(No Model.)

G. B. GAY.

DUMPING WAGON.

No. 547,605. Patented Oct. 8, 1895.

Fig. 1.

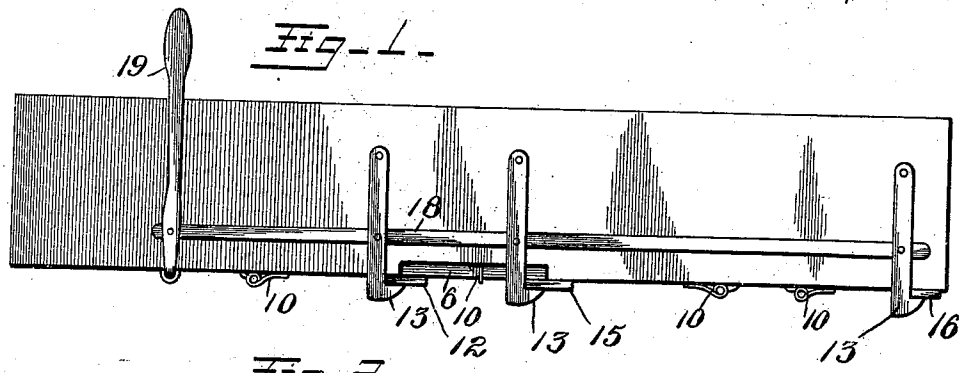


Fig. 2.

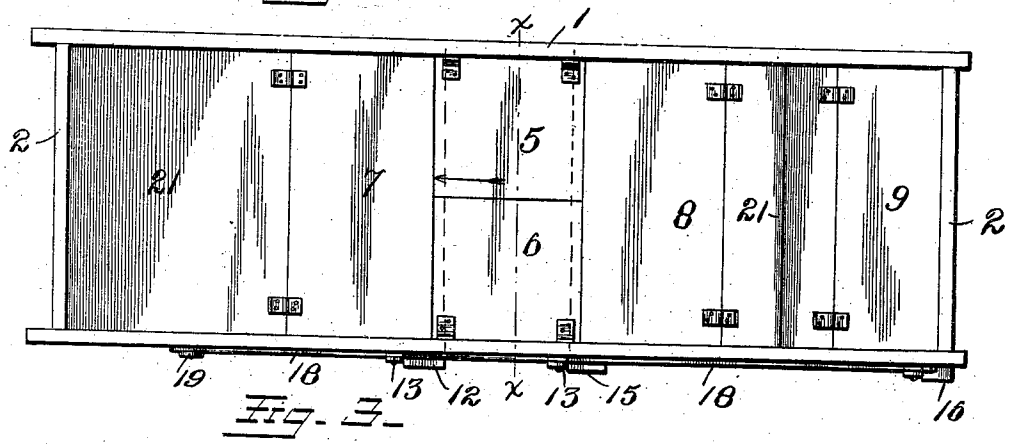


Fig. 3.

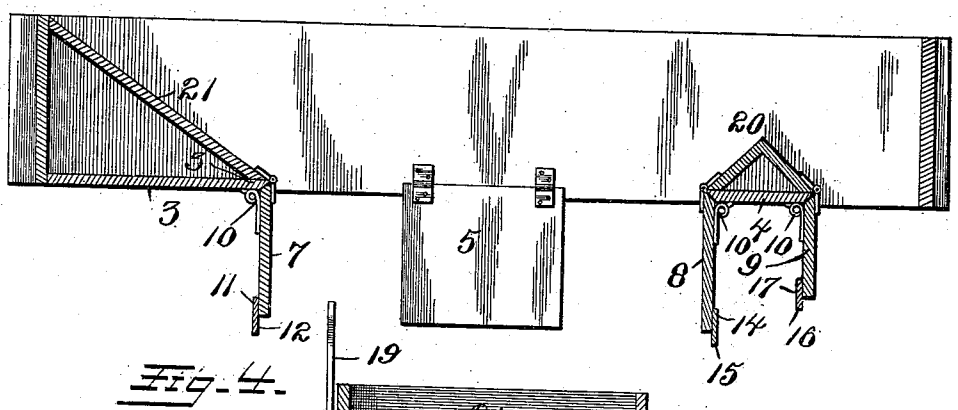
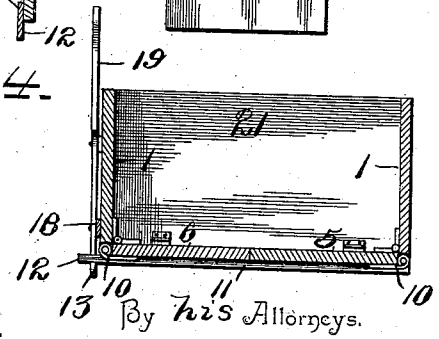


