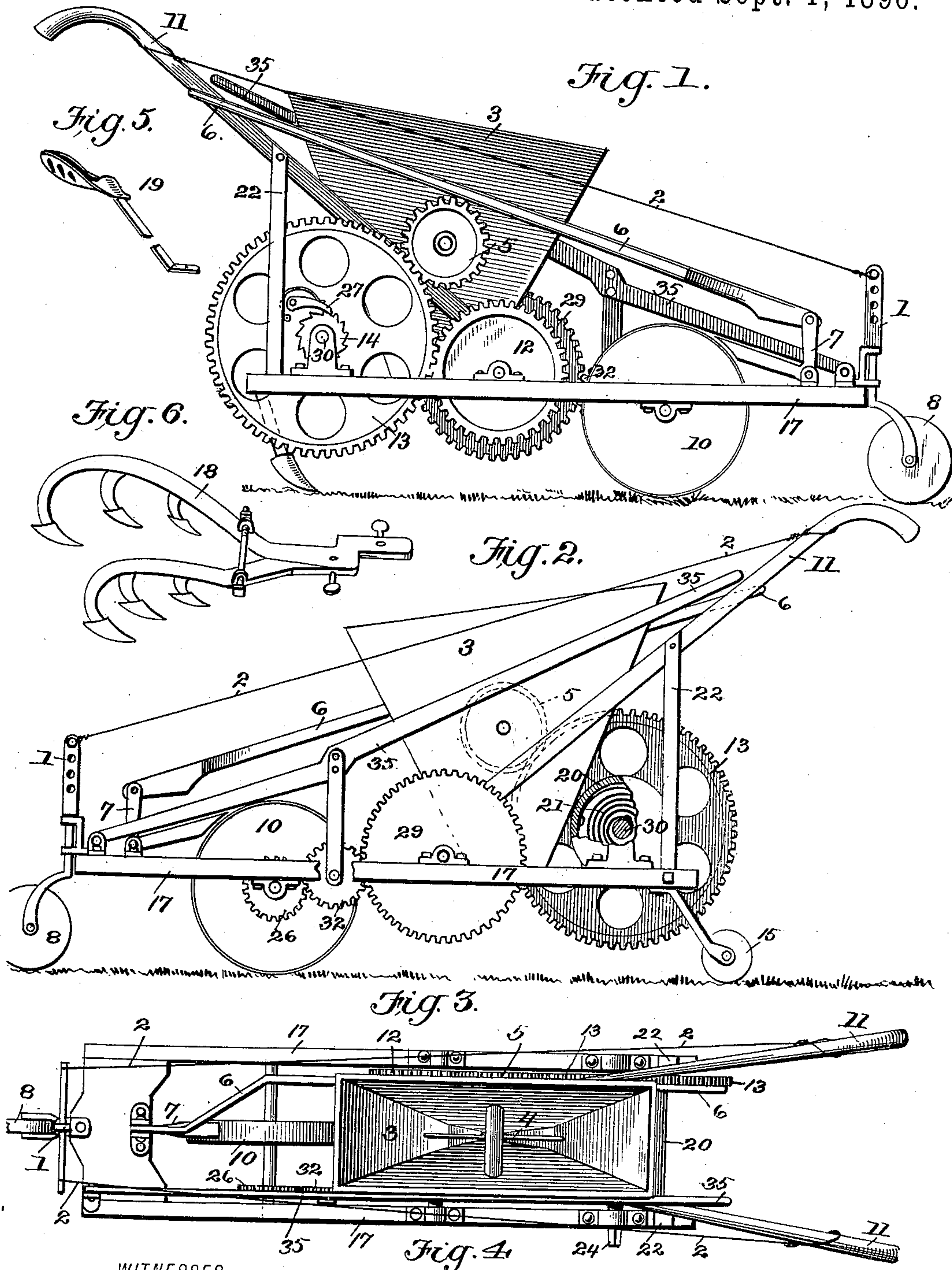


(No Model.)

V. V. HILL & M. HOLMAN.
SEED PLANTER AND CULTIVATOR.

No. 567,098.

Patented Sept. 1, 1896.



WITNESSES:

Jos. A. Ryan
Edw. W. Ryan.

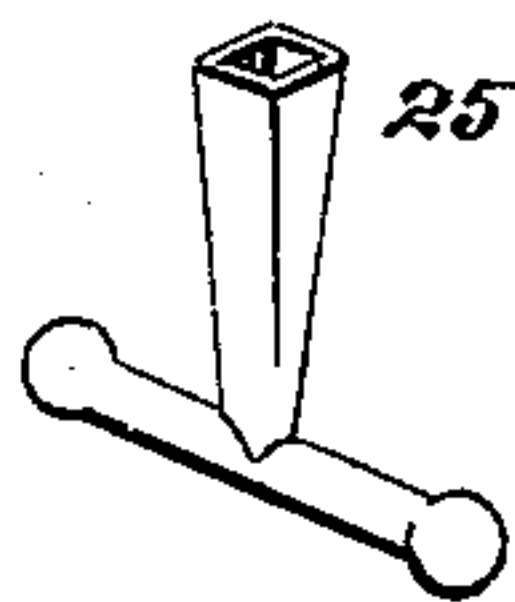
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UNITED STATES PATENT OFFICE.

VINSON V. HILL AND MARCH HOLMAN, OF NORWOOD, GEORGIA.

