

No. 876,896.

PATENTED JAN. 14, 1908.

T. CARROLL.

COMBINATION DUMP AND HOPPER.

APPLICATION FILED APR. 10, 1907.

2 SHEETS—SHEET 1.

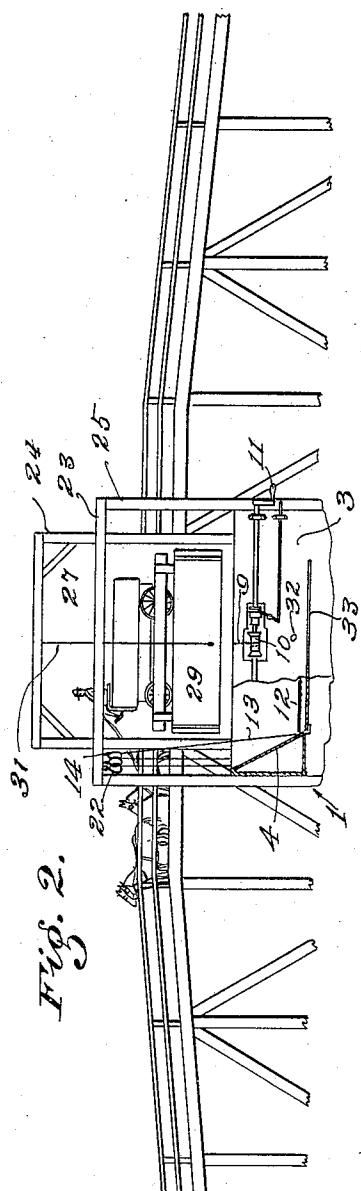


Fig. 2.

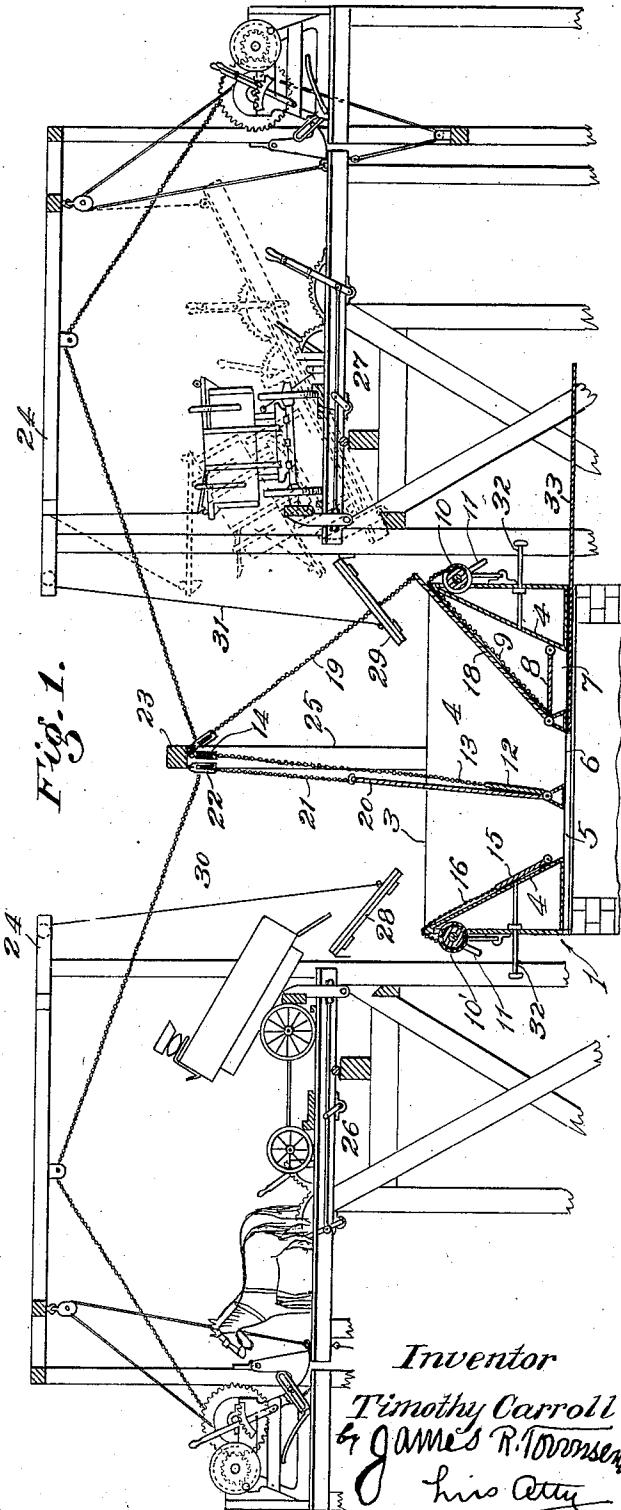


Fig. 1.

