

(No Model.)

2 Sheets—Sheet 1.

F. W. PACE.
SEED PLANTER.

No. 582,222.

Patented May 11, 1897.

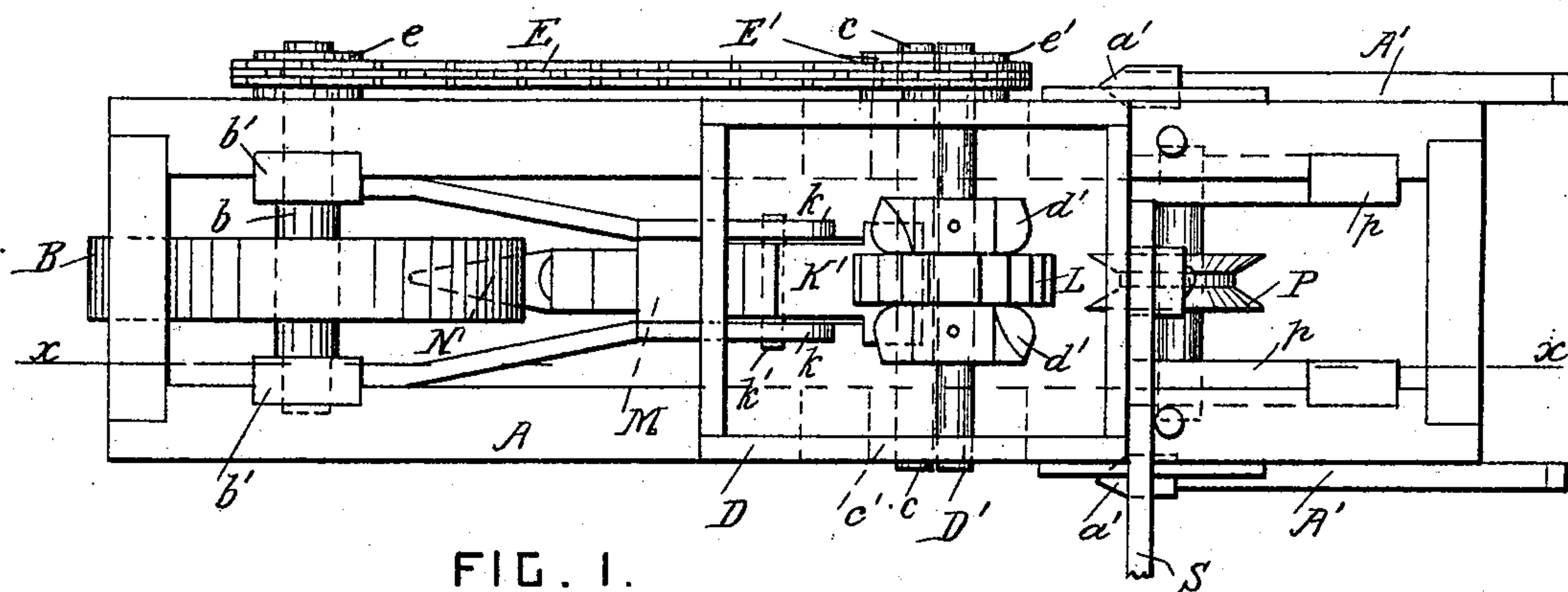


FIG. 1.

