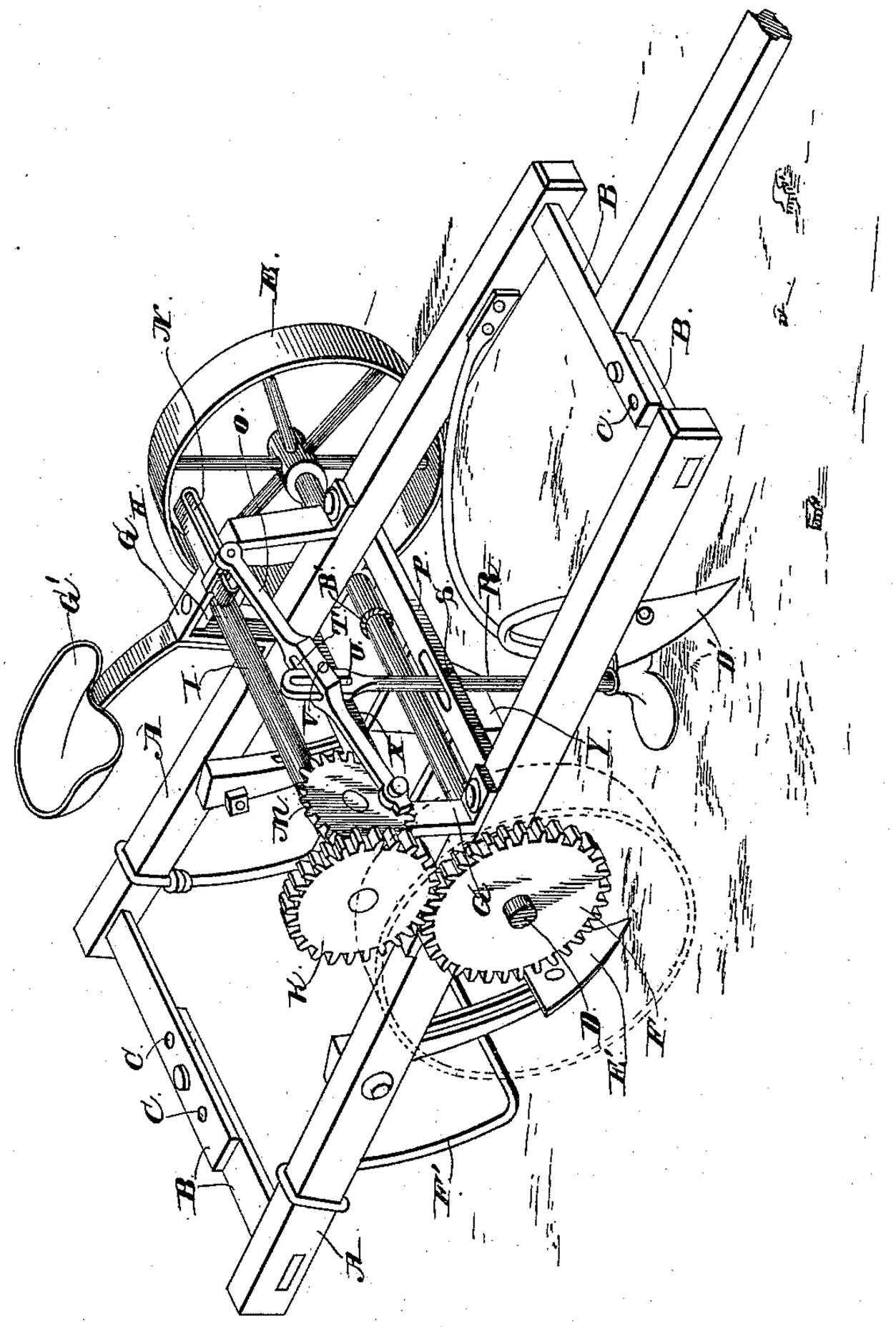
(No Model.) 2 Sheets—Sheet 1.

D. W. PILOND.

COMBINED COTTON CHOPPING, PLANTING, AND CULTIVATING MACHINE.

No. 383,146. Patented May 22, 1888.

Fig. 1.



