

(No Model.)

2 Sheets—Sheet 1.

J. T. WITHROW, Jr.
AUTOMATIC RAILWAY GATE.

No. 318,069.

Patented May 19, 1885.

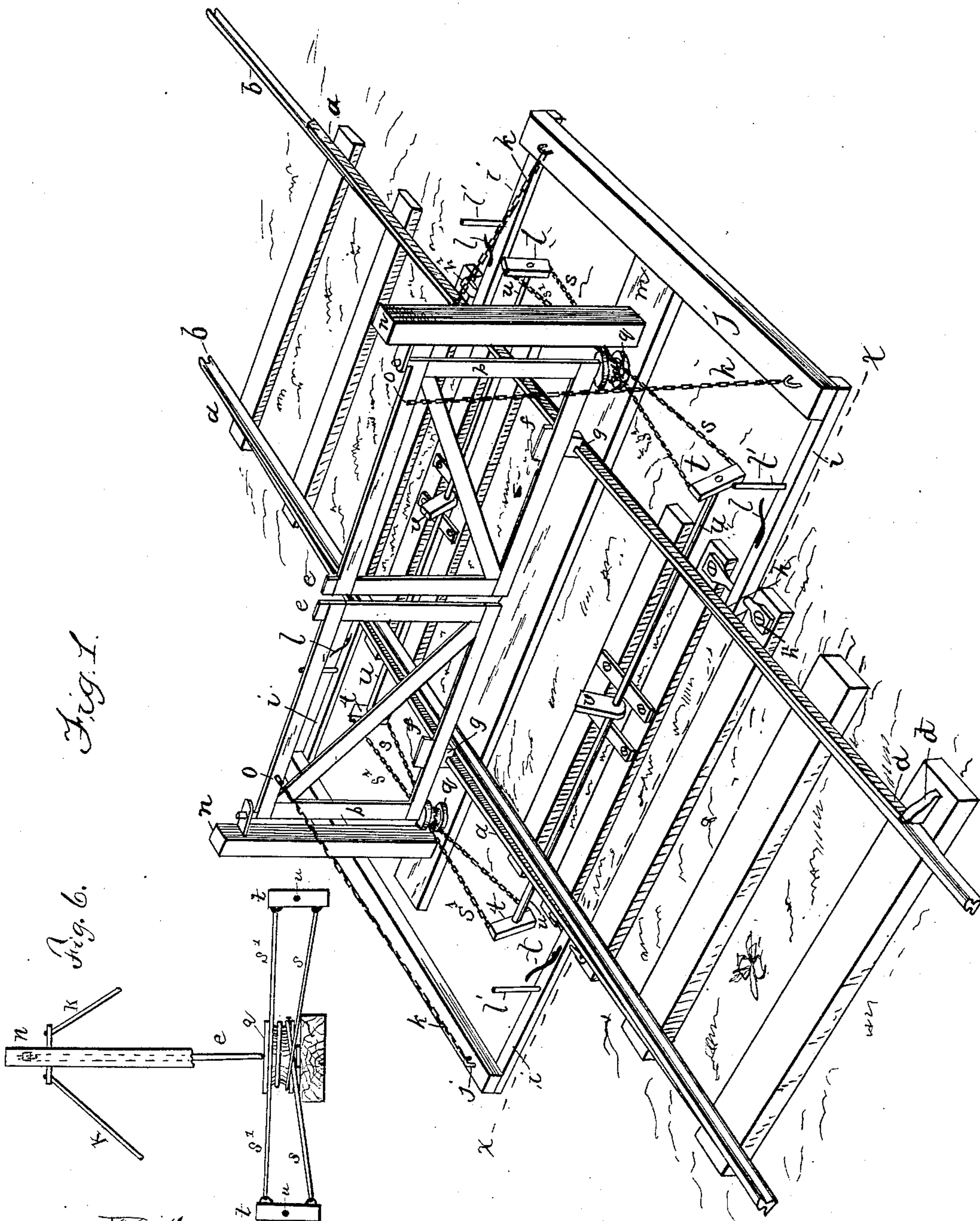


Fig. 1.

