No. 695,509. Patented Mar. 18, 1902.

W. A. VAN BRUNT.

SEEDING MACHINE.

(Application filed Sept. 16, 1901.)

(No Model.) 2 Sheets—Sheet 1.

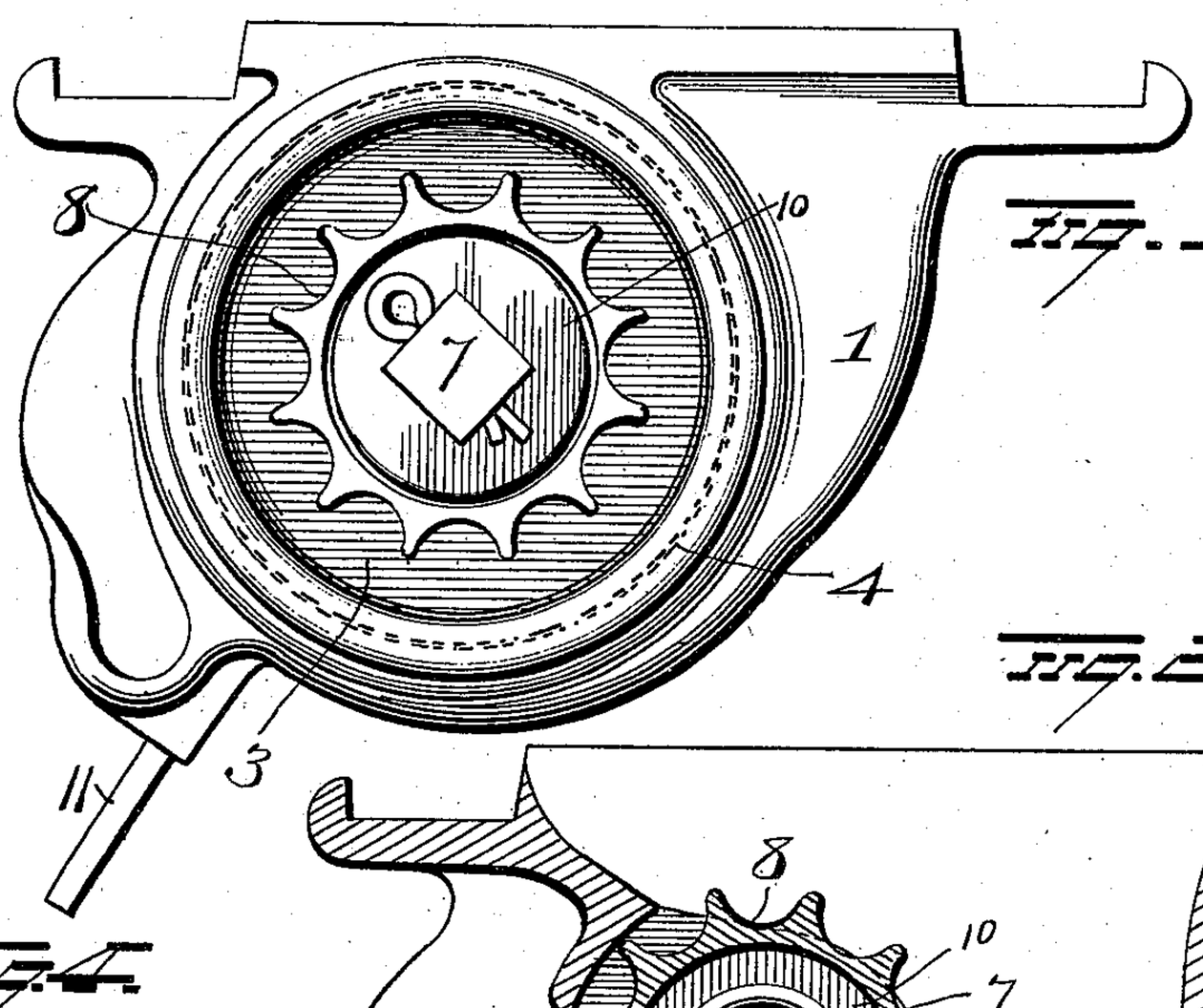

Fig. 1.

