

(No Model.)

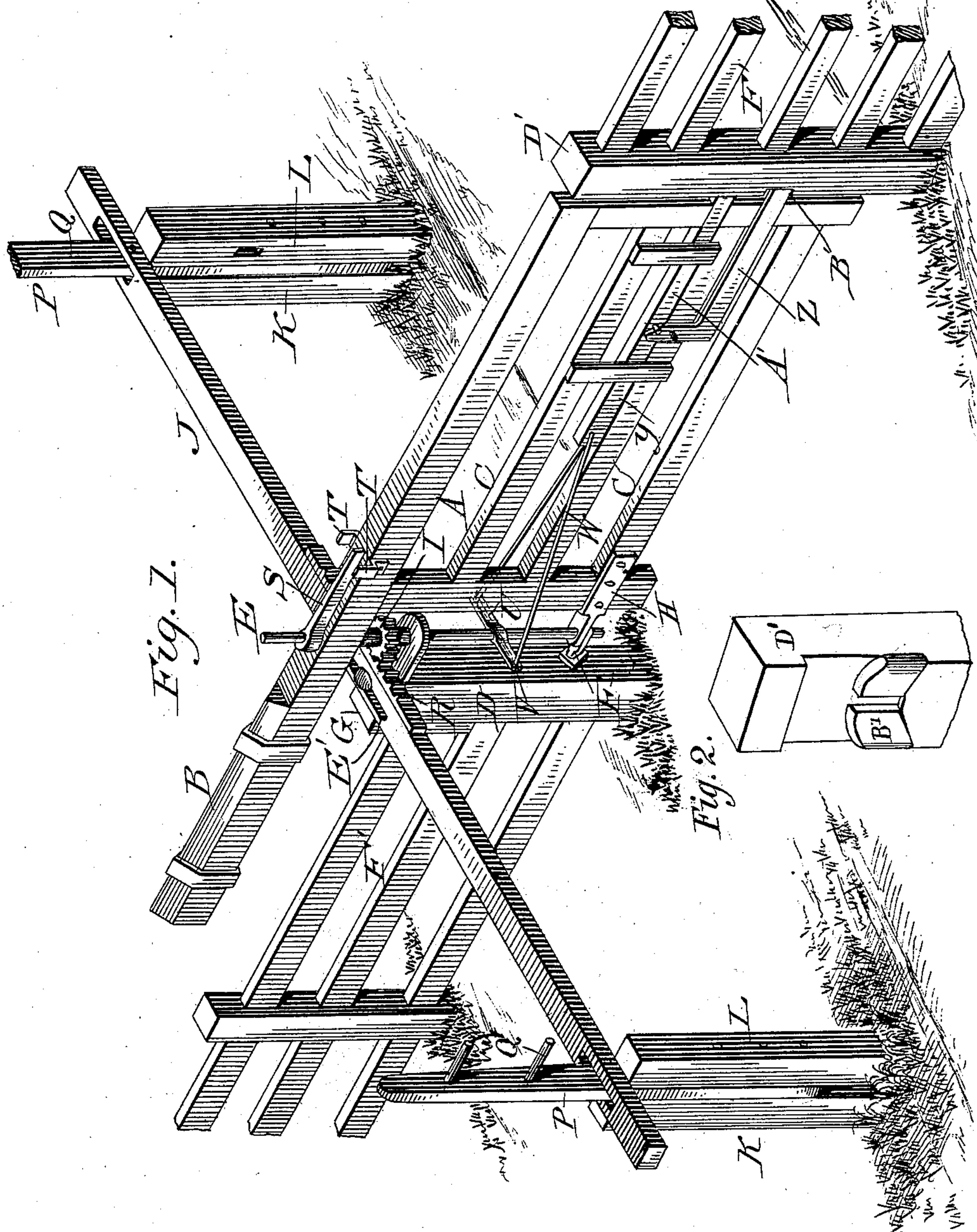
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J. S. DAVIS.

GATE.

No. 361,053.

Patented Apr. 12, 1887.



Witnesses.  
Frank Pardon.  
George Hammer.

