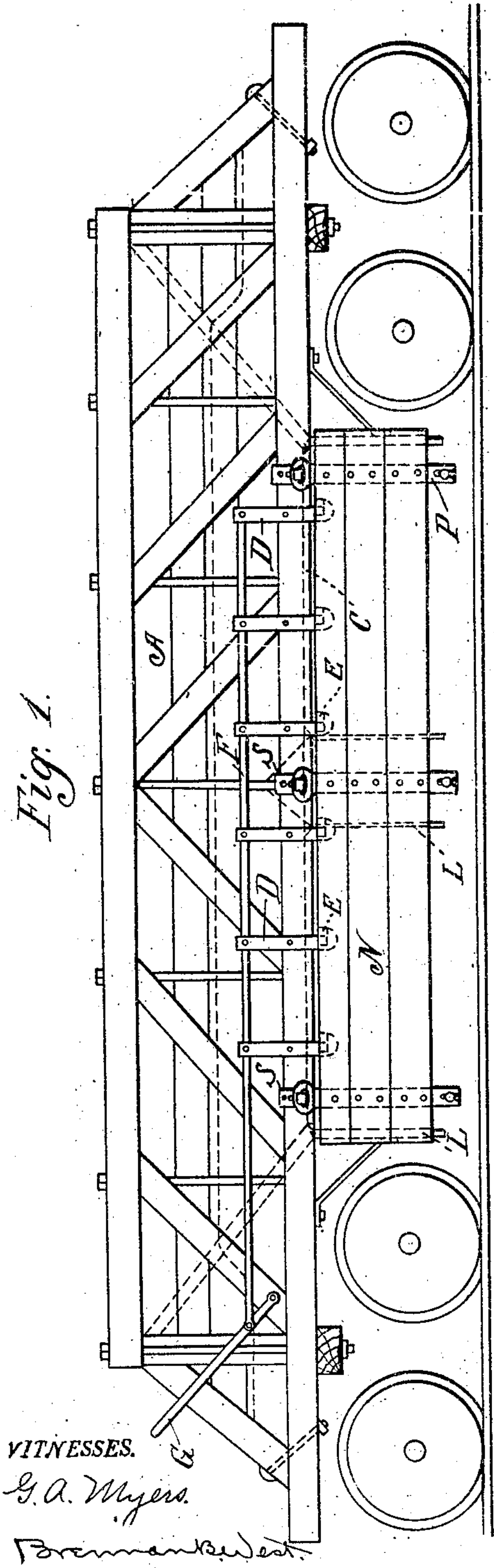


998,180.

Patented July 18, 1911.

Fig. 1.



WITNESSES.

G. A. Myers.

Bremmen & West.

Fig. 4.

