

C. E. DINKEY.

TRANSFER CAR.

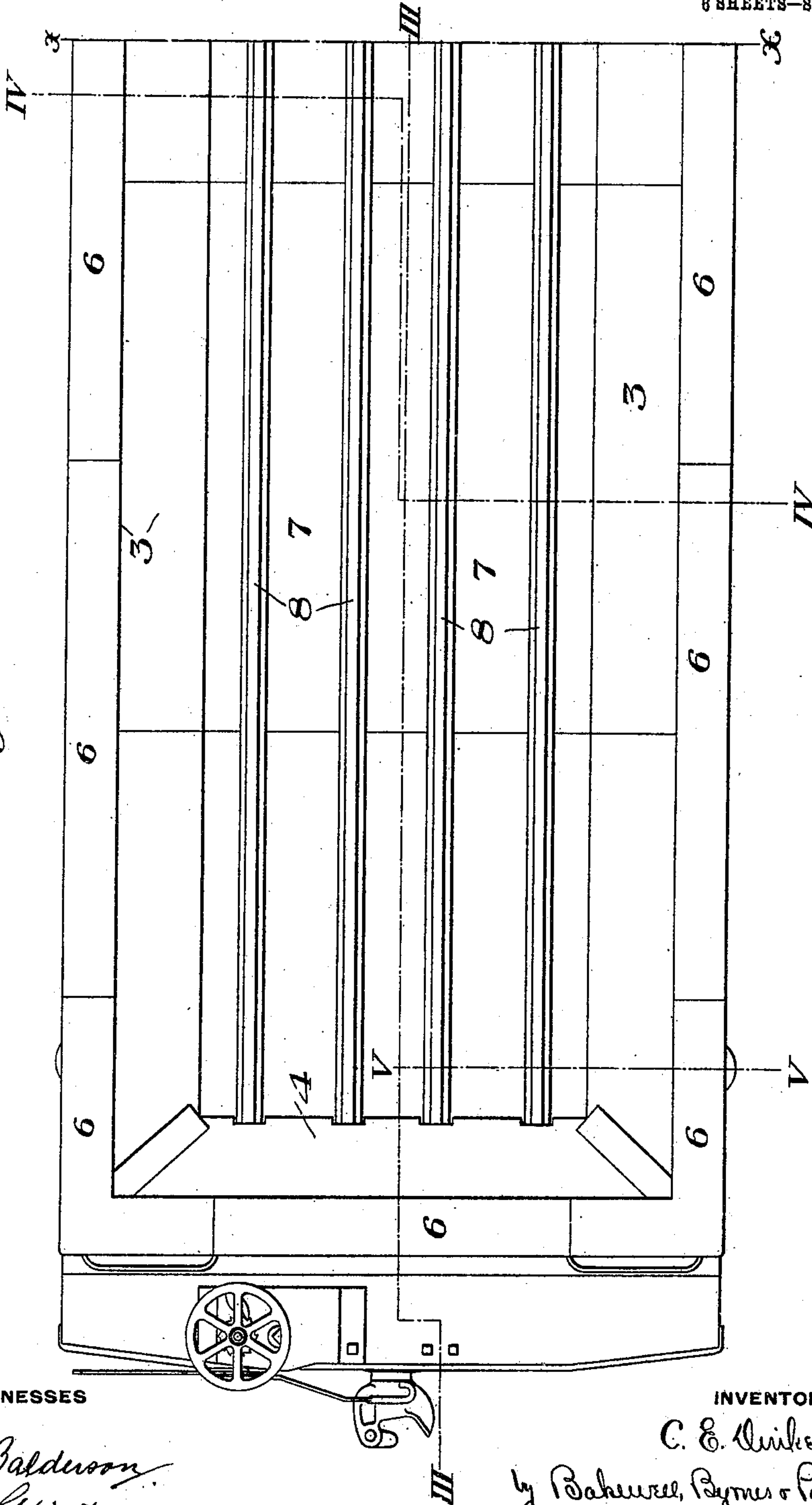
APPLICATION FILED NOV. 6, 1908.

922,103.

Patented May 18, 1909.

6 SHEETS—SHEET 1.

Fig. 1.



