

No. 780,748.

PATENTED JAN. 24, 1905.

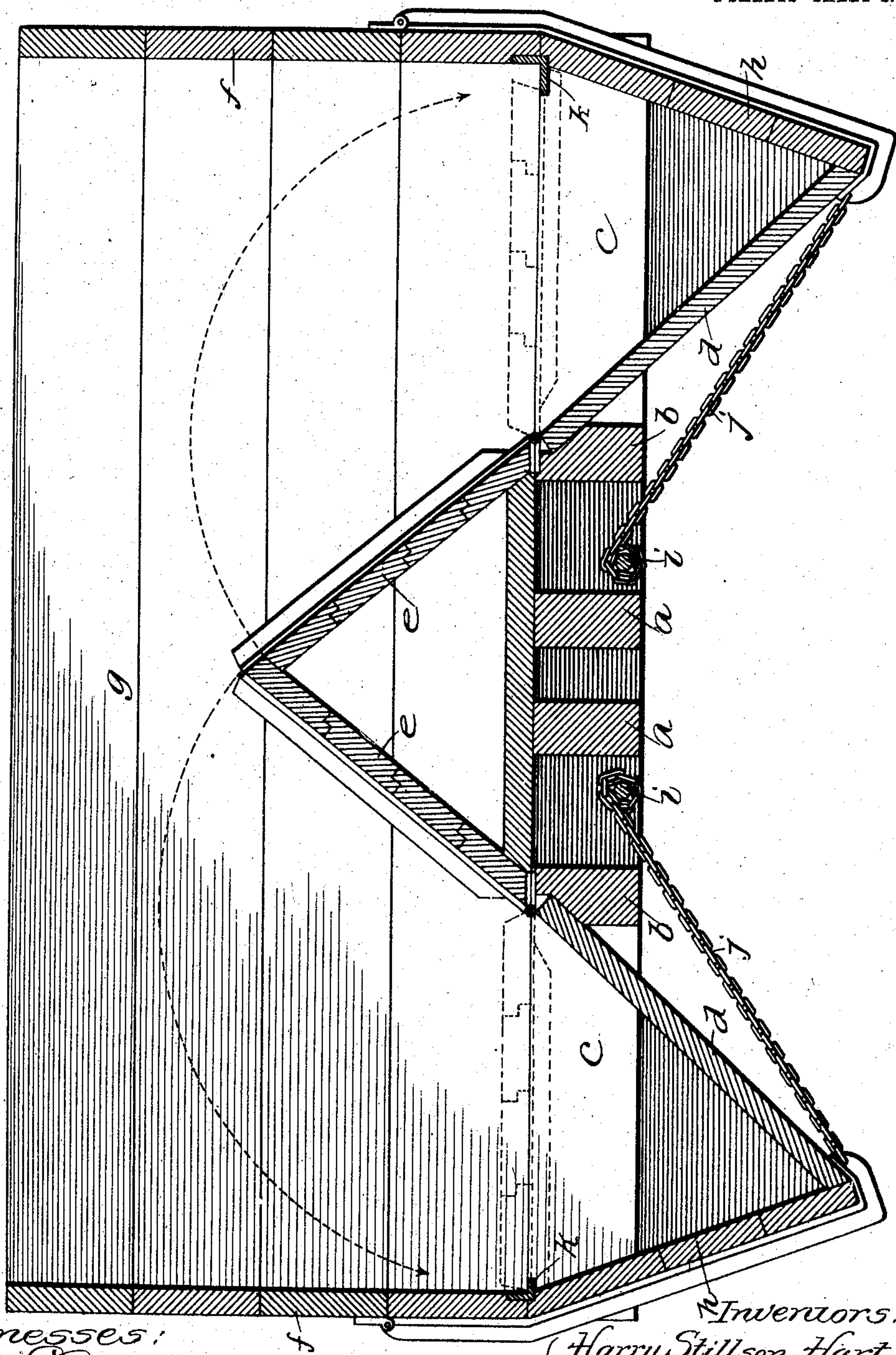
H. S. HART & G. B. MALTBY.

