(No Model.) 2 Sheets—Sheet 1.

B. G. FITZHUGH.

DUMPING CART.

No. 345,225. Patented July 6, 1886.

FIG. 1

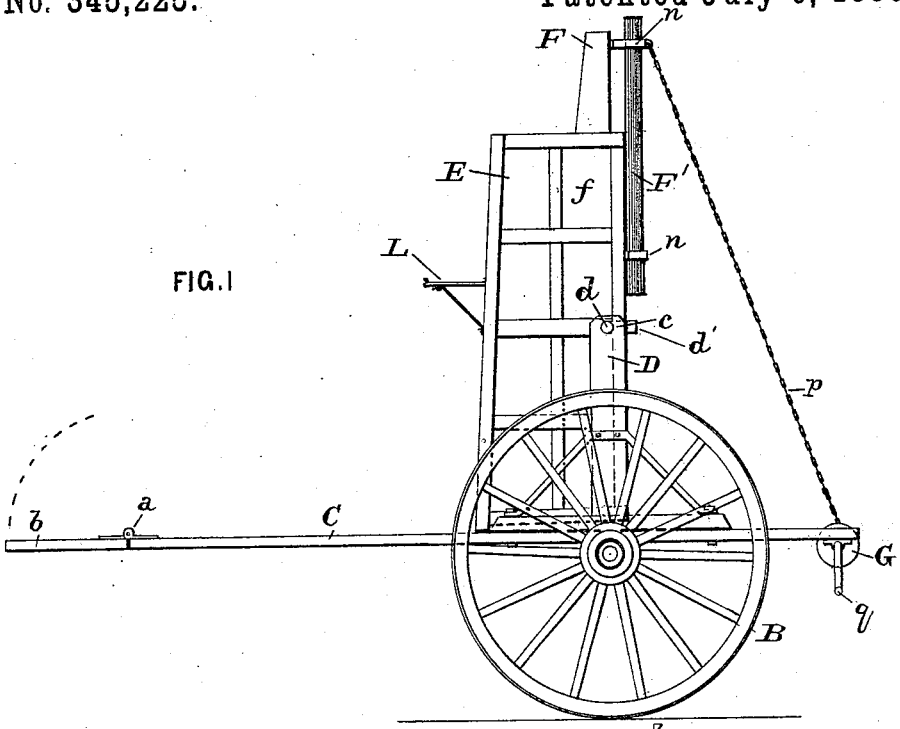
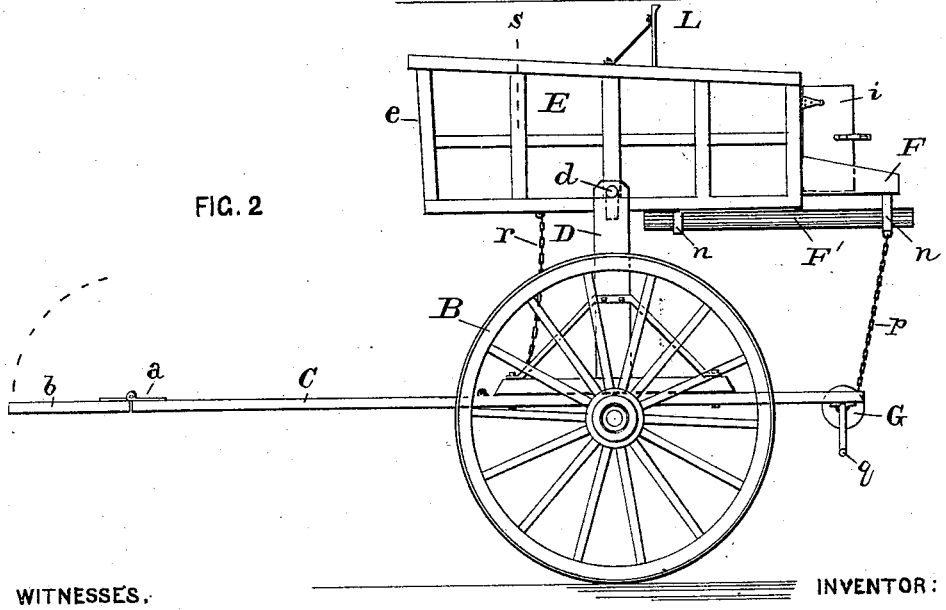


FIG. 2



WITNESSES.

F. B. Thomas

John E. Morris.

INVENTOR:

Benj. G. Fitzhugh

By Chas B. Mann

Attorney

(No Model.) 2 Sheets—Sheet 2.