WITNESSES

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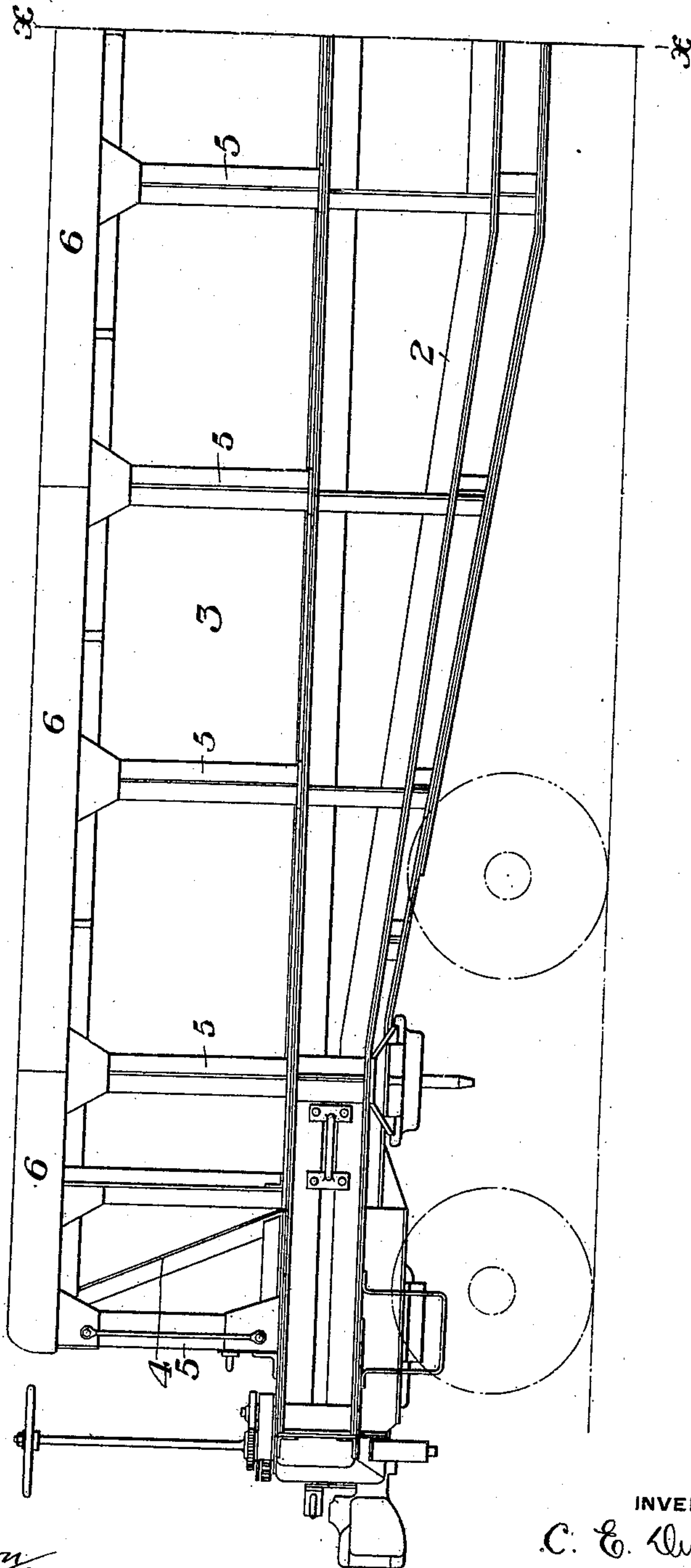
C. E. Dinkey,
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6 SHEETS—SHEET 2.

Fig. 2.



