D. CAHILL.

FERTILIZER DISTRIBUTER.

APPLICATION FILED APR. 26, 1910.

963,684.

Patented July 5, 1910.

2 SHEETS—SHEET 1.

Fig. 1.

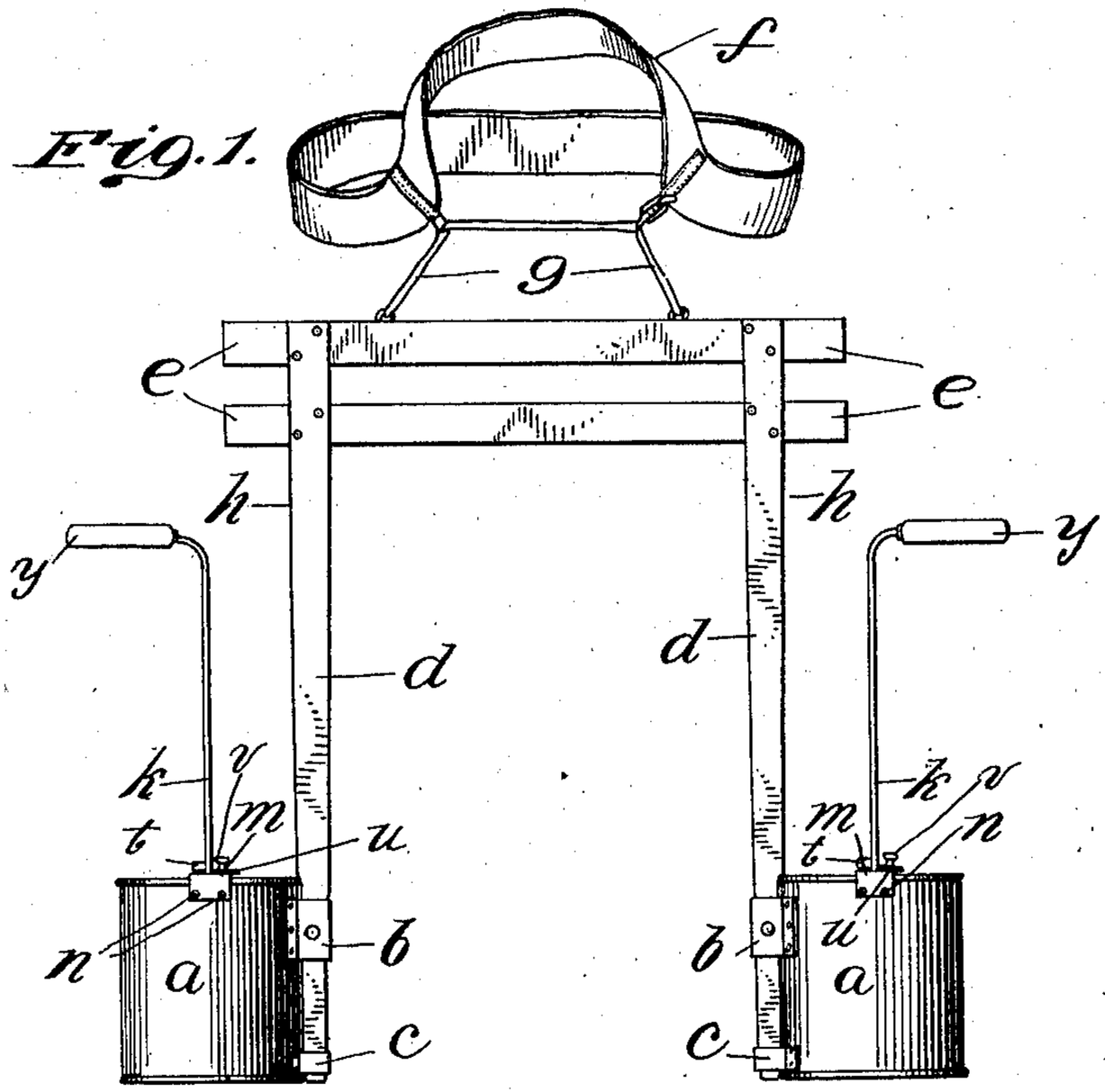
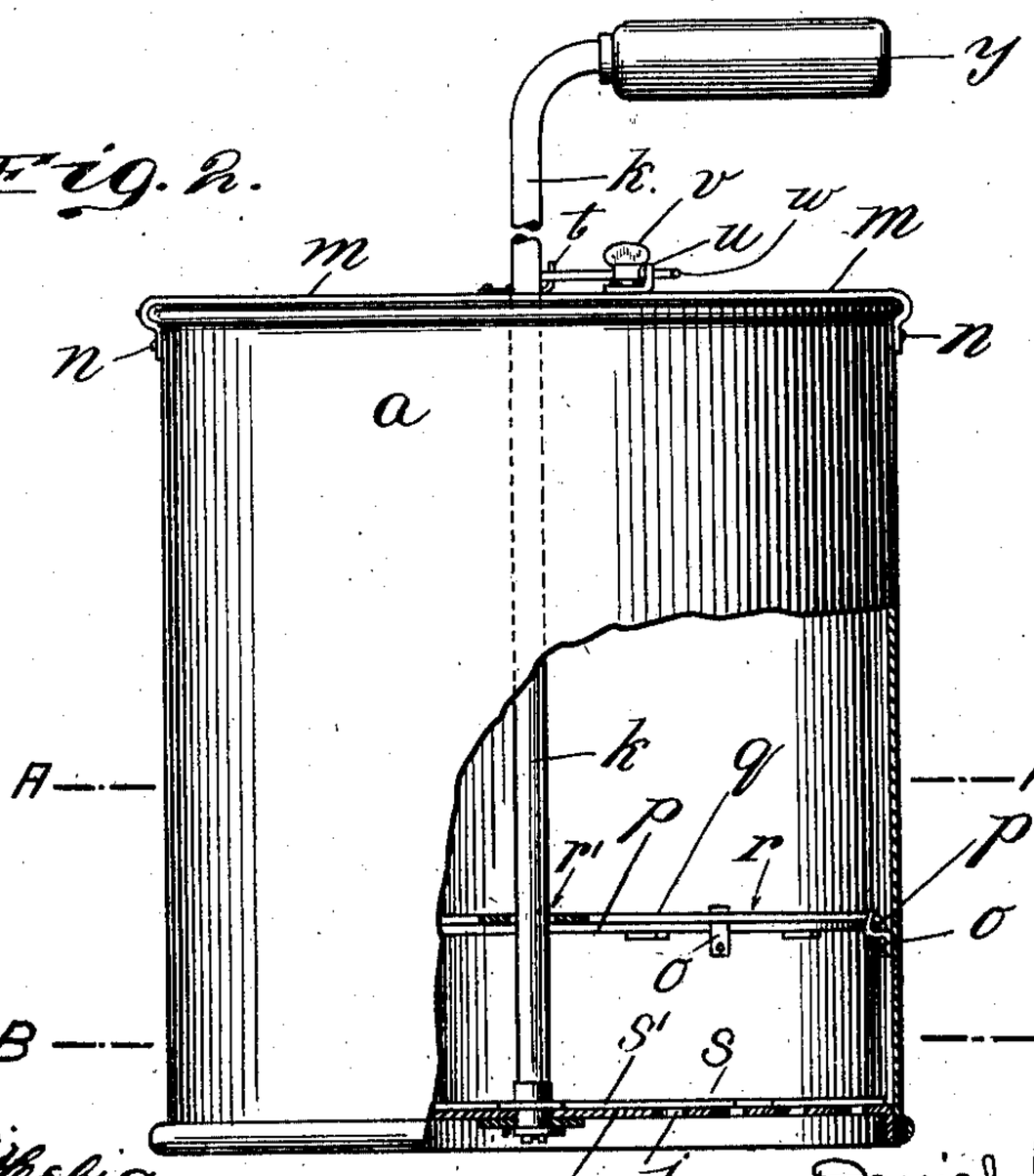


Fig. 2.



