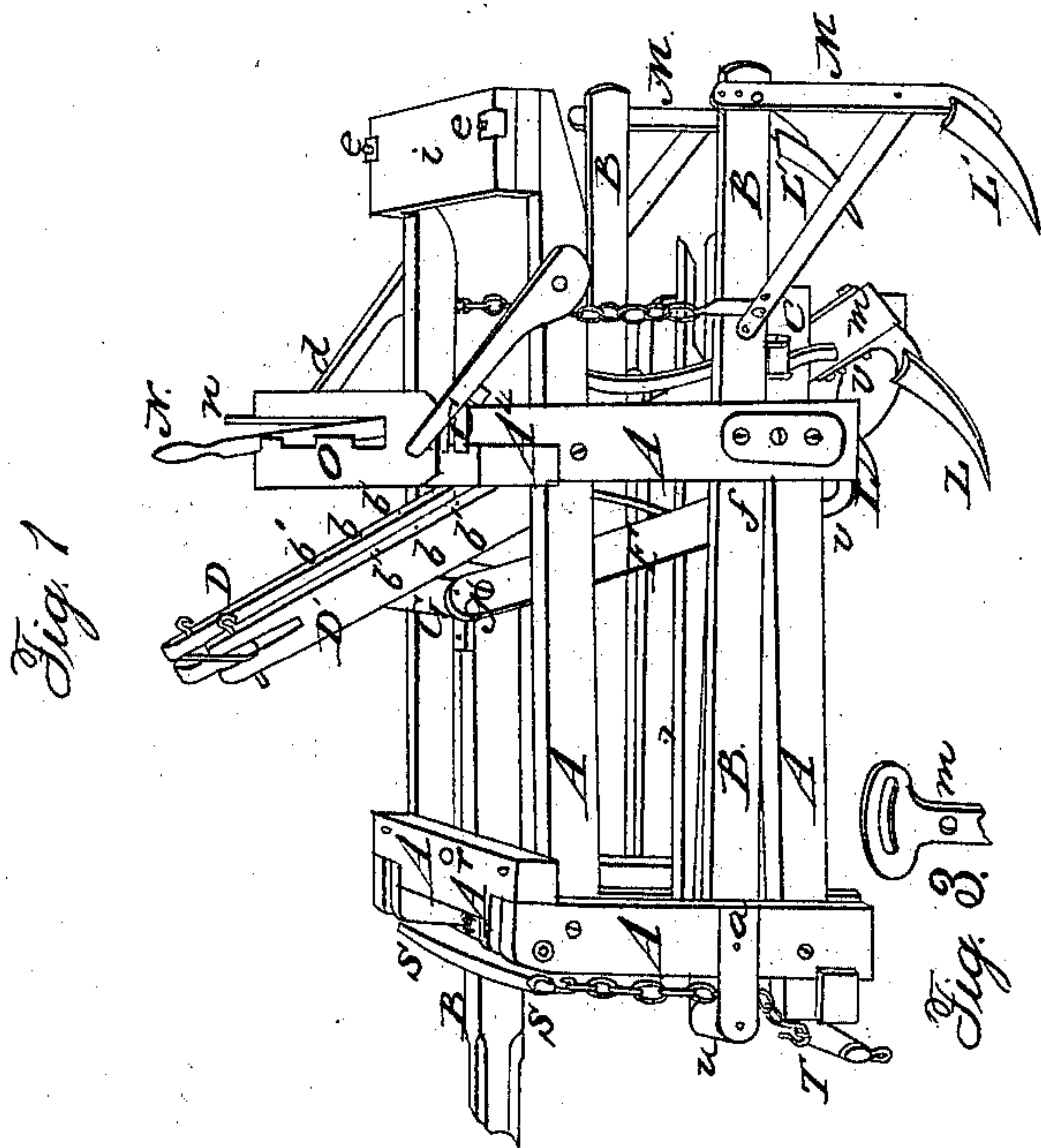