DUMP CAR.

APPLICATION FILED AUG. 8, 1904.

2 SHEETS—SHEET 1.

Fig. 1.



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By Thomas F. Sheridan,
Att'y.

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2 SHEETS—SHEET 2.

Fig. 3.

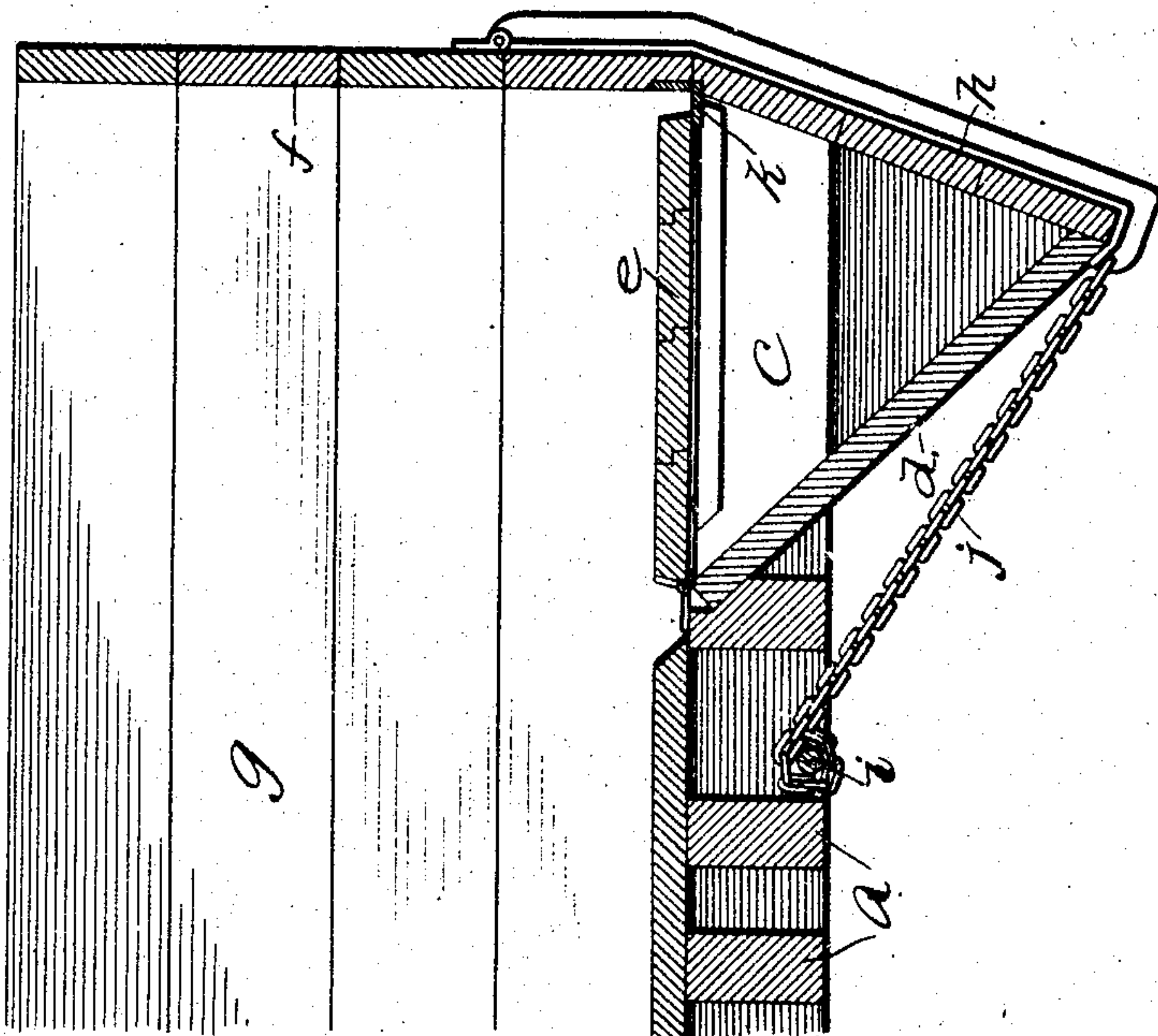
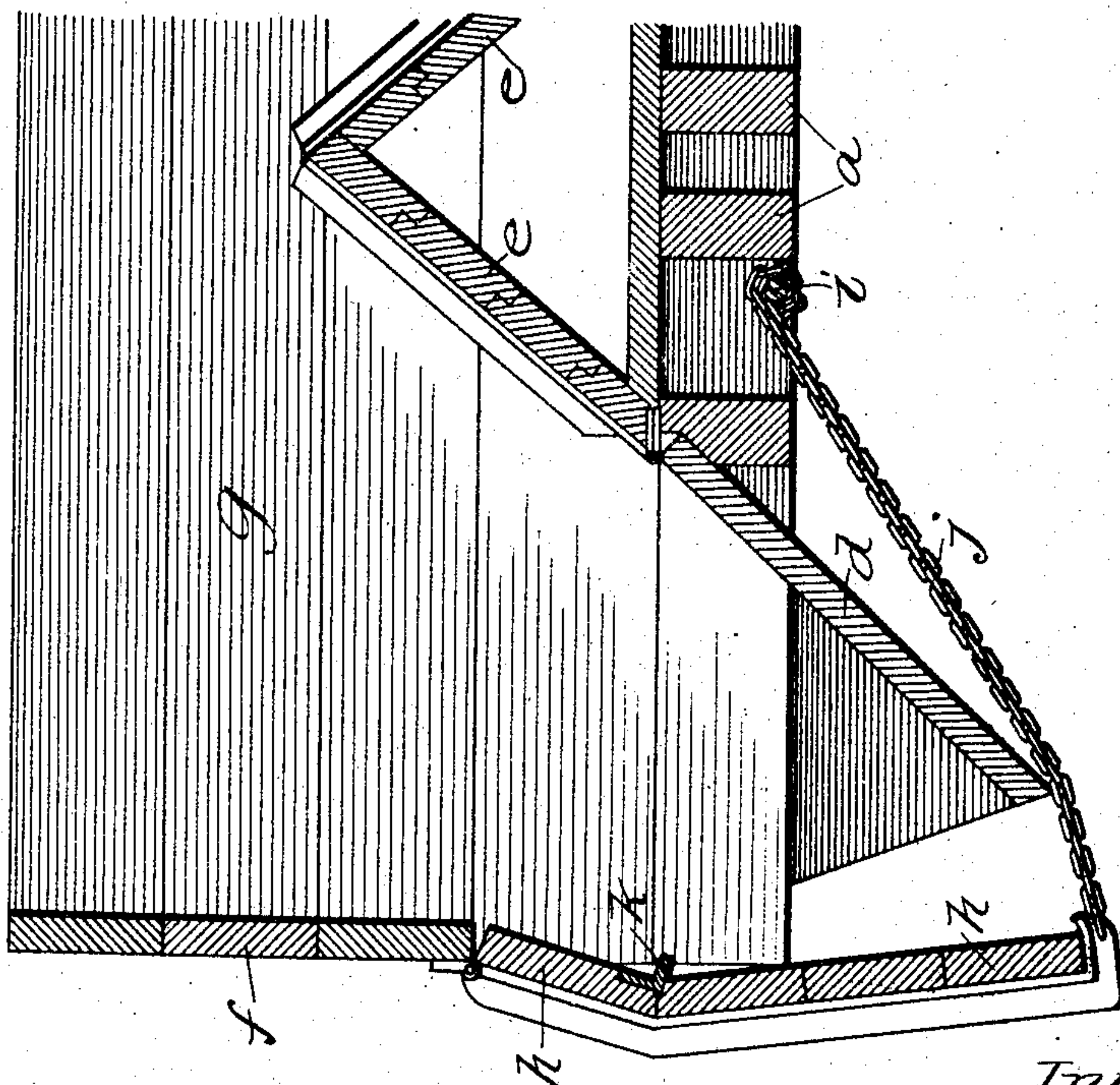


Fig. 2.