Witnesses:
Harry E. Hebig
M. Hamilton.

Inventor
Daniel Cahill
By his Attorney,
James Hamilton

D. CAHILL.

FERTILIZER DISTRIBUTER.

APPLICATION FILED APR. 26, 1910.

963,684.

Patented July 5, 1910.

2 SHEETS—SHEET 2.

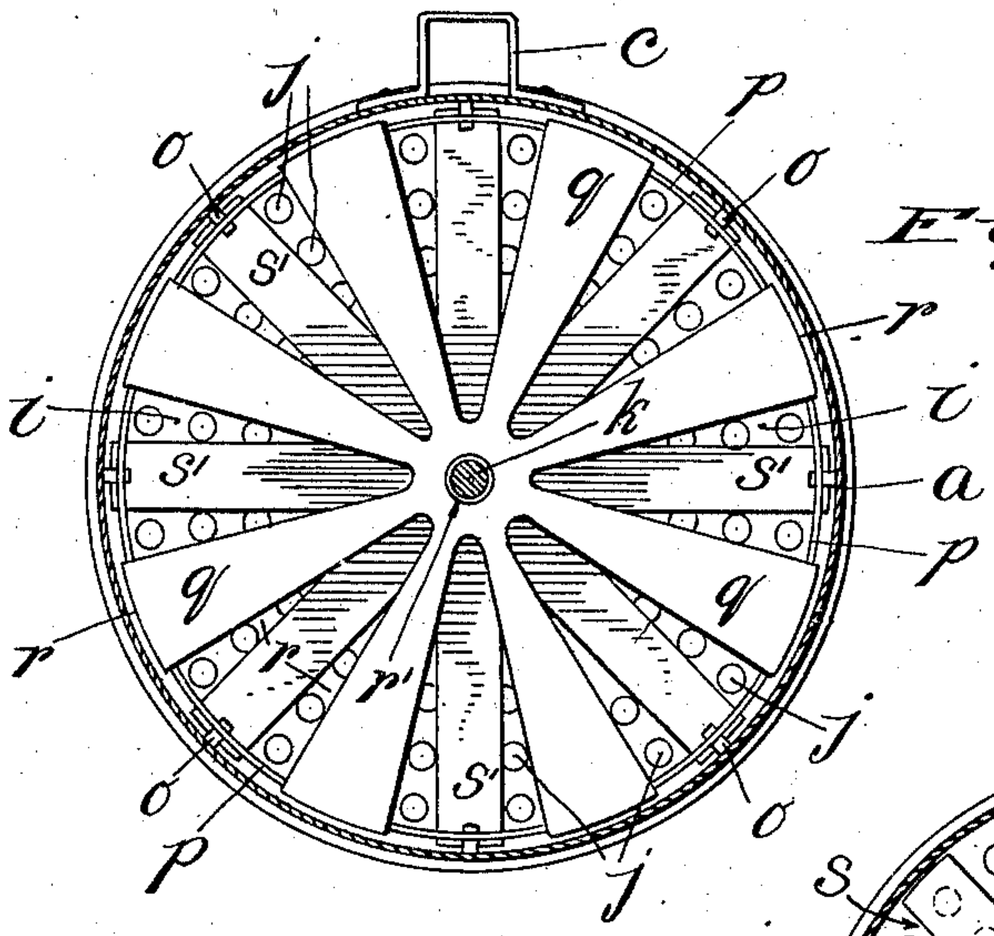


Fig. 3.

