

(No Model.)

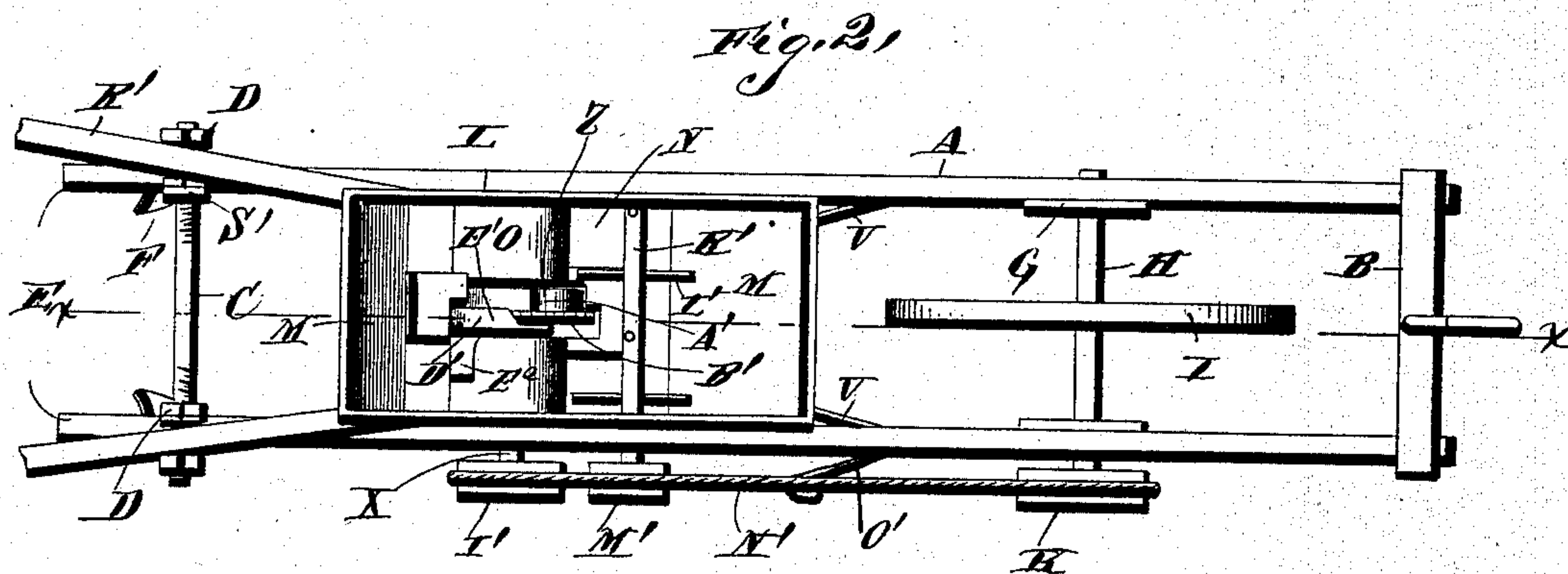
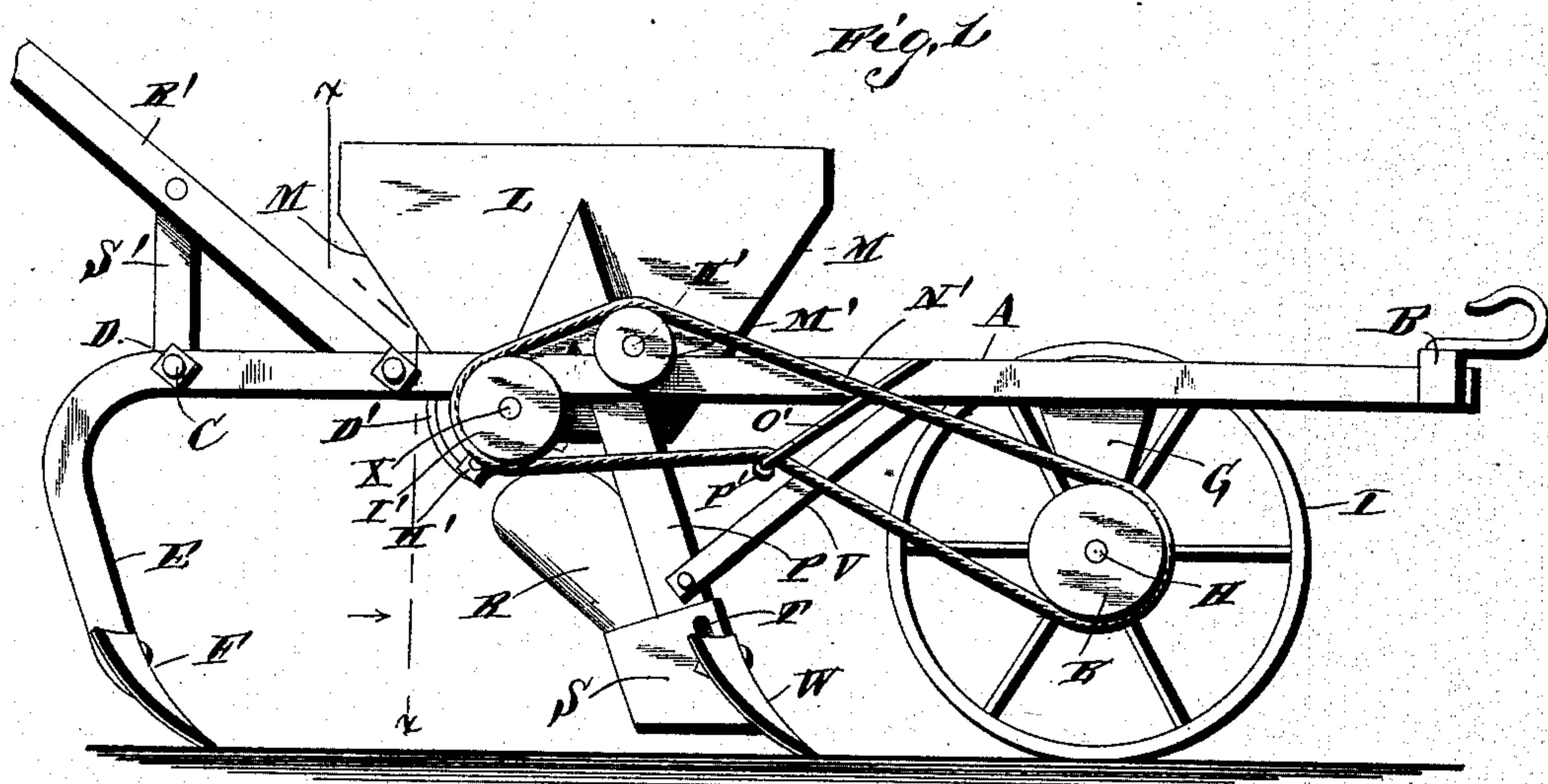
2 Sheets—Sheet 1.