Witnesses
M. C. Fowler.
E. L. Siggers.

Inventor,
David W. Pilond.
by C. A. Snow & Co.
his Attorneys

(No Model.) 2 Sheets—Sheet 2.

D. W. PILOND.

COMBINED COTTON CHOPPING, PLANTING, AND CULTIVATING MACHINE.

No. 383,146. Patented May 22, 1888.

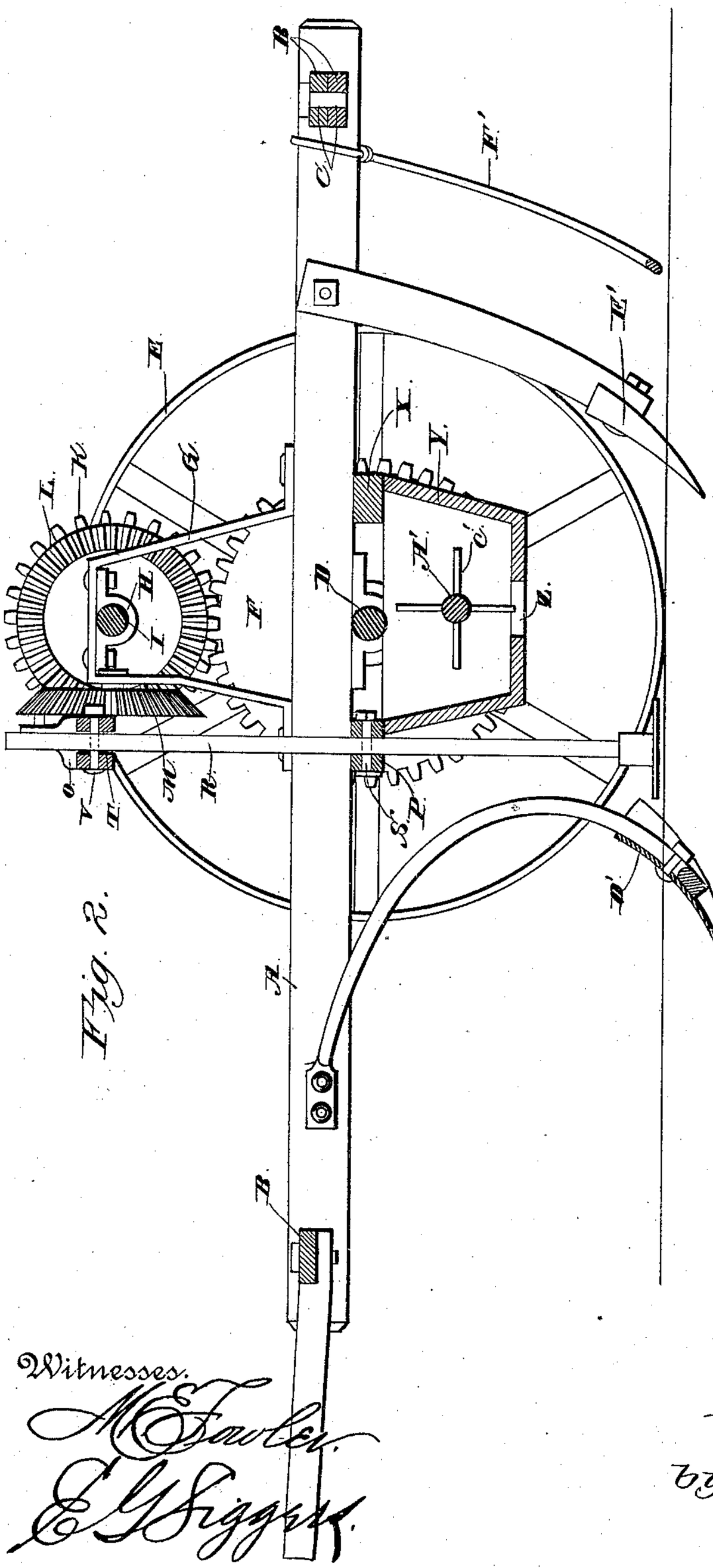


Fig. 2.