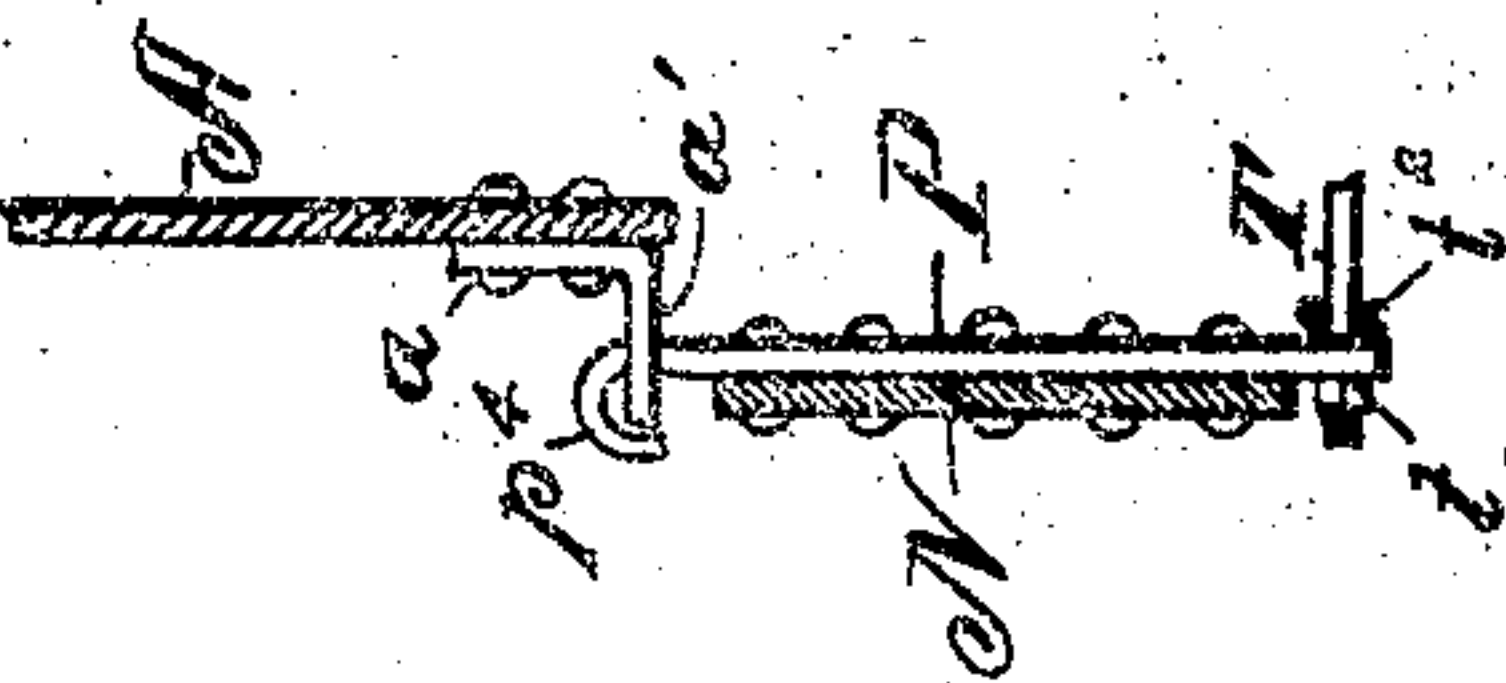


Fig. 3.

