

No. 618,136.

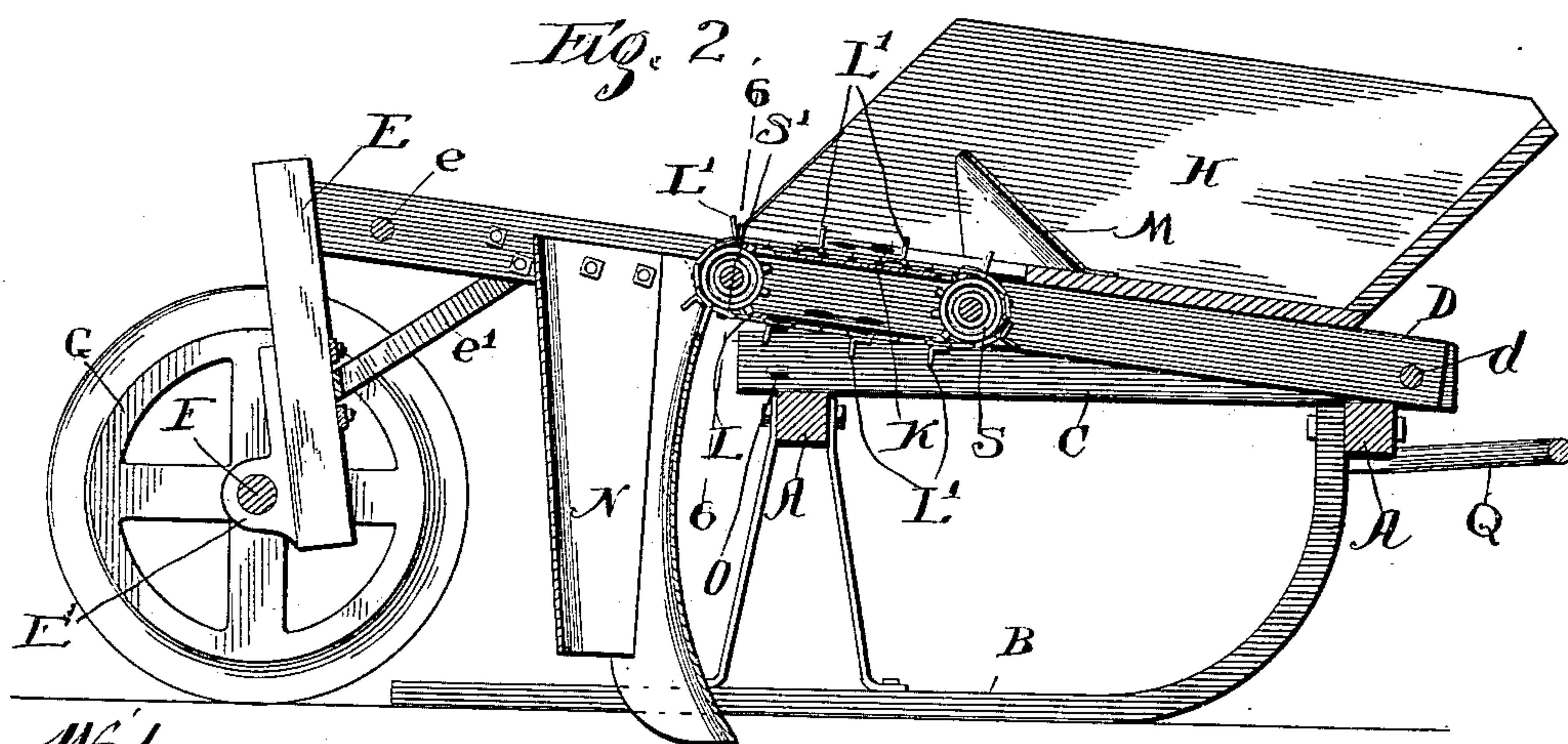
