

(No Model.)

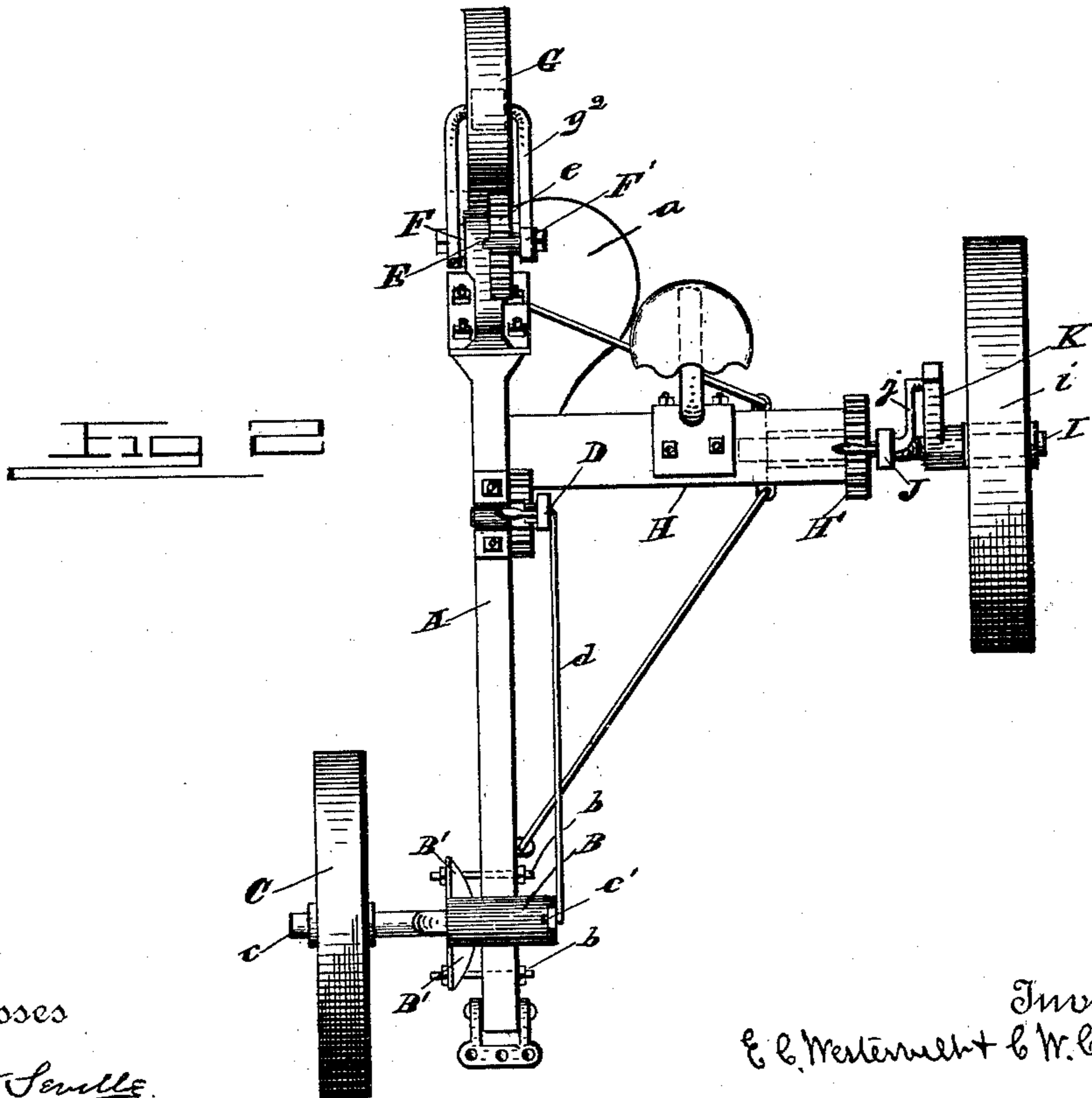
