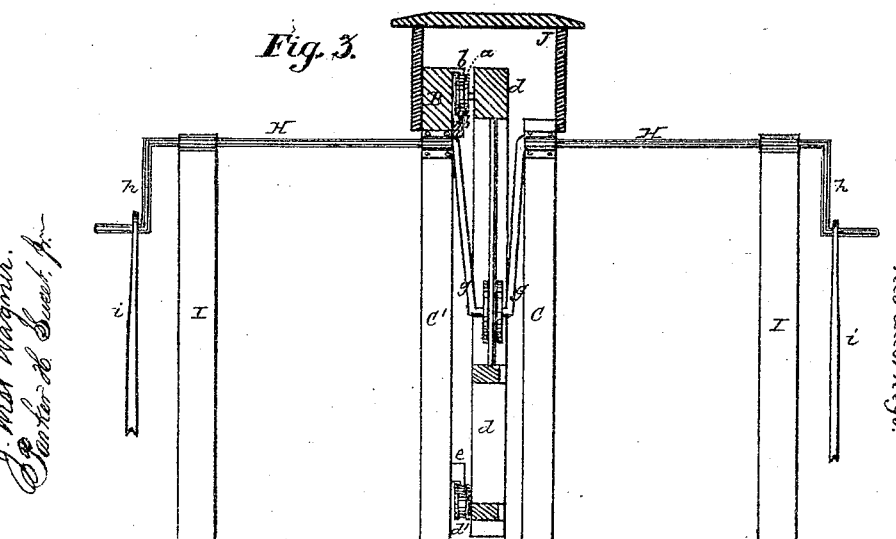
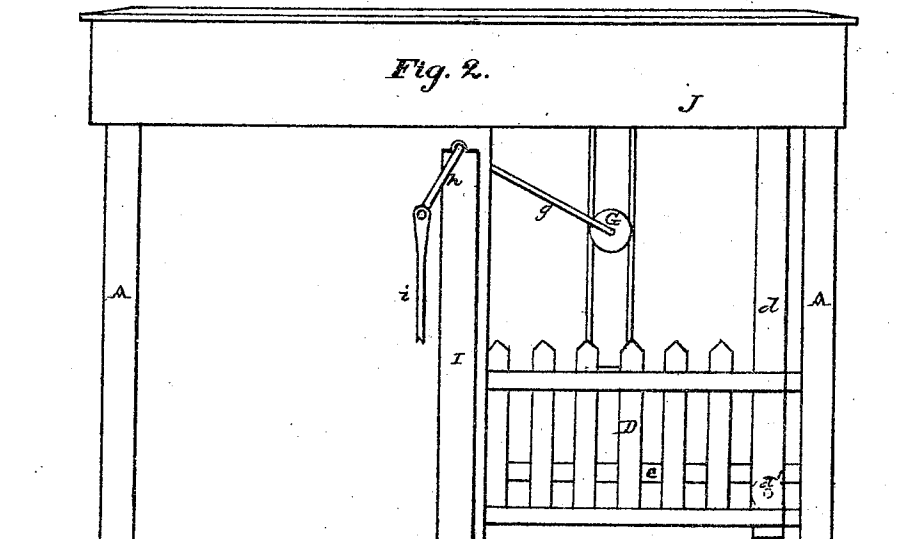
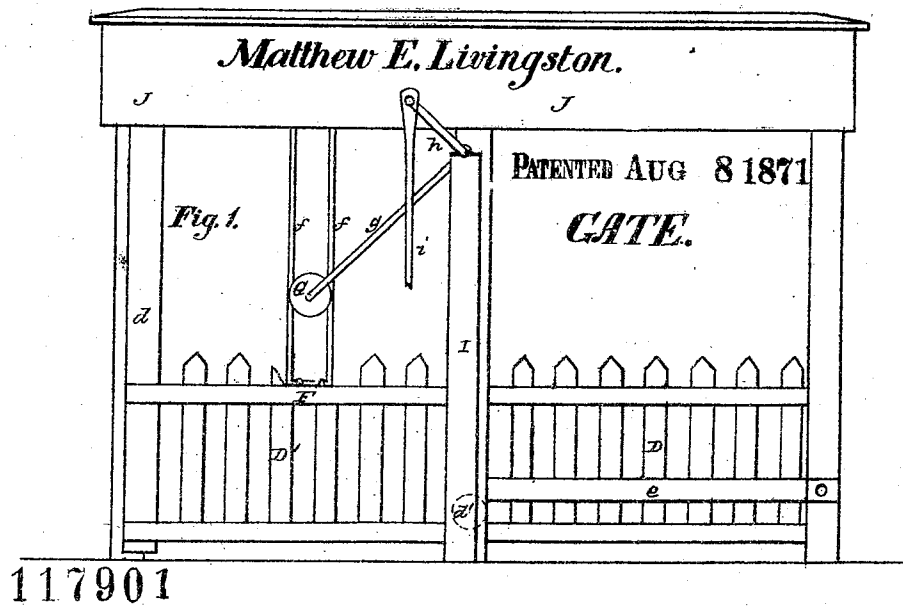