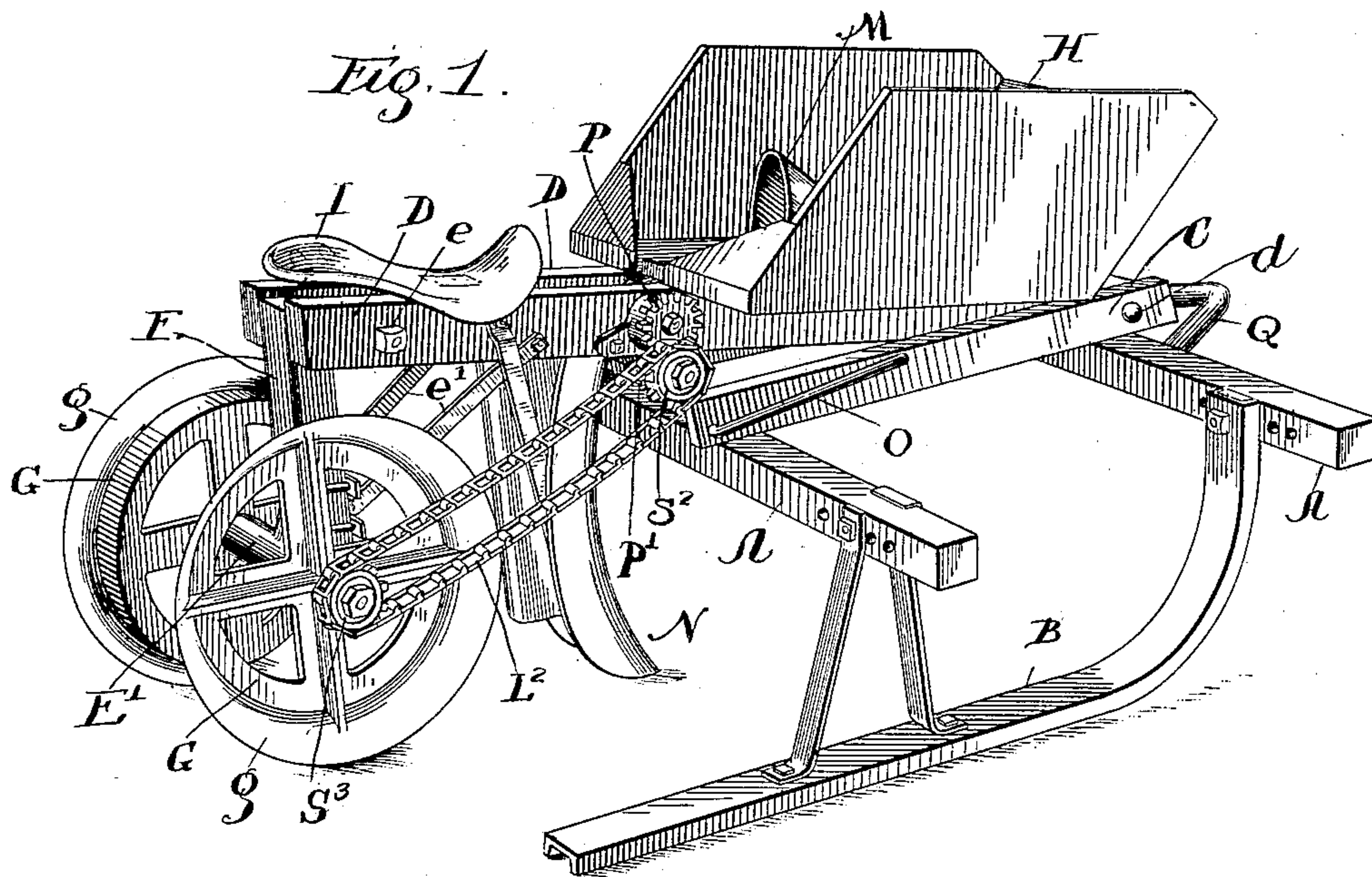
Patented Jan. 24, 1899.