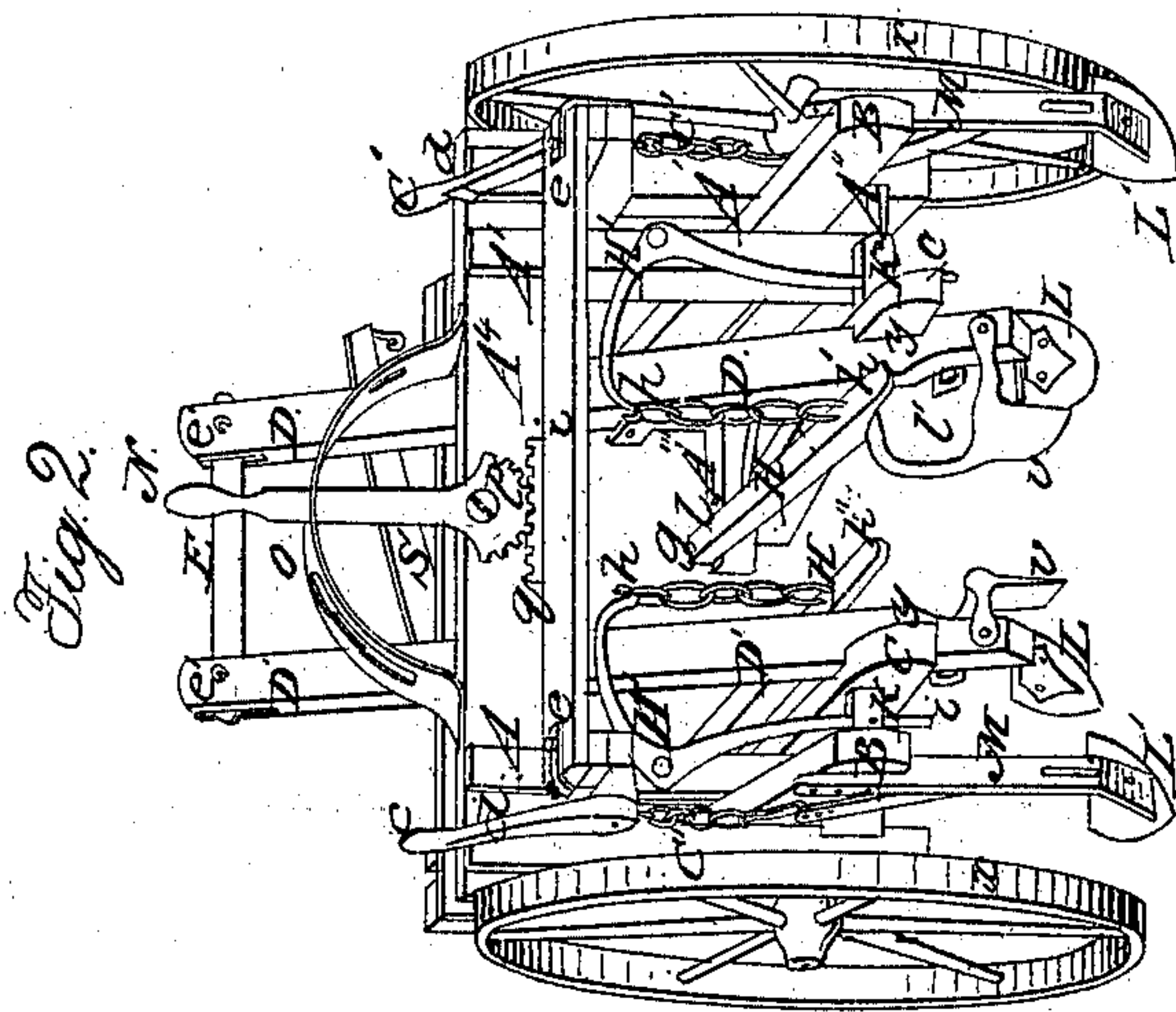


