

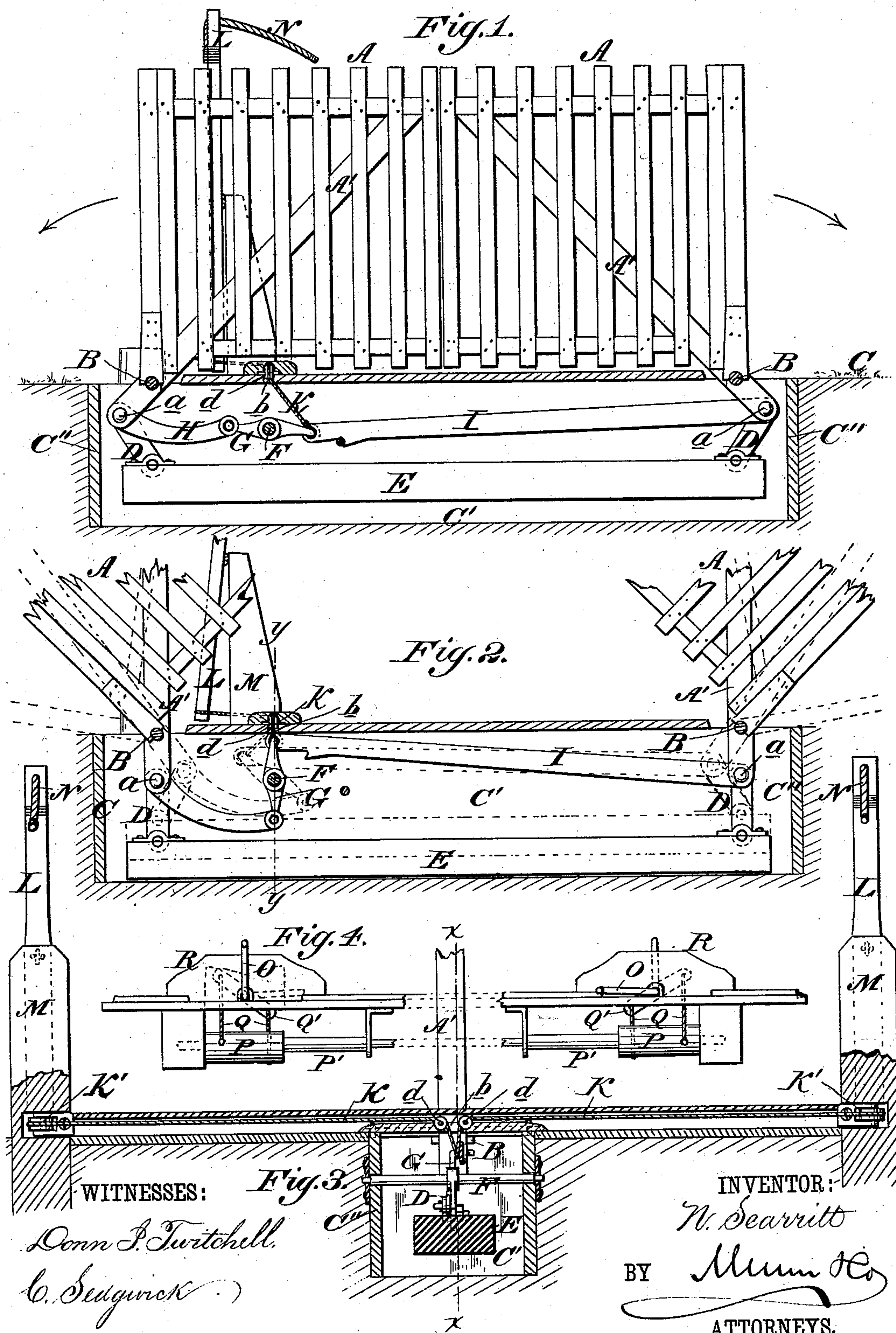
(No Model.)

N. SCARRITT.

Gate.

No. 236,094.

Patented Dec. 28, 1880.



UNITED STATES PATENT OFFICE.

NATHAN SCARRITT, OF KANSAS CITY, MISSOURI.

GATE.

SPECIFICATION forming part of Letters Patent No. 236,094, dated December 28, 1880.

Application filed September 17, 1880. (No model.)

To all whom it may concern:

Be it known that I, NATHAN SCARRITT, of Kansas City, in the county of Jackson and State of Missouri, have invented a new and Improved Gate, of which the following is a specification.

The object of this invention is to provide a gate that may be opened by an approaching vehicle or by a person on horseback without dismounting, and closed in the same manner.

The invention consists of a gate made in two like sections that are pivoted on horizontal axes, and of novel mechanical devices whereby the gate-sections are moved apart and closed in a vertical plane, all of which is hereinafter described.

