T. F. BOWER.

ROAD BUILDING MACHINE.

APPLICATION FILED FEB. 12, 1921.

1,393,341. Patented Oct. 11, 1921.

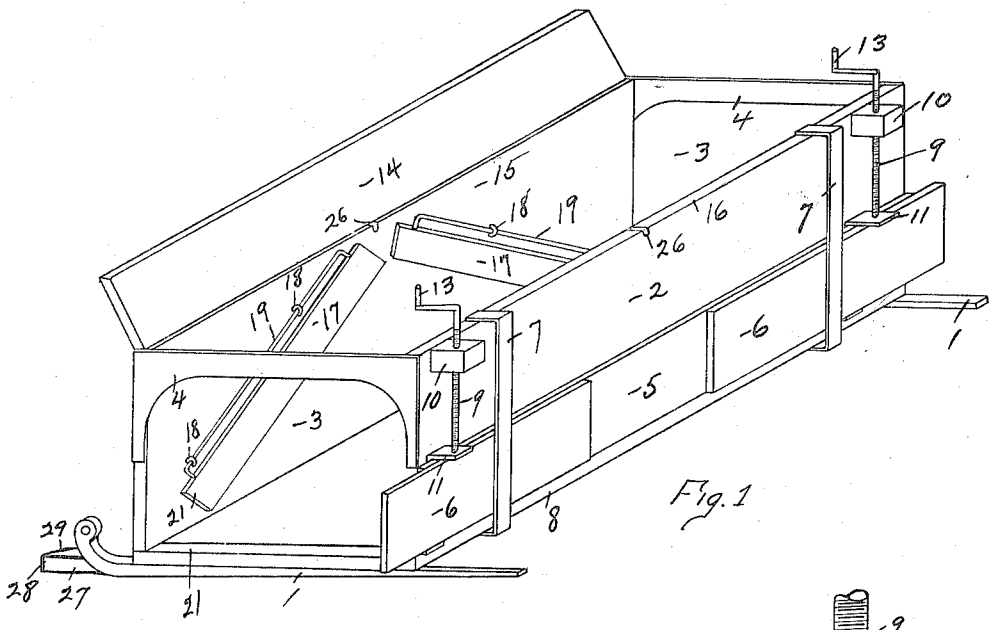


Fig. 1

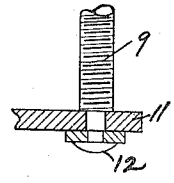


Fig. 3

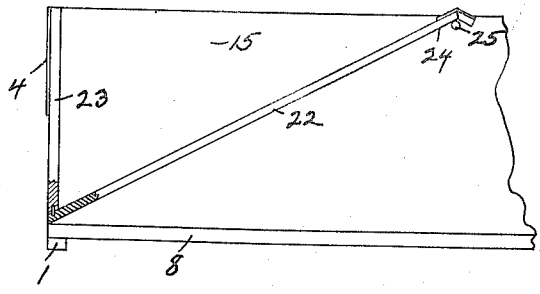


Fig. 2

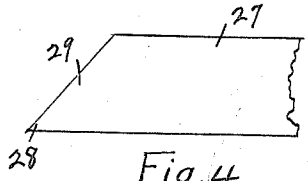


Fig. 4.

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ROAD-BUILDING MACHINE.

1,393,341. Specification of Letters Patent. Patented Oct. 11, 1921.

Application filed February 12, 1921. Serial No. 444,349.

To all whom it may concern:

Be it known that I, THOMAS F. BOWER, citizen of the United States of America, residing at Farmdale, in the county of Trumbull and State of Ohio, have invented certain new and useful Improvements in Road-Building Machines, of which the following is a specification.

My invention is an improvement in road building machines and has for its object to provide a machine of the character specified, especially adapted for distributing and leveling stone, slag or gravel on roadways, wherein the distributer is adapted to be drawn behind a truck and to receive material from the truck and to distribute a uniform layer of material on the roadway as the truck moves along.

The drawing illustrates the preferred embodiment of the invention. However, it is to be understood that in adopting the same to meet different conditions, various changes in the form and minor details of construction may be resorted to without departing from the nature of the invention, as claimed and set forth in the drawings:

Figure 1 is a perspective view of the device.

Fig. 2 is a detailed view.

Fig. 3 is a detailed sectional view.

