

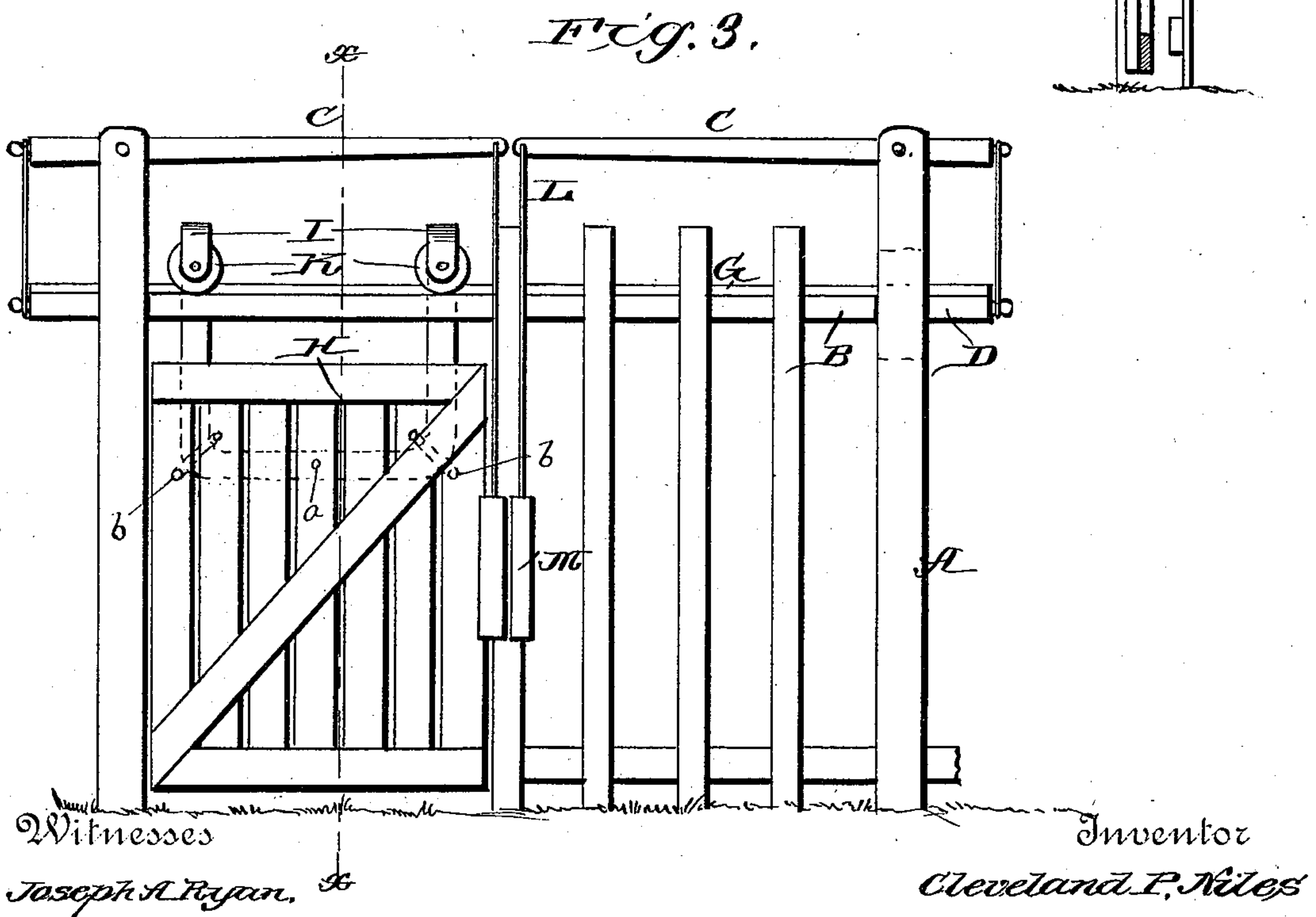
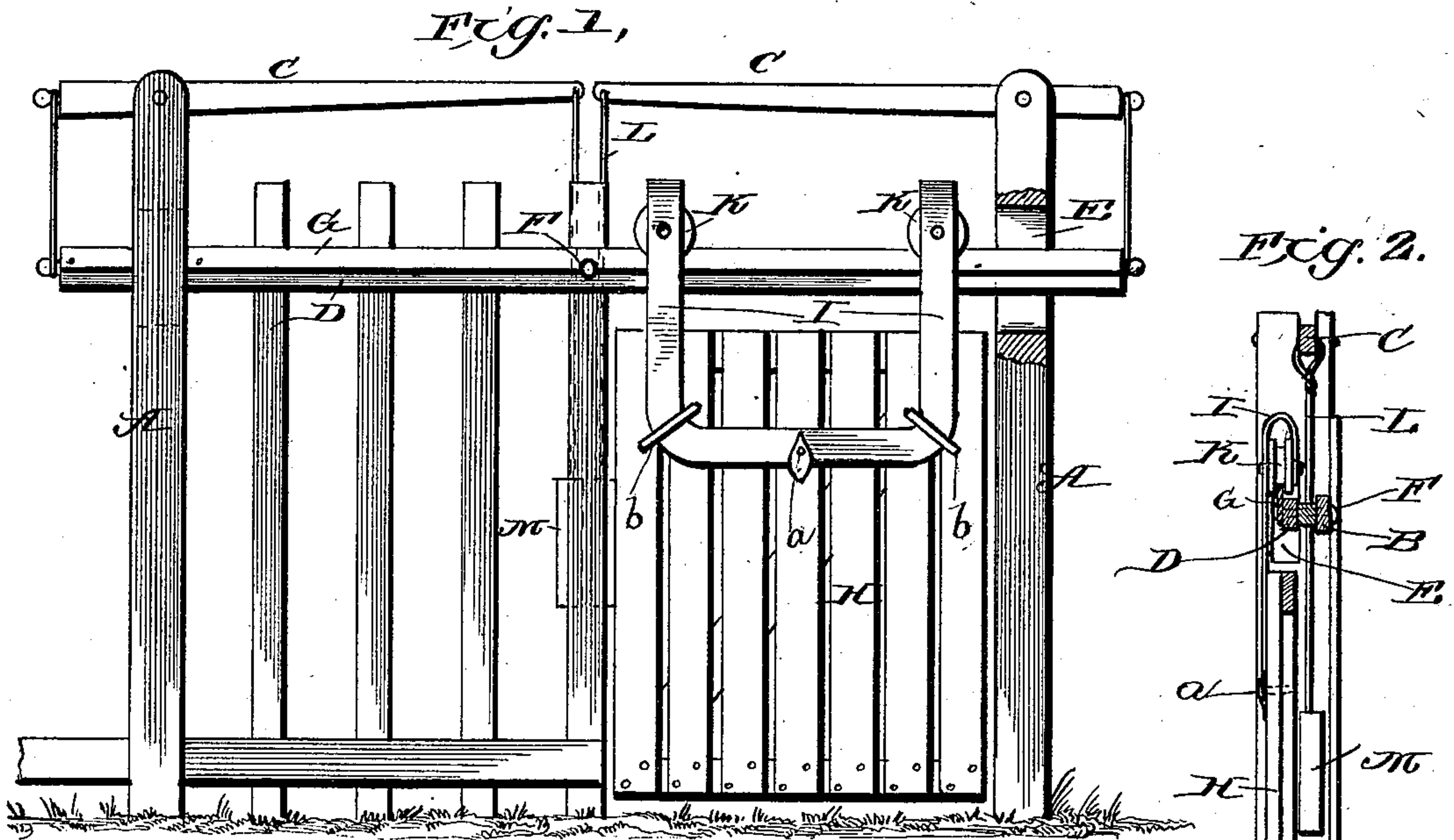
(No Model.)

