(No Model.) 2 Sheets—Sheet 1.

B. F. CHRIST.

CHECK ROWER AND DRILL FOR CORN PLANTERS.

No. 272,855. Patented Feb. 27, 1883.

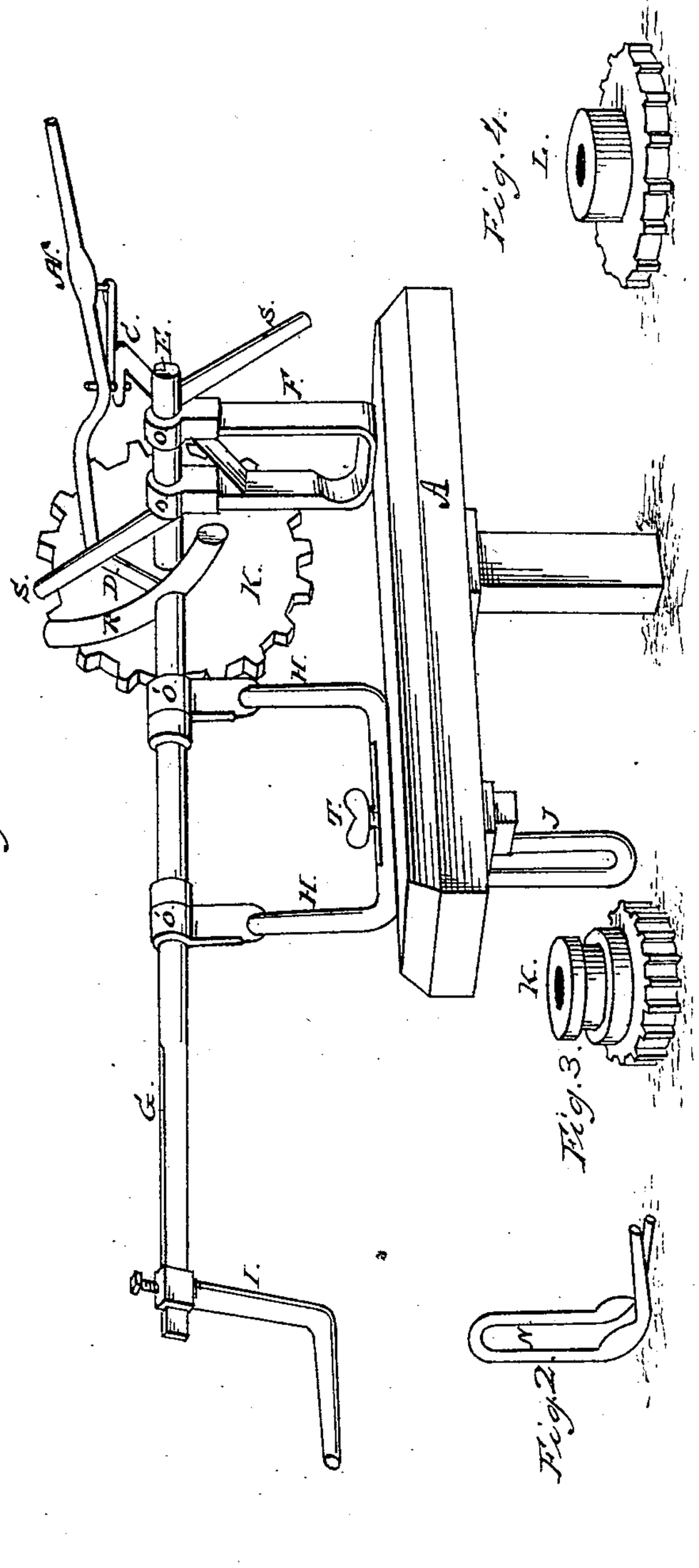

Fig. 1.

Fig. 4.

Fig. 3.

Fig. 2.

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(No Model.) 2 Sheets—Sheet 2.

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Fig. 5.

