

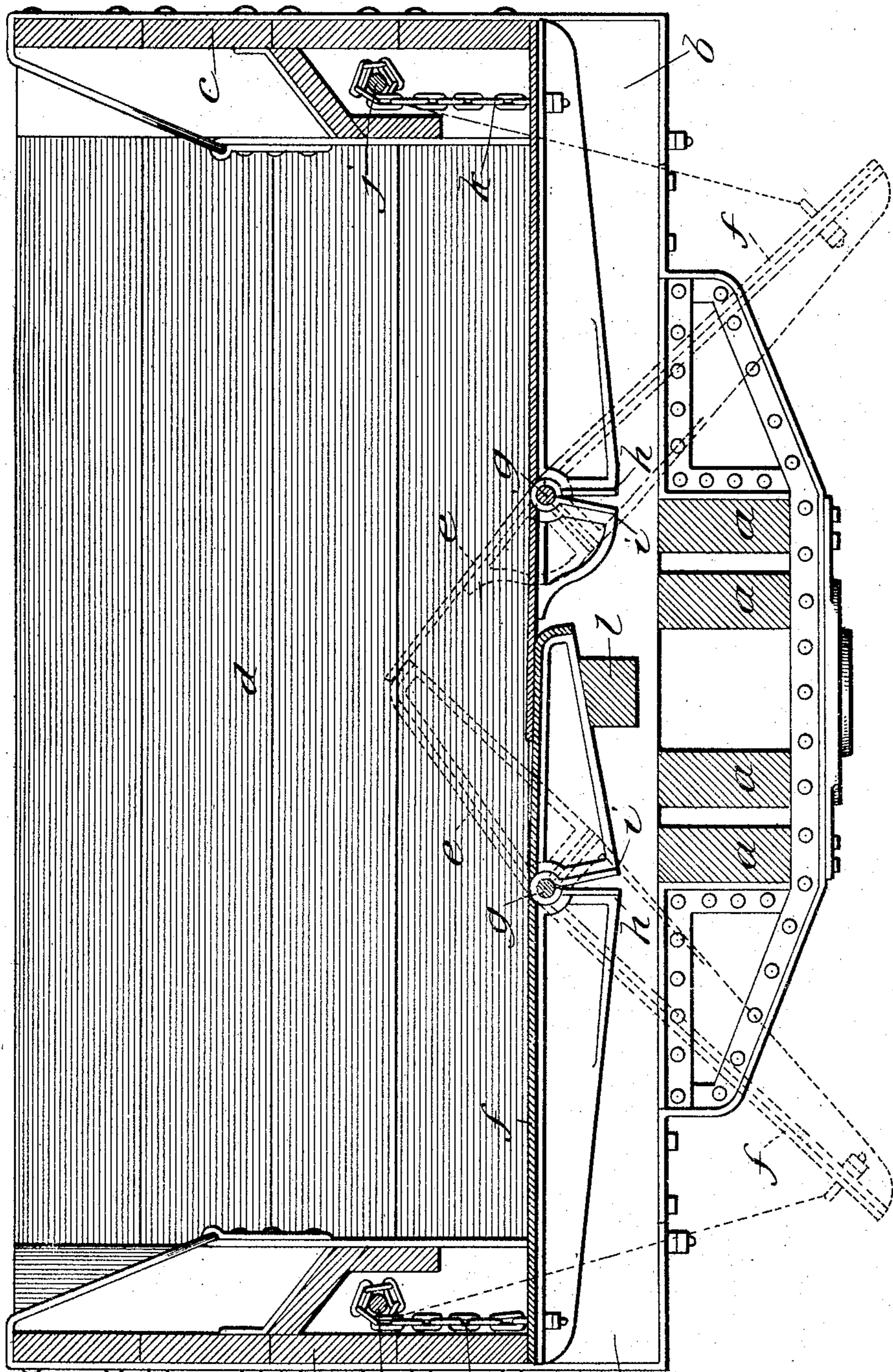
No. 780,762.