C. P. NILES.

APPARATUS FOR OPENING AND CLOSING DOORS OR GATES.

No. 374,552.

Patented Dec. 6, 1887.



C. G. Siggers

By his Attorneys

C. A. Howells

UNITED STATES PATENT OFFICE.

CLEVELAND P. NILES, OF BIG STONE CITY, DAKOTA TERRITORY, ASSIGNOR
OF ONE-HALF TO ALBERT W. MOVIUS, OF SAME PLACE.

APPARATUS FOR OPENING AND CLOSING DOORS OR GATES.

SPECIFICATION forming part of Letters Patent No. 374,552, dated December 6, 1887.

Application filed June 23, 1887. Serial No. 242,332. (No model.)

To all whom it may concern:

Be it known that I, CLEVELAND P. NILES, a citizen of the United States, residing at Big Stone City, in the county of Grant, Dakota Territory, have invented a new and useful Improvement in Apparatus for Opening and Closing Doors or Gates, of which the following is a specification.

My invention relates to an improvement in apparatus for opening and closing doors or gates; and it consists in the peculiar construction and combination of devices that will be more fully set forth hereinafter, and particularly pointed out in the claim.

In the drawings, Figure 1 is an elevation of a gate provided with my improved opening and closing apparatus. Fig. 2 is a vertical sectional view of the same, taken on the line *xx* of Fig. 3. Fig. 3 is an elevation of the reverse side of the gate from that shown in Fig. 1.

A represents a pair of vertical gate-posts. B represents a horizontal bar connecting the said posts near their upper ends; and C represents a pair of operating-levers, one of which is fulcrumed to the upper end of each post.

D represents a bar which extends from one post A to the other, and has its ends passed through vertical slots E, with which the posts are provided. The central portion of this bar D is fulcrumed to the center of the bar B by a bolt, F.

G represents a metallic rail, which is bolted to one side of the bar D, and projects above the upper edge thereof, thereby forming a raised flange.

H represents the gate, which may be of any preferred construction.

I represents a U-shaped hanger, the central portion of which is pivoted to the central portion of the gate, near the upper end thereof, by a bolt or pin, *a*. To the upper ends of the vertical arms of the hanger are journaled friction-rollers K, provided with peripheral grooves that fit on the rail G and thereby sus-

pend the gate from the bar D. By this means the gate is caused by its gravity always to assume a vertical position. The oscillation of the gate on the pivot *a* is confined within proper limits by keepers *b*, as shown. The outer ends of the said bar D are connected to the outer ends of the levers C, and to the inner ends of the said levers are connected ropes or chains L, to the lower ends of which are attached counter-weights M.

The operation of my invention is as follows: By moving one of the levers C the bar D may be inclined so as to cause the gate by its own gravity to travel downward on the bar and be thereby either opened or closed. The weights M, which are connected to the levers C, counterpoise the gate and thereby render it easy to tilt the supporting-bar D. By connecting operating-ropes to the levers C and extending the same on suitable pulleys to points on opposite sides of the gateway the gate may be opened or closed by persons in vehicles or on horseback without the necessity of dismounting.

Having thus described my invention, I claim—

The combination of the pivoted bar D, the levers to incline or tilt the same, for the purpose set forth, the U-shaped hanger I, having the rollers K at the upper ends of its vertical arms bearing on the bar D and suspending the hanger therefrom, the gate H, pivoted to the central portion of the hanger and suspended therefrom, and the keepers *b*, secured to the gate and embracing the lower corners of the hanger to limit the oscillation of the gate on the pivot, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

CLEVELAND P. NILES.

Witnesses:

H. J. GLASSER,
W. R. MOVIUS.