No. 804,832. PATENTED NOV. 21, 1905.

J. W. DAVIS.

WEIGHING AND LIFTING DEVICE.

APPLICATION FILED JULY 13, 1905.

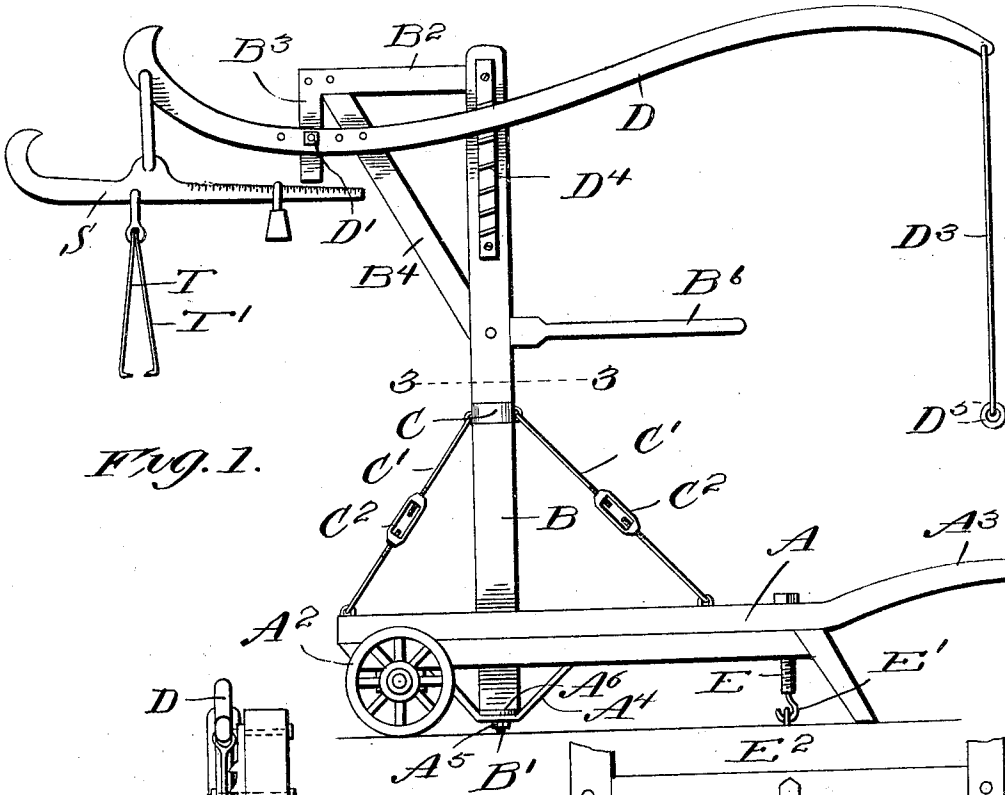


Fig. 1.

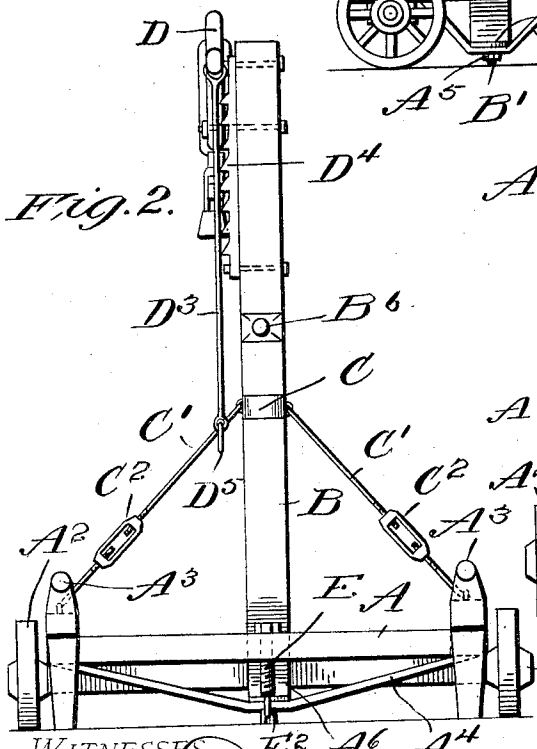


Fig. 2.

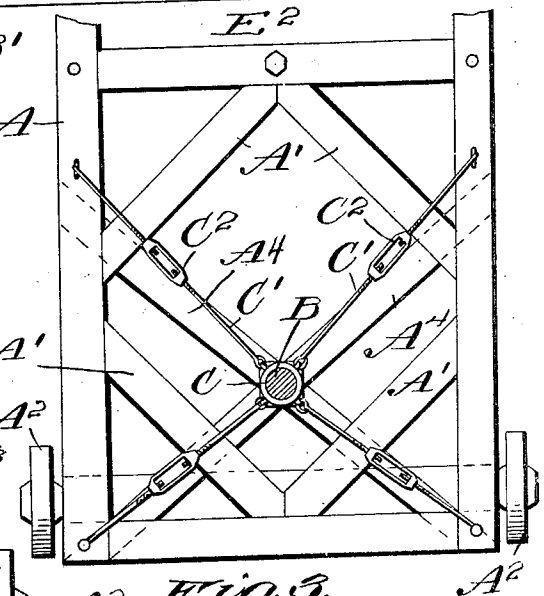


Fig. 3.

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UNITED STATES PATENT OFFICE.

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WEIGHING AND LIFTING DEVICE.

No. 804,832. Specification of Letters Patent. Patented Nov. 21, 1905.

Application filed July 13, 1905. Serial No. 269,511.