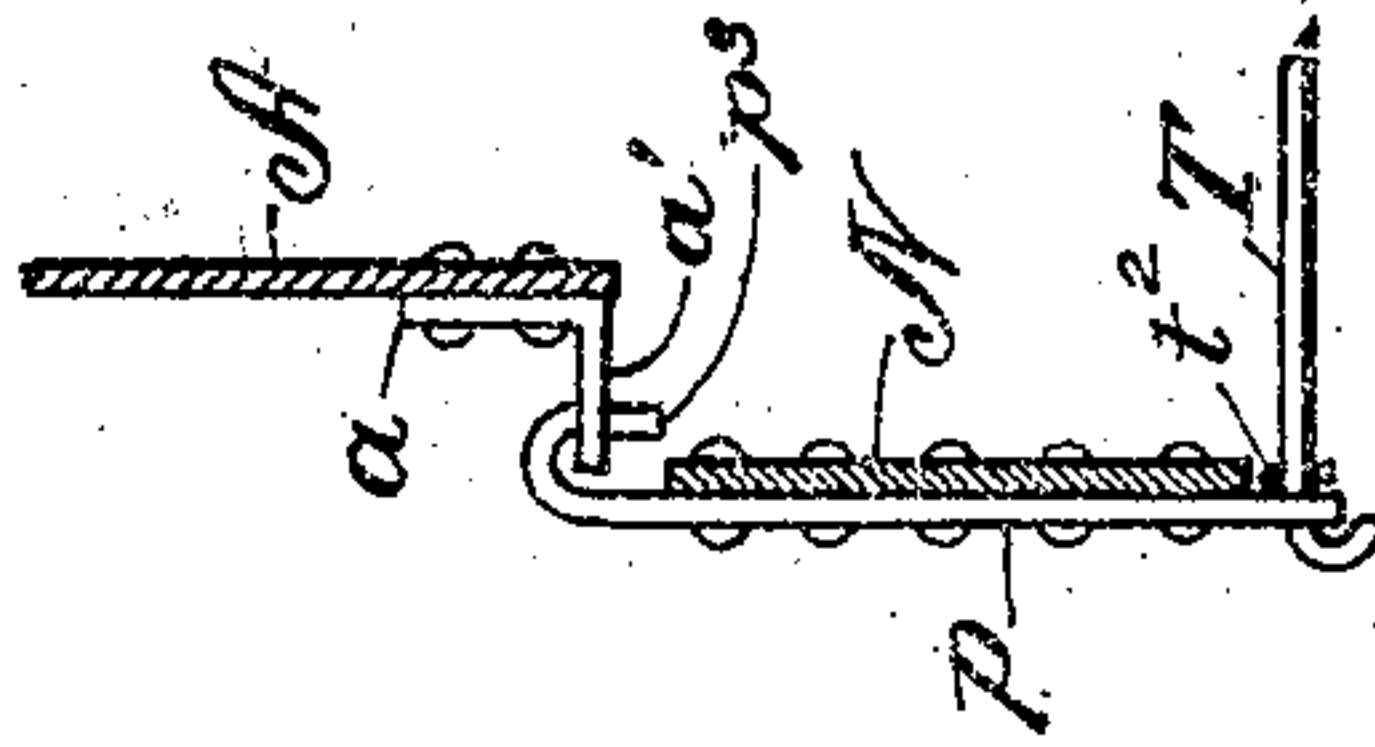
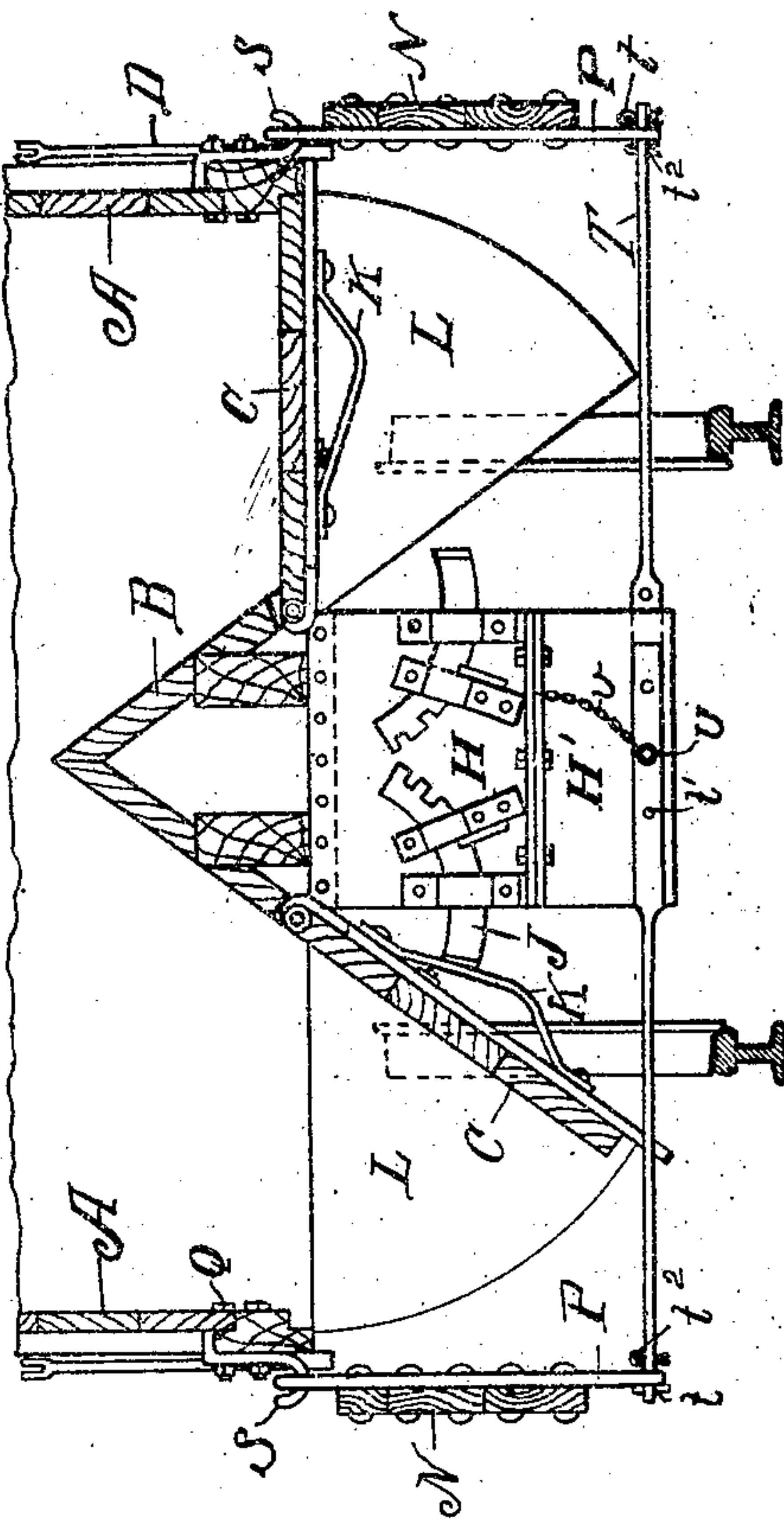


Fig. 2.



