

C. D. GALLOWAY.
MACHINE FOR DUMPING BARRELS AND LIKE CONTAINERS.
APPLICATION FILED AUG. 22, 1918.

1,305,087

Patented May 27, 1919.
4 SHEETS—SHEET 1.

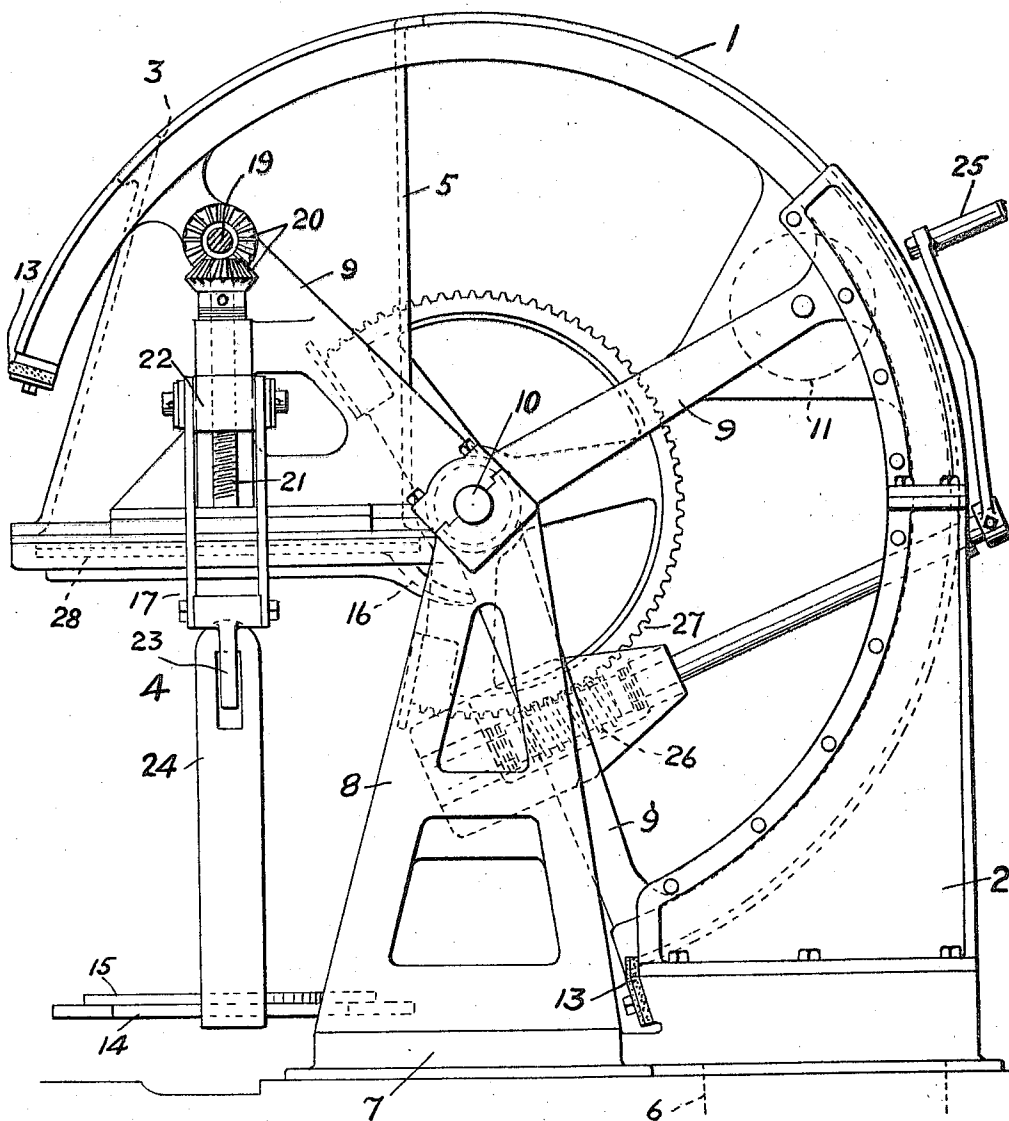


FIG. 1.

