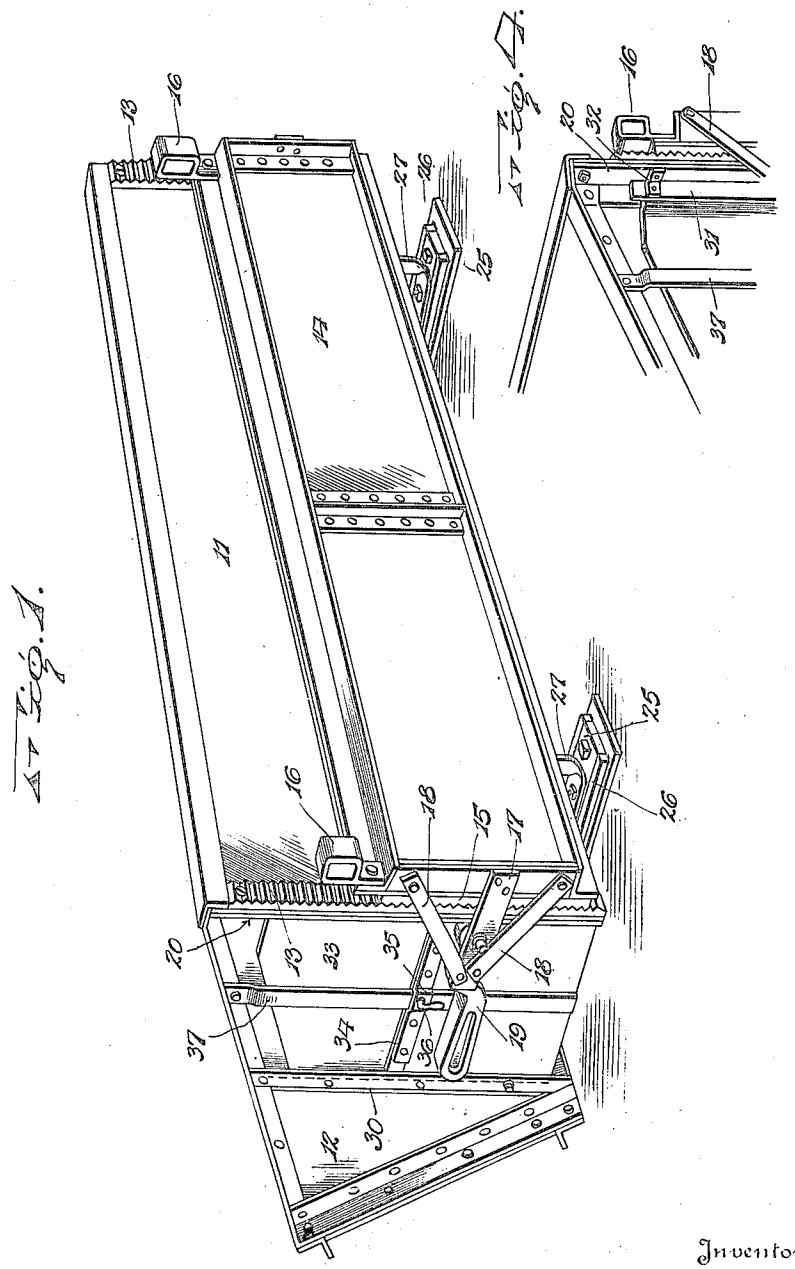
Oct. 9, 1923. 1,470,157

J. L. FIKE

STONE SPREADER

Filed Jan. 11, 1922 2 Sheets-Sheet 1



Inventor

J. L. Fike.

By Lacey & Lacey. Attorneys

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Fig. 2.

