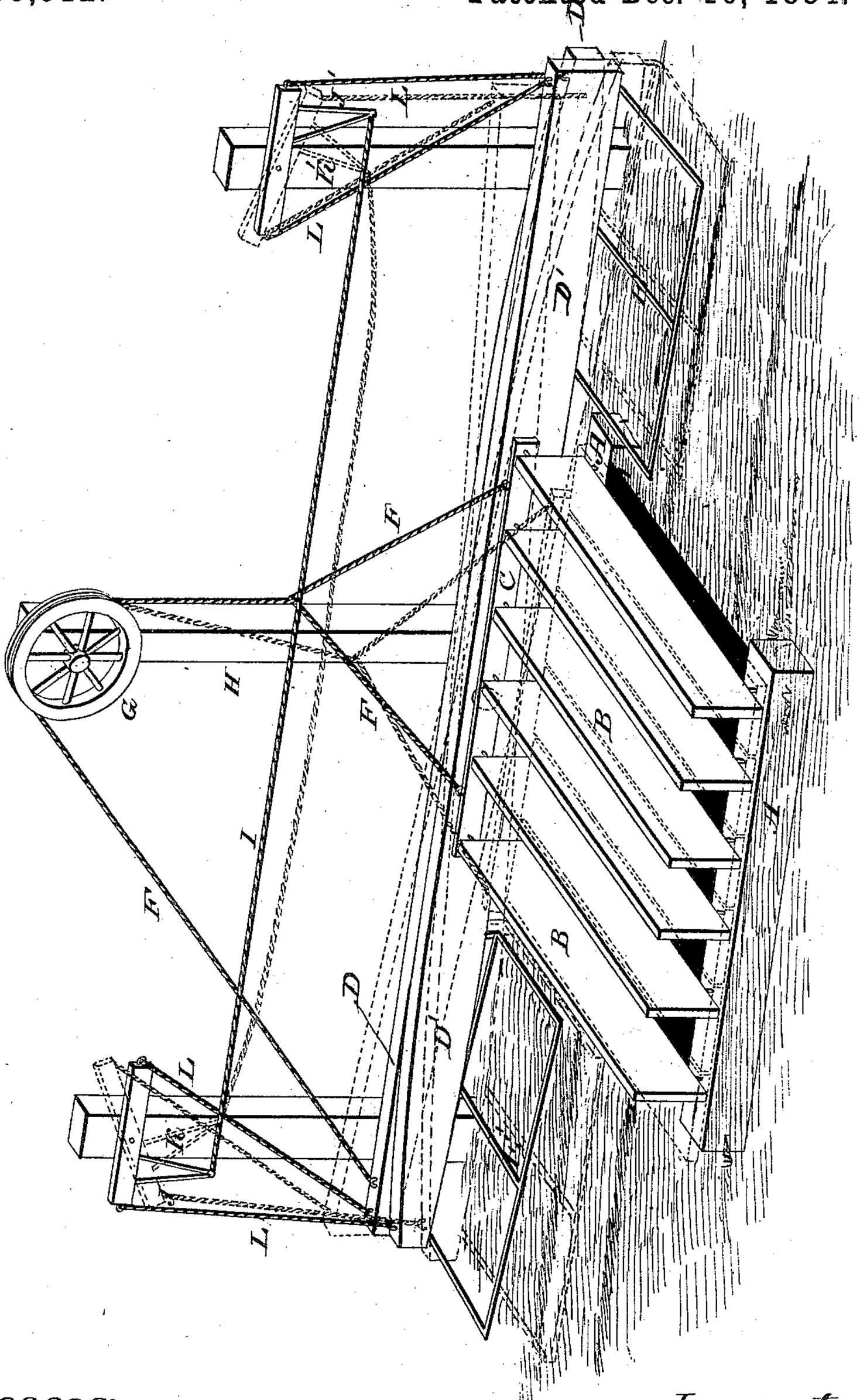
(Model.)

# E. COWAN.

## GATE.

No. 309,512. Patented Dec. 16, 1884.




Witnesses:
Leslie P Badger
Ernest Bogusch

Inventor:
Elias Cowan

# UNITED STATES PATENT OFFICE.

ELIAS COWAN, OF MASON, TEXAS.

## GATE.

SPECIFICATION forming part of Letters Patent No. 309,512, dated December 16, 1884.