WITNESSES

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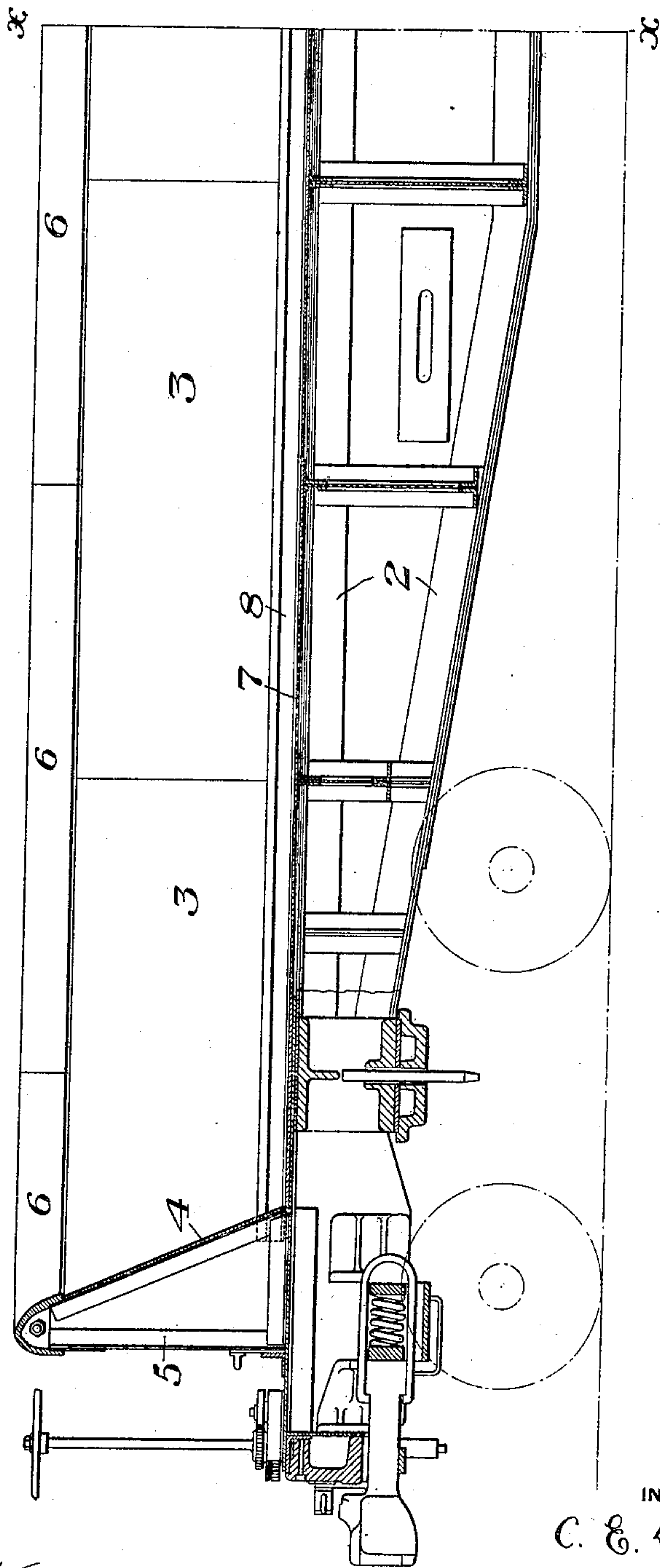
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6 SHEETS—SHEET 3.

Fig. 3.



