(No Model.)

J. A. PIERCE.

COTTON CHOPPER.

No. 462,451. Patented Nov. 3, 1891.

FIG_1_

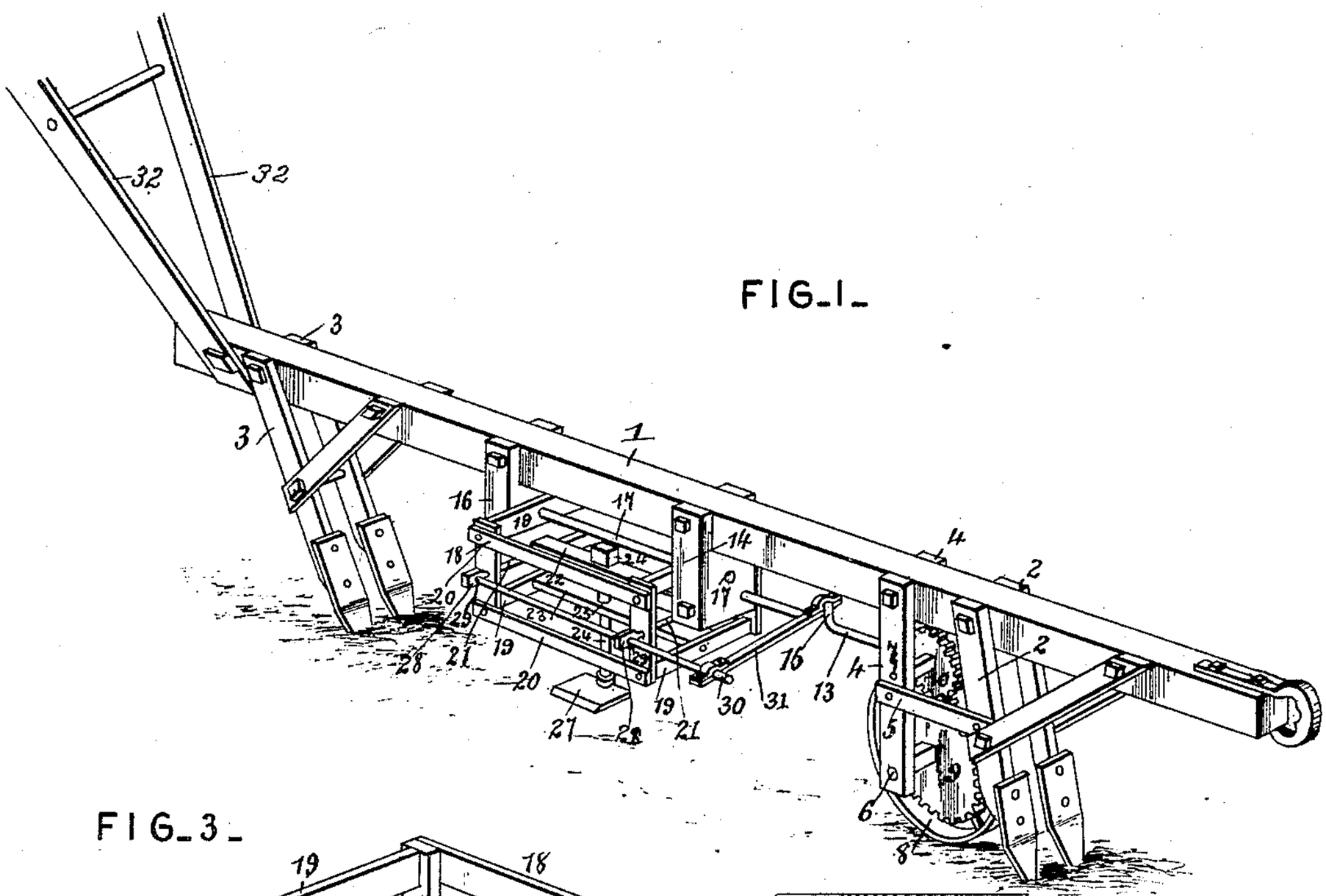
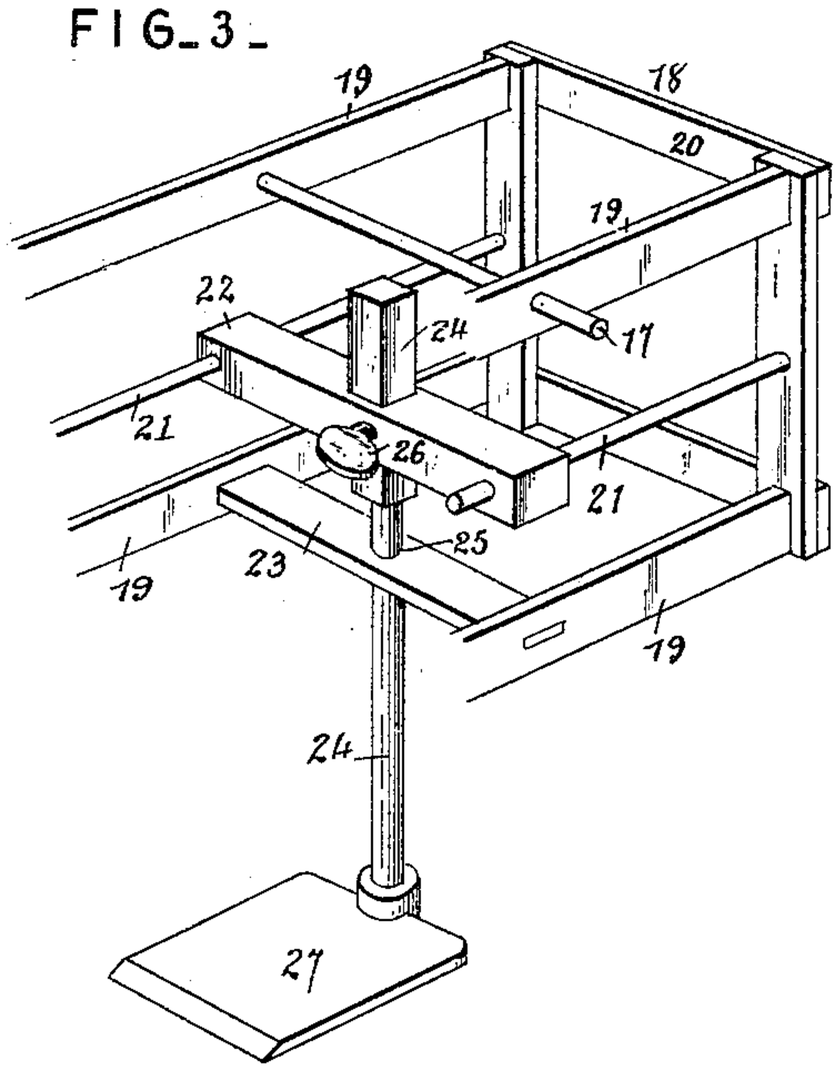