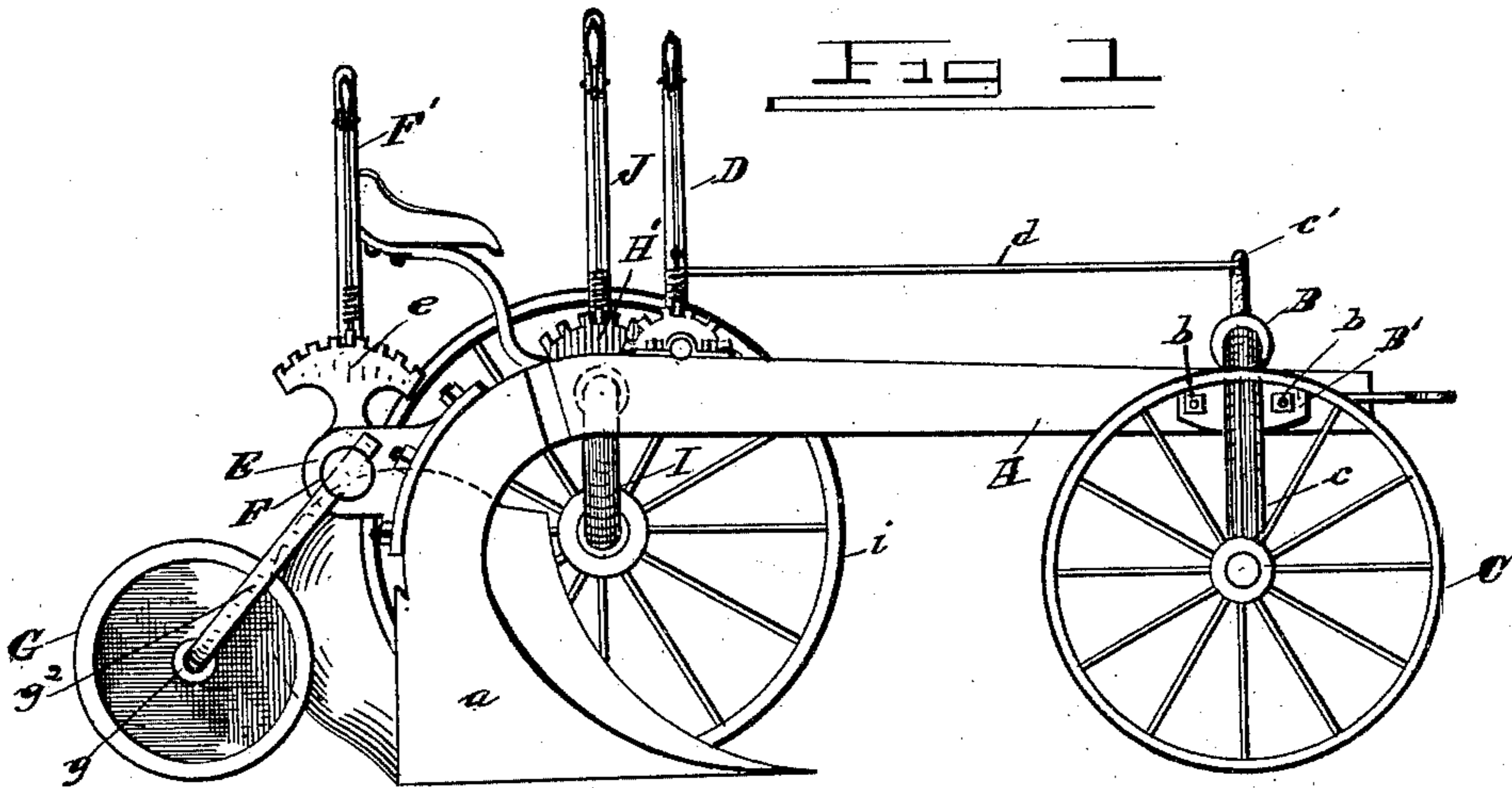
2 Sheets—Sheet 1.

