

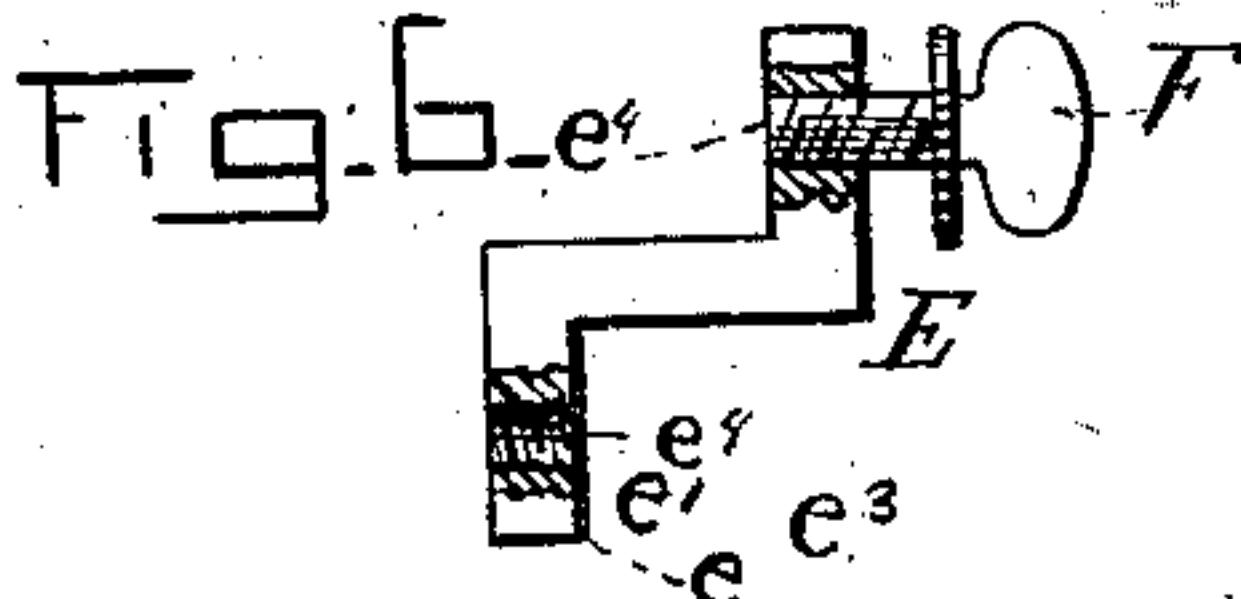
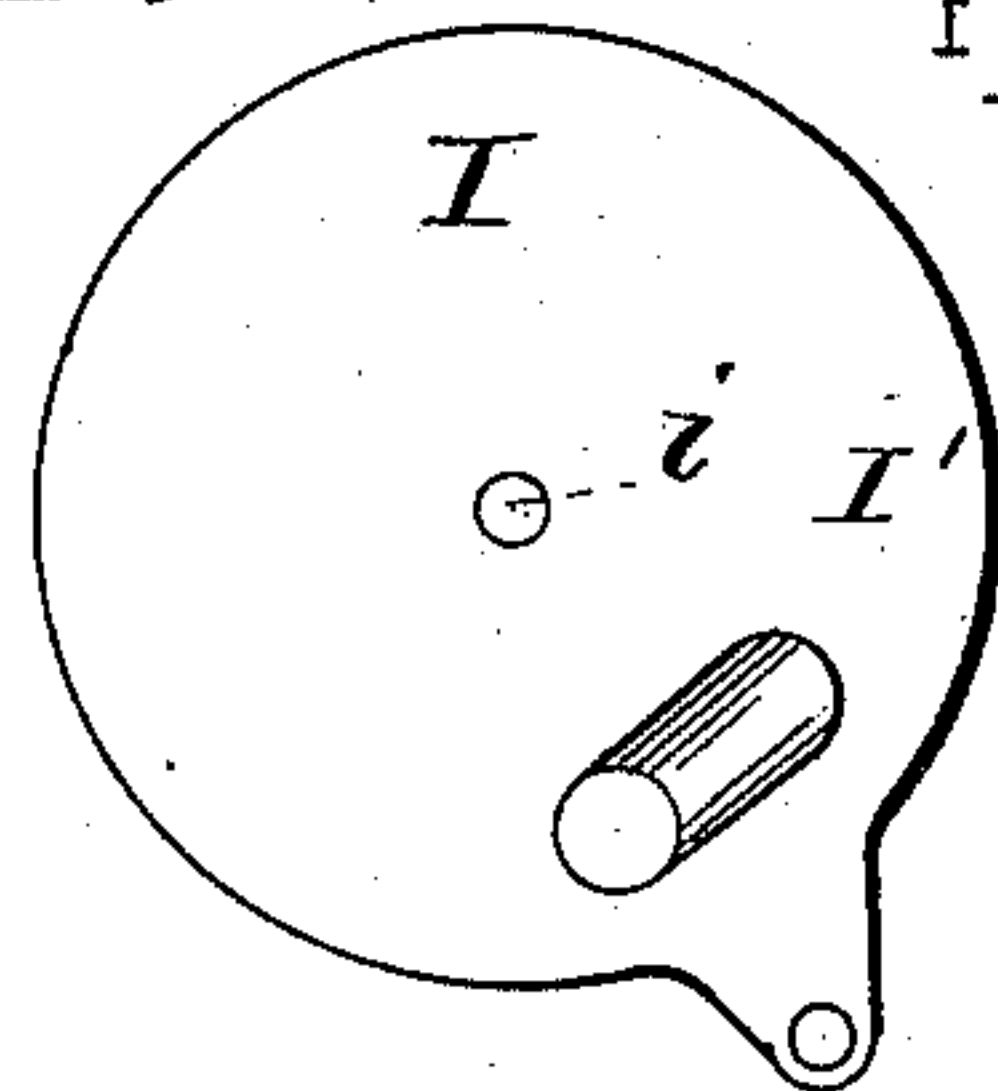