Figure 1 is a partly-sectional front elevation of the gate closed, on line *x x*, Fig. 3. Fig. 2 is a partly-sectional front elevation of the gate open, on line *x x*, Fig. 3. Fig. 3 is a vertical sectional elevation of the gate on line *y y*, Fig. 2. Fig. 4 is an elevation of a modified mechanical device for operating the gate.

Similar letters of reference indicate corresponding parts.

In the drawings, A A represent the two sections of the gate, through each one of which runs a diagonal supporting-bar, A', to which the gate-section A is firmly framed. Both sections A A turn simultaneously in vertical planes on axes B B, that pass transversely through the lower ends of said bars A', which extend below the gate-sections A at the outer corners thereof, beneath the level of the road C, the operating mechanisms of the gate being placed beneath the gate A, in a vault, C', formed in the ground and lined with boxing C''. The axes B B extend across this boxing C'' and rest upon its sides. The diagonal supporting-bars A' extend downward about nine inches below the axes B, and have pivoted to their extremities, by pivots *a a*, suspension-rods D D, that carry a weight, E, which extends along the vault C' from one to the other of the said rods D D, which weight E is so suspended that when the gate A is closed said weight E tends to pull it open, and when the gate A is open the weight E tends to close it, so that in any position the weight E almost counterbalances the gate A, thus making it easy to operate.

At about eighteen inches from the left-hand

side of the gate A, as shown in the drawings, and about eight inches below the surface of the ground, an axle, F, extends across the vault C' and carries a double lever, G, one end of which is movably connected with the lower extremity of one of the bars A' by a curved bar, H, while the other end of said lever G is connected with the lower extremity of the opposite bar A' by a longer and straight bar, I.

The device is operated by two flexible cords or ropes, K, preferably of wire, one end of each being made fast to the right-hand end of the lever G, both of said ropes or cords K passing through an opening, *b*, in the top of the vault C', and over the pulleys *d d*, perpendicularly above the axle F. One of these ropes or cords K extends out fifteen feet, or thereabout, along the roadway in one direction, and the other extends about the same distance in the opposite direction, the outer end of each being fastened to the lower end of a perpendicular lever, L, which is hinged at about its center to the top of a short post, M, set firmly in the ground. The upper end of each of these levers L is furnished with a flexible handle, N, which reaches over toward the middle of the road, and which handle N can consequently be easily grasped by a person in a carriage or on horseback. Each cord or rope K passes around pulley K' at the foot of each post M. By pulling upon either of said handles N toward the middle of the road the lever G will be turned until its arms are brought into a vertical position, as shown in Fig. 2, and the gate-sections A A open, as shown in full lines in said Fig. 2. This is as far as the said gate can be opened by a slow steady pull; but by a quick short pull, and then an immediate release of the handle N, the gate-sections A A at this point will have acquired a momentum that will carry them over, as shown in dotted lines. In shutting the gate the double lever G is carried a little beyond a horizontal position, so that the end thereof to which the long bar I is attached is a little below its axis F, and the other end thereof is a little above said axis F, to form a lock for the gate when closed.

In Fig. 4 is shown a modification of this device, which is designed as a substitute for the ropes K and lever G, as shown in Fig. 3. The reciprocating double crank O is to be placed

where the lever and post L M are now situated. The cylindrical pulley or drum P and its horizontal connecting rod or tube P' are to be placed in the vault C', and the inner end of
 5 said rod or tube P' engages with the ends of the axle F. Wires or ropes Q connect the opposite arms of the lever Q', to which the crank O is attached, with opposite sides of the drum P. The object of this modification is to open and
 10 close the gates A by operating the reciprocating crank O with the carriage-wheels.

It will be seen that the lever Q' is covered by a cap or box, R, about four inches wide. From one of these caps R, on one side of the
 15 gate A, straight through to the cap R on the other side of gate A, a guide is designed to run, of the same width as the cap R, to guide the carriage-wheel.

In driving through the gate A one way—
 20 say easterly—the wheel of the right side of the carriage runs on the south side of the caps R and guide, but in driving westerly through the gate A the left-hand wheel runs on the north side of the same. The said cranks O are so
 25 arranged that when the wheel, in approaching the gate A, strikes against and presses down the first crank O it meets, the said gate A will

open, and at the same time the corresponding crank O on the opposite side of the gate A be raised, and on the same side of the intended
 30 guide, which latter crank O will be pressed down by the same wheel after the carriage passes through the gateway, and thereby the gate A will be closed.

Having thus fully described my invention, 35
 I claim as new and desire to secure by Letters Patent—

1. An improved gate constructed substantially as herein shown and described, consisting of sections A A, provided with diagonal
 40 supporting-bars A' A', axes B B, suspension-rods D D, weight E, axle F, carrying lever G, bars H I, cords K, and hinged lever L, as set forth.

2. The combination, with the pivoted gate- 45
 sections A A, provided with diagonal supporting-bars A' A', of the suspension-rods D D, weight E, bars G H I, and axle F, arranged and operated substantially as herein shown and described.

NATHAN SCARRITT.

Witnesses:

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 W. C. SCARRITT.