Fig. 6.

Witnesses:

Wm. A. Rosinbaum
J. S. Duffie.

Inventor
James T. Withrow, Jr.
by J. S. Duffie
Att'y.

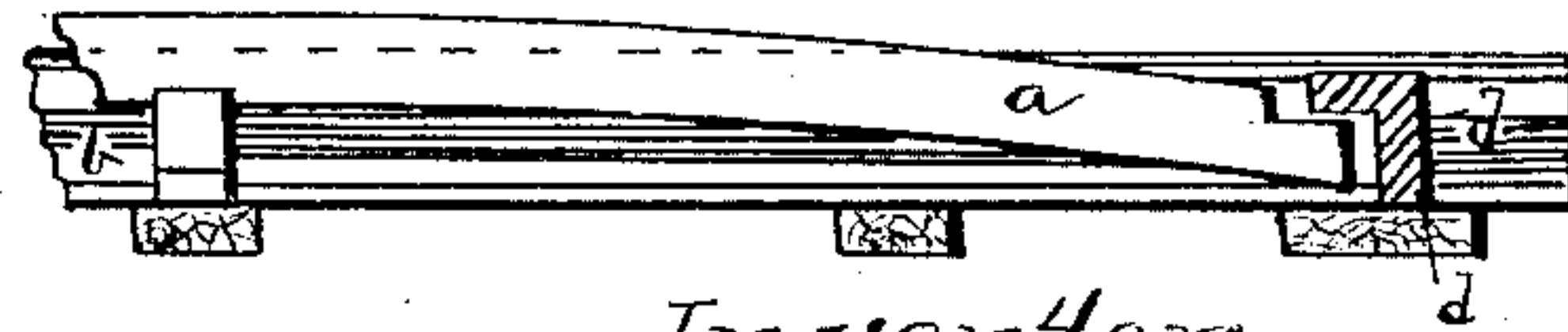
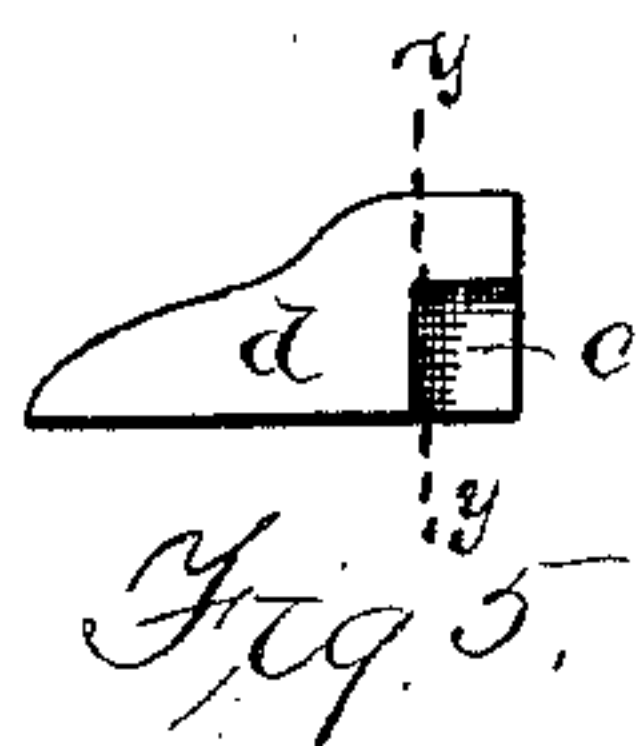
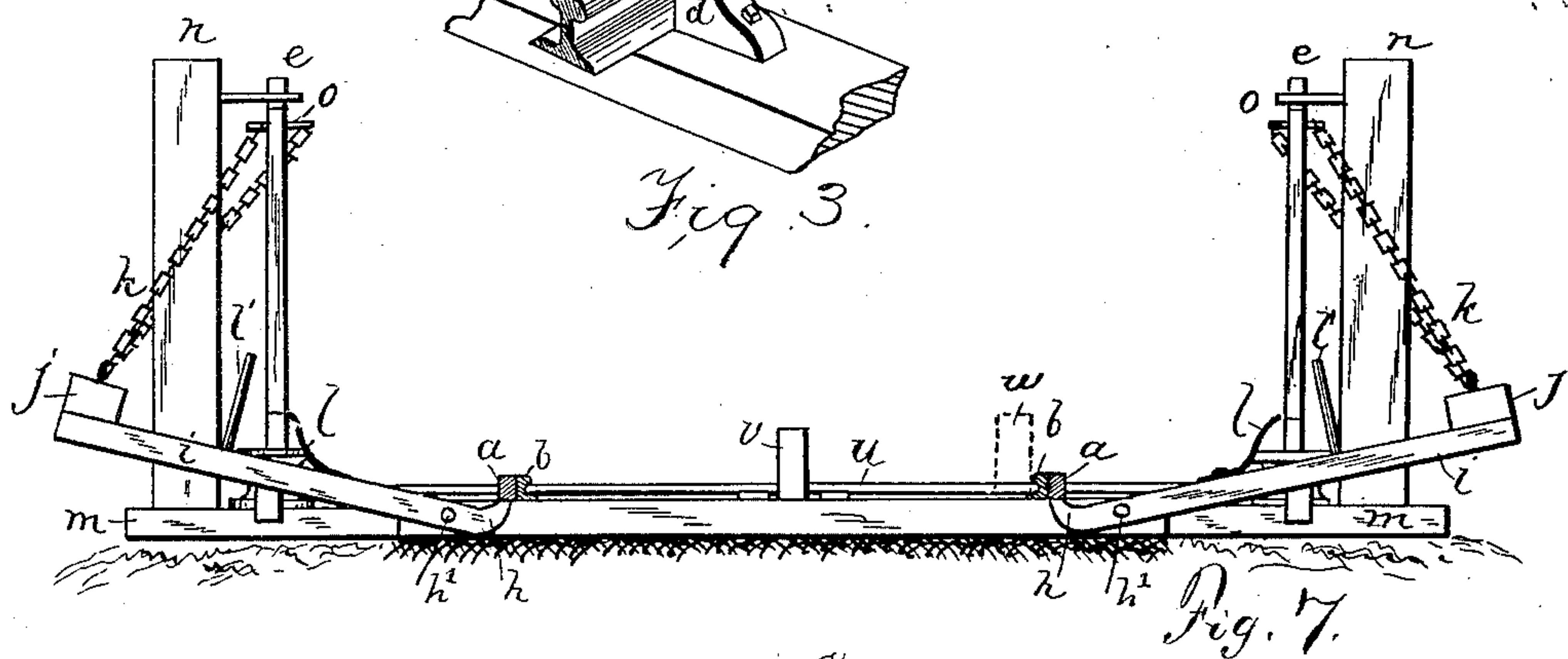