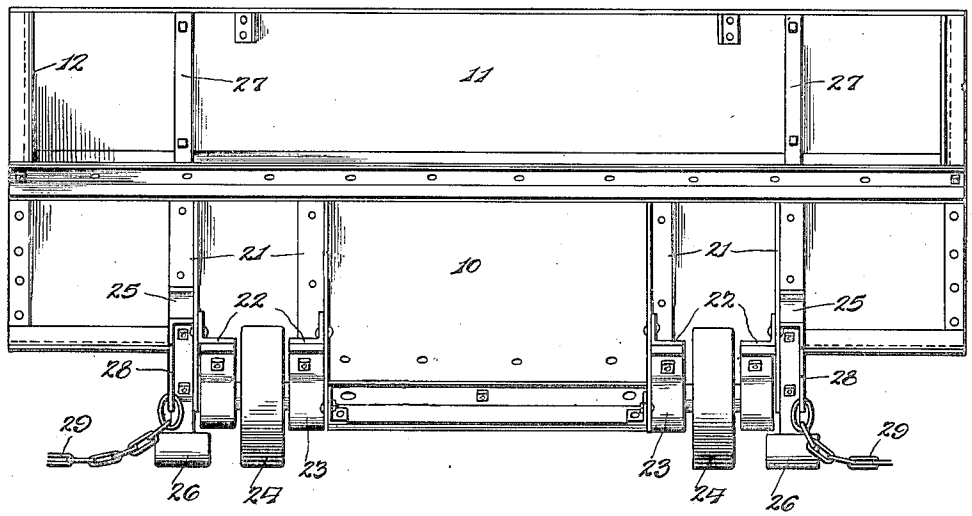
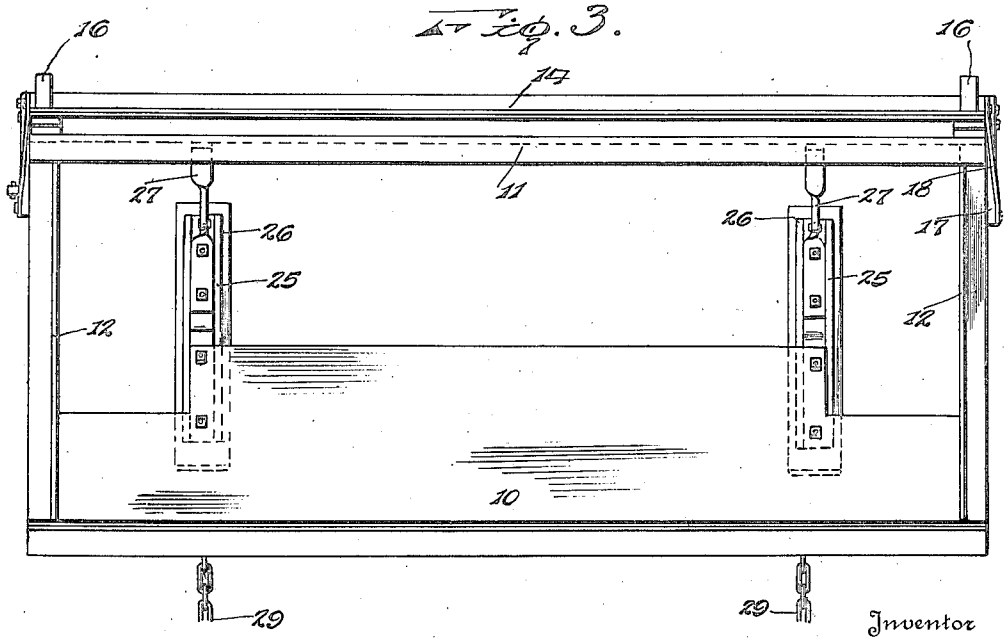


Fig. 3.



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Patented Oct. 9, 1923. 1,470,157

UNITED STATES PATENT OFFICE.

JOSEPH L. FIKE, OF SHELBY, OHIO, ASSIGNOR TO THE BURCH PLOW WORKS COMPANY, OF CRESTLINE, OHIO, A CORPORATION OF OHIO.

STONE SPREADER.

Application filed January 11, 1922. Serial No. 528,507.

To all whom it may concern:

Be it known that I, JOSEPH L. FIKE, a citizen of the United States, residing at Shelby, in the county of Richland and State of Ohio, have invented certain new and useful Improvements in Stone Spreaders, of which the following is a specification.

