

J. E. BRIGGS.
CONCRETE SPREADER.
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1,054,821.

Patented Mar. 4, 1913.

Fig. 1.

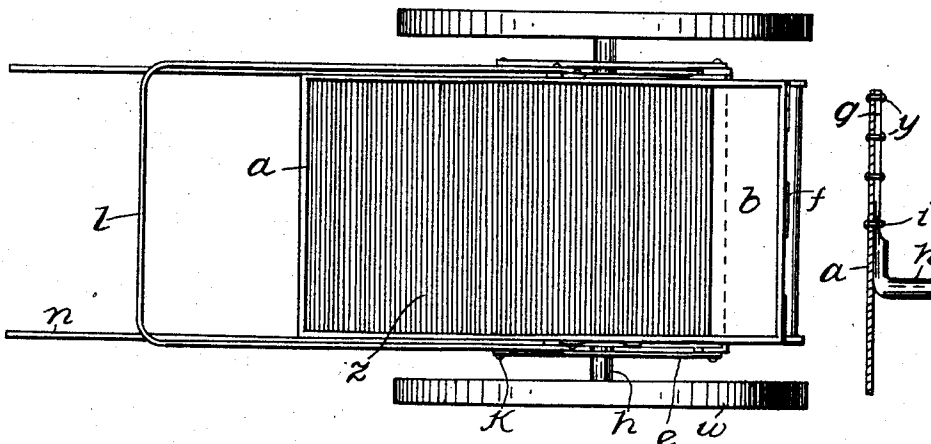
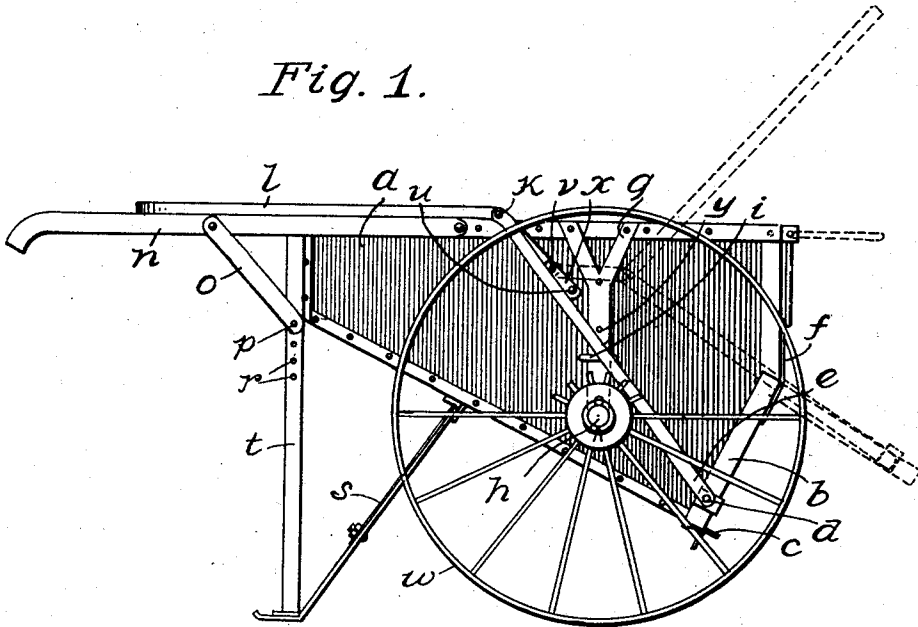


Fig. 2.

Fig. 3.

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UNITED STATES PATENT OFFICE.

JAMES E. BRIGGS, OF WATERLOO, IOWA.

CONCRETE-SPREADER.

1,054,821.

Specification of Letters Patent.

Patented Mar. 4, 1913.

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To all whom it may concern:

Be it known that I, JAMES E. BRIGGS, a citizen of the United States of America, and a resident of Waterloo, Blackhawk county, Iowa, have invented certain new and useful Improvements in Concrete-Spreaders, of which the following is a specification.