S. C. SCHOFIELD.
POTATO PLANTER.

(Application filed Apr. 4, 1898.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses:
Chas. O. Sherway.
A. H. Nelson

Inventor:
Silas C. Schofield
by Wm. Green & Bitner
Atlys.

No. 618,136.

Patented Jan. 24, 1899.

S. C. SCHOFIELD.

POTATO PLANTER.

(Application filed Apr. 4, 1898.)

(No Model.)

2 Sheets—Sheet 2.

Fig. 3.

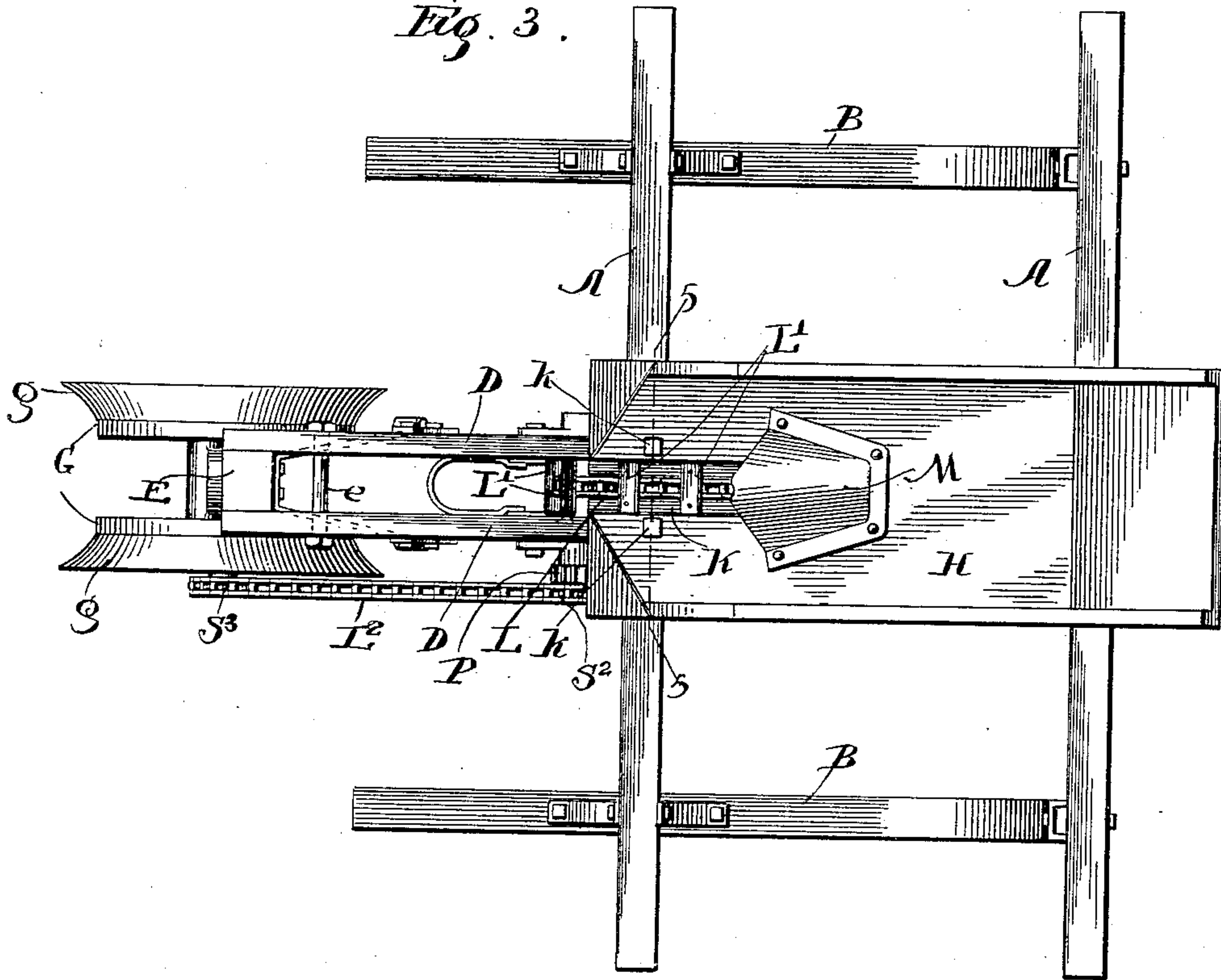


Fig. 5.

