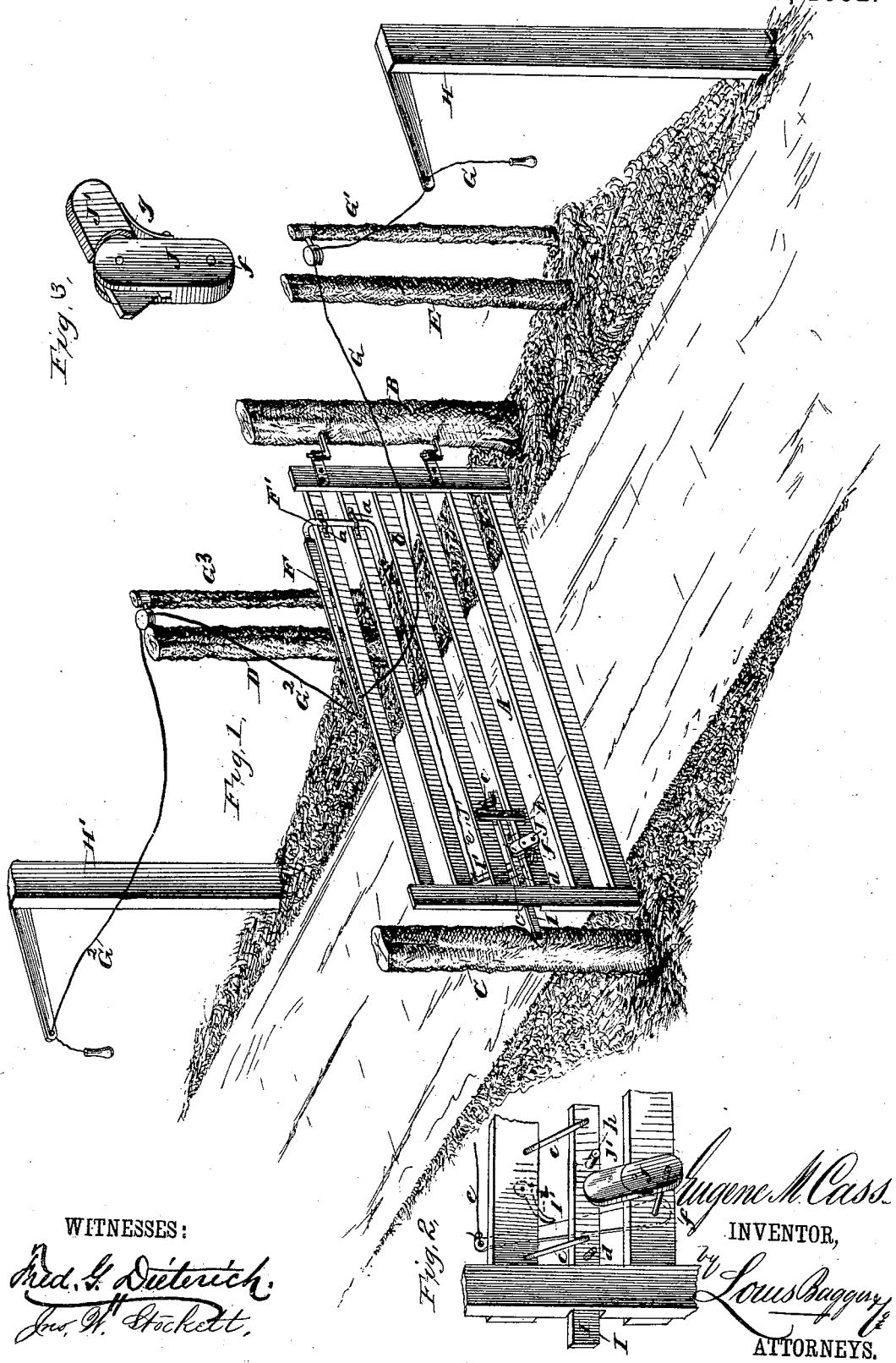
(No Model.)

E. M. CASS.

GATE.

No. 266,094. Patented Oct. 17, 1882.



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EUGENE M. CASS, OF ITHACA, WISCONSIN.

GATE.

SPECIFICATION forming part of Letters Patent No. 266,094, dated October 17, 1882.

Application filed April 25, 1882. (No model.)

To all whom it may concern:

Be it known that I, EUGENE M. CASS, of Ithaca, in the county of Richland and State of Wisconsin, have invented certain new and useful Improvements in Gates; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved gate, and Figs. 2 and 3 are detailed views of the latch and its adjuncts.