Witnesses

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2 SHEETS—SHEET 2.

Fig. 3.

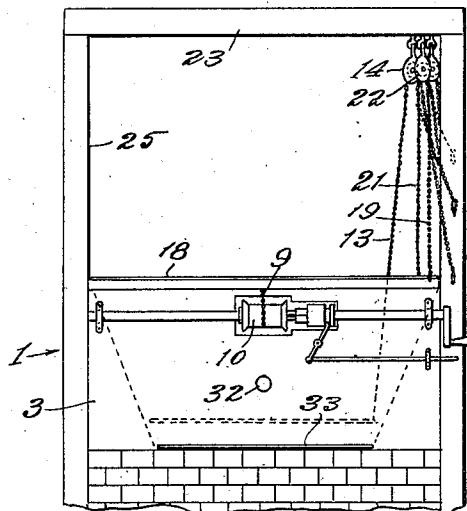


Fig. 4.

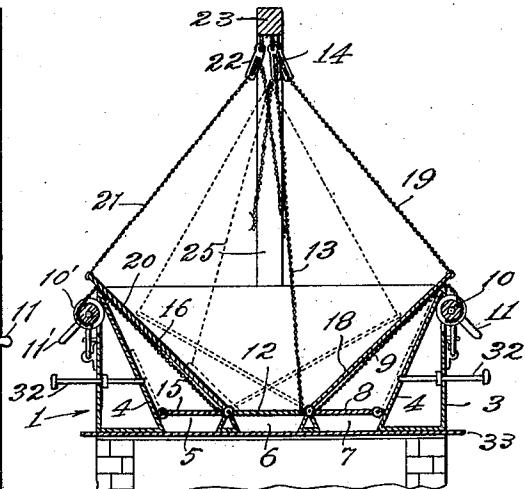


Fig. 5.

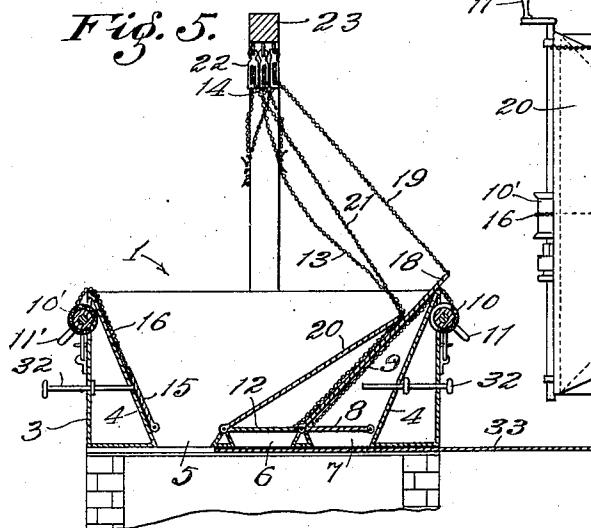
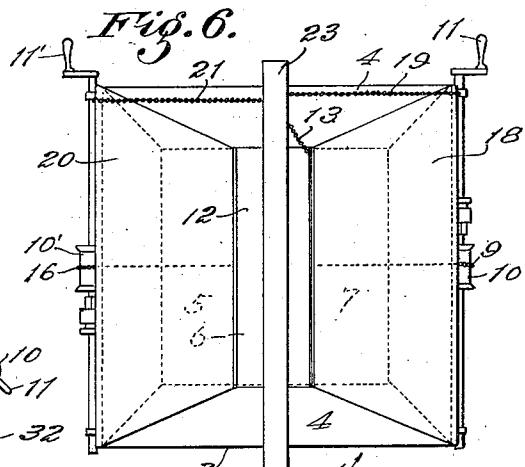


Fig. 6.



Witnesses

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UNITED STATES PATENT OFFICE.

TIMOTHY CARROLL, OF ANAHEIM, CALIFORNIA.

COMBINATION DUMP AND HOPPER.

No. 876,896.

Specification of Letters Patent.

Patented Jan. 14, 1908.

Application filed April 10, 1907. Serial No. 367,461.

To all whom it may concern:

Be it known that I, TIMOTHY CARROLL, a citizen of the United States, residing at Anaheim, in the county of Orange and State of California, have invented a new and useful Combination Dump and Hopper, of which the following is a specification.

An object of this invention is to provide means whereby loads of material may be dumped from the same platform into a plurality of places or receptacles, and in which a plurality of vehicles may be employed at the same time for dumping into the same hopper from opposite sides, thus to facilitate the dumping of material for various purposes.