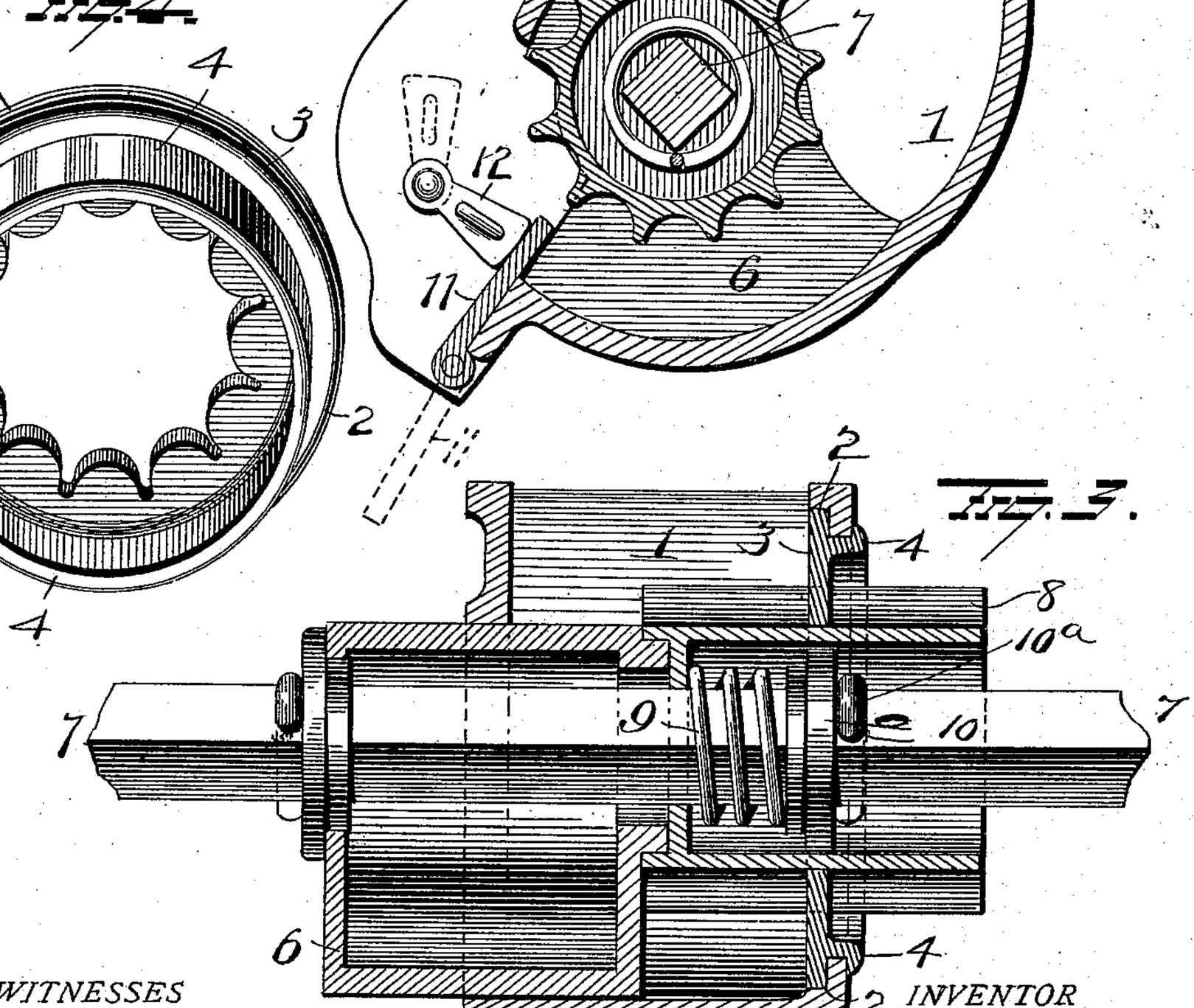

Fig. 2.

Fig. 4.

Fig. 3.

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Fig. 5.

