No. 717,617. PATENTED JAN. 6, 1903.

J. L. C. QUELLA.

LOADING OR UNLOADING DEVICE.

APPLICATION FILED JULY 23, 1901.

NO MODEL. 3 SHEETS—SHEET 1.

Fig. 1.

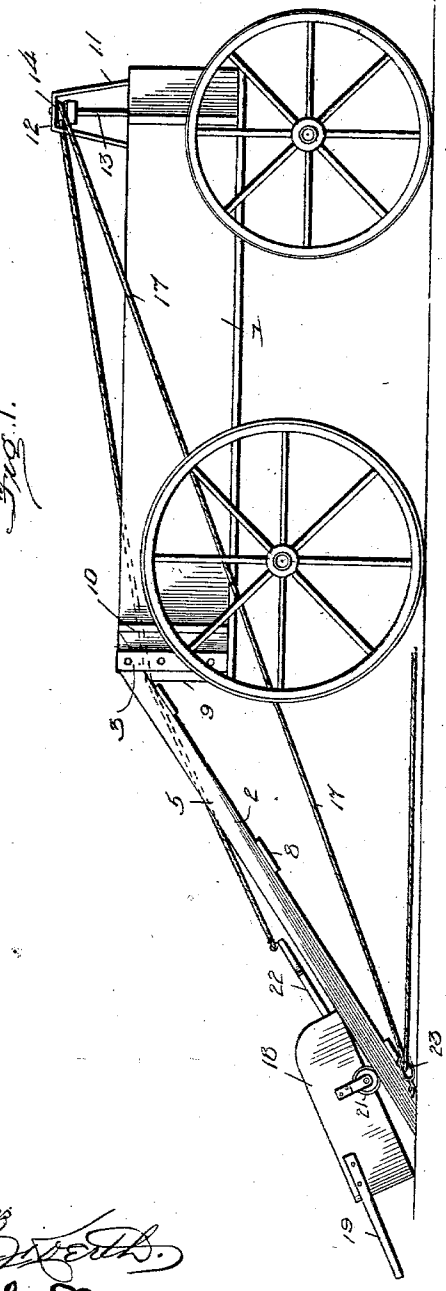


Fig. 4.

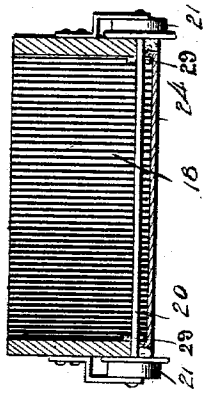
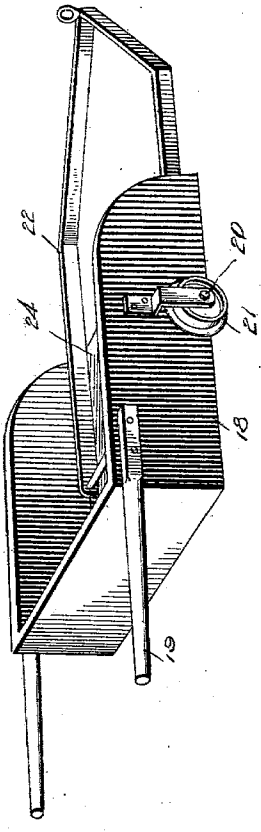


Fig. 5.



Witnesses

Inventor

Joseph L. C. Quella,

By Victor J. Evans

Attorney

No. 717,617. PATENTED JAN. 6, 1903.

J. L. C. QUELLA.

LOADING OR UNLOADING DEVICE.

APPLICATION FILED JULY 23, 1901.

NO MODEL. 3 SHEETS—SHEET 2.

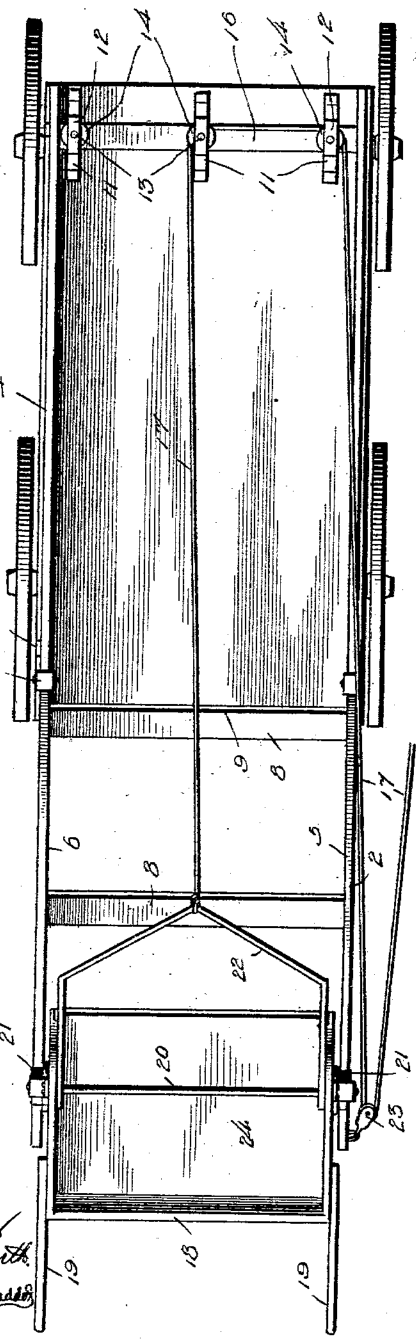


Fig. 2.