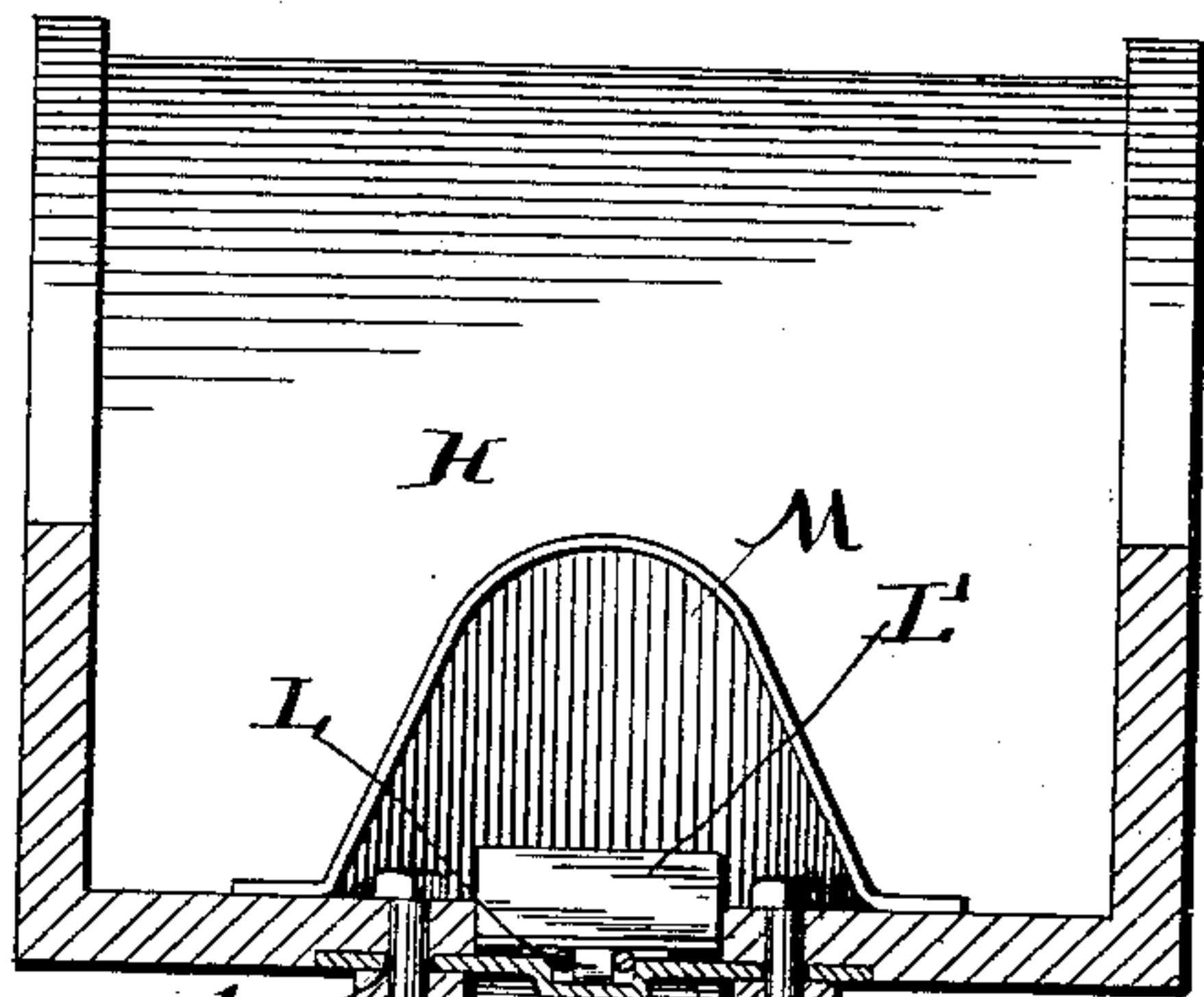


Fig. 4.

