

(No Model.)

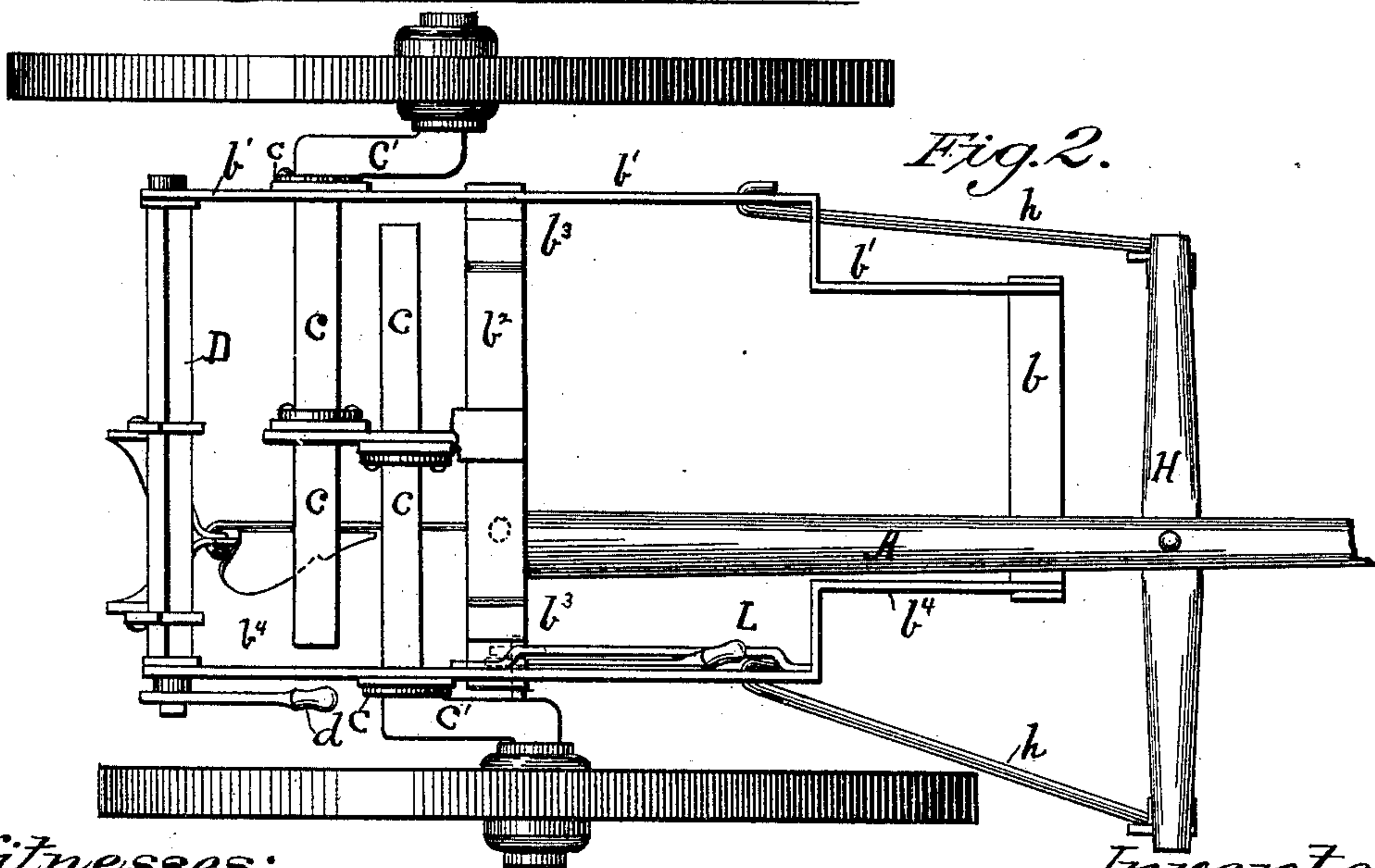
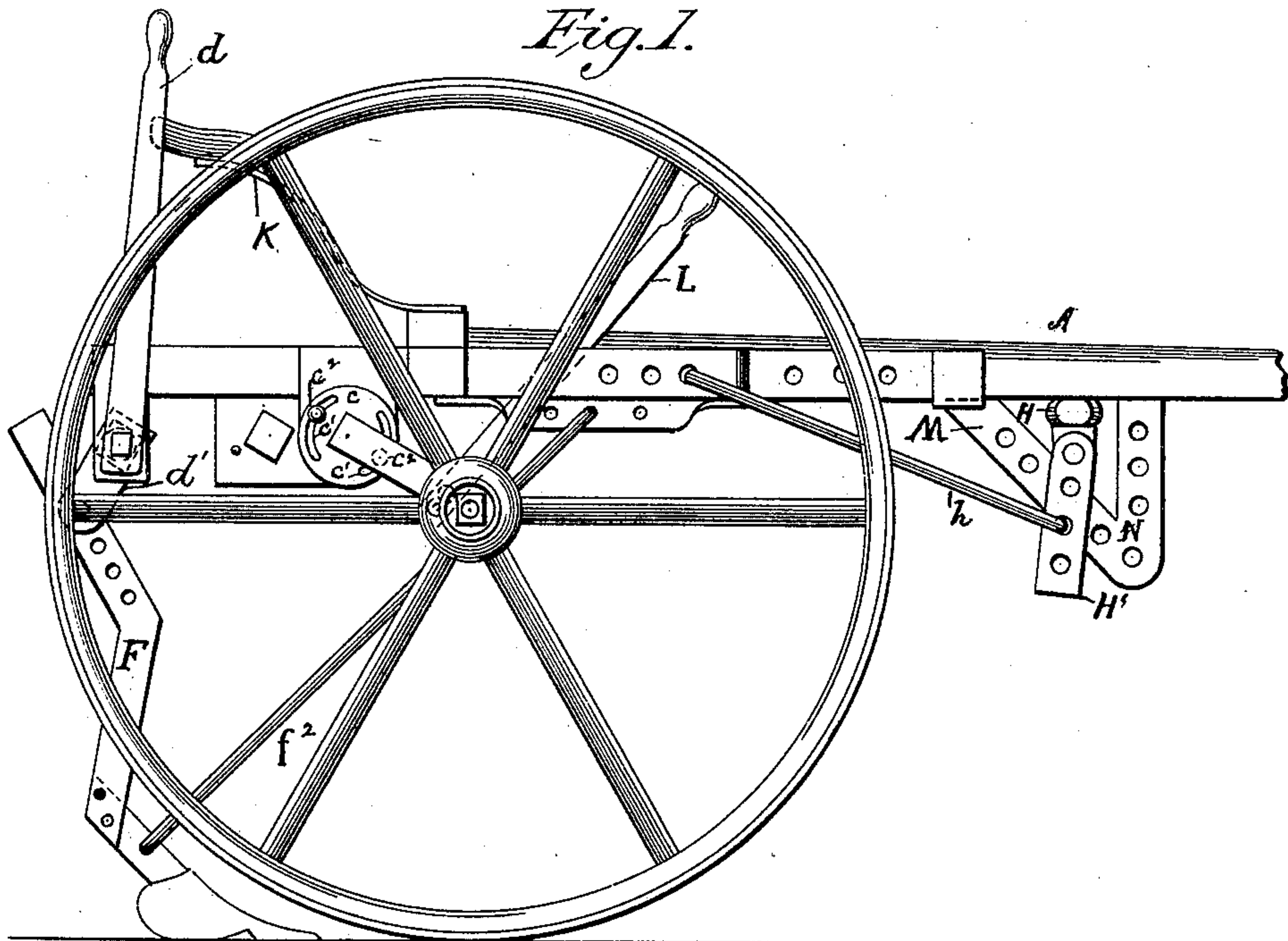
2 Sheets—Sheet 1.

