

H. BESSEN.
SEEDER.

APPLICATION FILED JUNE 1, 1909.

935,734.

Patented Oct. 5, 1909.
2 SHEETS—SHEET 1.

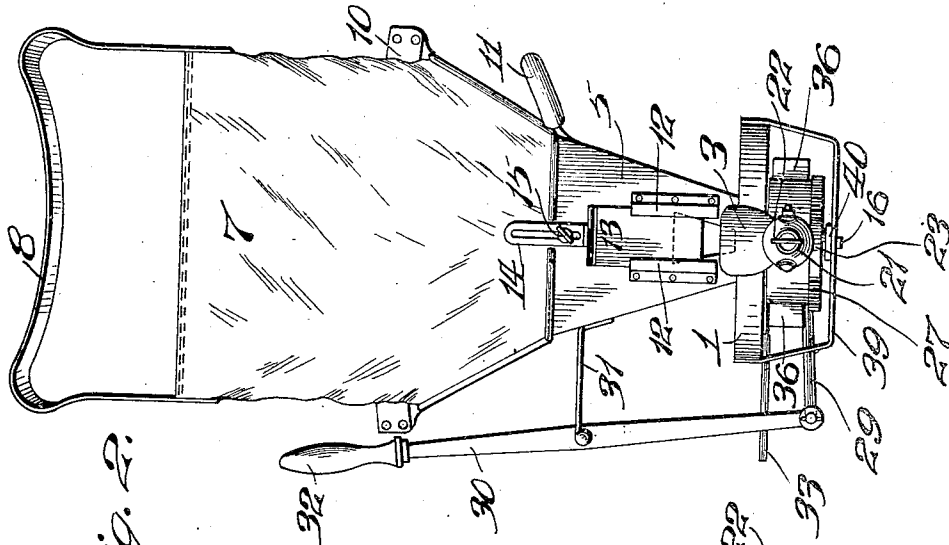


Fig. 2.

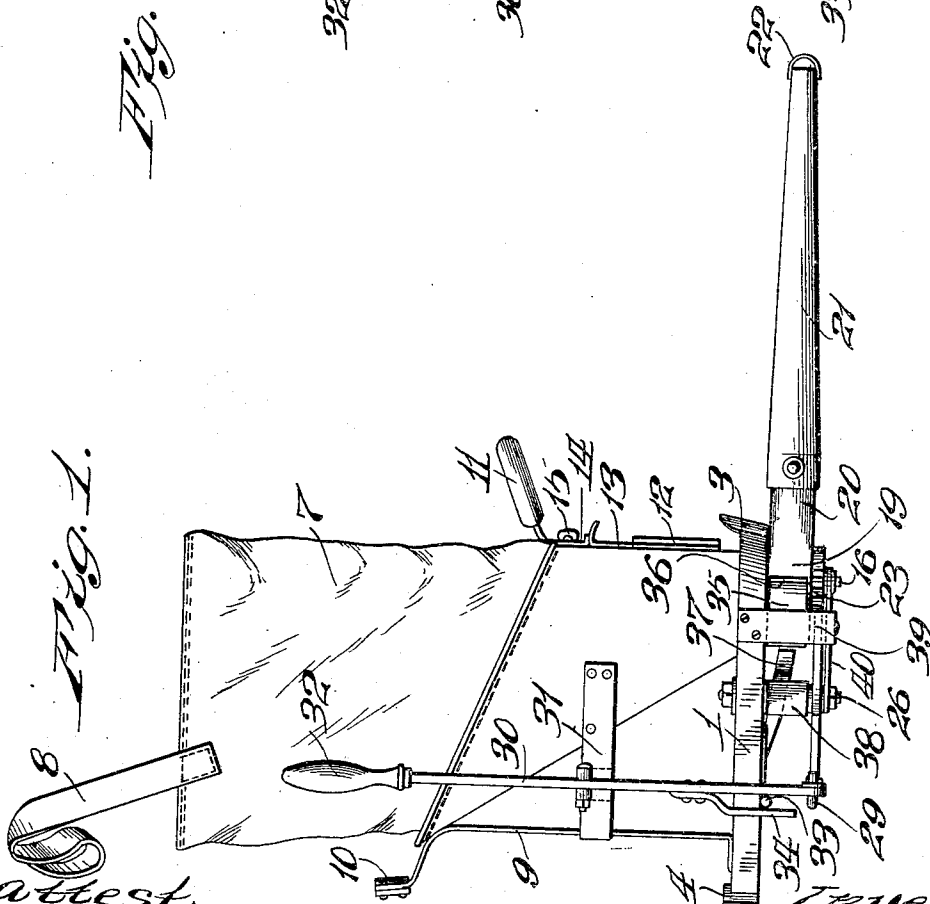


Fig. 1.

