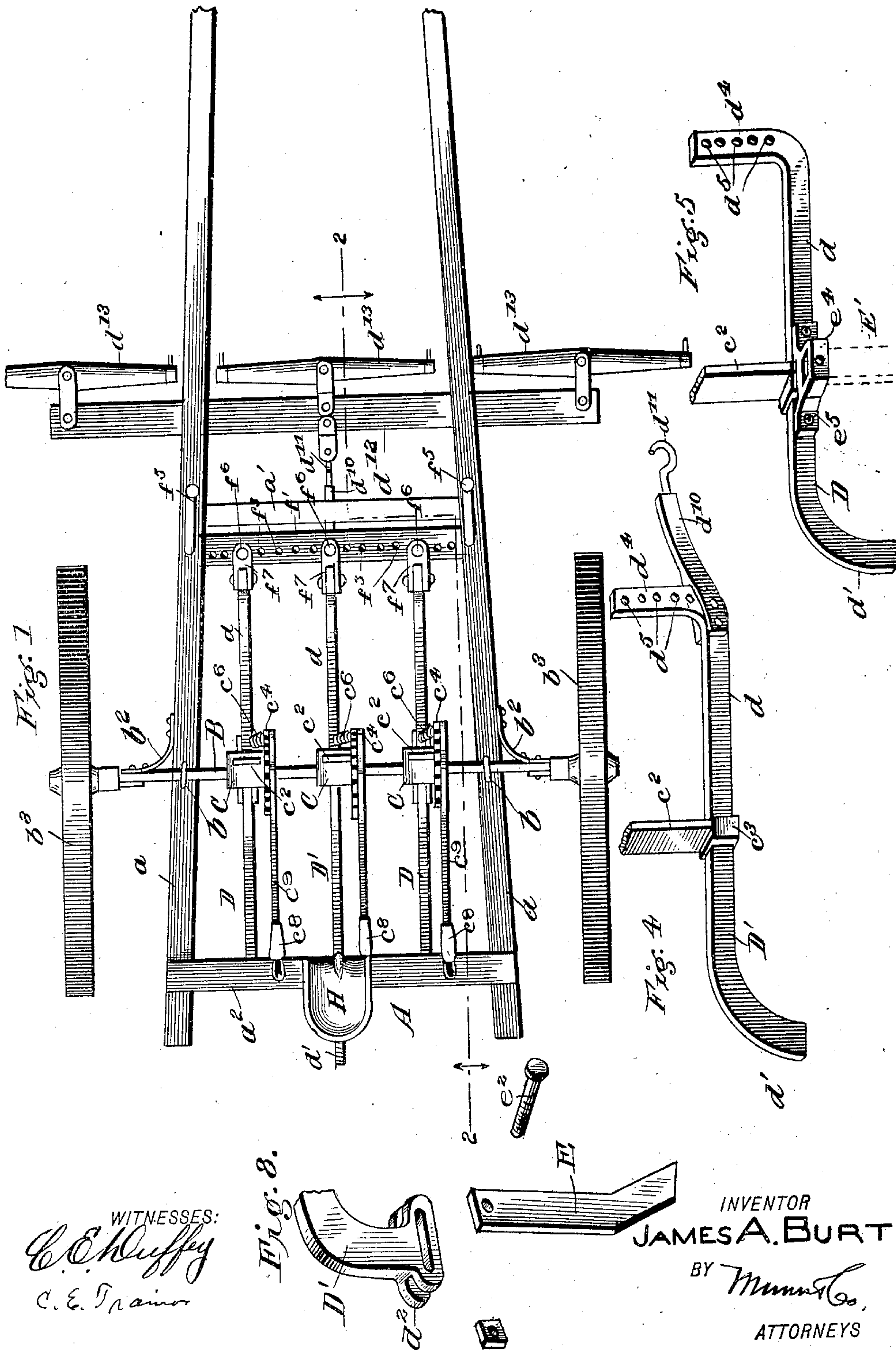


No. 832,531.

PATENTED OCT. 2, 1906.