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UNITED STATES PATENT OFFICE.

HARRY STILLSON HART, OF CHICAGO, ILLINOIS, AND GEORGE B. MALTBY, OF CLEVELAND, OHIO, ASSIGNORS TO NATIONAL COAL DUMP CAR COMPANY, OF RAPID CITY, SOUTH DAKOTA, AND CHICAGO, ILLINOIS, A CORPORATION OF SOUTH DAKOTA.

DUMP-CAR.

SPECIFICATION forming part of Letters Patent No. 780,748, dated January 24, 1905.

Application filed August 8, 1904. Serial No. 219,939.

To all whom it may concern:

Be it known that we, HARRY STILLSON HART, residing at Chicago, county of Cook, and State of Illinois, and GEORGE B. MALTBY, formerly a resident of Chicago, now residing at Cleveland, in the county of Cuyahoga and State of Ohio, both citizens of the United States, have invented certain new and useful Improvements in Dump-Cars, of which the following is a specification.

This invention relates to dump-cars which are constructed and arranged to discharge all of their load automatically, and the invention relates particularly to the construction and arrangement by which the car may be used as an A-shaped dumping-car or a flat-bottom gondola car, all of which will more fully hereinafter appear.

The principal object of the invention is to provide a dump-car of such construction and arrangement that it may be used as an A-shaped dumping or flat-bottom gondola car.

Further objects of the invention will appear from an examination of the drawings and the following description and claims.

The invention consists principally in a dumping-car in which there are combined a supporting-framework, an A-shaped central section longitudinally disposed of the car, the apex of which is arranged at or near the longitudinal center and is provided with lower fixed portions, and swinging side sections pivotally secured to the framework of the car above the floor portion and inclined downwardly and inwardly to meet the lower fixed sections of the A-shaped portion.

The invention consists, further and finally, in the features, combinations, and details of construction hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a cross-sectional elevation of a portion of a car as it appears when constructed in accordance with these improvements, showing the parts in full lines as they are arranged for use as a dumping-car and in dotted outlines as they appear when the car is used as a flat-

bottom gondola car; Fig. 2, a sectional elevation of a portion of the mechanism shown in Fig. 1, showing the dumping-door in open position; and Fig. 3, a similar view of the other side of the car, showing the dumping-door closed and the parts in position to form a flat-bottom gondola car.

In illustrating and describing these improvements we have only illustrated and will here describe that which we consider to be new, taken in connection with so much as is old as will properly disclose the invention to others and enable those skilled in the art to practice the same, leaving out of consideration other and well-known elements, which, if set forth herein, would only tend to confusion, prolixity, and ambiguity.

In constructing a car in accordance with these improvements we provide a supporting-framework which has a plurality of longitudinally-disposed center sills *a*, intermediate sills *b*, and needle or deck beams *c*, all of which may be constructed and arranged in the usual manner. To provide for the dumping of the load when necessary and for the conversion of the car into a flat-bottom gondola car when required, a central A-shaped portion is provided formed of two sections—a lower immovable section formed of inclined boards *d*, rigidly secured to the framework of the car and extending downwardly and outwardly therefrom, so as to discharge a load outside of the supporting-tracks, and an upper section formed of swinging sections *e*, pivotally secured to the framework of the car at their lower edges and above such supporting-framework, so that they may be folded to complete the A-shaped discharge portion when in one position, the apex of the same being arranged above the supporting-framework and at or near the longitudinal center of the car. These swinging sections may be folded outwardly and downwardly into a second position, as shown in dotted outline in Fig. 1 and in full lines in Fig. 3, and into a flat plane to complete the flat bottom of a "gondola" car. The supporting-framework

