D. C. DELINGER.

Gate.

No. 206,092. Patented July 16, 1878.

Fig. 1.

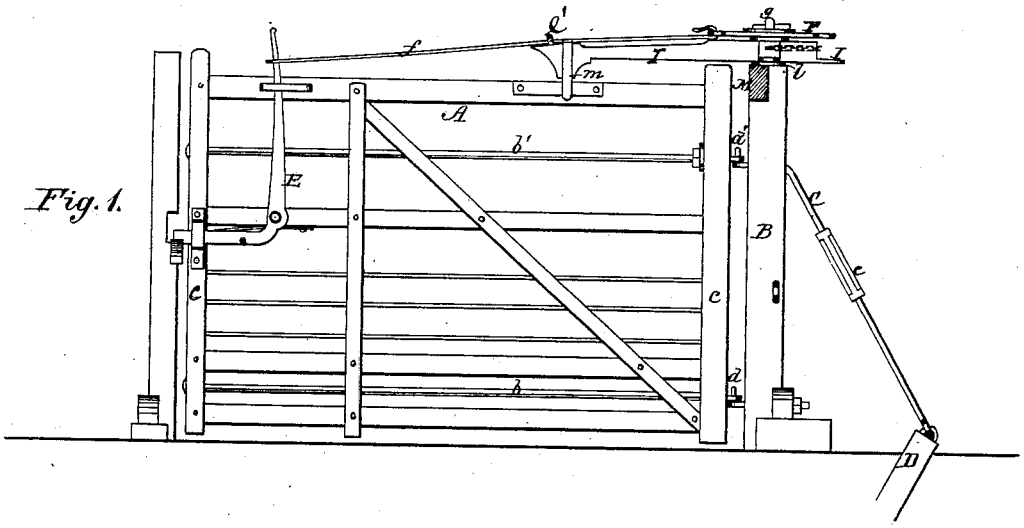


Fig. 2.

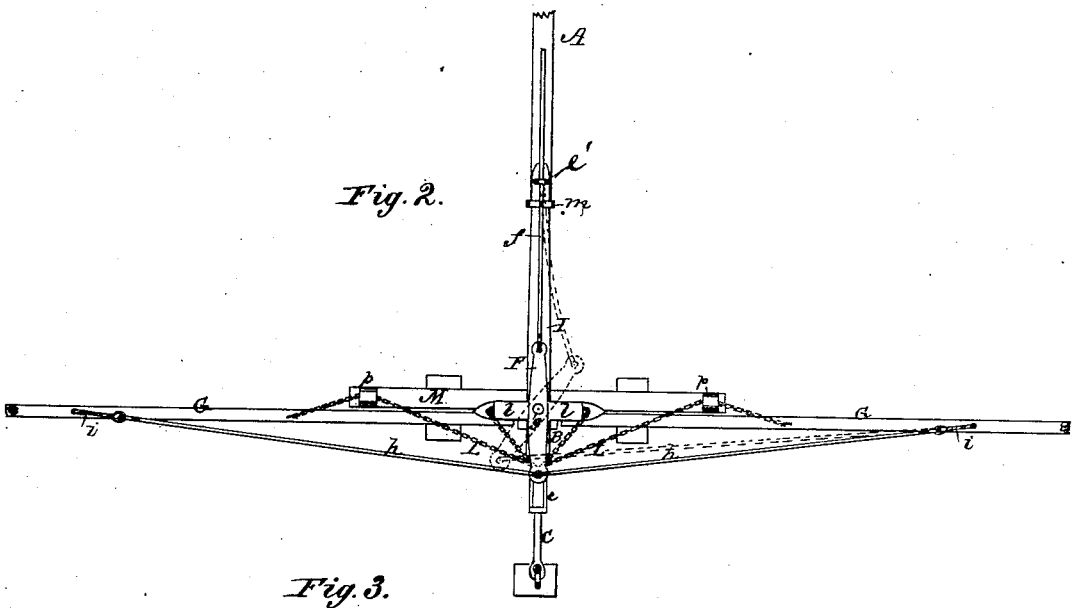
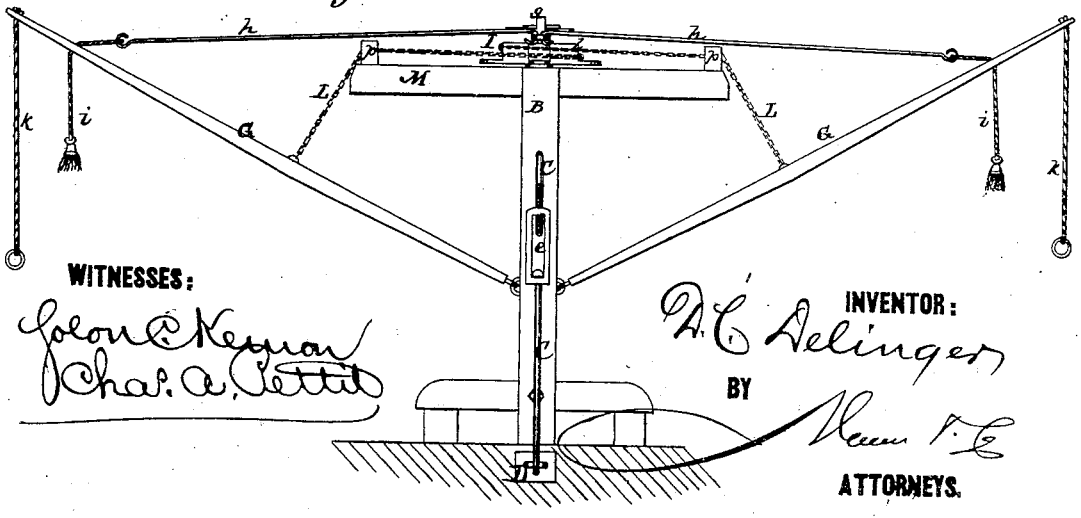