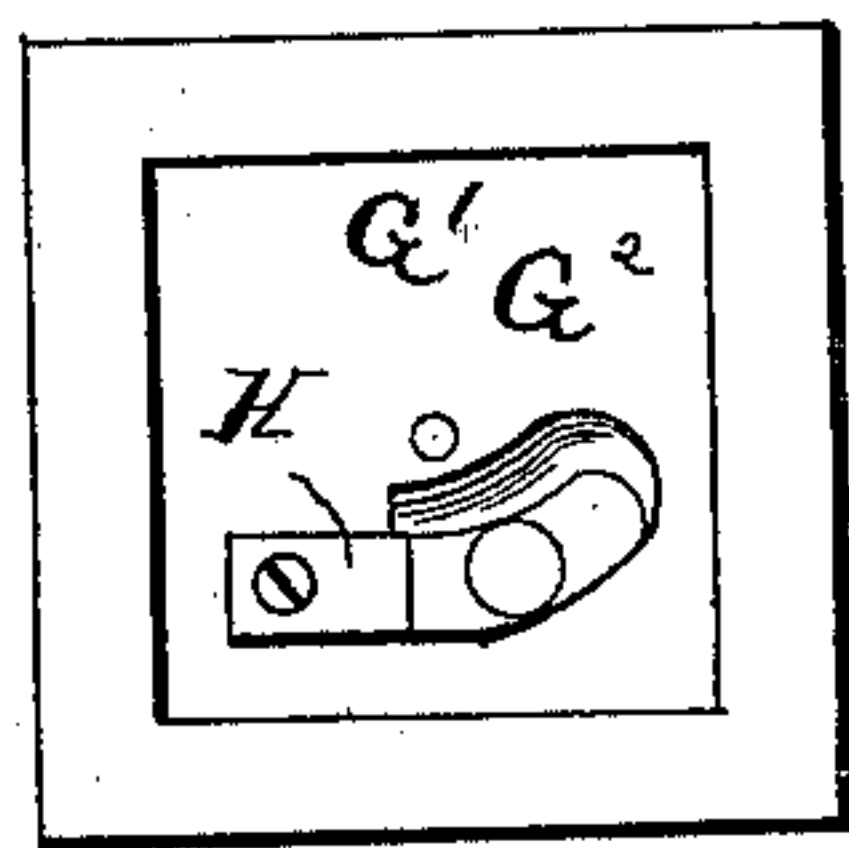
