

S. M. Denniston,
Automatic Gate,

N^o 69,640.

Patented Oct. 8, 1867.

Fig: 1.

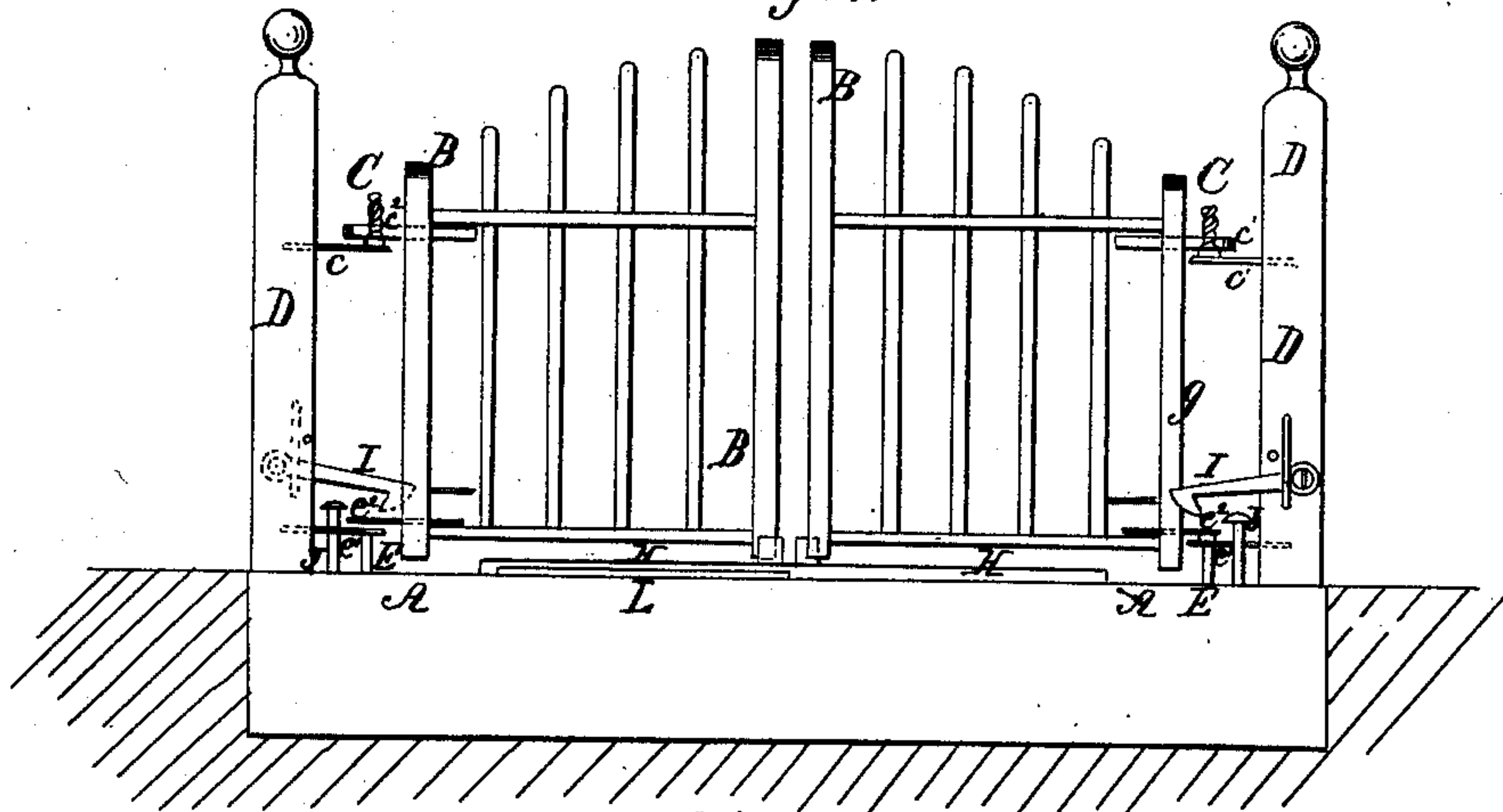
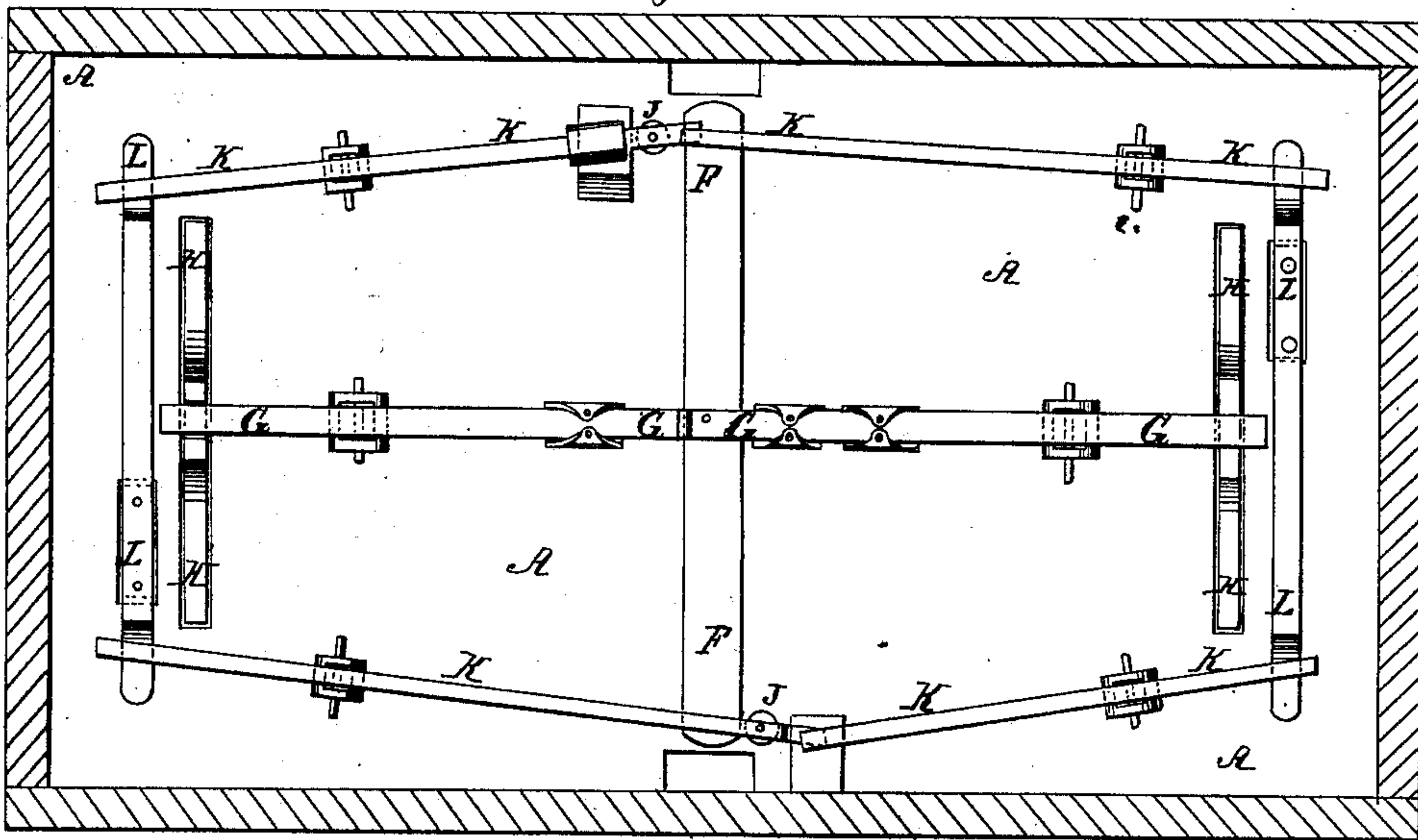


