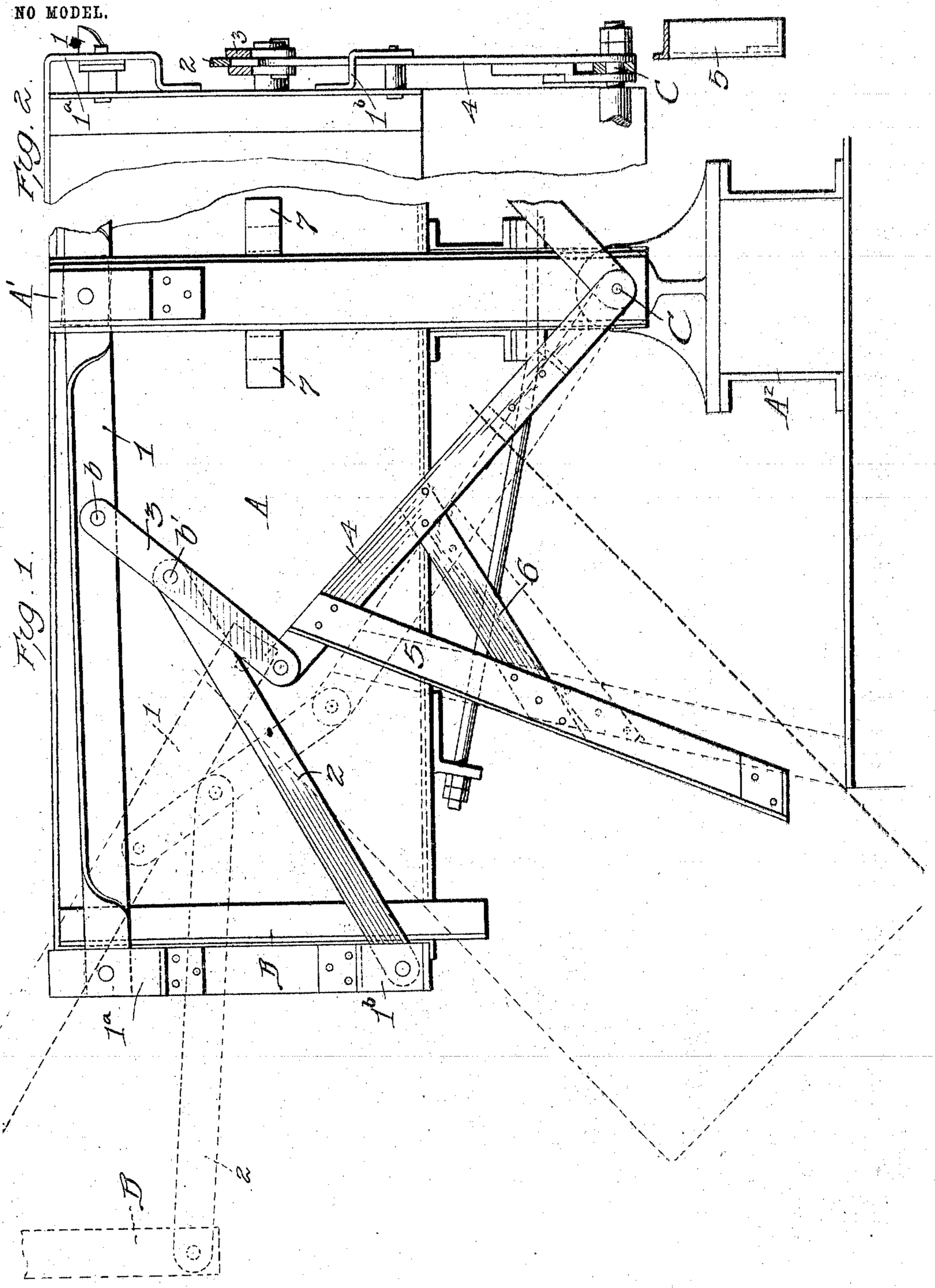
No. 764,568. PATENTED JULY 12, 1904.

A. ELLIS.

DUMP CAR.

APPLICATION FILED APR. 27, 1904.

NO MODEL.



ATTEST:

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ATTYS.

No. 764,568. Patented July 12, 1904.

UNITED STATES PATENT OFFICE.

ALFRED ELLIS, OF PASSAIC, NEW JERSEY.

DUMP-CAR.

SPECIFICATION forming part of Letters Patent No. 764,568, dated July 12, 1904.

Application filed April 27, 1904. Serial No. 205,190. (No model.)

To all whom it may concern:

Be it known that I, ALFRED ELLIS, a citizen of the United States, residing at Passaic, New Jersey, have invented certain new and useful Improvements in Dump-Cars, of which the following is a specification.

