UNITED STATES PATENT OFFICE.

WILLIAM WHITFIELD, OF JUSTIN, TEXAS.

GRAVEL-CONVEYER AND ROLLER.

1,206,187.


To all whom it may concern:

Be it known that I, WILLIAM WHITFIELD, a citizen of the United States, residing at Justin, in the county of Denton and State of Texas, have invented certain new and useful Improvements in Gravel-Conveyors and Rollers, of which the following is a specification.

My invention has relation to a combined roller and stone, sand, rubble or gravel conveyer for use in grading, repairing and surfacing roads, and in such connection it relates more particularly to a roller having a chamber or chambers within its interior and provided with a door or doors through which the gravel, stone, etc., may be introduced into and discharged from the roller.

In the carrying out of my invention there is provided a roller, the interior thereof is hollow and adapted to receive sand, gravel, rubble, etc., used in the repairing or surfacing of roads and there is also provided at the periphery of the roller or adjacent thereto a suitable door or doors whereby the material carried within the roller may be discharged upon the road and afterward compressed by the roller. There are also provided suitable partitions within the roller whereby the load inside the roller may be kept in proper distribution the equilibrium of the roller being thereby preserved.

The nature and scope of my invention will be more fully understood from the following description taken in connection with the accompanying drawings, forming part hereof, in which,—

Figure 1, is a top or plan view of a combined roller and gravel container and distributor embodying the main features of my invention. Fig. 2, is a side elevational view thereof. Fig. 3, is a longitudinal sectional view of the roller and container. Fig. 4, is a central cross-sectional view of the same. Fig. 5, is a top or plan view of a modified form of the invention showing a plurality of rollers and containers drawn by a single shaft. Fig. 6, is a top or plan view of a still further modified form of the invention, the roller being spool shaped. Fig. 7, is a side elevational view of the same. Fig. 8, is a longitudinal sectional view of Fig. 6. Fig. 9, is a central cross-sectional view of the roller of Fig. 6. Fig. 10, is a longitudinal sectional view of a modified form of roller having a diametrical arranged partition, and Fig. 11, is a central cross-sectional view thereof.

Referring to the drawings, Figs. 1 to 4, the tongue 1 of the implement is connected to a bail or yoke 2, the free ends of which receive and form bearings for the short shafts 8 projecting centrally from the bosses 4 bolted or otherwise secured to the sides 5 of the roller. The roller is formed of heavy sheet metal forming the periphery 6 of the roller with rounded and downwardly turned flanged ends 6" riveted or otherwise secured to the sides 5. Grouped around the periphery of the roller is a series of openings closed by doors 7, opening inward, the periphery 6 of the roller being countersunk at the openings for the support of the doors flush with the exterior periphery of the roller. The sides 5 of the roller are also provided with one or more doors 8 opening outward. The doors 7 are for the purpose of discharging the contents of the roller, namely, sand, gravel, rubble, etc., which are introduced through the doors 8 at the sides of said roller. The doors 8 are preferably hinged as at 9 to the outside of the sides 5.

In the modification illustrated in Fig. 5, the construction of rollers and doors is precisely the same as illustrated in Figs. 1 to 4. In this modification however a plurality of rollers 6 are coupled up with a bail 21 or yoke having four arms and connected to the tongue 1. The free ends of the four arms of bail 21 form bearings for the pins and bosses of the aligned rollers 6.

In the modified form of the invention shown in Figs. 6 to 9 inclusive the roller is spool shaped with rolling peripheries 16 at either end connected to a central tubular portion 17 by downwardly inclined annular walls 18. In these walls 18 are formed the openings closed by hinged doors 19 opening outward to discharge the material between the rolling peripheries 16. The construction of the side doors 20 in this form varies from the side doors 8 in the other forms in that said side doors 20 are not hinged but are removable from the sides of the roller.

In Figs. 10 and 11 a modification of the form of roller illustrated in Figs. 1 to 4 is shown in which the interior of the roller may be divided into two compartments by a partition 22 arranged vertically at the center of the roller as illustrated in Fig. 10 or by the partition 22 arranged longitudi-
nally as illustrated in Fig. 11. The division of the interior of the roller into compartments serves to distribute the contents of the roller more evenly and helps preserve the equilibrium of the roller during the discharge of said contents.

Having thus described the nature and objects of my invention, what I claim as new and desire to secure by Letters Patent, is,—

In a combined roller and material distributor, a hollow roller having sides and a periphery formed of sheet metal having end flanges bent downward to engage the sides, fastenings traversing the sides and flanges and securing the sides to said flanges, a series of openings countersunk in the periphery of the roller and doors removably secured in said openings and opening inward of the roller.

In testimony whereof I have signed my name to this specification.

WILLIAM WHITFIELD.

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