

No. 811,717.

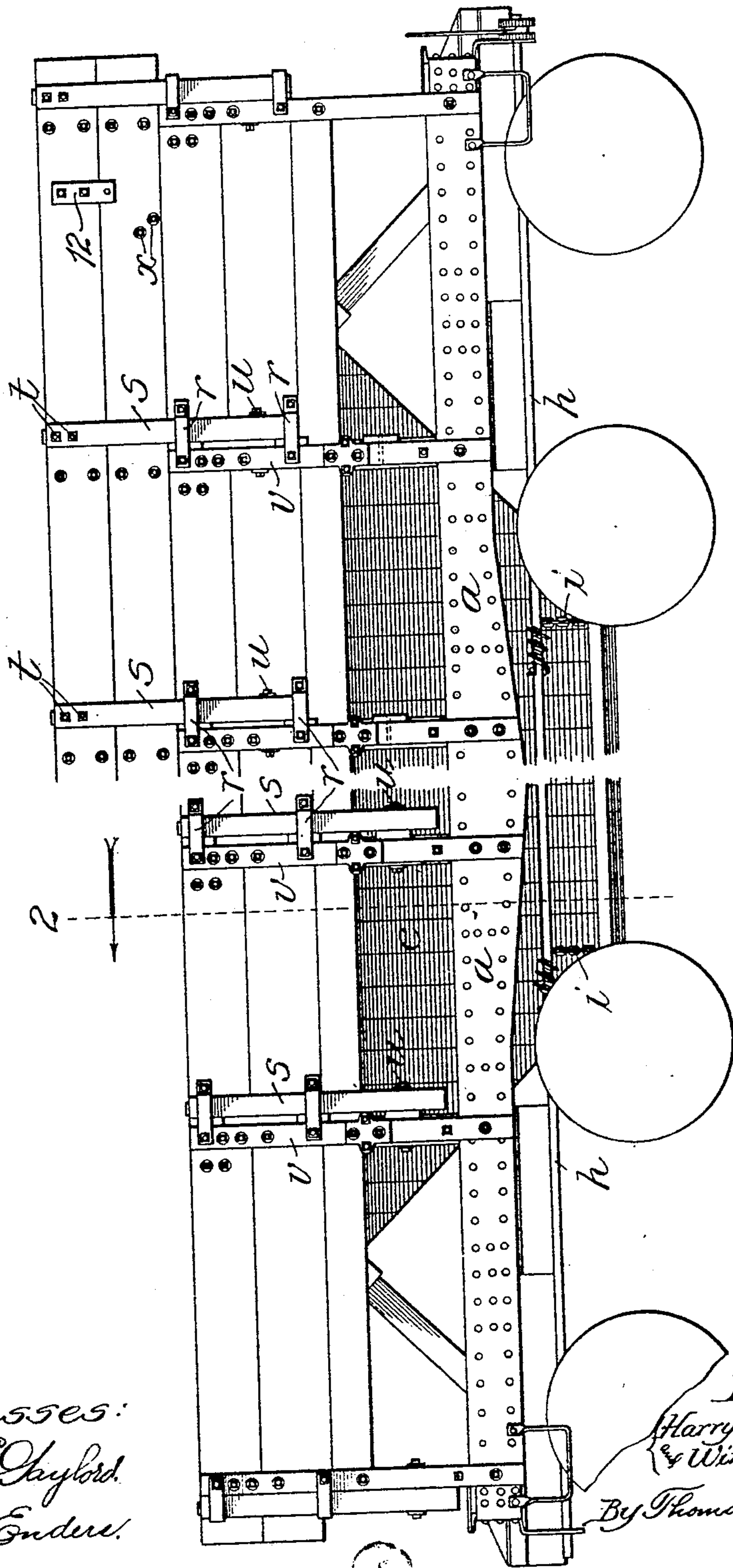
PATENTED FEB. 6, 1906.

H. S. HART & W. YOST.
DUMP CAR.

APPLICATION FILED FEB. 13, 1905.