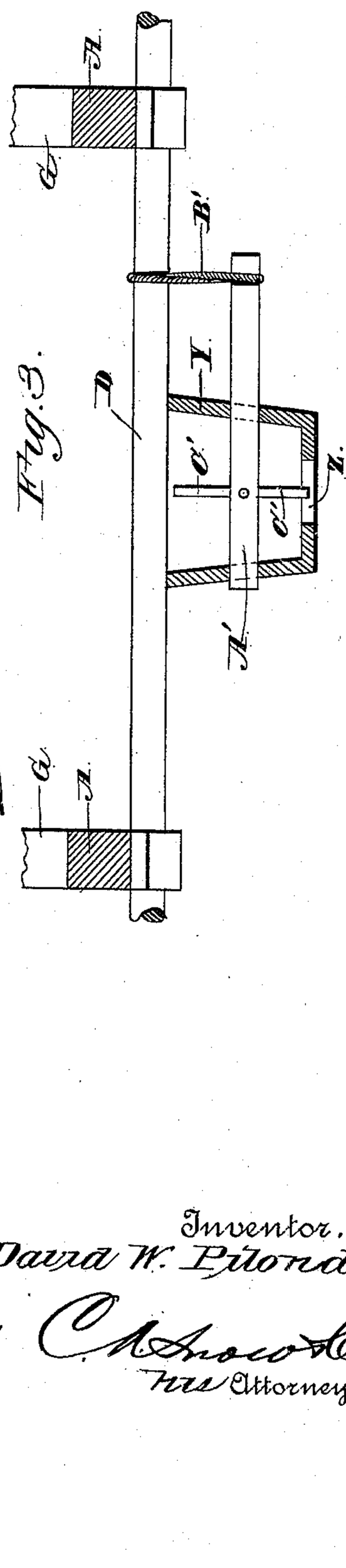


Fig. 3.

Witnesses.
M. C. Fowler.
E. G. Siggers.

Inventor.
David W. Pilond
by C. A. Snow & Co
his Attorneys.

UNITED STATES PATENT OFFICE.

DAVID WINFIELD PILOND, OF WAELDER, TEXAS.

COMBINED COTTON CHOPPING, PLANTING, AND CULTIVATING MACHINE.

SPECIFICATION forming part of Letters Patent No. 383,146, dated May 22, 1888.

Application filed March 17, 1888. Serial No. 267,527. (No model.)

To all whom it may concern:

Be it known that I, DAVID WINFIELD PILOND, a citizen of the United States, residing at Waelder, in the county of Gonzales and State of Texas, have invented a new and useful Improvement in Combination Cotton and Corn Planting, Chopping, and Cultivating Machines, of which the following is a specification.

My invention relates to an improvement in combined cotton chopping, planting, and cultivating machines; 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 perspective view of a planting, chopping, and cultivating machine embodying my improvement. Fig. 2 is a vertical longitudinal central sectional view of the same. Fig. 3 is a transverse sectional view of the same.

A represents a pair of beams, which are connected at their front and rear ends by extensible bars B, the latter having their inner ends overlapped and being provided with adjusting-openings C, and bolts or pins passed through the said openings, to thereby secure the parts of said bars together, as shown.

D represents a shaft which is journaled in bearings under the centers of the beams A, and to the extremities of said shaft are secured wheels E, one of which is fast to the said shaft, and the other of which is loose thereon. Rigidly secured to said shaft is a spur-wheel, F, which is arranged near one end thereof.

From the upper sides of the beams A, at the centers of the same, project standards or knees G, having bearings H at their upper sides, in which is journaled a transverse shaft, I. Said shaft has at one end a spur-wheel, K, which meshes with spur-wheel F, and on the inner side of said spur-wheel K are beveled spur-teeth L.

M represents a beveled wheel which is journaled on a projecting bearing or spindle with which one of the standards G is provided, said beveled wheel M engaging the beveled teeth L of wheel K. The opposite standard G is provided at its front upper side with a transverse guideway, N.

O represents a pitman, which is provided at one end with a cross-head operating in the guideway N, and has its opposite end connected to a crank pin or wrist with which the wheel M is provided.

