

No. 749,484.

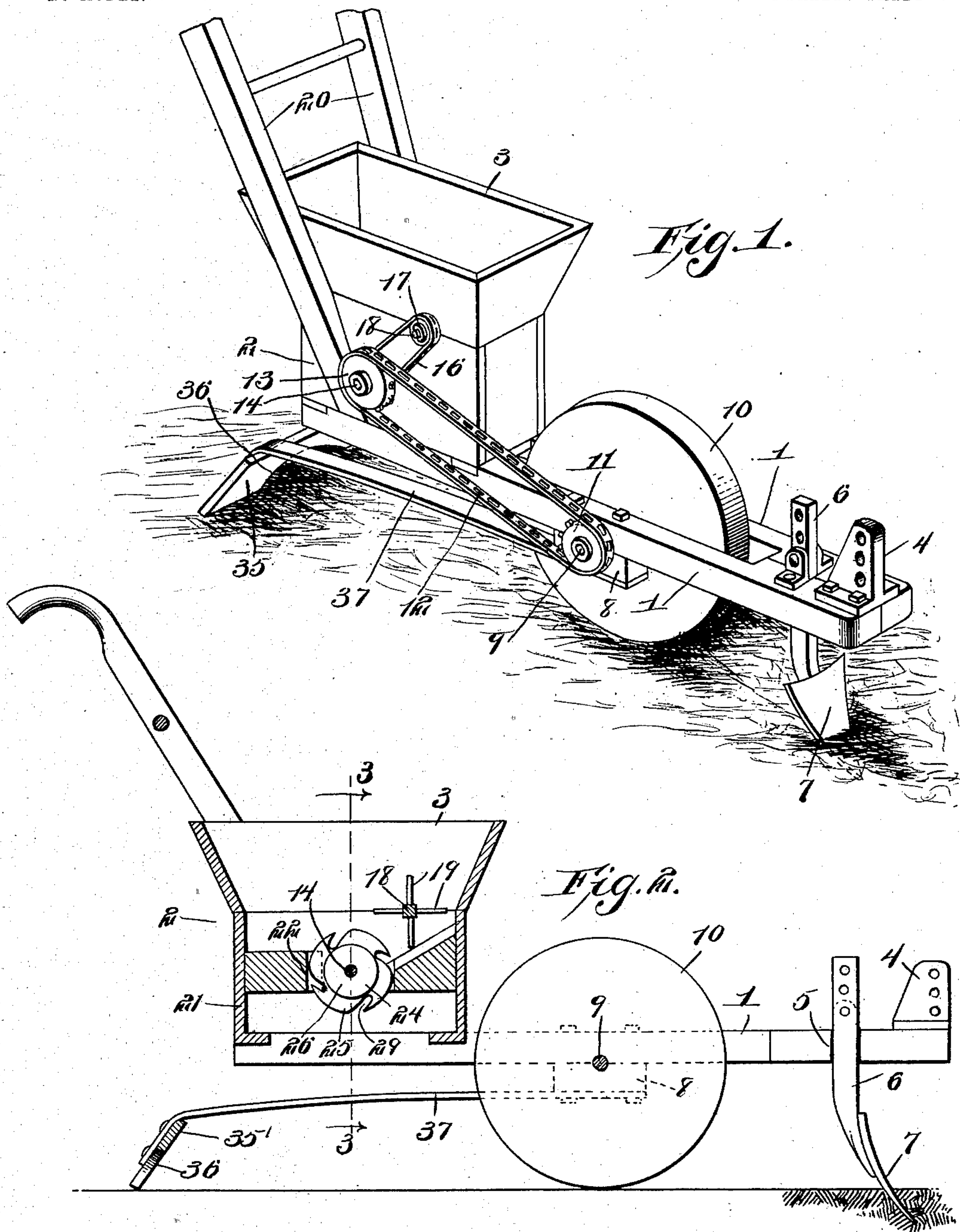
PATENTED JAN. 12, 1904.