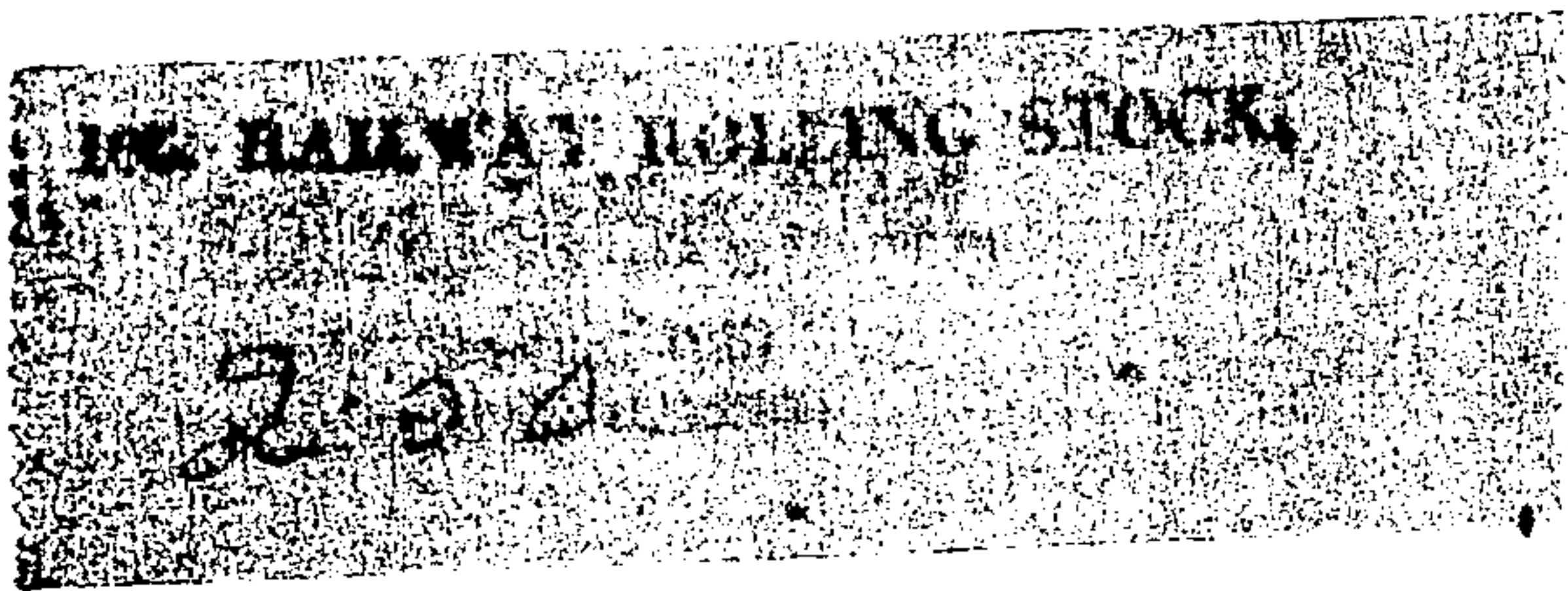
4 SHEETS—SHEET 1.

Fig. 1.



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4 SHEETS—SHEET 2.