My present invention relates to improvements in dump-cars for use on railways, and more especially to that class of car known as "tilting body with displaceable sides."

One object of the invention is to provide extremely simple, durable, and effective means for raising either side-board upwardly and automatically when the car is dumped to provide for the free discharge of each load.

Another object is to so construct the parts that the side-board may be readily raised and held in its elevated position by the action of gravity alone while the car is being loaded, whereby it is not necessary to throw the material being loaded much higher than the bottom of the car.

To this end the invention includes the construction and arrangement of parts hereinafter described, and particularly pointed out in the claims.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 designates an end view of a car-body and showing a sufficient portion of the truck to illustrate the operation of the invention, one side of the car-body being shown broken away and the position of the car-body during dumping being indicated by broken lines. Fig. 2 is a part elevation at right angles to Fig. 1.

In the drawings, A designates the car-body, which is pivotally mounted, by means of its central vertical end members A′, upon the central beam or support A^2 of the car-truck in the ordinary or any desired manner.

B designates one of the side-boards of the car, which is pivotally connected at its upper corners with the car-body by the angle-irons 1. These angle-irons are pivotally connected at their outer ends to the upper corners of the side-board and pivotally connected at their inner edges preferably to the car-body near the upper edges centrally of the ends. It will be observed that the links 1 when the parts are in the position shown in full lines in Fig. 1 slope downwardly or at a slight inclination to the upper edge of the car-body, which enables the side-board to the more readily clear the upper corner of said body. The lower corners of the side-boards are connected by links 2 to approximately the central portions of other links 3, which have their upper ends pivotally connected to the links or angle-bars 1. The lower ends of the links 3 are pivotally connected to the outer ends of links 4, which in turn are pivotally connected to or at the pivot-point C, upon which the car-body rocks. An arm 5 is rigidly connected to the link 4, and this arm 5 is also preferably of channel or angle iron and is braced by a bar 6, extending from the arm to the link 4. The lower end of the arm 5 is designed to strike against or rest upon the truck when the car-body is tilted, and as the car-body continues to tilt the link 4 will be held against downward movement and through the links 3, 2, and 1 elevate the side-board. As the upper edge of the car-body moves outwardly in tilting it will be seen that the pivot-point *b* will move outwardly faster than the pivot-point *b*′, and the result will be that while the side-board is kept clear of the edges of the ends of the car sufficiently to permit its movement, yet at the same time the side-board is maintained in a substantially vertical position. When it is desired to have the side-board out of the way in loading the car, it will be readily seen that the connections are such that the side-board may be swung up until the links or arms 4 are in a vertical position. To retain them in the position, I provide yielding stops 7.

By this construction it will be seen that I provide an extremely simple arrangement for supporting the side-boards and automatically raising them in relation to the car-body as the same is tilted and one which permits the side-boards to be readily raised and held out of the way after the car-body has been returned to its normal position. Further, by my arrangement of link-and-lever connections the weight of the side-board assists in returning the car-

body to initial position after the same has been dumped, which is a very material item, as these car-bodies are very heavy and difficult to handle.

I prefer to extend a metal band 1[a] along the top of each side-board, extending it outwardly beyond the ends of the side-board before it is turned downwardly and inwardly, the outer end of each link 1 being pivoted in the space thus formed. Likewise brackets 1[b] are provided at the lower corners for the connection of the links 2.

Having thus described my invention, what I claim is—

1. In a dump-car, a truck, a car-body pivotally supported thereby, a side-board having arms at its opposite ends connected to the car-body, links having each one end supported by a stationary pivot and its other end loosely connected with the corresponding arm, and rigid supporting arms or braces carried by said links adapted to contact with the truck, substantially as described.

2. In a dump-car, a truck, a car-body pivotally supported thereby, a side-board having arms pivotally connected to the car-body, links having each one end supported by a stationary pivot and its other end linked to one of said arms, and a rigid supporting-arm carried by said links adapted to contact with the truck, substantially as described.

3. In a dump-car, a truck, a car-body pivotally supported thereby, a side-board having arms pivotally connecting its upper edge with the car-body, links at each end of the car having one end supported by a stationary pivot, a second link at each end connecting each first-named link with the said arm and a rigid supporting arm or brace carried by each first-named link adapted to contact with the truck, substantially as described.

4. In a dump-car, a truck, a car-body pivotally supported thereby, a side-board having arms at its opposite ends connected to the car-body, said arms sloping downward at an inclination to the upper edge of the said body, links having each one end supported by a stationary pivot and its other end loosely connected with the corresponding arm, and a rigid supporting arm or brace carried by each link, substantially as described.

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

ALFRED ELLIS.

Witnesses:
ALFRED SCHMOHL,
FRED. A. LANE.