(No Model.) 2 Sheets—Sheet 1.

C. WILSON.

GATE.

No. 378,564. Patented Feb. 28, 1888.

Fig. 1.

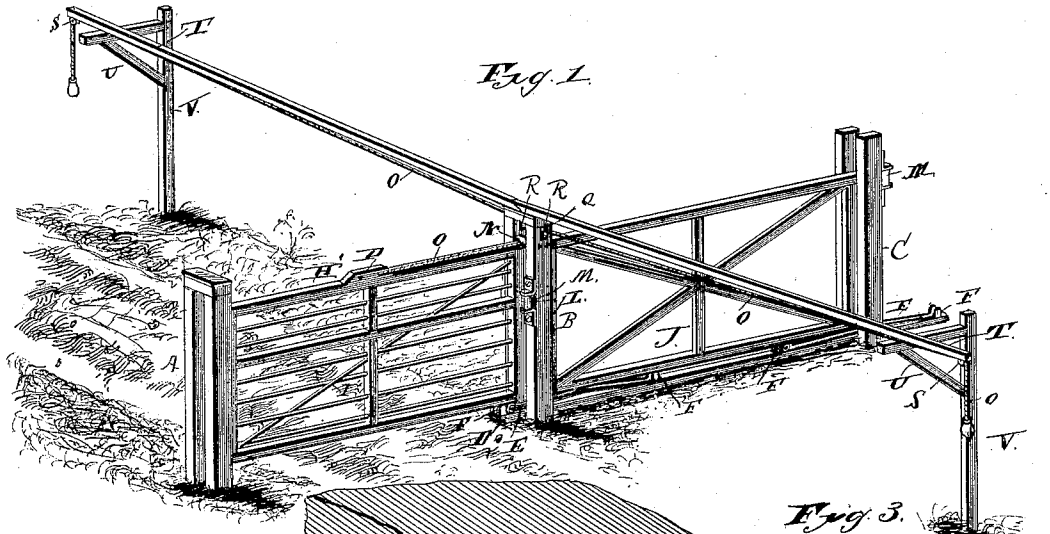


Fig. 2.

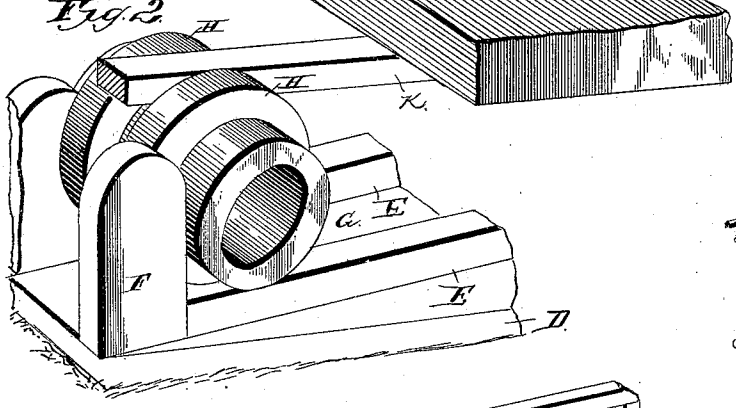


Fig. 3.

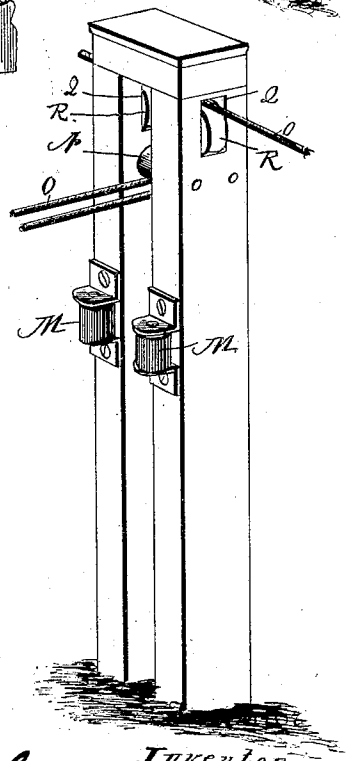
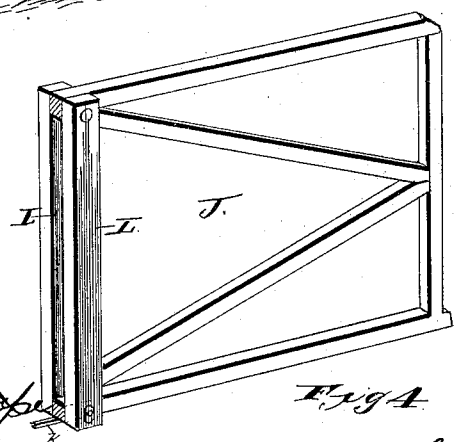


Fig. 4.