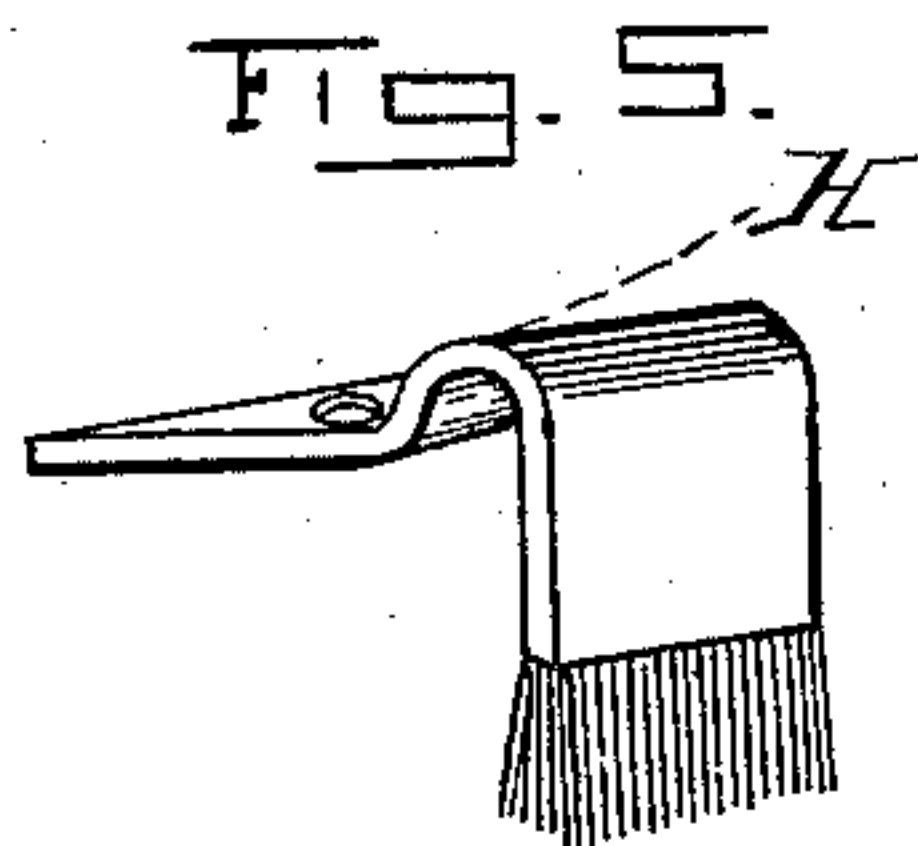
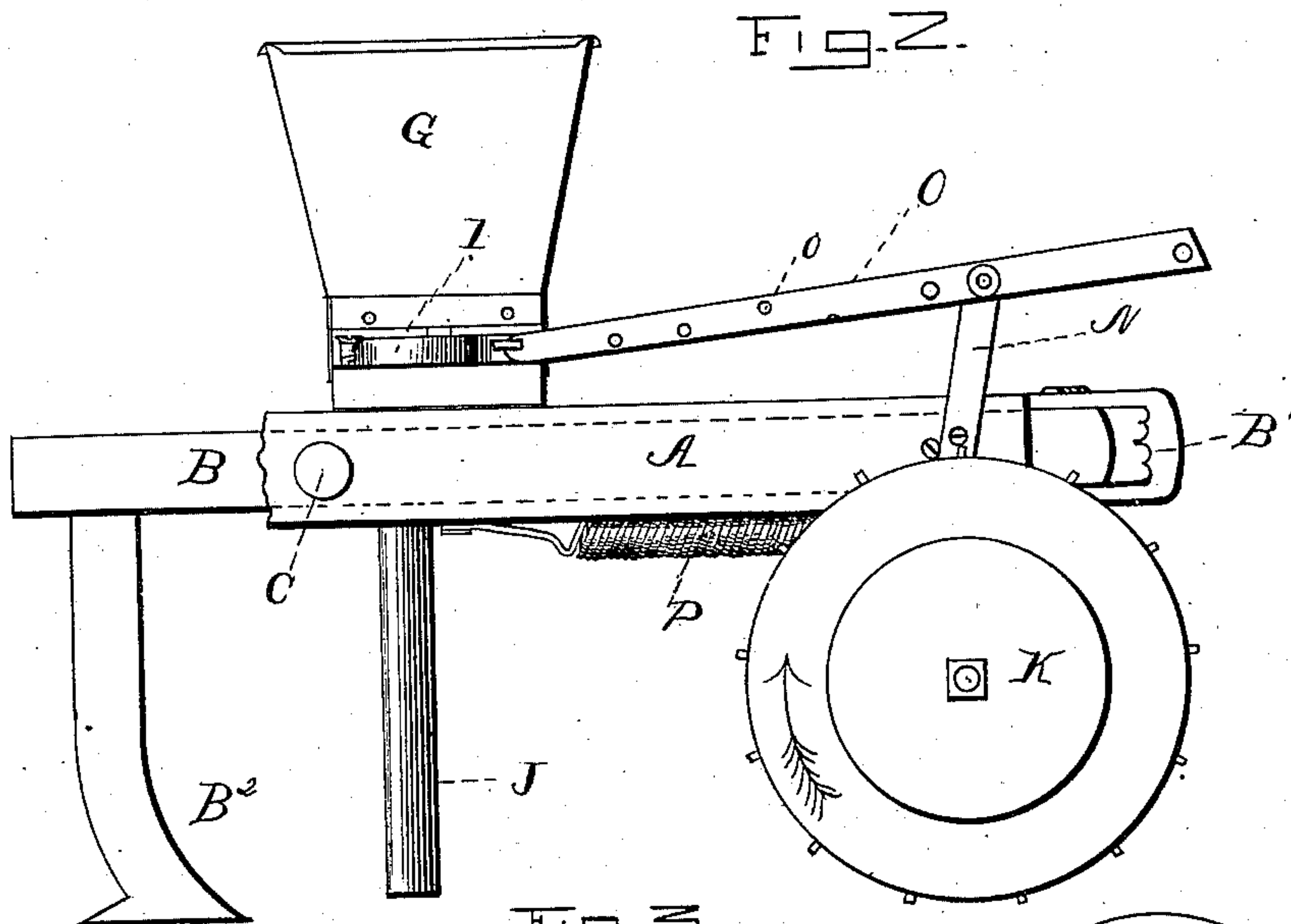