S. SLOAN.
Wheel Cultivator.

No. 42,232.

Patented Apr. 5, 1864.



Witnesses.
J. M. Wilson
George Frankner

Inventor.
Seymour Sloan

UNITED STATES PATENT OFFICE.

SEYMOUR SLOAN, OF KEWANEE, ILLINOIS.

IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. 42,232, dated April 5, 1864.

To all whom it may concern:

Be it known that I, SEYMOUR SLOAN, of Kewanee, in Henry county, and State of Illinois, have invented a new and Improved Cultivator; and I do hereby declare that the following is a clear, full, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a perspective side view; Fig. 2, a perspective view of the back end, and Fig. 3 a view of the shank of one of the middle plows.

A A A' A'' A''' A⁴, &c., represent the solid skeleton-frame; B B C C D D' E F G, &c., flexible adjustable frame-work to carry the plows or teeth. B hinges at *a*, Fig. 1, so that it will rise and fall readily between A' and A'', Fig. 2, and rests on A''. B is raised by the lever and chain *c* and *c'*. The hooks *d* of these levers catch under the hooks *e* when the plows are to be raised from the ground. The flexibility of this frame B, &c., permits the levers to be brought down separately. F hinges onto B at *f*. The piece on the opposite side corresponding to F hinges at a point opposite *f*. D and D' hinge onto G at *b* and *b* and onto C at F. F and its opposite are fastened to G at *g'*, &c. Hence when B and B are raised C and C will also rise with the entire adjustable frame. Besides this vertical motion, C and C have a lateral motion. C and C are hinged for this motion at *l*, &c., onto A''', &c., which is an extension of the frame A. D and D' can be raised and lowered by changing the bolts *b b* into bolt-holes *b'* and *b'*, Fig. 1.

H H, H' H', *h* and *h*, constitute a compound lever by which to throw the beams and standards D C and D' C from one side to the other of the space between the posts A A', Fig. 2, of the solid frame. *i*, driver's seat. His feet rest on treadles *h'* and *h''*. When his right foot presses down on *h'* the end under his foot descends, the loose bolt *g* being the center of both its horizontal and vertical motion. Then the bent lever H' presses on the roller K and throws the beam D to the right. D' will also be thrown equally to the right, because D and D' are both hinged at *b* and *b*, Fig. 1, and *e'* and *e'*, Fig. 2. When the driver presses on *h''* with his left foot the bent lever H' will press on the roller K and throw D' and also D to the left. Thus the driver, by pressing with his feet on *h'* and *h''*, accommodates the plows L and L to the irregularities of the hills or rows.

V V are guards, bolted to D and D'. These

serve to steady the motion of the plows and protect the small plants. L L L' L', cultivator plows or teeth, are constructed with fluted or slotted T-shanks, as represented at *l*, Fig. 2, and in Fig. 3. By this adjusting arrangement these plows may be made to throw the earth more or less toward the middle row. The back slant of the standards D D' gives the plow the right or left slant of a mold-board, accordingly as the shank is moved to the left or right around the pivot *m*, Figs. 1 and 3. M M, plow shank and brace attached to the plow-beam B, &c. By means of the several holes in M and its brace the height and slant of the outer plows may be varied. It may slant back and carry a plow like L.

R is the tongue; *r*, the main bolt by which it is held to the frame A, and around which it may turn. The tongue extends under the timber A⁴, Figs. 1 and 2. A bar of iron is bolted under A⁴, and makes between the timber and the bar a slot for the end of the tongue to slip in from right to left, and vice versa. On the end of the tongue, back of A⁴, is the pinion-bar *q*, in which the pinion-arc P plays and is operated by means of the guide-lever N. The driver by working this lever changes the direction of the machine and accommodates it to side hills, &c. *n*, a spring which presses the lever into the notches of the guide-lever holder O. This holds the machine to the given direction.

S S' represent the double-tree; T, one of the whiffletrees; S' T, chain or rope to connect the latter to the former; U, friction-roller for the chain S' T.

The wheels *x x* and their axles are such as are usual on two-horse wheel-cultivators.

The machine is so constructed that its weight, together with that of the driver, is thrown pretty evenly onto the axle.

The operation of the machine is already described in describing the construction and operations of the different parts.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination of the beams B B C C, connecting-bars D D' E F G, levers *c c*, treadles H, and bent levers H', all constructed, arranged, and operating in the manner and for the purposes herein specified.

SEYMOUR SLOAN.

Witnesses:

T. W. WILLSON,
E. P. LINCOLN.