attest.
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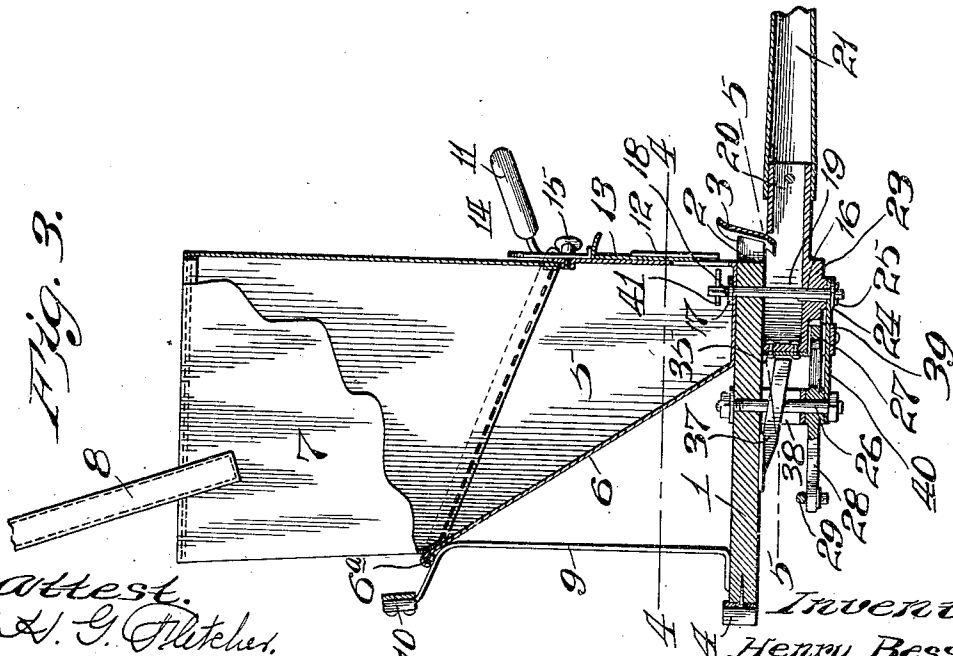
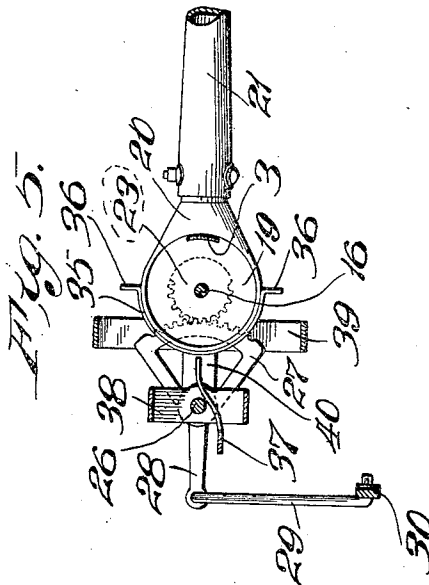
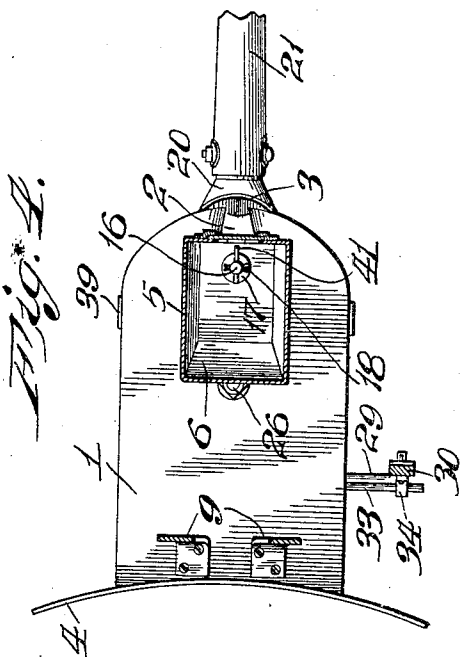
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UNITED STATES PATENT OFFICE.