This invention relates to an improved stone spreader of the character illustrated in Patent No. 1,233,107, granted to R. M. Myers, July 10, 1917, as well as Patent No. 1,281,141, granted to W. J. Coultas, October 8, 1918, and seeks, as one of its principal objects, to provide a stone spreader of this nature so constructed that succeeding courses of stone may be so spread by the device that the stone at the points where the courses join will be of a depth equal to the major depth of the courses so that a uniform distribution of stone may be had.

A further object of the invention is to provide a stone spreader the end portions of which will be formed to clear or pass over a course of stone so that after one course of stone has been spread, one end of the spreader may be disposed to overhang said course in spreading a succeeding course for depositing the stone at the point where the courses join uniformly with the major depth of the courses.

And the invention has as a still further object to provide a stone spreader having end gates which may be adjusted to control the lateral distribution of the stone.

Other and incidental objects will appear hereinafter.

In the drawings:

Figure 1 is a perspective view of my improved stone spreader, particularly illustrating a typical end gate employed,

Figure 2 is a front elevation of the device,

Figure 3 is a top plan view of the device, and

Figure 4 is a fragmentary perspective view showing the mounting of the end gates.

In carrying the invention into effect, I employ a hopper-shaped casing comprising a forwardly inclined front wall 10 and a vertical back wall 11 connected by end walls 12, the casing being open at its top and bottom. These walls are appropriately reinforced by suitable angle plates and secured to the back wall at the ends thereof, are rack bars 13. As shown in Figure 2 of the drawings, the back wall is relatively narrow and shiftable vertically with respect to said wall is a back gate 14 at the ends of which are mounted rack bars 15 to coact with the rack bars 13. The gate is also appropriately reinforced by suitable angle plates and at its ends is equipped with handles 16. Projecting rearwardly from the ends of the gate are bars 17 held by braces 18 and pivoted upon said bars are cam levers 19 disposed to coact with angle plates 20 upon the end walls of the casing. Thus, by releasing the cam levers, the gate may be adjusted vertically to control the distribution of stone at the back of the spreader when, by again swinging the levers to the position shown in Figure 1, the rack bars 15 upon the gate will be locked in engagement with the rack bars 13 for rigidly securing the gate in adjusted position.

Attention is now directed to the fact that, as best shown in Figure 2, the lower margin of the front wall 10, as well as the lower margins of the end walls 12, are cut away at the ends of the casing so that the end portions of the casing are of less depth than the intervening middle portion of the casing and mounted upon the front wall 10 at the inner ends of the cut away portions thereof, are pairs of vertical angle bars 21. Secured to these angle bars are pairs of angle plates 22 upon which are mounted bearings 23 and carried by said bearings are supporting wheels 24. Bolted to the bottom flanges of the outermost of the angle bars 21 are brackets 25 which are, as shown in Figure 3, bent to extend horizontally rearward beneath the casing and mounted upon the horizontal portions of said brackets are shoes 26 cooperating with the wheels 24 for sustaining the casing. Secured to the back wall 11 at its inner side are braces 27 which, at the lower edge of said wall, are offset to extend forwardly therefrom and thence downwardly within the casing to be secured at their lower ends to the horizontal portions of the brackets 25. These braces will thus rigidly support the brackets at their rear ends. Overlying the forward ends of the brackets are angle plates 28 bolted or otherwise secured in position, and connected to said angle plates are chains 29.

At their lower margins, the end walls 12 of the casing are cut away to provide openings and mounted upon the casing at oppo-

site sides of said openings are, as particularly shown in Figures 1 and 4, guide strips 30 and 31, the strips 30 being secured to the end walls and the strips 31 being connected to the angle irons 20 by angle irons 32. Slidably supported by said guide strips are end gates 33 to each of which is secured a pair of straps 34 providing an eye 35. Threaded through said eyes are set bolts 36 and secured at their upper ends upon the upper margins of the end walls are vertically disposed bars 37 extending freely through the eyes 35. Thus, by releasing the set bolts 36, the end gates 33 may be adjusted vertically with respect to the openings at the lower margins of the end walls, when by rotating said bolts to engage the bars 37, the end gates may be locked in adjusted position.