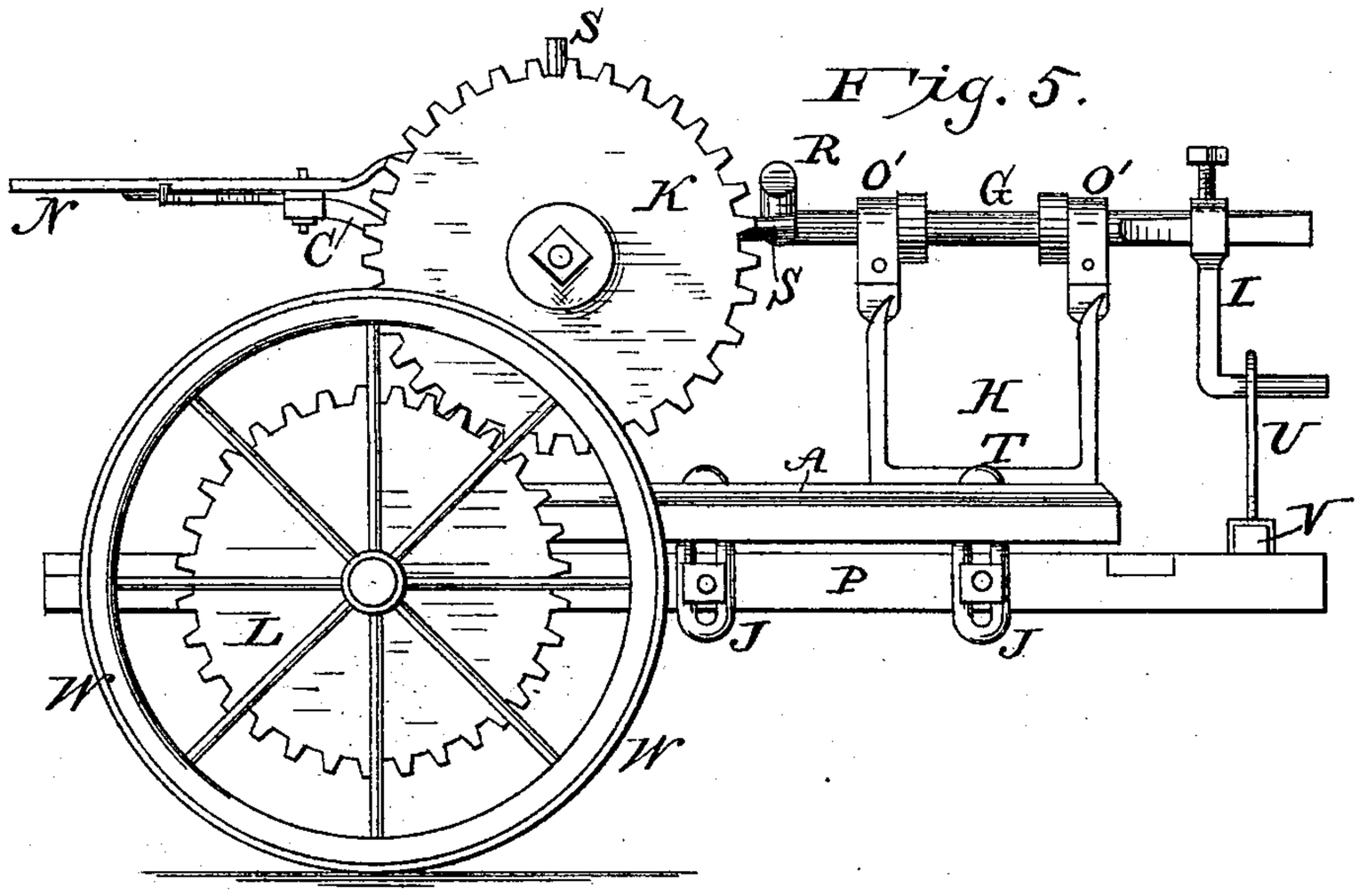