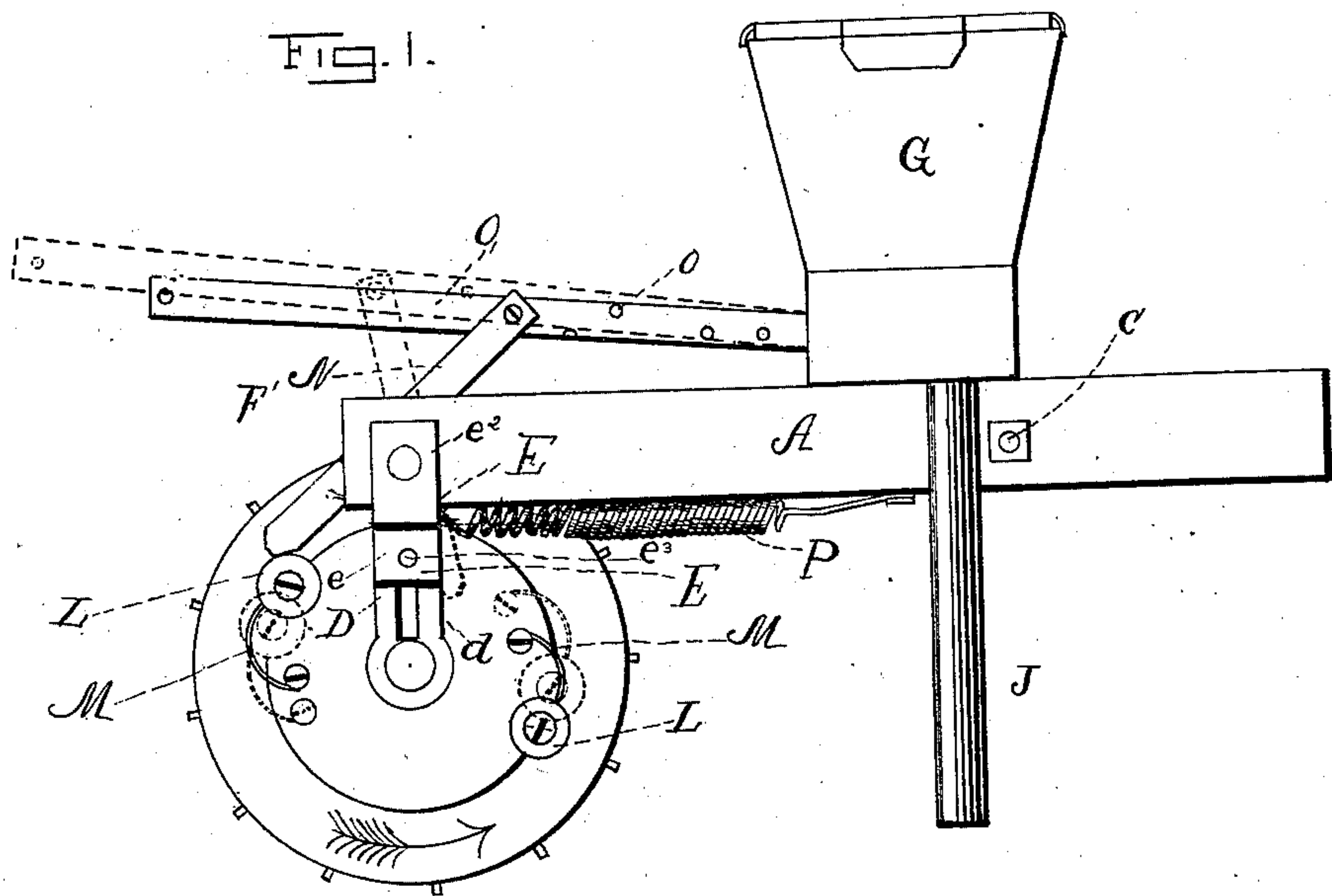
(No Model.)

