

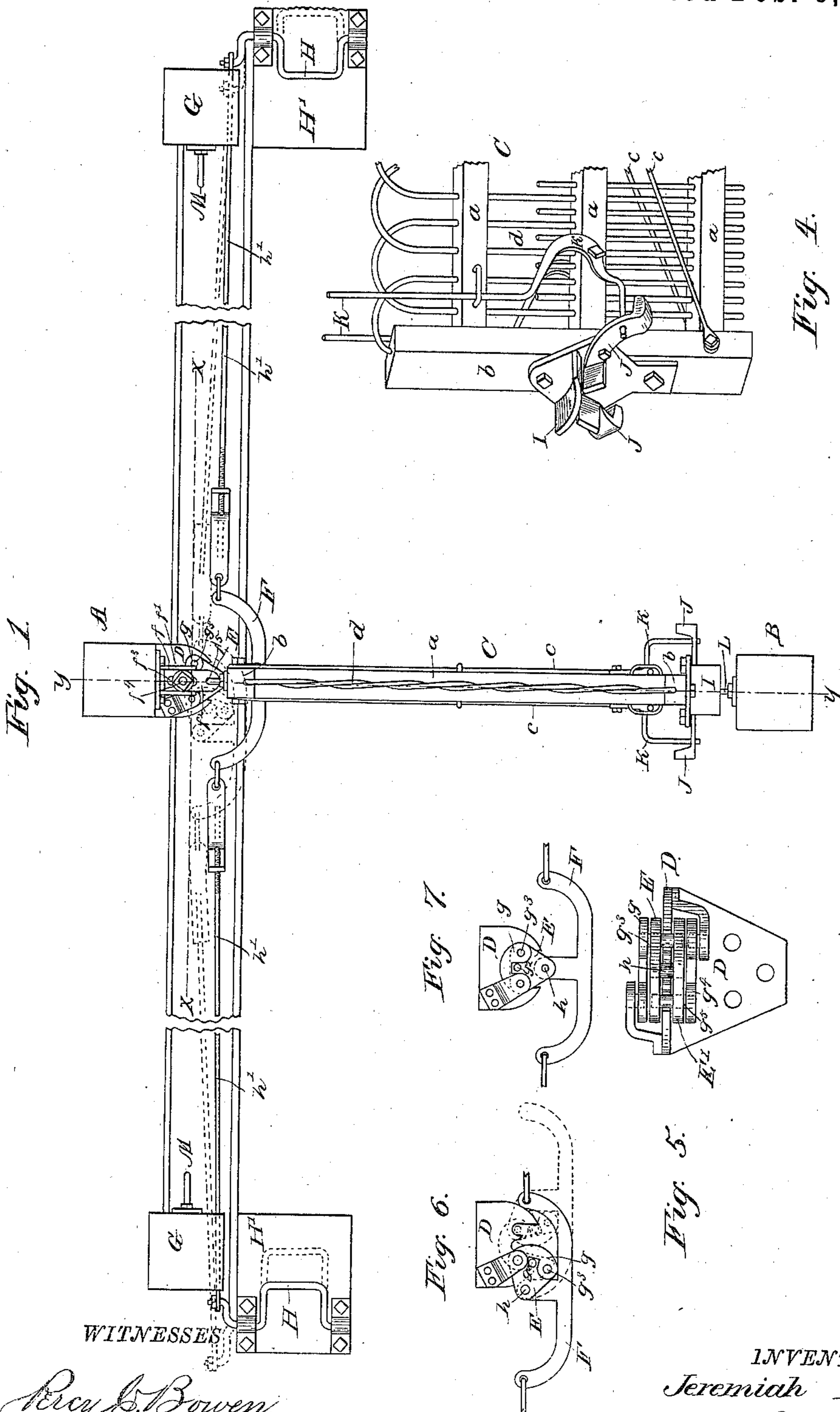
(Model.)

2 Sheets—Sheet 1.

J. LANDIS.
SWINGING GATE.

No. 335,937.

Patented Feb. 9, 1886.



WITNESSES

Percy C. Bowen.
John Diggers

INVENTOR
Jeremiah Landis,
By C. A. Snow & Co.
his Attorneys.