INVENTOR

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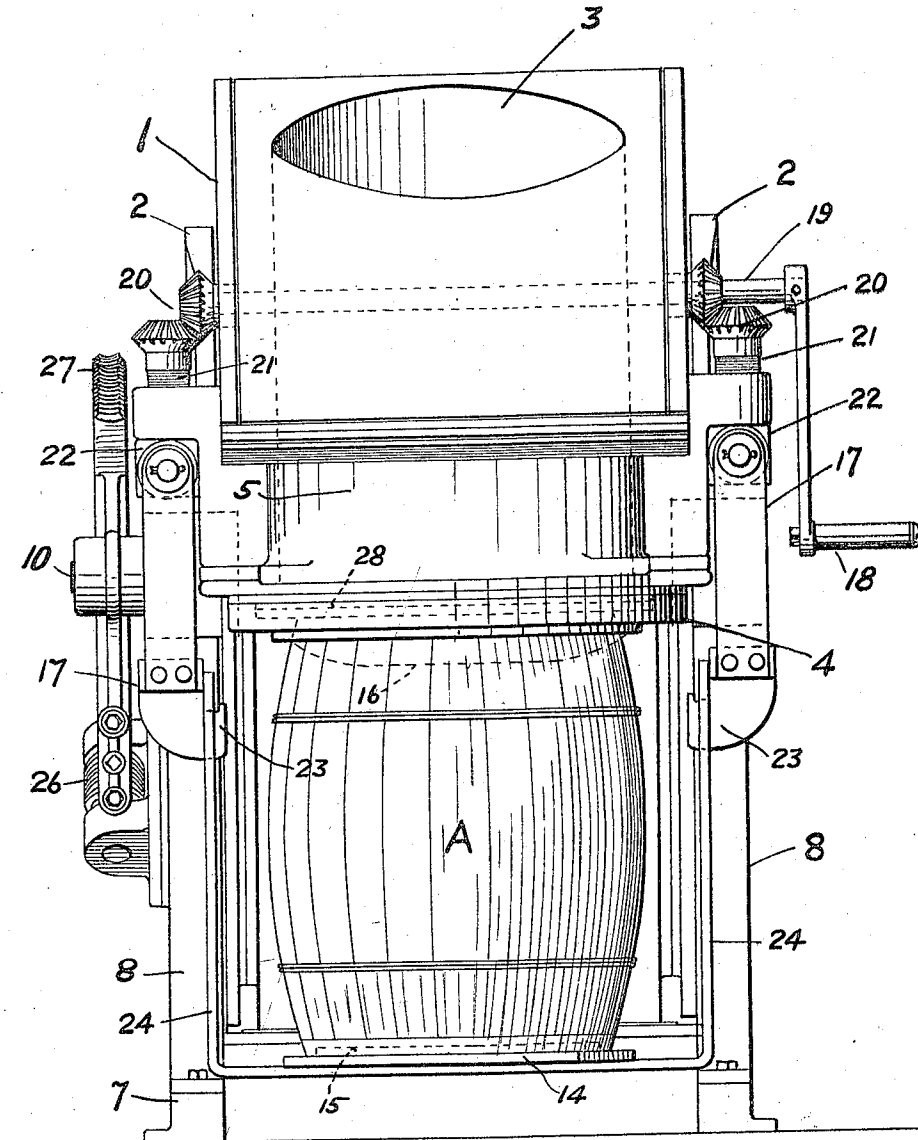


FIG. 2.