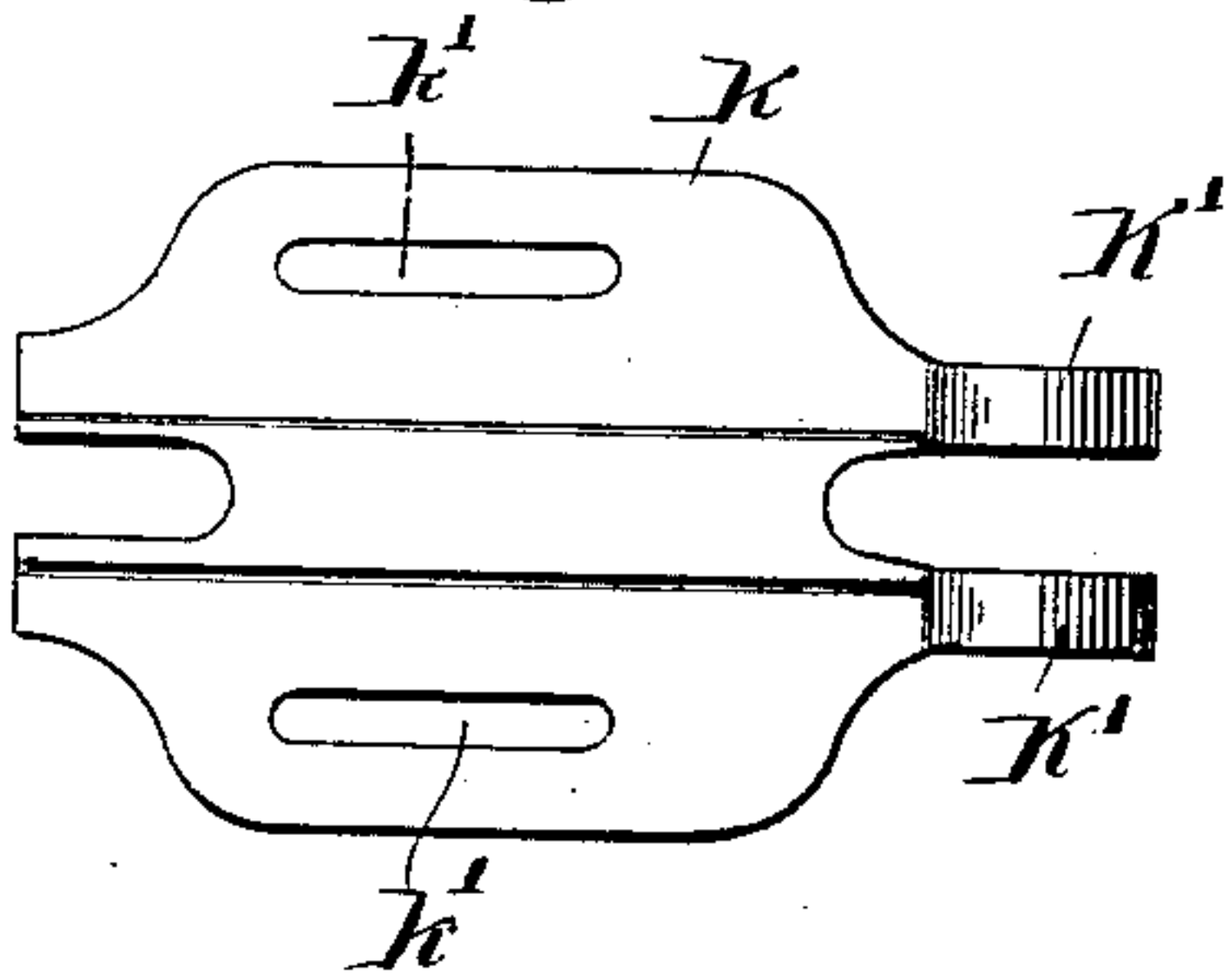
