

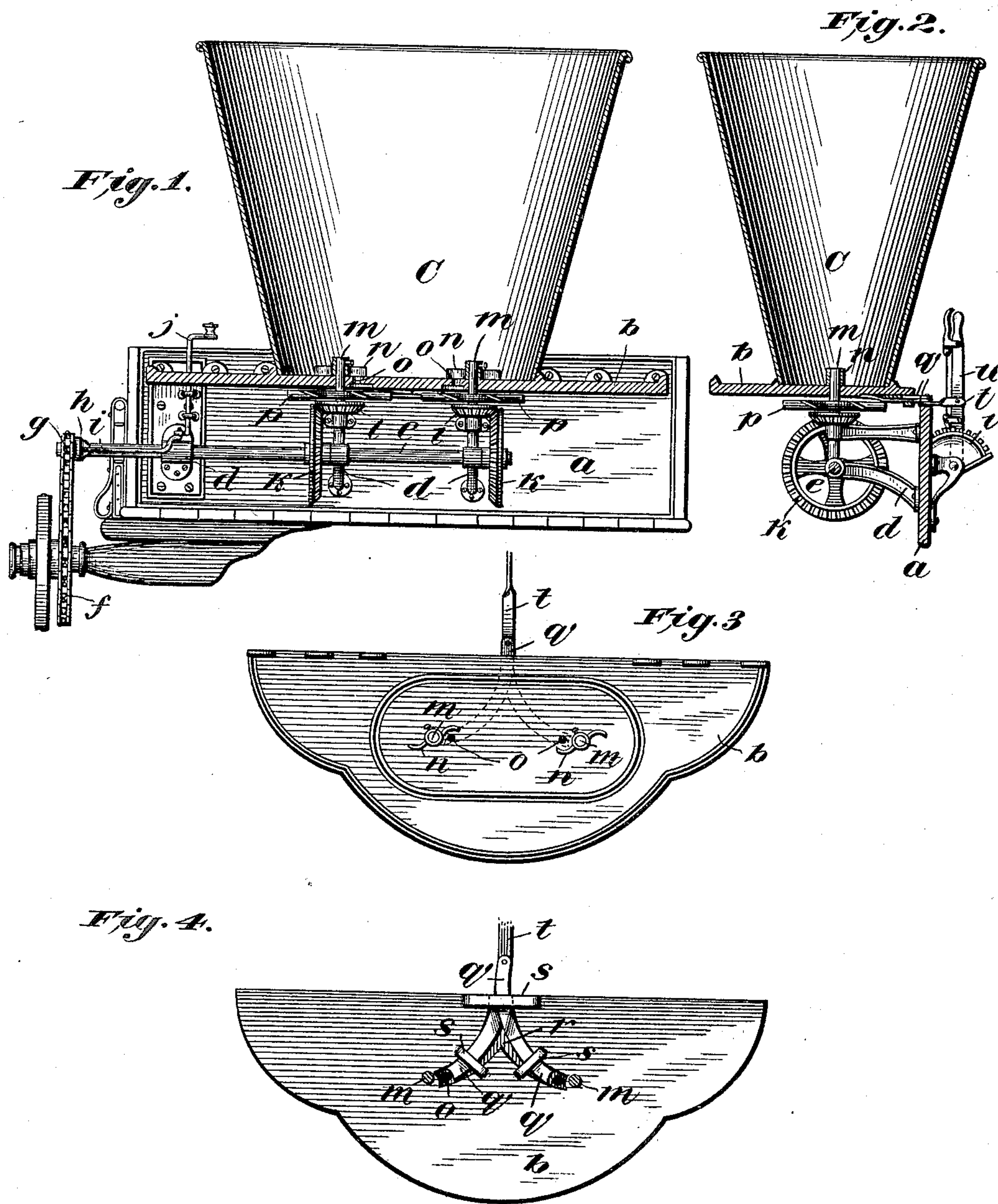
No. 697,900.

Patented Apr. 15, 1902.

D. SUMNER.
SEED SOWING MACHINE.

(Application filed Jan. 17, 1902.)

(No Model.)



Witnesses
Elmer Seavery
R. H. Bishop

Inventor,
D. Sumner,
By David Davis,
Attorneys.

UNITED STATES PATENT OFFICE.

DORANCE SUMNER, OF PLEASANT TOWNSHIP, WAPELLO COUNTY, IOWA.

SEED-SOWING MACHINE.

SPECIFICATION forming part of Letters Patent No. 697,900, dated April 15, 1902.

Application filed January 17, 1902. Serial No. 90,131. (No model.)

To all whom it may concern:

Be it known that I, DORANCE SUMNER, a citizen of the United States of America, residing at Pleasant township, in the county of Wapello and State of Iowa, have invented certain new and useful Improvements in Broadcast Seed-Sowers, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a rear view of a wagon carrying my improved machine, some of the parts being shown in vertical section; Fig. 2, a vertical section of the apparatus detached from the vehicle; Fig. 3, a plan view of the supporting-plate detached from the end-gate, and Fig. 4 a bottom view of the same.