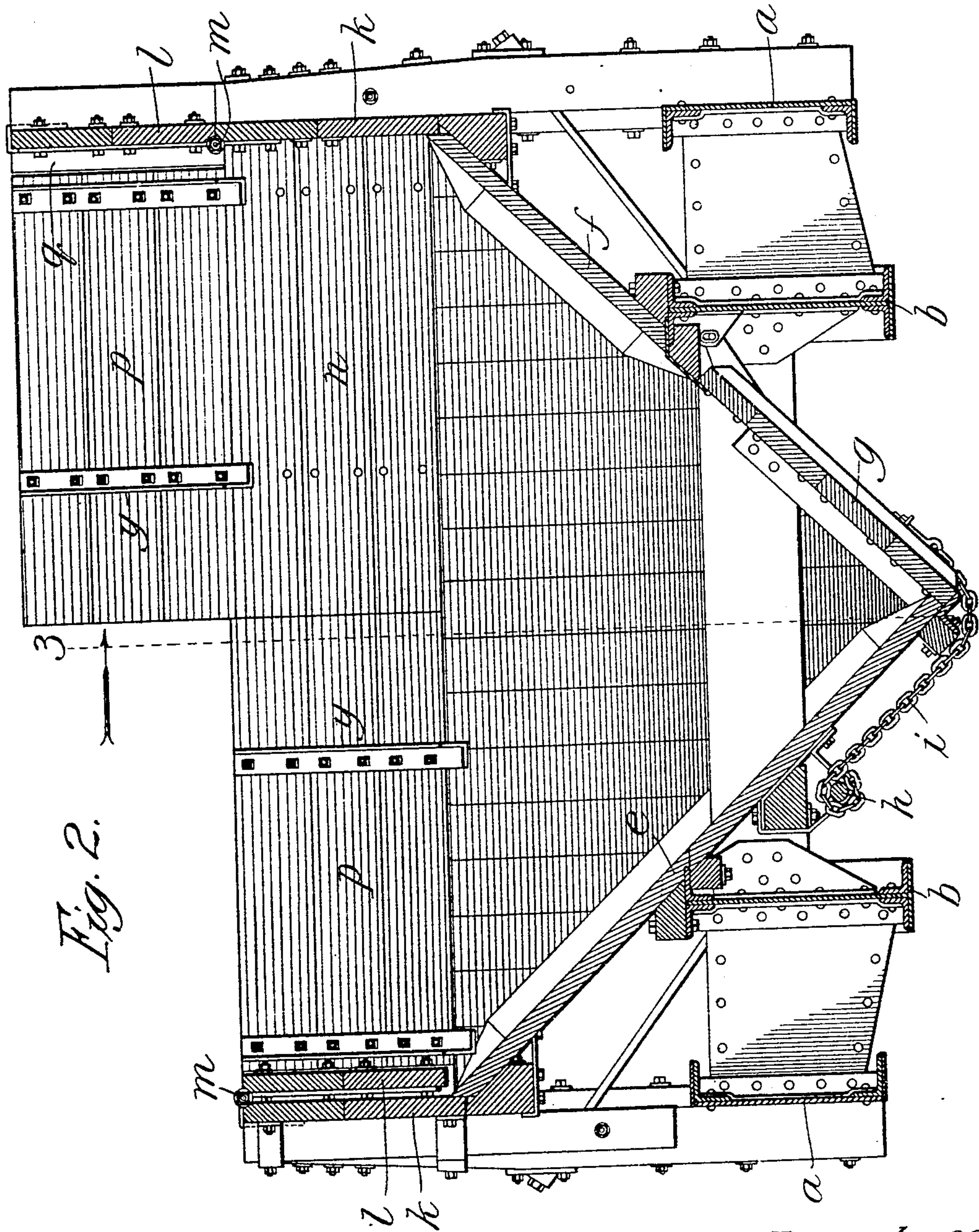


Fig. 2.

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No. 811,717.