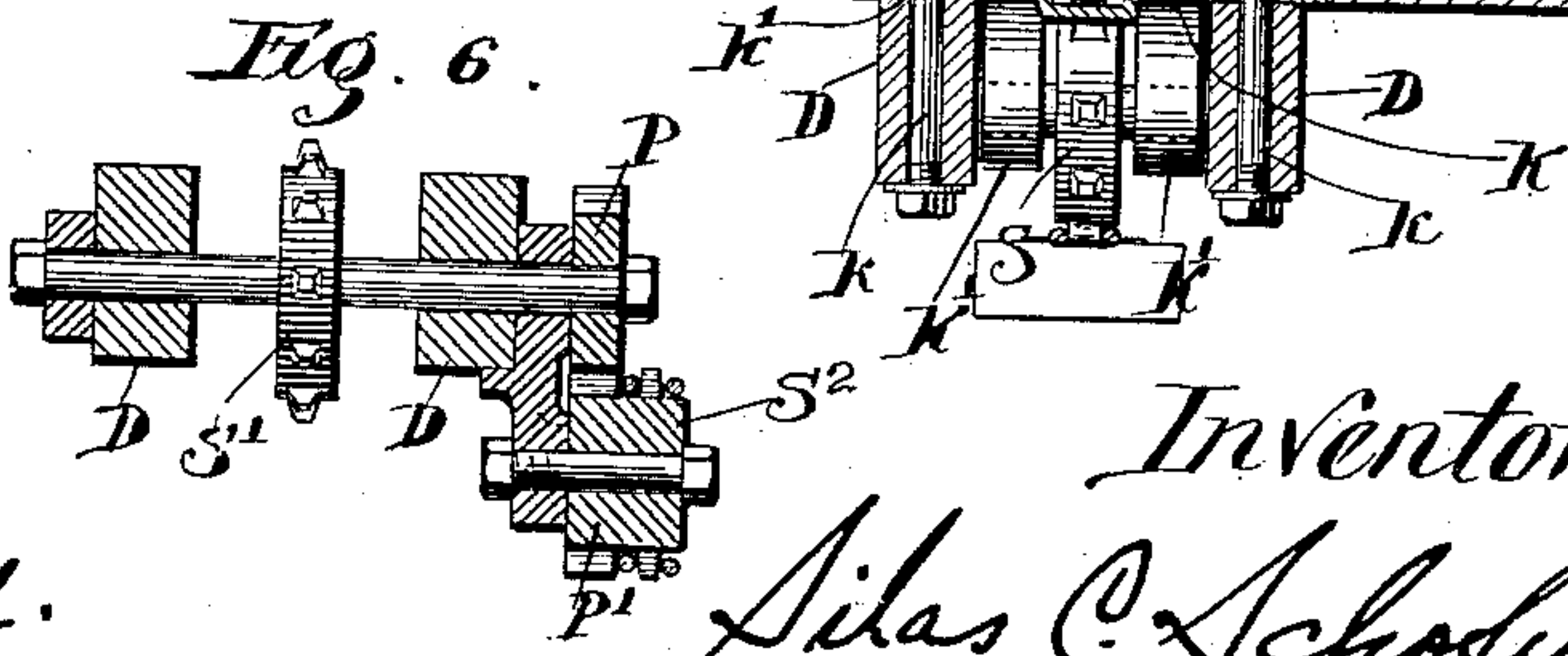