J. D. SCHOFIELD.

COMBINED CORN AND COTTON PLANTER.

No. 388,452.

Patented Aug. 28, 1888.



Witnesses,

*C. B. Taylor,*  
*J. G. Gannon*

Inventor,

*James D. Schofield*

By his Attorneys

*C. A. Shoups*

(No Model.)

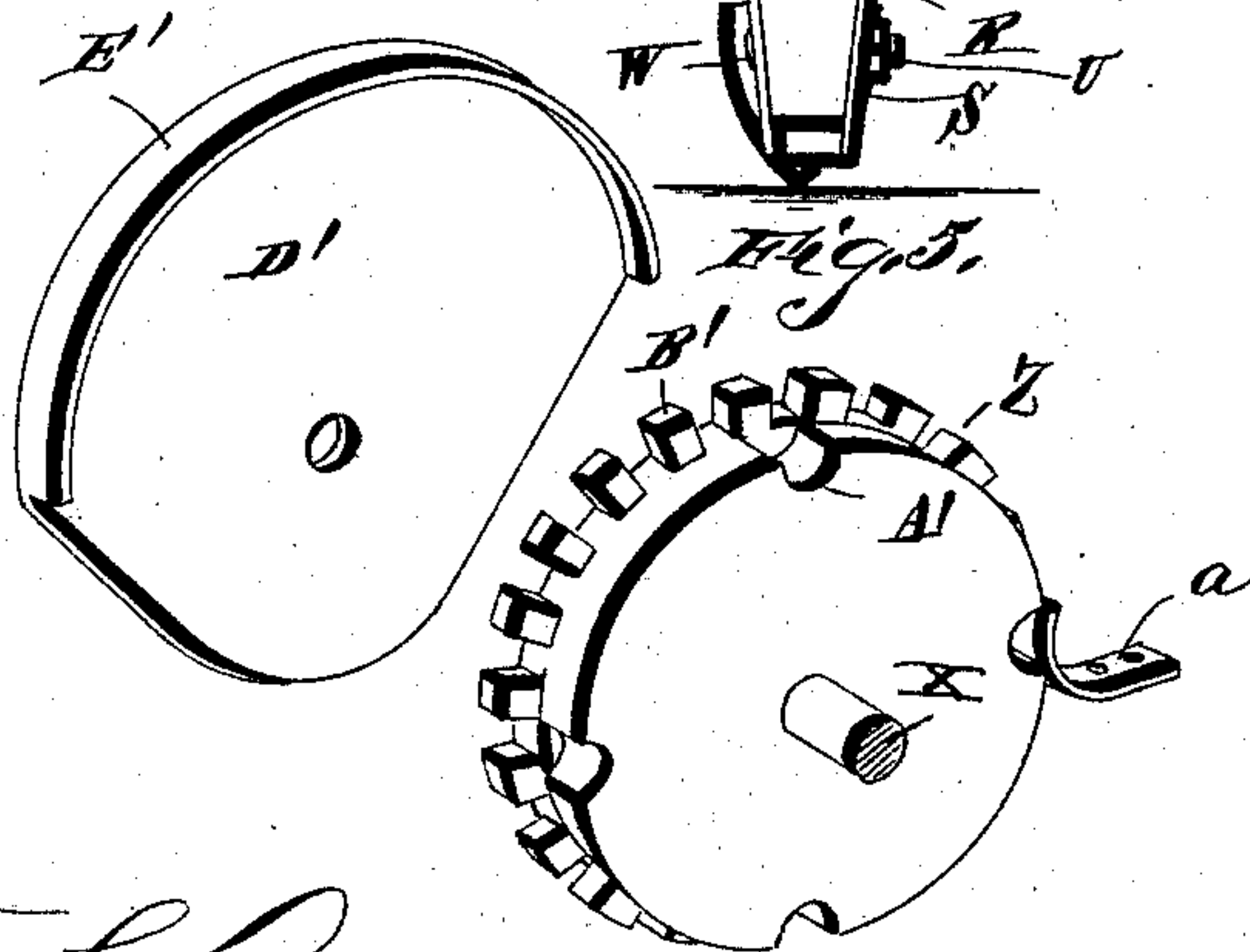