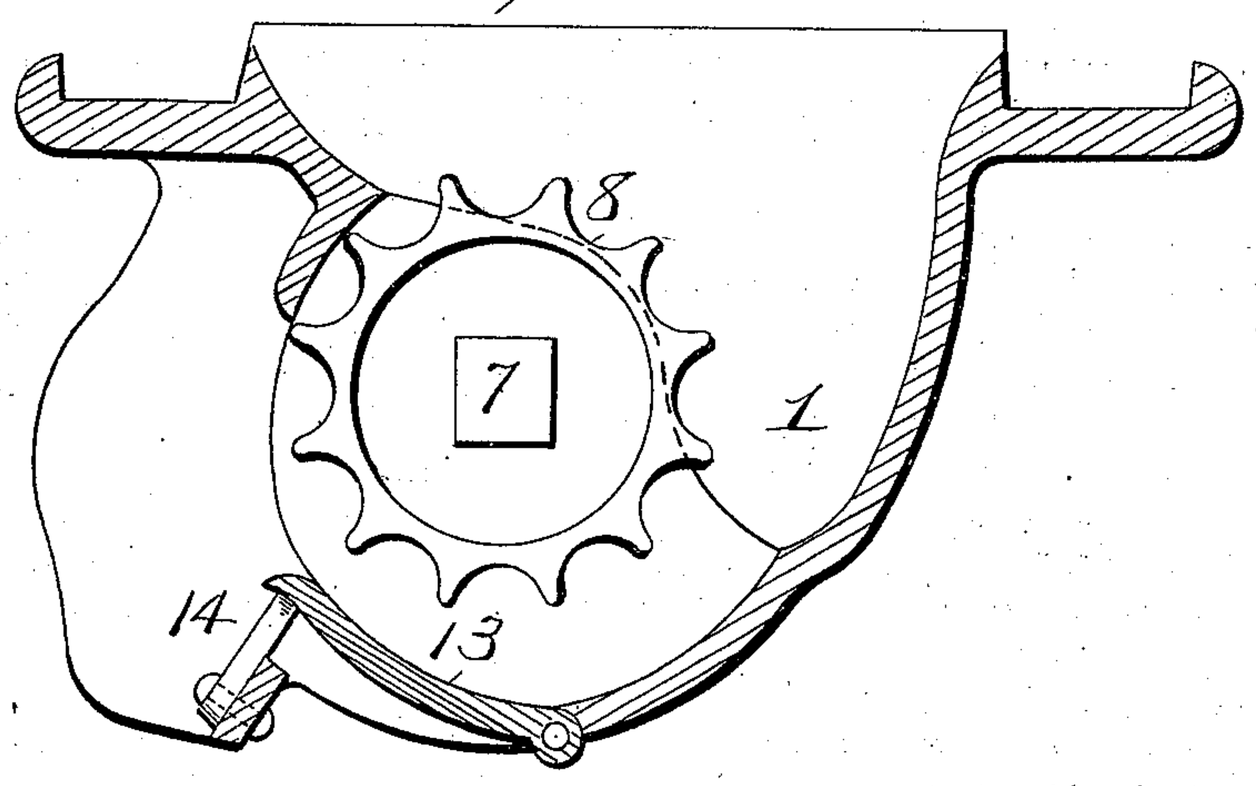
