

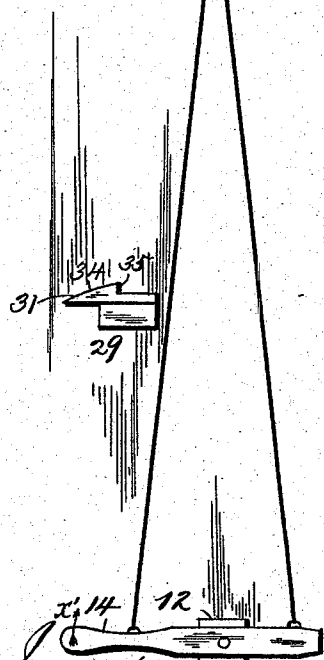
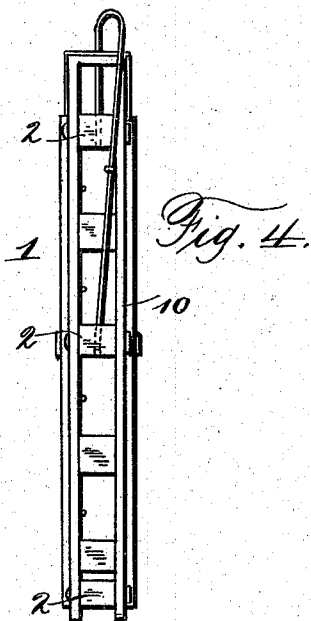
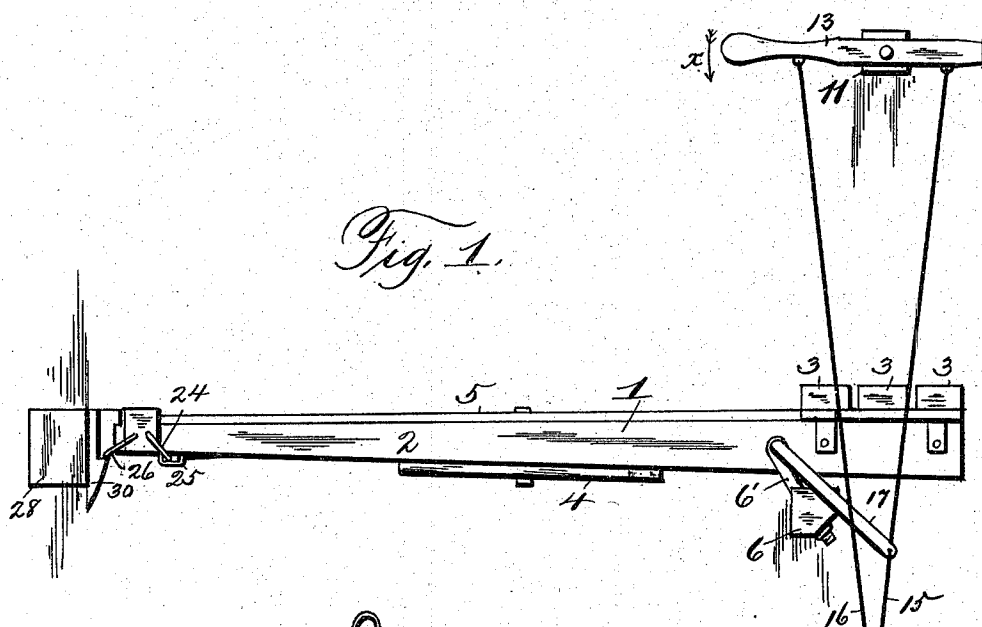
(No Model.)

3 Sheets—Sheet 1.

A. W. MACLAREN.
GATE.

No. 528,174.

Patented Oct. 30, 1894.



Witnesses:
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H. E. Lowell

Inventor:
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(No Model.)

A. W. MACLAREN.
GATE.

3 Sheets—Sheet 2.

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Fig. 2.