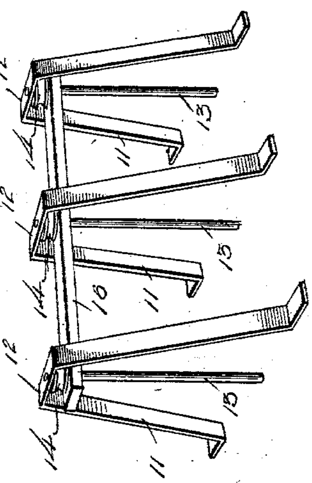


Fig. 6

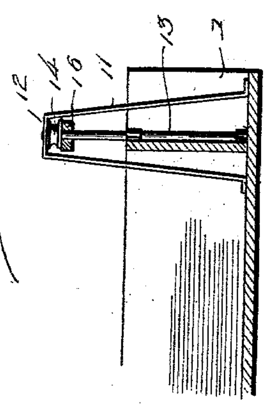


Fig. 5

Witnesses

[signatures]

Inventor

Joseph L. C. Quella.

By Victor J. Evans.

Attorney.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 717,617. PATENTED JAN. 6, 1903.

J. L. C. QUELLA.

LOADING OR UNLOADING DEVICE.

APPLICATION FILED JULY 23, 1901.

NO MODEL. 3 SHEETS—SHEET 3.

Fig. 7

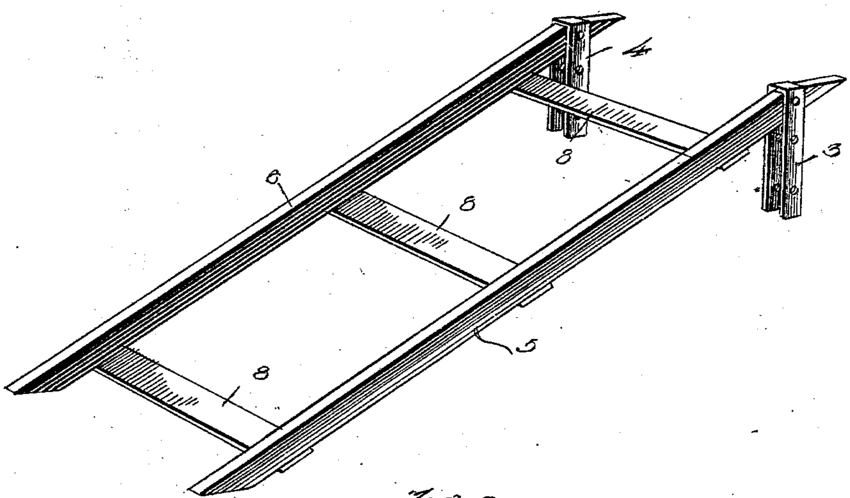


Fig. 8

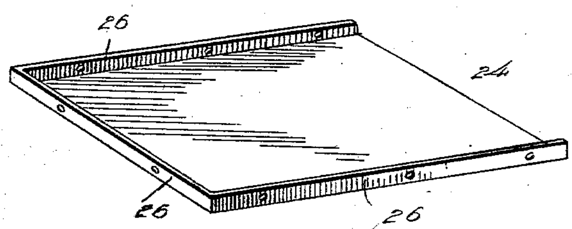
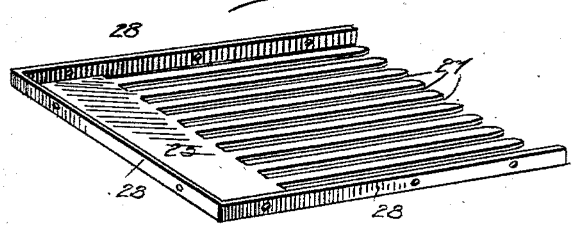


Fig. 9



Witnesses

[signature]

W. Arthur Maddox

Inventor

Joseph L. C. Quella,

By Victor J. Evans

Attorney.

UNITED STATES PATENT OFFICE.

JOSEPH L. C. QUELLA, OF MENASHA, WISCONSIN.

LOADING OR UNLOADING DEVICE.

SPECIFICATION forming part of Letters Patent No. 717,617, dated January 6, 1903.

Application filed July 23, 1901. Serial No. 69,449. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH L. C. QUELLA, a citizen of the United States, residing at 108 Racine street, Menasha, in the county of Winnebago and State of Wisconsin, have invented new and useful Improvements in Loading or Unloading Devices, of which the following is a specification.

This invention relates to a new and useful improvement in loading and unloading; and the primary object thereof is to provide a cheap and simple device which may be effectively operated to convey material from the ground to a wagon stationed at a convenient location adjacent thereto.