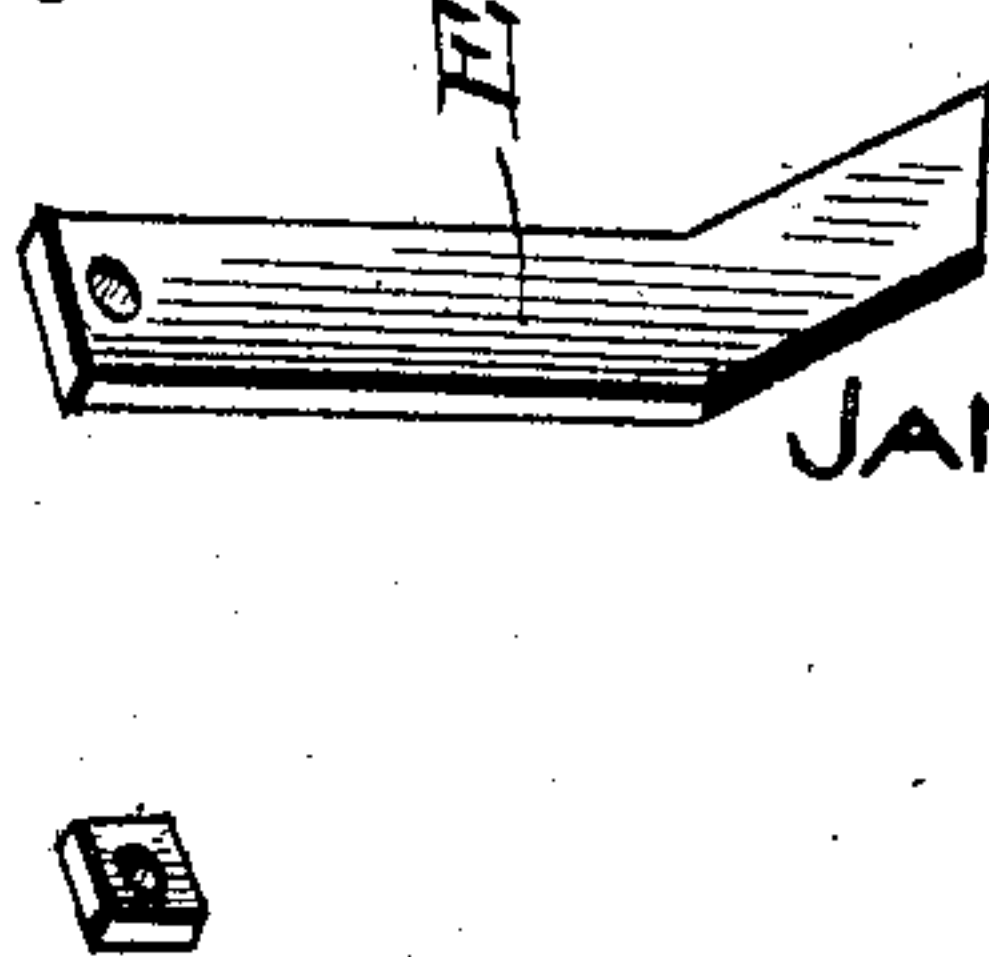
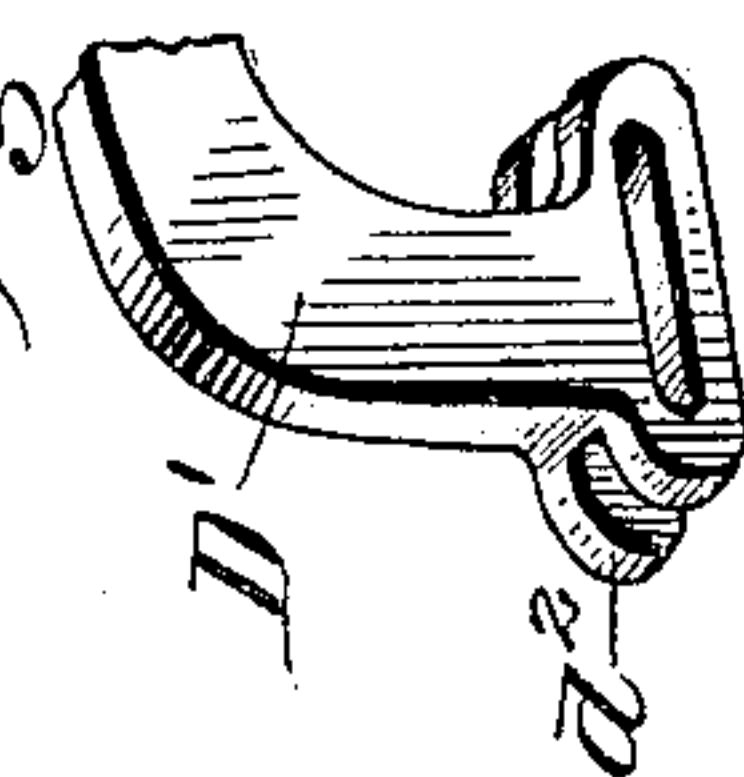
J. A. BURT.
RIDING CULTIVATOR.
APPLICATION FILED NOV. 29, 1905.

