

No. 877,235.

PATENTED JAN. 21, 1908.

F. RUSSELL.  
FIELD GATE.

APPLICATION FILED JULY 8, 1907.

2 SHEETS—SHEET 1.

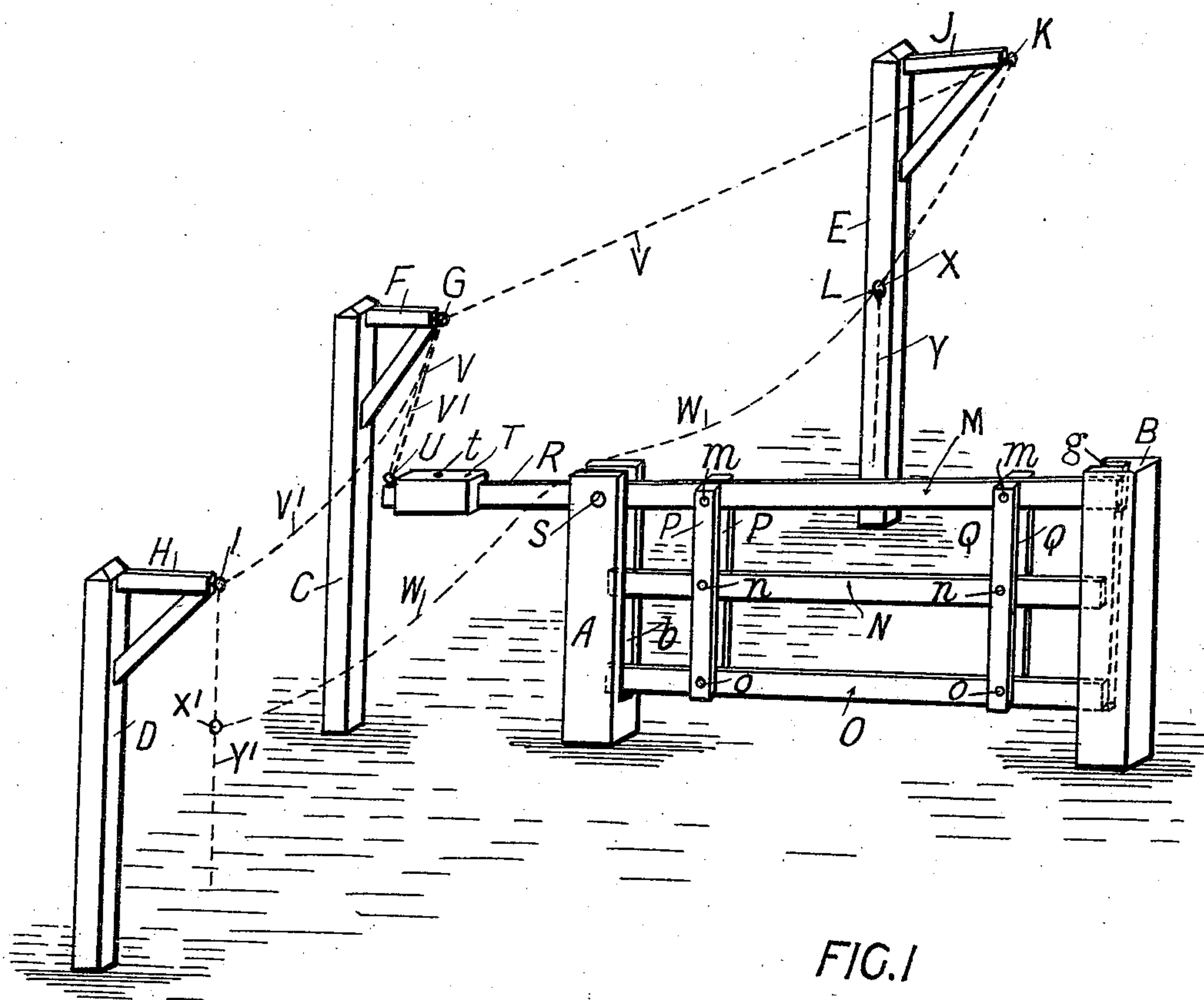


FIG. 1

Witness  
R. M. Flint  
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Inventor  
Frank Russell  
by A. R. Bruce  
Attorney

