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PATENTED JULY 10, 1906.

J. H. HARRISON.
PORTABLE WEIGHING APPARATUS.
APPLICATION FILED APR. 23, 1906.

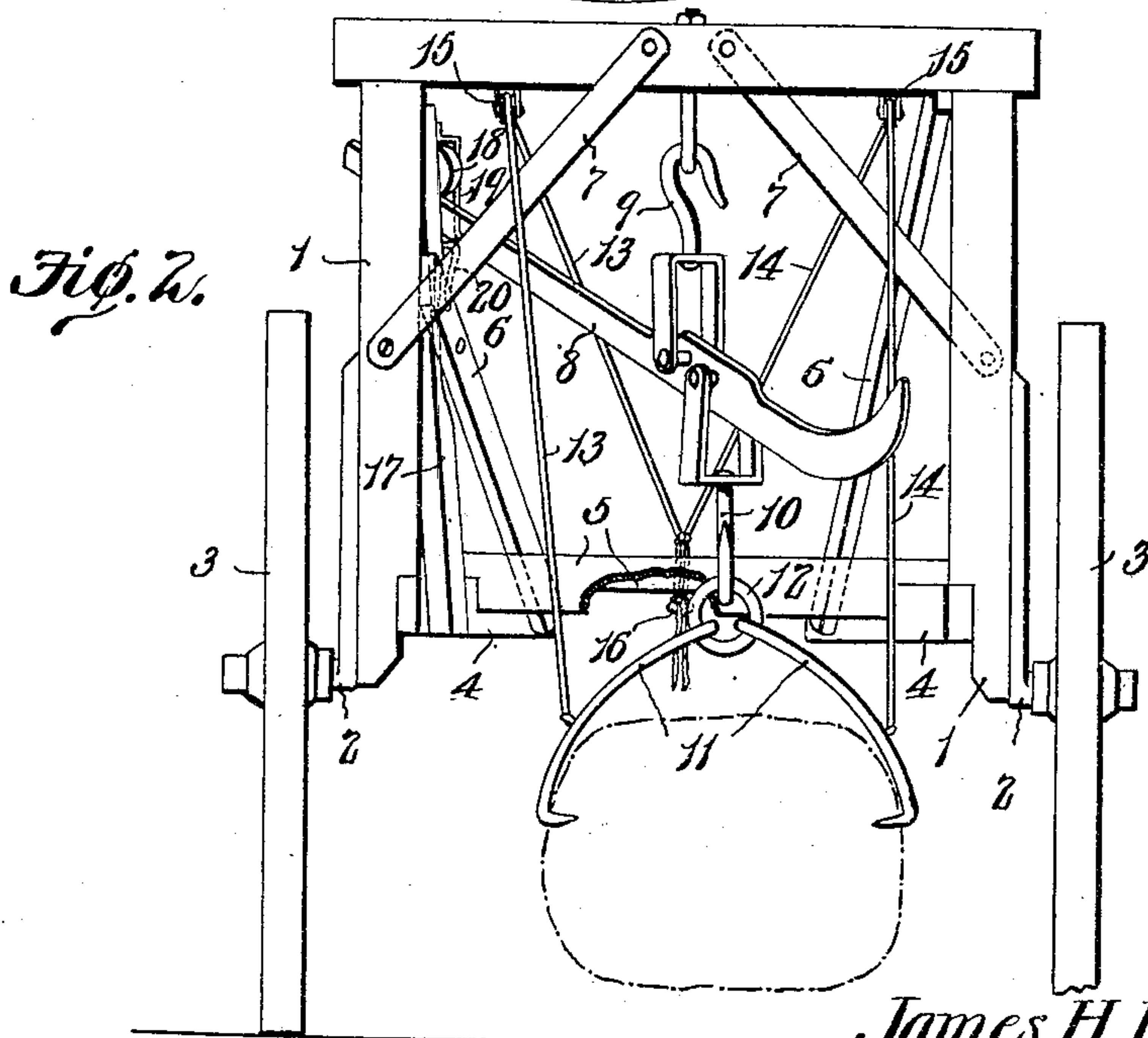
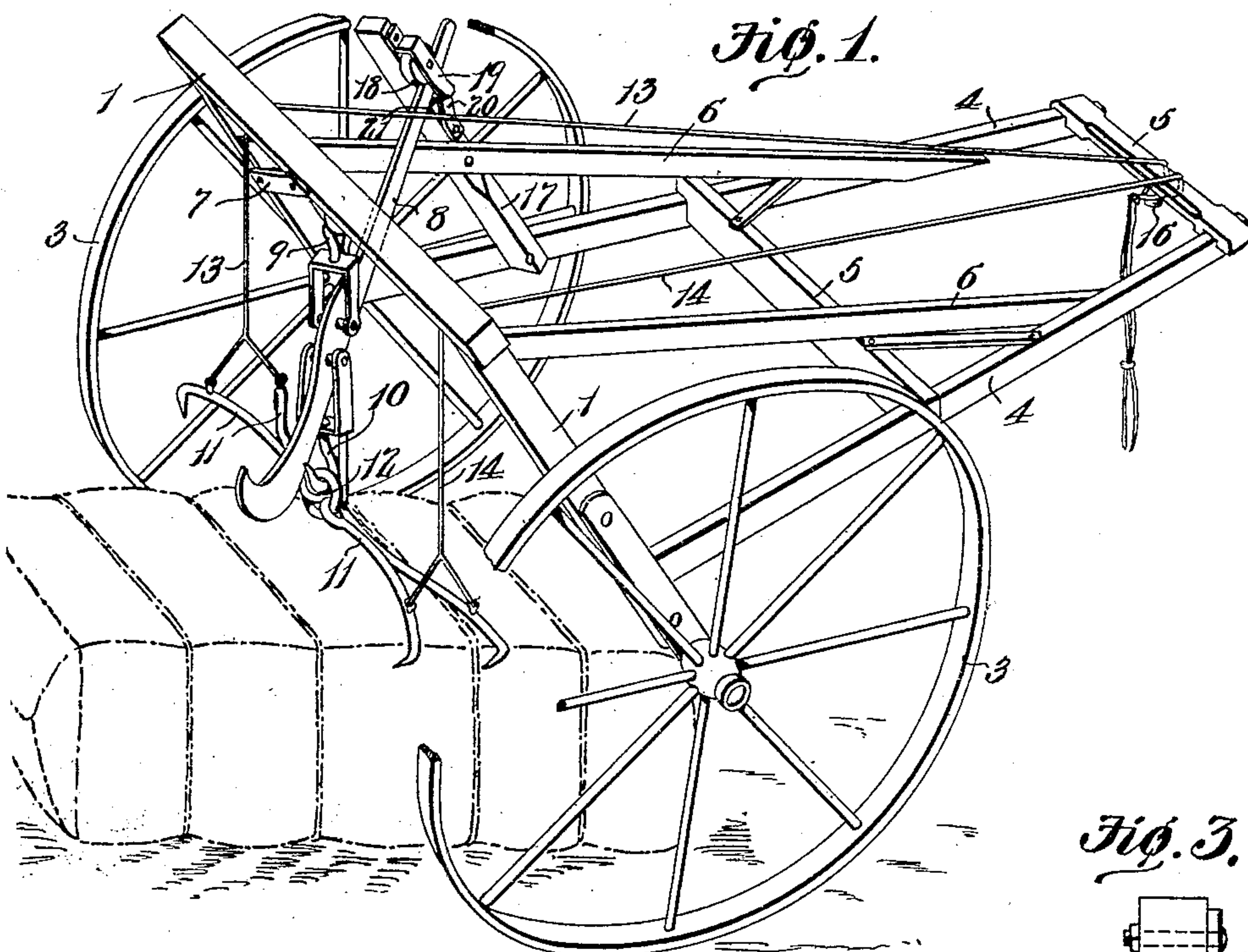
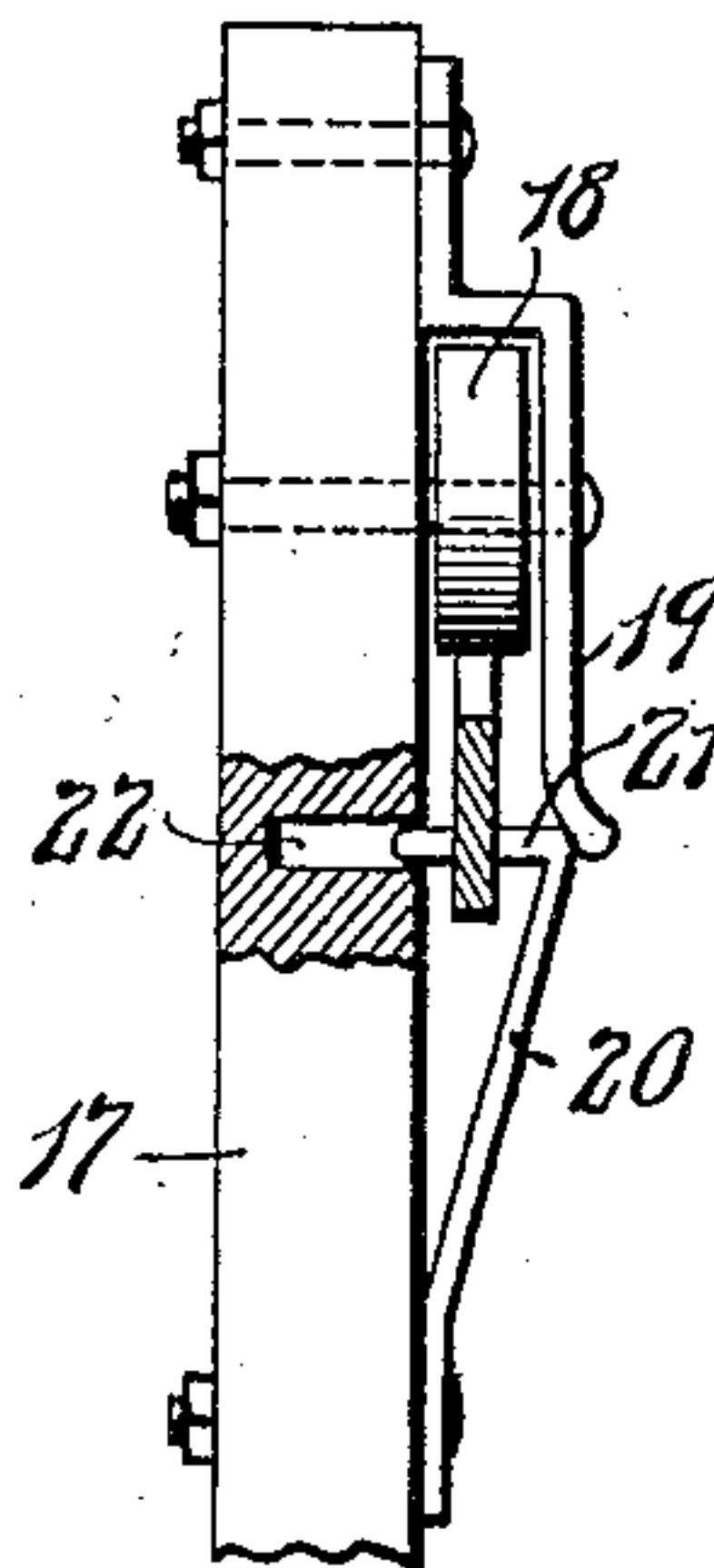


