O. DOTY.

BAGGAGE TRUCK.

APPLICATION FILED AUG. 26, 1910.

1,017,858.

Patented Feb. 20, 1912.

4 SHEETS—SHEET 1.

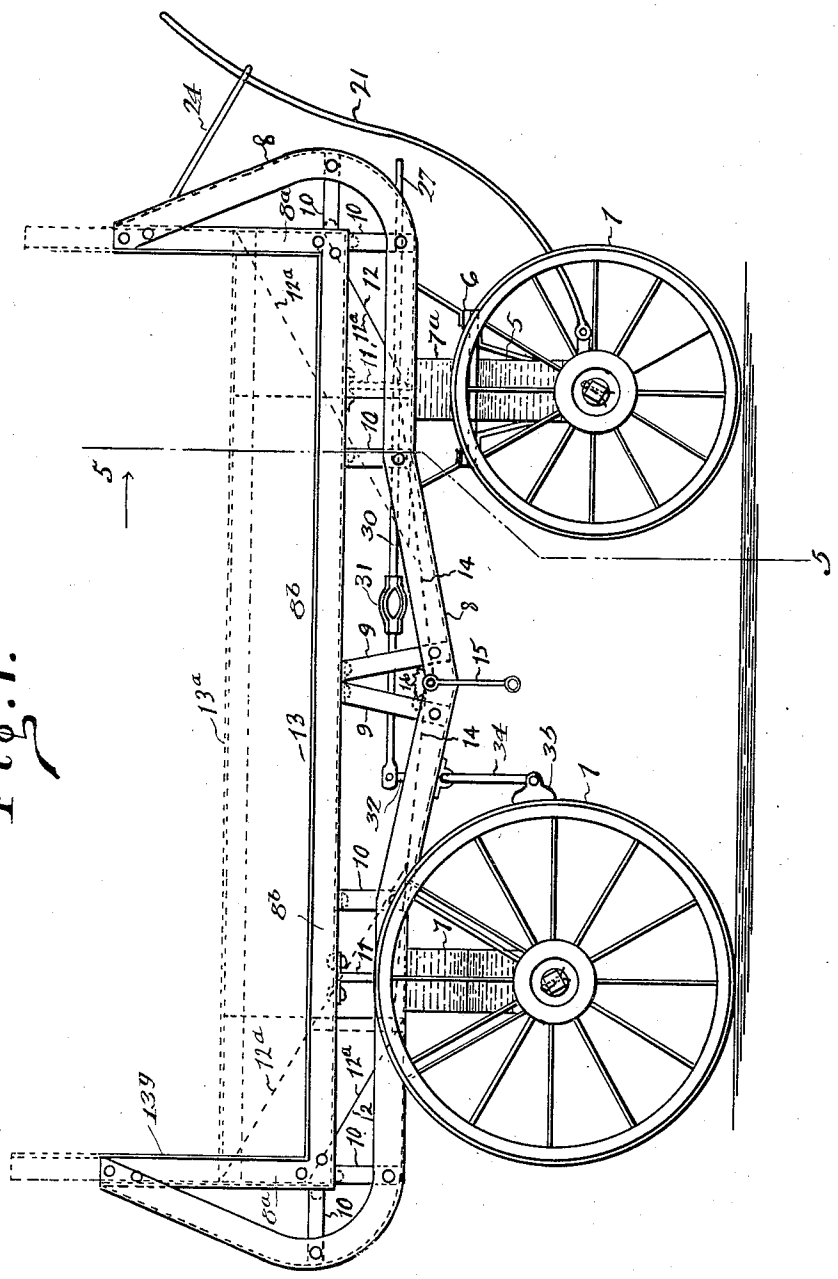

Fig. 1.

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4 SHEETS—SHEET 2.

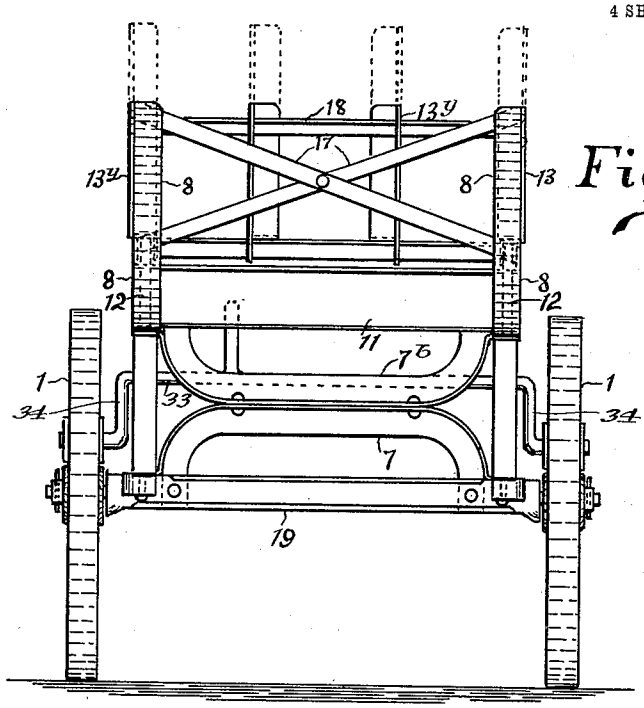

Fig. 2.