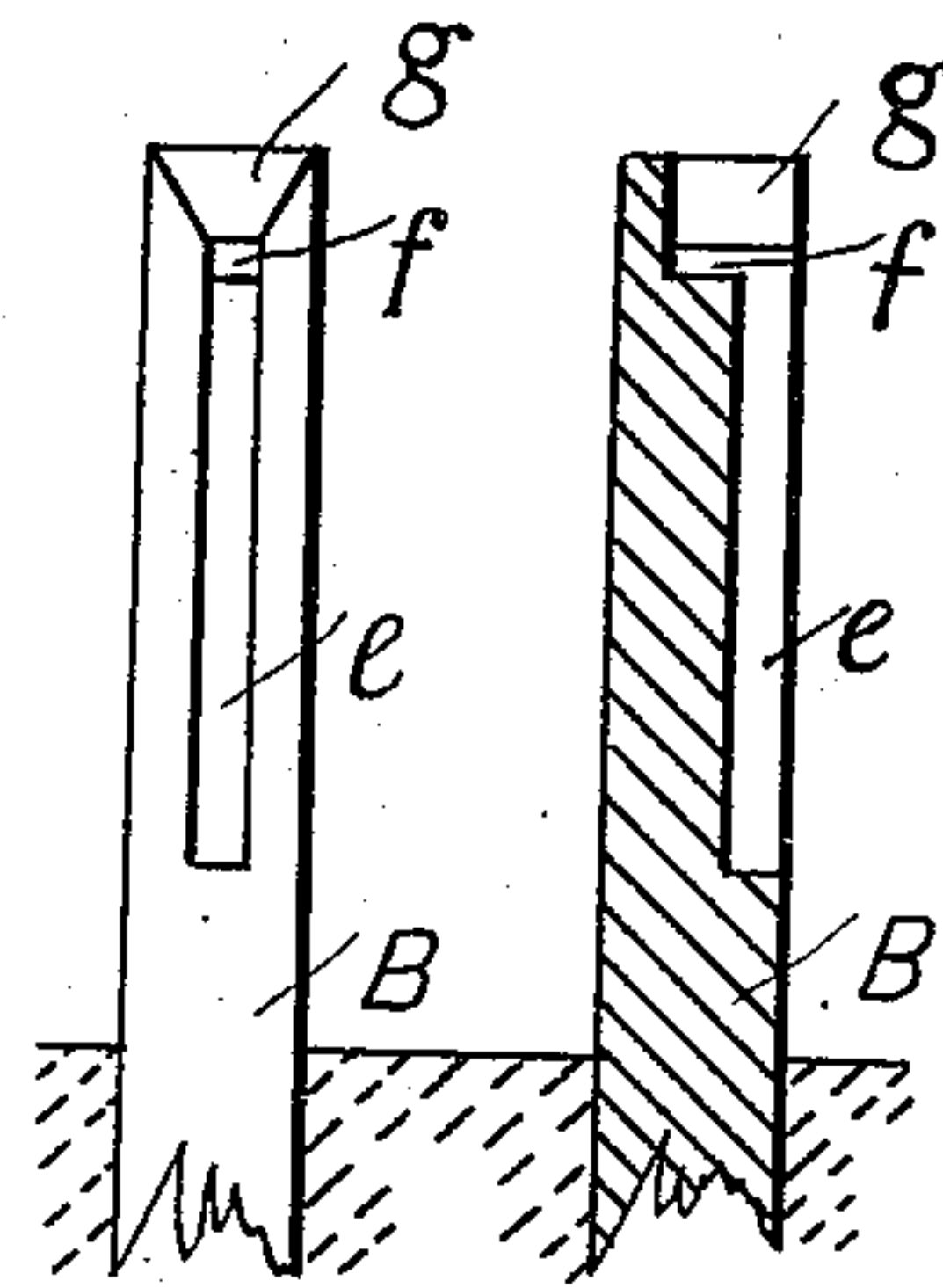
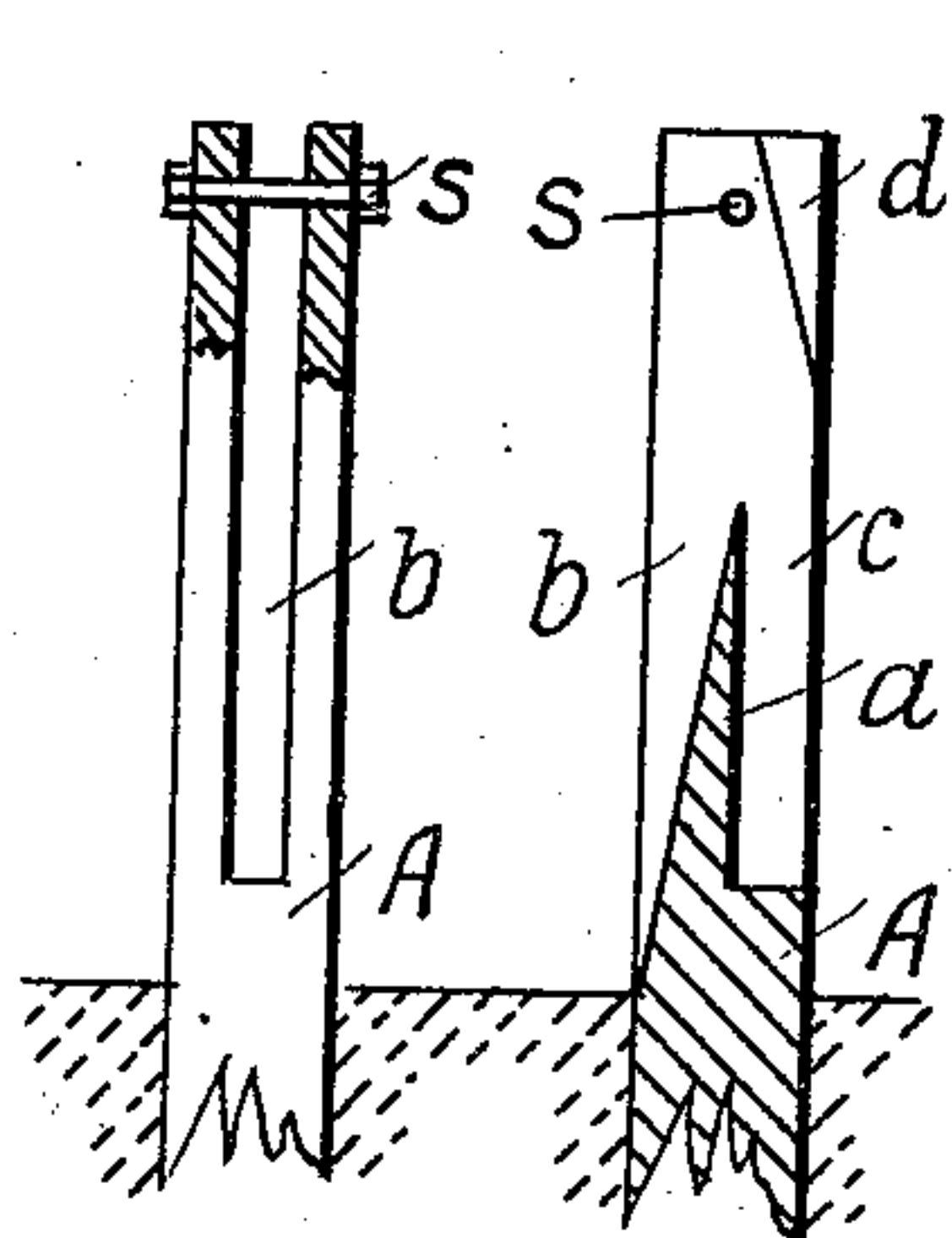