I. W. STEVENS.

COMBINATION SULKY PLOW AND CULTIVATOR.

No. 420,472.

Patented Feb. 4, 1890.



Witnesses:

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Inventor:

I. W. Stevens

(No Model.)

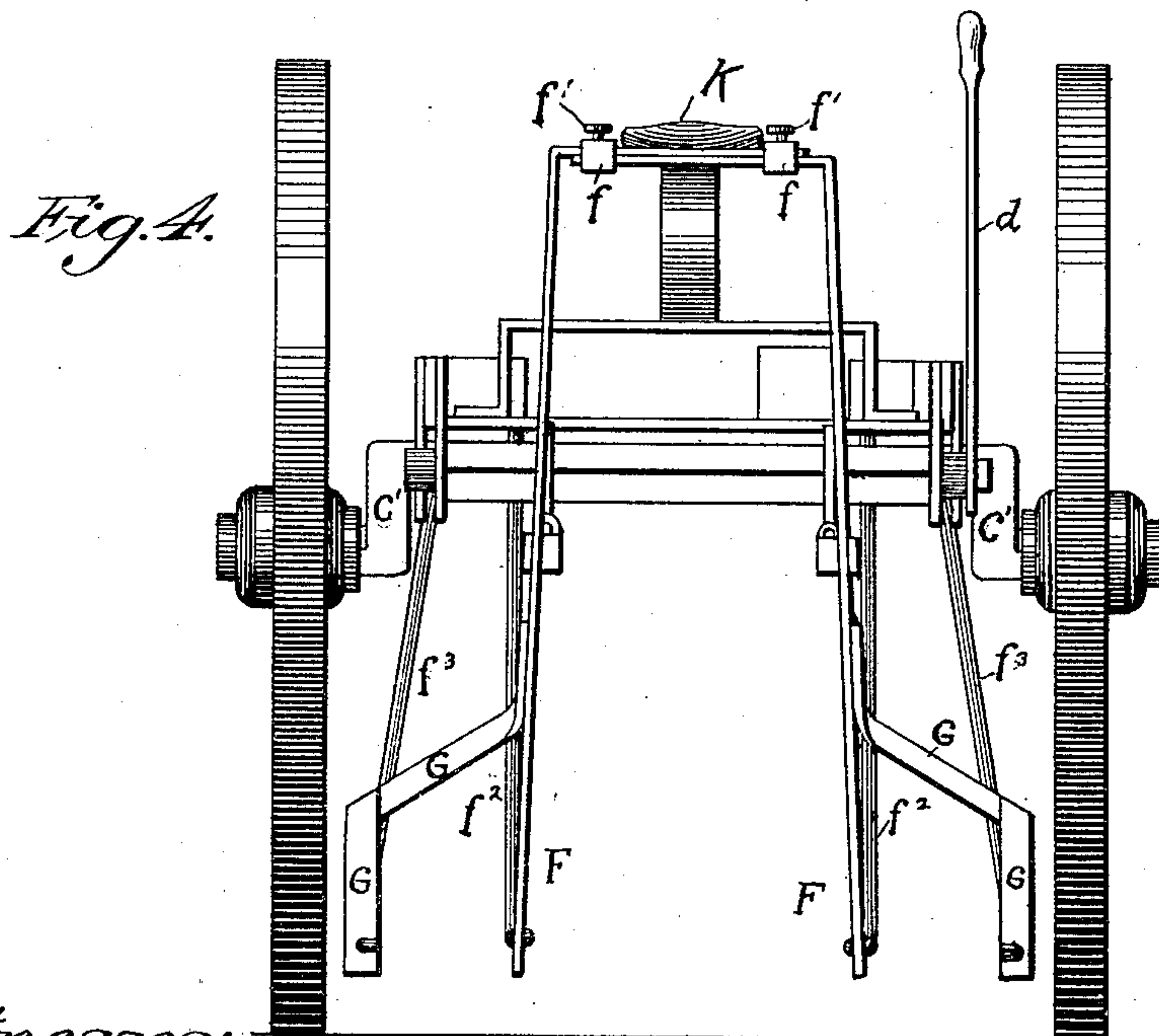
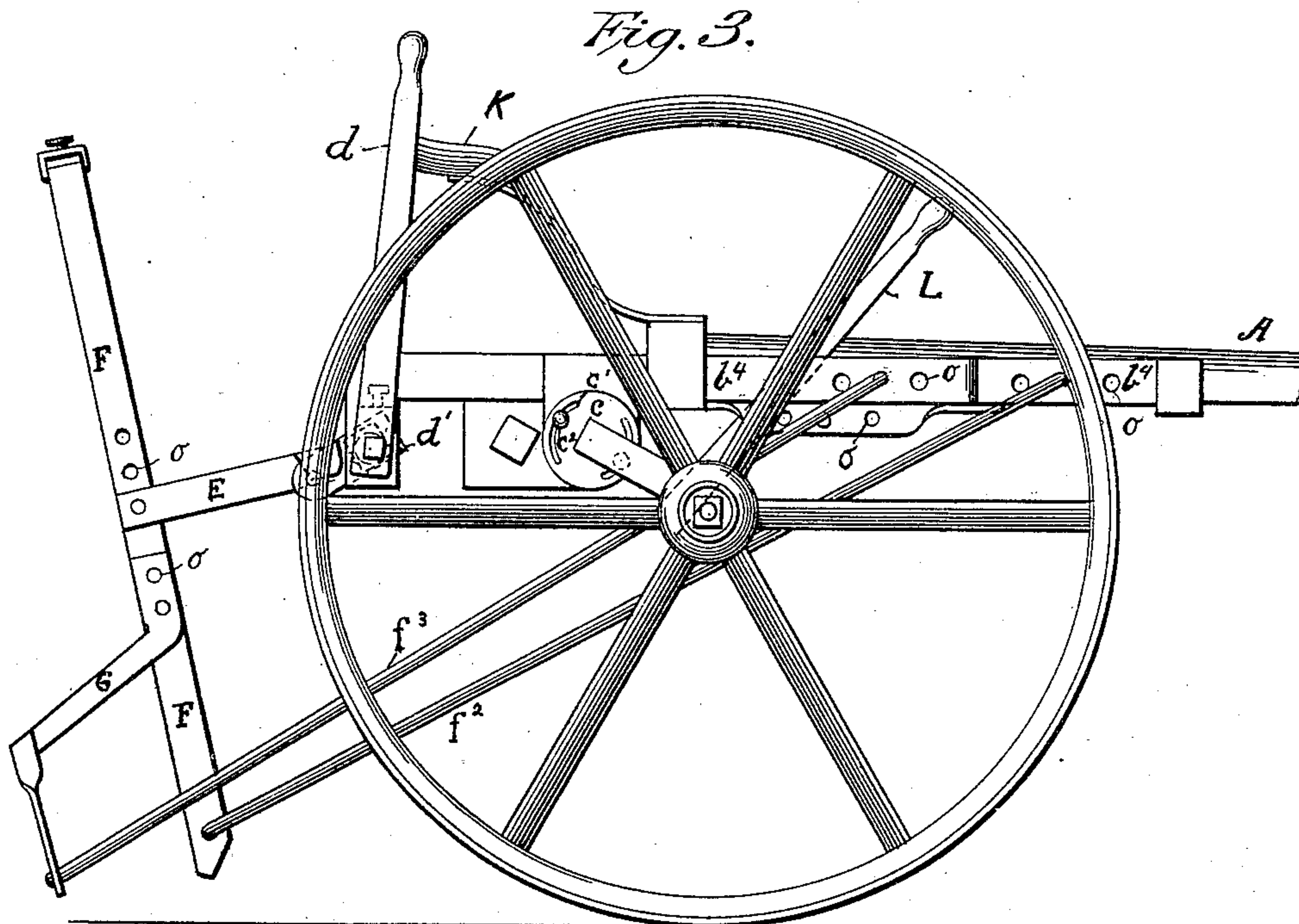
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Witnesses:

