(No Model.)

J. L. GILL, Jr.

DUMPING CAR.

No. 305,384. Patented Sept. 16, 1884.

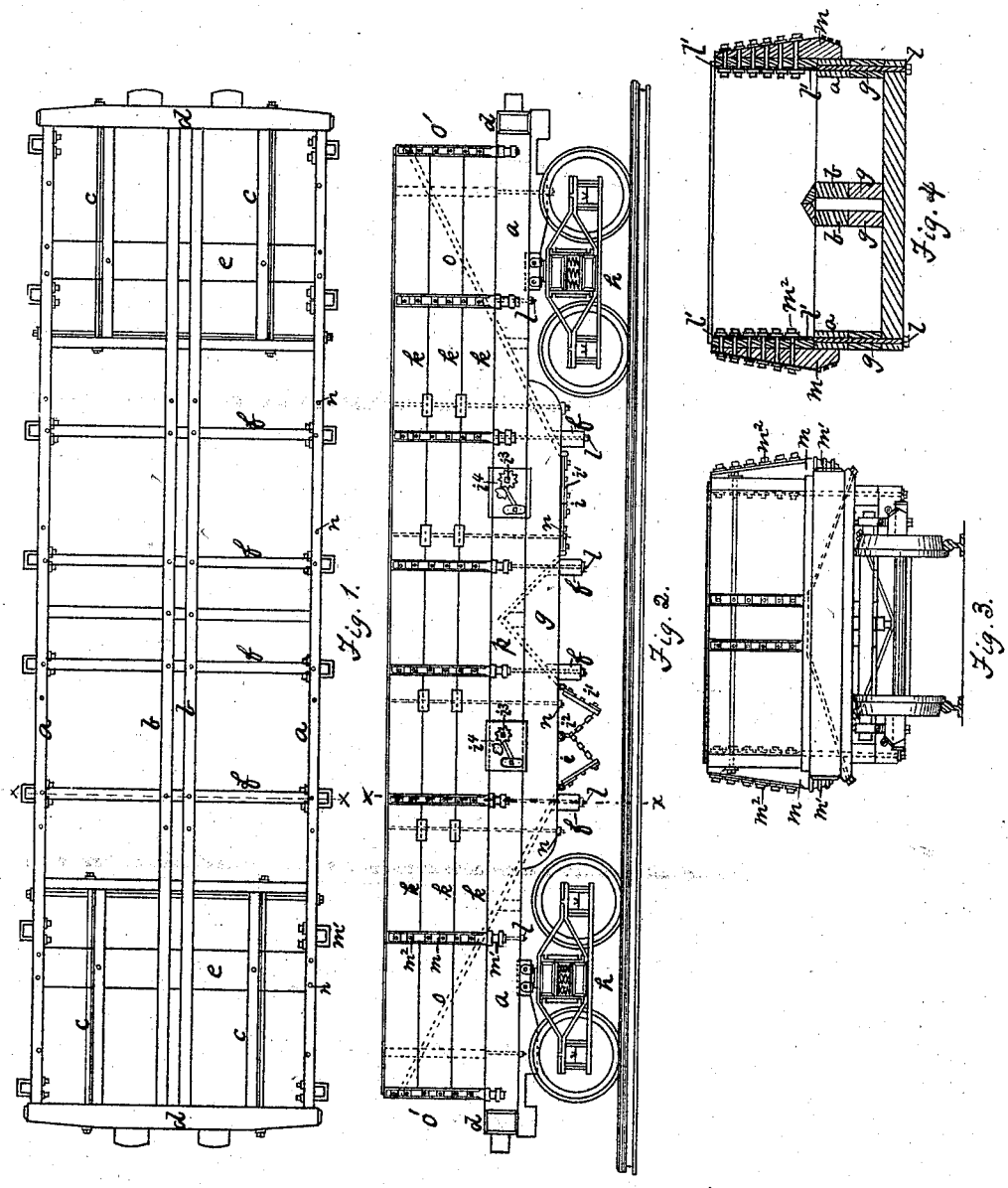

Fig. 1.

Fig. 2.

Fig. 4.

Fig. 3.

Witnesses

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UNITED STATES PATENT OFFICE.

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DUMPING-CAR.