2 SHEETS—SHEET 1.



WITNESSES:
C. E. Huffy
C. E. Huffy

Fig. 8.



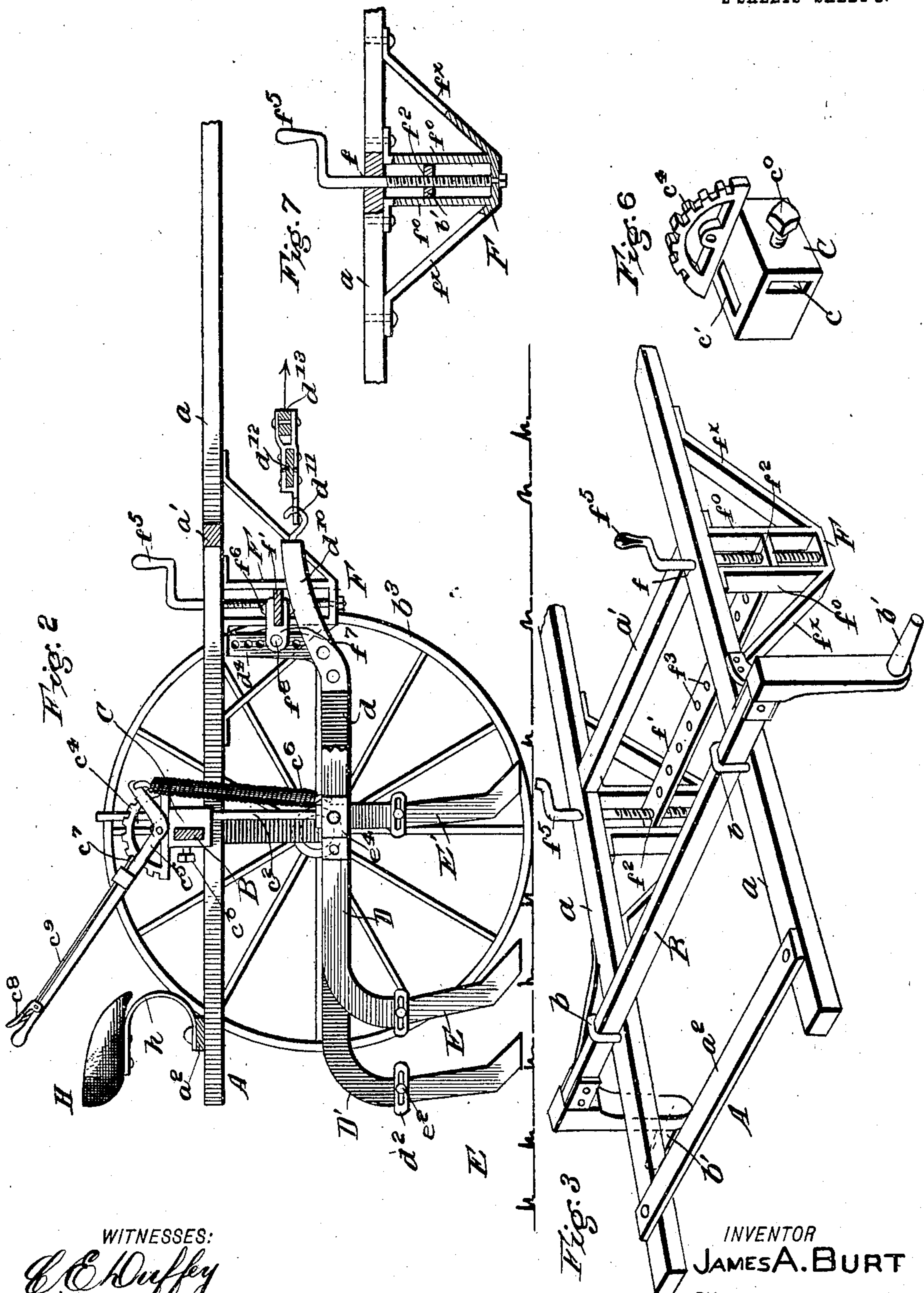
INVENTOR
JAMES A. BURT
BY *Munn & Co.*
ATTORNEYS