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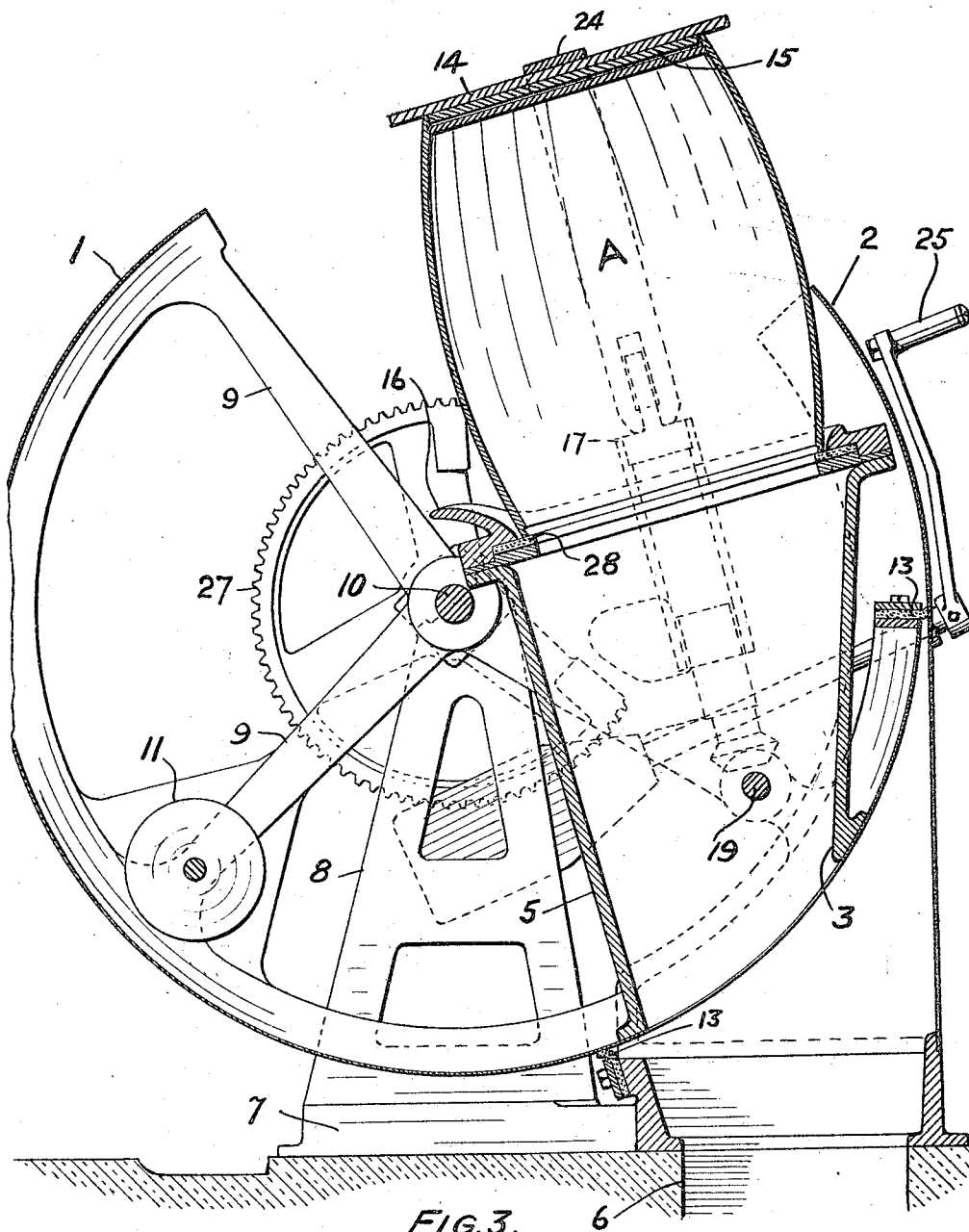


FIG. 3.