Fig. 3.



WITNESSES:

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JAMES H. HARRISON, OF RANGER, TEXAS.

PORTABLE WEIGHING APPARATUS.

No. 825,459.

Specification of Letters Patent.

Patented July 10, 1906.

Application filed April 23, 1906. Serial No. 313,302.

To all whom it may concern:

Be it known that I, JAMES H. HARRISON, a citizen of the United States, residing at Ranger, in the county of Eastland and State of Texas, have invented a new and useful Portable Weighing Apparatus, of which the following is a specification.

This invention relates to an improved weighing apparatus adapted for weighing heavy and bulky objects, such as cotton-bales, and for transporting or carrying such objects and dumping or depositing them in the desired location; and the objects of the invention are to present an apparatus of this character which shall possess superior advantages in point of simplicity, durability, and general efficiency and whereby the handling and weighing of heavy objects shall be greatly facilitated.

With these and other ends in view the invention consists in the improved construction and novel arrangement and combination of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the accompanying drawings has been illustrated a simple and preferred form of the invention, it being, however, understood that no limitation is necessarily made to the precise structural details therein exhibited, but that changes, alterations, and modifications within the scope of the invention may be made when desired.

In the drawings, Figure 1 is a perspective view showing the improved apparatus in position for engaging an object, such as a cotton-bale, that is to be weighed and moved. Fig. 2 is a rear elevation showing the apparatus with the bale in position for weighing and transportation. Fig. 3 is a detail view, enlarged, of the device for confining the steelyard in inoperative position.

Corresponding parts in the several figures are indicated throughout by similar characters of reference.