No. 832,531.

PATENTED OCT. 2, 1906.

J. A. BURT.
RIDING CULTIVATOR.
APPLICATION FILED NOV. 29, 1905.

2 SHEETS—SHEET 2.



WITNESSES:
E. E. Duffey
C. E. Trainor

INVENTOR
JAMES A. BURT
BY *Munn & Co.*
ATTORNEYS

UNITED STATES PATENT OFFICE.

JAMES ANDERSON BURT, OF GUNNISON, MISSISSIPPI.

RIDING-CULTIVATOR.

No. 832,531.

Specification of Letters Patent.

Patented Oct. 2, 1906.

Application filed November 29, 1905. Serial No. 289,602.

To all whom it may concern:

Be it known that I, JAMES ANDERSON BURT, a citizen of the United States, and a resident of Gunnison, in the county of Bolivar and State of Mississippi, have invented certain new and useful Improvements in Riding-Cultivators, of which the following is a specification.

My invention is an improvement in riding-cultivators; and it consists in certain novel constructions and combinations of parts hereinafter described and claimed.

Referring to the drawings forming a part hereof, Figure 1 is a plan view of my improvement. Fig. 2 is a section on the line 2 2 of Fig. 1. Fig. 3 is a detail perspective view of the frame. Fig. 4 is a detail perspective view of the central plow-beam. Fig. 5 is a similar view of one of the lateral beams. Fig. 6 is a detail perspective view of the slotted blocks to which the plow-beams are attached. Fig. 7 is a detail of the screw-threaded rod and bracket for adjusting the draw-bar, and Fig. 8 is a detail perspective view of the manner of attaching the shank of the plow to the beam.

In the practical application of my invention I provide a frame comprising the longitudinal bars a and the cross-bars a' a^2 , the cross-bar a^2 connecting the longitudinal bars near the rear end thereof, while the front bar a' connects them at approximately the same distance on the opposite side of the axle, leaving projecting portions of the longitudinal bars, forming shafts between which a horse may be hitched.

A shaft B, rectangular in cross-section and arranged with its widest dimension in a vertical plane, is secured upon the longitudinal bars by means of the clips b , and braces b^2 connect the sides of the ends of the shaft with the sides of the longitudinal bars. The ends of the shaft B are offset vertically to form cranked portions b' , upon which are journaled the wheels b^3 .

A plurality of blocks C, provided with horizontal slots c for receiving the shaft and vertical slots c' for a purpose hereinafter described, are mounted upon the shaft and are provided with a set-screw c^0 for fixing the blocks with respect to the shaft. A vertical plate c^2 is slidably mounted within the vertical slot, the lower end of the plates being provided with a loop c^3 , engaging the plow-beam D, and upon the block is a toothed segment c^4 , having pivoted thereto a rocking lever c^5 ,

one of the arms of the rocking lever being connected, by means of the spring c^6 , with the plow-beam and the other arm being provided with a spring-actuated tooth c^7 for engaging the segment. A grip c^8 , pivoted to the arm and connected by a rod c^9 with the tooth, is provided for manipulating the same.

