No. 775,702. PATENTED NOV. 22, 1904.

G. A. DE BAUN.

COASTING OR GRAVITY RAILWAY.

APPLICATION FILED SEPT. 26, 1904.

NO MODEL.

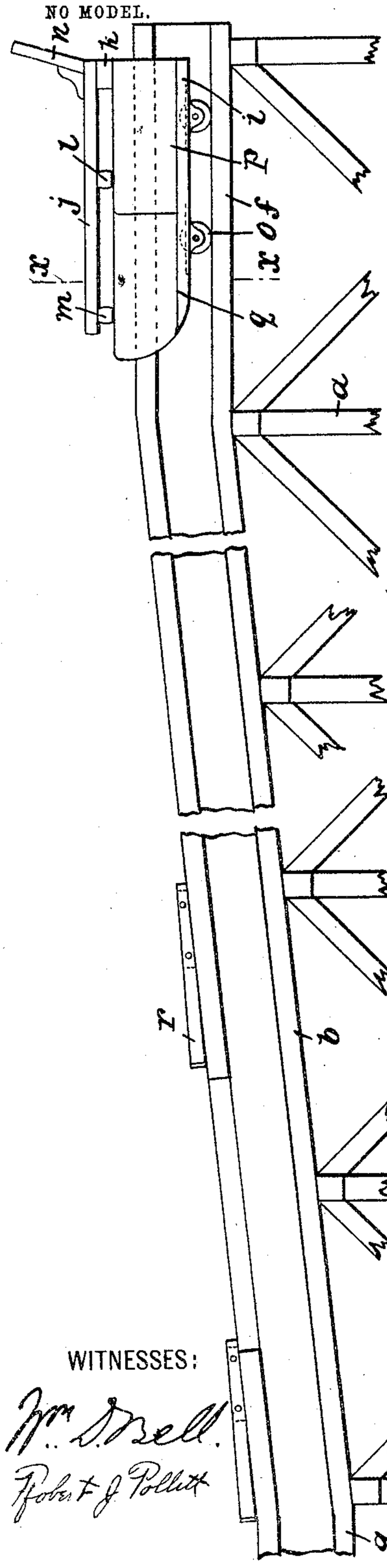

Fig. 1.

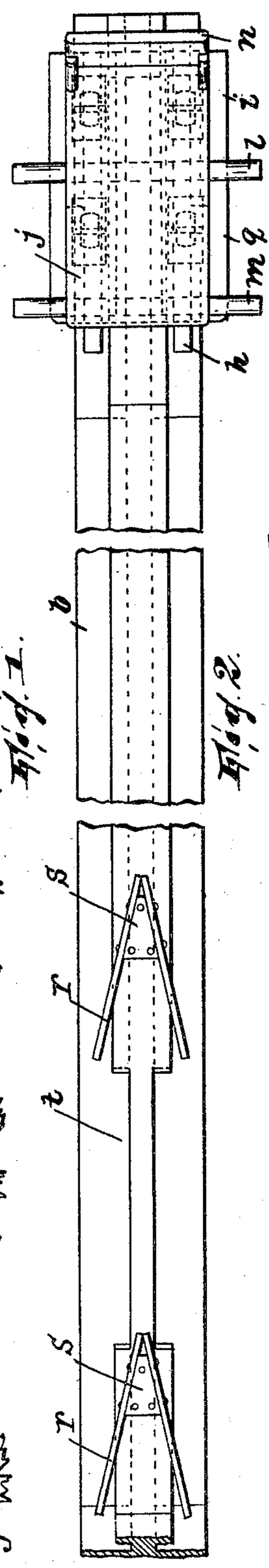

Fig. 2.

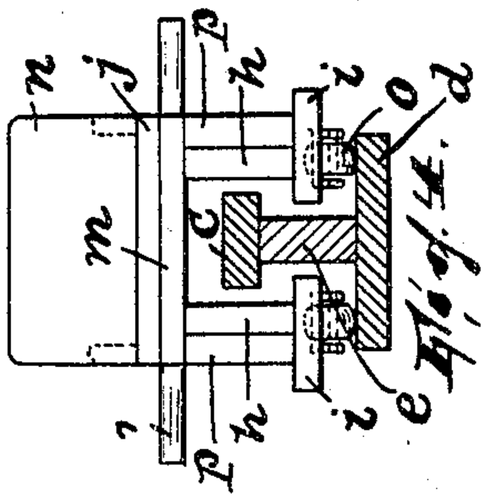

Fig. 4.