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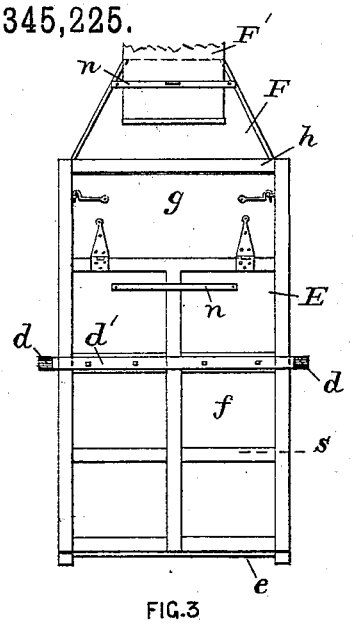

FIG. 3

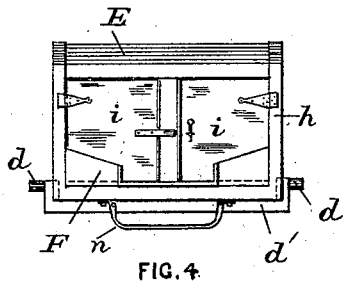

FIG. 4

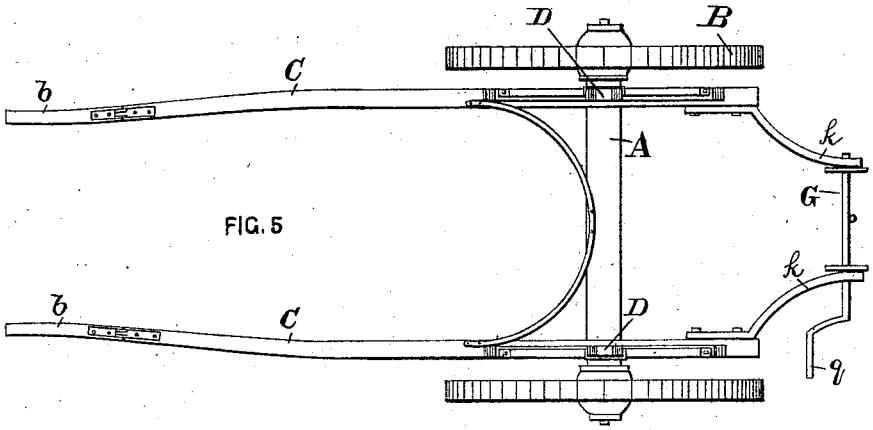

FIG. 5

WITNESSES.

G. B. Thomas

John E. Morris.

INVENTOR:

Benj G. Fitzhugh

By Chas B. Mann

Attorney

UNITED STATES PATENT OFFICE.

BENJAMIN G. FITZHUGH, OF BALTIMORE, MARYLAND.

DUMPING-CART.

SPECIFICATION forming part of Letters Patent No. 345,225, dated July 6, 1886.

Application filed September 9, 1885. Serial No. 176,556. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN G. FITZHUGH, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Coal-Carts, of which the following is a specification.

My invention relates to improvements in dumping-carts, such as are used for delivering coal.

The invention consists of certain novel features of construction and combinations of parts, which will first be described, and then designated in the claims.

The drawings herewith illustrate the invention, Figure 1 being a side view of the cart, showing the body in the position it occupies when hauling the load. Fig. 2 is a side view of the cart, showing the body in the position it occupies when dumping the load. Fig. 3 is a bottom view of the cart-body. Fig. 4 is a view of the top or discharge end of the cart-body, the gates being partly open. Fig. 5 is a plan view of the cart, shafts, axle, and wheels, as seen when the body is removed therefrom.

The letter A designates the axle, B the wheels, and C the shafts, the rear ends of which extend back of the axle. Near the front end each shaft is jointed by a hinge, *a*, whereby the shaft may be shortened by turning the end section, *b*, on the hinge, as indicated by broken lines. This shortening of the shafts is of advantage when the cart is backed up to a street-curb, as thereby they avoid constituting an obstruction to the passage of street-cars. While the shafts may be shortened, as stated, the hinged end section will not yield laterally, and therefore when said end section is in a horizontal position or in line with the rest of the shaft the animal may press sidewise against it, and thereby it serves for turning the cart as well as though it was not hinged.