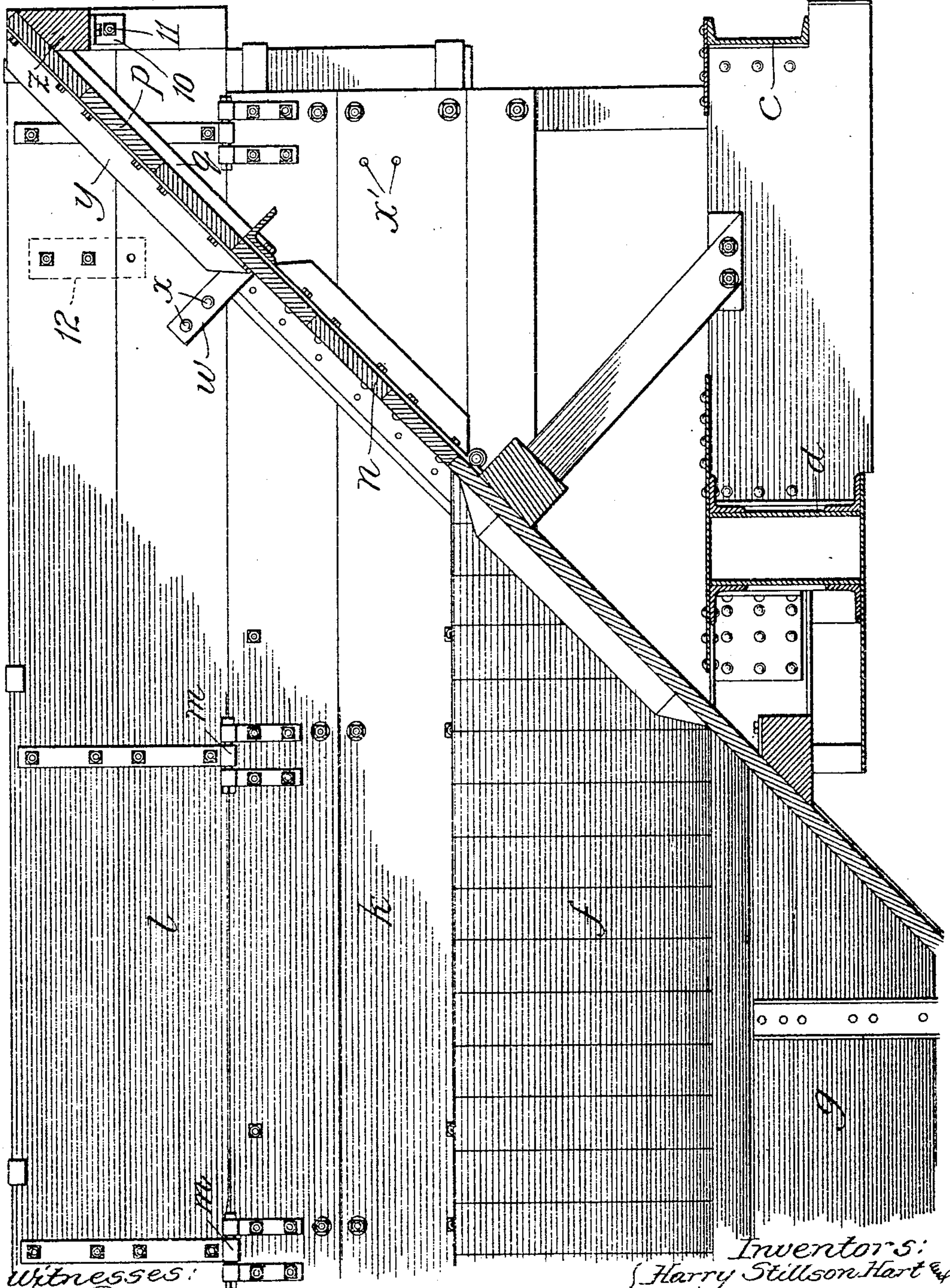
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4 SHEETS—SHEET 3.



Witnesses:
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Fig. 3.

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RAILWAY ROLLING STOCK.