To all whom it may concern:

Be it known that I, JAMES W. DAVIS, a citizen of the United States, residing at Alto, in the county of Cherokee, State of Texas, have invented certain new and useful Improvements in Weighing and Lifting Devices, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to a weighing and unloading device, and particularly to a portable structure of this character.

The invention has for an object to provide a novel and improved means for mounting the mast or standard upon its support and also the lifting-lever fulcrumed thereto.

A further object of the invention is to provide means for securing the portable structure upon which the mast is mounted rigidly in position to prevent movement thereof in the use of the invention.

Other and further objects and advantages of the invention will be hereinafter set forth and the novel features thereof defined by the appended claims.

In the drawings, Figure 1 is a side elevation of the device. Fig. 2 is an end view thereof, and Fig. 3 is a sectional view on the line 3 3 of Fig. 1.

Like letters of reference refer to like parts throughout the several figures of the drawings.

The letter A designates a truck or other portable transporting device upon which the invention is mounted for convenient removal from place to place. This truck is composed of a frame having corner-braces A′ thereon and is provided at one end with the wheels A^2 and at its opposite end with handles A^3. The mast or standard B is mounted centrally of the truck, so as to travel upon a vertical axis, which in the present instance comprises a rod B′, secured to the mast and extending downward therefrom through the diagonally-disposed supports A^4 at their point of intersection, where it is supplied with a nut A^5, threaded thereon, so as to hold the parts in position. At the base of the mast a foot-plate A^6 is secured thereto and rests upon the supports, so as to carry the weight of the mast without friction, while the side or upward pull thereof is resisted by means of a collar C, loosely surrounding the mast and having brace-rods C′ extending therefrom to the frame of the truck. These rods are provided with any suitable adjusting devices, such as turnbuckles C^2. This mast is provided at its upper portion with a horizontally-disposed bar B^2, supported by a suitable diagonal brace B^4, carrying at its outer end a depending hanger B^3, upon which the lifting-lever D is pivotally mounted at D′. The operating-handle B^6 for the mast projects to form a ready and convenient means for rotating the mast and parts carried thereby.

The lifting-lever D is secured in its adjusted position by means of the rack-teeth D^4, carried by the face of the mast next thereto and at its end beyond the hanger is provided with any suitable form of weighing mechanism—for instance, the scale-beam S, graduated and provided with the usual weight and from which the grapple-hooks T T′ are suspended for the purpose of engaging a bale of cotton or other body to be weighed while suspended from the lifting-lever.

In use of the invention for weighing bales of cotton or other heavy objects it is desirable that the structure be retained against any movement, and this is effectually accomplished by means of the adjustable bolt E, which passes through the frame of the truck and is provided at its lower end with a hook E′, adapted to engage a staple E^2 or other fixed object secured to the floor or surface upon which the truck is disposed. When this hook is engaged, the bolt may be adjusted to secure the desired tension for firmly holding the parts in their adjusted position during the weighing operation. For the purpose of rendering the lifting-lever ready of access an extension D^3 may be secured thereto and provided with a handle D^5, which can be readily grasped for the purpose of operating the lever.

In the operation of the invention the material to be weighed is lifted by the lever, which being secured in position permits the weighing operation, after which the article may be disposed at any desired place within the field of the mast by a rotation thereof, while the truck and all the parts carried thereby are retained rigidly in position by the securing devices adapted for connection to the floor or other fixed point. The mounting of the mast permits its easy and convenient rotation upon its pivot, thus greatly facilitating the handling of material, which

after being weighed is desired to be deposited in another place. When it is desirable not to weigh the hay, cotton, or other material at the time of loading or unloading the same, the scales may be dispensed with and the lifting-lever alone used.

It will be obvious that the invention is particularly adapted for use in weighing material and then depositing it upon a suitable vehicle for transportation or the reverse operation in unloading material.

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

1. In a lifting device, a truck-frame, a mast provided with a lifting-lever, a depending support extending from opposite sides to a central point below said frame, a pivotal connection between said mast and support, a collar surrounding said mast, and brace-rods extending from said collar to the frame.

2. In a lifting device, a mast having a horizontal extension at its upper portion, a vertically-disposed hanger carried at the outer end of said extension at one side of the mast, a handle at the opposite side of the mast for rotating the same, a lifting-lever pivotally mounted upon said hanger, and a ratchet-bar carried by the mast to be engaged by said lever.

3. In a lifting device, a mast having a horizontal extension at its upper portion, a vertically-disposed hanger carried at the outer end of said extension at one side of the mast, a handle at the opposite side of the mast for rotating the same, a lifting-lever pivotally mounted upon said hanger, a ratchet-bar carried by the mast to be engaged by said lever, a frame provided with a depending support, and means for pivotally mounting the mast at its lower end in said support.

4. In a lifting device, a mast having a horizontal extension at its upper portion, a vertically-disposed hanger carried at the outer end of said extension at one side of the mast, a handle at the opposite side of the mast for rotating the same, a lifting-lever pivotally mounted upon said hanger, a ratchet-bar carried by the mast to be engaged by said lever, a frame provided with a depending support, means for pivotally mounting the mast at its lower end in said support, and an adjustable bolt carried by said frame and adapted to engage a fixed body for retaining said frame in position.

5. In a lifting device, a portable truck, a mast and lifting-lever disposed thereon, adjustable bolts extending through the platform of said truck, and hooks carried by the lower ends of said bolts to engage a fixed connection beneath said truck.

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

JAS. W. DAVIS.

Witnesses:
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T. J. ALEXANDER.