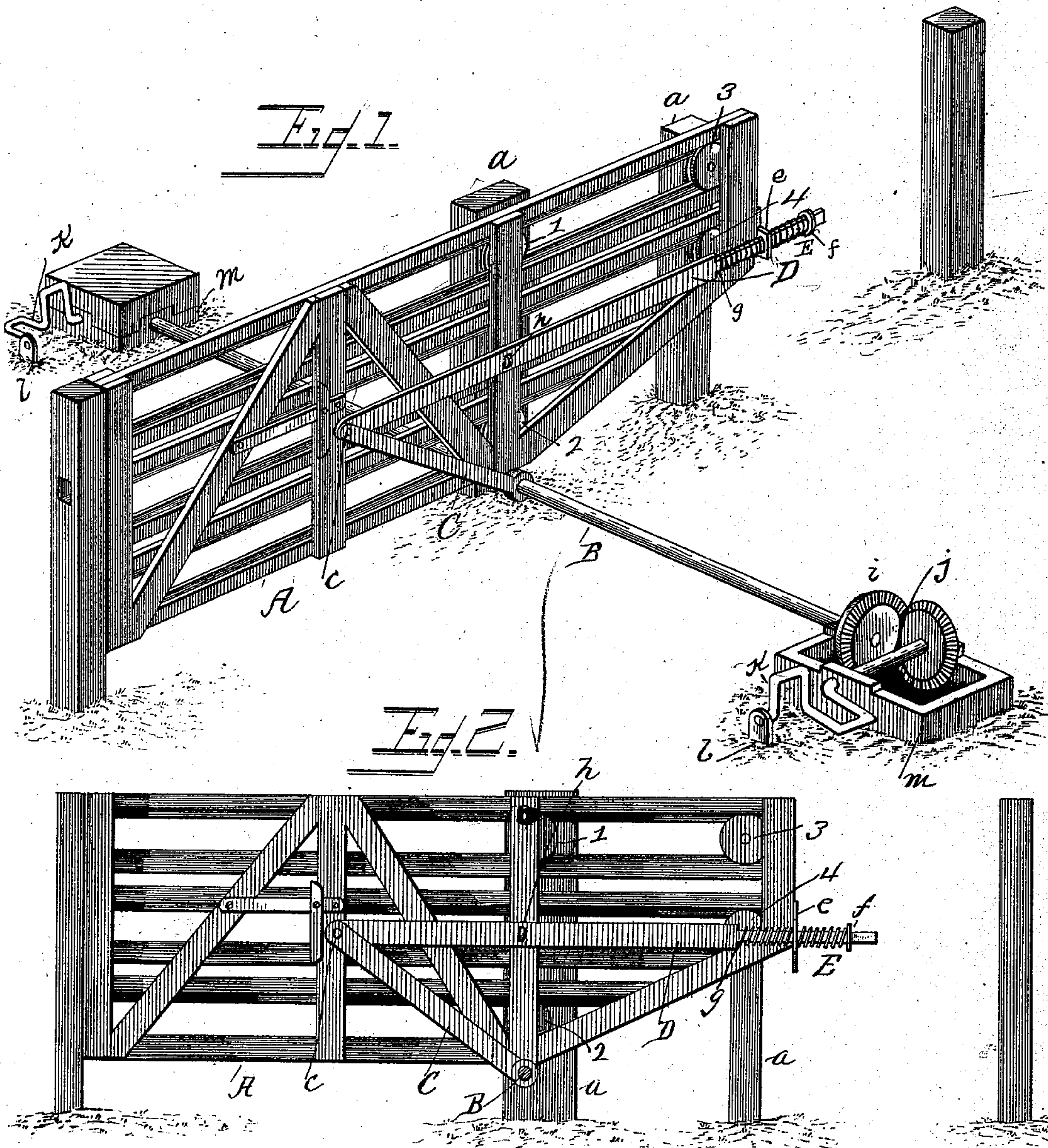


(No Model.)

J. M. VANOVER.  
SLIDING OR ROLLING GATE.

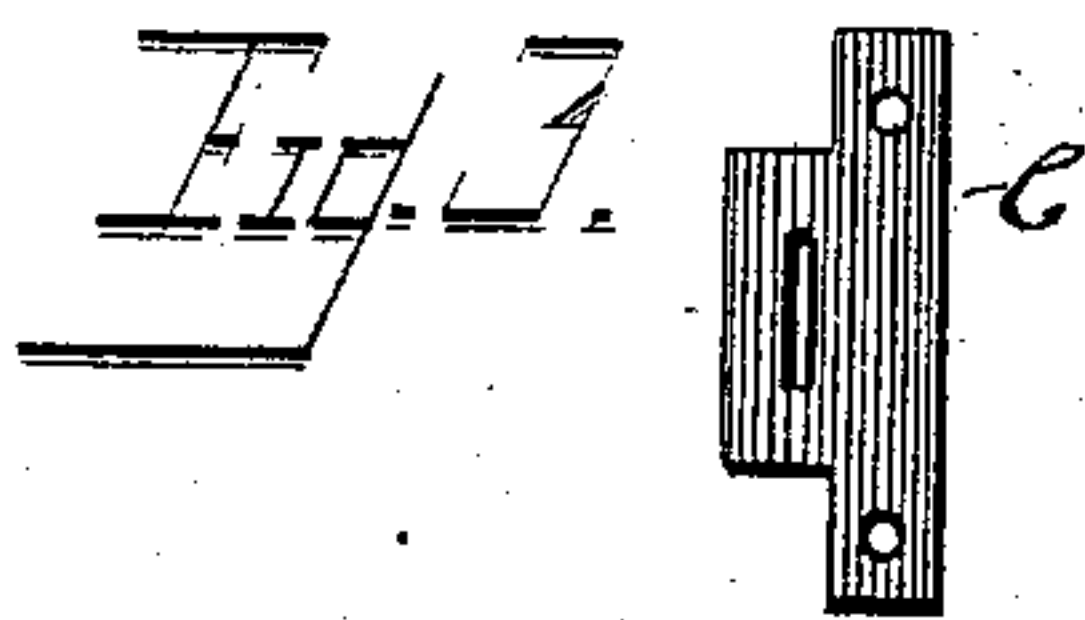
No. 379,918.