S. A. GRIER.  
SEED PLANTER.

APPLICATION FILED OCT. 12, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses  
*Ed Stewart*  
*Wm Ragger*

*Samuel A. Grier*, Inventor,  
by *Chas Snow* Attorneys

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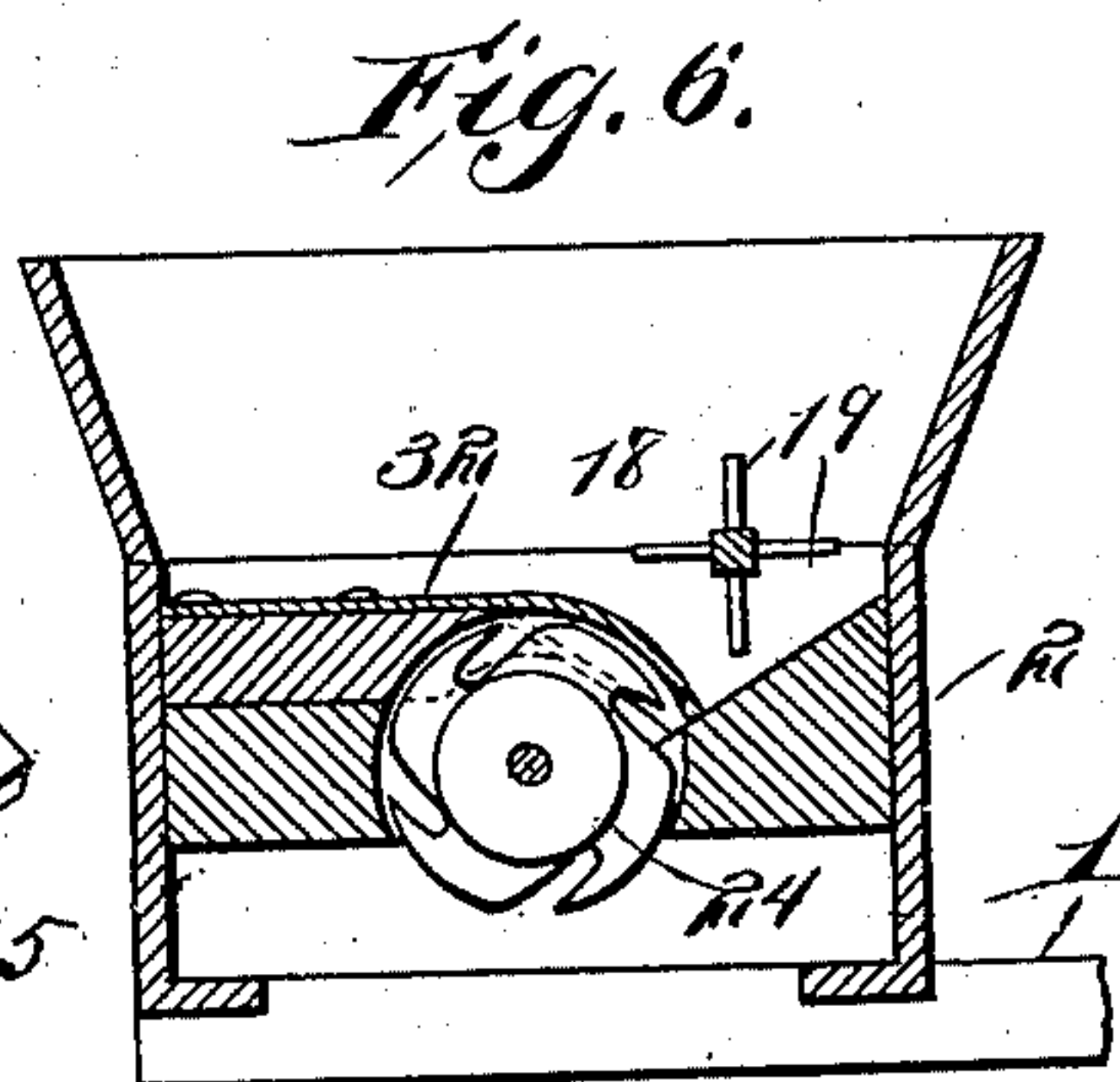
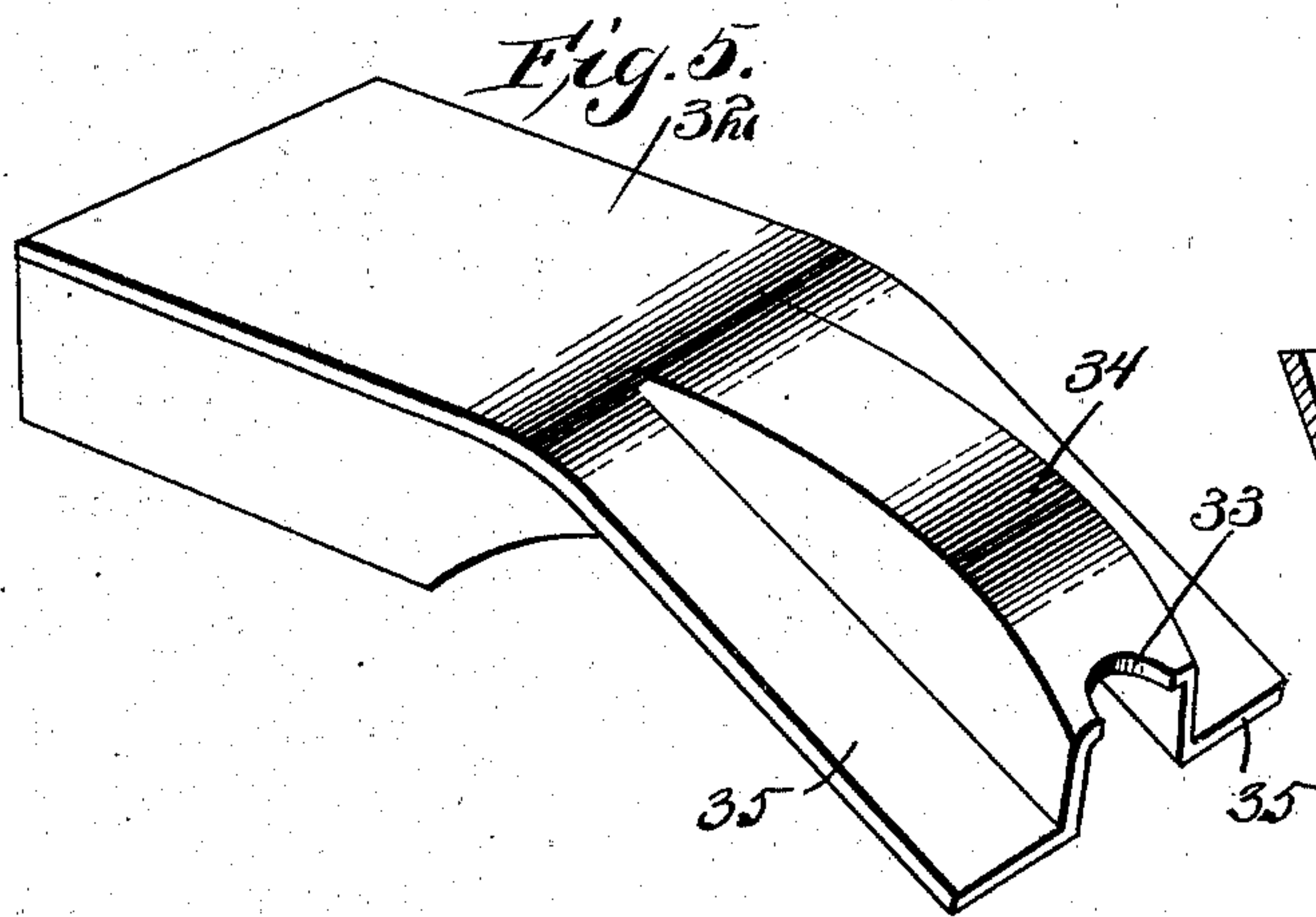
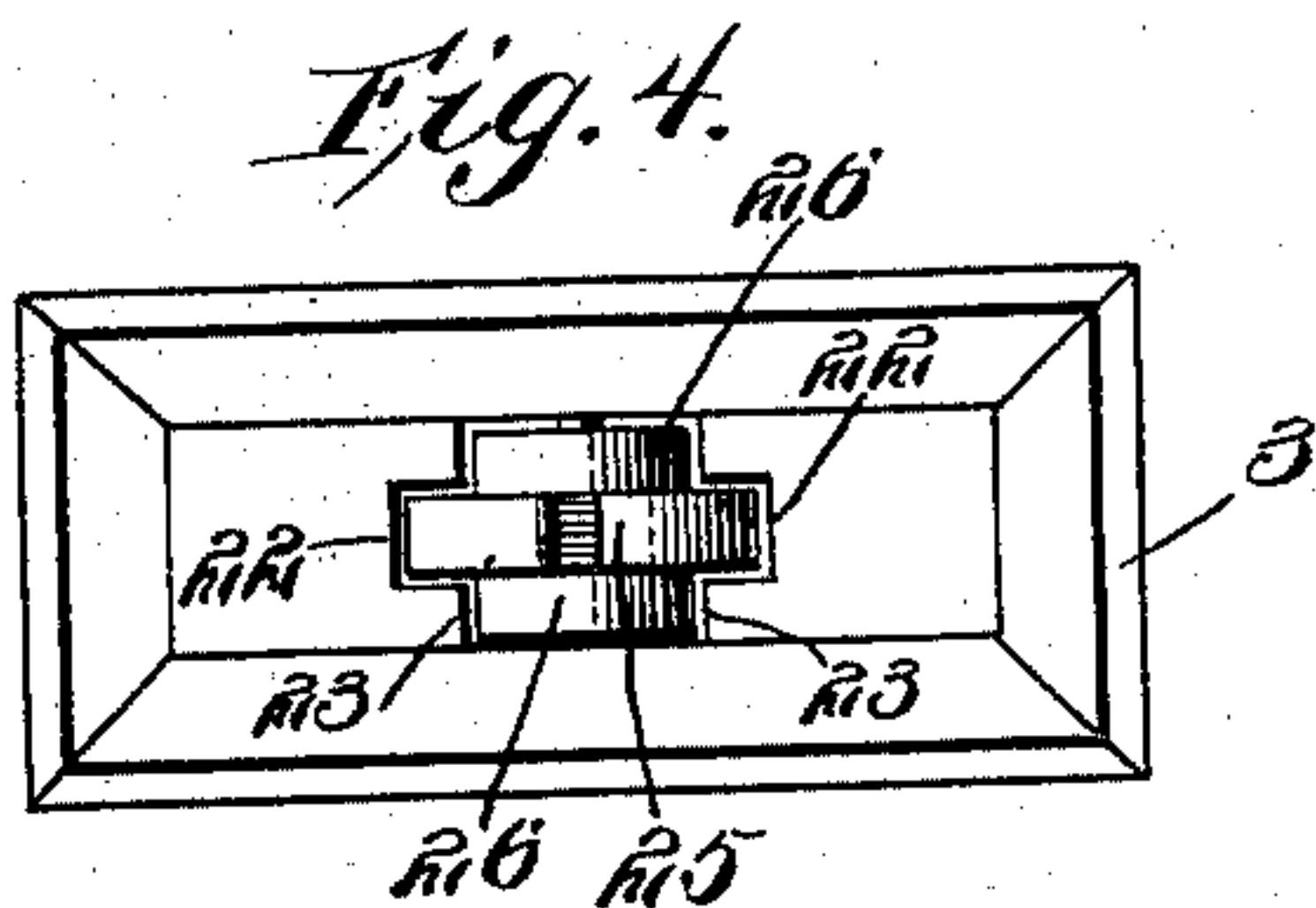