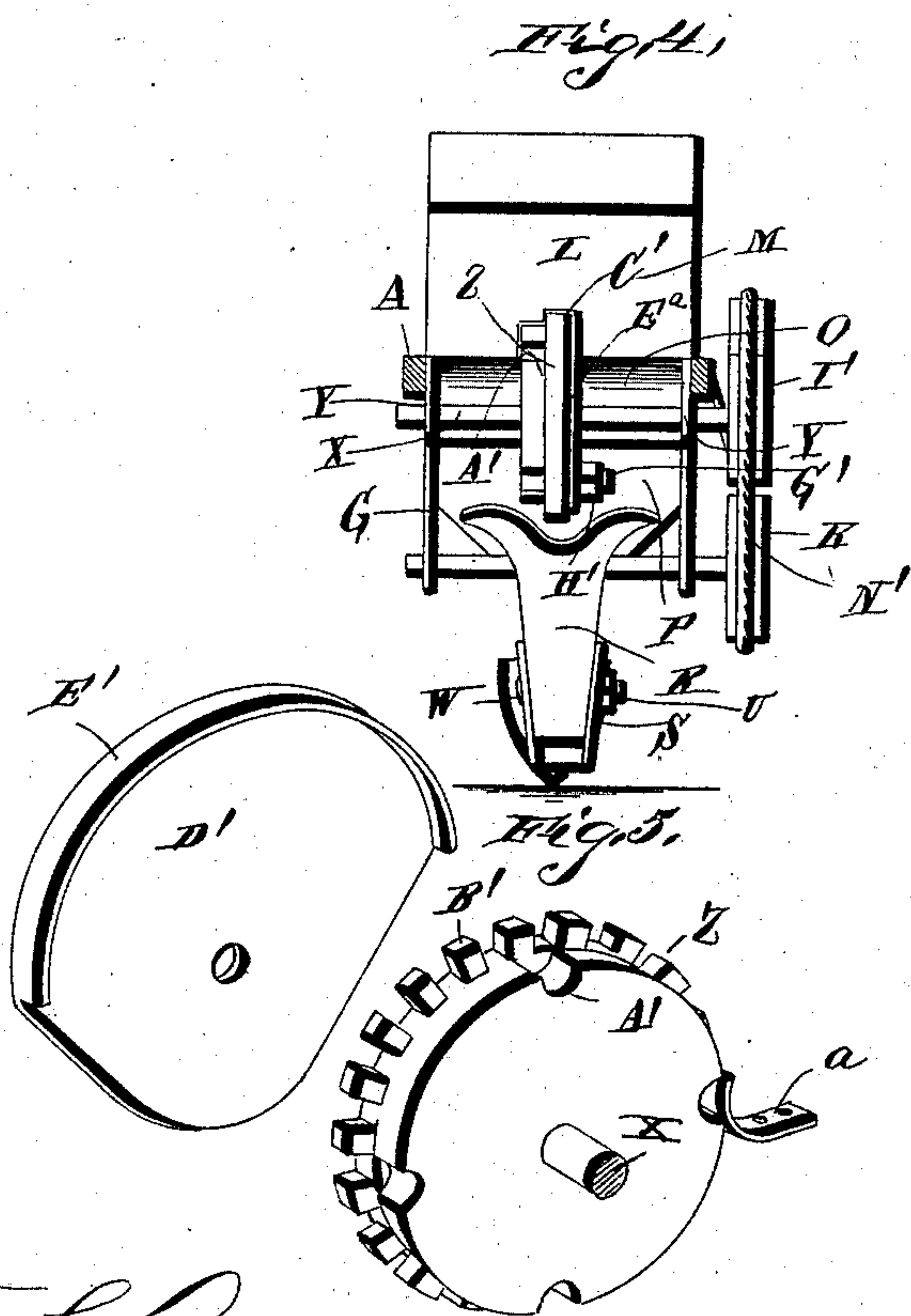
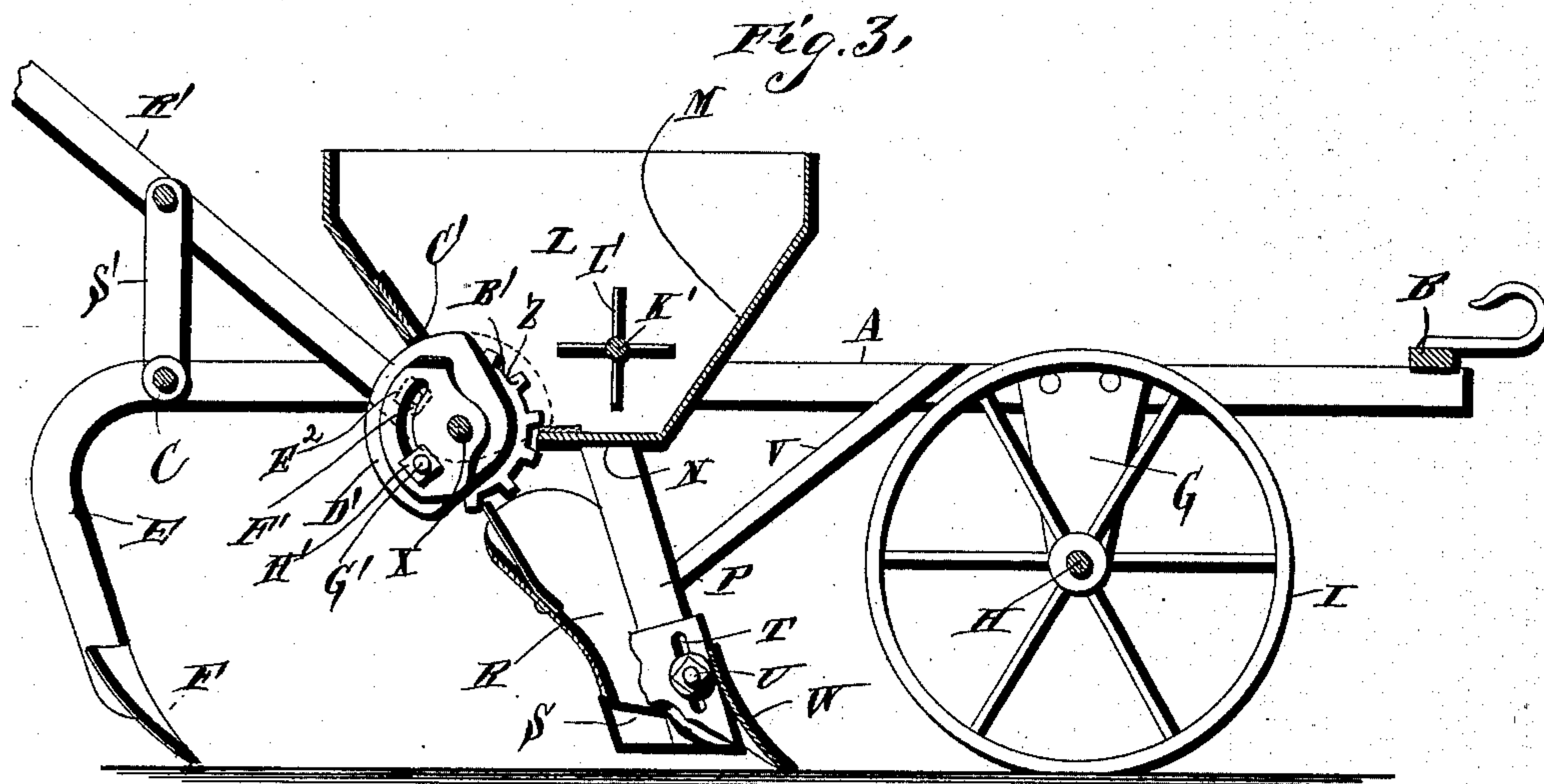
2 Sheets—Sheet 2.