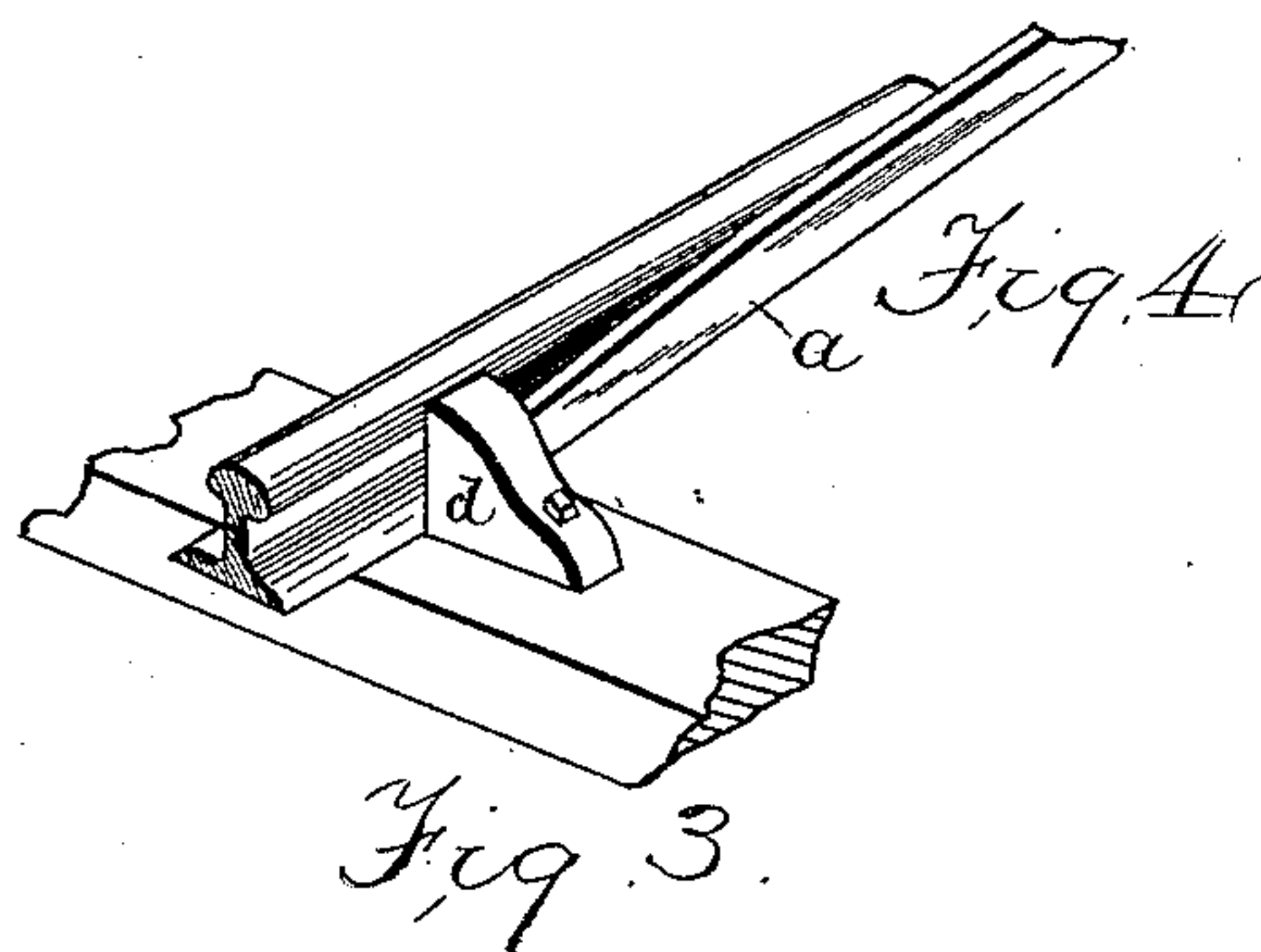
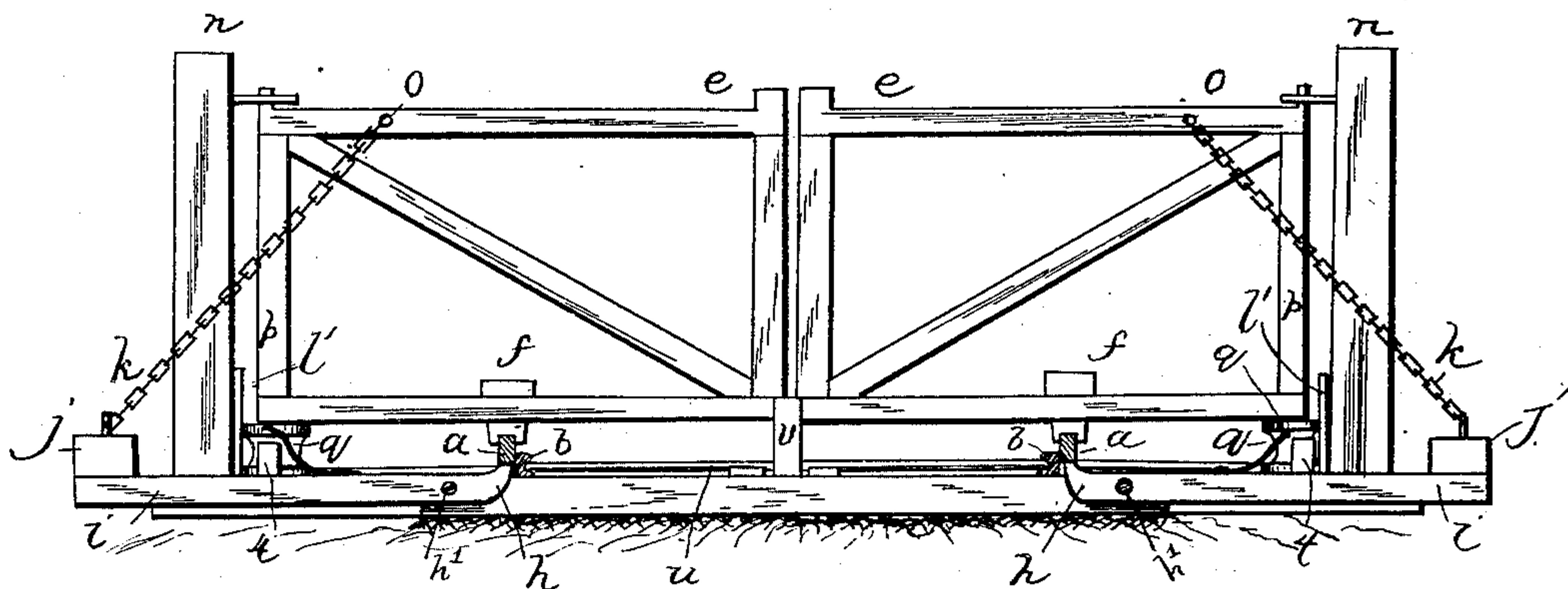
J. T. WITHROW, Jr.