This invention appertains to improvements in gates of that class operated by means of intermediate mechanism between the gate and the operator, especially adapted for persons riding on horseback or seated in a vehicle, to obviate dismounting or leaving the vehicle to open or close the gate; and it consists in the combination and arrangement of parts, substantially as hereinafter more fully set forth and claimed.

Referring to the accompanying drawings, A is the gate, hinged to the post B and closing against the post C. The gate opens in one direction against the post D and in the other direction against the post E, suitably disposed for that purpose. Its hinges are of ordinary construction.

F is a lever resting slightly above and in a position in line with the direction of the length of the gate when it is closed, and secured to the upper end of a shaft, F′, arranged at a right angle with the lever, and pivoted upon the gate by the staples *a*. The lower end of the shaft F′ has an arm, *b*, extending inwardly in the same direction with the lever F.

To the free end of the lever F is attached an operating-cord, G, or its equivalent, passed through a pulley-block connected to a post, G′, arranged some distance from and on one side of the gate, and thence passed through an eye or loop at the outer end of an arm projecting at right angles from a second post, H, the free end of the cord being provided with a block or other suitable means to permit it to be conveniently grasped by the person seated in his vehicle or mounted on horseback, to avoid dismounting or leaving his seat to open and close the gate. A similar cord, G^2, connected to the same end of the lever F, and similar arrangement of pulley-blocks and posts G^3 H′, are disposed on the other side of the gate, to permit its opening and closing from either side. There is sufficient slack of the cords G and G^2 of course to permit the gate opening in either way without drawing tightly upon either cord, as seen in the drawings.

I is the latch, which is suspended in hangers *c c* between two of the slats or boards of the gate at its forward end and adapted to engage with the post C. A stop, *d*, thereon limits its forward movement, it striking against the front cross-piece of the gate. I′ is a lever, the upper end of which is connected by a cord, *e*, or its equivalent, to the return portion or arm *b* of the right-angled lever F F′ of the gate, while its lower end is secured to a shaft or axis, *f*, bearing in a slat of the gate, and having secured to it, on the other side of the slat, a cam, J. This cam is made in two parts, one, J′, being articulated to the other and held in a line with it as against movement in one direction, by its lower end adapted to that end and permitted to yield rearwardly by the flexibility of a spring, *g*, bearing against it and fastened to the other part, while by the force of the spring it will spring into place after the removal of pressure therefrom. It will be noticed that as the lever F is pulled around by the cord G, and as it has nearly reached a right-angled position with the gate, preliminary to opening the gate, the arm *b*, through its cord *e*, will pull upon the lever I′, which will operate the shaft *f*, and it in turn will move the cam backward against and in riding under the projection *h* of the latch I force the latch rearwardly and slightly upwardly, and thus disengage the latch from the post C, permitting the opening of the gate as the cord continues to be pulled. It will be further observed that during the return of the latch the upper pivoted part, J′, of the cam J will assume the position shown in Fig. 3; but after it has slipped under projection *h* it will be returned to its original position by spring *g*. The lever I′ is thrown back into its normal position by a spring, *i*, fastened to one side of one of the rails of the gate-panel, as shown in dotted lines in Fig. 2, and bearing with its projecting lower end against the free end of lever I′.

I am aware that gates have been constructed

before with latches drawn back by levers and returned to their places to lock the gate by springs pressing against these levers; nor do I claim such construction, broadly; but by the construction and arrangement of the cam J J′, as shown, in combination with the latch I, suspended by the hangers *c c*, the latch has an up-and-down as well as a forward-and-back motion without affecting the spring, which prevents "binding" of the projecting end of the latch in the notch or mortise in the shutting-post or latch-post C, with which it engages.

Having thus described my improvement, I claim and desire to secure by Letters Patent of the United States—

The combination, with the gate, of the latch I, suspended by hangers *c c* from one of the rails of the gate-panel, and having projections *d* and *h*, the cam consisting of the hinged parts J and J′ and their actuating-spring *g*, lever I′, connected to the lower part, J, of the cam by a short shaft, *f*, forming a fulcrum for the lever, spring *i*, and suitable mechanism for operating the spring-actuated lever I′, all constructed and combined substantially as and for the purpose herein shown and specified.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

EUGENE M. CASS.

Witnesses:
B. W. POOLE,
JAMES H. BERRYMAN.