Fig. 6.



Witnesses:
Chas. O. Phurvey.
A. J. Nelson

Inventor:
Silas C. Schofield
by Miles. Gurne & Bitner
Attys.

UNITED STATES PATENT OFFICE.

SILAS C. SCHOFIELD, OF FREEPORT, ILLINOIS.

POTATO-PLANTER.

SPECIFICATION forming part of Letters Patent No. 618,136, dated January 24, 1899.

Application filed April 4, 1898. Serial No. 676,369. (No model.)

To all whom it may concern:

Be it known that I, SILAS C. SCHOFIELD, a citizen of the United States of America, residing at Freeport, in the county of Stephenson and State of Illinois, have invented certain new and useful Improvements in Potato-Planters, of which the following is a specification.

My invention relates to improvements in potato-planters, its object being to provide a cheap, simple, and effective planter adapted to work practically and economically under the varying conditions of actual use.

The invention is fully described and explained in this specification and shown in the accompanying drawings, in which—

Figure 1 is a perspective view of a planter embodying my improvements. Fig. 2 is a central longitudinal vertical section of the planter. Fig. 3 is a top plan of the entire machine. Fig. 4 is a top plan of the iron plate over which the endless-chain carrier runs. Fig. 5 is a transverse vertical section through the line 5 5, Fig. 3; and Fig. 6 is a transverse section through the line 6 6, Fig. 2.

In the views, A A are the parallel transverse timbers of the frame of the machine, these timbers being supported upon runners B B, or upon other suitable supports adapted to rest upon and move along the surface of the ground, the runners or other supports being adapted to serve as markers in the operation of the machine and being made laterally adjustable upon the timbers A A in order to vary the distance between the marks and between the rows of planted seed. Upon the transverse timbers A A are securely fastened two parallel longitudinal timbers C C, and between the front ends of the timbers C C are pivoted the front ends of two longitudinally-extending parallel bars D D, of which the rear ends are free to swing upward about the transverse pivot-bolt *d* at their front ends. Between the rear ends of the bars D D is secured an approximately vertical post E, held in place by means of a transverse clamping-bolt *e*, passing through the bars D D, and also by braces *e' e'*, extending from the lower portion of the post upward and forward to the bars D D, where they are loosely bolted or otherwise pivotally secured to said bars, whereby the post may be swung upward or downward

about said pivot as a center. The lower end of the post E carries the bearing E' of a transverse axle F, on the ends of which are mounted vertical wheels G G, having on their outer faces outwardly-flaring flanges *g g*. The post E may be adjusted upward or downward with relation to the bars D D by loosening the bolt *e* and swinging the post upon its pivot, and the tightening of the bolt holds the post in any desired position, the vertical adjustment of the post being evidently adapted to vary the height of the rear end of the bars D D above the ground on which the wheels G G are resting.

On the front portion of the bars is mounted a hopper H, of suitable size and shape, intended to contain and carry the seed-potatoes for planting, and near the rear end of the bars is a seat I, on which the operator of the machine sits, the rear transverse timber A forming a convenient foot-rest when the operator is on the seat. Beneath the bottom of the hopper H is an iron plate K supported on the bars D D and fastened thereto by means of bolts *k k*, passing through the bottom of the hopper and through slots *k'* in the plate K, these slots being intended to permit longitudinal adjustment of the plate with relation to the hopper and the bars D D. The front end of the plate K is provided with downwardly-turned parallel ears K' K', in which is journaled the transverse shaft of a sprocket-wheel S, and a second and similar sprocket-wheel S' is mounted on a transverse shaft, supported in the bars D D immediately below the rear end of the hopper, as clearly indicated in Figs. 2 and 6. About the two sprocket-wheels S S' passes a chain L, of which the alternate links are provided with cups or scrapers L', the chain being adapted to be tightened by the longitudinal adjustment of the plate K and the plate being formed with a longitudinal central trough, in which the links of the chain may lie and move freely while the scrapers L' move along over the upper surface of the plate and in a central slot in the rear portion of the bottom of the hopper. The shaft of the rear sprocket-wheel S' projects at one end through the corresponding bar D of the swinging frame and is provided with a pinion P, engaging a second pinion P', formed integral with a sprocket-

wheel S^2 and mounted on a stud supported by the timber D. The sprocket-wheel S^2 is connected by means of a chain L^2 with a fourth sprocket-wheel S^3 , mounted on the shaft of the wheels G G so that in the forward movement of the machine the rotation of the wheels G G rotates the sprocket-wheel S^3 in a reverse direction, thereby moving the upper fold of the chain L, with its scrapers L' , from front to rear, as indicated by the arrow in Fig. 2.