As shown in Fig. 5, the two shafts are unconnected with each other in front of the axle. In other words, there is no cross-bar or other obstruction between the two shafts in front of the axle. The result of this construction is that when the cart-body is up or at its elevated position for discharging its load, as in Fig. 2, the horse in the shafts may be backed until his hind quarters come in contact with the axle, and by thus backing the animal his head and shoulders will be removed from the path of a street-car, as will also the front ends of the shafts, by turning the hinged part *b* out of the way. Thus the two shafts with hinged end sections, their construction without a cross-bar or other obstruction between them in front of the axle, and the cart-body with means to elevate it, co-operate together to shorten the space occupied by the cart, and allow a street-car to pass.

The cart-body E is virtually an inclosed box—that is, all its sides are inclosed. This construction is necessary because the body while full of coal has to tilt from a vertical to a horizontal position without losing its load. A standard, D, is supported and suitably braced on each shaft at a point directly over the axle, and these standards afford bearings *c* for the rock-shaft arms or trunnions *d* on the cart-body E. In the present instance a rock-shaft, *d'*, extends across the bottom of the cart-body, and then part way up each side, and the arms or trunnions *d* project laterally. Each arm *d* sets in one of the bearings *c* on the two standards. It will thus be seen that the cart-body may be tilted or balanced on the rock-shaft, so as to take either of the two positions shown in Figs. 1 and 2. While loading, and when the load is being hauled, the cart-body has an upright position—*i. e.*, what is the bottom *e* at this time becomes the front end at time of unloading. To facilitate loading, one or more of the walls *f* of the cart-body is provided with a hinged door, *g*. In this instance the hinged door is in that wall of the cart which is the back or rear part while loading, and when unloading this door-wall is the bottom. The top or rear end, *h*, of the cart-body is provided with a permanent or rigid chute, F, which projects therefrom, and one or two discharge-gates, *i*, are hinged to the said top or rear end, which is at a right angle to the side having the door *g*; and when the body is in the position shown in Fig. 2 said gates open, so as to let the coal run out into the chute. In Fig. 4 these gates are shown partly open. A windlass, G, is mounted in bearings *k*, fixed to the rear extended ends of the shafts C. A yoke or support, *n*, for the extensible chute F' is on the lower side of the rigid chute F, and a chain, *p*, connects the windlass with the body by attaching it to said yoke *n*. The chain, however,

may be attached directly to the body. By turning the windlass-crank *q* the cart-body may be easily tilted from the upright position (seen in Fig. 1) to the horizontal or discharging position, (seen in Fig. 2.) The extensible chute F′ is of well-known construction, and is carried in suitable supports, *n*, attached to the cart-body. A chain, *r*, attached to or near the front of the cart-body and to the shafts, prevents the body, when in the horizontal or discharging position, from tilting too far back. A driver's seat, L, is fixed to the front wall of the body, and may be located at any desired height.

Ordinarily a cart-body would be made of size capable of holding a ton of coal; but if it was desired to carry in a body of such size a half-ton of coal, it would perhaps be preferable to place a board inside of the body at about the line *s*, to serve as a false or temporary bottom. Such temporary bottom could be sustained on two cleats (not shown) fastened to the inner surface of the two side walls in a manner readily understood by any one skilled in the art. It will be seen from this description and by reference to the drawings that a cart thus constructed would dump the coal in a chute or trough extending across a sidewalk, and that while so dumping coal the head and shoulders of the animal hitched to the cart, and the ends of the cart-shafts, would, in a street of ordinary width, be removed from the path of a street-car.

Having described my invention, I claim and desire to secure by Letters Patent of the United States—

1. A dumping-cart having in combination a cart-body, E, standards on which the cart-body may be raised or elevated, means, substantially as described, for elevating said body, and shafts without cross-bar or other obstruction between them in front of the axle, and provided with hinged end sections at the front ends, as set forth.

2. A dumping cart having in combination two standards, each provided with a bearing, a body having all its sides inclosed with a door, *g*, for loading in one of the sides, and a discharge-gate, *i*, in the end at a right angle to the side having the door, and provided on two sides with an arm or trunnion resting in said bearing, and a discharge-chute, F, projecting from the cart-body, so that when the load is being hauled said chute will have a vertical position, and when unloading will have a horizontal or inclined position, as set forth.

3. A dumping-cart having in combination the axle A, the two shafts C, a standard, D, supported on each shaft directly over the axle and each provided with a bearing, *c*, the cart-body E, having all its sides inclosed, as described, and provided on two sides with an arm or trunnion, which rests in the said bearing, a windlass mounted in bearing *k*, extended at the rear, and a chain, *p*, having one end attached to the cart-body and the other end to the windlass, as set forth.

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

BENJAMIN G. FITZHUGH.

Witnesses:

JNO. T. MADDOX,

JOHN E. MORRIS.