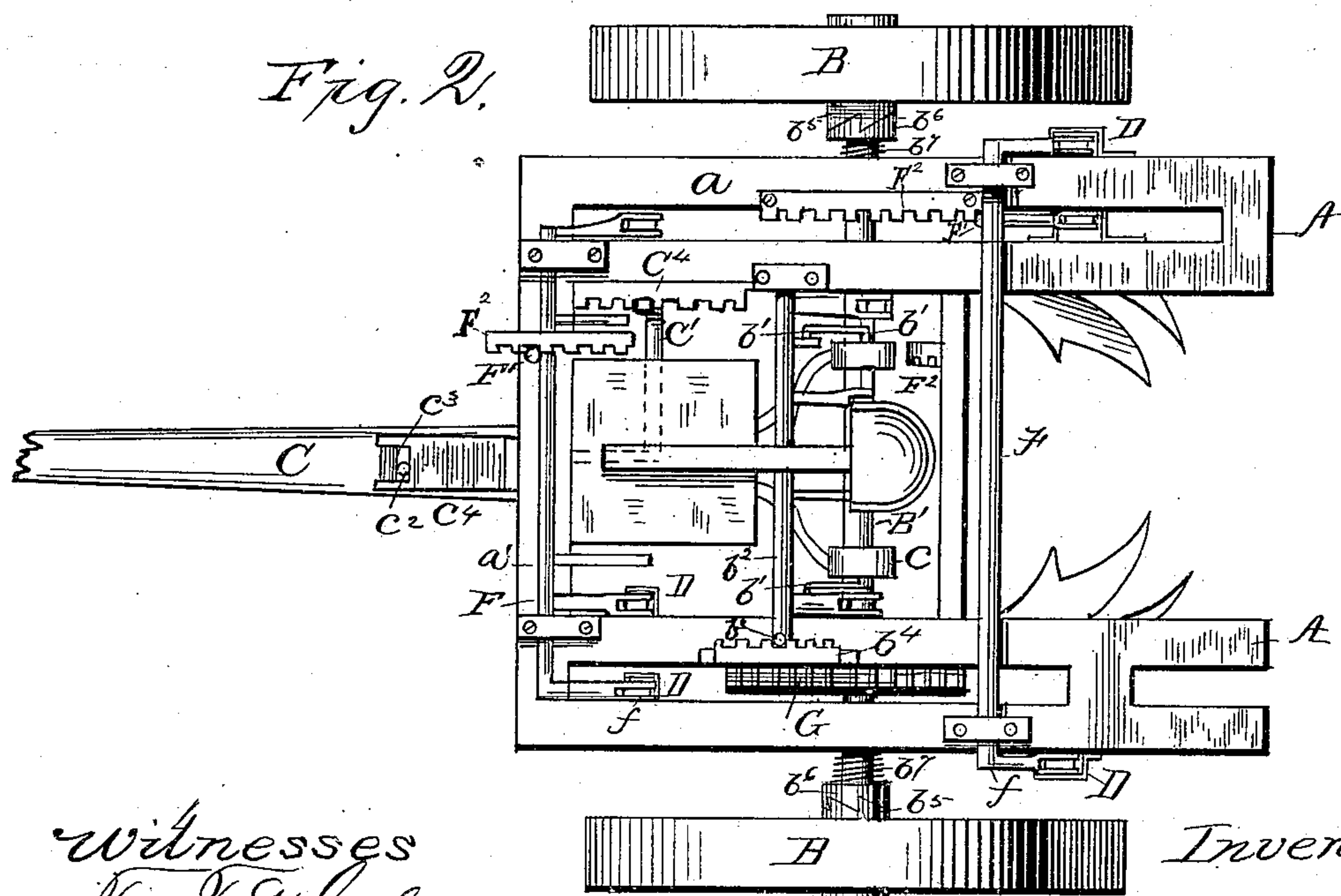