FIG_3_



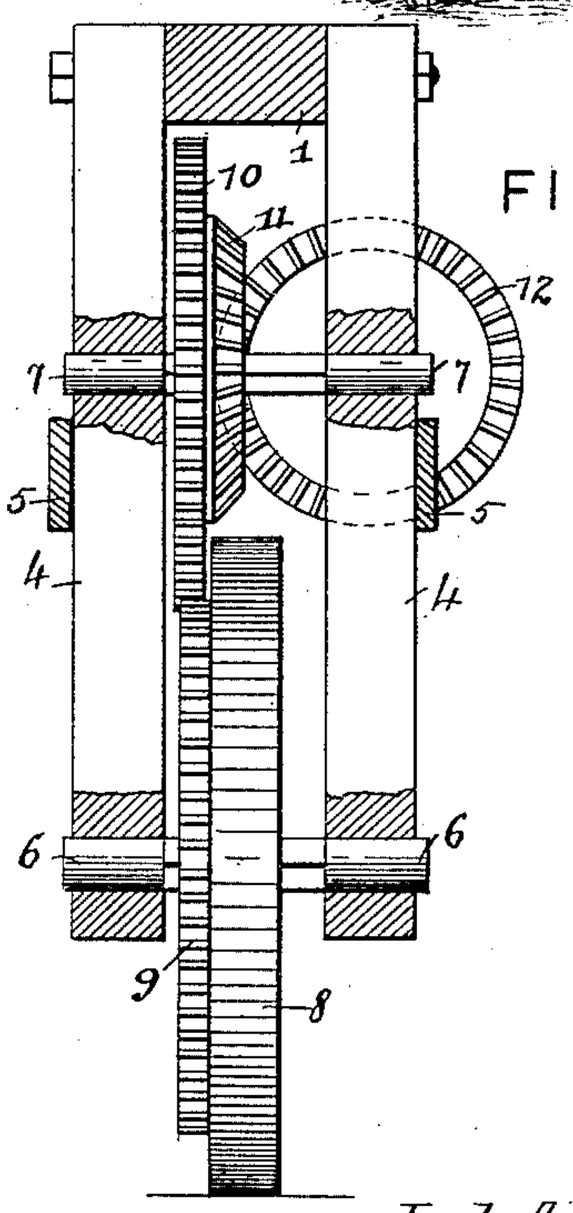


FIG_2_

Witnesses

Jas. K. McCathran

Wm. Baggers

Inventor

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By his Attorneys,

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UNITED STATES PATENT OFFICE.

JOEL A. PIERCE, OF BEARDEN, ARKANSAS, ASSIGNOR OF ONE-HALF TO WILLIAM SCROGGIN, OF SAME PLACE.

COTTON-CHOPPER.

SPECIFICATION forming part of Letters Patent No. 462,451, dated November 3, 1891.

Application filed March 4, 1891. Serial No. 383,775. (No model.)

To all whom it may concern:

Be it known that I, JOEL A. PIERCE, a citizen of the United States, residing at Bearden, in the county of Ouachita and State of Arkansas, have invented a new and useful Cotton-Chopper, of which the following is a specification.

This invention relates to cotton-choppers; and it has for its object to construct a machine of this class which shall possess superior advantages in point of simplicity, durability, and general efficiency.

With these ends in view the invention consists in the improved construction, arrangement, and combination of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings hereto annexed, Figure 1 is a perspective view of a cotton-chopper constructed in accordance with my invention. Fig. 2 is a transverse sectional view of the same. Fig. 3 is a detail view.

Like figures of reference indicate like parts in all the figures.

1 designates a beam, such as an ordinary plow-beam, which is provided near its front and at its rear end with standards 2 and 3, suitably braced and adapted to carry cultivator-blades of any suitable construction. The beam 1 is provided in rear of the standard 2 with depending brackets 4, which are connected with said standard by means of braces 5. The said brackets are provided with bearings for the axle 6 and for a shaft 7, arranged above and parallel to the axle. The latter carries the transporting-wheel 8 and a gear-wheel 9, which latter meshes with a spur-wheel 10, mounted upon the shaft 7. Said shaft also carries a bevel-pinion 11, meshing with a pinion 12 upon a longitudinal shaft 13, which latter is journaled in one of the brackets 4 and in a block 14 depending from the beam 1. The shaft 13 is provided with a crank 15.