J. BOYD & W. F. GOLDENBURG.

PLANTER.

No. 308,649.

Patented Dec. 2, 1884.



WITNESSES:
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UNITED STATES PATENT OFFICE.

JAMES BOYD AND WILLIAM F. GOLDENBURG, OF VEVAY, INDIANA.

PLANTER.

SPECIFICATION forming part of Letters Patent No. 308,649, dated December 2, 1884.

Application filed May 31, 1884. (No model.)

To all whom it may concern:

Be it known that we, JAMES BOYD and WILLIAM F. GOLDENBURG, citizens of the United States, residing at Vevay, in the county of Switzerland and State of Indiana, have invented certain new and useful Improvements in Planters; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

Our invention relates to seeding-machines; and it consists in the novel construction, combination, and arrangement of parts, as hereinafter more fully described and claimed.

In the drawings, Figure 1 is a side view of our seeding attachment. Fig. 2 is a side view taken from the opposite side of the seeding attachment applied to a plow-beam. Fig. 3 is a detail plan view of the seed-box. Fig. 4 is a detail view of the dropping-slide. Fig. 5 is a detail view of the seed-brush. Fig. 6 is a detail view of the beam-supporting bracket, all of which will be hereinafter described.

Our seeding device is intended to be used, mainly, in connection with a plow or cultivator having a beam, as is usual, to which the beam of the seeder is secured, preferably in the manner presently described. The seeder-beam A is secured at its rear end to the plow-beam B by the transverse slot C, and has depending from it, near its forward end, the arms D, having formed through it a vertical slot, *d*. This bar D is arranged flush with the side of the beam A, to which the plow-beam is secured. The supporting-bracket E is formed with arms *e e'*. The arm *e* has a threaded opening, *e*³, and the arm *e'* a similar opening, *e*⁴. The bracket is secured to the arms D by a screw, F, inserted through slot *d* and turned into opening *e*³, clamping the bracket to the said arm in such manner that it may be conveniently adjusted vertically thereon, as will be understood. The beam is rested at its forward end in the bracket on arm *e'* and is clamped between arm *e*² and the seeder-beam by a screw, F', turned through opening *e*⁴, as will be understood from Figs. 1 and 6.

