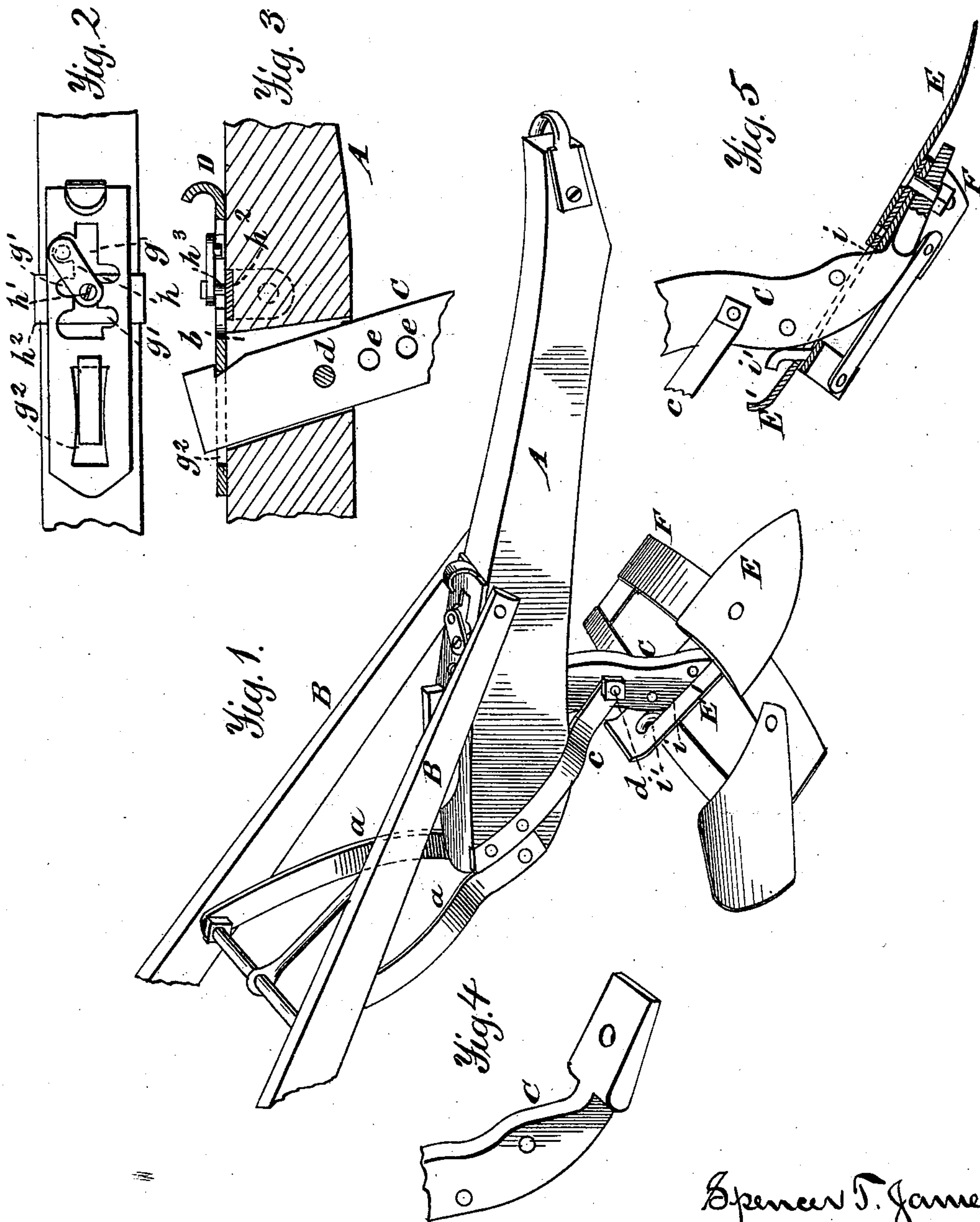


S. T. JAMES.
Cultivator.

No. 227,360.

Patented May 11, 1880.



Witnesses.
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Jas H. Lange.

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UNITED STATES PATENT OFFICE.

SPENCER T. JAMES, OF FRANKLIN, GEORGIA.

CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 227,360, dated May 11, 1880.

Application filed February 14, 1880.

To all whom it may concern:

Be it known that I, SPENCER T. JAMES, of Franklin, in the county of Heard and State of Georgia, have invented certain new and useful Improvements in Cultivators; 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved cultivator-plow, and Figs. 2, 3, 4, and 5 are detail views thereof.

This invention has relation to improvements in cultivator-plows for cultivating the soil by plowing either shallow or deep, and which is adapted to permit of the adjustment of the cultivator-shovel, or rather its standard, to suit the height of the operator or plowman; and the nature of the invention consists of mechanism for holding the cultivator-shovel at different angles of presentation to the ground, and for its vertical adjustment, substantially as hereinafter more fully set forth.

In the accompanying drawings, A refers to the beam, to the rear end of which are connected the handles B, also braced thereto, as at *a a*. C is the cultivator-shovel standard, with its upper end entering a slot, *b*, in the rear end of the beam A, and connected to the latter by forwardly-extending plates or bars *c*, with a bolt, *d*, passing through one of a series of holes, *e*, in the standard C. This bolt forms a fulcrum for the standard to permit it to be moved in its slot in the beam, so as to set its shovel or plow at a greater or less angle of inclination to the ground, according to the depth it is desired to plow. In this connection the means for holding the standard with its plow or shovel in its slot in the beam will be described, which consists of a plate, D, or slide, with one end provided with a hook or other convenient means for operating it, while in the direction of its length it is provided with a slot, *g*, intersected on each side by alternating slots or recesses *g'*, and with a second longitudinal slot, *g''*, through which the upper notched end of the standard C passes, as seen in Figs. 2 and 3.

A plate-button, *h*, with one end held by a set-screw, *h'*, in the slot *g* of the plate D, and entering, preferably, a metal re-enforcing-plate, *h''*, bolted to the beam A, and with its other end provided with a detent or downward projection, *h'''*, entering the coincident slot or notch *g'* of the plate D, is adapted to hold the plate D with the forward edge of its slot *g''* inserted into the notch of the upper end of the standard C, as seen in Figs. 2 and 3.

The plate D, with its longitudinal slots and alternate intersecting slots, and button *h*, with its clamping or set screw, permit the adjustment back and forth of the said plate and its retention at the desired point of adjustment to accommodate the corresponding adjustment of the standard C.

The detent *h'''*, in addition to or besides aiding the locking of the button to the plate D, holding the standard, serves also to relieve the set-screw of the button from excessive strain.

The standard can be vertically adjusted, in order to accommodate the plow or cultivator to the height of the operator or plowman, by inserting the bolt *d* of the plates or bars *c* through the desired one of the series of holes *e* in the standard.

E is the cultivator-shovel, with the rear end or shank, *E'*, provided with a slotted extension, *i*, through which the standard C passes. The forward lower end of the standard C is bolted to the under side of the point E, while the rear end, *E'*, of the shovel or plow E is slotted to receive the standard, and also the hook of the wing F, as at *i'*. (Seen in Figs. 1 and 5.) Attached to the shovel or plow E is a wing, F, for turning the soil, which can be omitted, if desired.

The following attachments may be used in connection with my cultivator or plow: a double foot adapted to permit its points to be brought nearer together; a cotton-plow to plow near small plants. A two-horse turner may be used with advantage with one horse in my invention. A hoe-blade, a ground-plane, a diamond-pointed shovel, a chisel-pointed garden-plow, and a harrow may be also used with my cultivator or plow.

It will be remarked that in lieu of providing the adjusting-holes *e* in the lower part of the plow-standard they may be provided in its upper end, as seen in Fig. 3.

Having thus fully described my invention, I claim and desire to secure by Letters Patent—

5 The combination of the plow-beam A, having a slot, g^2 , in its rear end, and provided with a plate or slide, D, having a longitudinal slot, g , with intersecting slots or notches g' , and a button, h h^3 , with the plow or shovel standard, having a notched upper end, and a plow or

shovel, substantially as and for the purpose is set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 12th day of January, 1880.

S. T. JAMES.

Witnesses:

W. F. SUMMERS,
A. T. FULLER.