16 designates a block or bracket extending downwardly from the beam 1 a short distance in front of the rear standard 3. The blocks or brackets 14 and 16 are provided with bearings for a shaft 17, upon which is mounted a frame 18. The latter is composed of the horizontal corner-pieces 19, which are connected at their ends by braces 20, two of which are in turn connected by cross-braces 21. The said cross-braces 21 are connected by a cross-piece 22, and a similar cross-piece 23 connects the lower corner-pieces 19. 24 designates a handle, which is mounted adjustably in slots or openings 25 in the cross-pieces 22 and 23, where it may be secured by means of a set-screw 26. Said handle carries at its outer end a hoe-blade 27 of any suitable construction. The frame 18, as will be seen, is mounted upon the shaft 17, which extends through the two upper corner-pieces of said frame. It is obvious that when the latter is vibrated or oscillated upon the said shaft a vibrating motion is imparted to the hoe, which is mounted adjustably in said frame, so that it may be readily raised or lowered to any desired position. The hoe is of course arranged transversely to the beam 1. The cross-pieces of the frame 18 are extended at one end of said frame, so as to form arms or brackets 28, having perforations 29, through which extends a rod 30, one end of which is mounted in a suitable bearing in an arm or pitman 31, which is mounted upon the crank 15 of the shaft 13.

The machine is provided with suitable handles 32, by means of which it may be guided in operation. When the machine is drawn over the field, the wheel 8 bears upon the surface of the ground and the gear-wheel 9 transmits a rotary motion to the spur-wheel 10 upon the shaft 7, from which a rotary motion is in turn transmitted to the longitudinally-arranged crank-shaft 13, said shaft, being connected by means of the pitman 31 and rod 30 with the frame 18, transmits to said frame an oscillating or vibrating motion, thus causing the blade 27 and hoe to chop or thin the cotton. The hoe-blade may be readily adjusted by adjusting the handle 24 to cut to any desired depth into the ground, according to the condition of the plants that are to be operated upon.

My improved cotton-chopper, as will be seen from the foregoing description, is very simple in construction and it may be easily operated. The frame 18, in which the hoe is mounted, is arranged in such a manner as to be evenly balanced, and consequently easily operated. The general construction and arrangement of

parts is simple and inexpensive and of such a nature as to render all of the working parts easily accessible for repairs when necessary.

I desire it to be understood that while I have in the foregoing described the preferred construction of my improved cotton-chopper, I reserve the right to make any such changes and modifications as may be resorted to without departing from the spirit of my invention.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In a cotton-chopper, the combination of a beam having standards provided with suitable cultivator-blades, blocks or brackets depending from said beam, a shaft mounted in said blocks or brackets, a vibrating or oscillating frame loosely mounted upon said shaft and carrying a vertically-arranged hoe, and means for transmitting motion to said oscillating frame from the transporting-wheel of the machine, substantially as and for the purpose set forth.

2. In a cotton-chopper, the combination, with suitable supporting devices, of an oscillating or vibrating frame loosely suspended from said supporting devices, a hoe or chopper mounted adjustably in said frame, and means for transmitting motion to the latter from the transporting-wheel of the machine, substantially as and for the purpose set forth.

3. In a cotton-chopper, the combination of the beam having depending blocks or brackets, an oscillating or vibrating frame mounted loosely between said blocks or brackets and composed of four corner-pieces, end pieces connecting the same, cross-pieces connecting said end pieces, braces connecting said cross-pieces, and the hoe mounted vertically adjustably in suitable slots in said braces, and means for operating the said oscillating or vibrating frame, substantially as and for the purpose set forth.

4. In a cotton-chopper, the combination of a beam having depending blocks or brackets, an oscillating or vibrating frame mounted between said blocks or brackets and having cross-pieces extending at one end, a longitudinally-arranged crank-shaft loosely supporting said frame, a pitman mounted upon the shaft and connected by means of a suitable rod with the end cross-pieces extending from the oscillating frame, a hoe mounted adjustably in the latter, and suitable mechanism, substantially as and for the purpose herein set forth.

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

JOEL A. PIERCE.

Witnesses:
H. J. SCROGGIN,
H. K. GATLIN.