The plow-beams are three in number—a central beam D' and lateral beams D. The central plow-carrying beam comprises a horizontal portion d , engaged by the loop c^3 on the vertical plate, a downwardly-curved rearward portion d' , provided with slotted ears d^2 , and an upwardly-turned front portion d^4 , having therein a series of alined perforations d^5 .

The plow-point E is of any desired construction, and the upper end of the shank thereof is provided with a perforation registering when the point is in position with the slots in the ears d^2 . A bolt e^2 traverses the alined openings, the end thereof being engaged by a nut for securing the parts in their adjusted position. The lateral beams D differ from the central beam in that they carry an additional plow E'. The additional plow E' is carried by a socket e^4 , integral with the plate e^5 , which is bolted to the side of the beam, the plate being spaced away from the beam a sufficient extent so that the loop d^2 on the vertical plate may be received therebetween.

Brackets F are arranged upon the lower faces of the longitudinal bars, the brackets comprising a pair of parallel spaced members f^0 , connected to the longitudinal bars and braced by braces f^x , extending from the bottoms thereof to the longitudinal bars. Screw-threaded rods f are rotatably mounted in the brackets, the screw-threaded portion of the rods engaging screw-threaded openings f^2 in a plate f' , slidably mounted in the brackets, and the upper ends of the rods are provided with cranks f^5 for convenience in manipulating the same. The plate f' is provided with a longitudinally-alined series of perforations f^3 , adapted for engagement by a pin f^6 of a clevis f^7 , connected by a pin f^8 with one of the perforations in the upturned portions d^2 of the plow-beams.

It will be evident from the description that by connecting the clevises in different openings in the upturned portion and in the plate that the front ends of the plow-beams may be adjusted vertically and horizontally, while by rotating the rods f^2 the plate f' may

be raised and lowered in the brackets, thus raising and lowering the plows to and from the ground. The central plow-beam is provided with a horizontal extension d^{10} at the front end thereof, bolted to the bar and provided at its free end with a hook d^{11} , to which are connected the doubletrees d^{12} . Swingle-trees d^{13} are connected to the doubletrees in the usual manner, one swingle-tree being arranged between the shafts and the others at the sides thereof.

A plate-spring h is secured to the cross-bar a^2 , and upon the free end of the spring is a seat H .

It will be evident from the description that by means of the rocking levers c^5 the plows may be elevated clear of the ground to avoid stumps or rocks and that they may be adjusted to cut at any desired depth by lifting and depressing the plate f' , and by changing the point of attachment of the clevis to the plate the horizontal distance of the plows may be varied to correspond with different widths of rows. The provision of the shafts permits of easy manipulation of the cultivator in turning and also supports the front end of the cultivator. By connecting the doubletrees to the central plow-beam the draft is more equally distributed and more nearly in line with the pull upon the plows.

The provision of the plate secured to the beam and sliding vertically in the block maintains the beam always in a plane perpendicular to the frame and shaft during the movements of adjustment, whether vertically or transversely, serving as a guide for this purpose.

From an inspection of Fig. 1 it will be seen that my improved cultivator is arranged to cultivate the ground between the rows instead of on each side thereof, as in the ordinary cultivator. For this reason there is an odd number of plow-beams, and the beams are arranged without any space between them to receive the row of corn. By depressing the central beam and elevating the plows E' on the lateral beams the entire surface of the soil in the depression between the rows may be cultivated.