J. D. SCHOFIELD.

COMBINED CORN AND COTTON PLANTER.

No. 388,452.

Patented Aug. 28, 1888.



Witnesses.  
*O. B. Taylor,*  
*J. W. Garner.*

Inventor,  
*James D. Schofield.*

By *his* Attorneys

*C. A. Snowdon.*



# UNITED STATES PATENT OFFICE.

JAMES DROMMOND SCHOFIELD, OF RODGERS, TEXAS, ASSIGNOR TO JAMES P. REED, OF SAME PLACE.

## COMBINED CORN AND COTTON PLANTER.

SPECIFICATION forming part of Letters Patent No. 388,452, dated August 28, 1888.

Application filed March 29, 1888. Serial No. 268,819. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES DROMMOND SCHOFIELD, a citizen of the United States, residing at Rodgers, in the county of Bell and State of Texas, have invented a new and useful Improvement in Combined Corn and Cotton Planters, of which the following is a specification.

My invention relates to an improvement in combined cotton and corn planters; and it consists in the peculiar construction and combination of devices that will be more fully set forth hereinafter, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation of a combined cotton and corn planter embodying my improvements. Fig. 2 is a top plan view of the same. Fig. 3 is a vertical longitudinal sectional view of the same, taken on the line *xx* of Fig. 2. Fig. 4 is a vertical transverse sectional view taken on the line *xx* of Fig. 1. Fig. 5 is a detail view of the seed-wheel.