# UNITED STATES PATENT OFFICE.

MATTHEW E. LIVINGSTON, OF MANCHESTER, ILLINOIS.

## IMPROVEMENT IN GATES.

Specification forming part of Letters Patent No. 117,901, dated August 8, 1871.

*To all whom it may concern:*

Be it known that I, MATTHEW E. LIVINGSTON, of Manchester, in the county of Boone and State of Illinois, have invented a new and useful Improvement in Gates, of which the following is a description:

My invention consists in operating a sliding gate by means of a crank-shaft which carries in its crank part a grooved roller playing loosely between two standards attached to the sliding part of the gate, so that by causing said roller to move from side to side by means of turning the shaft the sliding gate will be opened or shut; and, as the ends of this shaft extend outwardly a sufficient distance to each side of the said gate and are provided with crank-levers having hanging handles, the gate may be operated by persons from an approaching carriage without obliging the person to descend.

In the drawing, Figure 1 is a front elevation of a gate, its sliding part being shut. Fig. 2 is a similar view with the sliding part open; and Fig. 3 is an end view of the same, the frame at one end being removed.

A A in the drawing are the end posts of the gate, carrying a cross-beam, B. Between the two posts A A are two posts, C C', the stationary part D of the gate being secured between one post A and the post C'. The sliding part of the gate D' consists of a frame, d, between which the pickets are fixed, and which extends upwardly in line with cross-beam B. To the latter are secured ways b, between which grooved rollers a, one at each end of the frame d, move so as to support and slide the gate D'. To the lower end of the inner post of frame d is pivoted a grooved roller, d', bearing against a way, e, secured on the stationary part D of the gate, and which serves to keep the lower part of gate D' steady. From the cross-piece F of the gate D' two standards, f, rise to the top piece of frame d, between which a grooved roller, G, has free play. This roller G revolves freely on the crank g of a shaft, H, which has its bearings on the center posts C C' and posts I I, the latter situated one at each

side of the gate and at a suitable distance from the same, in such a manner that the crank g of the shaft swings forward and backward between the posts C C'. The ends of the shaft H outside of the posts I may be provided with suitable crank-arms h, to which, for easier operation, handles i may be pivoted. A cap, J, may inclose the entire upper portion of the gate, as shown.

My improved gate is of especial value to persons riding and driving, who are, by my improvement, enabled to readily shut or open a gate from horseback or from the carriage without the necessity of dismounting. When the gate is closed, as shown in Fig. 1, a person approaching it can open by pulling the handle i down, which turns the crank-shaft H, and swinging the roller G around in the arc of a circle of which the bearings of the shaft are the center. The sliding part D' of the gate is, therefore, by reason of the power exerted by the swinging roller G upon the standards f, moved between the ways and pushed open. By elevating the handle i on the opposite side of the gate the shaft H will be turned to resume its previous position and thus again close the gate. It will be readily understood that, instead of the two-armed crank g, a single crank-arm may extend from shaft H, which latter, in that case, may extend directly across the posts C C' I without forming itself the crank g.

Having described my invention, I claim—

1. A sliding gate, when operated by means of a roller, G, playing between standards f on the sliding gate and held in crank g of shaft H, which latter is operated by crank-arms h, all arranged to operate substantially as herein described.

2. The combination of the stationary and sliding parts D D' of the gate, the latter provided with standards f and rollers b d' moving on ways a e, with the crank-shaft H g h, handles i, and posts A C C' I, all arranged to operate substantially as herein described.

MATTHEW E. LIVINGSTON.

Witnesses:

C. P. WHITFORD,  
H. G. HEFFRON.