Christenizing
B Mitchell

Inventor:

E. W. Strong

UNITED STATES PATENT OFFICE.

ISAAC W. STEVENS, OF BANDERA COUNTY, TEXAS.

COMBINATION SULKY PLOW AND CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 420,472, dated February 4, 1890.

Application filed October 15, 1888. Serial No. 288,171. (No model.)

To all whom it may concern:

Be it known that I, ISAAC W. STEVENS, a citizen of the United States, and a resident of Bandera county, State of Texas, have invented certain new and useful Improvements in Sulky Plows and 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.

My invention relates to improvements in a combined sulky plow and cultivator; and it is chiefly my object to provide a mounted adjustable frame adapted to the use of either cultivator or plow, and which shall be provided with means whereby the track can be narrowed or widened and the depth regulated as desired; also, by which the standard or standards can be raised or lowered independently of or dependently upon the height of axle-arm.

It is also my object to provide means for detaching the cultivator-standards and attaching plow-standards to said frame.

In the accompanying drawings, forming part of this specification, Figure 1 is a side elevation of my mounted frame, showing a plow attached. Fig. 2 is a top plan view of the same. Fig. 3 is a side elevation of my mounted frame, showing the standards for cultivators attached; and Fig. 4 is a rear elevation of the same.

Referring to the drawings, A denotes a tongue adjustably secured by bolts or otherwise to a frame. Said frame is preferably made of metal and is composed of the five pieces $b\ b'\ b^2\ b^3\ b^4$, bolted together rigidly.