WITNESSES

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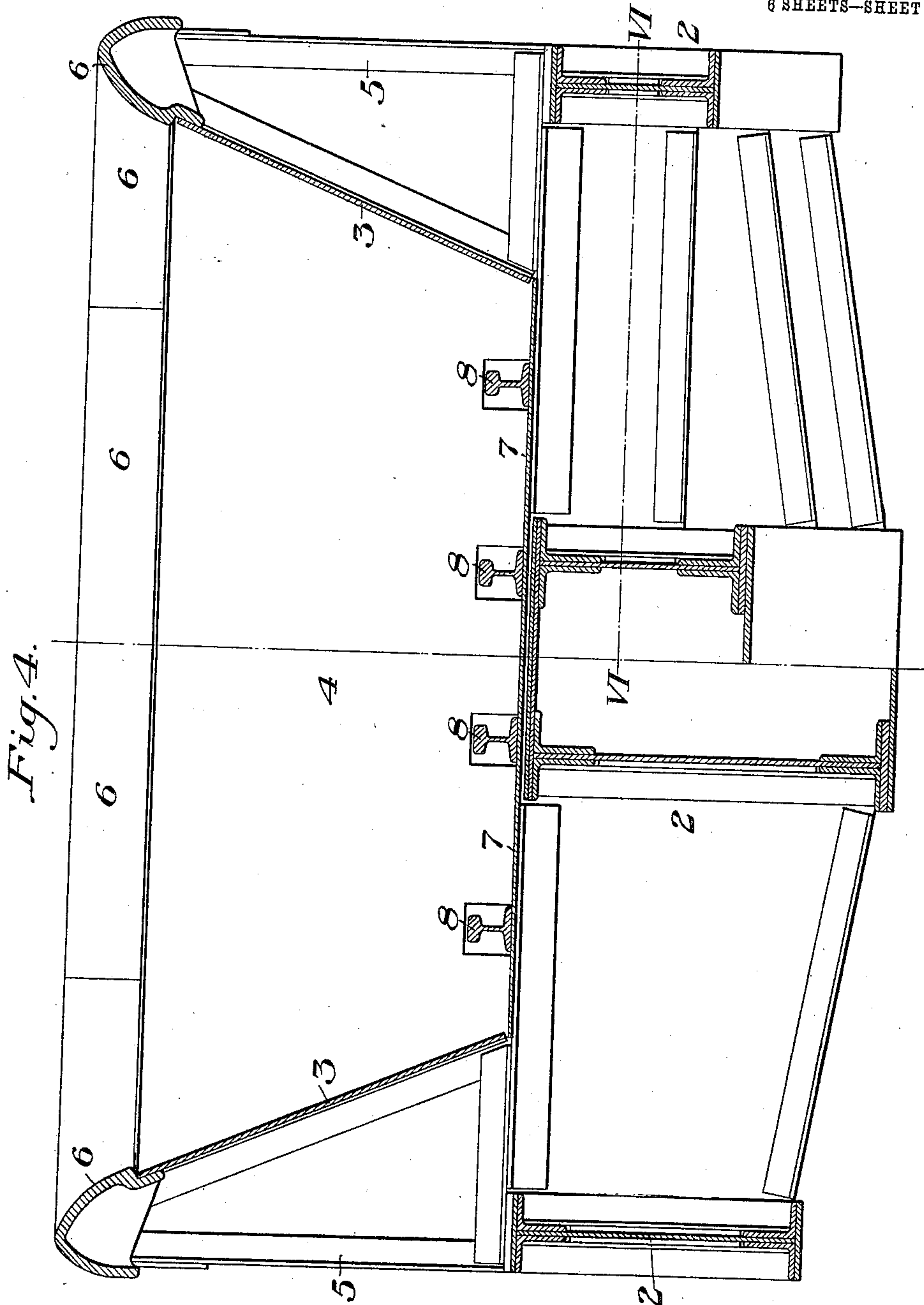
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6 SHEETS—SHEET 4.



WITNESSES

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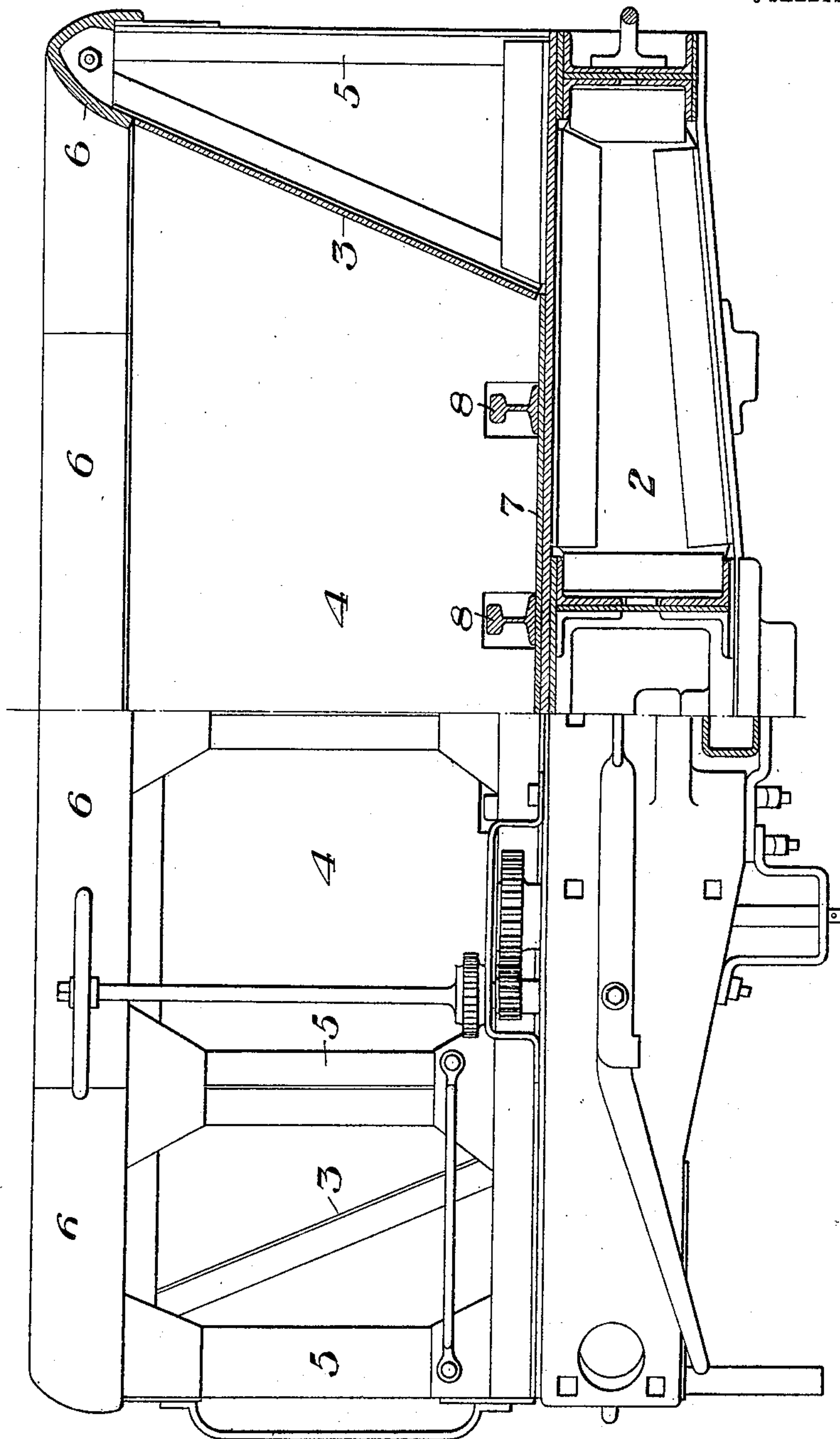
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922,103.