HENRY BESSEN, OF PRAIRIE DU ROCHER, ILLINOIS.

SEEDER.

935,734.

Specification of Letters Patent.

Patented Oct. 5, 1909.

Application filed June 1, 1909. Serial No. 499,386.

To all whom it may concern:

Be it known that I, HENRY BESSEN, a citizen of the United States, and resident of Prairie du Rocher, Illinois, have invented certain new and useful Improvements in Seeders, of which the following is a specification containing a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to improvements in hand seeders, the object of my invention being to provide simple, durable and inexpensive means in a hand seeder for adjusting the feed from the hopper, for agitating the seed within the hopper and means for oscillating a centrifugal discharging spout.

For the above purposes my invention consists in certain novel features of construction and arrangement of parts in a hand seeder which will be fully described, pointed out in my claims and illustrated in the accompanying drawings, in which:

Figure 1 is a side elevation of the complete seeder; Fig. 2 is a front elevation of the complete seeder; Fig. 3 is a vertical sectional elevation showing a portion of the flexible extension of the hopper complete; Fig. 4 is a sectional plan taken on the line 4-4 of Fig. 3; and, Fig. 5 is a sectional plan taken on the line 5-5 of Fig. 3.

Referring by numerals to the accompanying drawings: 1 designates the base of the seeder, preferably made of wood, having a slot 2 formed in its forward end and a segmental plate 3 closing the end of the slot and projecting above and below the upper and lower faces of the base 1. The rear end of the base is curved and a segmental plate 4 is secured thereto and projects beyond each side margin of the base. A sheet metal hopper 5, having an inclined rear wall 6, is secured to the base, the upper margin of the hopper being reinforced by a wire 6^a. The walls of the hopper adjacent the upper margins are provided with a series of perforations through which the flexible extension 7 of the hopper is stitched to the hopper 5.

A strap 8 is secured to the upper ends of the sides of the flexible extension and arranged to suspend the seeder from the neck and shoulders of the operator, the weight of the hopper on the neck and shoulders of the operator being relieved by the plate 4 bearing against the operator's waist. To fur-

ther relieve the weight from the neck and shoulders of the operator and to relieve the weight from the waist of the operator, a pair of resilient uprights 9 are fixed to the base and extended upwardly under the inclined wall of the hopper thence rearwardly and are connected by a curved plate 10 which bears against the operator's chest.

To prevent lateral movement of the seeder against the body of the operator, a handle 11 is fixed to the side wall of the hopper and held in the left hand of the operator.

An opening is formed in the forward face of the hopper 5 and slides 12 are fixed to the outer face of the hopper adjacent the opening arranged to frictionally hold a shutter 13, a slotted gage 14 is adjustably fixed to the hopper over the shutter 13 by means of the winged set screw 15 passing through the slot in the gage and seated in a threaded aperture in the hopper.

A shaft 16 is rotatably mounted in the base of the seeder projecting upwardly into the hopper and held against movement downwardly by a washer 17 and a split key 18, an open topped receiving pan 19 is carried by the shaft 16 and is keyed or otherwise fixed thereto. Formed integral with the pan is a tubular extension 20 and embracing the outer end of the tubular extension and secured thereto by a bolt is a tubular, tapering discharge spout 21 and fixed over the end of the discharge spout is a deflecting strap 22. The receiving pan 19 is preferably made of cast metal and has formed integral therewith on its bottom face a cylindrical toothed projection 23. To prevent movement of the shaft 16 upwardly, a washer 24 and split key 25 is provided at the lower end of the shaft.