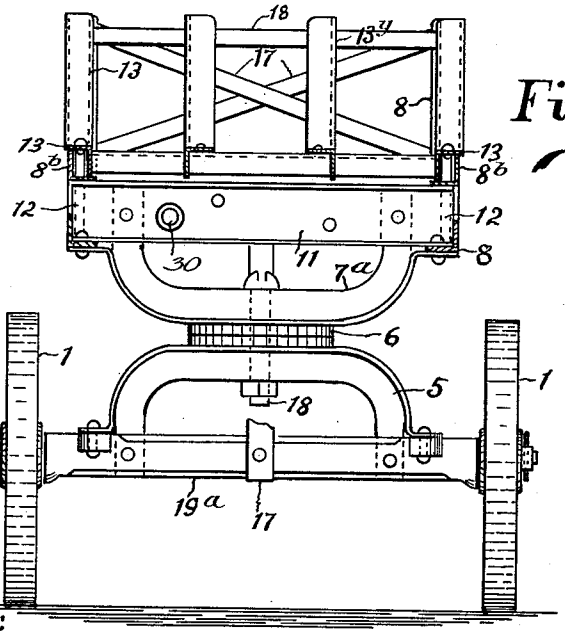

Fig. 3.

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4 SHEETS—SHEET 3.

Fig. 4.

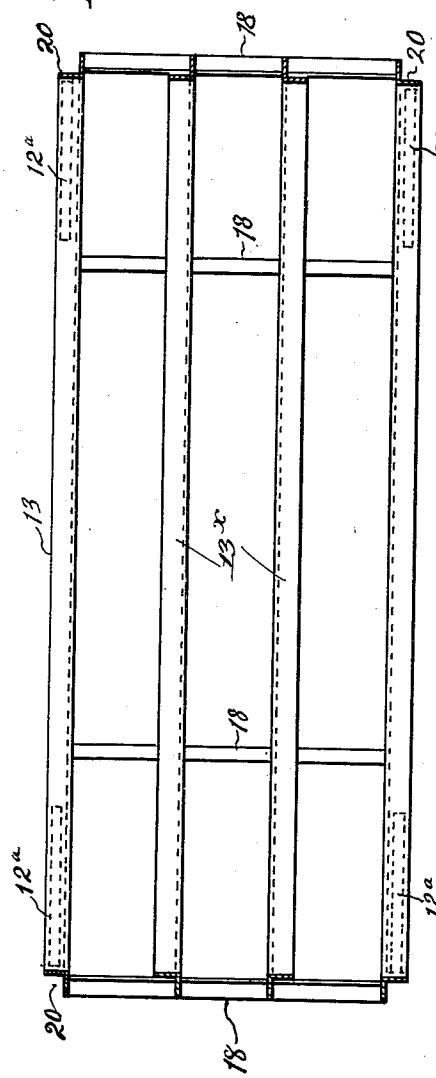
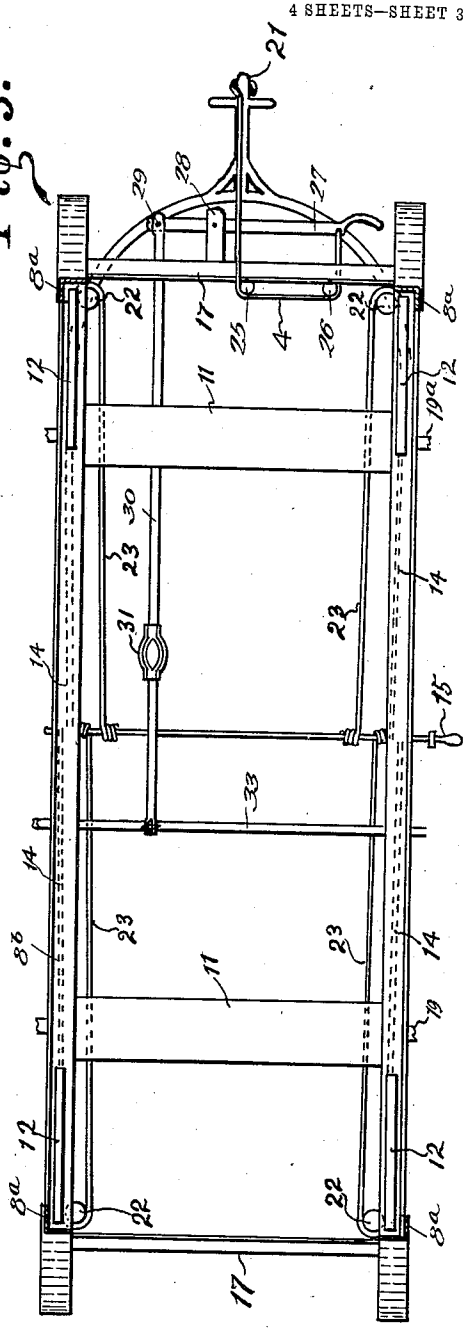


Fig. 5.