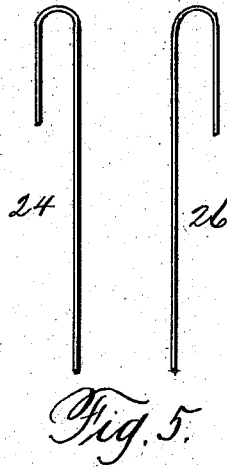
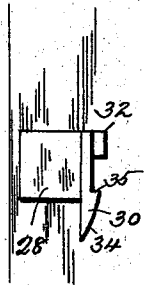
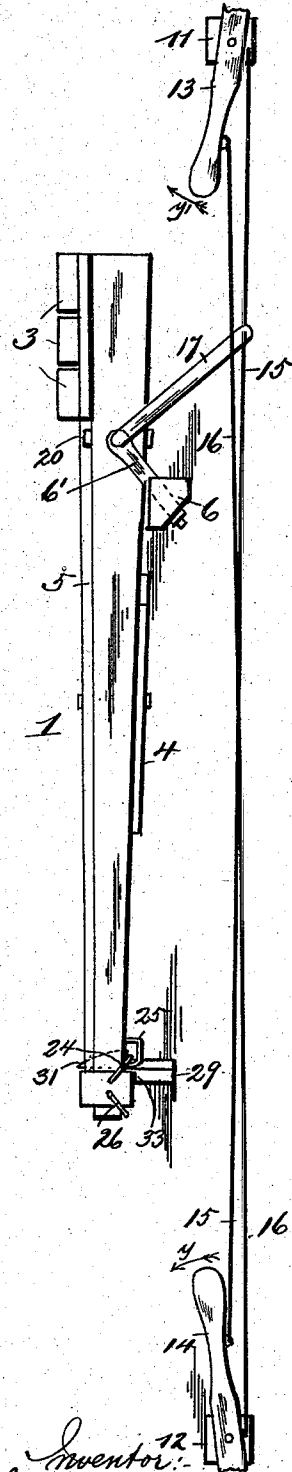


Fig. 5.



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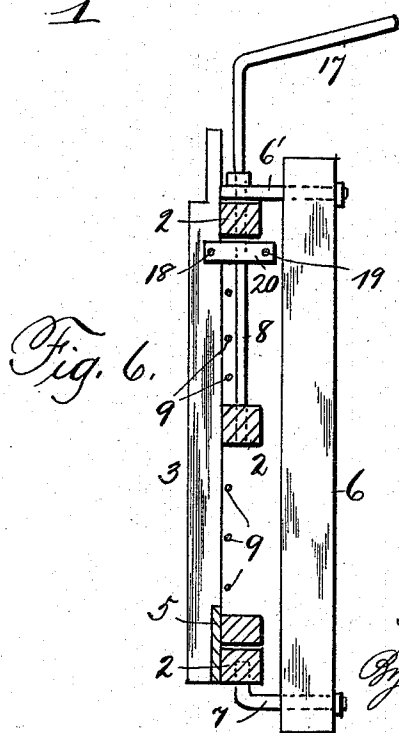
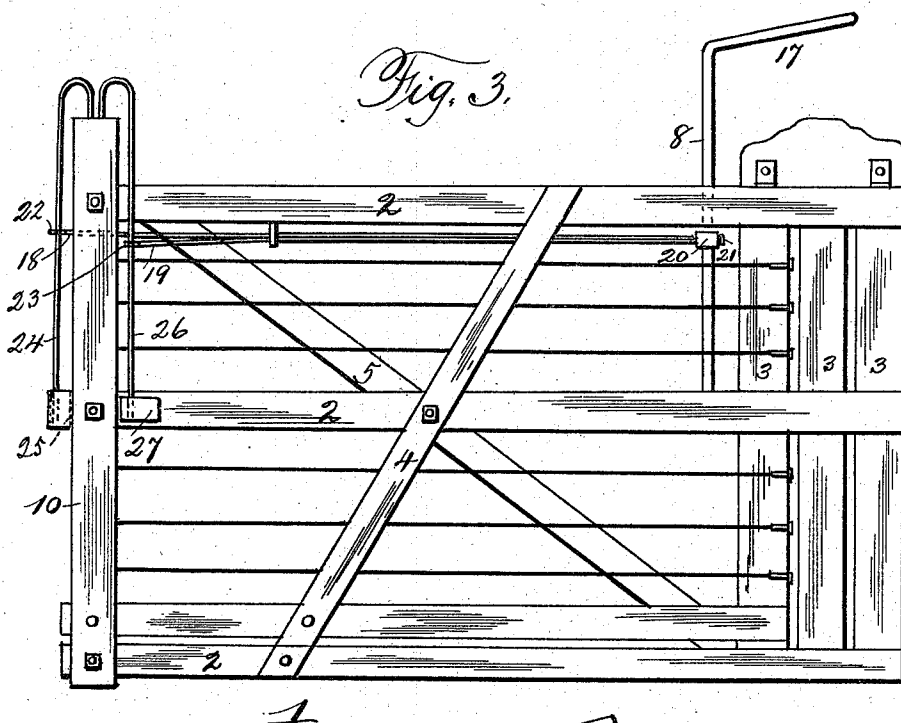
(No Model.)