Further objects, as well as the novel construction of the device, will be clearly brought out in the following description and illustrated in the accompanying drawings, the subject-matter of the invention being defined in the appended claims.

In the drawings, Figure 1 is a side elevation of a wagon of approved construction to which my invention has been applied. Fig. 2 is a top plan view of the same. Fig. 3 is a perspective view of the hoisting car or shovel. Fig. 4 is a cross-section through the same. Fig. 5 is a fragmentary sectional view taken longitudinally through the wagon-bed and through an idle pulley-frame around which the cords or cables pass in raising the shovel. Fig. 6 is a perspective view of the pulley-carrying frame. Fig. 7 is a detail perspective view of the skid on which the shovel is adapted to travel. Figs. 8 and 9 are detail perspective views of the bottom attachments to be applied to the shovel under special conditions.

Referring now to the drawings by numerals of reference, 1 designates the body of a wagon of standard construction, preferably of the kind generally used for holding stone, dirt, and other like substances. To the rear end of this wagon-body I secure a skid 2, which is detachably fastened thereto by means of inverted-U-shaped cleats 3 and 4. These cleats are carried by the upper extremities of two rails 5 and 6, which form the side bars or tracks for the skid, said rails being connected by transverse bars 8. Through the medium of these cleats, which may be placed immediately over the sides of the wagon-body, the skid is securely fastened to the wagon, and any liability of its becoming detached will be reduced by the cleats abutting against the ends of the end-gate 9 and a vertical strip 10. To the opposite end of the wagon-body are secured a plurality of standards 11, each of which comprises a strip bent back upon itself intermediate its ends and having a flat bearing portion 12, in which fits a vertical shaft 13, carrying a pulley near its upper end 14, the shafts and strips being connected by an elongated bar 16. The shafts just described, and incidentally the pulleys which are carried thereby, move in the bearings and are designed to receive a rope or cable 17, one end of which is attached to the car 18 and the other end to a suitable power, whereby the car or shovel may be raised. This shovel comprises a box-like body open at one end and having at the opposite end handles 19, and whose bottom 24 or 25 is detachably secured thereto. A shaft or axle 20 passes through the shovel and carries on its respective ends flanged wheels 21. A loop or tongue 22 is secured to the axle in any suitable manner and is adapted to be engaged by one end of the cable 17, which after passing around the pulleys 14 just described passes down to a pulley 23, secured near the lower end of the skid, and thence to a suitable power, so that the car may be conveniently elevated or lowered on the tracks of said skid.

Under certain conditions—as, for instance, when it is desirable to collect hay, straw, or analogous matter on the shovel—I may apply the bottom attachment 25 to the shovel to better enable it to gather up the matter which may be on the ground.

The bottom attachment 24 comprises an approximately rectangular plate provided on three of its sides with an upwardly-extending flange 26, having a plurality of perforations or openings therein at predetermined intervals, so that the same may be secured by headed fasteners 29 to the inner walls of the shovel. The bottom attachment 25 is approximately the same in construction, with the exception that it is slitted for a considerable portion of its length to form teeth 27. It is

also provided with a flange on three of its sides, which I designate by the reference-numeral 28.

In operation a sufficient length of cable will be utilized to permit the shovel or car to travel over a large area. When the same becomes loaded, the car will be guided onto the skid, and after traveling to the top thereof the contents of said car will be dumped into the wagon-body. This operation will be repeated until the wagon becomes loaded, when it may be conveyed to a suitable place and relieved of its contents.

From the foregoing the construction and operation of the device will be apparent, and it will be seen that I have provided a cheap, simple, and durable means of accomplishing the desired result with a minimum amount of labor.

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

1. In a device of the character described, the combination with a wagon, a skid detachably secured to the body thereof, a shovel adapted to travel on said skid and provided with an axle intermediate its ends and at the terminals of which are provided wheels, a loop or tongue secured to the axle, a cable for raising the car upon the skid, and a pulley-frame carried by the front end of the wagon comprising a plurality of standards on which are arranged vertical shafts each carrying a pulley around which the cable passes to the source of power.

2. In a device of the character described, the combination with a wagon-body having an end-gate and vertical strips secured adjacent thereto, of a detachable skid adapted to be secured to said body the ends of which are inverted-U-shaped cleats which are designed to pass between the end-gate and strips and a car for conveying material to the wagon-body.

3. In a device of the character described, the combination with a wagon, a skid detachably secured to the body thereof, a shovel having a detachable bottom secured thereto, the shovel adapted to travel on said skid and provided with an axle intermediate its ends, wheels secured thereto, a tongue secured to the axle, a cable for raising the car upon the skid, and secured to the front end of the wagon a pulley-frame, of a plurality of standards, vertical shafts secured to their upper horizontal surfaces, a bar securing said shafts, said bar retaining the pulleys in a horizontal relative position.

JOSEPH L. C. QUELLA.

Witnesses:
JACOB A. PULGER,
FRANK STILP.