(No Model.)

J. C. HAAS.

SEED PLANTER.

No. 480,091. Patented Aug. 2, 1892.

Fig. 1.

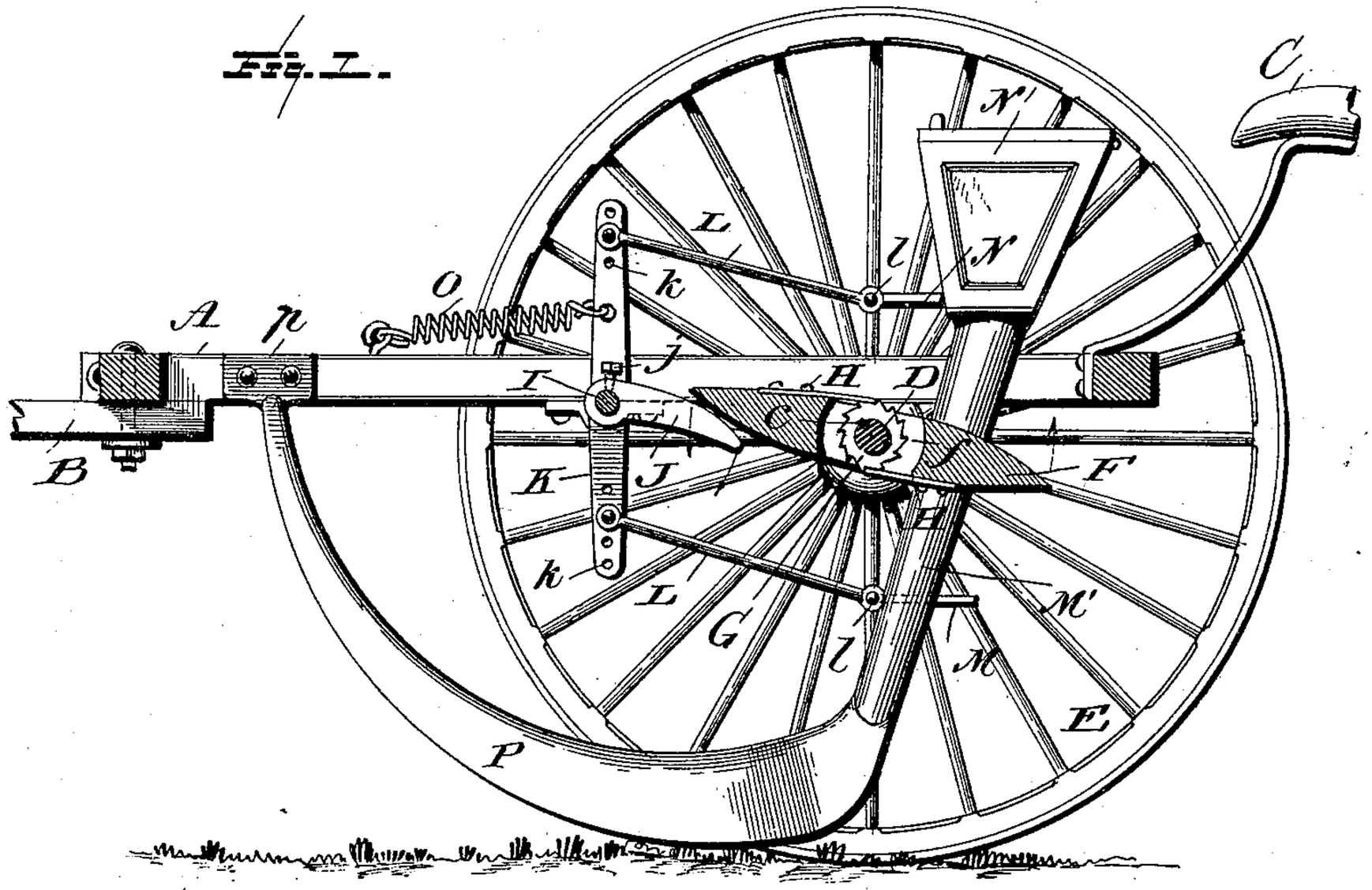
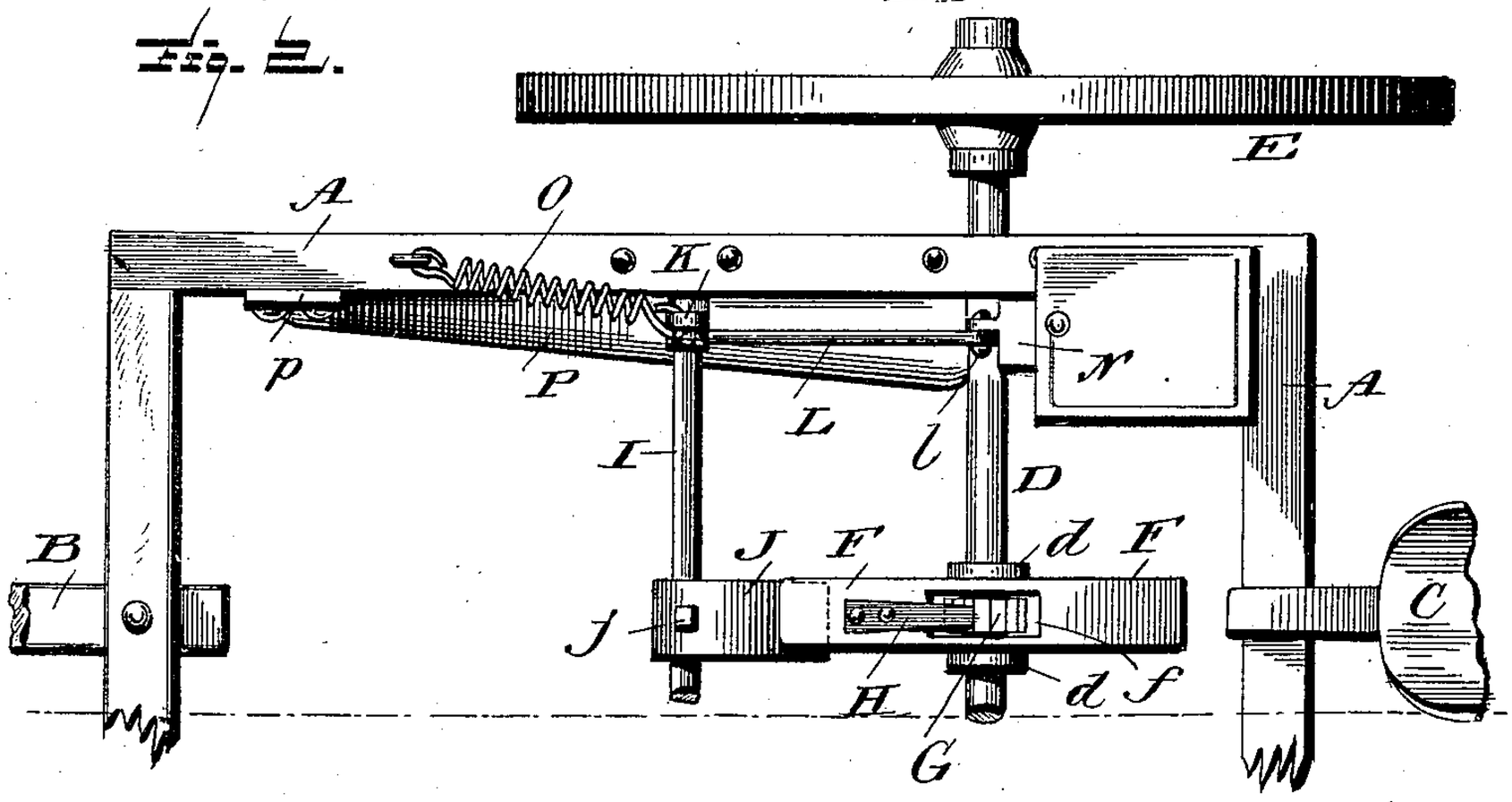


Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

JACOB C. HAAS, OF BREMEN, INDIANA, ASSIGNOR OF ONE-HALF TO GEORGE F. WAHL AND I. L. D. SEILER, OF SAME PLACE.

SEED-PLANTER.

SPECIFICATION forming part of Letters Patent No. 480,091, dated August 2, 1892.

Application filed February 10, 1892. Serial No. 420,992. (No model.)

To all whom it may concern:

Be it known that I, JACOB C. HAAS, a citizen of the United States, residing at Bremen, in the county of Marshall, State of Indiana, have invented certain new and useful Improvements in Seed-Planters, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in seed-planters, designed, primarily, for corn, but of course applicable for the planting of seeds of any kind.

It has for its object, among others, to provide an improved device of this character wherein the dropping of the seed is automatically accomplished by the rotation of the carrying-wheels of the machine.

It has for a further object to provide for the ready adjustment of the parts so as to cause the dropping of the seed at greater or less intervals, as may be desired. It also aims at improvements in the details of construction.

Other objects and advantages of the invention will appear in the following description and the novel features of the same will be particularly pointed out in the claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a vertical longitudinal section through the center of the machine. Fig. 2 is a top plan of one-half of the machine.

Like letters of reference refer to like parts in all the figures of the drawings.

Referring now to the details of the drawings by letter, A designates a suitable frame, B the tongue, C the seat, and D the axle carrying the wheel E, all of which may be of any well-known or approved form of construction. The axle is journaled in suitable bearings on the frame and has sleeved thereon between the collars *d d* the double cam-faced lug F, which has a central chamber or cavity *f*, in which is arranged the ratchet G, which is fast upon the axle, being retained thereon in any suitable manner—as, for instance, by a suitable key *c*. (See Fig. 1.) Upon diametrically-opposite sides of this lug are arranged the flat springs H, which are designed to engage with the said ratchet, as shown in both views, the parts being so arranged that when the machine is moved backward the said lug will remain stationary, and will not be revolved; but during the forward movement of the machine the said lug will move with the axle, as will be clearly understood from Fig. 1.

Suitably held in the frame forward of the axle is the rod or shaft I, arranged to rock in its bearings and adjustably held on this shaft in any suitable manner, as by set-screw *j*. J is a cam arranged in the path of and adapted to be actuated by the lug F as the latter is rotated during the forward movement of the machine. This shaft I has connected therewith at each end a normally-vertical arm K, which is provided at each end with a plurality of holes *k* to provide for adjustment, and adjustably connected thereto near each end and pivotally are the rods L, the rear ends of which have pivotally connected therewith, as at *l*, the dropper-slides M and N, which work in the spout M′ and feed-box N′, respectively. A suitable spring O connects the upper portion of each arm K with the frame, as seen in both views, so as to normally keep the parts in the position in which they are shown in Fig. 1. The seed boxes and spouts are supported on or secured to the frame in any suitable manner, the spouts terminating in the integral-curved upwardly and forwardly extending openers P, the extreme upper ends of which terminate in the flat lugs *p*, through which pass the means which secure them to the frame.

The operation will be readily understood from the foregoing description when taken in connection with the annexed drawings, and, briefly stated, is as follows: Normally the parts are in the position in which they are shown in Fig. 1, the outlet from the box being open and that from the spout closed. As the machine is propelled forward the rotation of the wheels causes the lug F to rotate in a direction indicated by the arrow and at its forward portion impinges against the cam J. The latter is forced downward, thus moving the lower portions of the arms K forward, and consequently the upper portions rearward against the tension of their springs. This movement withdraws the slide N and permits what seed there was contained in the spouts to drop to the ground, the slide N at the same time being moved inward to close the dis-

charge from the feed-box. As soon as the lug F has passed the cam J the springs O return the parts to their normal positions to be again actuated by the engagement of the other arm of the lug with the cam. The distance between the hills may be regulated by adjustment of the arms L or of the cam J, or both.

What I claim is—

1. The combination, with the frame, wheels, and axle, of a ratchet-lug on the axle and the dropping mechanism actuated by said lug, as set forth.

2. The combination, with the frame, wheels, and axle, of the lug on the axle, the shaft forward of the axle, the cam on said shaft in the path of said lug, the vertical arms on the ends of said shaft, the pivotal adjustable arms carrying pivotal slides, and the spring acting on the vertical arm, substantially as described.

3. The combination, with the axle and the lug loosely seated thereon, of the ratchet fast on the axle and operative connections between said lug and ratchet, as set forth.

4. The combination, with the axle, of the chambered lug loosely sleeved thereon, the ratchet fast on said axle and arranged in the chamber of the lug, and the flat spring on said lug engaging said ratchet, substantially as and for the purpose specified.

5. The combination, with the frame, axle, and wheels, of the chambered lug loose on the axle, the ratchet fast on the axle in the chamber of the lug, the springs on the lug engaging the ratchet, the rock-shaft forward of the axle, the adjustable cam thereon, the vertical arms carried by said shaft, the springs acting thereon, and the pivotal adjustable rods connected with said arm and having the slides pivotally connected therewith, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JACOB C. HAAS.

Witnesses:
G. F. WAHL,
JOHN HECKAMAN.