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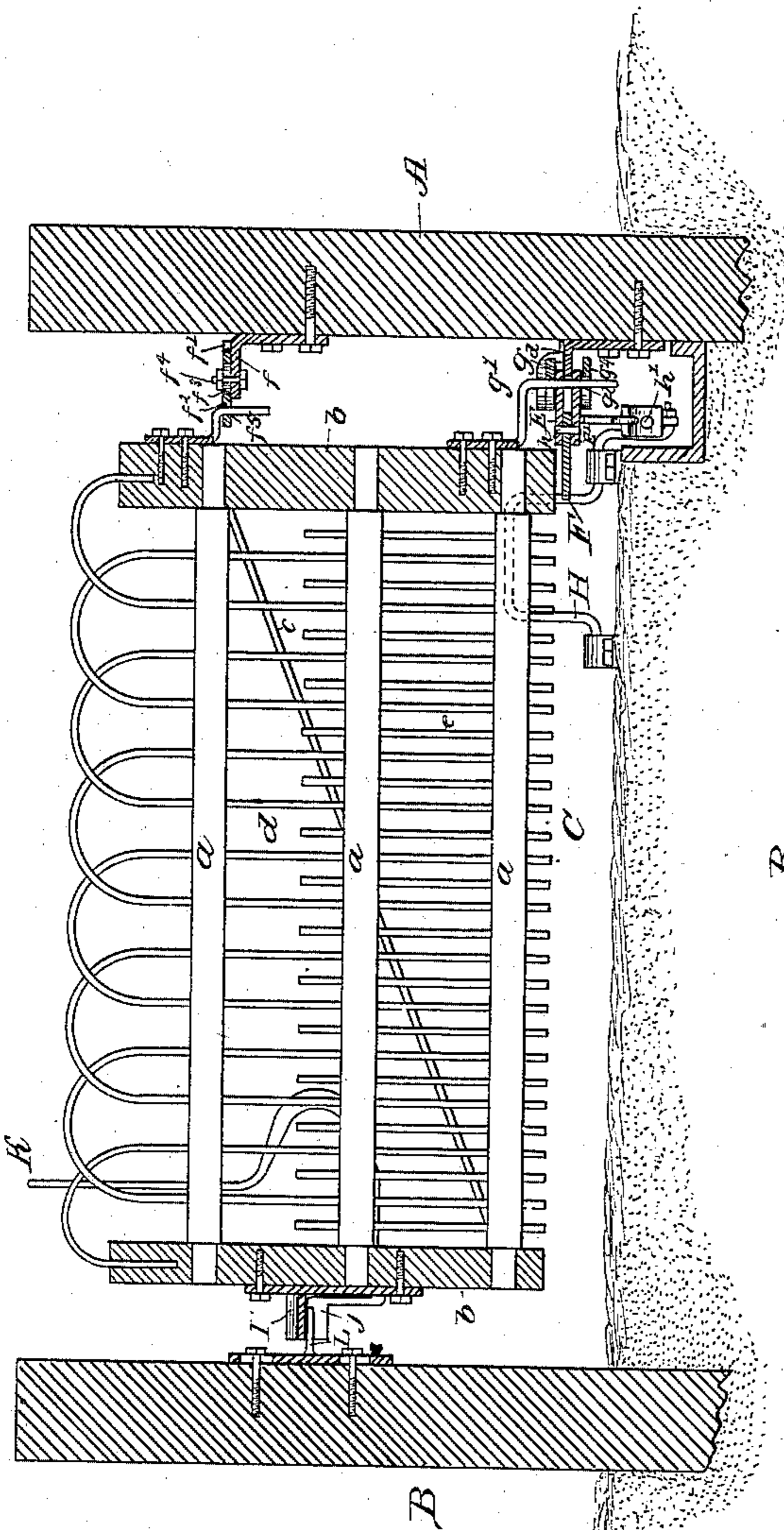


Fig. 3.