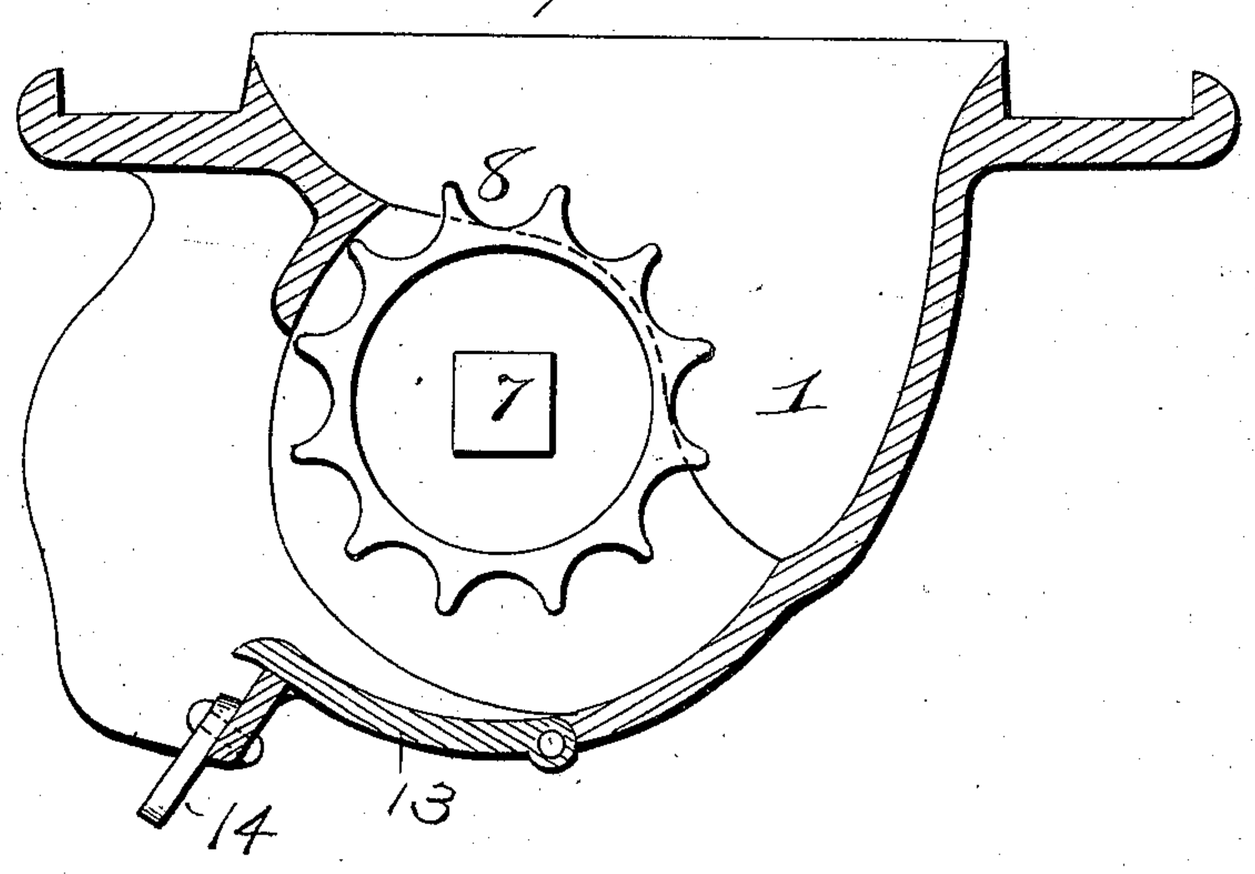


