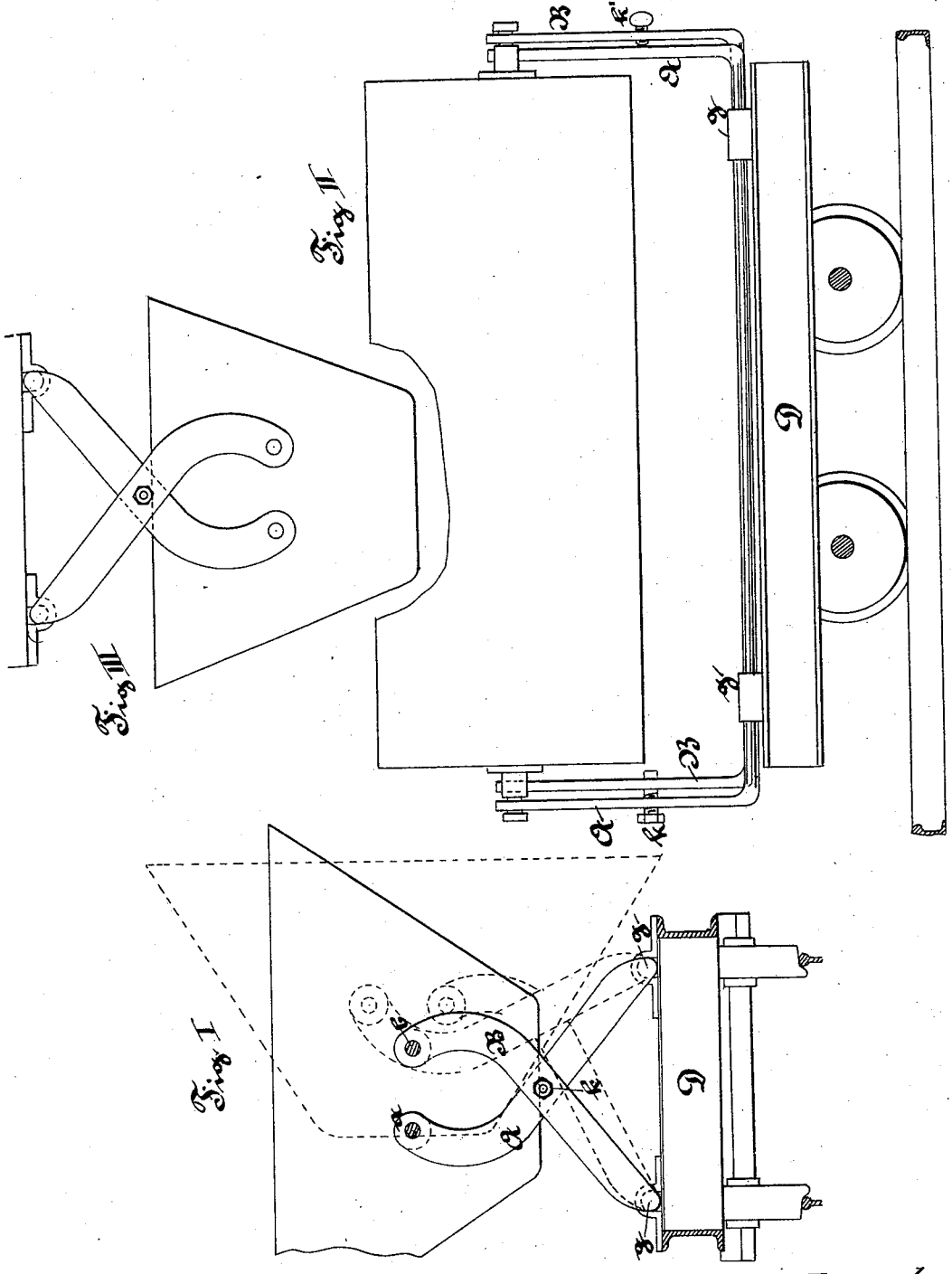
(No Model.)

P. DIETRICH.

TIPPING AND BALANCING MECHANISM.

No. 306,814. Patented Oct. 21, 1884.



Witnesses.
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UNITED STATES PATENT OFFICE.

PAUL DIETRICH, OF BERLIN, GERMANY.

TIPPING AND BALANCING MECHANISM.

SPECIFICATION forming part of Letters Patent No. 306,814, dated October 21, 1884.

Application filed August 12, 1884. (No model.)

To all whom it may concern:

Be it known that I, PAUL DIETRICH, a subject of the King of Prussia, residing at the city of Berlin, Prussia, Germany, have invented a new and useful Improvement in Tipping and Balancing Mechanism, of which the following is a specification.

My invention relates to tipping or dumping mechanism for carts, weighing apparatus, and other appliances.

In the accompanying drawings, Figure I is an end elevation, and Fig. II a side elevation, of a carriage embodying my invention, while Fig. III illustrates a modification.

The object of my invention is to turn the receptacle through a greater angle than may be obtained with ordinary tipping mechanism, and to diminish vibrations and obtain a uniform tilting action. For this purpose I suspend the receptacle C from symmetrically-curved levers A and B, pivoted at their lower extremities in bearings *g g*, fixed to the frame of the carriage. The levers are made concave toward the center line of the receptacle, in order to make room for each other after tilting, as will be seen from the dotted lines in Fig. I. There is a pair of levers at each side of the receptacle, as shown in Fig. II, and the parallel right and left hand levers are preferably made of one piece, or rigidly connected with each other, so as to form a U-shaped bar, pivoted in bearings on the frame of the carriage, and holding at their upper end the pivotal studs *a* and *b*, attached to the ends or narrow sides of the receptacle.

Another feature of novelty is the method of securing the receptacle in its upright position. Instead of securing the flanks or long sides of the receptacle, as usual, I fix the same by passing through the center of the levers A B, where they cross each other, a pin, *k*, so that the levers form a rigid frame adapted to take up equally any lateral vibrations of the carriage. Instead of a pin, *k*, passing through both levers, a set-screw, *k'*, may be used, which passes through the outer lever and enters a recess of the inner lever. The position of the levers with regard to the receptacle or other articles supported by the same may be reversed, as indicated by Fig. III, and the pivots of the levers may be placed above instead of below the receptacle, which will be shown by turning the whole Fig. III upside down.

The tipping mechanism is applicable to carriages suspended from wire ropes and running on the same to church-bells, and generally to receptacles and other bodies which require a lateral motion in addition to the tilting action. The position assumed by the receptacle and levers after the connecting-pins *k* or screws *k'* have been removed and the receptacle tilted over is shown in Fig. I by dotted lines.

What I claim is—

1. In tipping mechanism, a pair of U-shaped double levers, A B, the upright parts or arms of which cross each other and are concave toward their common center, substantially as and for the purpose described.

2. In tipping mechanism, the combination of a pair of U-shaped double levers, A B, the upright arms of which cross each other and are concave toward their common center, with a pin or screw adapted to connect the levers in the center, substantially as described.

3. The combination of a receptacle, C, or other body to be tilted, with a stationary frame, D, and a pair of U-shaped double levers, A B, the upright arms of which cross each other and are made concave toward their common center, the said levers being pivoted at their lower ends in horizontal bearings fixed to the frame D, and adapted to support at their upper ends the receptacle to be tilted, substantially as described.

In testimony that I claim the foregoing as my own I have hereunto set my hand in the presence of two subscribing witnesses.

PAUL DIETRICH.

Witnesses:
B. ROI,
JOHN R. ROSLYN.