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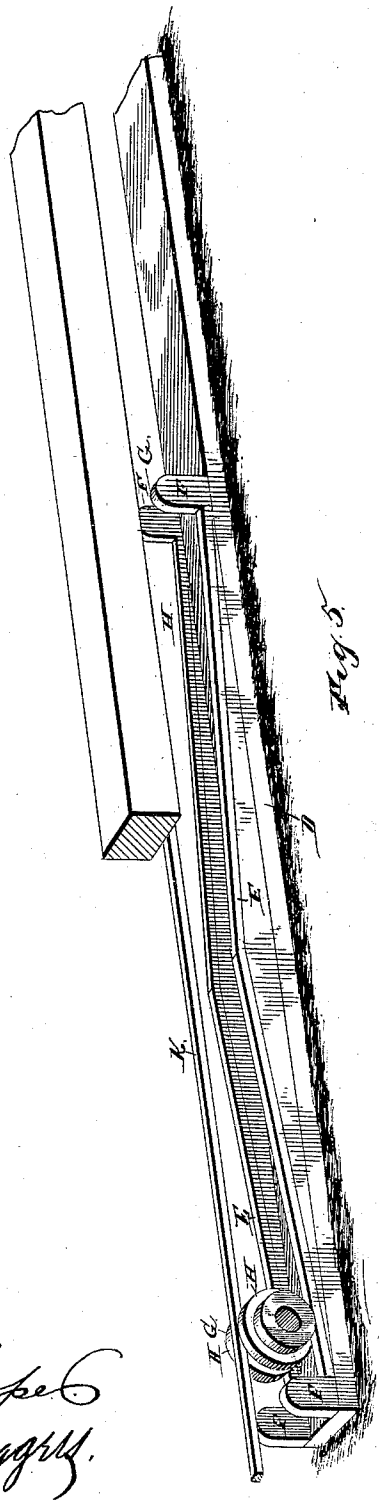
(No Model.) 2 Sheets—Sheet 2.

C. WILSON.

GATE.

No. 378,564. Patented Feb. 28, 1888.



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UNITED STATES PATENT OFFICE.

CURTIS WILSON, OF CORDELIA, CALIFORNIA, ASSIGNOR OF ONE-HALF TO HENRY GOOSSEN, OF SAME PLACE.

GATE.

SPECIFICATION forming part of Letters Patent No. 378,564, dated February 28, 1888.

Application filed March 23, 1887. Serial No. 232,189. (No model.)

To all whom it may concern:

Be it known that I, CURTIS WILSON, a citizen of the United States, residing at Cordelia, in the county of Solano and State of California, have invented certain new and useful Improvements in Gates, of which the following is a specification.

My invention relates to improvements in sliding and rolling gates; and it consists in certain novel features, hereinafter described and claimed.

In the annexed drawings, Figure 1 is a perspective view of a gate embodying my improvements. Fig. 2 is a detail perspective view of a portion of the sill and lower rail of the gate with the supporting and guide roller. Fig. 3 is a detail perspective view of the central slotted post. Fig. 4 is a detail perspective view of a portion of the rear guide-frame, and Fig. 5 is a perspective view showing a part of the sill with the track and the roller.

Referring to the drawings by letter, A B C designate three slotted posts, which are set in the ground in line with one another, the posts A B being set at the sides of the roadway and the post C a suitable distance from the roadway in line with the said posts A B. A sill, D, is bedded in the ground between the posts B C, and extends a slight distance past each, as shown. Upon the upper side of this sill D, at the ends of the same, I secure the parallel tracks or rails E, having double inclines and provided with upwardly-projecting hooks F at both ends. Upon these tracks I place the loose rollers G, which are provided with the annular flanges H between the rails, the said flanges bearing against the inner sides of the rails, and thereby maintaining the rollers in a position transverse to the rails.

The gate H′ is provided with a diagonal brace, I, having a nut on its upper end, by means of which the brace can be tightened, so as to prevent sagging of the gate. To the rear end of the gate I secure the carriage or frame J, which serves to counterbalance the gate, so that it will maintain a horizontal position, and also to guide it in its movements. In the under side of the lower rail of the gate and the frame J, I secure the track-irons K, which rest on the loose rollers G between the flanges H thereof, and thereby aid in guiding the gate in its movements. The flanges H and track-irons K are of such depth that the under side of the lower rail of the gate and frame J will bear upon the flanges, and thereby be provided with a broad firm support.

At the junction of the rear end of the gate and the frame J, upon the sides of the said frame, I secure the vertical stop-blocks L, which, by striking the posts B C, limit the movement of the gate, as will be readily understood. Upon the sides of the posts, in suitable brackets, I mount the vertically-disposed rollers M, which bear upon opposite sides of the gate and the rear guide-frame, and thereby guide the upper portion of the same. Near the upper end of the central post, B, I journal in said post the transverse rollers N, between which the ropes O pass upward. These ropes O are secured to a block, P, on the top of the gate, and after passing between the rollers N they separate and pass through openings Q in the opposite sides of the post B and over grooved rollers R, journaled in said openings. The ropes then pass to and over pulleys S at the outer ends of braces T, extending along the side of the roadway from the central post, B, and from said pulleys S the ropes depend to within a suitable distance of the ground. The outer ends of the braces T are supported by arms U, extending from posts V, set in the ground at the side of the roadway.

The operation of my gate, it is thought, will be readily understood. The operating-rope O is drawn upon to pull the gate backward until the rollers reach and pass the apexes of the track-rails, when the weight of the gate upon the rollers will cause the rollers to ride down the rear inclines of the rails, and thus cause the gate to open to its full extent. The motion of the gate will be arrested by the stop-blocks L striking the post C, and it will be caused to travel in a straight line by reason of the rollers M, the track-irons, and the flanges of the loose rollers at the bottom of the gate, as hereinbefore set forth.

It will be observed that my device is very simple and efficient. As the rollers at the bottom of the gate are loosely mounted, the friction at that point will be reduced to a minimum, and I am also enabled to use a comparatively short track for the carrying-rollers, as

the distance traveled by them will be considerably less than that traveled by the gate, as will be readily understood. For this reason the labor necessary to operate my gate is not as great as that required to operate the gates heretofore constructed.

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

The combination of the sill, the two pairs of double-inclined parallel rails provided with terminal hooks secured thereon, one at each end, the loose rollers traveling on said rails and having annular flanges which rest between and against the inner sides thereof, and the gate with its rear guide-frame, the bottom rails of which rest on the flanges of the rollers and are provided with a track-iron passing between said flanges, all substantially as specified.

CURTIS WILSON.

In presence of—
HENRY GOOSSEN,
J. A. DOWNER.