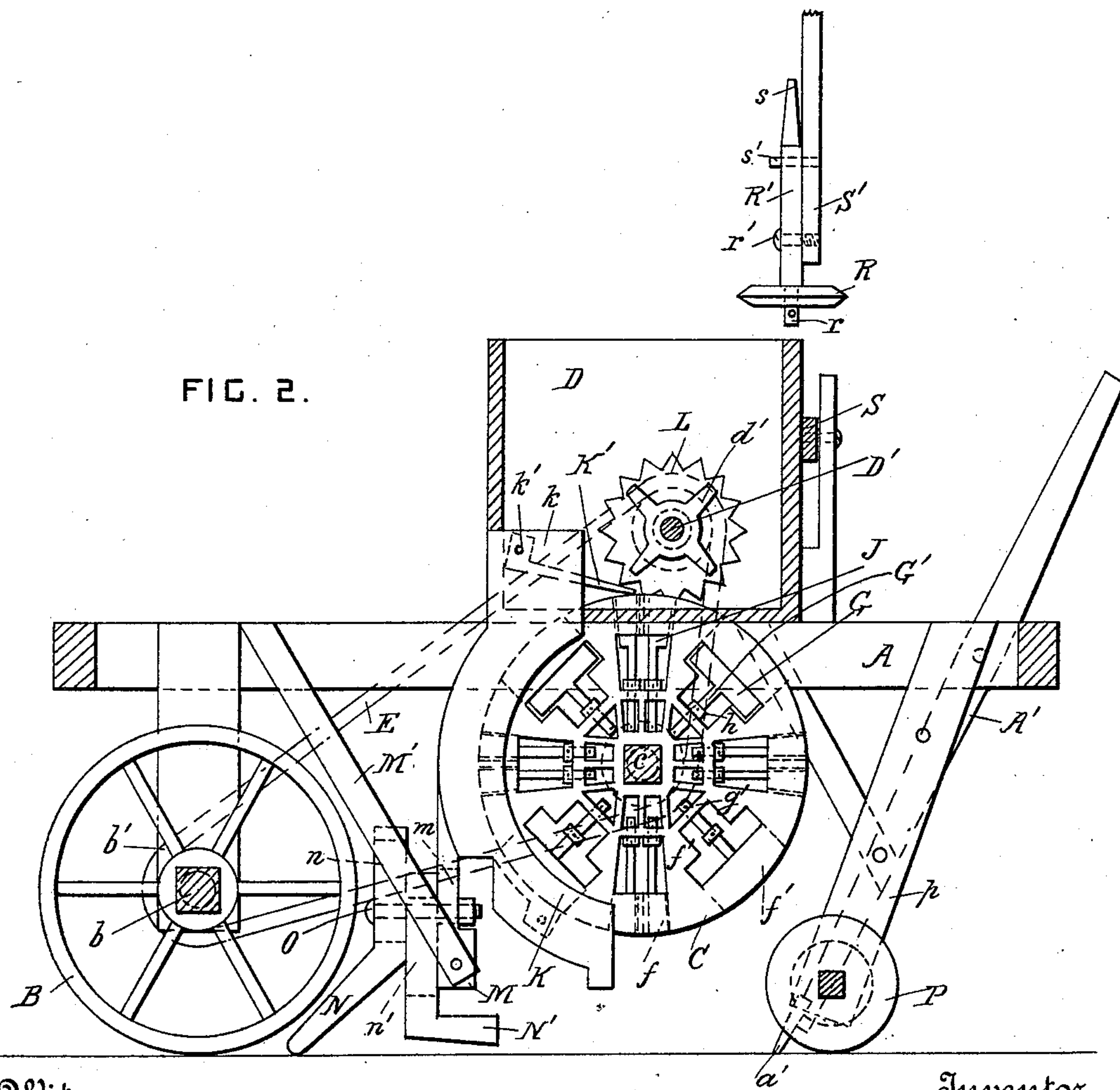


FIG. 2.

Witnesses

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By Attorney *Hubert W. Jenner.*