Application filed February 2, 1883. (Model.)

*To all whom it may concern:*

Be it known that I, ELIAS COWAN, a citizen of the United States, residing at Mason, in the county of Mason and State of Texas, have invented a new and useful Gate, of which the following is a specification.

My invention relates to improvements in gates in which slats work on horizontal pieces that lie parallel with the surface of the road and with each other; and the object of my invention is, first, to provide a gate that the rider or driver can open or shut without dismounting; second, one that cannot be left accidentally open, so as to admit stock to pass through an inclosure; and, third, one that the vehicle or horseman passes over, and one that the wind does not affect. I obtain these objects by the mechanism illustrated in the accompanying drawing, which is a perspective view of the entire machine.

Similar letters refer to similar parts throughout the whole view.

A cutting is made in the road of sufficient size to obstruct the same. In this cutting two heavy logs are laid parallel with the road, to which the sills A A are firmly spiked. Stout boards or slats B B are hinged at one edge to these sills at such distances apart that when turned down upon their sides they will form a bridge for the cutting. In one end of each board, near its upper edge, an iron pin is inserted, and by means of these pins all the boards are connected to a beam, C, so that they may be all turned up or down upon their hinges at once by an endwise movement of said beam.

The operating mechanism is supported upon three posts, K H K′, firmly set in the ground on the same side of the road with the beam C, the center post, H, which should be higher than the others, being placed opposite the middle of the gate. A rope, F, having two branches, one connected to each end of beam C, is passed over a grooved pulley, G, fixed near the top of post H, and is fastened to the larger end of a tapered lever, D, which carries at its opposite and smaller end a treadle, E, and is pivoted a little above the ground to the front of post H. Rope F is made of such length that the weight of lever D, when permitted to act, holds the boards B in an erect position; but when the treadle E is depressed by the wheel of a passing vehicle rope F is relaxed and the boards fall flat upon the sills, allowing the vehicle to pass over.

To operate the gate when it is approached from the other side, a second lever, D′, is provided, which turns upon the same bolt as lever D, and is tapered in the opposite direction. Two T-shaped levers, J J′, are pivoted near the top of posts K K′, upon the front of said posts, the downwardly-extending arms of which levers are connected by a rope, I. The smaller ends of levers D D′, which carry the treadles, are connected by rods or ropes L to the outer horizontal arms of the T-shaped levers, and their heavy ends are similarly connected to the inner arms of the same. With this construction, when the treadle E′ is depressed, raising the large end of lever D′, the large end of D will also be raised, the rope F will be relaxed, and the boards B will be permitted to fall.

The gate may be made of any convenient size. The cutting need not in any case be more than two feet deep, if it has a length of eight feet and a width of six, which will usually be sufficient. The sills A A should be four inches by four inches by six feet. The slats B, of which six will be necessary, should be two inches by twelve inches by eight feet. Beam C should be three inches by three inches by six feet, and levers D D′ must each be thirty-two feet in length. The posts must be fifteen feet apart, K K′ being six feet high, and H ten. Stuff three inches by six inches will be sufficiently strong. Levers D D′ should be pivoted to H about one foot above the ground, and the treadles should be at least two feet wide.

I am aware that cattle-guards have been made by setting slats on edge, and that gates hinged to turn down upon the surface of the roadway are also old. Therefore I do not broadly claim either of these constructions; but

What I do claim, and desire to secure by Letters Patent of the United States, is as follows:

1. A gate composed of a series of transverse slats hinged at their lower edges to supports

arranged along the roadway, in combination with means, substantially as described, for simultaneously raising and lowering the same.

2. The combination, with a folding gate of the class described, of a weighted lever connected at its lighter end with a treadle, and pivoted to a support at the side of the roadway, and of a rope passing from the gate over an intervening pulley to the weighted end of said lever, substantially as shown and described.

3. The combination, with a folding gate of the class described, of two weighted levers, each connected to a treadle at its lighter end, which are pivoted in reverse positions to a support at the side of the roadway, of a rope passing from the gate over an intervening pulley to the weighted end of one of the levers, and of rods connecting the weighted end of the first lever and the lighter end of the second lever with opposite ends of a third lever, so as to secure their simultaneous action, substantially as shown and described.

ELIAS COWAN.

Witnesses:
D. J. SALYE,
A. R. COWAN.