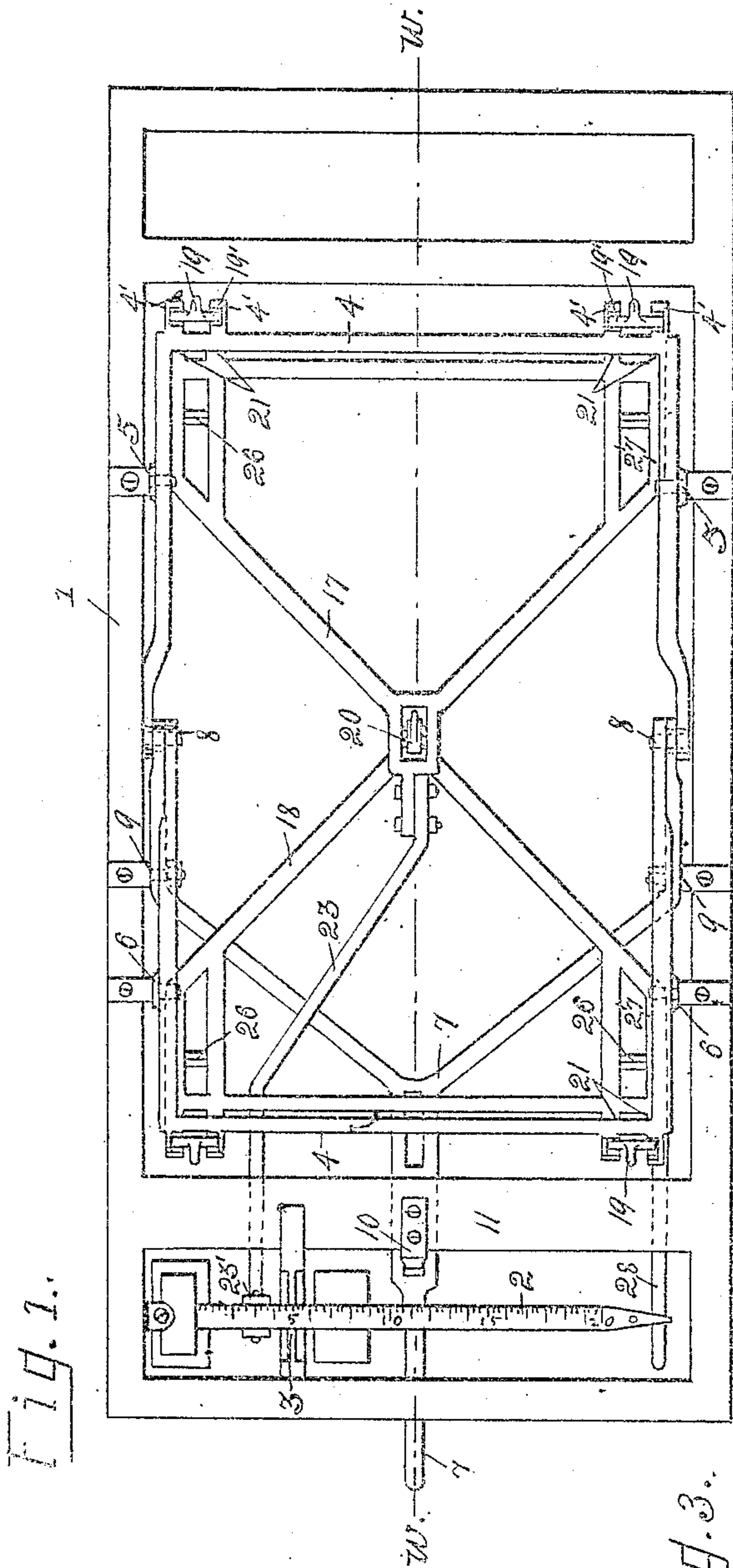


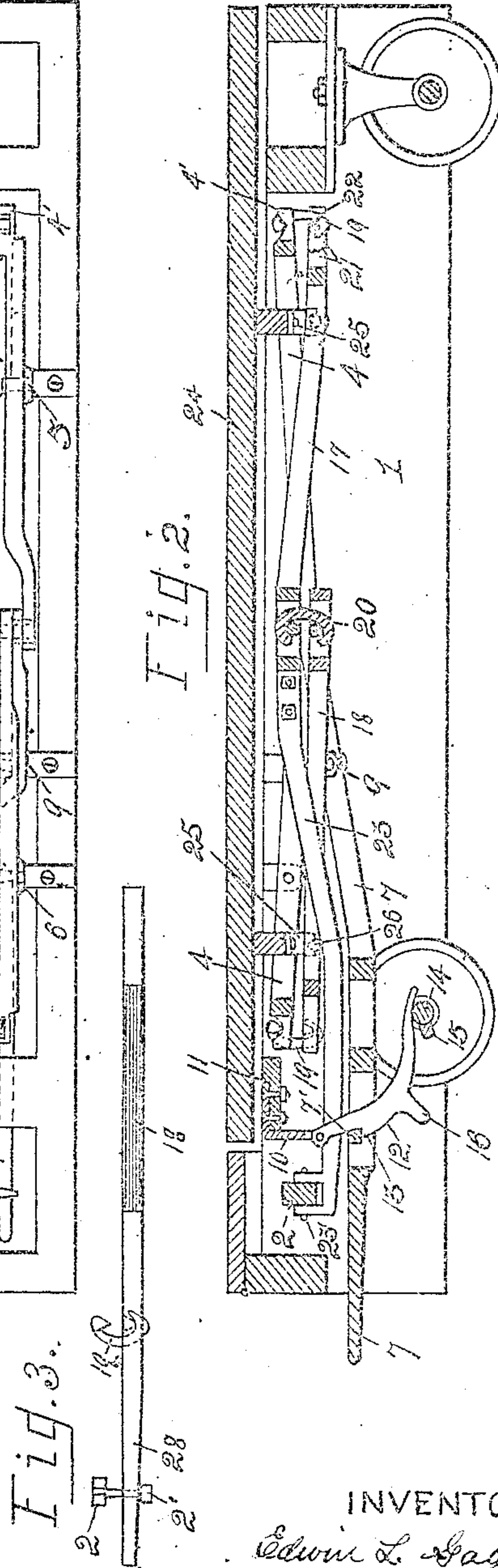
E. L. GAGE.
TRUCK SCALE.
APPLICATION FILED MAR. 2, 1908.

898,457.

Patented Sept. 15, 1903.



WITNESSES:
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UNITED STATES PATENT OFFICE.

EDWIN L. GAGE, OF TOLEDO, OHIO.

TRUCK-SCALE.

No. 898,457.

Specification of Letters Patent.

Patented Sept. 15, 1908.

Application filed March 2, 1908. Serial No. 418,660.

To all whom it may concern:

Be it known that I, EDWIN L. GAGE, a citizen of the United States, and a resident of Toledo, in the county of Lucas and State of Ohio, have invented a certain new and useful Truck-Scale; 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 the figures of reference marked thereon, which form a part of this specification.

My invention relates to that class of scales which are combined with a movable base or truck and are equipped with means for effecting a raising or lowering of the bed or platform thereof to place it in operative weighing position or to permit it to rest in inoperative position on the truck-frame, and has particular reference to improvements on the truck-scale covered by United States Letters Patent No. 836,074, granted to me on November 13, 1906.

The object of my invention is the provision of simple and efficient means in an apparatus of the class described, which will act on the scale parts to automatically release the same to permit a lowering thereof to inoperative position when the truck is moved on its wheeled support, thus obviating injury to the delicate weighing parts due to the racking they would be subjected to should the operator move the truck without first throwing such parts to inoperative position.