Fig. 4.



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UNITED STATES PATENT OFFICE.

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DUMPING-WAGON.

SPECIFICATION forming part of Letters Patent No. 547,605, dated October 8, 1895.

Application filed May 3, 1895. Serial No. 548,028. (No model.)

To all whom it may concern:

Be it known that I, GEORGE B. GAY, a citizen of the United States, residing at Crawfordsville, in the county of Linn and State of Oregon, have invented a new and useful Dumping-Wagon, of which the following is a specification.

This invention relates to improvements in wagons of that class in which the bed or bottom of the body is provided with a series of downwardly-opening doors to facilitate the unloading of the wagon when required; and the object of the present invention is to provide a novel arrangement of doors and a locking mechanism therefor which will greatly facilitate the operation of unloading and prevent the lodgment of any substance within the body when the doors are released to effect the unloading.

The improvement consists of the novel combination and disposition of the parts, which hereinafter will be more fully set forth and claimed, and which are illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a dumping-wagon body embodying the invention. Fig. 2 is a top plan view of the same. Fig. 3 is a longitudinal section showing the relative disposition of the doors when the load is dumping. Fig. 4 is a cross-section on the line X X of Fig. 2, looking in the direction of the arrow.

The wagon-body may be of any style and size and comprises similar side pieces 1 and end pieces 2, which are jointed together in any approved fashion. The bottom is formed of a stationary piece 3 at one end, a relatively-fixed piece 4 near the opposite end, opposite side doors 5 and 6, which are adapted to swing downwardly and outwardly from their inner edges, transversely-disposed doors 7 and 8, located upon opposite sides of the doors 5 and 6, and a transverse door 9, closing the open end of the bottom opposite the stationary piece 3. The several doors will be provided with springs 10 for automatically closing them after the load has been dumped, and these springs will be of any desired formation and suitably located to effect the desired result. The doors 5 and 6 are of like construction and are hinged at their outer ends to the sides of the wagon-body and are adapted to swing downward and outward at their inner ends. The transverse door 7 is hinged to the stationary piece 3, and the end contiguous to the side doors 5 and 6 is adapted to swing downward when discharging the load, and this end is provided with a cleat 11, firmly attached thereto and adapted to project beyond the edge portions of the side doors 5 and 6 and support the latter in closed relation, and the end portions of the cleat 11 extend a short distance to engage with the lower edges of the side pieces and limit the upward movement of the door 7 when the latter is closing, and one end portion of the cleat, as 12, projects beyond the plane of the wagon-body and is engaged by one of a series of pivoted hooks 13, by means of which the said transverse door 7 is held closed against the weight of the load imposed thereon. The transverse door 8 is hinged to one edge of the fixed piece 4, and the end thereof opposite the edges of the side doors 5 and 6 is constructed to swing downward and is provided with a cleat 14, similarly disposed and for a like purpose as the cleat 11, and its end portions are extended to engage with the lower edges of the wagon-body sides to limit the upward movement of the door 8, and one end, as 15, is extended to be engaged by one of the hooks 13, by means of which the door 8 is held closed.

The door 9 is hinged to the opposite edge of the fixed piece 4 and is adapted to swing downward, and has a cleat 16 at its free end to overlap the contiguous end piece of the wagon-bed to form a close joint, and one end, as 17, is projected beyond the wagon-body side for engagement therewith of a hook 13, whereby it is held in closed relation.