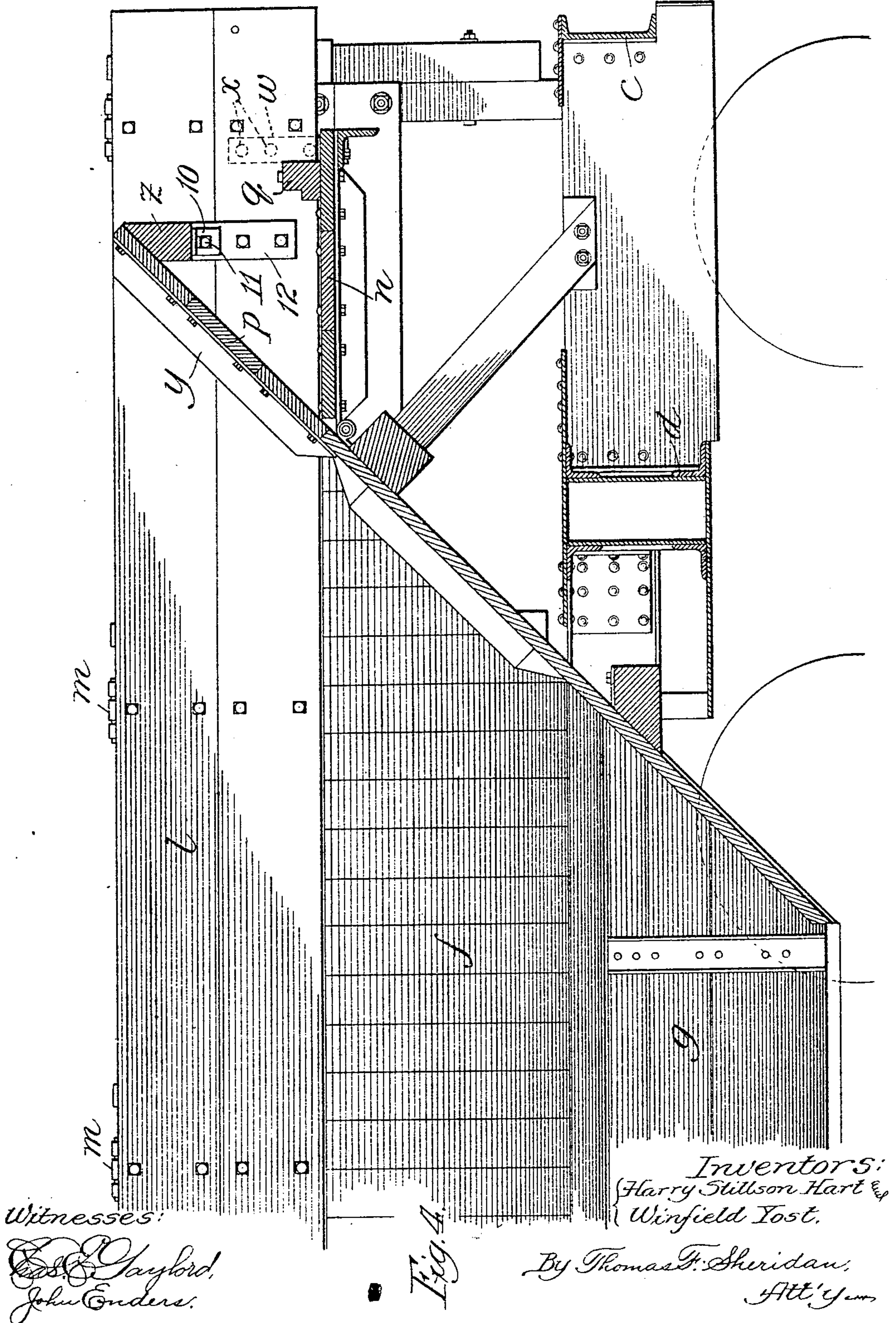
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4 SHEETS—SHEET 4.



UNITED STATES PATENT OFFICE.

HARRY S. HART AND WINFIELD YOST, OF CHICAGO, ILLINOIS, ASSIGNORS
TO RODGER BALLAST CAR COMPANY, OF CHICAGO, ILLINOIS, A COR-
PORATION OF ILLINOIS.

DUMP-CAR.

No. 811,717.

Specification of Letters Patent.

Patented Feb. 6, 1906.

Application filed February 13, 1905. Serial No. 245,461.

To all whom it may concern:

Be it known that we, HARRY STILLSON HART and WINFIELD YOST, of Chicago, Illinois, have invented certain new and useful
5 Improvements in Dump-Cars, of which the following is a specification.

The invention relates particularly to certain improvements in dump-cars by which the carrying capacity thereof may be en-
10 larged or diminished to suit varying circumstances and conditions, all of which will more fully hereinafter appear.

The principal object of the invention is to provide a dump-car with extensible and col-
15 lapsible side and end portions by which the carrying capacity of the car may be varied to suit different circumstances and conditions.

The invention consists principally in a dump-car in which there are combined a sup-
20 porting-frame portion, side boards extending upwardly therefrom and provided with upper portions foldably secured thereto, in-
clined end portions formed of a plurality of sections, one forming a swinging and another
25 a removable section, and means for holding the parts in their extended or collapsed condition.

The invention consists, further, in the fea-
30 tures, combinations, and details of construction hereinafter described and claimed.

In the accompanying drawings, Figure 1 represents a side elevation of one type of dump-car as it appears when constructed in
accordance with these improvements, with
35 the parts at the right-hand end of the figure in extended position and those at the left-hand end in collapsed position; Fig. 2, an enlarged vertical sectional elevation taken on
line 2 of Fig. 1, showing the framework and
40 upper portion of the car with one side of the figure in extended and the other in collapsed or folded position; Fig. 3, a sectional elevation of a portion of the car, taken on line 3 of
Fig. 2 looking in the direction of the arrow
45 and showing the parts in extended position; and Fig. 4, a similar view to that shown in Fig. 3 with the parts in collapsed or folded position.