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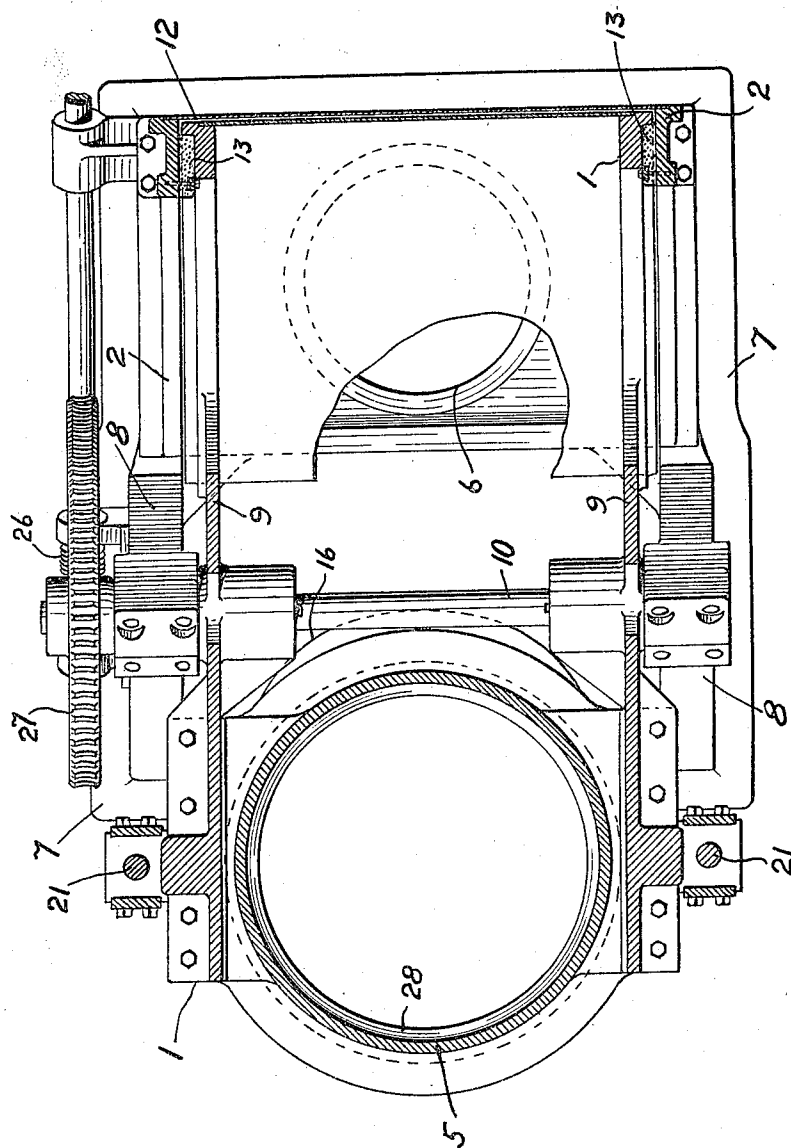


FIG. 4.

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MACHINE FOR DUMPING BARRELS AND LIKE CONTAINERS.

1,305,087.

Specification of Letters Patent.

Patented May 27, 1919.

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To all whom it may concern:

Be it known that I, CHARLES D. GALLOWAY, a citizen of the United States, and a resident of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a certain new and useful Machine for Dumping Barrels and like Containers, of which the following is a specification.

10 The principal objects of the present invention are to provide for lifting barrels or like containers and dumping their contents into a suitable receptacle, mixer or other device, without permitting of the escape of
15 dust into the room or atmosphere from either the barrel or the receptacle into which its contents is dumped; and to provide a machine for accomplishing the object mentioned which will be simple, efficient, compact, reliable and easily operated by the attendant even in connection with barrels or
20 containers of which the contents is comparatively heavy.

Other objects of the invention will appear
25 from the following description which will be made in connection with the embodiment of the invention, selected from among other embodiments for illustration in the accompanying drawings, in which—

30 Figure 1, is a side view of a machine embodying features of the invention, showing the same generally in position for receiving a full barrel and for the removal of the empty barrel.