Patented May 18, 1909.
6 SHEETS—SHEET 5.

Fig. 5.



WITNESSES

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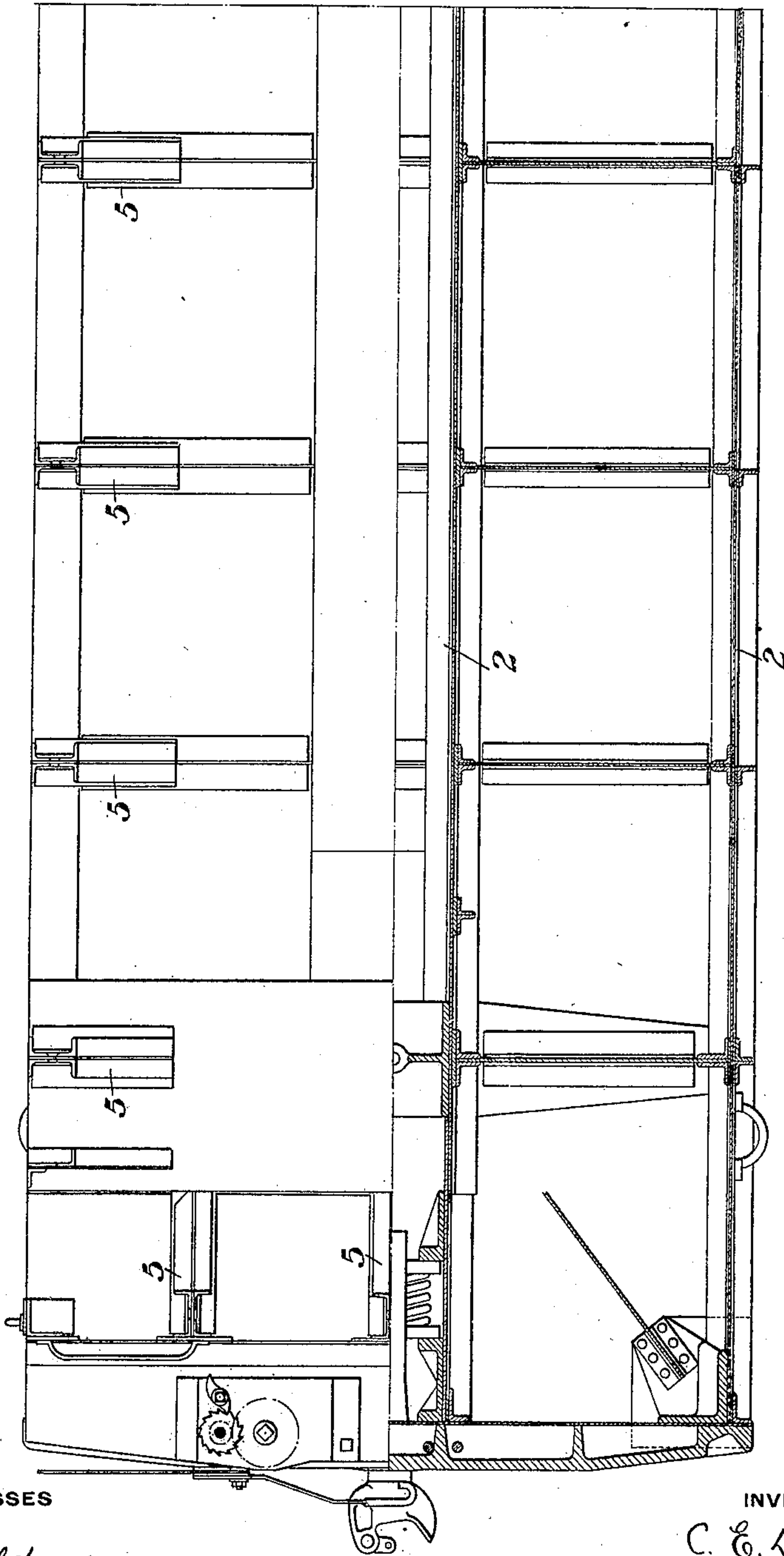
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6 SHEETS—SHEET 6.