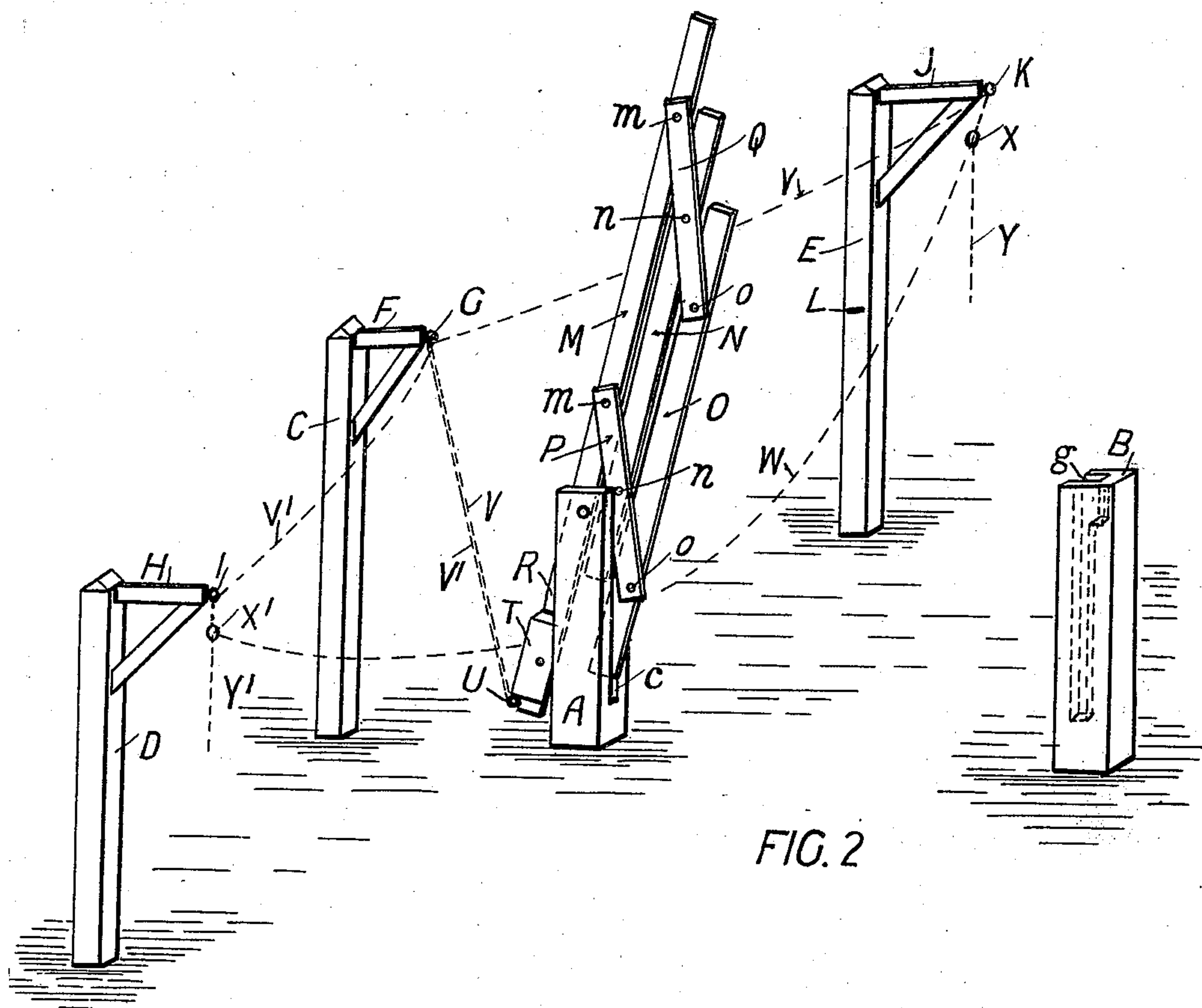
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2 SHEETS—SHEET 2.