INVENTOR.

Frank S. Ingoldby

By his Attorneys,

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# UNITED STATES PATENT OFFICE.

FRANK S. INGOLDSBY, OF ST. LOUIS, MISSOURI, ASSIGNOR TO THE INGOLDSBY AUTOMATIC CAR COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF WEST VIRGINIA.

## DUMP-CAR.

998,180.

Specification of Letters Patent.

Patented July 18, 1911.

Application filed October 27, 1906. Serial No. 340,818.

*To all whom it may concern:*

Be it known that I, FRANK S. INGOLDSBY, a citizen of the United States, residing at St. Louis, State of Missouri, have invented a certain new and useful Improvement in Dump-Cars, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

The application of C. E. Gossett, for a means for directing the discharge from a dump car, filed contemporaneously herewith, and numbered 340,819 shows, describes and claims a dump car having a baffle to deflect the discharged load. The present invention is an extension of the one therein shown, increasing the efficiency and the scope of application thereof. Like the invention of Mr. Gossett, the present invention is well adapted for cars of the Ingoldsby type, wherein there is a central longitudinal beam to which are hinged dumping doors which swing downwardly at their outer edges at the sides of the car. With such cars the invention is most satisfactorily embodied in a baffle structure depending from the sides of the car.

The baffle structure, which in the Gossett application is shown as rigidly carried by the car side, I carry flexibly by the car side, so that it may swing inwardly or outwardly at the lower edge, and I provide adjustable means for holding the lower edge of the baffle. Thus, with my improvement, the baffle may stand vertically or may incline inwardly or outwardly, according to the particular requirements for which the car is being used. The flexible securement of the baffle to the car side I may accomplish by loose hooks, wherefore the baffle may be very easily removed when not in use. I herein use the term "freely removable" to define that removability which is accomplished without dismantling. For example, the Gossett baffles held by bolts are in a sense removable, but they do not have the free removability of my baffles.

A car employing my baffles is especially well adapted for all sorts of ballast service, the particular position which the baffle occupies being varied with the amount of spread for the ballast which the nature of the right-of-way requires.

In the drawings, Figure 1 is a side elevation of an Ingoldsby car equipped with my baffle; Fig. 2 is a cross section of such car, and Figs. 3 and 4 are details showing means for securing the baffle to the side of a steel car.

Referring by reference letters to the drawings, A represents the sides of the car; B the central longitudinal beam; C the dumping doors which are hinged at their inner edges to such beam, and at their outer edges are adapted to abut the lower edges of the sides. The doors are shown as adapted to be held in a closed position by means of hooks D on the sides of the car engaging floor beams E projecting from the undersides of the doors. A link F connects the hooks D with an operating lever G. On the underside of the longitudinal beam I have shown a depending plate H which carries arc-shaped bumpers J which are adapted to be locked with their ends projecting varying amounts, thus holding the doors in the desired position when dropped. Suitable springs K are carried on the undersides of the doors to engage the bumpers. End shields L are provided to prevent the material passing off the ends of the doors. This much of the construction is usual in Ingoldsby cars.

The baffle board, which may be made of either wood or metal, is designated N. It depends from the car side, being carried by suitable hangers P. As shown in the drawing, the hangers are arranged to hold the baffle board in a position outside of the plane of the car. This allows clearance for the projecting floor beams E, and has been found satisfactory in causing the desired deflection of the discharged material.

The hangers P in my invention are both removably and pivotally carried by the car side. In Figs. 1 and 2 this is shown as accomplished by providing straps S which are bolted to the lower chords of the car sides by bolts Q, the straps preferably having their upper ends bent over the upper surfaces of the chords. These straps have their lower ends formed into hooks adapted to project through openings in the hangers P. This makes a very simple and efficient support for the hangers.