Patented Mar. 20, 1888.



WITNESSES

Edwin I. Yewell.  
Curtis Lammond.



Joseph M. Vanover,  
INVENTOR.

By

Ernest Ellis, Attorney.



# UNITED STATES PATENT OFFICE.

JOSEPH M. VANOVER, OF TERRE HAUTE, INDIANA, ASSIGNOR OF ONE-HALF  
TO ALLEN I. ABBOTT, OF SAME PLACE.

## SLIDING OR ROLLING GATE.

SPECIFICATION forming part of Letters Patent No. 379,918, dated March 20, 1888.

Application filed December 16, 1887. Serial No. 258,101. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH M. VANOVER, a citizen of the United States, residing at Terre Haute, in the county of Vigo and State of Indiana, have invented certain new and useful Improvements in Sliding or Rolling Gates; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to  
10 which it appertains to make and use the same.

This invention relates to certain new and useful improvements in automatic sliding or rolling gates; and it consists, substantially, in such features of arrangement, construction,  
15 and combinations of parts as will hereinafter be more particularly described.

The object of the invention is to provide an automatic sliding or rolling gate which can be operated to open or close by the wheels of a  
20 vehicle without necessity of the driver or occupants alighting for that purpose.

The invention also has other objects in view, all as will more fully hereinafter appear when taken in connection with the accompanying  
25 drawings, wherein—

Figure 1 is a perspective view of an automatic sliding or rolling gate and the mechanism by which the same is operated to open and close. Fig. 2 is a front elevation of the same,  
30 partly in section, and indicating the arrangement of a spring on the connecting-rod for relieving shock thereto due to violent opening or closing of the gate. Fig. 3 is a detail.

Reference being had to the several parts by the letters marked thereon, A represents a gate of any preferred construction, which is supported by and slides on anti-friction rolls 1 2 3 4, held to the sides of the posts or uprights *a a*. Passing through the main post or  
40 upright at near its base or bottom is a rock-shaft, B, that extends to opposite sides of the gate for a suitable distance, and to this shaft is keyed or fixed an arm or lever, C, which in turn is movably connected, as at *c*, to a movable connecting-rod, D, the other end of said  
45 rod being provided with a spiral or helical spring, E, and passing through a loop or guide, *e*, secured to one end of the gate, as shown. This spring has its seat or bearing between a

small nut, *f*, and a shoulder or flange, *g*, formed with or provided on the connecting-rod. 50

The purpose of the spring E is to relieve the shock caused by the opening and closing of the gate, and thus prevent loosening of the parts of the gate as well as distortion of the connect-  
55 ing-rod.

For the purpose of lessening friction, I prefer to employ a small roll, *h*, in the side of the connecting-rod, the same operating in a vertical plane and moving against the side of one  
60 of the uprights of the gate. When the gate is opened or closed, the connecting-rod describes an arc of a circle, and the usefulness of this roll for the purpose stated will be apparent. 65

Each end of the rock-shaft is provided with a beveled gear-wheel, *i*, meshing with corresponding wheels carried by the horizontal members *j* of two trip-stirrups, *k*, having their bearings in small standards *l*, and the sides of  
70 a boxing or housing, *m*, designed to protect the parts from dirt and rust. It is by the action of the wheels of a vehicle passing over the stirrup at one side that the gate is opened, and afterward closed by passing over the stir-  
75 rup at the other side.

From the foregoing description it will be seen that in order to open the gate it is simply necessary to cause the wheels of a vehicle to pass over the stirrup to one side thereof, and  
80 to pass over the opposite stirrup in the same direction to close the gate.

It will be apparent that the gate can also be readily opened or closed by persons on foot by simply exerting strength sufficient therefor. 85

It is evident that immaterial departures may be permitted from the general construction and arrangement of parts contributing toward my invention, and for this reason I do not wish to be understood as limiting myself  
90 thereto in precise detail.

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

1. In an automatic sliding or rolling gate, 95 the combination, with the gate having at its end the loop or guide *e*, of the rock-shaft extending to opposite sides thereof and having

at each end a gear-wheel, the stirrups *k*, also having gear-wheels meshing with those of the shaft, the arm or lever keyed to the shaft, and the connecting-rod movably connected to said lever at one end, its other end passing through the loop and bearing a spring, substantially in the manner and for the purpose described.

2. In an automatic sliding or rolling gate, the combination therewith of the rock-shaft, the stirrups *k*, the lever keyed to the shaft, and the connecting-rod movably connected to

the lever, the said connecting-rod passing through the loop and having thereon a spring, and provided in its side with a small friction-roll, substantially as and for the purpose described. 15

In testimony whereof I affix my signature in presence of two witnesses.

JOSEPH M. VANOVER.

Witnesses:

JOHN B. DEEDS,

WARREN W. FERRIS.