In use, the spreader is connected to the rear of a truck or the like by the chains 29 so that as the truck moves forwardly, the spreader will be drawn along behind the truck in such position that the truck may discharge its load of stone into the spreader. Accordingly, as the device is drawn forwardly, the spreader will act to spread the stone deposited therein from the truck, the back gate 14 being adjusted to determine the depth of the stone when spread. As will be perceived, it is necessary, in order to cover a whole road surface, to spread the stone in courses, it being impractical to construct the device of a length sufficient to cover the roadway by a single course. Accordingly, the first course is spread along one berme-board of the roadway, when another course is spread to meet the first course, and so on, until the entire road surface is covered. The purpose in cutting away the ends of the spreader therefore now becomes apparent. As will be seen, the end of the spreader next to the berme-board may be disposed to overhang said board so that the spreader may be drawn along over the board to deposit stone at the major depth for which the back gate is set, clear up to the board. Similarly, when the other berme-board of the roadway is reached, the opposite end of the spreader may be disposed to overhang this latter board. Likewise, after the initial course of stone has been spread one end of the spreader may be disposed to overhang said course for depositing stone at the major depth for which the back gage is set to meet said course, and so on with each succeeding course, so that a uniform distribution of stone throughout the roadway will be had. The end gates 33 are provided to control the lateral distribution of the stone from the ends of the spreader. Should it be desired to permit the stone to roll away from the ends of the spreader in considerable volume so as to meet a berme-board or meet a preceding course, the end gates are raised, whereas, when it is desired to lay a course with relatively straight shoulders, the end gates are lowered, it being possible, by adjusting the gates, to readily regulate the amount of stone distributed at the ends of the spreader.

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

1. A road building spreader including a casing open at its top and bottom, means supporting the casing for movement over a roadway, and means for connecting the casing to a vehicle whereby the vehicle may discharge into the casing, the casing being formed at its ends to provide road clearance greater than the clearance at the intervening portion of the casing.

2. A road building spreader including a casing open at its top and having front and back walls, a gate carried by the back wall, means supporting the casing for movement over a roadway, and means for connecting the casing to a vehicle whereby the vehicle may discharge into the casing, the casing being formed at its ends to provide road clearance greater than the clearance at the intervening portion of the casing.

3. A road building spreader including a casing open at its top and bottom, means supporting the casing for movement over a roadway, and means for connecting the casing to a vehicle whereby the vehicle may discharge into the casing, the lower edges of the casing being stepped to provide increased road clearance at the ends of the casing.

4. A road building spreader including a casing open at its top and having front and back walls, a gate carried by the back wall, means supporting the casing for movement over a roadway, and means for connecting the casing to a vehicle whereby the vehicle may discharge into the casing, the lower edges of the casing being stepped to provide increased road clearance at the ends of the casing.

5. A road building spreader including a casing open at its top and bottom and having front and back walls, a gate adjustable upon the back wall, means supporting the casing for movement over a roadway, and means for connecting the casing to a vehicle whereby the vehicle may discharge into the casing, the lower edges of the casing being stepped to provide increased road clearance at the ends of the casing.

6. A road building spreader including a casing open at its top and bottom and having end walls provided with discharge openings, gates normally closing said openings, means supporting the casing for movement over a roadway, and means for connecting the casing to a vehicle whereby the vehicle may discharge into the casing.

7. A road building spreader including a

casing open at its top and bottom and provided with end walls having discharge openings, gates adjustable upon said end walls to control discharge through the openings, means supporting the casing for movement over a roadway, and means for connecting the casing to a vehicle whereby the vehicle may discharge into the casing.

8. A road building spreader including a casing open at its top and having front and back walls connected by end walls, the end walls having discharge openings, a gate carried by the back wall, gates carried by the end walls to control discharge through said openings, means supporting the casing for movement over a roadway, and means for connecting the casing to a vehicle whereby the vehicle may discharge into the casing.

In testimony whereof I affix my signature.

JOSEPH L. FIKE. [L. S.]