AUTOMATIC RAILWAY GATE.

No. 318,069.

Patented May 19, 1885.

Fig. 2



Witnesses:

Wm. A. Rosenbaum
J. S. Duffie

Inventor
James T. Withrow, Jr.
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UNITED STATES PATENT OFFICE.

JAMES T. WITHROW, JR., OF HUNTSVILLE, ARKANSAS, ASSIGNOR OF ONE-THIRD TO JAMES T. WITHROW, SR., OF SAME PLACE.

AUTOMATIC RAILWAY-GATE.

SPECIFICATION forming part of Letters Patent No. 318,069, dated May 19, 1885.

Application filed June 30, 1884. (No model.)

To all whom it may concern:

Be it known that I, JAMES T. WITHROW, Jr., a citizen of the United States, residing at Huntsville, in the county of Madison and State of Arkansas, have invented certain new and useful Improvements in Automatic Railway-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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention has relation to automatic railway-gates; and it consists in the novel construction and arrangement of its parts.

In the accompanying drawings, Figure 1 is a perspective view of my invention. Fig. 2 is an elevated sectional view of the same, cut through Fig. 1 at the line *xx*, with the gates closed. Fig. 3 is an elevated sectional view of the same, cut through Fig. 1 at line *xx*, with gates open. Fig. 4 is a perspective view of the end of the false rails secured in cap *d*. Fig. 5 is a perspective view of cap *d*, showing seat *c*. Fig. 6 is a detail view showing the pulley *q*, chains *s* and *s'*, and levers *t*. Fig. 7 is a detail view showing the end of the false rail *a* working in cap *d* and a cross-sectional view of cap *d*, cut through Fig. 5 at the line *yy*.