In illustrating and describing these im-
50 provements we have only illustrated and will herein describe that which we consider to be new, taken in connection with so much that is old as will properly disclose the invention

to others and enable those skilled in the art to practice the same, leaving out of considera- 55
tion other and well-known elements which, if set forth herein, would only tend to confusion, prolixity, and ambiguity.

In constructing one type of car in accordance with these improvements we provide 60
a supporting-framework, preferably made of metal members, having side sills *a*, intermediate sills *b*, end sills *c*, and body-bolster mechanism *d*, all tied together in an efficient and practical manner. Secured to this
65 framework of the car is a V-shaped hopper-bottom portion extending lengthwise of the car and substantially depending therefrom, formed of inclined sides *e* and *f*, one of which
70 is provided with a lower swinging door portion *g*, arranged to be opened and closed so as to discharge the contents of the car, and which opening and closing is controlled by
means of a rotating shaft *h* and chain mechanism *i*. 75

In this particular art it is desirable, and, indeed, often necessary, to provide a car that can be used to carry large and small loads. Stated otherwise, it is very desirable to have
80 a car the capacity of which may be increased or diminished to suit varying circumstances and conditions. In order to accomplish this result, vertical side boards are provided and secured to each side of the car, extending
85 above the V-shaped hopper-bottom and comprising lower fixed sections *k* and upper swinging or folding sections *l*, the swinging sections being secured to the fixed sections by means of hinges *m*, so arranged that said
90 swinging sections may be folded inwardly and downwardly in parallel arrangement with the fixed sections, as shown at the left of Fig. 2 and farther side of Fig. 4, as will more
fully hereinafter appear. Inclined end portions are also provided, extending above the
95 hopper-bottom and formed, preferably, of lower swinging sections *n* and upper removable sections *p*. These parts are shown in their extended position to the right-hand side of Figs. 2 and 3, and when in such position, as
100 at other times, are arranged between the side boards of the car. Arranged between the upper removable end-board portion *p* and the swinging section are L-shaped filler-sections *q*, the purpose of which will more fully
105 hereinafter appear. To hold the parts in

their extended position, the lower fixed side boards are provided with stake-pockets formed of metal straps *r*, in which are arranged stakes *s*, bolted, by means of bolts *t*, to the swinging sections on the exterior portion thereof and by bolts *u* to fixed stakes *v* of the supporting-framework. The inclined end boards are held in their extended condition by the following-described mechanism: The swinging sections at the upper side edges are provided with metal straps *w*, which are secured to the swinging side boards by means of bolts *x*. The upper removable end-board portions or sections *p* are held in position by having inner angle-irons *y*, which are secured thereto, overlapping the inner upper edges of the swinging end sections, while the upper ends of said removable sections rest against a cross piece or block *z*, which is provided with angle-irons 10, that are bolted or riveted thereto, and by means of bolts 11 are secured to the swinging side boards.

When it is desired to use the car in a collapsed condition, the side stakes are removed by unloosening the bolts *t* and *u*, dropping the stakes into the position shown to the left of Fig. 1, and bolting them, as shown in said figure, securely in such position. The upper end-board sections are next removed by the unscrewing of the bolts 11 and the removing of the cross-block *z*. The bolts *x* are next unscrewed from the position shown in Fig. 3 and the swinging sections dropped to the position shown in Fig. 4, where the bolts *x* are then inserted in the holes *x'*, (shown in Fig. 3,) which secures said swinging end section in a horizontal plane, as shown in Fig. 4. The filler-blocks *q* are next removed and for the purpose of saving them are bolted to the upper portion of the swinging end sections, as shown in Fig. 4. The side boards are then folded downwardly and inwardly into parallel arrangement, as shown to the left of Fig. 2, which action brings the straps 12 (shown to the upper right-hand end of Fig. 1) on the inside of the car, as shown in Fig. 4, and into such position that the cross-blocks *z*, with their angle-irons 10, may be secured thereto by means of the bolts 11. By this means the parts are operatively arranged in a collapsed condition, so as to provide a car of small capacity for the carrying of heavy loose bulky freight, all of which will be understood and appreciated by those skilled in the art.