The front end of the chain L, with its supporting sprocket-wheel S, is covered by an upwardly-convex shield M, and the rear end of the chain, with its supporting sprocket-wheel S' , is at the upper end of a hollow shoe or furrow-opener N, through which seed-potatoes may drop into a furrow formed by the shoe in the movement of the machine.

In the rear ends of the timbers C C are pivoted two vertically-swinging rods O, (only one of which is shown in the drawings,) these rods being adapted to swing upward from the position shown in Fig. 1 into a practically vertical position, in which their upper ends will be immediately under the bottom of the hopper H, so as to form supports therefor. These supports are used either in traveling from place to place when the machine is not in operation or in holding the bars D D at such height as to support the shoe or furrow-opener N above the ground in turning the machine at the end of each furrow or row. A loop or link Q is fastened to the front timber A of the frame and serves as a means for attaching a horse for drawing the machine.

In operation, the hopper having been supplied with seed-potatoes and the post E having been so adjusted so as to give the furrow-opener suitable depth in the ground, the operator, sitting upon the seat I, feeds the seed-potatoes one by one into the spaces or pockets between the scrapers L' of the endless chain as the machine is drawn forward and the furrow is opened by the furrow-opener. The motion of the chain L and scrapers L' carries the seed-potatoes backward one by one and drops them at equal intervals through the shoe N into the furrow, and the wheels G G, with their flaring flanges $g g$, following immediately after the furrow-opener, draw the loose earth into the furrow and compress it over the seed-potatoes. As the machine moves, the runners or other supports of the main frame mark the ground, and thus indicate the course of the machine for the planting of the next furrow, and at the end of each furrow the bars D D are raised upward and the hopper is supported upon the rods O O, so as to hold the furrow-opener above the ground as the machine is turned around and brought into line for the forming of the next succeeding furrow. The tension of the chain

may be regulated at any time by the longitudinal adjustment of the plate K, and at the same time the plate forms a support for the upper or working fold of the chain, and by reason of its material resists the wear of the chain and is thus extremely durable. The shield M over the front portion of the chain prevents the accidental and indiscriminate access of the seed-potatoes to the chain, thus rendering it possible for the operator to govern perfectly the supply and the consequent planting of the seed-potatoes.

Having now described and explained my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination with the main frame formed substantially as described, and suitable supports therefor, resting on the ground, of a vertically-swinging frame pivoted at its front end to the main frame, the hopper and furrow-opener supported by said swinging frame, wheels supporting the rear end of said swinging frame and the endless-chain conveyer supported in the rear portion of the bottom of the hopper and adapted to deliver seed-potatoes at regular intervals through the furrow-opener into the furrow.

2. The combination with the main frame and its supports, of the vertically-swinging frame pivoted at its front end to the main frame, the wheel-post vertically adjustable in the rear end of the vertically-swinging frame, the covering-wheels mounted on an axle supported by said wheel-post, the hopper and furrow-opener supported on the vertically-swinging frame, the endless-chain conveyer supported in the rear portion of the bottom of the hopper and means connecting said endless chain with the axle of said covering-wheels, whereby the rotation of the wheels, in the movement of the machine, moves the chain and adapts it to deliver seed-potatoes at regular intervals into the furrow-opener.

3. The combination with the main frame, the swinging frame with its supporting-wheels, the hopper and the furrow-opener, of the endless chain with its scrapers, supported in the rear portion of the bottom of the hopper and connected with the axle of said supporting-wheels and the shield, M, covering the front portion of said endless chain and preventing accidental dropping of seed-potatoes from the hopper onto said chain.

In witness whereof I have hereunto set my hand, at Freeport, in the county of Stephenson and State of Illinois, this 24th day of March, A. D. 1898.

SILAS C. SCHOFIELD.

Witnesses:

J. H. STEARNS,
E. A. SHANNON.