Fig. 4 is a detail top plan view showing projection on runner.

Corresponding and like parts are referred to in the following description and indicated in the several views of the drawing by like reference characters.

The present embodiment of the invention is shown so that the same may be drawn behind a truck by means of runners 1. The device comprises a rectangular hopper shaped casing 2. This hopper shaped casing 2 is provided with open ends 3; at the upper portion of the open ends 3, I have provided a bracing means 4. At the rear end of the hopper shaped casing 2, I have provided a gate 5 having wings 6 that may be extended if so desired. These wings 6 may be secured to the gate 5 in any ordinary manner so that the same may have a longitudinal sliding movement. In order to open the gate 5, I have provided guides 7 which are attached to the upper edge of the hopper shaped casing 2 and the bottom edge 6 of said hopper shaped casing 2.

In operating the device I have provided endless screws 9 which turn in internally threaded blocks 10. These blocks 10 are secured to the upper outer edge of the rear wall of the hopper shaped casing 2. The lower end of the screw 9 is secured to a lip 11 by means of a head 12 formed on the end of the screw 9 (see Fig. 3). When the material to be spread falls into the hopper shaped casing 2 the gate 5 may be raised by operating the cranks 13 as the lips 11 are secured to the gate 5 and may be drawn up to the degree desired by turning screws 9 in the internally threaded blocks 10. I have provided a deflecting board 14 which is secured to the upper edge of the front wall 15 of the hopper shaped casing 2.

It is understood that a similar deflecting board may be secured to the rear wall 16 of the hopper shaped casing 2 if found desirable.

By referring to Fig. 1 it will be seen that I have provided two slidable inclined planes 17 which are secured to the front wall 15 by means of staples 18 which straddle a hinge rod 19. In the drawing these slidable inclined planes 17 are folded down against the front wall 15. When it is desired to move some of the material out through the open ends 3 these slidable inclined planes 17 may be turned up so that the upper surface forms a right angle to the front wall 15 when the same is slid downwardly until the ends 20 project out over the bottom 8 at points 21, which forms a rest for the slidable inclined planes 17 and holds the same in a proper position.

By referring to Fig. 2 it will be seen that I have provided a shut-off 22 which comprises an incline extending from the center of the device and reaches entirely across the width of the hopper shaped casing 2. In order to make this shut-off 22 effective I have provided an end shut-off 23 which closes the opening 3 of the hopper shaped casing 2. In order to hold this shut-off 22 at the upper end 24, I have provided a rod 25 which is secured to the shut-off 22 and the ends of which rest in the slots 26. The object of using this shut-off 22 and 23 is to utilize only one-half of the road building machine when it is desired to spread only one-half the area that would otherwise be spread. This stop 22 and 23 may be reversed so that either end of the hopper shaped casing 2 may be closed as desired.

By referring to Figs. 1 and 4 it will be seen I have provided a projection 27 on the

front of the runners 1 having a nose 28 formed on the outer edge of the runner 1. This provides a sliding edge 29 which will slide the material upwardly in place of sliding over the material.

In the operation of the gate 5 when a crown is desired in spreading the material, either end may be raised higher than the other end to accomplish this purpose.

When it is desired to make a wider spread than the hopper shaped casing 2 the wings 16 may be slid outwardly and the slidable inclined planes 17 may be placed in position and the end shut-off 23 removed, thus the material is carried out beyond the ends 3 and spread by the extended wings 6.

What I claim is:

1. In a device of the class described, a rectangular hopper shaped casing provided with open ends and a closed bottom, runners located underneath the outer ends of said rectangular casing, a gate secured at the lower side of the rear wall of said casing, slidable wings attached to said gate, a lip attached at each end of said gate, a block attached at the upper edge of the rear wall of said casing, a screw operating in internally threaded openings of said blocks, slidable inclined planes secured to the front wall of said casing, a deflecting board secured at the upper edge of the front wall of said casing, a bracing member secured to the upper ends of said casing, substantially as described for the purpose set forth.

2. In a device of the class described, a shut-off member comprising an inclined and a vertical section, a rod attached to the upper end of said incline, notches in the rear and front wall of said casing, substantially as described for the purpose set forth.

In testimony whereof I affix my signature.

THOMAS F. BOWER.

Witnesses:

JOHN MEYER,

C. A. HARPMAN.