Fig: 2.



Witnesses;
Thos. Ensche
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Inventor;
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United States Patent Office.

S. M. DENNISTON, OF HUDSON, WISCONSIN.

Letters Patent No. 69,640, dated October 8, 1867.

IMPROVEMENT IN GATES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, S. M. DENNISTON, of Hudson, in the county of St. Croix, and State of Wisconsin, have invented a new and useful Improvement in Gates; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings forming part of this specification, in which—

Figure 1 is a side view of my improved gate closed.

Figure 2 is a bottom view of the platform upon which the gate is placed.

Similar letters of reference indicate corresponding parts.

My invention has for its object to furnish an improved gate, so constructed and arranged as to be opened by the wheels of the advancing carriage, and which is closed by the same means as the carriage after passing through the gateway passes off the platform; and it consists in the peculiar construction of the hinges, and in the combination and arrangement of the levers by means of which the gate is operated, as hereinafter more fully described.

A is the platform upon which the gate is set, and beneath which is formed a cavity or recess for the reception of the operating levers. B are the wings or parts of the gate about the construction of which there is nothing new. C are the upper hinges. The pivot of the part c^1 that is driven into or otherwise secured to the posts D, is twisted or has a spiral thread formed upon it similar to the thread of an auger, and the eye of the part c^2 , that is secured to the parts B of the gate, has a similar thread formed in it, so that as the gate is raised the said spiral thread will cause the gate to swing open, and the weight of the gate itself will be sufficient to swing it shut. E are the lower hinges, the parts e^1 of which that are secured to the posts D have holes or eyes formed through them for the passage of the pivoting pins of the parts e^2 that are attached to the gate B. The pivoting pins of the parts e^2 descend through the platform and rest upon or are attached to the ends of the bar F beneath the platform A, the middle part of which rests upon the ends of the levers G, so that the said bar F, and with it the parts B of the gate, may be raised by operating the levers G. The bar F may, if desired, be replaced by a pair of levers pivoted to some suitable support, and the inner ends of which rest upon the ends of the levers G, so that the gate may be raised and opened by operating the said levers G. The levers G are pivoted to the under side of the platform A, or to some other suitable support, and their outer ends are connected with the bars or plates H, which pass up through slots in the platform A, and rise above its surface so as to be forced down by the wheels of the vehicle to operate the levers G and open the gate. The plates H should be at such a distance from the gate that the wheels of the advancing carriage may reach and operate them before the horses have advanced so far as to be in the way of the gate as it swings open. The inner ends of the levers G should be weighted or made heavy, so that as soon as the wheels of the carriage have passed off the bars or plates H, they may drop down to allow the gates B to swing shut as soon as they have been unfastened. I are hooks pivoted to the posts D near their bottoms, which as the gate swings open catch upon the frame of the gate, or upon catches attached thereto, and the gate is held open until the said hooks are raised. This is done by lifting-pins J, passing down through the platform A, just beneath the said hooks, and the upper ends of which are formed into cross-heads or other suitable shape. The lower ends of the pins J are attached to the inner ends of the levers K, which are pivoted to the under side of the platform A, or to other suitable supports, and the outer ends of which are attached to the bars or plates L, the whole or a part of which is made broad so as to pass up through a slot in the platform A, so as to be acted upon by the wheels of the vehicle to unfasten the gate and allow it to swing shut. The particular arrangement of levers by which the projecting plates are connected with the lifting-pins and hinges may of course be varied to suit the circumstances of each case, and the character of the vehicles that will ordinarily pass through the gateway. It will be observed that operating the plate L produces no effect except when the gate is fastened open, that is to say, when the vehicle is passing off the platform.

I claim as new, and desire to secure by Letters Patent—

1. The hinge C, the pivoting pin of which is formed with a spiral or auger-shaped thread upon it, fitting into the spiral thread cut in the eye of the hinge, substantially as herein shown and described, and for the purpose set forth.

2. The combination of the plates H, levers G, and bar F, or their equivalents, with the platform A, and downwardly-projecting pivoting-pin of the lower hinges E of the gate B, substantially as herein shown and described, and for the purpose set forth.

3. The combination of the plate L, levers K or their equivalents, and lifting-pins J, with the platform A, and pivoted hooks I, substantially as herein shown and described, and for the purpose set forth.

The above specification of my invention signed by me on this 28th day of June, 1867.

S. M. DENNISTON.

Witnesses:

CHAS. Y. DENNISTON,

A. C. PATTEN.