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4 SHEETS—SHEET 4.

Fig. 6.

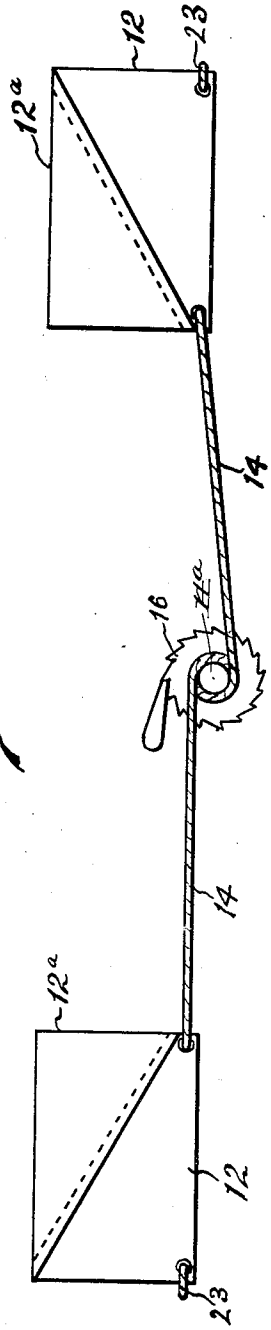
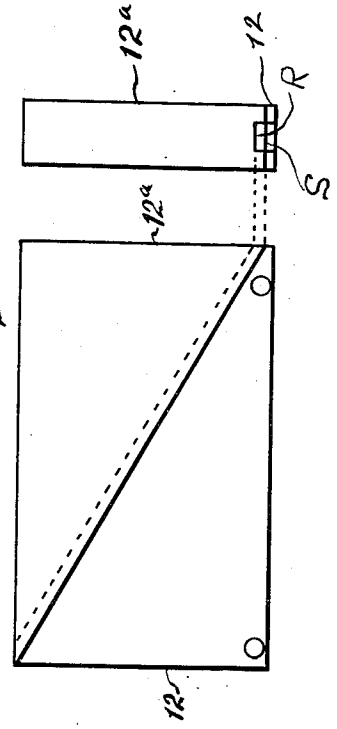


Fig. 7.



WITNESSES:

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UNITED STATES PATENT OFFICE.

ORLO DOTY, OF PUEBLO, COLORADO.

BAGGAGE-TRUCK.

1,017,858. Specification of Letters Patent. Patented Feb. 20, 1912.

Application filed August 26, 1910. Serial No. 579,183.

To all whom it may concern:

Be it known that I, ORLO DOTY, a citizen of the United States, and a resident of the city of Pueblo, county of Pueblo, and State of Colorado, have invented certain new and useful Improvements in Baggage-Trucks, of which the following is a specification.

My invention relates to baggage trucks having platforms or racks adjustable to different heights to accommodate them to use with cars of varying heights of floor.

The objects of my invention are, first, to provide a truck having a platform which may be easily raised when carrying the heavy loads which would be placed on it in practice; and second, to provide a novel frame structure by which the truck may be constructed entirely of steel or iron and thus made stronger and more durable than those now in use. I attain these objects by means of the mechanism illustrated in the accompanying drawings in which—

Figure 1 is a side elevation of the truck, showing the baggage frame in elevated dotted line position: Fig. 2 is a rear elevation of the truck: Fig. 3 is a vertical section on the line 5—5, Fig. 1, looking toward the front: Fig. 4 is plan of the movable baggage frame or rack, showing its uprights in horizontal section: Fig. 5 is a plan view of the stationary frame of the truck, with the movable frame removed: Fig. 6 is a diagrammatic view of the cams used in elevating the movable frame and Fig. 7 shows one pair of these cams in side and end views.

The truck has wheels 1 mounted on rear axle 19 and front axle 19^a. On the front axle is riveted an arched angle or channel 5 and on the rear a corresponding arch 7. Reversed arches 7^a and 7^b, at the front and rear respectively, carry the body of the truck. The reversed arch 7^b is rigidly attached to the arch 7, while the reversed arch 7^a is connected with arch 5 by means of a fifth wheel 6 and a king-pin 18, thus permitting of turning of the truck. I beams 11 fixed to the outer extremities of the reversed arches 7^a and 7^b carry the remainder of the fixed frame and transmit the load to the arches.

