters Patent No. 427,647, dated May 13, 1890.

Application filed January 25, 1890. Serial No. 338,058. (No model.)

To all whom it may concern:

Be it known that I, LEVI W. WEBB, a citizen of the United States, residing at Centre, in the county of Cherokee and State of Alabama, have invented certain new and useful Improvements in Gates; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to gates, and especially to those which are adapted to be opened automatically by an approaching vehicle. It applies to farm-gates, railroad-gates, and in fact to all that are used to close a road or way along which wagons, cars, or other vehicles are accustomed to pass.

In the drawings, Figure 1 is a perspective view of a farm-gate embodying my invention, and Fig. 2 is a sectional end view of the rock-shaft.

The gate A is arranged to slide across the road between two posts B, erected at the side of the road, preferably upon a suitable foundation C. Farther back and preferably upon the same foundation is a post D, connected with the posts B by rails E, between which the gate can move.

The gate is preferably an open rectangular frame, as shown, with a diagonal brace *a* running from near the bottom of the outer stile *a'* to near the top of the inner stile a^2. In the posts B and the rails E are two pairs of pins *b e*, between which passes the brace *a*. The result of this arrangement is that when the gate is slid back to open the road it also rides upward on the pins *b e*, and tends to close again by its own weight.

The gate can be opened by hand, either by laying hold of the gate itself or by throwing over a lever F, fulcrumed on the foundation C and connected with the gate by a rod *f*.

In order to enable an approaching vehicle to open the gate automatically, I provide a rock-shaft G, arranged at the side of the road at right angles with the gate and extending a suitable distance on either side thereof on a level with the surface of the ground. The ends of the shaft are journaled in bearings G'. Adjacent to the foundation C the shaft is provided with an arm *g*, projecting downward into a suitable cavity under the roadway. The end of this arm is connected by a rod *g'* with the lever F. In the lever are several holes, as shown, to permit the rods *f* and *g'* to be adjusted to give the proper range of movement to the several parts and to adapt the mechanism to gates of different widths. The rock-shaft is provided on each side of the gate with a series of pins g^2, projecting at right angles to the shaft and arranged in a helical line, as shown. The pins near the end of the shaft lie parallel with the surface of the ground, or substantially so, the other pins departing farther and farther from the ground until those nearest the gate stand upright, the line of pins thus making a quarter-turn around the shaft. This is the most convenient arrangement, though it is obvious that the pins could be set to make more or less than a quarter-turn. Between each of the upright pins and the gate the shaft is provided with a plate g^3, running along the shaft for some ways and normally standing upright, as shown. Under the pins g^2 is provided a cavity or trough H with a cover H', in which is formed a series of slots *h*, corresponding with the pins g^2. When the shaft is rocked, the pins pass down through the slots into the cavity or trough, so that the operation of the device is not interfered with by snow or ice.

When a vehicle approaches the gate, the wheels ride upon the pins g^2 in succession, pressing them down and rocking the shaft G. The movement of the rock-arm *g* is transmitted, through the rod *g'*, lever F, and rod *f*, to the gate A, which is thereby opened. So long as the wheels of the vehicle rest on the plates g^3 the gate remains open, and the length of the plates is such that the rear end of the vehicle will have passed through the gate before its hind wheels leave the plate g^3. As the wheels proceed toward the end of the shaft the pins are allowed to rise one by one from the slots *h*, and the gate slowly slides down to a closed position, being assisted in its movement by a spring G^2, one end of which

is attached to the arm g and the other end to some fixed point, such as the foundation C.

In case it is desired to operate a double gate, as shown in the drawings, the arm g is connected by a rod g^4 with a lever F′, which is in turn connected by a rod f' with the gate A′. The rocking of the shaft G opens or closes both gates simultaneously. When two gates are used, the foundation C may extend across the roadway, as shown.

The advantages of having a gate that can be opened and closed without alighting from the vehicle are obvious.

When used as a railroad-gate, the shaft G is arranged alongside one of the rails of the track, so that the flanges of the wheels will ride over and operate the pins.

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

1. The combination, with a sliding gate, of a rock-shaft G, arranged along the side of the road, having a rock-arm g, connected with the gate, a helical line of pins g^2, and plate g^3, the roadway having a cavity below the pins provided with a slotted covering, substantially as described.

2. The combination, with a sliding gate, of a rock-shaft G, arranged along the side of the road on either side of the gate, having a rock-arm g, connected with the gate, a helical line of pins running from each end of the shaft toward the gate, and a trough H under the pins, having a slotted cover H′, substantially as described.

3. The combination, with the posts B and rails E, having the pairs of pins b and e, of the gates A A′, having diagonal braces a, passing between the pins, the hand-levers F F′, the rods f f', adjustably connecting the gates with the levers, the rock-arm g, rods connecting the arms with the levers F F′, and a spring g^2, attached to the arm, whereby both gates can be simultaneously operated, substantially as described.

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Witnesses:
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