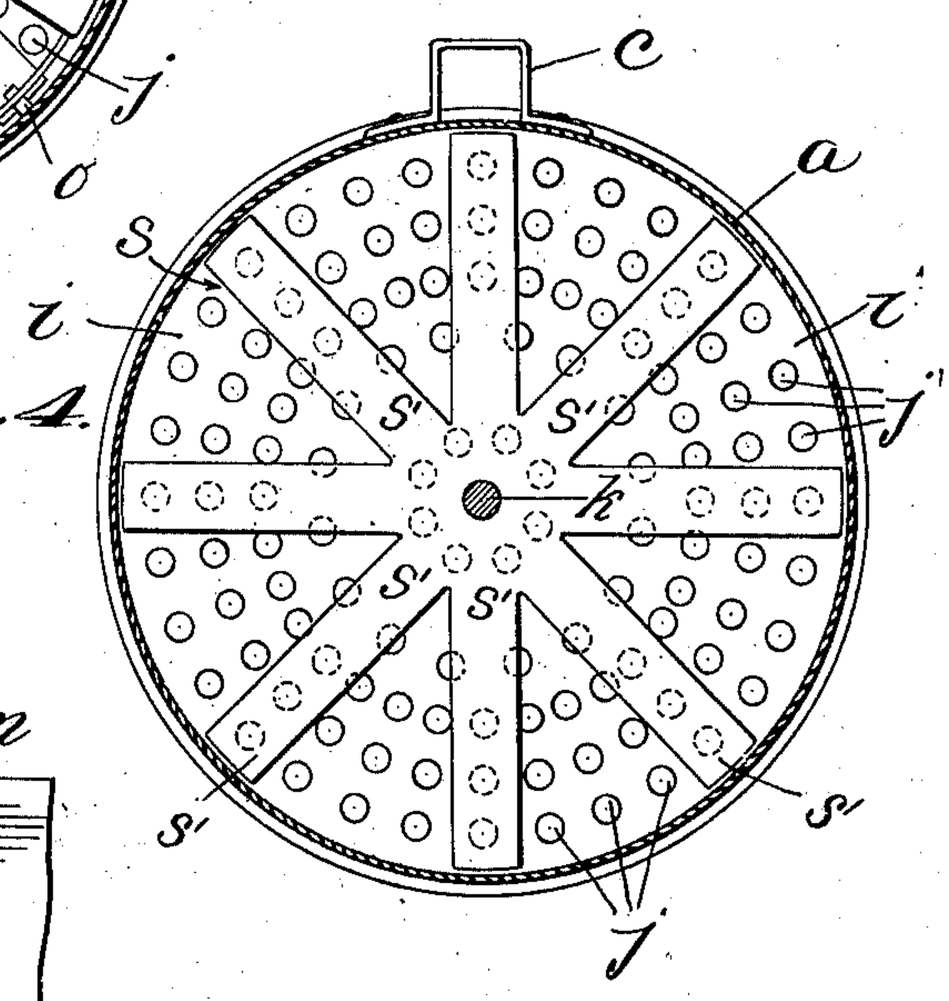


Fig. 4.

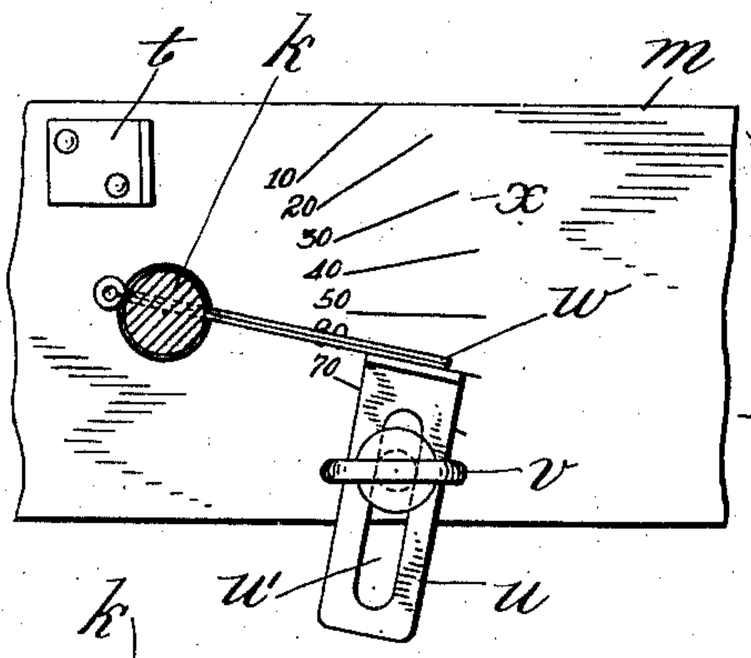


Fig. 5.