SEED-PLANTER AND CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 567,098, dated September 1, 1896.

Application filed May 16, 1896. Serial No. 591,752. (No model.)

To all whom it may concern:

Be it known that we, VINSON V. HILL and MARCH HOLMAN, of Norwood, in the county of Warren and State of Georgia, have invented a new and useful Improvement in Seed-Planters and Cultivators, of which the following is a specification.

The object of our invention is to provide an agricultural machine designed to be operated by a spring-motor and to be used as a seed-planter or cultivator, so as to dispense with the use of horses; and it consists in the peculiar construction and arrangement of the parts, which will be hereinafter more fully described with reference to the drawings, in which—

Figure 1 is a side elevation of the machine from the right side; Fig. 2, a side elevation from the left side, partly in section; Fig. 3, a plan view. Figs. 4, 5, and 6 are details.

In the drawings, 17 17 is the main frame, composed of two parallel horizontal bars connected at their front ends and having at their rear ends vertical standards 22, supporting inclined handles 11, between which is arranged a seedbox 3. At the extreme front end there is journaled a caster-wheel 8, carried in a forked frame attached to a vertical rotary adjustable standard 1, which has a cross-piece at its upper end, whose opposite ends are connected by cords or ropes 2, running back to the handles, by which the standard may be turned axially and the plane of the front wheel turned to guide the machine.

Near the front of the machine and arranged between its frame-bars 17 is journaled a running-wheel 10, which runs upon the ground and to which power from a spring-motor is transmitted to propel the machine. Rigidly attached to this wheel is a small gear-wheel 26, (see Fig. 2,) which through an adjustable gear-wheel 32 receives motion from a larger gear-wheel 29 on the same shaft with and rigidly connected to a gear-wheel 12 on the opposite side of the machine. (See Fig. 1.) This gear-wheel 12 meshes with and receives motion from a large gear 13, which has a ratchet-and-pawl connection 14 and 27 with a shaft 30, the ratchet 14 being rigid on the shaft and the pawl 27 pivoted to the wheel and having a spring to hold it into engage-

ment with the teeth of the ratchet. Surrounding the shaft 30 is a drum 20, containing any number of coil-springs 21. One end of each of these springs is fixed to the stationary drum and the other to the revolving shaft 30, which bears the ratchet-wheel 14. The end of this shaft 30 is made square at 24 to receive the square socket of a winding-key 25, Fig. 4. When this shaft is wound up, it winds up the springs, the ratchet-wheel and spring-pawl allowing the shaft to turn in winding the springs, but when the tension of the springs is allowed to come on the shaft their power is expended in turning the shaft and through the ratchet-wheel and pawl imparting rotation to the train of gear-wheels 13 12 29 32 26 and the propelling-wheel 10, causing the latter to drive the machine over the ground.

Within the seedbox 3 there is a stirrer-wheel 4, on whose shaft is a gear-wheel 5 on the outside of the seedbox, which wheel 5 meshes with and receives motion from the gear-wheel 13.

In front of the running-wheel 10 there is an elbow-lever 7, arranged to act upon the wheel 10 as a brake to regulate its speed. This elbow-lever is fulcrumed at its angle to the framework, and its upper arm is connected to a pull-rod 6, extending back to the handles 11, so that the brake may be applied from this point by the operator.

To throw the driving mechanism out of gear the wheel 32 may be raised, so that it no longer connects the wheels 26 and 29, and for this purpose said wheel 32 is journaled in an arm from lever 35, which is pivoted at its front end to the main frame and extends back to the handles.

To the rear end of the main frame there is attached a cover 15, made in the form of a roller, as in Fig. 2, or it may be constructed in any other well-known form, such as a board or harrow-tooth, as in Fig. 1.

In Fig. 6 is shown a gang of cultivator-teeth, and in Fig. 5 a detachable seat, which parts are applied to the device when the machine is used as a cultivator, and for which purpose we detach the seedbox 3, handles 11, standards 22, and covering-roller 15, and put in their places the seat 19, Fig. 5, and the plow-gang 18, Fig. 6. The operator will then

ride on the seat 19 when the machine is at work, but he may, if desired, preserve the attachment of the handles 1 and walk instead of riding.

5 Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination of the main frame 17, the running-wheel 10 journaled in the front
10 part of the same and having rigidly attached gear-wheel 26, a transverse shaft arranged behind the wheel 10 and having a gear-wheel 29 on one end and another gear-wheel 12 on the other end, an adjusting-lever 35 bearing
15 adjustable gear-wheel 32 arranged between the gears 26 and 29, and a shaft 30 journaled transversely on the rear end of the main frame and carrying gear-wheel 13 engaging with gear-wheel 12 and provided with pawl
20 27 and also rigid ratchet-wheel 14, a coil-

spring, and inclosing drum arranged about the shaft 30, said coil-spring being connected at one end to the shaft and at the other end to the drum, and means for winding said shaft and spring substantially as and for the 25 purpose described.

2. The combination of the main frame with seedbox 3, and stirrer-wheel 4 having gear 5 attached to the latter, a front running-wheel 10 with rigid gear 26, a drum 20 with actu- 30 ating-springs 21, shaft 30 and ratchet and pawl 14, 27, the gear-wheels 13 and 29 and the adjustable gear 32 arranged between the gear-wheels 26 and 29 substantially as and for the purpose described.

VINSON V. HILL.
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Witnesses:

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