Fig. 6.



WITNESSES

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UNITED STATES PATENT OFFICE.

CHARLES E. DINKEY, OF BRADDOCK, PENNSYLVANIA.

TRANSFER-CAR.

No. 922,103.

Specification of Letters Patent.

Patented May 18, 1909.

Application filed November 6, 1908. Serial No. 461,327.

To all whom it may concern:

Be it known that I, CHARLES E. DINKEY, of Braddock, Allegheny county, Pennsylvania, have invented a new and useful Improvement in Transfer-Cars, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

10 Figure 1 is a plan showing one half of my improved transfer car arranged and constructed in accordance with my invention, the car being symmetrical about the transverse center line $x-x$; Fig. 2 is a longitudinal side elevation of the car shown in Fig. 1; Fig. 15 3 is a sectional side elevation of the car on the line III—III of Fig. 1; Fig. 4 is an irregular sectional end elevation of the car on the line IV—IV of Fig. 1; Fig. 5 is an end elevation partly in section on the line V—V of Fig. 1; and Fig. 6 is a sectional plan, the top half of the figure showing the frame with the sheeting or lining removed, the lower or bottom half of the drawing being taken on the line 20 VI—VI of Fig. 4.

25 My invention relates to transfer cars used in handling and carrying raw materials, such as iron ore, lime stone and similar substances and the invention more particularly relates to cars used in handling such materials which 30 carry unusually large and heavy loads and which are unloaded by means of a clam shell, orange peel, and similar grab buckets carried on an ore bridge or other unloading device, 35 the buckets removing as much as seven or more tons of such materials from the cars by each lifting operation in some cases. Such unloading buckets are necessarily large and very heavy and are unwieldy and difficult to 40 handle. In unloading the ordinary steel or wooden cars with such devices great care must be taken to prevent the grab buckets in being lowered from the ore-bridge or crane used in handling such buckets from striking 45 the top edge of the vertical sides and end walls of the car body as well as striking these walls sidewise by the swinging bucket and even with the best possible care the walls of the cars are frequently crushed, cut and 50 split open by the impact of the striking bucket during such unloading operations.

The object of my invention is to provide a transfer car having means arranged to cause the grab buckets to strike glancing blows on 55 the car body in unloading the cars so as to

lessen and very largely prevent the liability of damage to the car body by the force of the heavy blows striking squarely on the top or sides of such cars.

A further object of the invention is to provide a car of improved construction having means by which the top edges of such car bodies are reinforced and strengthened and by which distortion or other damage to the cars is prevented. 60 65

A further object of the invention is to provide a car body having improved means for reinforcing and stiffening the bottom of such cars without materially lessening the capacity or increasing the vertical height of the car 70 bodies.