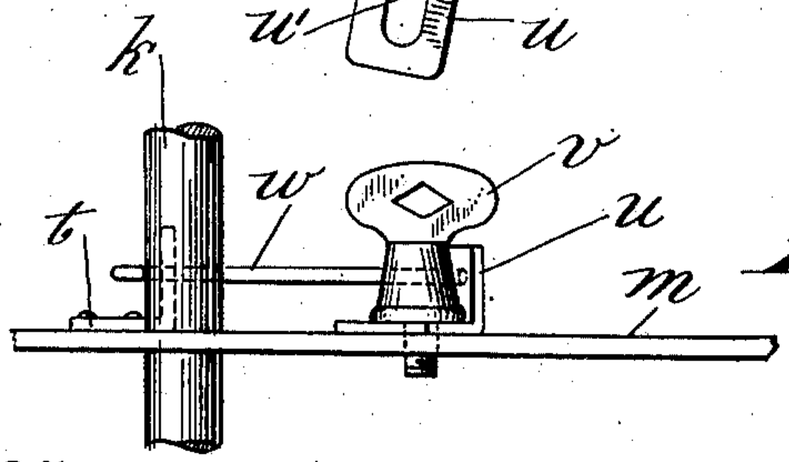


Fig. 6.

Witnesses:
Henry C. Hecking
M. Hamilton

Daniel Cahill Inventor
By his Attorney
James Hamilton.

UNITED STATES PATENT OFFICE.

DANIEL CAHILL, OF KINGSBURY, NEW YORK.

FERTILIZER-DISTRIBUTER.

963,684. Specification of Letters Patent. **Patented July 5, 1910.**

Application filed April 26, 1910. Serial No. 557,688.

To all whom it may concern:

Be it known that I, DANIEL CAHILL, a subject of the King of Great Britain, residing at Kingsbury, in the county of Washington and State of New York, have invented certain new and useful Improvements in Fertilizer-Distributers, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to improvements in devices for distributing fertilizer, seed and the like; and an object of this invention is to provide a distributer of this class which will be simple in construction, relatively cheap in manufacture and most efficient in use.

Another object of this invention is to provide a distributer of this class having means for controlling the amount of material distributed.

A third object of this invention is to provide a distributer of this class having means for insuring free movement of the agitating or sifting vanes or blades.

In the drawings illustrating the principle of this invention and the best mode now known to me of applying that principle, Figure 1 is a side elevation of my new distributer; Fig. 2 is a side elevation of one of the distributer cans, a part of the side wall being broken away to show the interior construction; Fig. 3 is a section on the line A—A of Fig. 2; Fig. 4 is a section on the line B—B of Fig. 2; Fig. 5 is a detail in plan of the agitator-regulating means; and Fig. 6 is a detail showing in elevation what is shown in plan in Fig. 5.

In the preferred form of my invention, two cans *a* are employed. Each of these cans *a* is provided with metal straps *b*, *c* bent into the form of loops. To each can is fastened a wooden hanger-bar *d* the lower end of which is fitted in the strap-loops *b*, *c* and is suitably held in the strap-loop *b*. The upper ends of these hanger-bars *d* are fastened to a pair of cross-bars *e*. A suitable sling *f* is provided and is connected by the straps *g* to the frame *h* consisting of the cross-bars *e* and hanger-bars *d*. The sling *f* and straps *g* constitute a suitable harness by which the frame *h* may be carried by the operator.