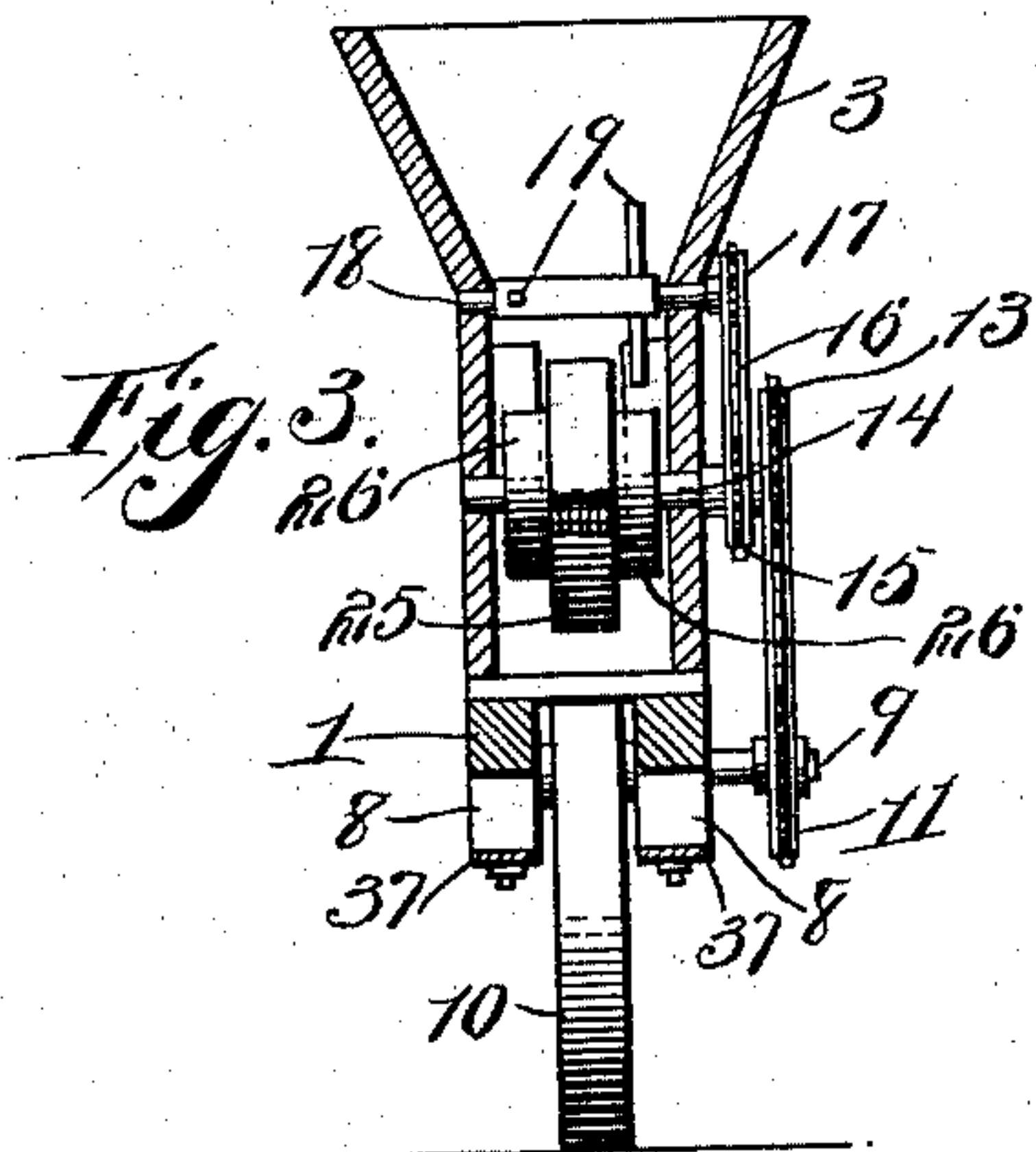
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2 SHEETS—SHEET 2.



