E. C. HUFF.

LOADING DEVICE.

APPLICATION FILED JULY 16, 1910.

999,649.

Patented Aug. 1, 1911.

2 SHEETS—SHEET 1.

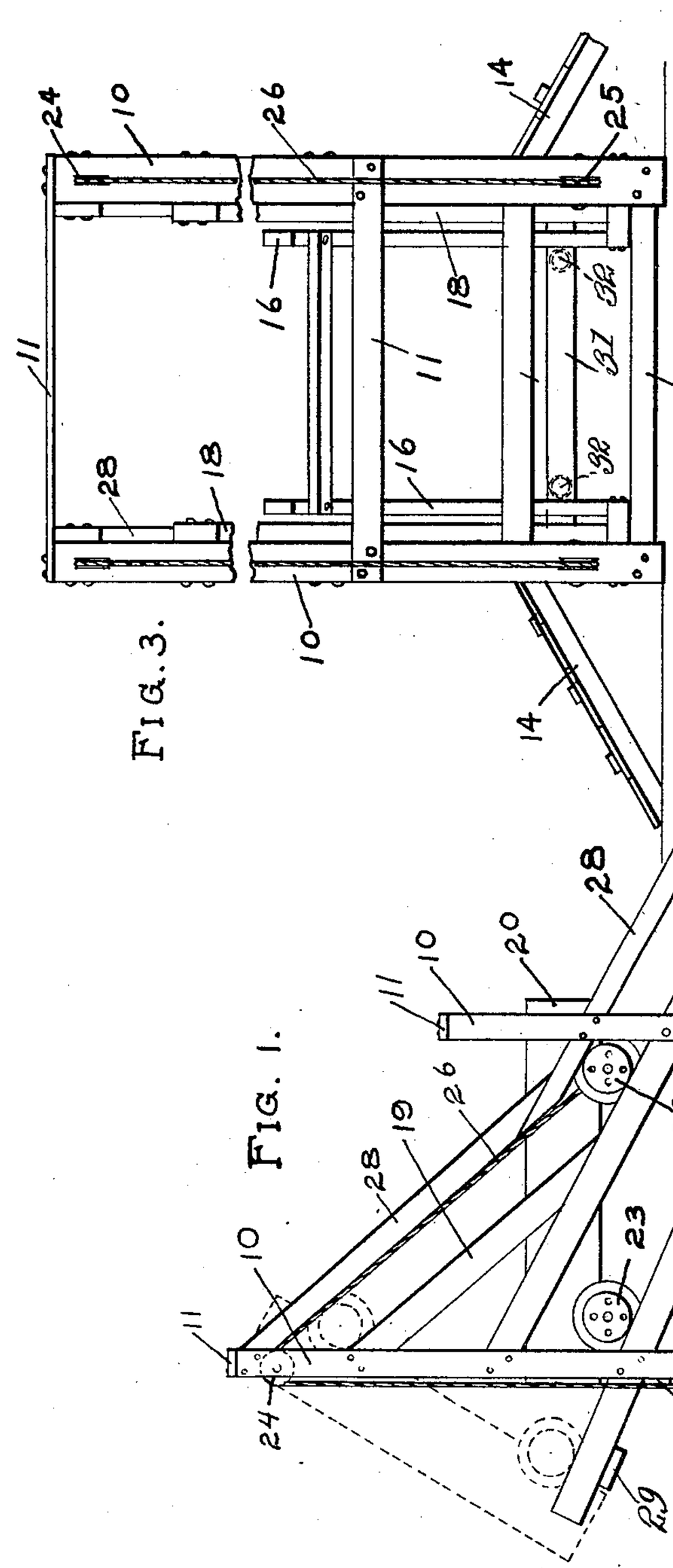

FIG. 1.

FIG. 3.