is provided with vertical side boards *f*, extending upwardly therefrom, and end boards *g*, arranged to connect the same across the car at or near each end. To assist in discharging the load when it becomes desirable or necessary so to do, swinging side doors *h* are provided and pivotally secured to the side boards of the car above the ordinary deck or bottom portion, so as to form the lower portion of such side boards. These swinging side doors extend downwardly and inwardly from the deck portion, so as to meet the free edges of the fixed **A**-shaped sections and be locked against the same by means of the usual rock-shaft *i* and chain mechanism *j*. These swinging side doors are further provided with ledges *k*, formed of angle-irons let into the inner surface of the same at or near the deck-level and upon which the free edges of the swinging **A**-shaped sections may rest, thereby assisting to hold such swinging sections in a flat plane.

We claim—

1. In a car of the class described, the combination of a supporting-framework, a central longitudinally-extending floor-section, inclined hopper portions extending downward at an incline from each side of such central floor-section, swinging floor-sections pivotally mounted at the top of such inclined hopper portions extending upward and inward from their pivotal points at an incline toward the longitudinal center of the car in one position, and outward laterally of the car from such pivotal points in a second position, substantially as described.

2. In a car of the class described, the combination of a supporting-framework, a central longitudinally-extending fixed floor-section, inclined hopper portions extending downward at an incline from each side of such central floor-section, swinging floor-sections pivotally mounted at the top of the inclined hopper portions on opposite sides of such fixed floor-section and extending upward and inward from their pivotal points at an incline toward the longitudinal center of the car in one position and outward laterally of the car from such pivotal points in a horizontal second position, substantially as described.

3. In a car of the class described, the combination of a supporting-framework, an **A**-shaped central portion longitudinally disposed of the car and formed of lower fixed sections and upper swinging sections which may be swung into **A**-shaped condition to assist in discharging the load when in one position and to be swung outwardly and downwardly into a flat plane so as to form or complete a flat bottom for a gondola car, and swinging side doors pivotally secured to the frame of the car above the usual bottom portion and ex-

tending downwardly and inwardly to meet the lower edges of the fixed sections of the **A**-shaped portion, substantially as described.

4. In a car of the class described, the combination of a supporting-framework, a central **A**-shaped section longitudinally disposed of the car with its apex arranged above the floor portion extending downwardly and outwardly therefrom and formed of two sections—a lower fixed section immovably secured to the framework of the car and upper swinging sections pivotally secured thereto so as to be folded when in one position into an **A**-shaped condition to assist in discharging the load in the car and to be swung outwardly and downwardly into a second position to complete the flat bottom of a gondola car, side boards for the car extending upwardly from the supporting-framework, and swinging side boards pivotally secured to the side boards of the car at a point above the floor portion and provided with inwardly-projecting ledges adapted to engage with and support the free edges of the swinging **A**-shaped sections to assist in holding them in their flat condition, substantially as described.

5. In a car of the class described, the combination of a supporting-framework, a central **A**-shaped portion longitudinally disposed of the car and formed of two sections—a lower fixed section extending downwardly and outwardly from the supporting-framework of the car and below the same and upper swinging sections pivotally secured thereto and adapted to be folded in an **A**-shaped manner to assist in discharging the load and above the supporting-framework when in one position and to be folded outwardly and downwardly to complete the flat bottom of a gondola car when in the second position, vertical side boards extending upwardly from the supporting-framework of the car, swinging doors pivotally secured to the side boards of the car and forming a portion thereof above the ordinary deck portion and inclined downwardly and inwardly to meet the free edges of the fixed **A**-shaped section, and inwardly-projecting ledges on such swinging doors to engage the free edges of the swinging **A**-shaped members and assist in holding them in their flat condition, substantially as described.

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