Bent angle bar braces 8, in the form shown in Fig. 1, are secured to the reverse arches 7^a and 7^b and to the lower flange of the I beams 11. These braces are bent up at the ends to aid in supporting the ends 8^a of the stationary frame, to which they are attached. Struts 9, 9 and 10, 10 are interposed between the braces 8 and the side bars 8^b of the stationary frame and these, together with the diagonal braces 17 give strength and stiffness to the structure.

The movable baggage frame or rack (as shown in Fig. 4) is provided with side members 13 and intermediate members 13^x all in the form of angle bars upturned at their extremities 13^y, as shown, to form the uprights of the ends of said frame. Cross bars 18 join the bars 13 and 13^x and give the requisite strength to the frame or rack.

The angles of 8^b and 13, 8^a and 13^y are turned in opposite directions, as shown in the drawings, to give a bearing surface for 13 on 8^b and to form a guide for 13^y on 8^a. The horizontal flange of the bar 13 overlies the vertical flange of 8^b and the transverse flange of 13^y extends over the longitudinal flange of 8^a. Thus the frame or rack is given a firm resting place on the stationary frame but is free to move vertically therein, guided by the uprights 8^a. The vertical movement is imparted to the rack by means of four sets of coöperating pairs of cams 12 and 12^a. The cams 12^a are rigidly attached to the lower surface of the movable frame or rack and pass through slots in the angles 8^a. The cams 12^a are recessed as shown at R (Fig. 7) to receive a rib S formed on the face of the cam 12. The cam 12 rests on the bent angle 8 and is capable of sliding thereon (guided by the vertical flange of 8 and the rib S) to force the cam 12^a upward and thus elevate the frame or rack.

To pull all four cams 12 toward the center of the truck and thus raise the frame, I provide cables 14 which are adapted to be wound on the shaft 14^a, mounted in the braces 8 and provided with crank handle 15 for turning the shaft and a ratchet wheel 16 for holding it stationary when desired. Cables 23, passing around pulleys 22 at the corners of the truck, wind around the shaft 14^a in reverse direction from the cables 14 and serve to return the cams 12 when it is desired to lower the frame.

The trucks are provided with a tongue 21 to which is attached a cable 24 (on account of lack of space, shown much shorter in Fig. 1 than it would be in practice) which passes over a pulley 25 and diagonally down over pulley 36 to the front of the truck where it is attached to lever 27. This lever

is fulcrumed at 28 and attached at 29 to the brake rod 30 whose length is made adjustable by the turnbuckle 31. The brake rod 30 reciprocates the crank 32 rigidly attached to the shaft 33 on which are the arms 34 carrying the brake shoes 35. The point of support of the shaft 33 is so located that the tendency of the arms 34 when released is to fall to the right in Fig. 1 and thus move the brake away from contact with the wheels whenever the weight of the tongue is taken off the cable 24, as is the case whenever the tongue is picked up to move the truck. Whenever the tongue is dropped, however, it pulls on the cable 24 with sufficient force to set the brakes 35 and hold the truck stationary.

Having thus described my invention, what I claim is:

1. A truck having front and rear axles, a structural iron arch mounted on each axle, a reversed arch mounted on each arm, an I beam mounted on each reversed arch, a stationary frame composed of angle bars having horizontal and vertical portions, mounted on said I beams, bent angle bar braces at each side of said frame, said braces having arch shaped ends for supporting the vertical members of said frame, struts interposed between the bottom and sides of the frame and the braces, a rack, also composed of angle bars, mounted within said stationary frame and capable of vertical movement relatively thereto, and means for moving said rack.

2. A truck having a frame, angle bars having horizontal and vertical portions forming said frame, diagonal braces strengthening said frame, bent angle bar braces surrounding said frame and supporting its vertical portions, a rack composed of angle bars mounted within said frame and capable of vertical movement relatively thereto, pairs of coöperating cams under each corner of said rack, and means for moving one cam of each of said pairs of cams relatively to the other to give vertical movement to said rack.

ORLO DOTY.

Witnesses:
DAVID REID,
NORVAL W. WALL.

Correction in Letters Patent No. 1,017,858.

It is hereby certified that in Letters Patent No. 1,017,858, granted February 20, 1912, upon the application of Orlo Doty, of Pueblo, Colorado, for an improvement in "Baggage-Trucks," an error appears in the printed specification requiring correction as follows: Page 2, line 22, for the word "arm" read *arch;* and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 11th day of June, A. D., 1912.

[SEAL.]

C. C. BILLINGS,

Acting Commissioner of Patents.