SPECIFICATION forming part of Letters Patent No. 305,384, dated September 16, 1884.

Application filed December 5, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOHN L. GILL, Jr., of Allegheny city, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Dump-Cars; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a bottom plan view of the frame of my improved dump-car. Fig. 2 is a side elevation. Fig. 3 is an end view. Fig. 4 is a section on the line *x x* of Fig. 2.

Like letters of reference indicate like parts in each.

To enable others skilled in the art to make and use my improvement, I will now describe its construction.

The frame is composed of side sills, *a*, center or draft bar sills, *b*, short sills *c*, end timbers, *d*, bolsters *e*, and cross-ties *f*, of substantially the usual construction.

On the under sides of the sills *a* and *b* are subsills *g*, which extend between the trucks *h* and beyond the dump-openings *i*. The dump-openings *i* are each fitted with doors *i'*, which are hinged at the sides, and at the center are supported by chains i^2. The chains i^2 are operated by winding-shafts i^3, controlled by pawls and ratchets i^4, in the usual way. The cross-ties *f* are bolted to the under side of the subsills *g*, which brings them each lower than in the old construction, in which they were bolted directly to the side sills, *a*. The sides of the car are composed of planks *k*, of any desired number, which are secured together and to the car in the following manner: On the upper ends of the bolts *l*, which extend through the side sills, are flat metallic straps *l'*, and on the outside of the planks are stakes *m*, which are inserted in sockets *m'*, bolted to the outside of the sills *a*. Bolts m^2 extend through the straps *l'*, planks *k*, and stakes *m*, and are secured by suitable nuts and washers. In addition to this I further secure the planks *k* by means of other bolts, *n*, (see Fig. 2,) which extend vertically through the side sills, subsills, and the planks. This construction enables me to make the sides of the hopper of any suitable height and of great strength and durability.

It is the design of this invention to obtain a long car of great strength and proportionately increased capacity, and one which will enable the car to be unloaded more easily and rapidly and without the necessity of shoveling. For this purpose I have the double hopper, which is formed by the inclined bottoms *o o*, (see dotted lines, Fig. 2,) which extend from the ends *o'* of the car to the adjacent cross-tie *f*, and in the center of the car between the two dump-openings *i* by a double incline, *p*, (see dotted lines, Fig. 2,) the ends of which extend down to the inner cross-ties, *f*. The bolting of the cross-ties *f* to the under side of the subsills *g* enables me to extend the inclined bottoms *o* below the main sills *a* and *b* and to give them a greater pitch. The additional room or carrying capacity thus obtained by extending the bottom of the car below the main sills more than compensates for a slight loss of room at the ends of the car under the inclined floors *o*, and this construction actually increases the carrying capacity of the car over that of one of the same size made according to former constructions. The addition of the subsills below the main sills enables the inclines which are arranged between the dump-openings to be given such a steep pitch as will effectually prevent the lodgment of any portion of the load thereon, which is a material matter in cars having several dump-openings.

A great advantage in the use of the subsill, in addition to that of increasing the capacity of the car and the pitch of the floor, is the fact that they give additional sustaining strength to the frame of the car, and by applying them to the center or draw-bar sills I strengthen to resist the butting strains occurring in the shifting of trains.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a dump-car, the combination, with the main sills, of subsills bolted to the under side of the same, and cross-ties bolted to the under sides of the subsill, substantially as and for the purposes described.

2. In a double dump-car having inclines between the dump-openings, the combination,

with the main sills, of subsills bolted to the under side of the same, substantially as and for the purposes described.

3. In a dump-car, the combination of subsills bolted to the under side of the main sills, cross-ties bolted to the under side of the subsills, and inclined floors extending from the ends of the car to the adjacent subsills, substantially as and for the purposes described.

4. In a dump-car, the combination of subsills secured to the under side of the main sills, cross-ties secured to the under side of the subsills, a double hopper composed of inclined bottoms extending from the ends of the car to the adjacent subsills, and a central double incline placed between the two dump-openings, substantially as and for the purposes described.

In testimony whereof I have hereunto set my hand this 22d day of November, A. D. 1882.

JOHN L. GILL, JR.

Witnesses:
W. B. CORWIN,
L. C. FITLER.