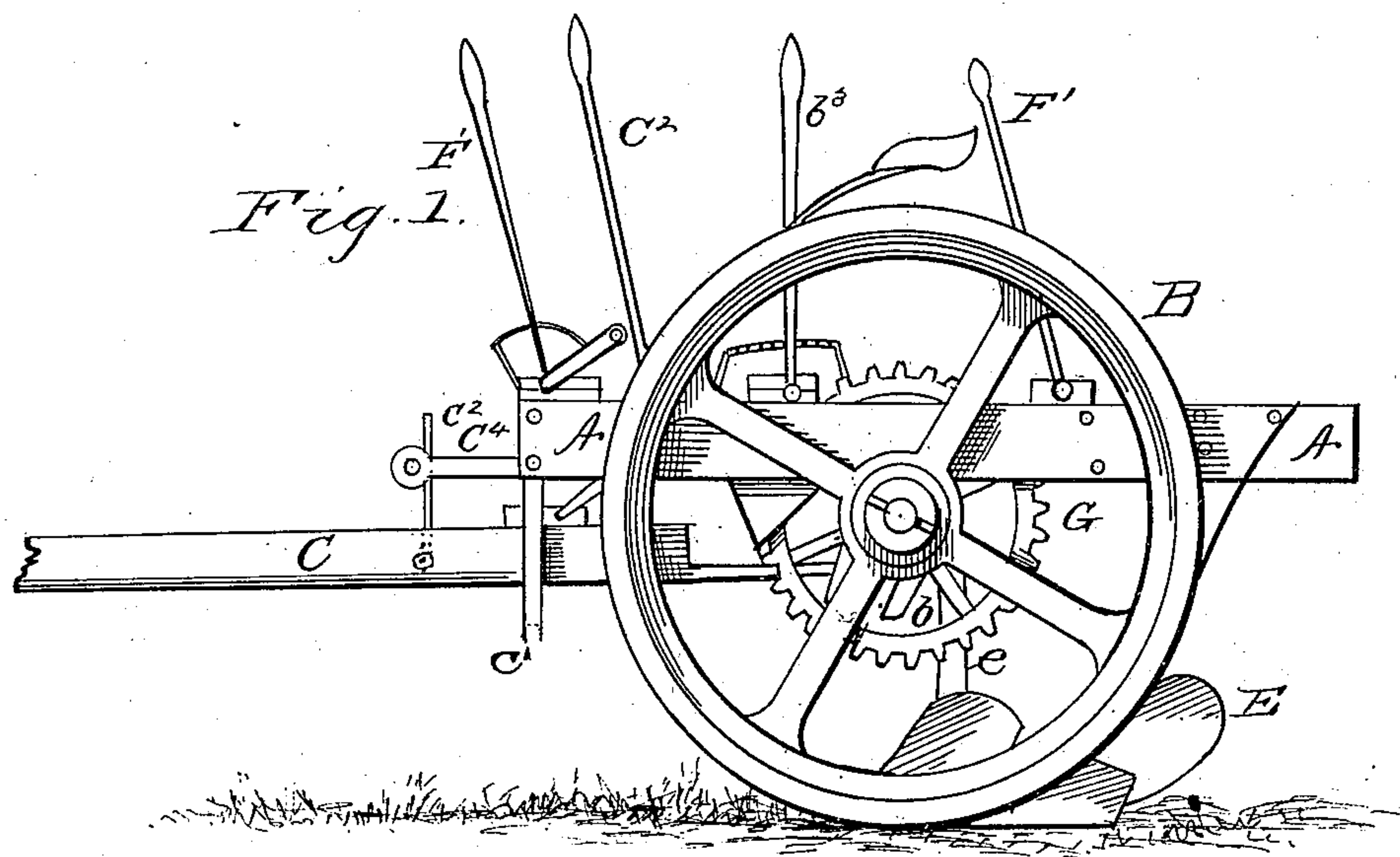