The invention is applicable for dumping from wagons, carts, railway cars, and other vehicles, into crematories, cement mixers, or other receptacles, devices or places, for various uses.

The invention may be constructed in various ways and be put to various uses, as will be more fully understood from the subjoined detailed description.

An object of this invention is to provide a novel hopper arranged to be used in connection with crematories, incinerating plants, concrete-mixing plants, and the like; by the use of which hopper, material dumped from wagons, carts or other vehicles on either side of the hopper or on both sides of the hopper, may be deposited at various places, the construction and arrangement of the apparatus being such that the attendant may dump into either of two or more openings, or may divide the load on one side of the hopper, dumping one portion in one receptacle or place, and another portion in other receptacles or places, on either one or the other side, or in the middle as desired, or may dump the entire load on the further side of the hopper from the vehicle without changing the position of the vehicle.

Further objects and advantages may appear from the subjoined detailed description.

The accompanying drawings illustrate the invention.

Figure 1 is a sectional elevation of apparatus embodying the invention showing the hopper in position for receiving loads from two vehicles of different kinds at the same time, and adjusted to direct the same to different places, which may be side by side in one receptacle or in different receptacles.

Fig. 2 is a broken side elevation of the hop-

per in connection with an automatic dump and platforms leading to and from the dump. Fig. 3 is a side elevation of the hopper. Fig. 4 is a sectional view showing the hopper shut and sealed for closing the mouth of an incinerator in cases where the apparatus is used in connection with a garbage crematory, or the like. Fig. 5 is a sectional view showing the lids of the hopper arranged for discharging loads from both sides to one place below the hopper. Fig. 6 is a plan view showing spools and clutches arranged to open and close lids of the hopper.

1 designates the upper portion of a crematory or incinerating plant which may have a plurality of top inlets 2. 3 represents the body portion of the hopper which as seen is of rectangular form on the outside, but on the inside has a plurality of walls 4, which are angularly disposed and slope from the top of the body portion downwardly to the bottom. The bottom of said hopper is provided with a plurality of openings 5, 6, and 7, the opening 6 being located between the openings 5 and 7, and the openings 5 and 7 being located adjacent opposite inclined or sloping walls 4.

8 is a lid hingedly secured to the bottom of the hopper 3, and having secured to the end thereof a chain 9, which is arranged to be wound upon a spool 10 which may be rotated by any means as by crank 11.

12 is a lid adapted to close the central opening 6 and the same has secured to the end thereof a chain 13, which extends over a pulley 14, in order to facilitate the opening of the lid.

15 is a lid adapted to close the opening 5. To the end of this lid 15 is secured a chain 16 which is wound on a spool 10' operated by any suitable means as a crank 11' whereby said lid may be opened or closed as necessity requires.

18 is an elongated cover hingedly secured to the bottom of the body portion at the inner side of the side opening 7, and arranged to be swung over the opening 7 and lid 8 and to lean against the adjacent wall 4, adapted and arranged to be held in a perpendicular position, when said opening is to be dumped into from the adjacent side; and also adapted and arranged to be leaned over against the opposite wall when said opening is to be dumped into from the opposite side of the hopper.

20 is an elongated cover similar to cover 18

which is hingedly secured to the body portion of the hopper, and is capable of being swung in either direction to the right or to the left. To the end of this cover 20 may be fixed one or more chains 21 extending over pulleys as 22 and led to a suitable place where it may be operated to shift the cover 20 to open or cover one or more openings at the bottom of the hopper.

10 It will be seen from Figs. 1 and 5 that the cover 20 may be swung to the right to close the opening 6 where it will lie against the elongated cover 18, and vice versa with the cover 18, so that these covers may be adjusted to expose but one opening at one time and permit of the dumping from wagons, carts, and so forth into said opening, from either side; or by drawing the lines 19 and 21 the covers 18 and 20 may be raised to expose all of the openings simultaneously if such a condition in the hopper is required where large quantities are to be unloaded; or the covers 18, 20 may be allowed to lean against each other over the opening 6.

25 The pulleys 14 and 22 may be fixed to any suitable support, as beams 23, 24, and uprights 25.

26 and 27 designate dumps arranged on opposite sides of the hopper, each being 30 adapted for use for sidewise and for endwise-dumping vehicles, and each provided with an adjustable apron, as 28, 29, respectively hinged to the frames of the dumps 26, 27, and adjustable by means of cables 30, 31.

35 32 designates means in the form of levers or push-rods by which the lids 8 and 15 may be tilted over so that they will fall by gravity to close their respective lateral openings 7 and 5.

40 33 designates a slide to slide beneath the lids 8, 12, and 15 to hermetically close the openings 5, 6 and 7 whenever that is desirable.