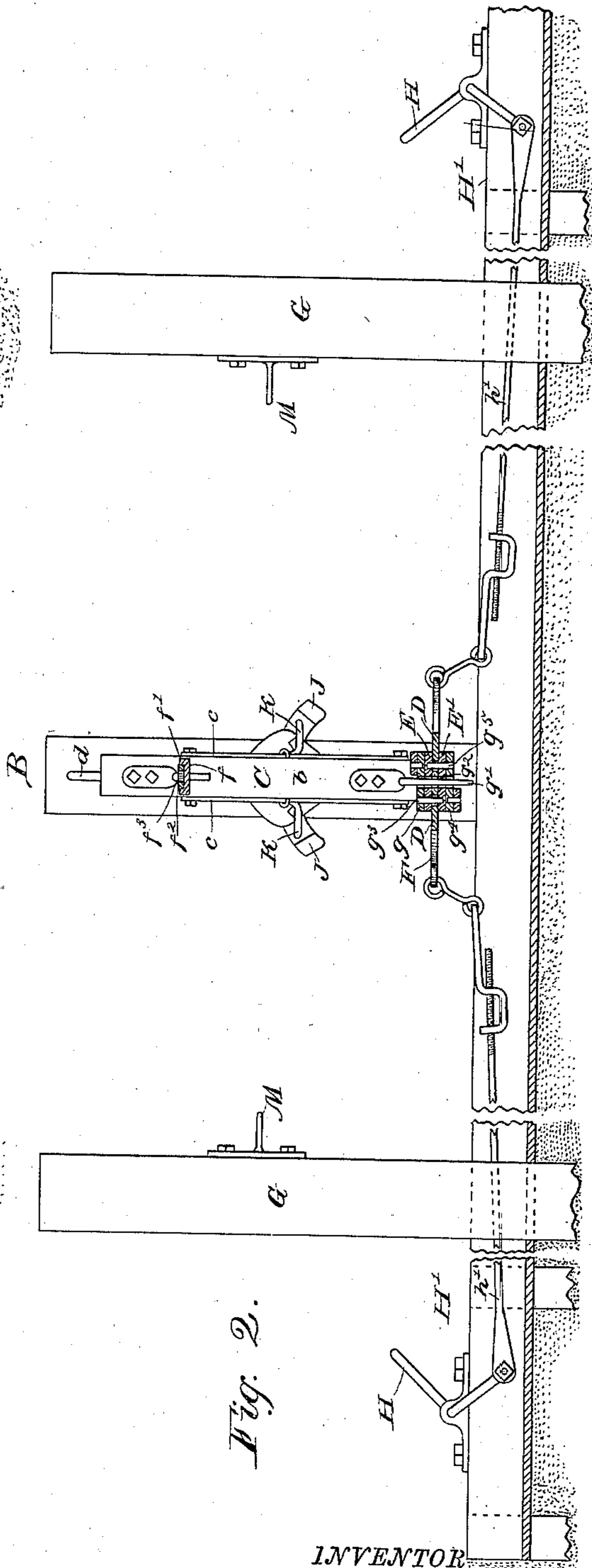


Fig. 2.

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UNITED STATES PATENT OFFICE.

JEREMIAH LANDIS, OF BROOKVILLE, OHIO.

SWINGING GATE.

SPECIFICATION forming part of Letters Patent No. 335,937, dated February 9, 1886.

Application filed July 28, 1885. Serial No. 172,910. (Model.)

To all whom it may concern:

Be it known that I, JEREMIAH LANDIS, a citizen of the United States, residing at Brookville, in the county of Montgomery and State of Ohio, have invented a new and useful Improvement in Swinging Gates, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to swinging gates, and more particularly to that class designed to be opened and closed by the passage of a vehicle over operating mechanism connected with the gate; and the said invention consists in the improved construction and combinations of parts hereinafter fully described and claimed.

In the drawings, Figure 1 is a plan view of a swinging gate embodying my invention, the dotted lines indicating the operation of the parts. Fig. 2 is a longitudinal vertical section on the line *x x* of Fig. 1. Fig. 3 is a section on the line *y y* of Fig. 1. Fig. 4 is a detail view of the gate, showing the latch mechanism; and Fig. 5 is a front elevation of the lower hinge of the gate, and Figs. 6 and 7 are plan views in detail of the same, showing the operation more clearly.

In the accompanying drawings, in which like letters of reference indicate corresponding parts in all the figures, A represents the gate-post to which the gate is hinged, and B represents the latch-post.

C represents the gate, which may be of any desired or suitable construction, but is preferably composed of a series of longitudinal bars, *a*, connected at their ends by vertical bars *b*. The bars *b* are braced upon the central longitudinal bar of the series *a* by diagonally-arranged rods *c*, which pass through staples secured to said central bar. The bars *a* are connected, as shown, by a series of wires, *d*, which pass vertically through said bars and are doubled at their upper ends, and said doubled ends are passed down through the bars. Connecting the two lower longitudinal bars *a* are a series of wires, *e*, which are arranged immediately between the wires *d*.

To the inner side of the post A, near the upper end thereof, is secured an outwardly-extending plate, *f*, which is provided with upwardly-extending side flanges, *f'*, which form a guide.

Located upon the plate *f*, and guided by the

flanges *f'*, is a plate, *f²*, which is formed with an elongated slot, *f³*, through which passes a bolt, *f⁴*, connecting said plate *f²* with the flanged plate *f*. By this means it will be observed that the plate *f²* may be adjusted upon the plate *f*, and tightened and held in place at any desired point thereon.

Near the outer end of the plate *f²* is provided an opening, *f⁵*, in which opening is located an angular pin, which is secured to and projects from the inner bar *b*, thus pivoting the gate at its upper end.

At the lower end of the post A is secured an outwardly-extending plate, D, which is formed at its outer end with a series of notches. (In this instance three.) Upon the upper side of the plate D is pivoted, at one side thereof, an arm, *g*.

E E' represent plates which are triangular in form, and which are connected at their outer ends by a pin, *h*. Upon this pin *h*, between the plates E E', is pivoted a double bell-crank lever, F, the arms of which are curved inwardly toward the post A.