A represents a pair of side beams, which have their front ends connected by a cross-bar, B, and have their rear ends connected by the right and left hand threaded bolt-rod C, which extends through aligned openings in the beams, and is provided with clamping-nuts D, that bear against the inner and outer sides of the beam. The rear ends of the beams are turned downward to form standards E, and covering-shovels F are secured to the feet of said standards.

G represents a pair of depending flanges or bearings, which are secured to the beams A, near the front end thereof, and in said bearings is journaled a shaft, H, to the center of which is secured a supporting-wheel, I. To one end of the said shaft is secured a pulley, K.

L represents a hopper, which is secured between the beams A, at a suitable distance from the rear ends thereof, and is provided with the front and rear inclined downwardly-converging walls M, as shown. The front portion of the bottom of the hopper is perfectly flat or horizontal, as at N, and the rear portion of the bottom of the hopper is cylindrical in shape, as at O.

P represents a standard, which depends from the lower front side of the hopper and extends

forwardly. On the rear side of the said standard is arranged a seed-spout, R, which is preferably made of sheet metal bent in the form here shown. The lower end of the said spout has a boot, S, through which the lower end of the standard extends, and said boot and said spout are adapted to move vertically on the said standard. The sides of the boot are provided with the inclined slots T, and clamping-bolts U engage the sides of the boots and extend through the said slots and through the standards, the function of the said bolts being to secure the boot on the seed spout at any desired adjustment.

V represents a pair of brace-rods which connect the spout R to the side beams, A. To the front side of the boot S is secured a furrow-opening, W.

X represents a shaft, which is journaled in a pair of bearings, Y, that depend from the hopper. To the center of this shaft is rigidly secured a seed-wheel, Z, which is provided with peripheral seed cups or depressions A' and with projecting peripheral teeth B'. The upper side of this seed-wheel projects through a central opening, C', in the curved portion of the bottom of the hopper, the front portion of the said seed-wheel being arranged over the upper end of the seed-spout R.

D' represents a semicircular cut-off plate, which is centrally pivoted upon the shaft X, and bears against one side of the seed-wheel. Said semicircular plate extends through the opening C', and is provided with a curved flange, E', which extends over the peripheral teeth of the seed-wheel when the said plate is in the position shown in solid lines of Fig. 3, and when the seed-plate is in the position shown in dotted lines in the said figure said curved flange uncovers the said peripheral teeth, as will be readily understood. A rigid plate, E<sup>2</sup>, depends from the rear side of the hopper, and bears against the opposite side of the semicircular plate D', and said plate E<sup>2</sup> has a curved slot, F'.

G' represents a spindle or bolt, which projects from the curved plate and extends through said slot, and is provided with a clamping-nut, H', by means of which said curved plate may be secured in any desired position.



To one end of the shaft X is rigidly secured a pulley, I'.

K' represents a shaft, which is journaled in the side walls of the hopper at a suitable distance in advance of the shaft X, the said shaft K' being arranged over the lower flat portion of the bottom of the hopper, and said shaft is provided with a series of radial stirring-arms, L'. To one end of the shaft K' is secured a pulley, M', which is somewhat smaller than the pulley I'.

N' represents an endless belt, which connects the pulleys K, M', and I', and imparts rotary motion of the supporting-wheel to the shafts K' and X when the machine is drawn forward.

O' represents an arm, which depends from one of the beams A, and is provided at its lower end with a guide pulley or sheave, P', over which the lower portion of the endless belt passes.

R' represents a pair of handles, which are similar to plow-handles, have their lower front ends secured to opposite sides of the side beams, and are braced in position by means of standards S', the lower ends of which are secured on the ends of the bolt-rod C.