Fig. 3.



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DAVID C. DELINGER, OF RED OAK, OHIO.

IMPROVEMENT IN GATES.

Specification forming part of Letters Patent No. **206,092**, dated July 16, 1878; application filed May 21, 1878.

To all whom it may concern:

Be it known that I, DAVID C. DELINGER, of Red Oak, in the county of Brown and State of Ohio, have invented a new and useful Improvement in Gates; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention is an improvement in the class of road-gates adapted to swing horizontally, and operated by cords and levers, the latter being extended from the pivot-post laterally or parallel to the roadway, so that the cords which are pendent therefrom may be seized by persons on horseback or in carriages without dismounting.

The improvement relates to the construction and arrangement of the devices for unlatching and operating the gate.

In accompanying drawing, forming part of this specification, Figure 1 is a side elevation of the gate proper, with a part of the operating devices removed. Fig. 2 is a plan view of the gate save the front portion. Fig. 3 is an end elevation.

The gate proper, A, has two lengthwise rods, *b b'*, which pass through both vertical end bars *c c*, and form part of the hinges *d d'*. The pivot-post B is braced by a rod, C, which passes through it to form part of the upper hinge *d'*, and extends diagonally downward to a block, D, set in the ground or otherwise fixed in position.

The brace C may be strained to any required tension by means of a swiveled nut, *e*.

The gate-latch E is a pivoted elbow-lever, to the vertical arm of which is attached a rod or wire, *f*, that extends along the top of the gate and connects with a lever, F, pivoted on a stud, *g*, fixed in post B.

The rod *f* is flexible, and works through a staple, *e'*, fixed in the front end of the lever I. The lever F lies normally—*i. e.*, when there is no tension on the parts *h i*—in line with the lever I and gate A, as shown in the several figures.

From the rear end of said lever F wires *h* extend laterally in both directions, and have cords *i* attached to their outer ends, which pass through holes in long diagonal levers G, pivoted to the sides of the post B.

By pulling either of the cords *i* it is apparent that the lever F will be turned horizontally on its pivot *g* at an angle to the vertical plane of the gate, as shown in dotted lines, Fig. 2, thus drawing the wire *f* through its guide *e'* and unlatching the gate.

The flexibility of the rod *f* allows its rear end to bend laterally, and it becomes for the time being—*i. e.*, while under tension—a lever, of which the latch E is the fulcrum, while the guide *e'* is the point of resistance, and the gate the weight or object to be moved. In the act or operation of unlatching the gate, therefore, its inertia is partially overcome by the leverage of the rod *f* before the devices which are chiefly instrumental in swinging the gate are fairly brought into active operation. Said devices are as follows: The aforesaid diagonal levers G, having pendent cords *k*, a lever, I, which is pivoted on stud *g* and extends a short distance along the top edge of the gate, and chains L, which are attached at one end to the diagonal levers G, and at the other to the cross-bar *l*, fixed on the lever I at its pivotal point. The front end of the gate-operating lever I has pendent lugs or arms *m*, which loosely embrace the upper rail of the gate and slide along the same when the gate opens or shuts. The chains L pass from the ends of the cross-bar *l*, around the rear end of the gate-lever I, and thence through swiveled eyes *p*, supported on the outer ends of a bar, M, which is fixed transversely on the upper end of pivot-post B.

By this arrangement, when the gate has been unlatched, as before described, it may be swung open by pulling on one of the cords *k*, thus depressing the outer end of the diagonal lever G, to which it is attached, and drawing a chain, L, downward, which causes the lever I to turn on its pivot, and at the same time open the gate.

After riding or driving through the gate, it is shut by pulling the cord *k*, attached to the diagonal lever G on the other side of the pivot-post B.

What I claim is—

1. The diagonal levers G G, having pendent cords *k*, the chains L L, pivoted gate-lever I,

having cross-bar or head *l* and arms *m m*, that embrace the upper rail of the gate, and the pivot-post B and gate, all combined and operating as shown and described.

2. In combination with the gate A, the lever I, having the fixed guide *e'*, the rod *f*, attached to latch E, the wires *h h*, lever F, pivoted on stud *g*, and the levers G, all as shown and described, to operate as specified.

DAVID C. DELINGER.

Witnesses:
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