My invention relates to improvements in concrete spreaders, and the object of my improvement is to supply a spreader of the push-cart type with easily manipulated, simple and efficient means for unloading it. This object I have accomplished by the means which are hereinafter described and claimed, and which are illustrated in the accompanying drawings, in which:

Figure 1 is a left-hand side elevation of my improved concrete spreader. Fig. 2 is an upper plan view of the same. Fig. 3 is a detail elevation of one of the upwardly-bent axle-sections.

Similar characters of reference designate corresponding parts throughout the several views.

My improved spreader is of the push-cart type, having a hollow metallic body *a* supported on a pair of carrying-wheels *w*. Each wheel *w* is rotatably mounted on the cylindrical horizontal outwardly-directed portion of an axle-section *h*, each section *h* being bent upwardly, then flattened to produce flat fork-members *g*, and then secured to the side of the box *a* by means of a staple *i* and rivets *y*. This manner of dividing and mounting the parts of the axle conduces to stability and strength, without any interference with the functions of the spreader.

The box *a* of the spreader has a rearwardly-inclined bottom-plate *z*, whose rear edge *c* is extended a short distance beyond the plane of the rear end of the box for a purpose to be indicated later. The forward part of the box *a* is supported on legs *t* having braces *s*, said legs having a plurality of pin-holes *r* to adjustably receive a pin *p* also seated in an orifice in the lower rear end of a brace *o*, the upper forward end of said brace being movably and pivotally connected to the handle-bar *n* on the same side. The handle-bars *n* extend forwardly on each side of the box and are pivoted to said box at their rear ends. The adjustable connection of the said handle-bars with said box permits the user to properly adjust them as most convenient, and according to his height.

The lower part of the rear end of said box *a* is open, but said opening is adapted to be closed by means of a swing drop door *b* hinged to the rear plate by means of the hinges *f*. The height of the door is such, that its lower horizontal edge may scrape over the projecting part *c* of the box bottom-plate *z*, and thus, in cooperation with the forwardly-flanged side edges of the door, makes a tight fit over said opening. The said door is manipulated for opening and closing by the following mechanism: The character *l* designates a shifting-lever composed of two parallel arms connected by a cross-piece, the cross-piece being located just above the handle-bars *n* and lying a distance forward of the front end of said box *a*. This cross-piece is thus located conveniently to be thrust upwardly by any means or an upward blow received by it from a knee of the user. The rear ends of the arms of said lever are pivoted to brackets *x* on said box at pintles *v*, and at a short distance anterior to said pintles at a bent part of said arms the upper ends of the connecting-rods *e* are pivoted to them at *k*. The lower ends of the connecting-rods *e* are pivoted at *d* to the lower side parts of the door *b*. The arrangement of the lever-arms and connecting-rods is such that when the arms are moved forward and downwardly to the position shown in the full lines in Fig. 1, the pivot *k* on each side passes the medial line from the pivot *v* to the pivot *d*, and secures the door in its closed position. However, when the arms *l* are raised to move the rods *e* to the rear of the pivots *v*, the combined weight of the door *b* and the load in the box *a* operates to swing the doors widely open to fully and quickly discharge the load over the inclined bottom *z*, with but a small initial effort on the part of the user. The unloading thus is rapid, complete, and fraught with a saving of labor. The load having been discharged, it is only necessary to shift the arms *l* back to their former position, the rearward positions of the moving parts above described being indicated by the dotted lines in said Fig. 1.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is:

In combination, a hollow box mounted pivotally on carrying-wheels, having a hinged outwardly-swinging door, having also forwardly directed handles, a bail-

shaped lever having its members pivoted on
opposite sides of said box and its transverse
part located above said handles at a loca-
tion intermediately between their ends and
the box, and rods pivotally-connected be-
tween said door on each side and the mem-
bers of said bail-shaped lever.

Signed at Waterloo, Iowa, this 26th day
of October, 1911.

JAMES E. BRIGGS.

Witnesses:

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