Witnesses  
*Edw. Stewart*  
*Wm. Ragger*

*Samuel A. Grier,* Inventor.  
by *Chas. Snow & Co.* Attorneys



# UNITED STATES PATENT OFFICE.

SAMUEL A. GRIER, OF CUTHBERT, GEORGIA.

## SEED-PLANTER.

SPECIFICATION forming part of Letters Patent No. 749,484, dated January 12, 1904.

Application filed October 12, 1903. Serial No. 176,691. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL A. GRIER, a citizen of the United States, residing at Cuthbert, in the county of Randolph and State of Georgia, have invented a new and useful Seed-Planter, of which the following is a specification.

This invention relates to seed-planters; and it has for its object to provide a device of this class which shall be adapted for dropping cotton-seed and various other kinds of seeds and which shall possess superior advantages in point of simplicity, durability, and general efficiency.

With these ends in view my invention consists in the improved construction, arrangement, and combination of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of a seed-dropper constructed in accordance with the principles of my invention. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is a transverse sectional view taken on the line 3 3 in Fig. 2. Fig. 4 is a detail plan view of the hopper with the seed-dropping wheel in position therein. Fig. 5 is a perspective detail view showing a cap which is used in connection with the hopper for certain purposes. Fig. 6 is a longitudinal sectional detail view taken through the hopper with the cap in position.

Corresponding parts in the several figures are indicated by similar numerals of reference.

In carrying out my invention I provide a frame of the kind which is usually employed in implements of the class to which my invention belongs, said frame comprising side pieces 1 1, suitably spaced at the front and rear ends and supporting at their rear ends the seedbox 2, having its upper end enlarged and forming a hopper 3. The front end of the frame is provided with a transversely-perforated standard 4 for the attachment of the draft, and it also has a socket 5, in which the shank 6 of a furrow-opener 7 is adjustably mounted. The side bars 1 of the frame are also provided with boxes 8, forming bearings for an axle 9, supporting the furrow-wheel 10, which travels in the furrow made by the opener 7. The axle 9 also has a sprocket-wheel 11, connected by

a chain 12 with a sprocket 13 upon a shaft 14, which is journaled transversely in the seed-box, the said shaft 14 having an additional sprocket-wheel 15, connected by a chain 16 with a sprocket-wheel 17, secured upon one end of a shaft 18, which is journaled transversely in the hopper and which is provided with a plurality of radially-extending arms or fingers 19, forming agitators. Handles 20 are suitably secured to the seedbox and hopper for the purpose of guiding the machine.

The bottom of the seedbox, which is designated 21, has a centrally-disposed longitudinal slot 22, at the sides of which recesses 23 are formed. Said slot and recesses are adapted for the reception of the seed-wheel 24, the central portion of which, 25, engages the slot 22 and is of somewhat greater diameter than the end portions of said wheel, which, as will be seen, are designated 26 and are normally fitted in the recesses 23 on opposite sides of the central slot 22. The seed-wheel may thus be said to constitute a part of the bottom of the seedbox, said wheel being secured upon the shaft 14, extending transversely through said box, and receiving motion from the furrow-wheel by the means hereinbefore described.