C C are axles mounted upon wheels and support said frame, and to which they are adjustably secured by suitable bearings provided with collars c , having slots c' and set-screws c^2 . Said axles have axle-arms $C'\ C'$, bent at right angles, forming a crank-shaped axle-arm, as shown in Figs. 2 and 4.

D is a rocker-shaft operated by a lever d . Said shaft has arms $d'\ d'$, adjustably secured thereto.

E E are arms pivotally secured to the free ends of arms $d'\ d'$ and rigidly secured to the standards F F, as shown in Fig. 3. The standards F F have their upper ends bent inwardly at right angles to overlap, and are adjustably

secured together by sliding collars $f\ f$, as shown in Fig. 4, provided with locking-screws $f'\ f'$.

$o\ o$ are holes in standards F F, for adjusting the height of the same.

$f^2\ f^2$ are brace-rods adjustably secured to the frame.

G G are standards bolted to the standards F F and turned off obliquely to the side and rear, as shown in Fig. 4. Said standards have brace-rods $f^3\ f^3$, adjustably secured to the frame, as shown in Figs. 1 and 3.

H is a cross-bar carrying two standards H' at either end and having brace-rods $h\ h$.

K is a driver's seat bolted to the frame B.

L is a lever bolted rigidly to the inside of the axle-arm and serves to raise or lower the right-hand axle-arm.

m is a shank or standard secured to the forward part of the metal frame at the center, and provided with a brace for use as a corn-planter attachment or when plowing in grain.

In Figs. 1 and 2 the frame is shown with a plow attached, the tongue being adjusted to the right over and in line with the plow, and the brace-rods $f^2\ f^2$ secured to the frame B, the cultivator-standards and brace-rods $f^3\ f^3$ being removed. As shown, the plow-standard is secured to the rocker-shaft D and may be raised from contact with the earth or lowered, and the plow given the desired pitch by operating the lever d again. Said lever may be used to force the point of the plow in the earth.

In case it should be desired to adjust the relative height of the wheels according to the depth to be given the plow, when the right-hand wheel is running in the furrow, turn the axle-arm of the right wheel by operating the lever L up to the desired height and secure it in such position by the set-screws c^2 , and turn the axle-arm of the left wheel down and likewise secure it in position.

In Figs. 3 and 4 the frame is shown with cultivator-standards attached, the arms E being pivotally secured to the arms d' and the brace-rods f^3 secured to the frame. The operation of raising, lowering, and regulating the pitch of the cultivator-standards is accomplished by operating the rocker-shaft D in the same manner as before described for controlling the plow-standard. The lever L

is useless when the cultivators are attached, and in such case may be removed. As shown in Fig. 4, the track of the cultivator can be narrowed or widened by loosening the screws $f' f'$ and adjusting the arms d' on the rocker-shaft. Said arms d' are secured to the rocker-shaft by sliding collars held in position by set-screws. (Shown in dotted lines in Fig. 3.)

The set of the plow or cultivator being determined, the position is fixed by securing the brace-rods in the holes o in the metal frame. The two axles admit of adjustment to widen or narrow the track of the wheels, and the crank-shaped axle-arms admit of raising or lowering either or both wheels relatively to the frame.

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

1. In a sulky plow and cultivator, the frame $b b' b^2 b^3 b^4$, having a rocker-shaft D , provided with adjustable arms $d' d'$, and means for attaching and detaching cultivator and plow

standards, substantially as and for the purposes shown and described.

2. In a sulky-plow, the frame $b b' b^2 b^3 b^4$, mounted upon two axles having the crank-shaped axle-arms C' , and a lever L , substantially as and for the purposes described.

3. In a sulky-cultivator, the frame $b b' b^2 b^3 b^4$, mounted upon two axles having the crank-shaped axle-arms C' , the rocker-shaft D , means for adjusting the width of the track, and means for raising or lowering the cultivator-standards, substantially as shown and described.

4. A sulky plow and cultivator having an adjustable tongue A , axles $C C$, having axle-arms $C' C'$, the slotted collars $c c$, provided with set-screws $c^2 c^2$, a cross-bar H , having braces $h h$, the standard m , the rocker-shaft D , arms $d' d'$ and arms $F F$, and the braces $f^2 f^3 f^3$, substantially as shown and described.

I. W. STEVENS.

Witnesses:

A. L. SCOTT,

J. U. HAMILTON.