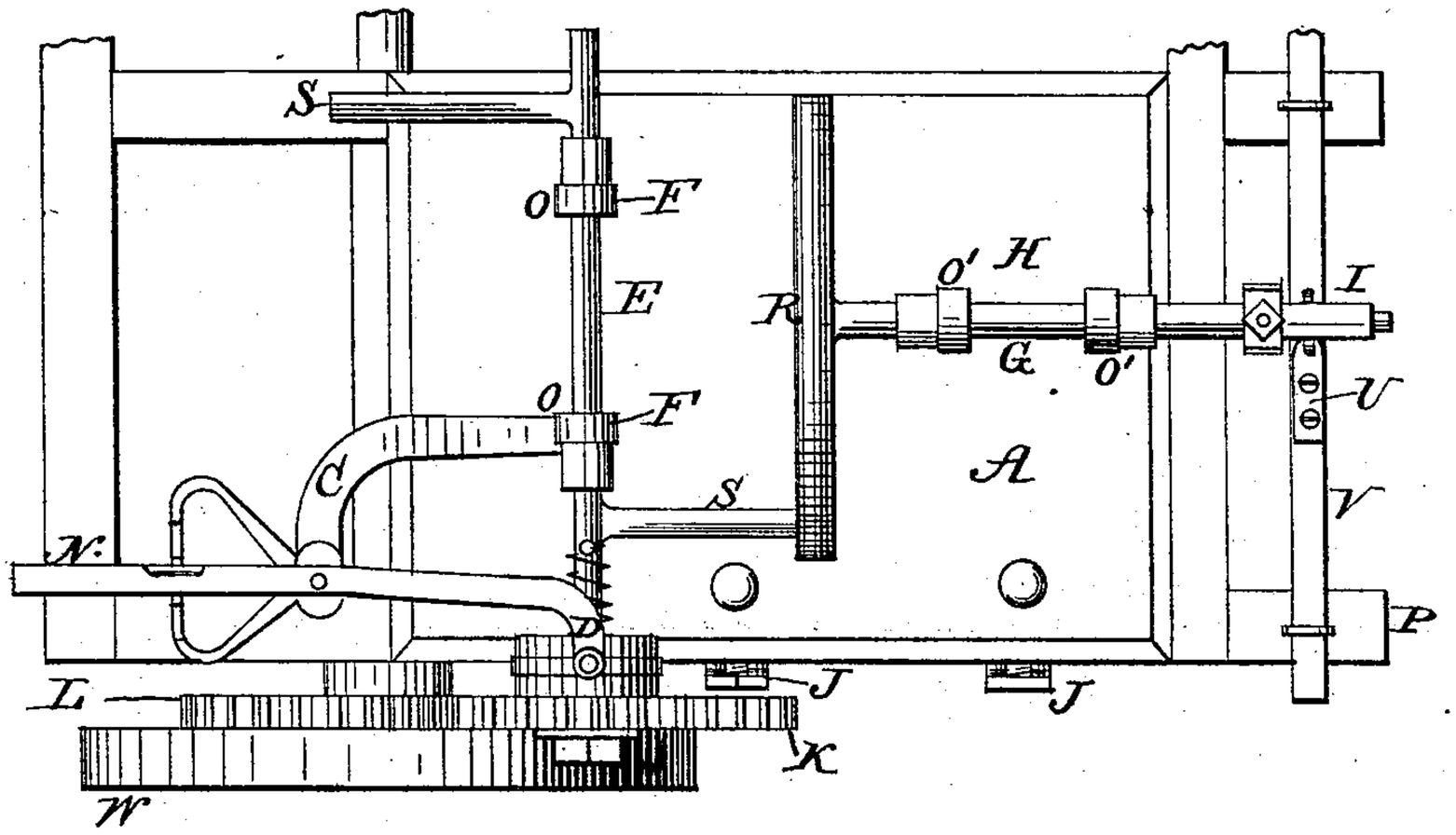