The connections 19 and 21 for the covers 45 18 and 20 are passed over pulleys hung above the middle opening 6, so that when either of the covers 18 or 20 is brought to upright position it will lean towards the side opposite the lateral opening it is intended to cover for the 50 purpose of dumping into the central opening, so that by slackening on such connection the cover may be allowed to fall toward the opposite side, thus enabling the operator, by slackening away on the line, to lower the cover 55 so as to cover the central opening 6, thus allowing the material dumped from both sides to pass into one of the lateral openings as 5; or, if the operator desires to cover said lateral opening 5, he may bring the cover 20 up with sufficient rapidity to cause it to swing by its momentum past the vertical and over the opening 5, whereupon, by paying out the chain or flexible connection 21 the cover may be lowered to cover said opening 60

65 5. The operation of opening and closing the

lateral opening 7 will be substantially the same as that described for the opening and closing of the lateral opening 5.

It is to be understood that by appropriately manipulating the lids, the material 70 may be dumped to any one of three places from either side of the hopper, and may be dumped into any two places simultaneously from the opposite sides of the hopper.

The elongated covers when erect extend 75 above the top of the body portion, so that either will extend well up on the other cover when leaned over thereonto, so as to direct the material across and over one side opening and the central opening and into the other 80 side opening when adjusted as stated.

The connections 13, 19 and 21 for the lid 12 and the covers 18 and 20 may be mounted at such places as may be found best. I deem it preferable to attach the same to the ends 85 of the lid and covers at one end of the hopper so that they will be entirely out of the way of the loads as the same are dumped.

I claim:—

1. The combination of a plurality of 90 dumps and a hopper between said dumps having lateral and central openings, a lid for the central opening, elongated covers respectively hinged between the central opening and the lateral openings on opposite sides of 95 said central opening, and means for swinging the covers to alternatively cover and uncover said openings substantially as and for the purpose set forth.

2. The combination of a plurality of 100 dumps and a hopper between said dumps having lateral and central openings, lids for the several openings, means for opening and closing said lids, covers hinged between the central openings and the lateral openings on 105 opposite sides of said central opening, and means for swinging the covers to alternatively cover and uncover said openings, and to form chutes substantially as and for the purpose set forth.

3. A hopper having in its bottom lateral openings, hinged lids for said openings, means for raising and lowering said lids, hinged elongated covers arranged to cover alternatively one or all but one of said openings at one time, or uncover all of said openings simultaneously, and means for raising and lowering said elongated covers.

4. A hopper having a plurality of openings in the bottom thereof, hinged lids for each of 120 said openings, means for alternately isolating one of said openings from another or both of the others, and means for controlling said means for isolating said openings.

5. A hopper having lateral openings, and a 125 central opening between said lateral openings, hinged lids for each of said openings, hinged elongated covers arranged to alternatively cover one or two of said openings at one time, or to uncover all of said openings 130

simultaneously, and means for raising and lowering said elongated covers.

6. A hopper having lateral openings and a central opening between said lateral openings, hinged lids for each of said openings, means for raising and lowering said lids, hinged elongated covers operable simultaneously or singly, and arranged to lie one upon another when swung to one side or to the other, and means for raising and lowering said elongated covers.

7. A hopper comprising a body portion and having at its bottom lateral openings adjacent its walls, hinged lids for said openings and means attached to said lids to raise and lower the same, a central opening being provided between said lateral openings, a lid therefor, elongated covers hingedly secured on opposite sides of said central opening, said covers extending above the top of said body portion, and a slide for covering all of said openings independently of said covers and lids.

8. A hopper comprising a body portion provided with three openings extending side by side longitudinally of the bottom of said body, covers for each of said openings hinged to the bottom of said body portion, elongated covers hingedly secured to the bottom of said body portion and arranged to lie against the walls thereof and to extend upward be-

yond the top of the same, said covers being arranged to alternately rest upon one another, means for raising and lowering said covers, and a slide for closing all of said openings independently of and supplementary to said covers.

9. A hopper provided with a plurality of openings, a plurality of hinged covers for said openings, each adapted to rest upon the rim of said hopper and also adapted to fold upon the top of its companion lid.

10. The combination of a crematory having a plurality of openings in the top thereof, a hopper fitting over said openings, hinged lids for said openings, elongated covers for said openings adapted to rest upon the rim of the same, and also adapted to fold upon the top of its companion lid, means for swinging said lids from one to another position to close and open various inlets to the crematory, and dumps on opposite sides of said crematory substantially as and for the purpose set forth.

In testimony whereof, I have hereunto set 55 my hand at Los Angeles, California this 27th day of March, 1907.

TIMOTHY CARROLL.

In presence of—

JAMES R. TOWNSEND,
JULIA TOWNSEND.