W. I. FRENCH.

RAILWAY GATES.

No. 194,864. Patented Sept. 4, 1877.

Fig. 1

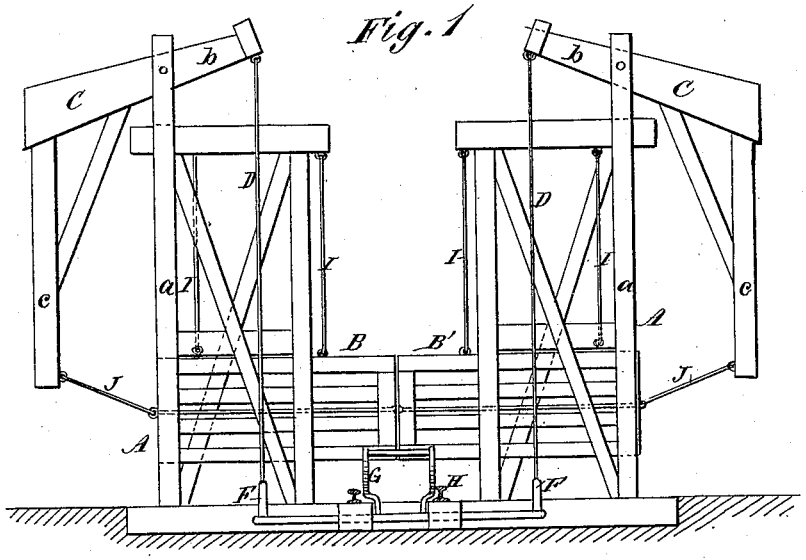


Fig. 2

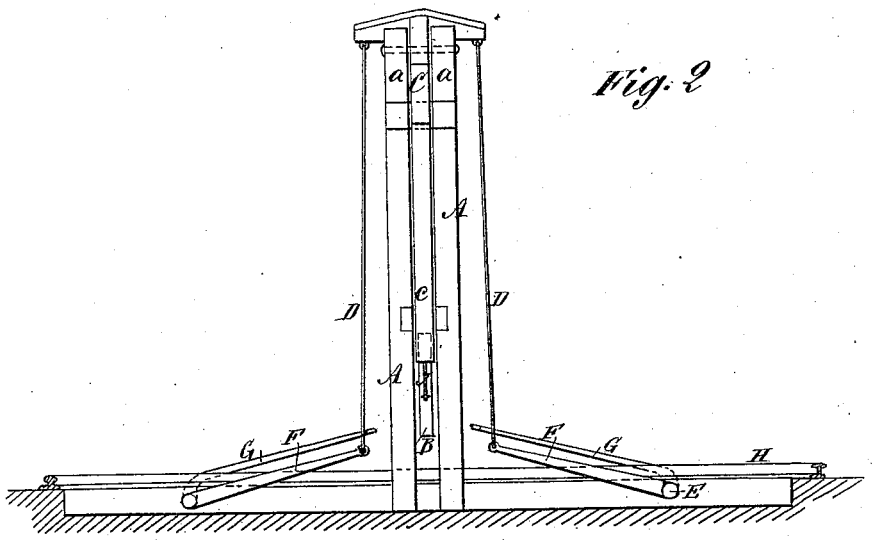
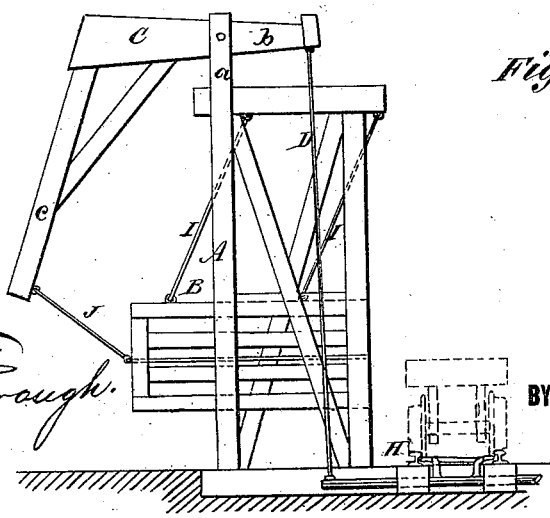


Fig. 3



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WILLIAM I. FRENCH, OF CAINSVILLE, MISSOURI, ASSIGNOR TO HIMSELF AND PETER JACOBS, OF SAME PLACE.

IMPROVEMENT IN RAILWAY-GATES.

Specification forming part of Letters Patent No. **194,864**, dated September 4, 1877; application filed April 16, 1877.

To all whom it may concern:

Be it known that I, WILLIAM I. FRENCH, of Cainsville, in the county of Harrison and State of Missouri, have invented a new and Improved Railway-Gate, of which the following is a specification:

Figure 1 is a side elevation. Fig. 2 is an end elevation. Fig. 3 represents one of the gates as opened by the passing train.

Similar letters of reference indicate corresponding parts.

The invention is an improvement in the class of railroad-gates which are suspended by rods and arranged to swing across the track, being operated by levers which are connected with movable track-rails so as to be operated by a train approaching from either direction.

The operation of gates thus connected with movable rails is liable to be hindered or prevented by ice, snow, stones, or other substances beneath the rails.

Another objection arises from the manner of suspending the gates, which is, in general, effected by means of a single rod for each gate, so that when the gates are opened they assume an angle to the horizon instead of remaining parallel to it, and likewise move in the arc of a much smaller circle than when suspended, according to my invention, by two rods instead of one. The result is that it requires greater force to operate gates thus suspended, (by a single rod,) and hence there is greater danger of the connection between the gates and pivoted rails being broken, or that the gates may fail to operate all together.

My invention consists in suspending the gates by two parallel rods, and in operating the same by pivoted arms or levers, which are depressed by contact with the wheels of the locomotive.

In the drawings, A A are frames placed at the side of the track, from the upper bars of which the gates B B′ are hung by rods I. The outer posts *a* of the frames A extend upward, and between them the bent or angled levers C are pivoted. The shorter arms *b* of these levers are nearly horizontal, while the longer arms terminate in perpendicular bars *c*, which are connected with the gates by rods J.

G G are levers or treadles placed between the track-rails H and attached to a rocking shaft, E. Levers F are secured to the ends of the shafts E, and are connected with a cross-bar on the short arms of the levers C by rods D.

The levers G are placed on opposite sides of the gates, and are oppositely arranged.

The operation is as follows: The wheels of the approaching train run upon and depress the levers G, which draw down the short arm of the levers C, and swing the gates so as to leave the track clear, as shown in Fig. 3. The levers G are of such length that they are constantly pressed downward by the wheels of the passing train.

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

In combination with the gates B B′, each suspended by two parallel rods, I I, the rock-levers provided with arms G and F, the rods D and J, and levers C *e*, substantially as shown and described, to operate as specified.

WILLIAM IRWIN FRENCH.

Witnesses:
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