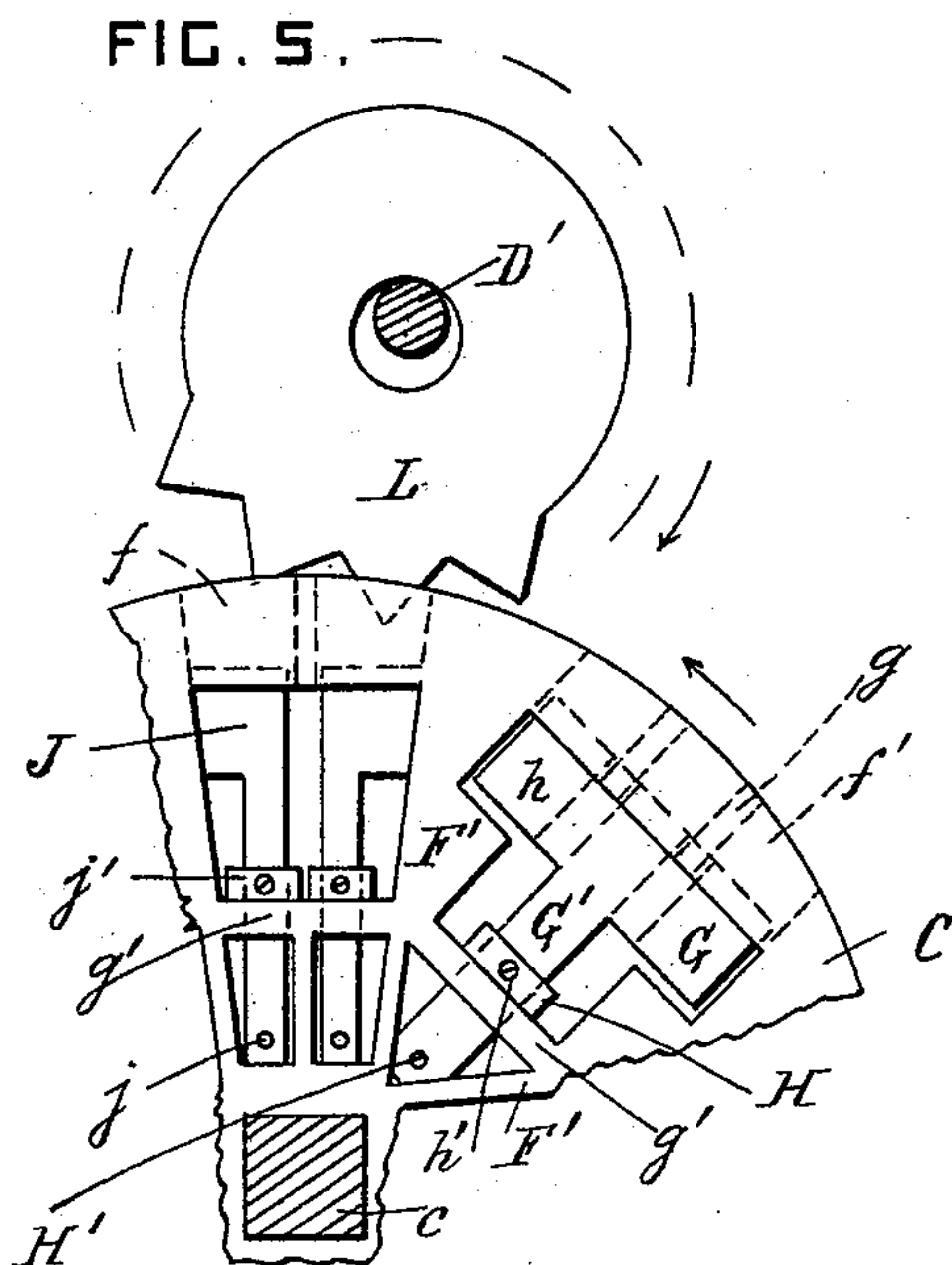
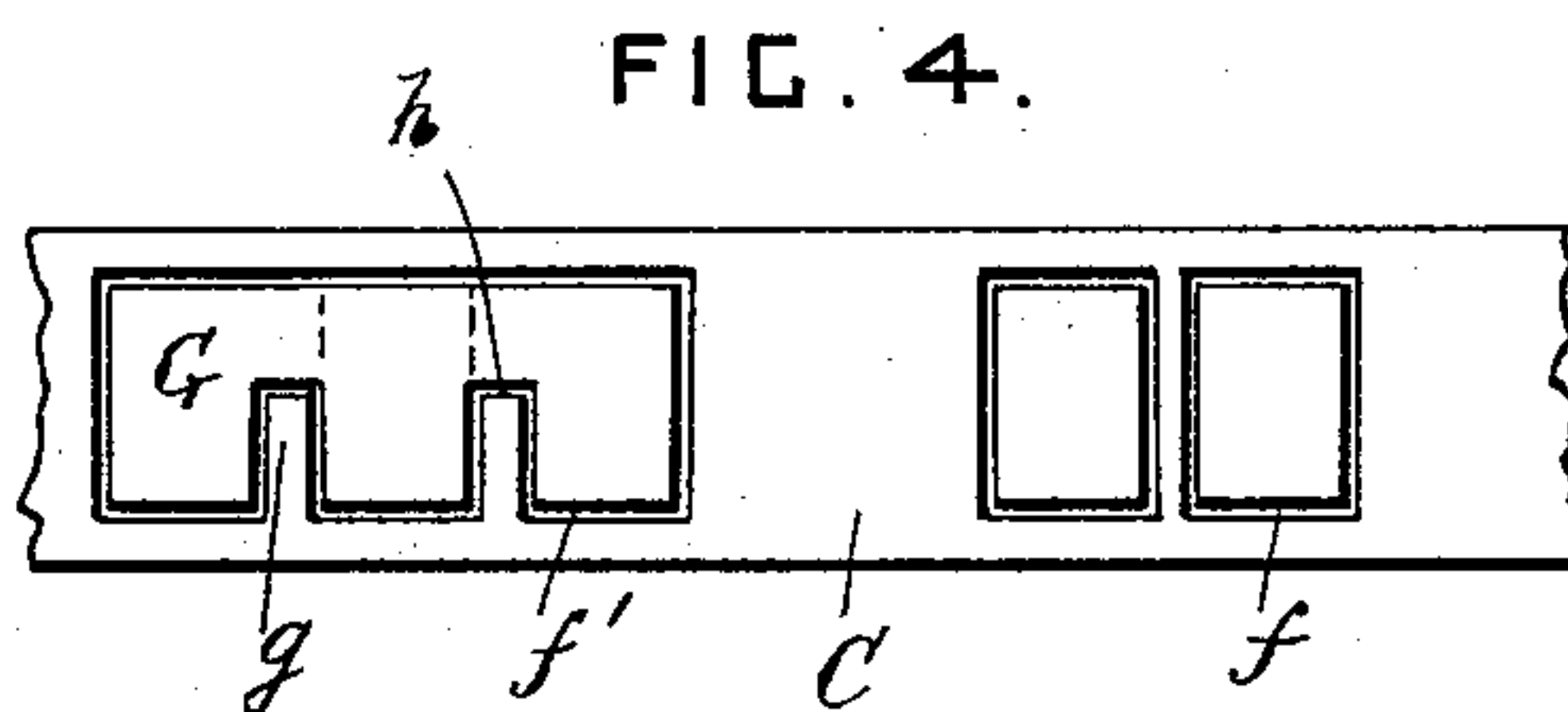