Connecting the beams A, and arranged at a suitable distance in advance of the shaft, is a beam, P, having a vertical central opening or slot. R represents a chopping-lever which passes through said opening or slot, is fulcrumed therein on a pin or bolt, S, and has its upper end extended through a vertical central slot, T, with which the pitman is provided. The upper end of the chopping-lever is also provided with a slot, U, and a pin or bolt, V, passes through the center of the pitman and through the slot U, and thereby loosely connects the upper end of the chopping-lever to the pitman. To the lower end of the chopping-lever is secured a pair of chopping-hoes, which project laterally from opposite sides thereof.

X represents a cross-bar which connects the beams A at a suitable distance in rear of the shaft. From the said bar X and from the bar P is suspended a hopper, Y, having a longitudinal opening, Z, in its lower side. Journaled in bearings in the sides of this hopper is a revoluble shaft, A′, which is connected to the driving-shaft by means of a crossed belt, B′, and whereby rotary motion of the driving-shaft is transmitted to shaft A′. The latter is provided with a series of radial stirring-arms, C′, which are arranged in the center of the hopper.

D′ represents a furrow-opener which is attached to the front end of the frame and E′ a pair of covering shovels or plows which are secured to the beams A near the rear end thereof.

F′ represents a yoke or scraper, which is substantially in the form of the letter U, has its central portion arranged horizontally and in a transverse direction at a suitable distance below the beams A, and has its arms connected to the said beams, as shown.

G′ represents the driver's seat, which is attached to one of the standards G and extends rearward therefrom.

The operation of my invention is as follows: When it is desired to chop or thin out cotton-plants, the furrow-opener is removed and the machine is driven across the field with its

wheels astride one of the rows of plants, so that the shovels E′ are on opposite sides of the row. The scraping-yoke F′ is also removed. As the machine advances, the rotary motion of the driving-shaft is transmitted to the shaft I and from the latter to the wheel M by means of the gearing hereinbefore described, and as the wheel rotates it imparts reciprocating motion to the pitman, and the latter causes the chopping-lever to oscillate, and thereby the chopping-hoes are operated and are caused to chop out the superfluous plants, so as to leave "stands" at the required distance apart along the row. The plows E′, by working in the ground on opposite sides of the row, cultivate the plants while they are being chopped, and thus promote rapid growth of the plants.

When it is desired to use the machine for planting cotton, the wheel M, pitman, and chopping-lever are removed, furrow-opener and scraping-yoke are secured to the frame, as before stated, and a quantity of cotton-seeds is placed in the hopper and the machine driven across the field and guided in straight rows. The rotary motion of the driving-shaft is communicated to the shaft B′ by the cross-belt, and the stirrers of said shaft B′ agitate the seeds in the hopper and drop the same through the opening in the bottom thereof into the furrow. Plows E′ cover the seeds in the furrow and throw a ridge over the same, and the scraping-yoke in rear of said plows levels the said ridge and removes the superfluous earth from the furrows, and thereby prevents the seeds from being planted too deeply.

A machine thus constructed is cheap and simple, is very strong and durable, and will be found of great utility for chopping, planting, and cultivating cotton.

Having described my invention, I claim—

1. The combination of the frame, the shaft journaled therein and having the driving-wheels and the spur-wheel F, the vertical knees or standards on the frame, the transverse shaft I, journaled thereon and having the wheel K, meshing with wheel F, the wheel M, journaled on a spindle projecting from one of the standards at right angles to wheel K and engaging the same, the chopping arm or lever fulcrumed in an opening in the frame, having the chopping-hoes at its lower end, and the pitman X, connecting the wheel M to the chopping lever, substantially as described.

2. The combination of the frame having the bar P, the chopping-lever fulcrumed in said bar and having the chopping-hoes at its lower end and the slot U in its upper end, the knees or standards on the frame, the guideway N on one knee, wheel M, journaled on the other, the pitman connected to wheel M, having the slot T, through which the upper end of chopping-lever extends, and having the cross-head working in guideways N, pin V, extending through slots Y and U, and the driving-shaft geared to wheel M, substantially as described.

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

DAVID WINFIELD PILOND.

Witnesses:

JOHN JAMES JOHNSTON,

EZEKIEL WESLEY WALKER.