The seed-wheel, or rather the central portion thereof, which is of the greatest diameter, is provided with a plurality of cups or recesses 29, which are formed tangential to the ends of said wheel. When in operation a rotary motion is imparted to the seed-wheel the cups of the latter will become filled with seed contained in the seedbox, and said seed will be carried around with the seed-wheel past the solid portion of the bottom until said cup at the point where it parts with the bottom assumes an approximately vertical inverted position, thus causing its contents to be rapidly discharged into the furrow formed for its reception. This operation is performed simply and naturally without danger of seeds of any kinds becoming stuck or lodged, the agitator serving not only to stir up the contents of the seedbox but also to sweep surplus seed off from the seed-cups, thereby facilitating the general operation.

When other seeds than cotton are to be



planted or dropped, I prefer to avail myself of a cap-piece such as shown in Fig. 5 and 6 of the drawings, where it is designated 32, said cap-piece being fitted to the inside of the seed-hopper, where it covers the wheel except at the extreme front or downgoing end of the same, where the said cap is provided with a notch 33, which will readily admit the seeds to the cups in the central part of the disk.

10 The cap 32 is also preferably provided with a ridged portion 34 to engage a portion of the central part 25 of the seed-wheel and with flanges 35, which when the cap or closure is in use rest upon the laterally-projecting or end portions of the wheel, thereby supporting the said cap in proper position for operation.

For the purpose of covering the seeds I avail myself of an ordinary covering device, as 35', consisting of a board having a segmental incision 36, which is kept in contact with the ground by the carrying-springs 37, which connect the said covering device with the side beams of the implement.

From the foregoing description, taken in connection with the drawings hereto annexed, the operation and advantages of this invention will be readily understood by those skilled in the art to which it appertains. As the machine progresses over the ground a rotary motion is transmitted from the furrow-wheel to the shaft 14 and from thence to the shaft 18, which latter by properly proportioning the sizes of the sprocket-wheels is caused to rotate more rapidly than the shaft 14. The seed-wheel upon the latter being rotated in such a manner as to cause its upper lead to travel in a forward direction, the seed-pockets of said wheel are filled with the seed, which is discharged from said pockets, while the latter having been carried past the bottom of the seedbox are presented in an approximately vertical position. Thus if cotton-seed is being planted the same will be dropped at regular intervals, which may be regulated according to the number of seed-cups in the seed-wheel and according to the rate of speed at which the latter is rotated. The cotton-seed will thus be deposited in regular stands in the

furrow and being covered by the covering device will be caused to remain in the exact places where it is dropped, thus avoiding the necessity of subsequently chopping out the rows, and thereby saving a considerable amount of labor. The same with regard to the dropping of the seed at regular intervals may be said with reference to any kind of seeds that are planted. When other seeds than cotton-seed are planted, however, the cap 32 will prevent undue frictional contact between the seeds and the wheel, and the amount of seed permitted to enter each seed-cup may be regulated by the size of the notch or opening 33.

Having thus described my invention, I claim—

1. In a machine of the class described, a seed-box having a bottom provided with a longitudinal slot and a recess extending from each side of said slot, and a seed-wheel journaled in the longitudinal slot of the bottom and having disks on opposite sides thereof engaging the recesses of said slot, said seed-wheel being provided with recesses forming seed-cups tangential to the disks upon the sides thereof.

2. In a machine of the class described, a suitably-supported frame, a seedbox, a bottom for the latter having a longitudinal slot and recesses extending laterally from said slot, a seed-wheel journaled in the seedbox and having oppositely-disposed disks forming lateral extensions, said wheel and disks fitting the slot and recesses in the bottom of the seedbox, means for operating the seed-wheel, a cap adapted to be mounted in the box above the seed-wheel and having a ridged portion engaging the central portion of the seed-wheel, and laterally-extending flanges resting upon the lateral extensions of the seed-wheel, said central ridged portion being provided with a notch at the front end thereof.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

SAMUEL A. GRIER.

Witnesses:

B. W. ELLIS,  
L. S. CHASTAIN.