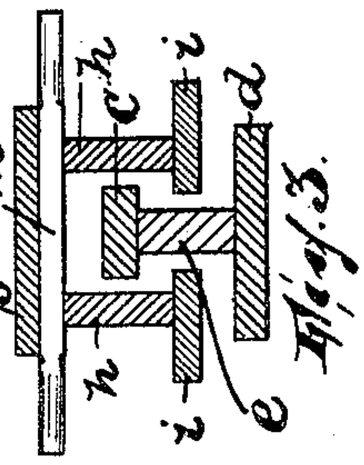

Fig. 3.

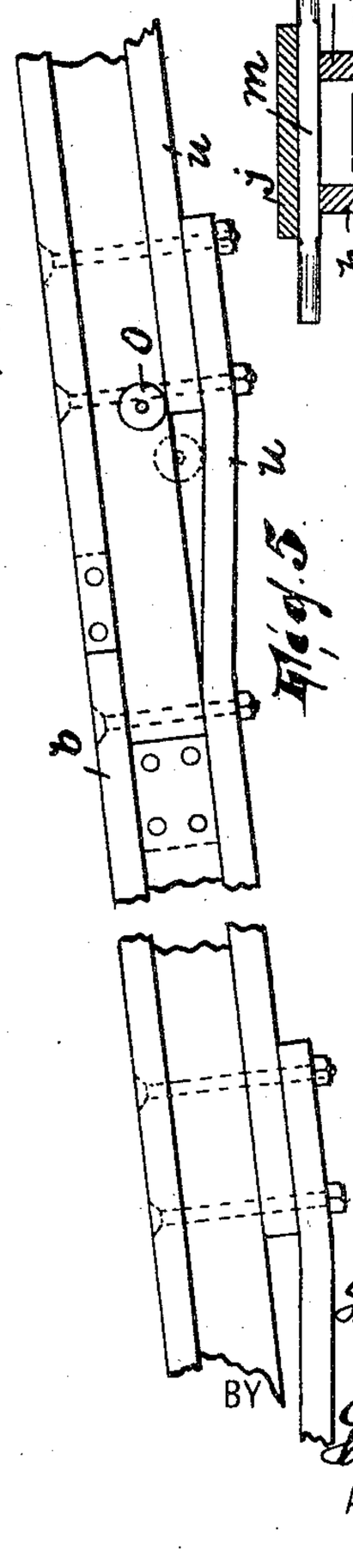

Fig. 5.

WITNESSES:

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No. 775,702. Patented November 22, 1904.

UNITED STATES PATENT OFFICE.

GEORGE A. DE BAUN, OF PATERSON, NEW JERSEY.

COASTING OR GRAVITY RAILWAY.

SPECIFICATION forming part of Letters Patent No. 775,702, dated November 22, 1904.

Application filed September 26, 1904. Serial No. 225,869. (No model.)

To all whom it may concern:

Be it known that I, GEORGE A. DE BAUN, a citizen of the United States, residing in Paterson, county of Passaic, and State of New Jersey, have invented certain new and useful Improvements in Coasting or Gravity Railways; and I do hereby 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 letters of reference marked thereon, which form a part of this specification.

This invention relates to coasting or gravity railways; and it consists in certain improvements in such mechanism having for their object to make the same strong, durable and cheap in construction, safe and reliable in operation, and, so far as the car is concerned, light and easy to handle when in the operation this is necessary.

The invention will be found fully illustrated in the accompanying drawings, wherein—

Figure 1 is a view in side elevation thereof. Fig. 2 is a top plan view. Fig. 3 is a cross-sectional view on the line *x x* in Fig. 1; Fig. 4, a view showing the guideway in section and the car in rear elevation, and Fig. 5 is a side view of a modified form of the guideway.

On suitable stanchions *a* is supported a guideway *b*, which in cross-section appears as in Figs. 3 and 4. It has the shape of an **I**-beam in cross-section and for cheapness may be formed of strips of wood comprising a top rail *c*, a bottom rail *d*, and a vertical connecting rail or web *e*. At the top *f* of the railway the latter is for a short distance horizontal. From here it inclines downwardly at any suitable angle and for any desired distance and preferably terminates in another horizontal portion *g* at the bottom.