A further object of my invention is the provision, in a truck-scale of this class, of means adapted to be moved to lock the scale-beam against movement when the scale parts are thrown into inoperative position, thus adding materially to the practicability and commercial value of apparatus of this class.

The operation, construction, and arrangement of the parts of the invention are fully described in the following specification, and illustrated in the accompanying drawings, in which,—

Figure 1 is a plan of the truck-frame and scale embodying the features of my invention with the bed or platform removed. Fig. 2 is a vertical longitudinal section of the same on the line *ww* in Fig. 1 with the bed mounted thereon and elevated in weighing position, and Fig. 3 is a side view of the rear scale-lever illustrating its manner of coaction with the scale-beam.

Referring to the drawings, 1 designates the frame of an ordinary or any suitable construction of truck, which may either be of the hand or wagon types, as desired. At the rear end of the frame, or in any other suitable position therein, is disposed the scale-beam 2, which is provided with the usual weights and is fulcrumed in a suitable manner to the frame or to a bracket secured thereto, as at 3.

4, 4 designate U-shaped elevating-levers, the forward one of which has its legs pivoted to the frame sides, as at 5, while the rear lever has its legs pivoted to the frame sides, as at 6. These levers have their legs directed toward each other and pivotally connected at their ends to the ends of the associated arms of a forked operating-lever 7, as shown at 8. The operating-lever has its arms fulcrumed to the frame sides, as at 9, and its handle portion projecting rearwardly under the scale-beam, and preferably extended beyond the end of the frame, as shown, to adapt it to be readily grasped by the operator when it is desired to move the same to manipulate the elevating-levers 4, 4.