A. W. MACLAREN.
GATE.

3 Sheets—Sheet 3.

No. 528,174.

Patented Oct. 30, 1894.



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UNITED STATES PATENT OFFICE.

ARTHUR WELLESLEY MACLARREN, OF HENNEPIN, ILLINOIS.

GATE.

SPECIFICATION forming part of Letters Patent No. 528,174, dated October 30, 1894.

Application filed June 11, 1894. Serial No. 514,241. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR WELLESLEY MACLARREN, a citizen of the United States, residing at Hennepin, in the county of Putnam and State of Illinois, have invented certain new and useful Improvements in Gates; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has relation to gates and among the objects in view is to provide an extremely simple, inexpensive and readily operated gate whereby the same may be opened and closed from either side thereof without necessitating the operator alighting from a vehicle desirous of passing through said gate, and with the above and other objects in view all of which will be fully described hereinafter.

The invention consists in the novel construction, arrangement and combination of parts as hereinafter described, illustrated in the drawings and pointed out in the appended claims.

In the accompanying drawings:—Figure 1 is a top plan view showing the gate in its closed position. Fig. 2 is a similar view showing the gate in its open position. Fig. 3 is a front view of the gate seen in Fig. 1. Fig. 4 is an end view of the gate. Fig. 5 is a detail view of the latches. Fig. 6 is a vertical sectional view of the gate.

In carrying out my invention I provide the gate 1, which is preferably constructed of horizontally arranged rails 2, said rails being preferably made somewhat heavier or larger at the inner or hinge end of the gate than at the outer or latch end thereof whereby the greater portion of the weight of the gate is thrown upon the hinge thereof rendering the opening and closing of the gate easier. By this construction I also obtain greater strength at the hinge end of the gate.

For the purpose of balancing the gate upon its hinge thus rendering the operation of the gate both in opening and closing an easy and convenient one, I employ a counterbalance preferably of the construction shown, the same consisting of preferably three uprights 3 secured to the larger ends of the rails with a small space between them as shown. Said

uprights serve to balance the gate upon its hinge and also as a brace therefor.

The rails of the gate are further braced or strengthened by diagonally arranged pieces 4, 5, secured to said rails.

6 indicates an upright or post which is arranged near the inner end of the gate, and provided near its top and bottom with horizontally arranged arms 6', 7, the former arm being provided with a perforation through which passes loosely a rod or shaft 8, which extends downwardly and enters the central rail of the gate. The arm 7 has its outer end turned upwardly and enters the lower rail of the gate, serving as a point of support or pivot for the latter.

The shaft or rod 8 forms the upper hinge for the gate by passing loosely through the arm 6', said shaft or rod being rigidly connected with the upper rail of the gate whereby the latter will be caused to turn simultaneously with the shaft.

I would state that in addition to the rails 2 I may employ any desired number (preferably six) of horizontally-arranged wires 9 secured at one end to the vertical piece or upright 10 of the gate, and at the opposite end to the counterbalance.

For the purpose of enabling the gate to be opened or closed from opposite sides thereof by a person in a vehicle without necessitating said person descending therefrom, I employ uprights 11, 12, arranged in proximity to the gate on opposite sides thereof. The upright 11 I preferably arrange somewhat nearer to the gate than the upright 12 said upright 12 being farther from the gate for the reason that the gate opens toward said upright and by so arranging said upright no interference is offered to the proper opening of the gate. Upon the upper ends of the said uprights are pivotally secured operating levers 13, 14, respectively, which levers are connected by cross wires or rods 15, 16 in the manner shown. The wire or rod 15 is connected with the angularly bent portion 17, of the shaft 8, at the outer end of said portion.

When the gate is in its closed position as seen in Fig. 1, and a person turns the lever 13 in the direction of the arrow α the shaft or rod 8 will be caused to turn in a direction to effect the opening of the gate, the parts

then assuming the position seen in Fig. 2. When the vehicle has passed through the gate and the person desires to close the gate again, he turns the lever 14 in the direction indicated by the arrow y in Fig. 2, which causes the shaft or rod 8 to turn in a reverse direction to effect the closing of the gate.

If a person approaching the gate from a direction opposite to that just described, desires to open the gate, he turns the lever 14 in the direction indicated by the arrow x' in Fig. 1, which causes the shaft or rod 8 to be turned to open the gate, and after passing through the latter, by turning the lever 13 in the direction indicated by arrow y' , in Fig. 2 the gate will be closed.