To provide means for oscillating the receiving pan 19 a shaft 26 is fixed to the base 1 arranged to carry a segmental rack 27 meshing with the toothed cylindrical projection 23 on the bottom of the receiving pan. A lever 28 is formed integral with the segmental rack and a link 29 is fixed to the end of the lever and connected with an actuating lever 30, the lever 30 is pivotally mounted on a support 31 projecting laterally from the side wall of the hopper and provided with a handle 32 at its upper end. A rod 33 projects laterally from the bottom of the base 1 and is embraced by the lever and a strap 34 carried by the lever and serves

to prevent movement of the oscillating lever 30 other than lateral in relation to its pivotal point.

To limit the oscillating movement of the receiving pan 19 a semicircular plate 35 is fixed to the vertical rear wall of the pan and terminates in laterally projecting wings 36 which engage a resilient finger 37 fixed to the bottom of the base. To more rigidly hold the operative parts, braces 38 and 39 are fixed to the sides of the base of the seeder, the brace 38 embracing the shaft 26 above the pivotal point of the segmental rack 27 and a plate 40 beneath the pivotal point of the rack 27 which plate 40 is secured to the brace 39 and projects beyond and is embraced by the shaft 16.

To agitate the seed within the hopper, to facilitate the flow of seed therefrom to the oscillating receiving pan, a pin 41 is formed on or fixed to the upper end of the shaft 16 and at an angle relative thereto, whereby, when the shaft is oscillated the pin 41 is moved, which movement agitates or stirs the seed within the hopper to prevent stoppage or clogging of the seed.

In the practical operation of the seeder assuming the same to be suspended from the neck and shoulders of the operator and of the hopper and flexible extension filled with seed to be broad-casted, the operator grasps the lever 11 with his left hand to firmly hold the seeder against movement over his body. With his right hand he grasps the handle of the lever 30 and reciprocates the lever thereby imparting an oscillating motion to the receiving pan 19 and discharge spout 21, through the medium of the segmental rack 27 and toothed cylindrical projection 23 on the bottom of the receiving pan. Thus seed fed to the receiving pan will be centrifugally forced through the receiving pan and through the discharge spout and broad-casted by the oscillating movement of the discharge spout, the broad-casting being facilitated by the deflecting strap 22 at the end of the spout which divides and separates the flow of seed therefrom. To regulate the amount of seed to be broad-casted to a predetermined area the gage 14 is altitudinally adjusted and the shutter 13 drawn to the lower end of the gage and frictionally held against movement after being set by the slides 12.

I claim:

1. In a seeder of the class described, a hopper having an outlet, a receiving pan, a spout carried by the pan and means for os-

illating the pan and spout, whereby seed is centrifugally discharged from the pan and broad-casted by the oscillating movement of the spout.

2. In a seeder of the class described, a hopper having an outlet, a receiving pan, a spout carried by the pan, an agitator within the hopper and means for oscillating the pan, spout and agitator.

3. In a seeder of the class described, a hopper having an outlet, means for adjusting the outlet, a receiving pan, a spout carried by the pan, an agitator within the hopper and means for oscillating the pan, spout and agitator.

4. In a seeder of the class described, a hopper having an outlet, a receiving pan, a tubular extension formed integral with the receiving pan, a spout carried by the tubular extension and means for oscillating the pan and spout.

5. In a seeder of the class described, a hopper having an outlet, a receiving pan, a tubular extension formed integral with the receiving pan, a spout carried by the tubular extension, a deflecting strap fixed to the free end of the spout and means for oscillating the pan and spout.

6. In a seeder of the class described, a hopper, having an outlet, a receiving pan, an agitator and means for oscillating the pan and agitator.

7. In a seeder of the class described, a hopper, having an outlet, means for adjusting the outlet, a shaft carried by the seeder, a receiving pan carried by the shaft, an agitator carried by the shaft and means for oscillating the shaft whereby the receiving pan and agitator are oscillated.

8. In a seeder of the class described, a hopper, having an outlet, means for adjusting the outlet, a shaft carried by the seeder, a receiving pan carried by said shaft, an agitator carried by the shaft, a toothed cylindrical member carried by the receiving pan, a segmental rack meshing with the toothed member and a lever for oscillating the segmental rack whereby motion is imparted to the shaft, thereby oscillating the receiving pan and agitator.

In testimony whereof, I have signed my name to this specification, in presence of two subscribing witnesses.

HENRY BESSEN.

Witnesses:

THOS. J. CONNER,
W. HARRY CONNER.