Witnesses

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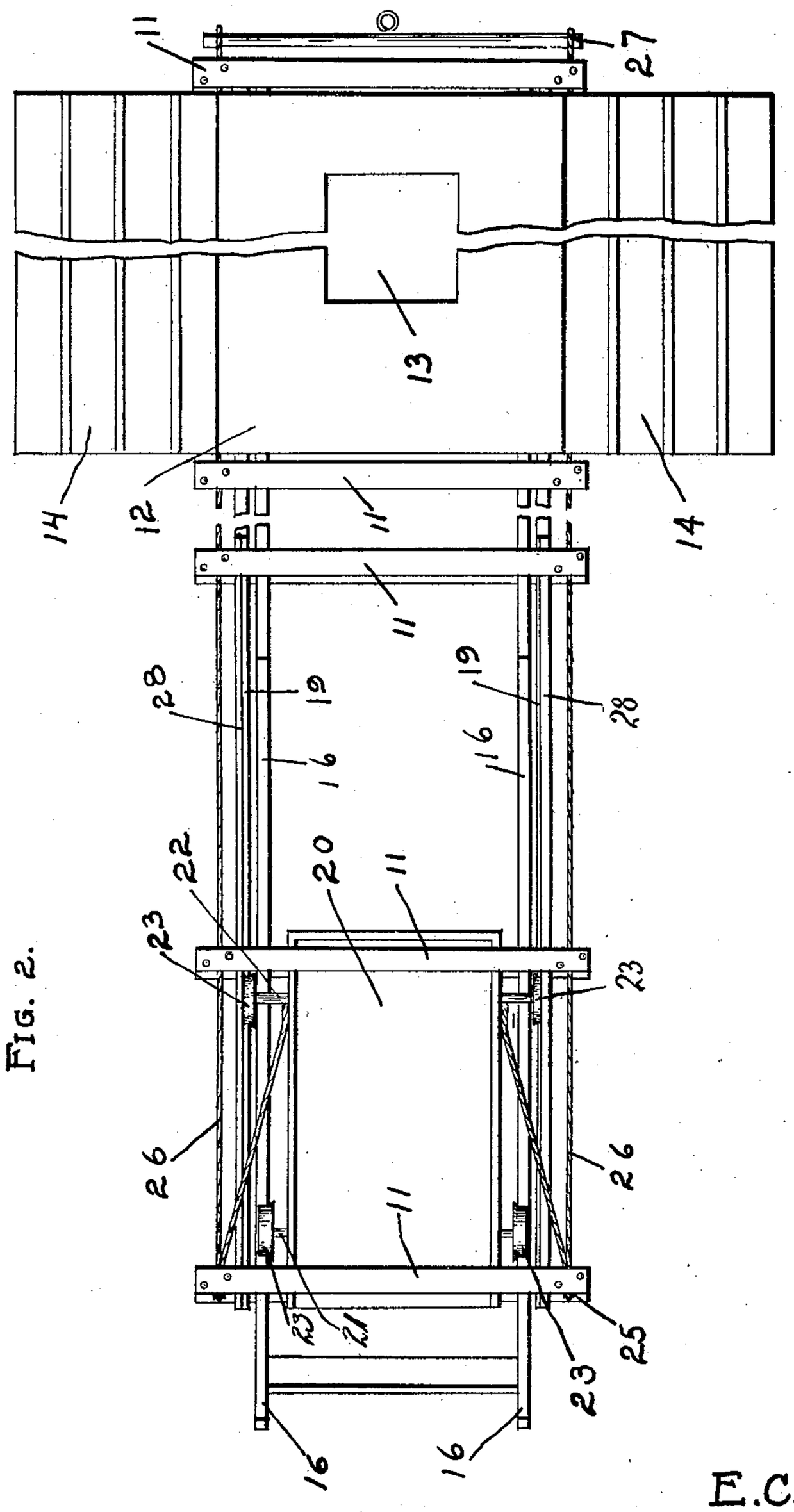

FIG. 2.

Witnesses

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EDWARD C. HUFF, OF BLAINE, KANSAS.

LOADING DEVICE.

999,649. Specification of Letters Patent. **Patented Aug. 1, 1911.**

Application filed July 16, 1910. Serial No. 572,343.

To all whom it may concern:

Be it known that I, EDWARD C. HUFF, a citizen of the United States, residing at Blaine, in the county of Pottawatomie, State of Kansas, have invented certain new and useful Improvements in Loading Devices; 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.

This invention relates to loading devices and has special reference to a device adapted to load material scraped up on a platform into a wagon or car.

One object of the invention is to provide a simple and efficient device so arranged that the material may be dumped into a car, the car run up an incline and automatically dumped and allowed to return by gravity for a second load.

With the above and other objects in view the invention consists in general of certain novel details of construction and combinations of parts hereinafter fully described, illustrated in the accompanying drawings, and specifically set forth in the claims.

In the accompanying drawings, like characters of reference indicate like parts in the several views, and:—Figure 1 is a side elevation of a device constructed in accordance with this invention. Fig. 2 is a plan view thereof. Fig. 3 is a view from the front end of such a loader.

The loader consists of a suitable framework which comprises a series of uprights 10 held in properly spaced relation by means of braces 11. At what may be termed the rear or loading end of the device there is provided a platform 12 having a centrally disposed opening 13 therein and this platform is approached by means of suitable inclines 14 leading from the ground up to the platform on opposite sides thereof. Extending forwardly from this platform are longitudinal members 15, the rear ends of which constitute rails. Just forward of the loading platform there is provided a pair of members 16 which constitute continuations of the rails formed by the rear ends of the members 15 and these rails 16 are inclined upwardly as can be clearly seen by reference to Fig. 1. This inclination is equal throughout and the forward ends of the rails 16 are raised a sufficient height to carry them above the side of a cart, railroad car or other receptacle to be loaded.