Suspended from a bracket 10 secured to the cross-piece 11 of the truck-frame is a pivotal dog 12, which preferably, but not necessarily, works through a slot in the handle of the operating-lever 7 and is provided on its rear side with a tooth 13 for coacting with a portion 7' of said lever handle when elevated, whereby to support the lever in such elevated position. The dog 12 has its free end extended forward over the rear axle 14 of the truck in position to be engaged by a cam 15 thereon as the axle rotates and moved by such cam to release the operating-lever to permit it to drop by gravity to inoperative position. To facilitate a releasing of the dog by the foot, if so desired, it is formed with a downwardly projecting spur 16, as shown.

17 and 18 designate the usual scale-levers, which may be of any suitable construction and are pivotally suspended at their outer ends from the outer ends of the elevating-levers 4, 4 by loops 19, as shown, and have their inner ends pivotally connected as by a loop 20 engaging suitable pivots thereon. A simple and very efficient manner of connecting the outer end portions of the scale-levers to their respective elevating-levers, consists in providing the outer end of each elevating-lever near its sides with slightly spaced projections 4' with which the cross-

pieces 19' of the loops 19 engage to pivotally support said loops, and providing the outer end of each scale-lever near its sides with slightly spaced projections 21, which are connected by a pivot 22, with which the associated loop 19 engages, as shown in the drawings. The main scale-lever 17 is provided at its inner end with the arm 23, which projects rearwardly therefrom and suitably connects at its outer end in proper position to the scale-beam 2, as at 23'.

The scale-bed 24, which also forms the platform of the truck, has its under side provided with four downwardly extending bearing-pieces 25, which have their lower surfaces suitably shaped to rest on the pivots 26 on the scale-levers. The pivots 26 preferably, but not necessarily, connect at their opposite ends with spaced integral portions 27 of the scale-levers, as they are thereby materially strengthened. It will be apparent from the above description that a lowering of the operating-lever 7 from the position shown will effect a lowering of the outer ends of the elevating-levers 4, 4 and the suspended scale-levers 17, 18, thus permitting a consequent lowering of the bed 24 to enable it to rest on and be supported by the truck-frame instead of by the scale-levers.

In order to provide a simple and efficient means which is automatically operated to lock the scale-beam in rigid position when the scale parts are thrown to inoperative position, I provide the rear scale-lever 18 at one side thereof with an arm 28, which projects rearwardly therefrom and under one end of the scale-beam, but free from contact therewith when the scale-levers are in operative weighing positions, so that the oscillatory movements of the scale-beam will not then be interfered with. As the scale-levers lower when the weighing parts are thrown to inoperative position, the arm 28 lowers therewith and coacts with a part of the scale-beam, such, for instance, as the subjacent weight-bar 2' thereof, as shown in Fig. 3, thus moving such end of the scale-beam to its limit of lowering movement and firmly holding it against movement until again released by a raising of the scale parts.

I wish it understood that I do not desire to be restricted to the exact details of construction and arrangement of the parts shown and described, as obvious modifications will occur to persons skilled in the art.

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

1. In a truck-scale, the combination with the scale parts, and the operating-lever mov-

able to throw the scale parts into operative or inoperative positions, of a member adapted to cooperate with said lever to hold the same elevated to maintain the scale parts in operative position, and means for effecting an automatic release of said member from the operating-lever when the truck is moved.

2. In a truck-scale, the combination with the scale-parts, and means movable to effect a throwing of the scale-parts to operative or inoperative positions, of a member adapted to coact with said means when holding the scale-parts in inoperative position, and cam means coacting with said member and movable to effect its release from said first mentioned means when the truck is moved.

3. In a truck-scale, the combination with the scale-parts, an axle of the truck, and a lever associated with the scale-parts and adapted when elevated to move said parts to operative position and when lowered to move said parts to inoperative position, of a dog carried by the truck-frame and adapted to engage the lever when elevated and retain it in such position, and cam means carried by the axle and adapted to coact with the dog to release it from the lever when the truck is moved.

4. In a truck-scale, the combination with the scale-beam, and the scale-levers, said levers being movable to operative and inoperative positions, of a part projecting from one of said levers and adapted to coact with the scale-beam to prevent movement thereof when the levers are in inoperative positions.

5. In a truck-scale, the combination with the frame, of two U-shaped elevating-levers having their legs directed toward each other and fulcrumed to the frame-sides, said levers being provided at their outer ends near the sides thereof with slightly spaced projections adapted to form loop-supports, an operating-lever fulcrumed to the frame and having an arm in connection with the elevating-lever legs at each side of the frame, scale-levers having their inner ends pivotally connected and their outer ends provided near the sides thereof with spaced projections connected by pivots, and loops connecting the sets of spaced projections of the elevating-levers with the pivots connecting the spaced projections of the scale-levers, substantially as described.

In testimony whereof I have hereunto signed my name to this specification in the presence of two subscribing witnesses.

EDWIN L. GAGE.

Witnesses:

PERCY C. SECORD,
C. C. GIBSON.