When steel cars are employed, as shown



in Figs. 3 and 4, the hanger P may be hooked directly to the outer flange  $a'$  of the angle bar  $a$  constituting the lower chord. In Fig. 3 the hanger is on the outer side of the baffle N and bends over at its upper end so that the end portion  $p^3$  of the hanger extends downwardly through an opening in the flange  $a'$ . In Fig. 4 the hanger is on the inner side of the baffle and extends directly upward through an opening in flange  $a'$ , curving over the edge thereof as indicated at  $p^4$ .

My baffle may be used with the lower end free to swing, gravity alone, or gravity assisted by a spring, holding it in approximately a vertical position during discharge of the load against it. Such operation has the advantage for certain classes of material that a free discharge is allowed to large lumps which might otherwise catch between the baffle and door. For other uses, it is desirable to hold the lower end of the baffle so as to positively limit its outward tendency in operation. To accomplish this, I provide tie bars T which at their outer ends are connected with the baffles and at their inner ends with members depending from the central beam. Such depending members may very conveniently be plates H' secured as a downward extension to the plates H which carry the bumpers. The tie bars at their outer ends may be secured firmly to the baffle hangers or they may extend freely through openings in the lower ends of the hangers, which are extended downwardly below the baffles for this purpose. In the latter case, a suitable nut or pin  $t$  is provided on the end of the tie bar to prevent the outward movement of the baffle, or the tie bar may be hook-shaped at its end for this purpose. If desired, extra cotters  $t^2$  may be provided to prevent inward movement. In any case the tie bar holds the hanger against outward movement, at least, while it may be easily disconnected therefrom.

At their inner ends, the tie bars from the two sides of the car may conveniently pass onto opposite sides of the same plate H', and be secured by a common pin U passing through that plate and the two bars, such pin being conveniently located in the medial plane of the car. A chain  $u$  may be provided to insure against the pin U being lost. Each tie bar is provided with a plurality of holes  $t'$ , whereby the effective length of the tie bars may be varied to hold the baffles either in vertical position or inclined outwardly or inwardly as desired.

In my structure, when the baffles are not desired, they may be very easily removed by simply disconnecting the tie bars T and unhooking the hangers from their supporting members. When in use, it is only necessary to vary the securement of the tie bars to

position the baffles as best adapted for the service required.

I claim:

1. The combination of a side dumping car having a dropping door to discharge the load and a baffle flexibly carried by the side of the car opposite the discharge opening caused by such dropping and adapted to deflect the material discharged by the dropped door.
2. The combination of a dump car having a horizontal load supporting door adapted to swing downward to discharge the load and a pendulous baffle for properly deflecting the discharge therefrom.
3. The combination of a side dumping car and a baffle flexibly carried by the sides of the car and adapted to deflect the material dumped, and retaining means for said baffle.
4. The combination of a side dumping car and a baffle flexibly carried by the sides of the car and adapted to deflect the material dumped, and adjustable means for holding said baffle in different positions.
5. The combination of a dump car having suitable load discharging means, and means flexibly carried by the car for properly deflecting the discharge therefrom.
6. The combination of a dump car having suitable load discharging means means flexibly carried by the side of the car for properly deflecting the discharge therefrom, and adjustable means for holding the flexibly carried means in position.
7. A dump car having a door adapted to swing to discharge the load combined with a removable hinged baffle located adjacent to the discharge opening and adapted to deflect the discharged load.
8. A dump car having a door adapted to swing to discharge the load combined with a baffle located adjacent to the discharge opening and adapted to deflect the discharged load, said baffle having a hooked support with the car whereby it may swing and may be easily removed.
9. The combination of a dump car having a load supporting door forming a portion of the floor of the car and adapted to drop at one edge to discharge the load across the door, and a pivotally supported baffle located opposite the path through which the free edge of the door swings in dropping, whereby the discharged load may impinge on said baffle and be deflected thereby.
10. The combination of a dump car having a longitudinal door, the free edge of which is adapted to swing downward at the side of the car to discharge the load toward the side, and a baffle pivotally carried by the side to receive and deflect such discharge.
11. The combination of a dump car having a longitudinal door, the free edge of which is adapted to swing downward at the



side of the car to discharge the load toward the side, a baffle flexibly carried by the side to receive and deflect such discharge, and means for holding such baffle against outward movement.