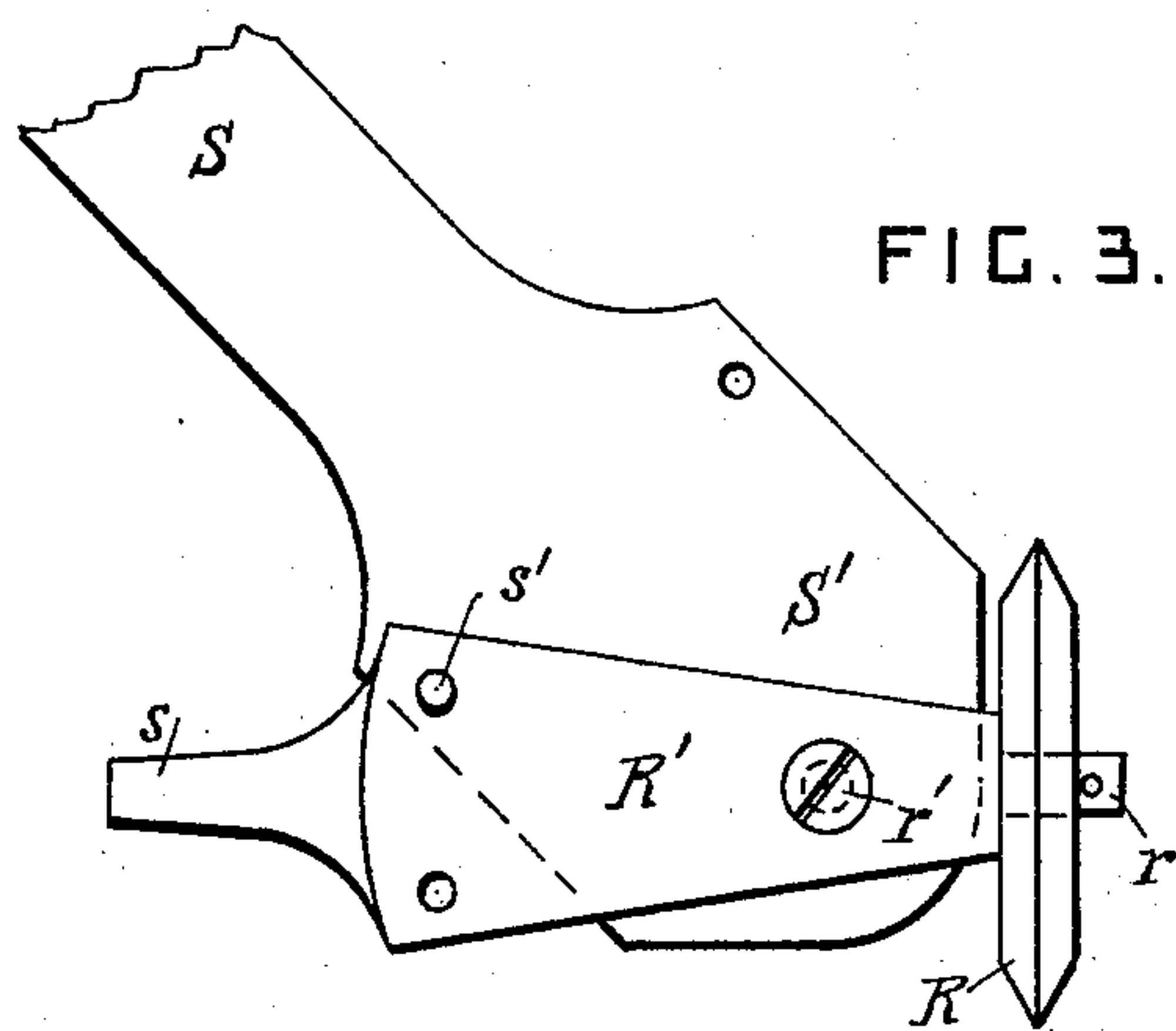
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Frank L. Gregory