35 Fig. 2, is a front view of the machine with the parts in the position shown in Fig. 1.

Fig. 3, is an elevational view principally in section, showing the parts in position for dumping the barrel, and

40 Fig. 4, is a horizontal sectional view.

In the drawings 1 and 2, generally are cylindrical segments in overlapping relation and whereof one, 2, is fixed and constitutes a housing and whereof the other, 1, is a turnable barrel carrier and stops or closes the housing and is provided with an opening 3 and with means of which 4, is an example, for holding a barrel A in discharging relation to the opening 3. The barrel A with
45 its top open is held up to the opening 3 through the intervention of a closed chute 5. When the barrel carrier 1, with the barrel A, held up to the opening 3, for example in the manner described, is turned right-handed
50 through approximately 180° the opening 3 passes into the upper part of the housing,

shown at the right in Fig. 1, and is closed by the housing before the contents of the barrel commence to dump, and finally the barrel is brought into dumping position with
60 the opening 3 in general alinement with the outlet 6 of the housing. The barrel carrier 3 is then turned left-handed into its initial position, shown in Fig. 1, when the empty barrel can be removed and another barrel of
65 which the top-head is removed, applied to the carrier and dumped in a similar manner. In all working positions of the machine, the carrier 1 overlaps the housing 2, so that dust may not escape from the housing 2 or from
70 the machine, device, bin or mixer with which the outlet 6 communicates. 7, is the base of the machine and 8 are a pair of standards rising from the base and in which the barrel carrier 1 is pivoted for partial rotation, as
75 has been described. The barrel carrier 1 includes arms 9, of a pair of spiders, which are fast on the shaft 10 and which carry the rim of the carrier. A counterweight, is shown at 11. The housing and the carrier
80 are in flanged relation, as shown at 12, and suitable packing 13, as of felt, is provided at appropriate places for preventing the escape of dust. Depending from the carrier under the chute there is an elevator 14, which
85 constitutes a means not only for holding the barrel up to the chute but also for lifting the barrel into that position, the latter function being desirable in the case of heavy barrels or containers. The platform of this ele-
90 vator is shown as provided with a guide 15, which may center the chime of a barrel, and the chute is provided with a projection 16 which operates as a guide for the top of the barrel. The elevator is raised and lowered
95 by gearing 17 that may be operated by a handle 18, or by means of any suitable power device. Generally speaking, the gearing comprises a cross-shaft 19 which through the intervention of bevel gears 20, turns screws
100 21, the nuts 22 of which connect with hooks 23 which connect with uprights 24 that carry the elevator platform 14. There is suitable gearing for turning the barrel carrier and it may be operated by a handle 25, or by any
105 suitable power device. This gearing is shown to comprise a worm 26, actuating a worm-wheel 27, connected with the carrier.

Among the uses of the machine, reference may be made to its employment as a
110 means for dumping or feeding chemicals to a hopper, bin, mixer or other device, which

is not shown but which is connected to the outlet 6. Oxid of lead is an example of such a chemical, but the invention is not limited to use in connection with kegs or
 5 containers of oxid of lead. Kegs of oxid of lead are heavy and the machine therefore saves labor in lifting and dumping them. Again oxid of lead is an example of a material of which the dust should not be per-
 10 mitted to escape into the atmosphere or into a room, not only because such a proceeding is wasteful, but also because it is deleterious to the health of workmen and by the overlapping arrangement of the de-
 15 scribed cylindrical segments, dust may not escape from the housing and therefore from the part with which the opening 6 communicates. The flanged arrangement of the cylindrical segments 1 and 2, and also the
 20 described packing assist in preventing the escape of dust. While the lifting function and the dust-proof function are in many instances desirable in combination, either of them may be used to advantage singly.
 25 One way of operating the machine is to turn the barrel carrier into the position shown in Fig. 1 and to lower the elevator platform 14 so that its upper surface is flush with the floor and the latter can be
 30 provided with a cavity for that purpose. A keg, barrel, or like container, can then be run on a truck and placed with its chime over the guide 15. During this operation the barrel carrier 1 may have been shifted
 35 or turned slightly or through a few degrees toward the right from the position shown in Fig. 1, so as to give clearance for getting the barrel conveniently onto the elevator platform, and for the removal of the head
 40 when in position. The barrel carrier 1, in the circumstances mentioned is turned a little toward the left and the guide 16 clears the top of the keg in this operation and then the elevator is lifted as by the handle
 45 18 until the top of the barrel is up against a packing 28 at the inlet end of the chute 5. The carrier is then turned and the barrel dumped, and then returned with the empty barrel as has been described. To remove the
 50 empty barrel conveniently, the carrier may be stopped in a position a few degrees toward the right from the position shown in Fig. 1, whereupon the elevator is lowered and the empty barrel removed.
 55 It will be obvious to those skilled in the art to which the invention relates that modifications may be made in details of construction and arrangement without departing from the spirit of the invention, which
 60 is not confined to or limited by such matters or in any way other than the appended claims and the prior state of the art may require.