Another object of the invention is to provide a transfer car having the sides and ends of its body portion arranged to guide the unloaded grab-bucket in lowering and causing it 75 to be deposited in the materials in the car in the right position to be closed and secure its load.

In the drawings, 2 represents the underframe of the car which is mounted upon the 80 usual car trucks, not shown. The underframe 2 and the trucks of the car may be of any of the several well known constructions and not forming any part of my invention need not be further described. 85

The car body forming my invention is mounted upon the underframe 2, the sides 3 and ends 4 of the car body sloping downwardly and inwardly toward the bottom of the car as is clearly shown in the drawings. 90 The lining or sheathing plates of the car sides are reinforced by the vertical supports or bents 5 and the top edge of the car body is provided with a cast metal coping 6 which is securely fastened to the bents 5. The 95 coping 6 as will be seen by reference to the drawings, has curved surfaces which slope or curve downwardly in both directions from its vertical center line. This arrangement of the coping forms an important part 100 of my invention, as by its use the possibility of the heavy grab-buckets used in unloading such cars striking squarely upon the top edge of the car when being lowered into the car and in this way crushing and splitting or otherwise distorting the car body, is largely prevented, as the curved sloping sides of the coping will deflect the bucket and cause it to strike a glancing blow. The inclined sides of the car body also serve to 110

prevent the car body from being struck by other than a glancing blow by the swinging grab-buckets.

To prevent the bottom plates 7 of the car becoming buckled and bent or even punctured by lowering of the bucket, I have provided a series of longitudinal beams or girders 8 and in order to avoid the necessity for materially increasing the vertical height of the car body or of cutting down the capacity of the car, I have formed these girders of T-head rails which combine a maximum amount of strength with a minimum depth of beam.

The advantages of my invention are many and will be appreciated by those skilled in the art. The inclined sides of the car body, together with the improved metal coping having the rounded sloping surface, prevent the grab-bucket from striking squarely and by the force of its impact breaking, distorting or otherwise damaging the car and the life of such cars is very greatly increased. By the use of the T-head rails for reinforcing the car bottoms, a girder or beam is provided of very great strength and small height, thereby increasing the strength and durability of the car with but a slight increase in the height of the car body and a correspondingly slight reduction of the carrying capacity of the car. The vertical posts or struts supporting the coping and sides of the car form a strong construction and increase the resistance of the car body and coping to vertical and horizontal blows.

Modifications in the construction and arrangement of the parts may be made without departing from my invention.

I claim:—

1. A transfer car having a wrought metal car body and having its upper edge surmounted by a metal casting forming a coping of greater thickness than the thickness of the side walls of the body; substantially as described.

2. A transfer car having a metallic car body and having its upper edge surmounted by a sectional cast metal U-shaped coping said coping having its convex side uppermost; substantially as described.

3. A transfer car having a wrought metal car body and having its upper edge surmounted by a sectional cast metal U-shaped

coping said coping having its convex side uppermost and a support for the coping located on the exterior of the car body; substantially as described.

4. A transfer car having a metallic car body and having its upper edge terminating with a coping composed of a plurality of cast sections; substantially as described.

5. In a transfer car, a car body having inwardly and downwardly converging sides, and a sectional cast metal coping on the top edge of the car body, said coping having curved surfaces converging inwardly in line with the inclined sides of the car body; substantially as described.

6. In a transfer car, a car body having a cast metal coping surmounting its upper edge, said coping having a curved top surface with inwardly and downwardly converging inner side and end surfaces, said coping having surfaces sloping inwardly from the curved surfaces of said coping; substantially as described.

7. In a transfer car, a car body having sectional cast metal coping plates surmounting the upper edge of its side and end walls, the side walls of said car body sloping downwardly and inwardly from the coping from the marginal coping plates; substantially as described.

8. In a transfer car, a car body having downwardly and inwardly inclined side walls, a metallic coping surmounting the top edge of said side walls, said coping having curved surfaces merging into the inclined side walls of the car body and a series of girders in the bottom of said car, said girders extending above and protecting the plates forming said car body; substantially as described.

9. A transfer car having side and end walls with a series of spaced apart beams extending above the bottom of the car body and arranged to prevent contact of the unloading mechanism with the bottom plates of the car body; substantially as described.

In testimony whereof, I have hereunto set my hand.

CHARLES E. DINKEY.

Witnesses:

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