

*T. J. West,
Plaster Sower.*

No. 112,519.

Patented Mar. 7. 1871.

Fig. 1.

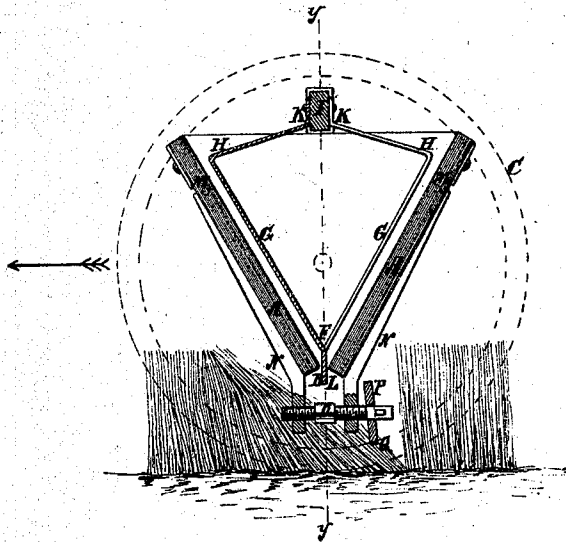
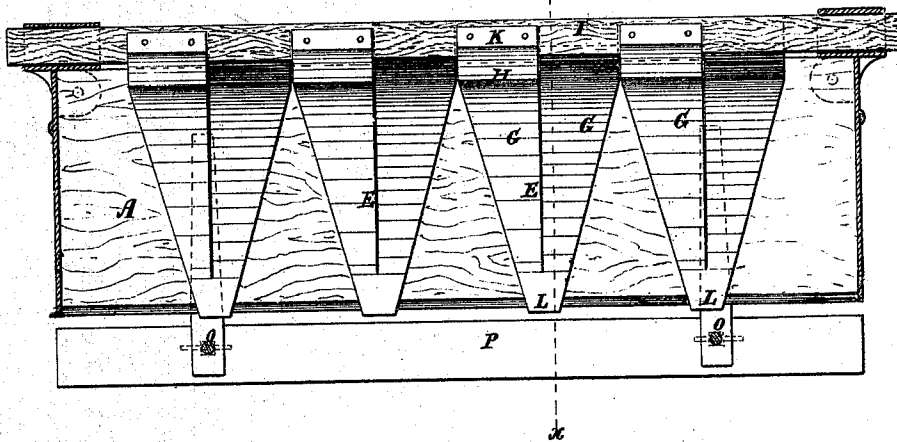


Fig. 2.



Witnesses:

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United States Patent Office.

THOMAS J. WEST, OF ALFRED CENTRE, NEW YORK.

Letters Patent No. 112,519, dated March 7, 1871.

IMPROVEMENT IN PLASTER-SOWERS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, THOMAS J. WEST, of Alfred Centre, in the county of Allegany and State of New York, have invented a new and improved Plaster-Sower; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

This invention relates to improvements in plaster-sowers; and

It consists in a novel construction and arrangement of the agitators employed in the hopper for preventing the clogging. Also, in the application of a guard to bend the grass or grain downward, so that the tops will not come in contact with the bottom of the hopper and wet it by the water retained in the grass or grain, and thereby obstruct the discharge of the plaster; and

It also consists in the application of the said guard so as to utilize it for preventing the screws, which are used for adjusting the throat, from turning when not required to do so.

Figure 1 is a sectional elevation, taken transversely through the hopper, on line *xx* of fig. 2, and

Figure 2 is a section taken on the line *yy* of fig. 1. Similar letters of reference indicate corresponding parts.

A represents the two sides of a long V-shaped hopper, having a long-narrow throat, B, at the bottom, for discharging the plaster or other like substance to be sowed, said hopper being mounted on wheels C, of any sort, or on a roller.

D represents the agitators, which consist of thin plates of sheet metal of triangular form, or nearly so, split from the base nearly to the apex in the major axis, as indicated by the lines E, fig. 2, and bent at the junction F to an angle equal, or thereabout, to the angle of the two sides of the hopper; and these parts G are bent back again at H toward the said major axis, in the plane of which is the working-bar I, (to be worked in the ordinary way,) to which the ends K are attached for supporting the parts G and the points L in the relation to the hopper and the throat here shown, for so agitating the plaster near the surfaces of the sides A as to prevent it from clogging thereon, as it does when the agitators are arranged in the plane of the line *yy*, as heretofore, in which case the plaster will only be discharged from a small part at the center, while the greater portion of the contents of the hopper will so pack upon the sides as to remain, as I have found by practical operation of such machines.

Commonly one of the sides of these hoppers, being mounted on pivots M at the ends for turning

to widen or narrow the throat, has a lever attached to it for actuating it, and this lever is depended upon to hold the said side in the position required, a notched bar being attached to the frame at any suitable point for the lever to engage with.

I have found this arrangement to be defective on account of the two sides of the hopper springing away from each other between the ends by the great weight of the plaster when full, and gradually approaching each other as the load diminishes, so that the machines so constructed do not discharge uniformly.

I therefore propose to place two or more of the iron bars N on each side, between the ends, with their lower ends projecting vertically below the bottom of the hopper, and employ the right-and-left screw-threaded rods O in connection with them, as shown, for adjusting and supporting the said sides, by which the tendency of each side to spring away from the other will be counteracted by that of the other, and the adjustment will be effected by turning the screw-threaded rods.

For preventing the tops of the grass or grain from coming in contact with the lower part of the hopper, and thereby wetting it by the water contained in the grass or grain being discharged upon the hopper, which would cause the plaster to clog at the throat, I employ a guard, consisting of a long broad board or plate, P, arranged at the rear of the throat, with one edge, Q, projecting considerably below the sides of the box, to come in contact with the grass and bend it forward, so that the tops of that with which the edge of the guard is in contact, being forced upon that under the front of the hopper, will bend it down so that the front of the hopper will go clear above it.

This plan is adopted in preference to placing the guard on the front side of the hopper, because in that case the ends of the grass escaping from under the guard would spring up against the edge of the rear side of the hopper.

This guard may be attached to the hopper in any preferred way, or it may be attached to the frame of the machine; but I prefer to attach it by hanging it on the squared ends of the adjusting-rods O, and hold it there by pins going through the rods or other fastenings, so that it may serve also to prevent the rods from being caused to turn by the jarring of the machine, the holes in the said bar being squared to correspond with the rods for this purpose.

I do not limit myself to the construction of the agitators of pieces of sheet metal, split and bent as described, for it is obvious that they may be made in the required form, or approximating thereto, by casting or forging them.

Having thus described my invention,

I claim as new and desire to secure by Letters Patent—

1. The agitators, having their sides G arranged parallel with and in close proximity to the sides A of the hopper, and the points L in the throat B, substantially as specified.

2. The guard P, combined, as described, with the

hopper, to prevent its bottom from being wetted by the damp grass.

The above specification of my invention signed by me this 11th day of November, 1870.

Witnesses:

THOMAS J. WEST.

T. W. WHITCOMB,
GEO. W. MABEE.