The series of hooks 13 are pivoted at their upper ends to a side of the wagon-body and have their lower ends hooked and adapted to engage with the projecting end portions of the several cleats, for the purpose described, and they are connected in series by means of an operating rod or bar 18, so that all the hooks can be operated simultaneously to release all the doors at the same instant, and this bar or rod is connected at one end to an operating-lever 19, by means of which it is actuated when required to release or engage the hooks with the cleats, as will be readily understood. One axle is designed to come

beneath the stationary piece 3 and the other axle under the fixed piece 4, and to prevent the lodgment of any portion of the load upon these pieces they are provided on their upper sides with deflectors to shed and direct the material unloading through the respective doors. The deflector 20, over the fixed piece 4, extends transversely between the sides of the wagon-body, and its upper face is oppositely inclined from a middle point to the hinged ends of the doors 8 and 9, and the deflector 21, placed over the stationary piece 3, inclines from the contiguous end of the wagon-body to the hinged end of the door 7. When it is required to obtain the full capacity of the wagon-body, the deflectors 20 and 21 are adapted to be removed; but when hauling sand, gravel, coal, grain, and like commodities the deflectors will remain in position to facilitate the discharge of all the load and prevent the possible lodgment of any within the wagon-body.

When it is required to discharge a load, the lever 19 is operated to withdraw the hooks 13 from engagement with the cleats of the transversely-disposed doors, thereby permitting the said doors to swing downward under the weight of the imposed load thereon. After the load is discharged the springs 10 will serve to close the doors, thereby returning them to normal position, and by actuating the lever 19 the hooks 13 will again be brought in engagement with the aforesaid cleats and retain the doors in locked relation.

By the peculiar disposition of the component parts forming the bottom of the wagon-bed it will be seen that the load is quickly deposited, and the several doors when closed are held shut in a bracing manner and are capable of withstanding a heavy load, and the arrangement of the side doors 5 and 6, in combination with the transversely-disposed doors 7 and 8, admits of the load, or the bulk thereof, being dumped in a pile without scattering the same, as is common with dumping-wagons of general construction.

Other objects and advantages are obvious, and it will be understood that changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed as new is—

1. In a dumping wagon, in combination, oppositely disposed side doors hinged at their outer ends to the sides of the wagon bed and adapted to swing downwardly and outwardly at their inner ends, transversely disposed doors placed upon opposite sides of the said side doors and having cleats at their free ends to overlap and support the said side doors, the ends of the said cleats being extended to engage with the lower edges of the wagon body sides and projecting beyond the latter, and fastenings to engage with the projecting ends of the cleats to hold the doors in locked relation, substantially as set forth.

2. In a dumping wagon, the combination of side doors hinged at their outer ends and adapted to swing downwardly and outwardly at their inner ends, a series of transversely-disposed doors, one door of the series being located on each side of the said side doors, and all the doors having cleats at their free ends which project to engage with the lower edges of the wagon body sides and limit the upward movement of the said doors, and which cleats have their outer ends projecting beyond the wagon body sides the cleats of the transverse doors adjacent to the said side doors coming beneath the latter and supporting the same, a series of hooks pivoted to a side of the wagon body and adapted to engage with the projecting ends of the several cleats, whereby the doors are held in locked relation, and a bar, or rod, connecting the hooks in series to operate them simultaneously, substantially as described for the purpose set forth.

3. The combination with a wagon body having a stationary piece at one end and a fixed piece near its opposite end, of deflectors located above the said stationary and fixed pieces for the purpose described, oppositely-disposed side doors adapted to open downwardly and outwardly at their inner ends, a series of transversely-disposed doors hinged, respectively, to the stationary and fixed pieces and having cleats at their free ends which are extended to engage with the lower edges of the wagon body sides so as to limit the upward movement of the doors, the cleats of the transverse doors adjacent to the side doors coming beneath and supporting the latter, springs for normally closing the several doors, and a series of hooks connected to operate in unison and adapted to engage with the projected ends of the said cleats to hold the doors in locked relation, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

GEORGE B. GAY.

Witnesses:
G. A. KUMP,
CLIFF ABRAMS.