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

1. In a cultivator and in combination, a frame having shafts at the front thereof, a shaft secured to the frame, and having cranked ends, wheels journaled on the cranked ends, a plurality of blocks slidably mounted upon the shaft and provided with vertical slots, means for fixing the blocks with respect to the shaft, plates slidably mounted in the blocks, and provided with loops at their lower ends, plow-beams having downwardly-curved rear ends, and upwardly-turned front ends supported in the loops, a toothed segment fixed to the block, a rocking lever pivot-

ed to the segment and having a spring-actuated latch upon one of its arms for engaging the segment, a coiled spring connecting the other arm with a plow-beam, brackets supported on either side of the frame, a draw-bar mounted in the brackets, means for raising and lowering the draw-bar, an adjustable connection between the upturned ends of the plow-beams and the draw-bar, a hook connected with one of the plow-beams, and a doubletree connected with the hook.

2. In a cultivator and in combination, a frame, a shaft secured transversely of the frame, wheels on the ends of the shaft, a plurality of plow-beams connected by their front ends to the frame, and means for raising and lowering the beams, comprising plates connected with the plow-beams, blocks having a horizontal opening for engaging the shaft and a vertical opening for receiving the plate, toothed segments on the blocks, a rocking lever pivoted to the segment, and having upon one of its arms a spring-actuated catch for engaging the segment, a spiral spring connecting the other arm with the plow-beam, and means for fixing the blocks with respect to the shaft.

3. In a cultivator, the combination with the frame, of a shaft secured thereto, supporting-wheels on the shaft, a draw-bar adjustably mounted on the front of the frame, a plurality of plow-beams adjustably connected with the draw-bar, plates connected with the plow-beams and projecting upwardly therefrom, blocks slidably mounted on the shaft and having openings for receiving the plates, and means on the blocks for raising and lowering the beams.

4. In a cultivator the combination with the frame, of a shaft secured thereto, supporting-wheels on the shaft, a plurality of plow-beams connected by their front ends to the frame, upwardly-projecting plates connected with the beams, blocks slidably mounted on the shaft and having openings to receive the plates, and means on the blocks whereby to raise and lower the beams.

5. In a cultivator, the combination with the frame, of a shaft secured thereto, supporting-wheels on the shaft, a draw-bar in front of the shaft and connected with the frame, a plurality of plow-beams connected at their front ends to the draw-bar, blocks slidably mounted on the shaft, means on the blocks whereby to raise and lower the beams, and means connected with the beams and engaging the blocks whereby to guide the beams during their movement of adjustment.

6. In a cultivator and in combination, a frame, a shaft secured thereto, wheels on the shaft for supporting the frame, a plurality of plow-beams connected with the frame, plates connected with the beams and projecting upwardly therefrom, means adjustably connecting the plates and the shaft, and

means whereby to raise and lower the individual beams.

7. In a cultivator and in combination, a frame, a shaft secured to the frame, wheels 5 on the shaft for supporting the frame, a plurality of plow-beams adjustably connected at their front ends to the frame, means for elevating and depressing the individual beams, means whereby to adjust the individual beams longitudinally of the shaft, and 10 means whereby to maintain the beams in a plane perpendicular to the frame during their movement of adjustment.

8. In a cultivator and in combination, a 15 frame, wheels for supporting the frame, brackets depending from the frame on each side thereof, screw-threaded rods rotatably mounted in the brackets, a draw-bar having screw-threaded openings in its ends for en- 20 gaging the rods, and a series of longitudinally-alined perforations, a plurality of plow-beams having upturned front ends pro-

vided with alined perforations, clevises engaging the perforations of the upturned ends and the draw-bar, means for raising and 25 lowering the rear ends of the beams, and means for swinging the rear ends of the beams transversely of the frame.

9. In a cultivator and in combination, a frame, wheels for supporting the frame, 30 brackets depending from the frame on each side thereof, screw-threaded rods rotatably mounted in the brackets, a draw-bar having screw-threaded openings for engaging the rods, a plurality of plow-beams having up- 35 turned front ends arranged below the frame, an adjustable connection between the upturned ends and the draw-bar, and means on the frame for raising and lowering the rear ends of the individual beams.

JAMES ANDERSON BURT.

Witnesses:

W. I. BRASHEARS,
K. V. GREEN.