The operation of my invention is as follows: When the machine is to be used for planting corn, the curved plate D' is turned so as to cause its curved flange E' to cover the peripheral teeth on the upper side of the seed-wheel. As the machine is driven in straight lines across the field, the furrow-opener opens the furrow, the revolving seed-wheel collects grains of corn in its peripheral seed cups or depressions and discharges the same at regular distances into the seed-furrow. The covering-plows serve to cover the corn in the furrow, thereby completing the operation of planting the same. In order to prevent the seeds from adhering in the seed-cups or recesses, a spring or brush, a, is employed, which has its lower end secured to the bottom side of the hopper, the upper end of said spring bearing against the periphery of the seed wheel or disk, and being thereby adapted to enter each seed-cup or depression in succession, so as to dislodge the seeds therefrom and prevent an excess. When it is desired to plant the corn at longer intervals, the pulley M' is removed from the shaft K' and secured to the shaft I', and the pulley K is removed from the shaft H and secured to the shaft K', thereby causing the shaft X to be driven at a slower rate of speed, as will be readily understood. When it is desired to plant cotton-seed, the curved plate D' is turned and secured so as to cause its curved flange E' to uncover the peripheral teeth of the seed-wheel. The shaft K' is in constant rotation while the machine is in operation, and its arms L' serve to stir and agitate the cotton-seeds in the hopper and prevent the same from becoming lodged, and the peripheral teeth of the seed-wheel engage said cotton-seeds and force the same through the opening in the bottom of the hopper into the

seed-spout, when they fall into the furrow and are covered, as before. The function of the vertically adjustable foot on the standard is to adapt the furrow-opener to be raised or lowered and caused to operate in the ground at any desired depth.

By means of the bolt rod, which connects the rear ends of beams and the clamping-nuts on the said bolt-rod, the rear ends of said beams may be spread apart or brought near together, so as to cause the covering-shovels to operate in the ground at any desired distance apart. The said beams A are made of steel, in order to give them sufficient elasticity to enable them to be thus adjusted laterally, and this also renders the frame of the machine stronger and more durable.

Having thus described my invention, I claim—

1. The combination, in a planter, of the hopper, the seed-wheel extending into the bottom of the hopper and having the peripheral seed cups or depressions and the peripheral projecting teeth, means, substantially as set forth, to rotate the said seed-wheel, and the plate D', having the curved flange E', adapted to cover or uncover the peripheral teeth on the upper side of the seed-wheel, whereby the machine may be used for planting either corn or cotton, substantially as described.

2. The combination, in a planter, of a hopper, the revolving shaft K' therein, having the stirring-arms L', the revolving shaft X, arranged under the bottom of the hopper, the seed-wheel secured to said shaft, having the seed cups or depressions and the peripheral projecting teeth, the upper side of said seed-wheel extending through an opening in the bottom of the hopper, and the cut-off plate D', having the flange E', adapted to cover or uncover the peripheral teeth of the seed-wheel, for the purpose set forth, substantially as described.

3. The combination, in planter, of the hopper, the revoluble seed-wheel extending into the bottom of the same and having the peripheral seed cups or depressions and the peripheral projecting teeth, and the plate D' on the axis of the seed-wheel and having the curved segmental flange E', extending over the seed-wheel, substantially as described.

4. The combination, in a planter, of the standard P, the boot inclosing the lower end of said standard and having the slots T, the bolt extending through the said standard engaging the said slots and having the clamping-nuts to secure the boot at any desired vertical adjustment on the standard, said boot having the furrow-opener, substantially as described.

5. The combination, in a planter, of a hopper having the bottom provided with the lower flat portion, N, and the curved portion O, and provided with the bottom opening, C', the shaft K', revolving in the hopper over the flat portion thereof and having the radial stirring-arms, the revolving shaft X, having the seed-wheel provided with the peripheral seed cups



or depressions and with the peripheral teeth,  
said seed-wheel having its upper side extend-  
ing through the opening C', and the plate D',  
having the curved flange E', adapted to cover  
5 or uncover the peripheral teeth of the upper  
side of the seed-wheel, substantially as de-  
scribed.

In testimony that I claim the foregoing as my  
own I have hereto affixed my signature in pres-  
ence of two witnesses.

JAMES DROMMOND SCHOFIELD.

Witnesses:

J. P. REED.

W. T. BROOKER.