The can *a* is formed with a cylindrical side wall and is closed at its lower end by the bottom plate *i* which is formed with holes *j* (or is foraminated). The vertical shaft *k* is mounted centrally in a can *a* and its lower end is journaled in the bottom plate *j*. Near its upper end, the shaft *k* passes through and has a bearing in a cross-bar *m* which extends centrally across the mouth of the can *a* and the ends of which are fastened thereto, as at *n*. To the inner face of the cylindrical side wall of the can *a* is fastened a number of hooks *o* which engage and support a hoop or ring of wire *p*. To the latter are fastened the outer ends of the spider-arms *q*, thereby forming a spider *r* through a hole *r'* in the center of which passes the vertical shaft *k*. The spider *r* is stationary, since the shaft *k* is free to rotate in the hole *r'*. Adjusted above the bottom plate *j* there is mounted fast upon the lower ends of the vertical shaft *k* a sifter or agitator *s* the blades or vanes *s'* of which extend radially outward, after the manner of spider-arms. On the top of the cross-bar *m* are fastened a stationary stop-lug *t* and an adjustable stop-lug *u*. The latter is formed with a slot *u'* through which passes into the cross-bar *m* the threaded shank of a thumb-screw *v*. Through the vertical shaft *k* is passed a split-pin or split-key *w* which projects sufficiently to engage the stop-lugs *t*, *u* when the vertical shaft *k* is oscillated.

The amount of fertilizer distributed will depend in a degree upon the angle through which the arms or vanes *s'* are moved; and the top of the cross-bar *m* is suitably graduated at *x*, to indicate the relative amounts of fertilizer distributed when the stop-lug *u* is adjusted. Each vertical shaft *k* is provided with a suitable handle *y* which is seized by the operator, in order to rock conveniently the shaft *k*.

The spider-arms *q* relieve the sifter-arms *s'* in a great measure from the weight of the superincumbent mass of fertilizer and thereby permit a free movement of the sifter *s*. The openings between the spider-arms *q* allow a sufficiently free flow of the fertilizer or other material which is to be distributed.

I claim:

1. In a distributer of the character described, the combination of a receptacle for the material to be distributed; said receptacle being formed with a foraminated bottom; an agitator-shaft rotatably mounted in said receptacle; an agitator mounted on said agitator-shaft directly above said forami-

nated bottom; and a spider-like plate mounted in said receptacle between the mouth thereof and said agitator and adapted to relieve the latter of part of the weight of the material, while permitting the free flow of the same.

2. In a distributer of the character described, the combination of a receptacle for the material to be distributed, said receptacle being formed with a foraminated bottom; an agitator-shaft rotatably mounted in said receptacle; an agitator mounted on said agitator-shaft directly above said foraminated bottom; and means for controlling the angle through which said agitator-shaft may be turned.

3. In a distributer of the character described, the combination of a receptacle for the material to be distributed, said receptacle being formed with a foraminated bottom; a cross-bar mounted on said receptacle; an agitator-shaft mounted in said receptacle and having a bearing in said cross-bar; an agitator mounted on said agitator-shaft directly above said foraminated bottom; a pin carried by said shaft; and stop-lugs carried by said cross-bar for limiting the movement of said pin and thereby the angular movement of said shaft.

4. In a distributer of the character described, the combination of a receptacle for the material to be distributed, said receptacle being formed with a foraminated bottom; a graduated cross-bar mounted on said receptacle; an agitator-shaft mounted in said receptacle and having a bearing in said cross-bar, said shaft being provided with an index-pin adapted to coöperate with the graduations on said cross-bar; an agitator mounted on said agitator-shaft directly above said foraminated bottom; and stop-lugs which are carried by said cross-bar for limiting the movement of said pin and one of which is adjustable to vary the permissible angular movement of said shaft.

5. In a distributer of the character described, the combination of a receptacle for the material to be distributed, said receptacle being formed with a foraminated bottom; an agitator-shaft rotatably mounted in said receptacle; devices for limiting the angular movement of said shaft; an agitator mounted on said agitator-shaft directly above said foraminated bottom; and a stationary plate formed with openings and mounted in said receptacle between the mouth thereof and said agitator, said plate being adapted and designed to relieve the latter of part or the weight of the material, while permitting the free flow of the same.

In witness whereof I hereunto set my hand at Hudson Falls, New York, this 23d day of April, 1910, in the presence of the two undersigned witnesses.

DANIEL CAHILL.

Witnesses:

WILLOUGHBY L. SAWYER,

JOHN E. SAWYER.