This invention is designed to improve and simplify that class of seed-sowers adapted for attachment to the rear end of a light farm-wagon and to be driven by sprocket-chain connection with one of the rear wheels of the wagon, the apparatus being by preference mounted upon a board which is adapted to be attached to the wagon in place of the usual end-gate thereof; and the invention consists of certain novel features of construction hereinafter described and claimed.

Referring to the annexed drawings by letters, *a* designates the supporting-board, which is adapted to be attached to the wagon by inserting it in the grooves usually provided for the end-gate, and attached to this board and projecting rearwardly from it is a horizontal supporting-plate *b*, upon which is mounted and secured a hopper *C* of elliptical shape in cross-section.

Journaled in brackets *d*, attached to the board *a* below plate *b*, is a horizontal shaft *e*, one end of which projects beyond the end of the board and is provided with a loosely-running sprocket-wheel *g*, which latter is connected by a sprocket-chain *f* to a larger sprocket-wheel carried by the left rear wheel of the wagon. A clutch member *h*, of a common form, is adapted to connect sprocket *g* with shaft *e* when the machine is in operation, and to slide this clutch into and out of engagement with sprocket-wheel *g* a rod *i* and a crank-shaft *j* are employed, the latter extending up to a point within easy reach of a person in the wagon. Two large beveled gears *k* are mounted or secured upon shaft *e*, and mesh-

ing with these gears are a pair of smaller beveled gears *l*, mounted, respectively, on the short vertical shafts *m*. The gears *k* face each other, so that the shafts *m* will be rotated in the opposite directions. The upper end of each shaft *m* extends up through plate *b* and is provided within the hopper with a seed-stirrer *n*, which is adapted to revolve on or near the bottom of the hopper and insure a constant and uniform feed through the seed-opening *o*.

Attached to each shaft *m*, immediately below the adjacent feed-opening *o*, is a seed-distributing fan *p* of the usual construction.

It will be observed that with the foregoing construction the distributors will be rapidly rotated in opposite directions and caused to throw the seed out rearwardly and scatter it broadcast. The object in rotating the distributors in opposite directions is to obtain a uniform cast of the seed. In the common form of seed-sower where but a single distributor is employed or two distributors revolving in the same direction are used the seed is sown unevenly, causing thick and thin streaks to appear in the grain when it grows. This objection is avoided by employing two scattering-fans and revolving them in opposite directions, as thereby the streams of grain from the two fans are commingled and caused to correct each other's unevenness of distribution.

To regulate the feed, I employ a pair of curved cut-off plates *q*, mounted in two curved grooves or recesses *r*, formed in the under side of plate *b*, the plates *q* being confined in their respective grooves by suitable keepers *s*, fastened to or formed integral with plate *b* and extending across the grooves. The grooves *r* curve, respectively, from points coincident with the seed-discharge openings *o* toward each other and connect at a point about midway the ends of the supporting-plate *b*. The forward ends of plates *q* project and overlap and are pivotally connected to a link *t*, which is in turn connected to an upright lever *u*. This lever *u* is adapted to be held in its adjusted positions by means of a suitable ratchet and a segment *v*, mounted on the front side of the supporting-board *a*. By moving the lever *u* forward the feed-openings *o* are uncovered, and by moving it backward said openings are closed, the grooves *r* serving to

guide the cut-off plates. The advantage of this cut-off arrangement is that all danger of the feed adjustments being disturbed by the jarring action of the wagon is avoided, as the cut-off plates are positively locked against movements. Another advantage is that the feed through the two openings is simultaneously and uniformly regulated, so that the cast of seed will be uniform at all times. The segment *v* may be provided with a graduated scale to indicate the quantity of seed per acre each adjustment will cause to be sown.

Having thus fully described my invention, what I claim, and desire to obtain by Letters Patent, is—

1. In a seed-sowing apparatus, the combination of a support, a hopper mounted thereon and having two separate seed-discharge openings in its bottom, devices below each seed-opening for scattering the seed, two cut-off plates attached to the hopper-bottom and extending or diverging from said seed-openings to a point at one side of the hopper, the outer ends of these plates being overlapped and pivotally connected together, means on the hopper for guiding these plates to and from the respective seed-openings as said

plates are moved in and out to adjust the openings, and a single operating device connected to the overlapped ends of the plates, for the purposes set forth.

2. In a seed-sowing apparatus, the combination of a support, a hopper mounted thereon and having two separated seed-discharge openings in its bottom and also two curved guides diverging respectively from said seed-openings to a point at one side of the hopper, means supported below the hopper-bottom for scattering the seed, two curved cut-off plates mounted respectively in said guides and extending from the seed-openings to a point at one side of the hopper where they are connected together, a single operating-lever connected to the connected ends of the guides for simultaneously sliding said plates to and from the seed-openings.

In testimony whereof I hereunto affix my signature, in the presence of two witnesses, this 8th day of January, 1902.

DORANCE SUMNER.

Witnesses:

OLA K. EDMUNDS,
JAMES J. SMITH.