Inventor.  
John S. Davis  
by J. S. Hewitt  
Attorney

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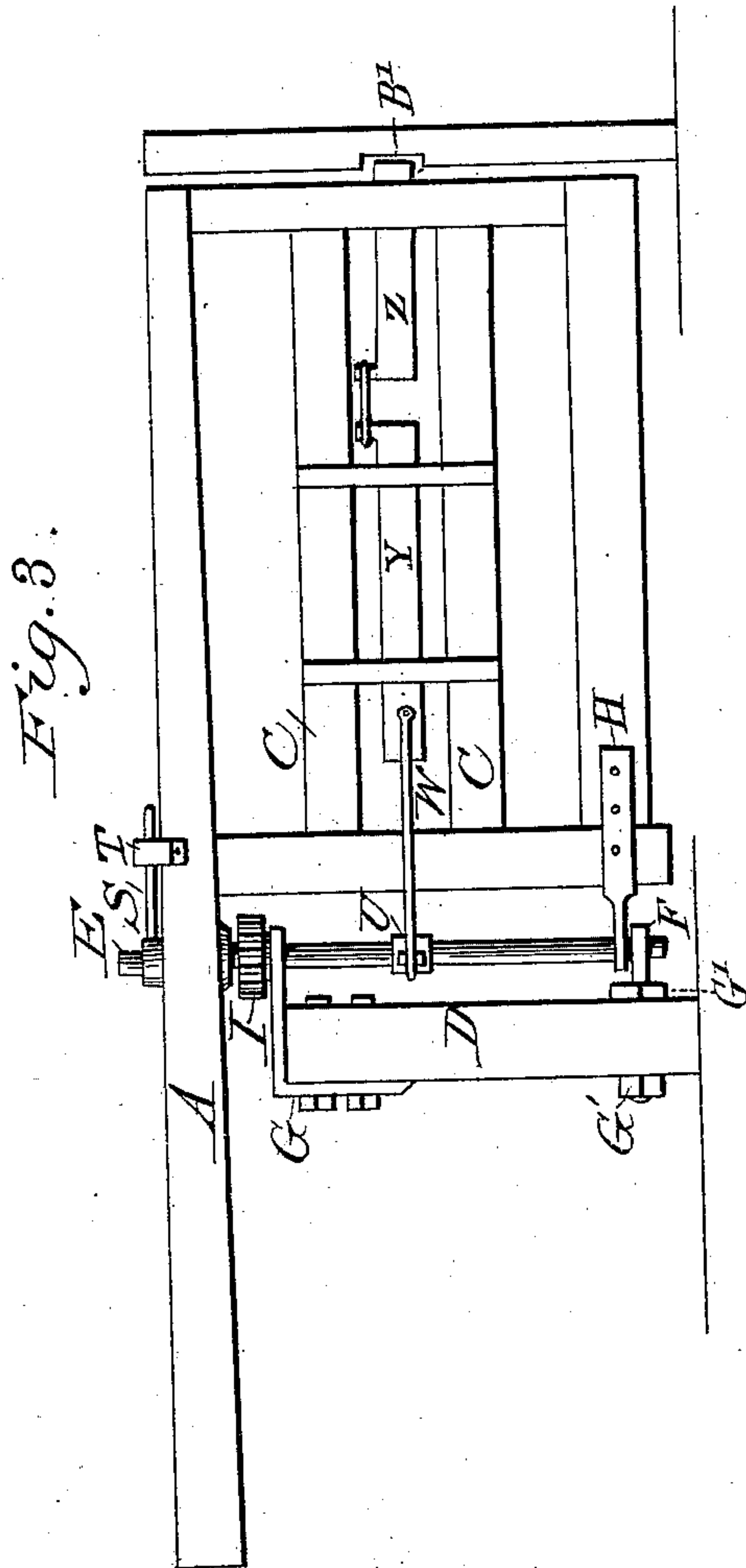
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# UNITED STATES PATENT OFFICE.

JOHN S. DAVIS, OF LOUISVILLE, KENTUCKY.

## GATE.

SPECIFICATION forming part of Letters Patent No. 361,053, dated April 12, 1887.

Application filed February 6, 1886. Serial No. 191,072. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN S. DAVIS, a citizen of the United States, residing at Louisville, in the county of Jefferson and State of Kentucky, have invented a certain new and useful Improvement in Gates; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, forming part of this specification.