Fig. 6.



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UNITED STATES PATENT OFFICE.

WILLARD A. VAN BRUNT, OF HORICON, WISCONSIN.

SEEDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 695,509, dated March 18, 1902.

Application filed September 16, 1901. Serial No. 75,548. (No model.)

To all whom it may concern:

Be it known that I, WILLARD A. VAN BRUNT, a resident of Horicon, in the county of Dodge and State of Wisconsin, have invented certain new and useful Improvements in Seeding-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in seeding-machines, and more particularly to that class of machine known as "force-feed," the object of the invention being to provide improved means for adjusting the size of the seed-outlet according to the size of the seed being discharged.

A further object is to provide an improved means for fastening the rosette-ring in the seed-cup.

With these objects in view the invention consists in certain novel features of construction and combinations and arrangements of parts, as will be more fully hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in elevation illustrating my improvements. Fig. 2 is a view in section of the same. Fig. 3 is a view in section taken at right angles to Fig. 2. Fig. 4 is a view illustrating the shape of the rosette-ring prior to its being secured in the cup, and Figs. 5 and 6 are views of a modified form of my invention.

1 represents the seed-cup, which is of the ordinary shape and composed of one integral casting adapted to be secured to the bottom of a suitable seed box or receptacle. One side of the cup 1 is made with a circular opening and an annular recess all around said opening on the inner face of the cup for the reception of a peripheral flange 2 on one edge of the rosette-ring 3, the periphery of which latter projects beyond the outer face of the cup, and its outer edge is upset or spun to form an annular flange or lip disposed against the outer face of the cup, as clearly shown in Fig. 4. This ring 3 is composed, preferably, of malleable metal, so that when the flange 4 is projected outward through the cup it can be rolled or pressed over the outside of the cup, forming a peripheral flange on the outside corresponding with flange 2 on the inside, and hence secure the ring against accidental displacement, but at the same time permit its free rotation. The opposite wall of the seed-cup is made with an angular opening to receive the follower 6, which latter is mounted on the angular shaft 7 and is disposed against the end of the fluted or corrugated feed-wheel 8, which latter is made hollow and open at its outer end for the reception of a coiled spring 9, located on shaft 7 and held against the inner end of the feed-wheel by a ring or stop 10, secured to the shaft by a key 10^a, locked in any one of the series of holes in said shaft, the spring serving to maintain the feed-wheel against the follower and take up wear.

The follower is mounted on the shaft 7 and is adapted to be moved through the opening in the side of the cup to regulate the amount of grain forced out by the feed-wheel and to shut off altogether the passage of grain through the cup.

To the bottom of the cup, at the discharge end thereof, a gate 11 is hinged, as shown, and adapted to be swung into position to partially close the discharge-outlet beneath the feed-wheel when planting small grain. A catch 12 is pivoted to the inner face of one side of the feed-cup and is adapted to be swung down onto the gate when the latter is closed, and hence prevent its being opened by the pressure of grain.

The purpose of my improved gate is not to regulate the amount of grain discharged, as this is accomplished by moving the follower and feed-wheel, the greater quantity of grain being sown according to the proportion of the feed-wheel in the cup; but its purpose is to insure a uniform feed whether the grain be large or small. Thus it will be seen that when peas or beans are being sown the gate will be thrown open to permit them to pass without being crushed, but when sowing wheat or other small seed the discharge-outlet is too large, permitting the wheat to collect and be discharged in bunches and unevenly distributed, and in order to limit the size of the opening I swing the gate 11 back, locking it in place by means of the catch 12, when a uniform feed is insured, as only such grain can pass as can be carried in the corrugations or flutes of the feed-wheel.

Instead of providing a gate as above ex-

plained I might hinge a section of the bottom of the cup, as shown in Figs. 5 and 6, and provide a pivoted cam or catch 14, adapted to be turned to hold the hinged section 13 in close proximity to the feed-wheel, and hence contract the discharge-orifice to suit the size of the grain being sown.

Various other slight changes might be made in the general form and arrangement of the several parts described without departing from the spirit and scope of my invention, and hence I would have it understood that I do not wish to limit myself to the precise details set forth, but consider myself at liberty to make such slight changes and alterations as fairly fall within the spirit and scope of my invention.

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

1. In a seeding device, the combination with a cup and a feed-wheel, of means for controlling the amount of grain fed by the feed-wheel and a separate adjustable device for regulating the feed of different sizes of grains from the cup.

2. In a seeding device, the combination with a cup and a feed-wheel therein, of means for regulating the size of the discharge-outlet according to the size of the grain being sown, and a device for locking said means in position to partially close the outlet of the cup.

3. In a seeding device, the combination with a cup and a feed-wheel therein, of a hinged gate at the outlet end of the cup, and a catch for holding said gate in position to partially close the seed-outlet.

4. In a seeding device, the combination with a cup, a feed-wheel and a follower adapted to limit the amount of grain passing through the cup, of means below said feed-wheel and follower for contracting the outlet of said cup when sowing small seed or grain.

5. In a seeding device, the combination with a cup, having a circular opening in one side, of a rosette-ring flanged at one side and disposed in said opening the periphery of said rosette projecting beyond the outer face of the cup and provided with an annular flange or lip disposed against said outer face of the cup, and a feed-wheel in said rosette-ring.

6. In a seeding device the combination with a cup and a feed-wheel therein, of a movable gate at the outlet end of the cup and means arranged to engage the gate and lock it in position to partially close the seed-outlet.

7. In a seeding device, the combination with a cup having an opening through one side, of a rosette-ring having a laterally-projecting cylindrical flange passing through said opening, the outer edge of said flange being upset and forming an annular flange or lip disposed against the outer face of the cup.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

WILLARD A. VAN BRUNT.

Witnesses:
H. W. LANGE,
H. MARSH.