Upon the inner bar *b* of the gate, near the lower end thereof, is secured an angular arm, *g'*, which passes through openings *g²* in the plates E E', midway of their sides and near their inner ends. The arm *g* extends across the plates E E', and is pivotally connected thereto by a pin, *g³*, which pin is adapted to fit in one of the notches of the plate D. Upon the under side of the plate D is located an arm, *g⁴*, which is pivoted to the opposite side of the plate D to that at which the arm *g* is located, and said arm *g⁴* is pivoted to the plates E E' on the side opposite to that at which the arm *g* is pivotally connected with said plates. The pin *g⁵*, which pivots the arm *g⁴* to the plates E E', is also adapted to bear in one of the notches on the plate D. By this construction it will be seen that if the double bell-crank lever be pulled in one direction the plates E E' will swing outward upon the arm *g* and the arm *g⁴* remain stationary, while if said lever be pulled in the opposite direction the gate will swing out upon the arm *g⁴* and the arm *g* remain stationary.

At suitable distances from the post A, and on a line therewith, are arranged posts G, and adjacent to said posts are provided blocks H', upon the upper sides of which are

journaled looped crank-levers H, the ends of the crank-arms of which are connected with the ends of the bell-crank levers by rods *h'*, said rods being threaded at their inner ends and having links thereon, which links are secured to the bell-crank levers. By this construction the rods may be tightened when from any cause whatever they become too loose to open and close the gate.

Extending outwardly from the bar *b* adjacent to the latch-post is a plate, I, and pivoted to the end of said bar, near the sides thereof, are arms J, the inner ends of which are turned outwardly toward the latch-post B, while the lower ends of said arms are weighted.

Pivoted to the sides of one of the bars *a*, preferably the central one, on opposite sides of the same, are bent levers K, the outer ends of which are connected with the arms J, at the lower ends thereof. It will be seen that by operating said levers the lower ends of the arms J will be raised and their upper ends lowered from the plate I.

Projecting outwardly from the inner side of the latch-post is a pin, L, which is adapted to fit between the outturned upper ends of the arms J. It will thus be seen that in closing the gate one of the arms J will strike the pin L, which will cause the upper outturned end of said arm to be lowered. After the arm has passed the pin it will drop to its normal position, and thus hold the gate closed.

Upon the inner sides of the posts G are provided outwardly-extending pins M, which are adapted to hold the gate open until the vehicle has passed.

The operation is as follows: The gate being closed the wheels on one side of a vehicle strike one of the operating crank-levers, depressing the same and causing the bell-crank lever to be pulled toward the lever operated. This action moves the plates E E' in the direction toward the approaching carriage. The moving of these plates draws the inner end of the gate off a vertical line and causes its outer end to be inclined, so that the latching-arms will clear the pin on the latch-post. As the inner end of the gate is off a vertical line it will be apparent that the gate will swing open away from the approaching vehicle, the gate being held open by the pin on one of the posts G until the vehicle-wheels have struck the opposite operating looped crank-lever, which, through its connecting-rod, draws the

plates E E' to their normal position, and the gate swings to a closed position, being held in such position by the latching-arms.

Having thus described my invention, I claim—

1. The combination, with a gate-post, of a gate pivoted thereto at its upper end, an outwardly-extending plate at the lower end of said post, notches in said plate, arms *g g'*, pivoted to the upper and under sides of the said plate, plates E E', pivotally connected with said arms, an angular pin projecting from the end bar of the gate and engaging openings in the plates E E', and operating mechanism for opening and closing the gate and connected with the plates E E', as set forth.

2. The combination, with a gate-post, of a gate pivoted thereto at its upper end, an outwardly-extending plate near the lower end of the post, notches in said plate, arms *g g'*, pivoted to the upper and lower sides of the same, plates E E', pivotally connected with said arms, an angular pin projecting from the inner vertical bar of the gate and engaging openings in the plates E E', a double bell-crank lever pivoted between plates E E', looped crank-operating levers located at suitable distances from the post A, and rods connecting said levers with the bell-crank lever, as set forth.

3. The gate-post provided with a plate or projection, D, in combination with arms *g g'*, pivoted to said plate or projection, plates E E', pivotally connected with said arms, the gate supported at its lower end upon the plates E E', and operating mechanism connecting with the said plates, for the purpose set forth.

4. The gate-post provided with a plate or projection, D, in combination with the plates E E', secured together, devices for pivotally connecting plate E to one side of plate D and plate E' to the opposite side thereof, the operating mechanism for the gate connecting directly with the plates E E', and the gate having a pivot-pin on its lower end passing through an opening of the plates, as set forth.

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

JEREMIAH LANDIS.

Witnesses:

JOHN SQUILL,
CHARLES ROLLER.