(No Model.)

C. C. STOVER.
WHEEL CULTIVATOR.

No. 356,560.

Patented Jan. 25, 1887.



witnesses
J. F. Holden
L. C. Hills

Inventor
Cochran C. Stover
By James C. Boyce
his atty

UNITED STATES PATENT OFFICE.

COCHRAN C. STOVER, OF BRADFORD, PENNSYLVANIA.

WHEEL-CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 356,560, dated January 25, 1887.

Application filed October 10, 1883. Renewed December 9, 1886. Serial No. 221,150. (No model.)

To all whom it may concern:

Be it known that I, COCHRAN C. STOVER, a citizen of the United States, residing at Bradford, in the county of McKean and State of Pennsylvania, have invented certain new and useful Improvements in Wheel-Cultivators, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to vertically-adjustable wheel-cultivators; and it consists in the construction and combination of parts hereinafter set forth and claimed.

In the drawings, Figure 1 represents a side elevation of my machine; Fig. 2, a top plan view of same.

Similar letters of reference indicate corresponding parts in both views.

In Figs. 1 and 2, in which is shown the cultivator mechanism, A represents the framework of the body, which consists of a horizontal frame constructed of parallel bars *a* and cross-supports *a'*.

B represents the wheels, and C the tongue. The said wheels are borne by an axle, *B'*, which works up and down between the arms of bifurcated guides *b*. The body is raised or lowered by means of links *b'*, connected with said axle and with a rock-shaft, *b²*, borne by the body A, and provided with a hand-lever, *b³*, which is adapted to engage with a rack, *b⁴*, upon the top of one of the parallel bars *a*.

By this construction when the lever *b³* is pressed in one direction (backward) the body of the cultivator is elevated, and when pressed in an opposite direction (forward) the body A is lowered. The wheels B are also provided on the inside of their hubs with clutch-collars *b⁵*, which are adapted to engage with the corresponding clutch-collars, *b⁶*, feathered to the shaft and adapted to be pressed outwardly by the coil-springs *b⁷*. These clutch devices are not necessary to the cultivator.

They are used to govern the action or non-action of a potato-digging attachment which is sometimes used with the cultivator, and which will form the subject-matter of another application.

The tongue C is connected with the axle *B'* by bearings *c*, which allow for the revolution

of said axle and at the same time enable the tongue to be raised or lowered and the inclination of the cultivator-shares to be thereby changed. Said tongue works in a guide, *c'*, attached to front of body A, and is furthermore provided with a pivoted guide-rod, *c²*, which works against a roller, *c³*, borne by a bracket, *c⁴*, attached to the front face of frame A. In rear of guide *c'* said tongue is connected with a crank-shaft, *C'*, which crank-shaft bears a hand-lever, *C²*, adapted to engage with a rack, *C⁴*, attached to the frame A. By this construction the inclination of the tongue may be changed by pushing the lever *C²* forward or backward, and the inclination of the cultivator-shares varied accordingly.

The guide-rod *c²* prevents the tongue from turning laterally, it being between the forks of the bifurcated outer end of said bracket. It also fits closely between the anti-friction roller *c³* and the body of the bracket, and acts to some extent as a brace for said tongue when the latter is tilted up and down. The lower end of the rod *c²* is pivoted to the tongue at *c⁵*, as indicated by dotted lines in Fig. 1.

To the frame A, at convenient distances apart, are fixed the rows of share-holders D. Said share-holders are arranged in such manner as that one, two, and three, or four of the cultivator-shares may be used at once. Said shares E are provided with elongated necks or stocks *e*, which are adapted to project through and above the holders D. The upper ends of said necks are provided with perforations or other suitable means by which they may be connected or bolted to the crank-arms *f* of the crank-shafts F. Said shafts F are provided with hand-levers *F'*, which are secured in any desired position by means of the racks *F²*, secured to the top of the frame A. By this construction it will be observed that any desirable number of shares may be simultaneously used, and that said shares, by means of the levers *F'*, may be raised or lowered and thereby made to form a more or less deep furrow.

Having thus described my invention, what I claim is—

1. The guide-rod *c²*, in combination with the tongue, the cultivator-frame, and the bifur-

cated bracket c^4 , attached to said frame, the said rod being received in the space between the forks of the bracket, substantially as set forth.

- 5 2. The guide-rod c^2 , in combination with the tongue, the cultivator-frame, the bracket c^4 , attached to said frame, and the roller c^3 , carried by said bracket, the said rod being re-

ceived in the space between the forks of the bracket and between the roll and body of the 10 bracket, substantially as set forth.

COCHRAN C. STOVER.

Witnesses:

JAMES C. BOYCE,
JNO. J. B. FINK.