For the purpose of providing a latch for the gate which may be readily operated to release the gate from either its closed or open position, I employ horizontally arranged rods 18, 19, one end of each of which is suitably secured to the ends of a rock-lever 20, secured upon the shaft 8 below the upper rail of the gate. I preferably secure the rods to said rock-lever in an adjustable manner, whereby said rods may be adjusted longitudinally to a certain extent, and therefore I screw-thread the inner ends of the rods and pass said ends within the arms of the lever, and provide the projecting inner ends of the rods with nuts 21. The outer or forward ends of the rods are provided with loops 22, 23 respectively. Through the loop 22 loosely passes a latch rod or wire 24, which has its lower end confined loosely within a slot 25 in the central rail of the gate, and having its upper end bowed and secured to the upper rail of the gate. Through the loop 23 passes loosely a similar latch rod or wire 26, which has its lower end confined loosely within a keeper 27 secured to the central rail of the gate, and also having its upper end bowed and secured to the upper rail of said gate. The rod or wire 26 is adapted to serve as a latch for holding the gate in its closed position, while the rod or wire 24 is adapted to serve as a latch for holding the gate in its open position. In order to effect the latching of the gate when in its closed and open positions, I provide uprights or posts 28, 29, the former being arranged in such position that when the gate is in its closed position, the latch rod or wire 26 will engage with a suitable catch or keeper 30 secured to the post 28, and when said gate is in its open position, said latch rod or wire 24 will engage with a suitable catch or keeper 31 secured to the post 29. Suitable stops or shoulders 32, 33 are secured respectively to the posts 28, 29 against which stops strike the projecting end of the central rail of the gate and the post 10 respectively, when the gate reaches its closed and open positions respectively.

The keepers or catches that I employ for engaging with the latches of the gate consist of plates having inclined faces 34 and having shoulders 35 behind which the latches en-

gage when the gate is in its closed and open positions.

When the shaft 8 is turned to open the gate the latch 26 will be drawn by the rock lever toward the hinge end of the gate thus releasing the latch 26 from its catch, and when the shaft is turned in the opposite direction to close the gate the latch 24 will be drawn inwardly by the rock lever to release it from its catch to allow the gate to close.

The counterbalance hereinbefore described serves the purpose of a wind-balance also, whereby the gate when in a partly open position will not be liable to be violently closed when acted upon by a strong wind.

Although I have described my invention in detail in order to give a clear understanding of the same, yet it will be understood that I do not wish to be restricted to the precise construction and arrangement of the parts, but may vary the same in certain respects without departing from the principle or sacrificing any of the advantages of the invention.

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

1. The combination with a gate, of an upright or post arranged adjacent to one end of said gate, an arm secured to said upright and forming a pivotal point for the gate, a second arm secured to the upright near its upper end, a shaft loosely passing through said second arm, secured to the gate and provided with an angularly-bent portion, posts or uprights arranged at opposite sides of the gate, operating levers pivotally secured to said posts, wires or rods secured to the said levers in the manner described, one of said wires or rods being secured to the angularly-bent portion of the shaft, posts or uprights arranged adjacent to the gate and provided with catches or keepers, latches carried by the gate and adapted to engage with said catches when the gate is in its closed and open positions, horizontally-arranged rods connected at one end with said latches, and a rock-lever secured to the shaft to the arms of which lever the opposite ends of said rods are secured, all arranged for co-operation as described.

2. The combination with a gate of an upright or post arranged adjacent to one end of said gate, an arm secured to said upright and forming a pivotal point for the gate, a second arm secured to the upright near its upper end, a shaft loosely passing through said second arm, secured to the gate and provided with an angularly-bent portion, posts or uprights arranged at opposite sides of the gate, operating levers pivotally secured to the said posts, wires or rods secured to the said levers in the manner described, one of said wires or rods being secured to the angularly-bent portion of the shaft, posts or uprights arranged adjacent to the gate and provided with catches or keepers, latches carried by the upright or post of the gate and consisting of rods arranged upon opposite sides of the upright

having a vertical spring portion and an upper bowed portion secured to the said post or upright, said vertical spring portions of the rods being adapted to engage with the said catches or keepers when the gate is in its closed and open positions respectively, horizontally-arranged rods connected at one end with the spring portions of the latches, and a rock-lever secured to the shaft, to the arms

of which lever the opposite ends of said horizontal rods are secured, as described.

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

ARTHUR WELLESLEY MACLAREN.

Witnesses:

PHILIP LINK,
SPERRY BECK.