Witnesses  
R. H. Hunt  
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FIG. 6 Inventor  
Frank Russell  
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# UNITED STATES PATENT OFFICE.

FRANK RUSSELL, OF LISMORE, NEW SOUTH WALES, AUSTRALIA.

## FIELD-GATE.

No. 877,235.

Specification of Letters Patent.

Patented Jan. 21, 1908.

Application filed July 8, 1907. Serial No. 382,643.

*To all whom it may concern:*

Be it known that I, FRANK RUSSELL, a subject of the King of Great Britain and Ireland, and residing at Lismore, in the State of New South Wales, Commonwealth of Australia, have invented an Improved Field-Gate, of which the following is a specification.

My invention relates to a field gate devised particularly for farm and stock paddocks. The points in view in the design of same are to obtain lightness and security with simplicity, cheapness of construction, and facility of operation.

My gate is constructed to open and close on the Bascule principle, the top rail being extended rearward on the horizontal pivot on which the gate works and provided with a counterpoise weight on the cantaliver end of sufficient size to cause the gate to tilt up and open by gravity when the fastening cords are released. The gate is held closed by one of a pair of controlling cords reeved over messenger posts within reach of horsemen and drivers, some distance on either side of the gate. The ends of the controlling cords are connected by a loose messenger cord. One or other of these controlling cords being drawn, the weighted cantaliver is lifted and the gate made to fall downwards, to close by gravity at the same time extending open, and the rail ends falling into housings in the swinging and lock posts. The gate itself is formed of one or more rails loosely hung from the top rail by two or more hanging battens which depend perpendicularly from said top rail, so that when the gate is closed its parts are extended, and when the gate is opened by tilting up, its parts collapse and lie one against the other so as to leave free head room for passage through the gate.

In the annexed drawings,—Figure 1 is a perspective view of a gate, according to my invention, closed. Fig. 2 similar view showing the same gate opened; Fig. 3 sectional end view, and Fig. 4 vertical section through the swinging post; Fig. 5 vertical inside end view, and Fig. 6 vertical section through the lock post; Fig. 7 section through an alternative form of the lock post formed by bolting together three pieces of timber instead of plowing a groove out of a single post as indicated in the preceding two figures.

A is the swinging post and B the lock post, C is a davit post in line with the gate posts

B and A, and D and E are messenger posts each set along the road at some distance to one side or other of the gate so that the controlling cords fastened to them may be handled from horse back or from a passing vehicle to set free or to close the gate before or after the rider or driver passes through the same.

F is a bracket on the davit post C for carrying a ring or double block G; H is a similar bracket carrying a ring or single block I; and J and K a bracket or ring and block corresponding with H and I.

L are stout spikes driven into the messenger posts D and E on the sides of same facing the gate.

M is the top rail of the gate extended rearward to form a cantaliver R rearward of the balancing pin S, which is an ordinary bolt.

T is a counter weight straddled on and bolted to the cantaliver R by bolt *t* or otherwise fastened to said cantaliver.

U is a screw eye on the end of the cantaliver R. V is a controlling cord running from the eye bolt U through the rings or blocks G and K to the end ring X, the length of said cord V being made so that when the end ring X is slipped on the spike L, the line V will be taut and the cantaliver R so held up and the gate kept closed.

V' is a corresponding controlling cord for the other side of the gate, similarly running from the eye bolt U through the rings or blocks G and I to the end ring X'. Loose ends of cord Y and Y' depend from the rings X and X' to enable a passer-by to readily draw down the lines if the required ring should be above hand high. A messenger line W connects the rings X and X'. The line W may be allowed to hang loosely over the top bar of the gate as shown or it may be carried through a ring or hole or in a batten post extended above the post A so as to keep the line clear from interference by cattle. The gate itself consists of its main top bar M and one or more slats, two (N and O) being shown in the drawing, which slats are hung from the top bar M by side battens P and Q and bolts M, N and O loosely passing through the same.