This my invention relates to certain new and useful improvements in farm-gates operated by means of a cog-pinion secured on the hinge-rod and a rack secured to a long bar at right angles with the gate or fence, arranged for the convenience of the operator.

The object of this my invention is to provide an automatic farm-gate that will be cheap, durable, and easily operated by the occupants of buggies, horseback-riders, and others without alighting, and after passing through which it is only necessary to press the operating-lever on leaving, which will detach, close, and fasten the gate again without further attention.

I attain the above object by the mechanism illustrated in the drawings, in which—

Figure 1 is a perspective view of part of the fence and the gate, showing its general construction and the mechanism by which it is operated. Fig. 2 is a perspective view of a section of the main gate-post, showing the latch or bolt catch. Fig. 3 is a side elevation of the gate, showing the arrangement of the adjustable lower hinge and a modification of the latch or bolt mechanism.

Similar letters refer to similar parts throughout the several views.

In the drawings, A represents the main balance-beam of the gate, which extends the entire length of the gate and sufficiently beyond to balance it, with an additional weight, B, added.

C C are the bars of the gate, which is framed together, as shown in the drawings, and is about four bars in height, and of any required length to suit the gate-opening.

D D' are the main gate-posts, to one of which the gate is hinged. They may be made of any suitable size and length, with the ends inserted in the ground sufficiently to hold them firmly.

G is the top hinge of the gate, which is a perforated plate, as shown in the drawings, and is secured to the top of the post D, with the end turned down and bolted to the back of the post.

F is a part of the lower hinge of the gate, which is made in the form of an eyebolt screw-threaded the entire length of the bolt, which passes through the post D, with a screw-nut, G', on each side of the post, for the purpose of adjusting the height of the swinging end of the gate.

H is the part secured to the gate, which is made of flat iron, with a hole in the end for the hinge-rod E, while on the other end straps are formed, constituting a clevis, which slips over the gate-frame, and is riveted or bolted securely to the post and rail of the gate.

E is the hinge-rod, which is made of round iron, passing down through the main beam A, and through the upper hinge-plate, G, and lower hinge-sections, F and H.

S is an arm on the upper end of the rod, and T T are stops on the beam A, to regulate the distance of its movement.

I is a small cog-wheel or pinion secured on the hinge-rod E, with a hub on its upper and lower sides to answer as a washer between the beam A and hinge G, upon which it rests, and upon which the beam A turns.

J is a long flat wooden bar arranged at right angles with the gate or fence, having a slot, E', in the center, that works over a bolt in the top of the post D, which supports it in the center, while the ends are held up and supported by the posts K and L, inserted in the ground. To the sides of these posts the levers P P are hinged, midway from the ground, with their ends passing up through slots in the ends of the bar J. A bolt through each connects them to said bar and answers as a fulcrum for said levers, which are each provided with pins Q Q, at different heights, for convenience in operating the gate.

R is a cog-rack on bar J, which engages with the pinion or wheel I on the hinge-rod E, and by means of which the gate is operated,

U is an arm secured on the hinge-rod E below the beam, for the purpose of operating the latch or bolt Z of the gate. It has notches V in the ends to receive the bolt-connection W, which is made of small round iron bent in

a triangular form, with the points attached to the rear end of the bolt Y, while the rear side rests against the back of the arm U, and is held in position by the notches V in its ends.  
5 The movement of the rack, by means of the arm U and its connection, turns the hinge-rod E and unbolts or unlatches the gate and leaves it free to open by the further motion of the rack R.  
10 Y is the bolt of the gate, which slides back and forth in supports between the gate-bars, as shown, and Z is the latch, which is made as shown, and pivoted to the bar of the gate below and operated by a pin, A', in the  
15 bolt Y.

B' is the latch and bolt catch in the post D'.  
What I claim as my invention, and desire to secure by Letters Patent, in farm-gates, is—

In combination with bar J, the cog-rack R, pinion I, and levers P P, the loose hinge-rod 20 E, having arm S, stop-pins T T on the beam, and arm U, for operating the latch-bolt Y by means of rods W, substantially as described, and for the purpose set forth.

JOHN S. DAVIS.

Witnesses:

C. HEWITT,  
PIERCE BUTLER.