The plow-beam may be provided with a suitable clevis, B', and a standard and shovel, B², the latter being suitably arranged to operate in rear of and slightly to one side of the path of the seed-tube, presently described. A seed-box, G, is mounted on the beam A, and has its bottom G' made with a seed opening or passage, G², at the rear end of which we secure a suitable brush, H, or similar scraper device, whereby to clear the grain from the rotating seed-slide, presently described. The slide I has a seed-pocket, I', and is journaled at *i* below the bottom G' of the seed-box in such manner that the pocket I' will in one position register with and receive seed through the seed-passage G², and while in its other position register with and deliver the seed into the upper end of the depending seed fluke or tube J. The pilot-wheel K is journaled, preferably, to the lower end of the slotted arm before described, and operates on the opposite side of said arm from that on which the beam-supporting bracket is held. By preference we provide this wheel with radial pins or similar devices, so as to insure its revolution during operation. On the inner side of the wheel K we secure rollers L, arranged substantially as shown, and for the purpose presently described. In advance, with reference to line of motion, of these rollers we secure an inclined or curved guide, M, made preferably of a plate, as shown. The roller L serves as an actuating projection for the slide-operating lever, presently described, and may be replaced by an immovable lug or projection where so desired; but we prefer to use the roller.

The inclined guide is designed to elevate and hold the lever, in connection with the actuating projection, sufficiently long to permit all the seed to drop from the seed-pocket when the slide is moved over the seed-dropping tube, in the manner presently described.

The arrows in Figs. 1 and 2 indicate the line of revolution of the pilot-wheel. A lever, N, is pivoted midway its ends, and has one end extended alongside the pilot-wheel in position to be engaged by the inclined guideway and actuating projection, and has its other end secured to one end of the pitman O, which connects the lever and the seed-slide. The pitman may be provided with a series of holes, *o*, so the point of connection of the lever therewith

may be varied at will. A retracting-spring, P, connects the framing and the lever, so as to return said lever to the position indicated in dotted lines when it has been moved forward by the actuating device to the full-line position shown in Fig. 1. The operation of our machine is simple, and will be readily understood from the foregoing description. When the lever and pitman are in the dotted position in Fig. 1, the dropping-slide has its seed-pocket in position to receive seed from the seed-box. When the pilot-wheel is turned and the lever and pitman brought to the full-line position, same figure, the slide has been adjusted so as to bring the seed-pocket over the dropping-tube. By means of the incline before described and the actuating projection, the slide is held with its seed-pocket over the dropping-tube sufficiently long to insure the dropping of all the seed.

While we prefer to use the rotating slide, as shown, it is obvious a reciprocating or other desired form of slide may be used without involving a departure from the broad principles of our invention.

By using different seed-slides different quantities of grain may be sown, and by using the improvement on the beam of the cultivator several rows may be planted at a time.

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

1. The combination of the seed-box, the dropping-slide, the lever having one end connected with the dropping-slide and its other end arranged in position to be engaged by the dropping-wheel, and the dropping or pilot wheel provided with lever-actuating projections, and having inclined guides or ways arranged in advance thereof and adapted to engage the lever before the latter strikes the actuating projections, substantially as set forth.

2. The combination of the seeder-beam, the seed-box, the dropping-slide operating therein, the pilot-wheel provided on one side with lever-actuating rollers, and having inclined guides or elevating-ways arranged in advance thereof and adapted to engage the pivoted lever before the latter strikes the actuating-rollers, the pivoted lever having one end arranged in position to be engaged by the elevating-ways and its other end secured to the pitman, and the pitman connecting the lever and the dropping-slide, and the retracting-spring, substantially as set forth.

3. The combination of the seed-beam provided with the seed-box and dropping mechanism, the arm depending from the forward end of said seed-beam, the bracket secured and vertically adjustable on said arm, and the plow-beam secured at one end to the seeder-beam, and having its other end rested and clamped in the bracket, substantially as set forth.

4. The seeder attachment for plows, substantially as herein described, consisting of the beam A, having arm D, slotted at *d*, the pilot-wheel journaled to the lower end of said arm, and having rollers L and inclined guideways M secured thereon, the bracket E, adjustably secured by screw F to the arm D, and having rest *e'* and arm *e''*, provided with opening *e'*, the clamp-screw F', the seed-box, the dropping-slide, the lever, the pitman, and the retracting-spring, all arranged and operated substantially as and for the purposes set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

JAMES BOYD.

WILLIAM F. GOLDENBURG.

Witnesses:

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CHAS. C. SHAW.