Fig. 6.



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UNITED STATES PATENT OFFICE.

BENJAMIN F. CHRIST, OF PEABODY, KANSAS.

CHECK-ROWER AND DRILL FOR CORN-PLANTERS.

SPECIFICATION forming part of Letters Patent No. 272,855, dated February 27, 1883.

Application filed May 22, 1882. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN FRANKLIN CHRIST, a citizen of the United States, residing at Peabody, in the county of Marion and State of Kansas, have invented a new and useful Improvement in Check-Row Attachments for Corn-Planters, of which the following is a specification.

My invention has relation to the class of seeders and planters, particularly to corn-planters, or those machines wherein the seed is dropped only at certain intervals and not continuously; and my said invention consists in a novel construction and arrangement of mechanism whereby the seed-dropping slide is operated by direct and positive action from the ground-axle of the machine. A corn-planter supplied with my check-row attachment is therefore automatic in its entire operation, and the necessity of an attendant riding upon the machine to operate the seed-dropping slide by hand, or the employment of a knotted cord stretched across the field by which to operate the seed-slide as the machine passes over said cord, is dispensed with.

Referring to the drawings forming part of this specification, Figure 1 will be found to represent a perspective view of my check-row attachment for corn-planters; Fig. 2, a detached view of the slotted yoke by which connection is made between the seed-dropping slide and my apparatus; Figs. 3 and 4, views of the cog-wheels employed in my apparatus to drive the same, the one in Fig. 4 being attached to the driving-axle of the machine and meshing with and by this means imparting motion to the one shown in Fig. 3. Figs. 5 and 6 represent a side elevation and plan, respectively, of the device as applied to a seed-planter frame.

In carrying out my invention I proceed about as follows: To the ground or driving wheel W of any ordinary corn-planter is first secured a suitable gear-wheel, L, Figs. 4 and 5, which furnishes the motive power for my apparatus, which apparatus consists of the following parts: To a bed or support, A, is attached, at one end, a transversely-placed frame or stand, F, and at the other end a longitudinally-placed stand, H. These stands F H carry axle-boxes O O and O′ O′, respectively, in which shafts E and G revolve and find their bearings. To the end of the short axle E, in bearings O O, is secured a cog-wheel, K, which meshes with the cog L on the ground-wheel W of the machine, and through which motion is imparted to the entire apparatus. This wheel K is provided with a grooved hub, as shown in Fig. 3, into which groove a lever is arranged to operate to move the said wheel backward or forward upon the shaft E to throw the said wheel in or out of gear with the wheel L on the ground-wheel of the machine, the axle E having a long slot therein, into which the wheel K is keyed and so arranged in the usual manner as to permit this movement. Secured to and projecting in opposite directions from the short axle E are two arms, S S. To the inner end of the axle G is secured a curved or semicircular piece, R, and to the outer end the crank-arm I, by which the seed-dropping slide is operated, is adjustably secured. The frame H is made adjustable by slot and set-screw T in its base.

N is a hand-lever, pivoted to arm or brace C from the support F, the end D of which lever engages in the groove in the hub of the cog-wheel K, and which forms the means by which said wheel is adjusted.

As will be seen, provision is made at the outer end of the shaft or bar G by which the adjustment of the crank-arm I may be effected to permit the apparatus to be used on different-sized machines.

U, Fig. 2, is a slotted angle-iron, secured to the seed-slide V, which forms the connection between the crank-arm I and the seed slide.

The entire apparatus is secured, as shown in Figs. 5 and 6, to the side rail, P, of the planter-frame by yokes or brackets J, or by any other suitable means.

The operation of the parts is about as follows: Motion being imparted to the wheel K through the wheel L, attached to the drive-wheel of the seed-planter, the short axle E is caused to revolve, which brings the arms S S alternately in contact with one side or the other of the curved piece R. This causes the shaft G to make a half or partial revolution, and through the crank-arm I moves the seed-dropping slide backward and forward.

By means of the lever N the parts may be instantly thrown in or out of gear and the operation of the seed-dropping machinery stopped. By reason of the adjustability of the crank-arm the apparatus may be applied to different-

sized machines, and by moving the frame H to or from the frame F a long or short stroke is obtained, because of the arms S S acting to a greater or less extent upon the semicircle R.

By the construction and arrangement of parts herein shown and described, a simple and effective means is provided for operating the seed-dropping slide of a corn-planter, and one that will be positive and certain in its movement. The uncertainty and trouble of hand operation is therefore overcome and the trouble incident to the use of knotted cords dispensed with.

By using different-sized wheels K, the intervals of planting or of the operation of the seed-dropping slide is effected to any extent desired.

Having thus described my invention, its operation, advantages, &c., what I claim as new, and desire to secure by Letters Patent, is—

1. In combination with the stationary frame F O, carrying the axle E, the frame H O′, carrying the axle G, made adjustable, as hereinbefore described.

2. The combination, in a check-rower, of frame F O, carrying short axle E, with arms S S, and wheel K, lever N, adjustable frame H O′, carrying axle G, with curved end R, and crank-arm I and gear-wheel L on the drive-shaft of the planter, as hereinbefore described, for the purposes specified.

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