12. The combination of a side dumping car and a baffle movably carried by the side of the car and adapted to deflect the material dumped, said baffle being located in a plane outside of the plane of the car side, and means for holding said baffle against outward movement.

13. The combination of a car having a central longitudinal beam, dumping doors hinged to the opposite edges of said beam and having their free edges adapted to cooperate with the car sides and swing downward to discharge the load outwardly, a pair of pendulous baffles depending from the car sides and adapted to deflect the discharged load, and retaining means connecting said baffles with the longitudinal beam.

14. The combination of a car having a central longitudinal beam, dumping doors hinged to the opposite edges of said beam and having their free edges adapted to cooperate with the car sides and swing downwardly to discharge the load outwardly, a baffle for each side, hangers secured to the baffles and pendulously secured to the car sides, and releasing means engaging said hangers near their lower ends.

15. The combination of a side dumping car, hangers pendulously secured to the sides thereof, baffles secured to said hangers, and retaining means engaging said hangers near their lower ends.

16. The combination of a side dumping car, hangers secured to the sides thereof and depending therefrom, baffles secured to said hangers, and means in addition to the hangers connected with the lower portion of the baffles to prevent outward movement.

17. The combination with the side walls of side dumping cars, of hangers pivotally secured thereto and depending in planes outside of the planes of the car sides, baffles extending lengthwise of the car and secured to said hangers, and retaining means engaging said hangers near their lower ends.

18. The combination with a side dumping car having a central beam, baffles, means for supporting said baffles from the car side, and means connecting the baffles with the central beam.

19. In a dump car, the combination of dumping means, a baffle pendulously carried thereby, and an adjustable tie rod for retaining the baffle in position.

20. The combination of a dump car having a longitudinal door, the free edge of which is adapted to swing downward at the side of the car to discharge the load toward the side, a baffle pendulously carried by the side to receive and deflect such discharge,

and a tie rod for retaining the baffle in position.

21. The combination with the side walls of side dumping cars, of depending hangers having a hooked connection therewith, whereby they may swing and may be freely removed from the car side, and baffles extending lengthwise of the car and secured to said hangers.

22. The combination with the side walls of side dumping cars, of depending hangers having a hooked connection therewith, baffles extending lengthwise of the car and secured to said hangers, and retaining means engaging said hangers near their lower ends.

23. The combination of a side dumping car having a central beam and doors hinged thereto which form a portion to the load carrying floor and are adapted to swing downward at their outer edges to discharge beneath the car side, baffles carried by the sides in the path of the discharging material, and tie rods connected at their outer ends with the baffles and at their inner ends adjustably connected with a member depending from the central beam.

24. The combination of a side dumping car having hinged doors which form a portion of the load carrying floor and are adapted to swing downward at their outer edges to discharge beneath the car side, bumpers for said doors to hold them when dropped in such discharging position, baffles flexibly carried by the sides in the path of the discharging material, and tie rods connected at their outer ends with the baffles and at their inner ends adjustably connected with a member depending from the central beam, said bumpers being also carried by such member.

25. The combination, with a dump car having a central longitudinal beam with dumping doors carried thereby, of baffles flexibly carried by the sides of said car.

26. The combination, with a dump car having a central longitudinal structure to which dumping doors are hinged and baffles carried by the sides of the car and braced by members extending from said central structure.

27. The combination, in a dump car of a central longitudinal structure and horizontal load supporting doors hinged thereto and baffles flexibly carried by the sides of the car and depending into the path of the discharge of material from said central structure, when dropped.

28. The combination, with a dump car having a central longitudinal structure which carries dumping doors and baffles flexibly carried by the sides of the car and braced by members extending from said central structure.

29. The combination, in a dump car, of a



central longitudinal structure and baffles flexibly carried by the sides of the car.

30. The combination with a dump car, of a baffle flexibly carried thereby.

5 31. The combination of a dumping car having a central longitudinal ridge with slanting sides, load-discharging means co-operating with said ridge, and a baffle car-

ried by the sides of the car and adapted to deflect material dumped.

In testimony whereof, I hereunto affix my signature in the presence of two witnesses.

FRANK S. INGOLDSBY.

Witnesses:

CHAS. H. MEYER,

MARY D. WHITCOMB.