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UNITED STATES PATENT OFFICE.

FRANCES W. PACE, OF SAVOY, TEXAS.

SEED-PLANTER.

SPECIFICATION forming part of Letters Patent No. 582,222, dated May 11, 1897.

Application filed July 21, 1896. Serial No. 600,031. (No model.)

To all whom it may concern:

Be it known that I, FRANCES W. PACE, a citizen of the United States, residing at Savoy, in the county of Fannin and State of Texas, have invented certain new and useful Improvements in Seed-Planters; and I do hereby 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.

This invention relates to seed-planters; and it consists in the novel construction and combination of the parts hereinafter fully described and claimed.

In the drawings, Figure 1 is a plan view of the planter. Fig 2 is a sectional view taken on the line $x x$ in Fig. 1. Fig. 3 is a detail front view of the marker. Fig. 4 is a diagram on a plane surface of a portion of the periphery of the dropping-wheel, and Fig. 5 is a side view of a portion of the dropping-wheel drawn to a larger scale.

A is the frame of the machine, and a' are cultivator-blades carried by the standards A' , secured to the sides of the frame.

B is the driving-wheel, secured on the shaft b , which is journaled in bearings b' , secured to the front part of the frame.

C is the dropping-wheel, secured on a shaft c , which is journaled in bearings c' , secured to the frame behind the driving-wheel.

D is the hopper for the seed, secured to the frame above the dropping-wheel.

D' is a shaft journaled in the hopper and having two agitators d' secured on it. These agitators are provided with beveled portions on their arms, so as to work the seed toward the middle part of the hopper.

E is a drive-chain which passes over sprocket-wheels E' , e , and e' , secured on the shafts c , b , and D' , respectively, so that the dropping-wheel and the agitators are kept constantly in motion as the machine is drawn along.

The dropping-wheel C is provided with pockets f and f' in its periphery. The pockets f are substantially square and are placed in pairs at four equidistant parts of the periphery of the wheel. The pockets f' are provided with lateral ribs g , which separate each pocket f' into three communicating parts. The pockets f are specially intended

for corn and the pockets f' for cotton-seed; but all the pockets can be used for cotton or other seed when the same is required to be planted at very short distances apart.

The wheel C is provided with arms F' , and g' are guides extending between the arms.

G are blocks which slide in the pockets f' by gravity. These blocks are provided with stems G' , which slide in the guides g' , and h are grooves in the blocks G for engaging with the ribs g .

H are stops which are slidable on the stems G' , and are provided with set-screws h' for securing them in position.

H' are pins passed through holes in the ends of the stems above the guides.

J are plungers which are slidable in the pockets f and guides g' . The ends of these plungers are provided with pins j above the guides to prevent the plungers from falling through the pockets f , and j' are adjustable stops for securing the plungers in the pockets when they are not required in use.

K is a curved guard covering the front half of the dropping-wheel and provided with lugs k at its upper end, which lugs project upwardly inside the hopper.

K' is a wiper pivoted on the pin k' , which passes through the lugs k . This wiper rests on the periphery of the dropping-wheel and wipes off the surplus seeds which project above the tops of the pockets.

When the pockets f' are not required in use, the blocks G are slid forward, and the stops H are secured close to the guides, so that the blocks G cannot slide in the pockets.