Beneath the platform 12 and spaced farther apart than the rails 16 are other rails 17 which are continued by means of members 18, the rear portions of which form incline rails. These members 18 are secured to the forward uprights 10 and their inclination is slightly greater than that of the members 16, the two being nearly parallel. The members 18, however, lie above or higher than the members 16. Adjacent the forward ends of the members 18 and extending to the forward uprights 10 there is provided a pair of members 19 which constitute extensions of those portions of the members 18 forming rails. These members 19 diverge abruptly from the members 18 and extend up adjacent the top of the forward members 10, being at their extremities a considerable height above the extremities of the members 16.

At 20 is indicated a suitable car the forward end of which is preferably open. This car is provided with a front axle 21 and a rear axle 22, the latter being of considerably greater length than the axle 21. Each of these axles has at each end a suitable flanged wheel 23, the wheels on the axle 21 running on the members 15 and 16 while the wheels on the axle 22 run on the members 17, 18 and 19. Located in each of the forward uprights 10 adjacent its upper end is a sheave 24 and adjacent its lower end is a similar sheave 25. Ropes 26 are provided each of which is attached to one side of the rear of the car 20. Each of these ropes runs over the sheave 24 and 25 on the respective side of the car and is carried back beneath the platform 12, the rear ends of these ropes being attached to a suitable draft bar 27 whereto a draft animal may be hitched.

Extending over the members 18 and 19 and in spaced relation thereto are guard rails 28, these rails being spaced at such distance from the members 18 and 19 that the rear wheels 23 can travel freely between said members and the guard rails.

For the purpose of preventing the forward end of the car from riding backward when the car is raised to the position shown in Fig. 1, a suitable stop bar 29 is attached to

the members 16 in such position as to be engaged by the forward end of said car when raised to said position.

For the purpose of checking the movement of the car when lowered a buffer is provided which consists of a member 30 fixed to the rear members 10 and a member 31 held in spaced relation to the member 30 by means of coiled springs 32. As the car is lowered the end of the car engages with the member 31 and the springs 32 absorb the shock incident to such engagement.

In the operation of the device the car is positioned beneath the opening 13. The material to be loaded is dumped through this opening into the car and the draft animal started away from the platform. This pulls upon the ropes 26 and draws the car out from beneath the platform keeping the same in substantially a horizontal position until the rear wheels strike the members 19. When the rear wheels strike these members the front wheels move up to the position shown in dotted lines in Fig. 1 while at the same time the rear wheels are drawn up as also shown in said figure. The car is thus tilted in such manner that the contents are discharged from its forward end into the receptacle provided for them. The draft animal is then backed up and the rear end of the car descends until the position assumed is that shown in full lines in Fig. 1 after which the entire car moves by gravity bodily down the inclined rails and beneath the platform. It may then be loaded and the operation repeated as many times as may be desired.

There has thus been provided a simple and efficient device of the kind described and for the purpose specified.

Having thus described the invention, what is claimed as new, is:—

1. In a loading device, the combination with a frame-work including a series of opposed pairs of uprights, a loading platform at one end of the frame-work, longitudinal members respectively connecting the lower ends of each series of uprights, each member having one end disposed below said platform to form a rail, a pair of rails connected to certain of the uprights and respectively extending upwardly from the members in advance of the platform and forming continuations of said rail members, another pair of rails disposed below the platform and above the rail portions of the longitudinal members, forwardly inclined rails arranged above the upwardly extending rails and forming continuations of the said upper pair of rails, the said first mentioned pair of rails being disposed closer together than the last mentioned rails, other rails extending from the last mentioned pair of rails and disposed at an abrupt angle thereto, a car, a pair of axles adjacent opposite ends of said car, the rear axle being longer than the front axle, and wheels on the ends of said axle, said wheels being adapted to respectively engage with the first and second mentioned rails, and means to move said car along said rails.

2. In a loading device, the combination with a frame-work including a series of opposed pairs of uprights, a loading platform at one end of the frame-work, longitudinal members respectively connecting the lower ends of each series of uprights, each member having one end disposed below said platform to form a rail, a pair of rails connected to certain of the uprights and respectively extending upwardly from the members in advance of the platform and forming continuations of said rail members, another pair of rails disposed below the platform and above the rail portions of the longitudinal members, forwardly inclined rails arranged above the extending rails and forming continuations of the said upper pair of rails, the said first mentioned pair of rails being disposed closer together than the last mentioned rails, other rails extending from the last mentioned pair of rails and disposed at an abrupt angle thereto, a car, a pair of axles adjacent opposite ends of said car, the rear axle being longer than the front axle, and wheels on the ends of said axle, said wheels being adapted to respectively engage with the first and second mentioned rails, means to move said car along said rails, and a bumper for the car disposed below said platform.

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

EDWARD C. HUFF.

Witnesses:
PHIE HARRINGTON,
FRANK MORRIS.