My invention is described as follows: False rails *a*, each about twenty-four feet long, are placed on either side of the railroad-track on the outside of each rail *b* of said track. These false rails *a* fit in seat *c* of cap *d* at each end, which keeps them in place and prevents them from slipping endwise and compels them to lie close up against the outside of rails *b* of the railroad-track. These false rails *a* have a gradual slope at each end, commencing about six inches back from the end. They are also slightly bowed, so that while their upper edges at their ends are only flush with the upper face of the rails *b*, they gradually rise as their middle is approached until their upper face stands above the upper face of said railroad-rails *b* at their middle under the gates *e*, so that when the wheels of the engine pass

over them they are pressed down and the latches *f* of the gates are released from notches *g*, Fig. 1, and the said gates are permitted to fly open. This action of pressing said rails down also operates on the short end *h* of levers *i*, which are pivoted on rods *h'*, which throws weights *j* up, releases the tension on chains *k*, and permits the gates *e* to be thrown open, as hereinafter described, and at the same time the gates *e* pass over springs *l*, secured on said lever *i*, and are thus held open while the train is on the false rails *a*. When the last wheel of the passing train runs off of the said false rails, the weights *j* fall, releasing said gates *e*. The chains *k* pulling equally on each side of the gates pull them closed, and the short ends *h* of the levers *i* press the false rails up until their notches *g* catch the latches *f* and hold the gates firmly closed.

At the middle of these false rails *a* is a rail-tie, *m*, either end of which extends some feet on the outside of the track, in which are erected two upright posts, *n*, one on either side of the track. To these posts are swung the gates *e* in suitable bearings. In the upper beam of said gates are short cross-bars *o*, to which are attached chains *k*. On the lower end of these gates *e* and on pivot-beam *p* are pulleys *q*. (See Figs. 1 and 2.) Around these pulleys *q* the chains *s* work. (See Fig. 6.) The ends of these chains are attached to the lower ends of levers *t*. The chains *s'* do not work around pulley *q*, but are attached at either end to the upper ends of levers *t*. These levers *t* are rigidly secured to the lever-rods *u*. These lever-rods *u* extend across the railroad-track and are pivoted under the rails *a* *b*. To these lever-rods *u* are rigidly secured short upright levers *v*. When one of these levers *v* is pressed forward by the train passing over it, the chains *s* are made to pull on the pulleys *q*, and the gates *e* are thrown open forward. At the same time the weight of the engine presses down false rails *a*, releases latches *f*, presses down the short ends of levers *i*, throws up weights *j*, catches gates *e* between springs *l* and pins *l'* and holds them until the train passes off of the false rails *a*, then the weights *j* fall again, releasing the gates from springs *l*,

pull on chains *k*, and close said gates, throwing up the false rails until their notches *g* catch latches *f*.

When the levers *v* are pressed backward, the gates are thrown open backward, the operation being the same as above described.

The lever *v*, as shown, is in the center between the two rails *b*; but I shall also claim the right to place the same near the rail *b*, or one near each rail, using two, as shown by dotted lines *w*, Fig. 3, so that the inside rim of the car-wheels will operate them.

The gates are to be filled in with barbed wire or other suitable material.

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

1. The combination, with a swinging gate and mechanism for automatically operating the same, of the false-bowed rails *a*, cap *d*, holding said rails in place, levers *i*, their short ends working under false rails *a*, and springs *l*, attached on the upper side of said levers *i*, all substantially as shown and described, and for the purposes set forth.

2. The combination, with gates *e*, of weights *j*, secured on the outer ends of levers *i*, chains *k*, secured to rods *o* in the upper beams of gates *e* and to said weights *j*, levers *i*, pivoted on rods *h'*, their short ends *h* working under false rails *a*, false rails *a*, their ends working in caps *d*, and latches *f*, secured in the lower beams of gates *e* and dropping into notches *g*, all substantially as shown and described, and for the purposes set forth.

3. The combination of the levers *v*, rigidly secured on rods *u*, levers *t*, also rigidly secured on said rod, chains *s*, passing around pulleys *q*, rigidly secured on the lower end of beams *b* of the gates *e*, each end of said chain being secured to the lower ends of levers *t*, and chains *s'*, their ends secured to the upper ends of said levers *t*, all substantially as shown and described.

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

JAMES T. WITHROW, JR.

Witnesses:

J. H. BOHLEN,
J. R. BERRY.