In the construction of this improved device there is included a carrying-truck having an arched axle 1, provided with spindles 2 2, upon which the wheels 3 3 are journaled. Upon the vertical side members of the axle there are secured forwardly-converging shafts 4 4, which are connected at intervals by cross bars or braces 5 5. Inclined braces or connecting members 6 6 connect the shafts with the side members or limbs of the axle-

arch. Obliquely-disposed braces, as 7, connect the crown and the axle-arch with the limbs of said arch for the purpose of reinforcing the structure.

A steelyard of the construction ordinarily used for weighing cotton-bales (designated 8) is supported, as by means of a swivel-hook 9, beneath the crown of the axle-arch. Connected with the short arm of said steelyard is a hook 10, from which a pair of grab-hooks 11 are suspended, as by means of a link 12. Flexible elements, such as cords 13 14, are connected with the grab-hooks and are guided over guide means, such as pulleys 15, to the front end of the shafts, where said flexible elements may be connected with each other and attached to a hook 16 upon one of the cross-bars 5 in a position to keep the grab-hooks spaced apart.

An upright 17 is secured upon one of the shafts 4 and braces 6, and upon said upright is journaled a pulley 18, which is confined on one side by a keeper 19. Upon the upright 17 is secured a spring-catch 20, the free end of which normally engages the free end of the keeper 19, said spring-catch being provided with an inturned portion forming a supporting-shoulder 21 and engaging a recess 22 in the upright 17. When the steelyard is not in use for weighing an object, the long arm of said steelyard may be inserted between the free ends of the keeper 19 and the spring-catch 20 and supported between the shoulder 21 of the latter and the pulley 18 in an out-of-the-way position where it will not interfere with the manipulation of the apparatus. Since the steelyard is suspended by the same hook that supports the cotton-bale, the steelyard will swing back and forth with the latter during travel of the vehicle, and the roller 18 serves as an anti-friction device engaging the beam end of the steelyard.

In the operation of this device the long arm of the steelyard is normally confined beneath the keeper 19. The truck is then wheeled to the object that is to be weighed and disposed in such a position that the object shall lie lengthwise of the truck, which latter is then tilted so as to bring the grab-hooks 11 into engaging position at opposite sides of the object about midway of the latter. The flexible elements 13 14 are now detached from the hook 16, thus permitting the grab-hooks to engage the object, after

which the shafts of the truck are depressed, thereby causing the grab-hooks to engage and to elevate the object. By permitting the forward extremities of the shafts to drop upon the ground the crown of the axle-arch will be carried beyond the vertical plane of the spindles, and the weight which is suspended from the axle-crown will cause the truck to remain stationary while the object is being weighed. The operator now disengages the long arm of the steelyard from between the keeper and the spring-catch, weighs the object, and replaces the steelyard beneath the keeper upon the spring-catch, after which the truck carrying the object suspended by the grab-hooks may be wheeled to the place of deposit, where after lowering the object the grab-hooks may be readily disengaged.

This improved apparatus, as will be seen from the foregoing description, is extremely simple in its construction, and it has proven to be thoroughly efficient for the purposes for which it is provided.

Having thus described the invention, what is claimed is—

1. In a device of the class described, an arched axle having carrying-wheels and provided with forwardly-extending shafts, a steelyard suspended beneath the crown of the axle-arch, a means for holding the steelyard when out of use, which includes an anti-friction device, a pair of grab-hooks suspended from the short arm of the steelyard, and suitably-guided flexible elements connected

with the grab-hooks and extended to the front ends of the shafts.

2. In a device of the class described, an arched axle having carrying-wheels and forwardly-extending shafts, a steelyard suspended beneath the crown of the axle-arch, grab-hooks suspended from the short arm of the steelyard, an upright connected with one of the shafts, a keeper upon said upright, a pulley in said keeper; and a spring-catch secured upon the upright in engagement with the keeper and having an inturned portion forming a shoulder engaging a recess in the upright.

3. In a device of the class described, a truck having an arched axle and forwardly-extending shafts, braces connecting the shafts with the limbs of the axle-arch, an upright connected with one of the shafts and braces and having a spring-catch, a keeper secured upon the upright and engaging the spring-catch, a steelyard suspended beneath the crown of the axle-arch and adapted to be confined between the keeper and the spring-catch, grab-hooks suspended from the short arm of the steelyard, and suitably-guided flexible elements connected with the grab-hooks for manipulating the latter.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JAMES H. HARRISON.

Witnesses:

J. J. HAND,

J. D. BAREFIELD.