The car is made up of two parallel-spaced cheek-pieces *h h*, set vertically and resting upon and secured to horizontal strips *i*, which form the runners and whose adjacent edges are set closer together than the rail *c* is wide, so that they act as a guard to prevent the car from being derailed, a seat *j*, which is supported by said cheek-pieces *h* through the medium of interposed cross-pieces *k*, *l*, and *m*, and a back *n* and casters or rollers *o*, which are secured to the under sides of the strips *i*. The occupant of the car sits on the seat *j* with his back against the back *n* and is intended to brace his feet against the cross-piece *m* and hold on to the cross-piece *l* with his hands, for which purpose said cross-pieces *l* and *m* are extended laterally beyond the sides of the car, as best seen in Figs. 2, 3, and 4.

In order to reinforce the rear portion of the car where the most of the weight of the occupant comes, auxiliary cheek-pieces *p* are placed outside of the cheek-pieces *h*, supporting the cross-pieces *l* on the strips *i* the same as the cheek-pieces *h*. The auxiliary cheek-pieces terminate considerably short of the front ends of the cheek-pieces *h* to form foot-rests *q* at the front ends of the strips *i*.

The impetus of the car as it approaches the bottom end of the railway may be overcome by a braking means such as that shown in Fig. 2. This consists of flexible strips *r*, which may be of wood and which are set in the form of a **V** on the top of the guideway *b*, with the apex toward the upper end of the railway, being secured to the sides of a wedge *s*, in turn secured on the guideway *b*. The spaced ends of the strips *r* are sufficiently wider apart than the cheek-pieces *h* of the car, so that when the car passes over this braking means the strips *r* will exert considerable friction on the cheek-pieces *h* and so cause the car to slow up. They can also be made to act as safety-stops for the car should they be placed on an upgrade of the guideway, preventing the car from rolling backward down the guideway.

In order to remove the car from the rail short of the lower end of the railway for any purpose, the top rail *c* is cut away at both sides, as at *t*, sufficiently, so that the strips *i* will clear them if the car is lifted. It will be understood that the car is placed on the guideway by presenting it endwise to the latter, so that the strips *i*, carrying the casters, will serve for the car as runners bearing on the rail *d* of the guideway.

The modification shown in Fig. 5 is designed to impart a series of jars as it runs down the

railway, and to this end the pieces *u*, of which the bottom rail *d* is formed, are secured in overlapping disposition.

Having thus fully described my invention, what I claim is—

1. In a coasting or gravity railway, the combination of an inclined guideway having an **I**-shaped cross-section, and a car comprising two spaced runners bearing on the top of the base part of said guideway and set closer together than the top portion of said guideway is wide, parallel cheek-pieces resting on said runners, and a seat surmounting said cheek-pieces, substantially as described.

2. In a coasting or gravity railway, the combination of an inclined guideway having an **I**-shaped cross-section, and a car comprising two spaced runners bearing on the top of the base part of said guideway and set closer together than the top portion of said guideway is wide, parallel cheek-pieces resting on said runners, a seat, and cross-pieces resting on said cheek-pieces and carrying said seat, said cross-pieces being extended beyond the sides of said seat to form foot and hand holds, substantially as described.

3. In a coasting or gravity railway, the combination of an inclined guideway having an **I**-shaped cross-section, and a car comprising two spaced runners bearing on the top of the base part of said guideway and set closer together than the top portion of said guideway is wide, parallel cheek-pieces resting on said runners, auxiliary cheek-pieces also resting on said runners and terminating at their front ends short of said runners and said first-named cheek-pieces, a seat, and cross-pieces resting on said cheek-pieces and carrying said seat, said cross-pieces being extended beyond the sides of said seat to form foot and hand holds, substantially as described.

4. In a coasting or gravity railway, the combination of an inclined guideway, a car arranged to run on said guideway, said car having parallel spaced members, and a braking device consisting of a **V**-shaped elastic member secured to said guideway horizontally and with its apex end toward the upper end of said guideway, the other end of said **V**-shaped member being wider than the adjacent faces of said parallel members are apart and being arranged in the plane in which said members move, substantially as described.

5. In a coasting or gravity railway, the combination of an inclined guideway having an **I**-shaped cross-section and having its base part consisting of a series of strips successively overlapping each other at the ends, and a car comprising two spaced runners bearing on the top of said base part of the guideway and set closer together than the top portion of said guideway is wide, parallel cheek-pieces resting on said runners, and a seat surmounting said cheek-pieces, substantially as described.

In testimony that I claim the foregoing I have hereunto set my name this 23d day of September, 1904.

GEORGE A. DE BAUN.

Witnesses:

JOHN W. STEWARD,

ROBERT J. POLLITT.