

J. ELLIS.
Automatic Gates.

No. 153,936.

Patented Aug. 11, 1874.

Fig. 1

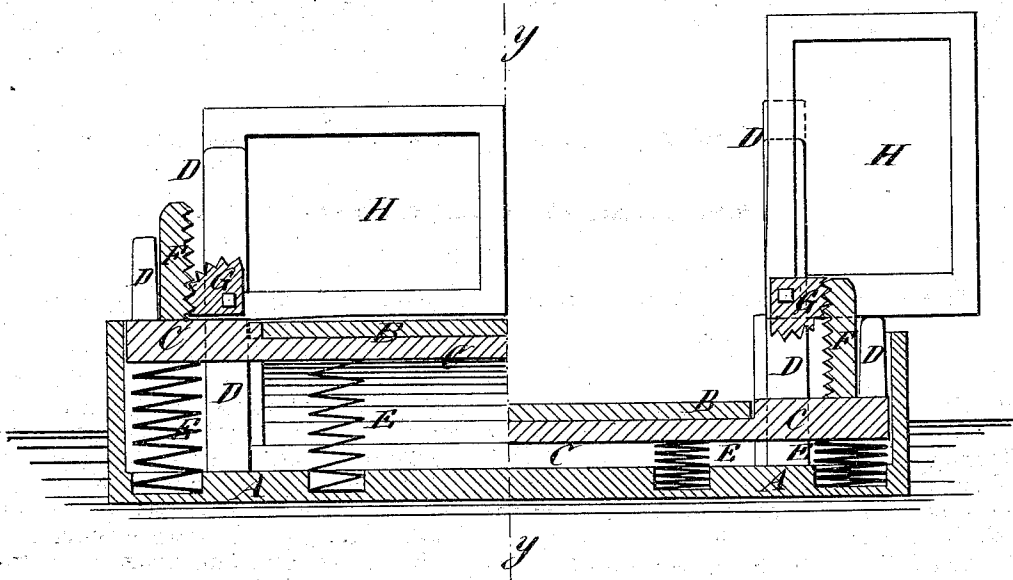
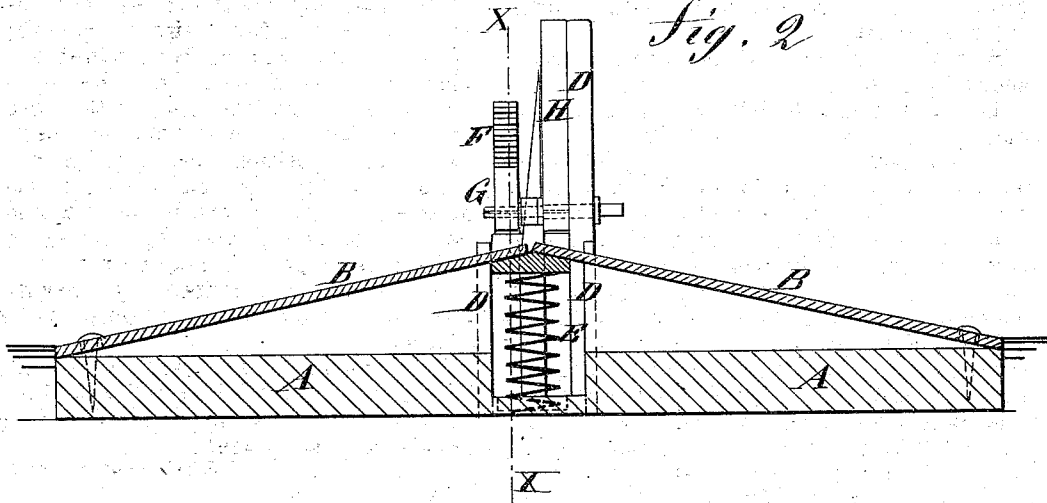


Fig. 2



WITNESSES:

C. A. Newcomb
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UNITED STATES PATENT OFFICE.

JEFFERSON ELLIS, OF DETROIT, MICHIGAN.

IMPROVEMENT IN AUTOMATIC GATES.

Specification forming part of Letters Patent No. **153,936**, dated August 11, 1874; application filed June 26, 1874.

To all whom it may concern:

Be it known that I, JEFFERSON ELLIS, of Detroit, in the county of Wayne and State of Michigan, have invented a new and useful Improvement in Automatic Gate, of which the following is a specification:

Figure 1 is a vertical cross-section of my improved gate, part being shown in a closed, and part in an open, position, taken through the line *x x* of Fig. 2. Fig. 2 is a vertical longitudinal section of the same, taken through the line *y y*, Fig. 1.

Similar letters of reference indicate corresponding parts.

The invention will first be fully described, and then pointed out in the claim.

A represents the base of the gate, which may be a platform or frame embedded in the ground. B are two inclined platforms, the outer edges of which are hinged or pivoted to the outer parts of the base A, and their inner edges rest upon a cross-bar, C, the ends of which move up and down between standards D attached to the middle parts of the sides of the base A. The cross-bar C rests upon springs E, which should be of such a strength as to raise and support the cross-bar C and the platforms B, except when pressed down by the weight of the horse or carriage approaching and passing through the gate. To the ends of the cross-bar C are attached the lower ends of two upwardly-projecting bars, F, upon the

inner sides of which are formed teeth, into which mesh the teeth of the gear-wheels, or segments of gear-wheels G, rigidly attached to the lower outer corners of the gates or wings H, which wings are pivoted at said lower outer corners to two of the standards D.

By this construction, when the platforms B and cross-bar C are forced downward by the weight of a horse, carriage, or other object passing upon them, the downward movement of the rack-bars F will turn the gear-wheels or segments G, and thus raise or open the gate H, which gate will be held raised until the platforms are released from the depressing weight, when the elasticity of the springs E will raise the cross-bar C and platforms B to their former position, closing the gate.

The gate may be made wide or narrow, double or single, as may be desired, and may be made to be operated by a heavy or light weight, as its position may require.

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

The cross-bar C, supported on springs and provided with vertical racks F, combined with gate-sections H, having part pinions G, as and for the purpose specified.

JEFFERSON ELLIS.

Witnesses:

E. R. ELLIS,
JOHN LASHBROOK.