We claim—

1. The combination of a dump-car having the usual inclined sides and ends and vertically-arranged sides above the inclined sides having folding upper sections, and extension ends in the same plane as the inclined ends having a swinging and a removable section.

2. In a car of the class described, the combination of a supporting-frame portion, a V-shaped hopper-bottom secured thereto and extending longitudinally thereof, vertical

side portions attached to the supporting-framework of the car and extending upwardly therefrom and formed of lower stationary and upper foldable sections, stakes for holding said side portions in their extended position, and inclined end portions arranged at each end of the car between the stationary and foldable side boards and formed of a plurality of sections, one of which is pivotally and the other removably secured in position so that they may be extended or collapsed, and means for operatively holding the parts in extended and collapsed positions, substantially as described.

3. In a car of the class described, the combination of a supporting-frame portion, a V-shaped hopper portion secured thereto extending longitudinally thereof and depending therefrom, vertically-arranged side boards secured to the framework of the car and extending upwardly therefrom above the V-shaped portion of the hopper and formed of a lower stationary portion and an upper inwardly-foldable portion, stakes exteriorly arranged for holding the parts in extended position, inclined end boards arranged between the stationary and foldable portions of the side boards and provided with a lower swinging section and an upper removable section arranged to be extended or collapsed, and means for operatively holding the parts in their extended or collapsed position, substantially as described.

4. In a car of the class described, the combination of a supporting-frame portion, a V-shaped hopper portion secured thereto extending longitudinally thereof and depending therefrom, vertically-arranged side boards secured to the supporting-frame and extending above the V-shaped hopper-bottom comprising lower fixed and upper swinging sections arranged to swing inwardly and downwardly in parallel engagement with the fixed sections, inclined end boards arranged at each end of the car and formed of lower outwardly and downwardly swinging sections and upper sections removably secured in position so as to be arranged between the swinging side-board portions when in their extended and folded conditions, and means for securing the parts in their extended and folded positions, substantially as described.

5. In a car of the class described, the combination of a supporting-frame portion, a V-shaped hopper portion secured thereto extending longitudinally thereof and depending therefrom, vertically-arranged side boards secured to the supporting-frame and extending above the V-shaped hopper-bottom comprising lower fixed and upper swinging sections arranged to swing inwardly and downwardly in parallel engagement with the fixed sections, inclined end boards arranged at each end of the car and formed of lower outwardly and downwardly swinging sections

and upper sections removably secured in position so as to be arranged between the swinging side-board portions when in their extended and folded conditions, means for securing the parts in their extended and folded positions, and removable filler portions arranged between the removable inclined end-board sections and the upper swinging sections of the side boards when the parts are in their extended positions, substantially as described.

6. In a car of the class described, the combination of a supporting-frame portion, a V-shaped hopper-bottom secured thereto and extending longitudinally of the car with its apex arranged near the longitudinal center thereof, vertical side portions attached to the supporting-framework of the car and extending upwardly therefrom formed of lower stationary and upper foldable sections, inclined end portions formed of a removable portion extending from one fixed hopper side portion to the other and an upper removable portion extending from one foldable side portion to the other and removably secured thereto and means for holding said side portions in extended condition, substantially as described.

7. In a car of the class described, the combination of a supporting-frame portion provided with a dumping-bottom, side portions attached to the supporting-framework of the car formed of lower fixed and upper foldable portions, inclined end portions having movable portions and lower fixed portions extend-

ing from one fixed side frame portion to the other, and upper removable end frame portions extending from one foldable side frame portion to the other and removably secured thereto.

8. In a car of the class described, the combination of a supporting-frame portion provided with a dumping-bottom, side portions attached to the supporting-framework of the car formed of lower fixed and upper foldable portions, inclined end frame portions having movable portions extending from one fixed side frame portion to the other, and inclined upper end frame portions extending from one foldable side frame portion to the other and adapted to be removably secured thereto when such foldable side frame portions are in raised and lowered positions respectively.

9. In a car of the class described, the combination of a supporting-frame provided with a dumping-bottom, side portions attached to the supporting-framework of the car formed of lower fixed and upper foldable portions, end frame portions each having a movable portion extending from one fixed side portion to the other and an upper removable portion extending from one foldable side portion to the other, and means for holding such side and end frame portions in position.

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