L is a toothed wheel mounted loosely on the shaft D' and resting on the dropping-wheel. The points of the teeth of the wheel L engage with the pockets f and f' , so that the wheel L is revolved in the reverse direction from the agitators and helps to stir up the seed in the hopper. The wheel L rises bodily on the shaft D' when the teeth come against the solid portion of the periphery of the dropping-wheel, and this motion assists in stirring up the seed.

The seed that falls into the pockets f or f' from the hopper is carried downward by the dropping-wheel and is discharged by the plungers and blocks directly the pockets clear the guard K.

M is a projection on the guard provided

with a vertical slot m , and M' are braces secured to the frame and to the lower part of the said projection.

N is the furrow-opener, and N' is a clod-breaker behind the furrow-opener. The furrow-opener is provided with a slot n , and the clod-breaker is provided with a slot n' .

O is a bolt which passes through the slots m , n , and n' and secures the furrow-opener and clod-breaker to the projection M after their vertical positions have been adjusted.

P is a grooved wheel for covering over the seed after it has been dropped into the furrow. This wheel P is carried in supports p , secured to the frame behind the hopper.

R is the reversible marker, consisting of a beveled disk journaled on a pin r at one end of a block R' . The block R' is pivoted on a pin r' , projecting from a head S' at the end of the marker-staff S . The block R' is provided with a handle s and a pin s' , which engages with holes in the head S' .

The marker-staff is secured to the rear of the hopper, in an inclined position, and the block R' is substantially horizontal, so that the marker-disk runs vertically on the ground and marks the position of the next furrow for seed. The marker can be reversed by turning the staff so that it projects on the other side of the machine, at the same time moving the block on its pivot-pin, so as to bring the marker-disk into a vertical position.

What I claim is—

1. In a seed-planter, the combination, with a dropping-wheel provided with pockets, of a hopper above the dropping-wheel, a shaft passing through the hopper, and a vertically-movable toothed wheel provided with a large central hole mounted on the said shaft within the hopper and affording a means for agitating the seed, the teeth of the said wheel being arranged to engage with the said pockets and to bear on the periphery of the wheel between the pockets, substantially as set forth.

2. In a seed-planter, the combination, with a dropping-wheel provided with pockets f and f' in its periphery, the pockets f being arranged in pairs for corn, and the pockets f' being divided into compartments by ribs for cotton-seed; of plungers slidable radially in the pockets f , and blocks slidable radially in the pockets f' , substantially as set forth.

3. In a seed-planter, the combination, with a dropping-wheel provided with pockets f and f' , the pockets f being arranged in pairs and the pockets f' being divided into compart-

ments by ribs, and the said wheel having guides between its hub and the said pockets; of plungers slidable radially in the said guides and the pockets f , blocks slidable radially in the pockets f' and provided with stems slidable in the said guides, and adjustable stops secured to the said stems, substantially as set forth.

4. In a seed-planter, the combination, with a dropping-wheel provided with pockets f' divided into compartments by ribs projecting from one side of the said pockets, and having guides between the said pockets and its hub; of blocks slidable in the said pockets, said blocks being provided with grooves engaging with the said ribs, and stems slidable in the said guides; pins passing through the stems and preventing the blocks from falling through the pockets, and adjustable stops on the stems for limiting the motion of the blocks in the said pockets, substantially as set forth.

5. In a seed-planter, the combination, with a dropping-wheel provided with pockets, of a hopper above the dropping-wheel, a shaft journaled in the hopper and provided with two agitators, a vertically-movable toothed wheel having a large central hole engaging with the said shaft between the said agitators and having the points of its teeth engaging with the said pockets whereby the said toothed wheel is revolved in one direction, and driving devices operating to revolve the said agitators in the reverse direction from the said toothed wheel, substantially as set forth.

6. In a seed-planter, the combination, with a dropping-wheel provided with pockets divided into compartments by ribs projecting part way across them, and slidable discharger-blocks provided with grooves engaging with the said ribs; of a hopper above the dropping-wheel, a shaft passing through the said hopper, and a vertically-movable toothed wheel provided with a large central hole engaging with the said shaft, the teeth of the said wheel being arranged to engage with the said pockets whereby the wheel is revolved by the ribs and raised by the periphery of the wheel between the pockets, substantially as set forth.

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

FRANCES ^{his} × W. PACE.
mark

Witnesses:

A. DEATHEROY,
E. H. NELSON.