The swinging post is plowed and slotted through as shown in Fig. 4, although it may be formed of three separate pieces bolted together with the middle piece in the form of the sectioned portion. Similarly the lock post may be formed of three pieces as shown



in Fig. 7, though it will be usually found more convenient to plow a groove out of a solid post as shown in Figs. 1, 2, 5 and 6. The plow groove *b* is provided to allow the cantaliver end *R* of the top rail *M* to fall home and the plow groove *c* to form a housing for the ends of the slats *N* and *O*, and the extra rabbet *d* for the droppers *P*. The slats *N* and *O* are most conveniently made of the same thickness of timber as the rail *M* so that they will fit snugly between the droppers and allow the gate to collapse readily and to extend again as shown in Figs. 1 and 2. The lock post has a groove *e* plowed in it to receive the outer ends of the slats *N* and *O*. At the top end it is sunken as shown at *f* to form a bed for the end of the top rail *M*. Above the bed *f* it is splayed as shown at *g* to make an entry for the descending slats and top rail when the gate is being closed, thus providing for slack motion sidewise owing to wind, age or looseness.

In the position shown in Fig. 1 the gate is held closed by the tension of the controlling cord *V* whose outer end is secured by an end attachment such as the ring *X* hung over the spike *L* on the post *E*. A person wishing to open the gate from the near side will grasp the free end of the messenger cord *W* and pull the ring *X* off the spike *L* whereupon the counterweighted cantaliver *R* being unsupported will tilt the gate up into the position shown in Fig. 2. A traveler passing to the gate by the far side would pull the ring *X* off the spike *L* by means of the loose cord *Y*. Having passed through the gate and desiring to close it again, he would grasp the cord *Y* or *Y'*, thereby straining the controlling cord *V* or *V'*, as the case may be, lifting against the counterweight *T* and causing the gate to descend; finally locking it by putting the ring *X* or *X'* over the spike *L* or *L'* (*L'* not shown) as the case may be. The counter weight *T* may be of iron or other metal but may be formed conveniently of wired concrete.

The gate may be made of metal; and the controlling and messenger cords may be made of flexible metal rope.

What I claim as my invention, and desire to secure by Letters Patent, is:

1. In a gate, a support; a top rail supported intermediate its ends by said support and adapted to swing in a vertical plane; slats supported from one end of said rail; a counterweight upon the other end of said rail of sufficient weight to swing said gate into an open position when free to act; a post adjacent the counter-weighted end of said rail; two other posts located at a distance from

and one upon either side of said first mentioned post; a spike carried by each of said second mentioned posts; guides upon each of said three posts; two cords attached to the counter-weighted end of said rail and both extending through the guide of said first mentioned post and one to and through the guide of each of said second mentioned posts; a ring at the free end of each of said cords and adapted to engage said spikes; and a cord connecting the free ends of said first mentioned cords whereby the rings aforesaid may be disengaged from the spikes.

2. In a gate, a support; a top rail supported intermediate its ends by said support and adapted to swing in a vertical plane; slats supported from one end of said rail; a counterweight upon the other end of said rail of sufficient weight to swing said gate into an open position when free to act; a post adjacent the counter-weighted end of said rail; two other posts located at a distance from and one upon either side of said first mentioned post; securing means carried by each of said second mentioned posts; guides upon each of said three posts; two cords attached to the counter-weighted end of said rail and both extending through the guide of said first mentioned post and one to and through the guide of each of said second mentioned posts; the free ends of which cords are adapted to engage said securing means; and a cord connecting the free ends of said first mentioned cords and adapted to disengage them from said securing means.

3. In a gate, a support; a top rail supported intermediate its ends by said support and adapted to swing in a vertical plane; slats supported from one end of said rail; a counterweight upon the other end of said rail of sufficient weight to swing said gate into an open position when free to act; two posts located at a distance from and one upon either side of said gate; securing means carried by each of said posts; guides upon each of said posts; two cords attached to the counterweighted end of said rail and one extending to and through each of the guides aforesaid, the free ends of which are adapted to engage said securing means; and a cord connecting the free ends of said first mentioned cords and adapted to disengage them from said securing means.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRANK RUSSELL.

Witnesses:

N. RILEY,  
W. J. DAVIS.