PATENTED JAN. 24, 1905.

S. OTIS.

DROP BOTTOM DUMP CAR.

APPLICATION FILED JULY 11, 1903. RENEWED DEC. 24, 1904.



Witnesses:
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UNITED STATES PATENT OFFICE.

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DROP-BOTTOM DUMP-CAR.

REISSUED

SPECIFICATION forming part of Letters Patent No. 780,762, dated January 24, 1905.

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To all whom it may concern:

Be it known that I, SPENCER OTIS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have
5 invented certain new and useful Improvements in Drop-Bottom Dump-Cars, of which the following is a specification.

The principal object of the invention is to provide a simple, economical, and efficient
10 drop-bottom dump-car with means by which all of the load therein may be automatically discharged.

The invention consists principally in a drop-bottom car in which there are combined a
15 supporting-framework and a drop-bottom therefor formed of a plurality of swinging sections having independently-movable rear and front portions pivotally secured in position to each side of the longitudinal center of the car.

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

In the accompanying drawing the figure
25 represents a cross-sectional elevation of a car as it appears when constructed in accordance with these improvements.

In constructing my improved car I prefer to use a supporting-framework consisting of
30 a plurality of longitudinal sills *a*, centrally disposed, and a plurality of transverse deck-beams *b* resting thereon and secured thereto in any desired or convenient manner, thus dispensing with all side sills below the upper
35 level of the deck-beams and providing a free and unobstructed discharge-opening, as will more fully hereinafter appear. Secured to this supporting-framework are side-boards *c* and end-boards *d*, which form the sides and
40 ends of a gondola or other car requiring side and end boards or walls.

To form a flat-bottom car which will also be a drop-bottom car, a plurality of swinging sections is provided and pivotally secured in
45 position to each side of the longitudinal center of the car and above the longitudinal sills. These swinging sections are formed of rear

portions *e* and front portions *f*, independently and movably mounted upon the same pivotal points or shafts *g*. It will be noticed upon ex-
50 amination of the drawings that where the parts are laid in a flat plane the rear portions engage or overlap each other and the forward portions extend forward to the extreme sides of the car. In opening, the forward portion is
55 first released and drops part way to discharge a portion of the load. Then the heel *h* of its bracket contacts the forward portion or adjacent wall of the bracket *i* of the rear part and assists to move or raise such part during the
60 discharging of the remaining load to an A-shaped discharging position. To open and close these doors, rock-shaft mechanisms *j* are provided; which, by means of the chains
65 *k*, are connected to the free ends of the swinging sections and used in the ordinary manner to open and close such doors.

A stop-block *l* is provided, as shown particularly in the drawings, and arranged between the deck-beams so as to permit one of
70 the rear swinging sections to contact and rest on the same when in its flat position, and thus assist in carrying the load.

I claim—

1. In a drop-bottom dump-car, the combination of a supporting-framework, and a drop-
75 bottom therefor formed of a plurality of swinging sections having independently-movable rear and front portions pivotally secured in position to each side of the longitudinal
80 center of the car, substantially as described.

2. In a drop-bottom dump-car, the combination of a supporting-framework, a drop-bottom portion formed of a plurality of swinging
85 sections having independently-movable rear and front portions pivotally secured in position at each side of the longitudinal center of the car, and shaft mechanisms—one arranged at each side of the longitudinal center of the car upon which such swinging sections are
90 pivotally mounted, substantially as described.

3. In a drop-bottom dump-car, the combination of a supporting-framework provided with upwardly-extending side and end boards,

and a drop-bottom therefor formed of a plurality of swinging sections pivotally secured to the framework of the car at each side of the longitudinal center, each swinging section being formed of two independently-movable portions—rear overlapping portions and forwardly-extending portions arranged to form a flat-bottom gondola car in closed position

and substantially A-shaped discharging portions in open position, substantially as described.

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Witnesses:

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