What I claim is:

65 1. A machine for dumping barrels and

like containers consisting of the combination of cylindrical segments in overlapping relation and whereof one is fixed and constitutes a housing and is provided with an inlet opening and whereof the other is a
 70 turnable barrel carrier and covers the inlet opening in all working positions and is provided with an opening and with means for holding a barrel in discharging relation to the last mentioned opening.

2. A machine for dumping barrels and like containers consisting of a housing and a rotary carrier of the form of concentric cylindrical segments in overlapping relation in all working positions and whereof
 80 the housing is provided with an inlet and whereof the turnable carrier is provided with an opening shiftable into the housing in line with the inlet and out of the housing into barrel receiving position while the
 85 wall of the carrier stops the inlet, and means carried by the rotary carrier for lifting a barrel up to the opening and for detachably holding the barrel inside of the rim of the carrier for carriage into and out
 90 of the housing and for dumping in the housing.

3. A machine for dumping barrels and like containers consisting of the combination of cylindrical segments in overlapping
 95 and flanged relation and whereof one is fixed and constitutes a housing provided with an inlet and whereof the other is a turnable barrel carrier and covers the inlet in all working positions and is provided
 100 with an opening and with means for holding a barrel in discharging relation to the last mentioned opening and inside of the rim of the carrier.

4. A machine for dumping barrels and like containers consisting of the combination of cylindrical segments in overlapping relation and whereof one is fixed and constitutes a housing and whereof the other is a turnable barrel carrier and overlaps the
 110 housing in all working positions and is provided with an opening and with means for holding a barrel in discharging relation to said opening and inside of the rim of the carrier, and packing interposed between
 115 said segments to stop dust.

5. A machine for dumping barrels and like containers consisting of the combination of cylindrical segments in overlapping relation and whereof one is fixed and constitutes a housing and whereof the other
 120 is a turnable barrel carrier and stops the housing, a barrel receiving chute opening through the rim of the barrel carrier and extending inward therefrom, and an elevator aligned with the chute and carried by the carrier.

6. A machine for dumping barrels and like containers consisting of the combination of cylindrical segments in overlapping
 130

relation and whereof one is fixed and constitutes a housing and whereof the other is a turnable barrel carrier, a barrel receiving chute and an elevator coöperating therewith
5 both carried by the carrier, and a barrel guide on the chute, substantially as described.

7. A machine for dumping barrels and like containers consisting of the combination of cylindrical segments in overlapping
10 relation and whereof one is fixed and constitutes a housing and whereof the other is a turnable barrel carrier, an elevator and a chute carried inside of the barrel carrier,
15 gearing carried by the carrier for operating the elevator, and gearing carried by fixed

parts of the machine for turning the barrel carrier, substantially as described.

8. A machine for dumping barrels and like containers consisting of the combination of standards, a housing to one side of
20 the standards and provided with an outlet and with a wall conforming to a cylindrical segment, a segmental wheel mounted
25 for rotation on said standards and having its rim in bridging relation to the wall in all working positions and provided with an opening, and means for attaching a barrel inside of the rim and in line with the opening, substantially as described.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."