E. C. WESTERVELT & C. W. CLAPP.

WHEEL PLOW.

No. 473,803.

Patented Apr. 26, 1892.



Witnesses

B. W. Sewell

Arthur E. Sewell

Inventors

E. C. Westervelt & C. W. Clapp

By their Attorney

W. H. Alexander

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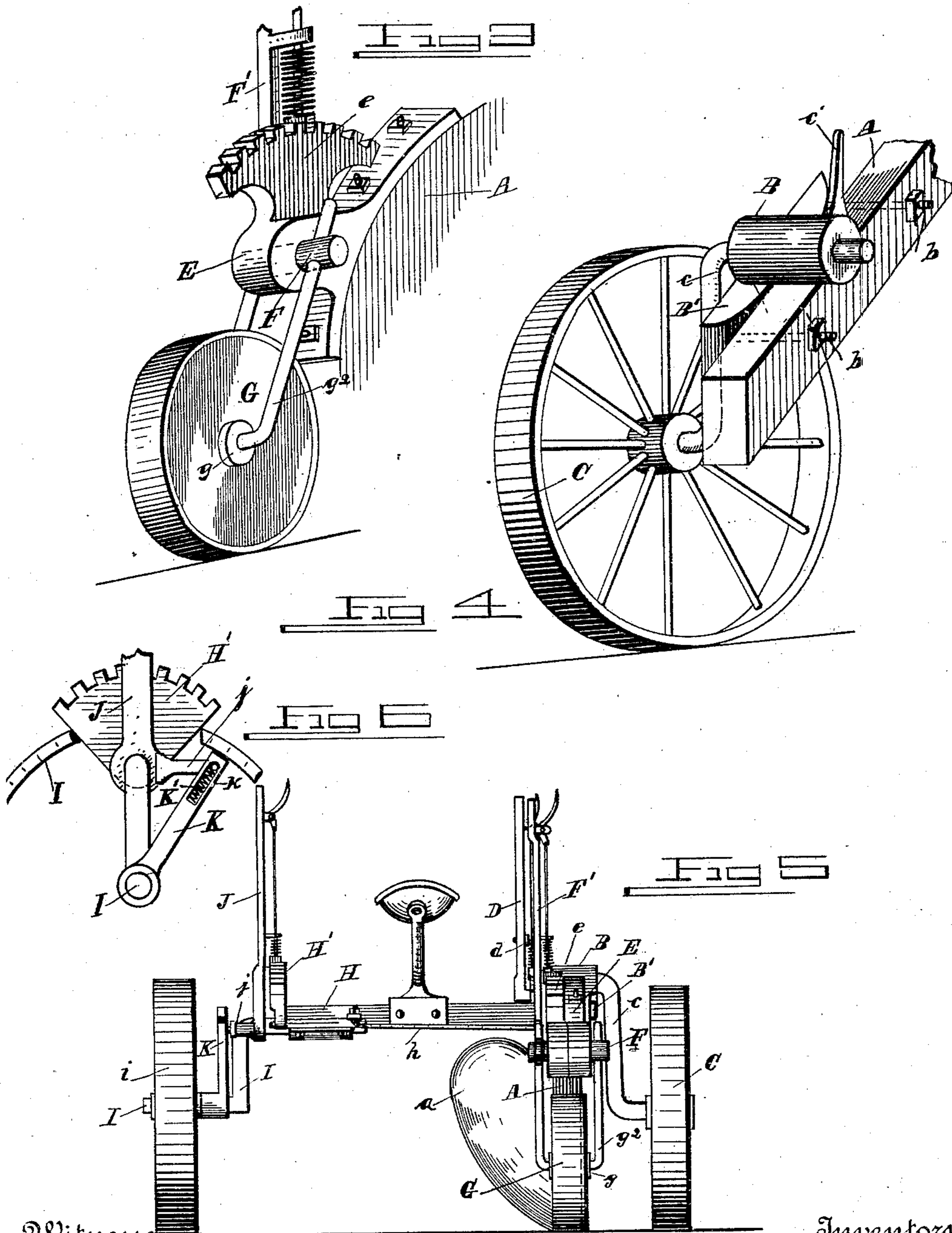
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UNITED STATES PATENT OFFICE.

EDMUND C. WESTERVELT AND CHARLES W. CLAPP, OF SOUTH BEND,
INDIANA.

WHEEL-PLOW.

SPECIFICATION forming part of Letters Patent No. 473,803, dated April 26, 1892.

Application filed February 5, 1892. Serial No. 420,462. (No model.)

To all whom it may concern:

Be it known that we, EDMUND C. WESTERVELT and CHARLES W. CLAPP, of South Bend, in the county of St. Joseph and State of Indiana, have invented certain new and useful Improvements in Wheeled Plows; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification, in which—

Figure 1 is a side elevation of our improved wheel-plow, looking at the landside. Fig. 2 is a top plan view thereof. Fig. 3 is a detail view showing the furrow-wheel mountings. Fig. 4 is a detail view of the front-wheel mountings. Fig. 5 is a detail rear view of the plow.

This invention is an improvement in wheel-plows, its objects being to provide improved attachments whereby an ordinary plow can be mounted on wheels, so that it can be easily transported, and whereby the depth of the furrows cut thereby can be regulated at the will of the plowman or driver.

The invention therefore consists in the novel constructions of the mountings of the several wheels and in the novel combinations of parts, as are hereinafter clearly specified and claimed.

In the drawings, letter A designates the plow-beam, and *a* the plow, of ordinary construction.

B designates a tubular casting resting upon the front end of the beam, having a depending and projecting flange B', the inner face of which is rounded or rocker-shaped and bears against the side of beam, and is secured thereto by bolts *b b* in its ends, as shown. By loosening one bolt and taking up the other the casting can be shifted or turned on the beam, as is evident, and then by tightening both bolts it will be firmly held in such position. The front wheel C is mounted on a double-cranked axle *c*, which is journaled in casting B, as shown, and by adjusting this casting, as described, any amount of "gather" may be given the front wheel by causing it to stand at an angle to the beam. The shaft *c* may be rocked by means of a crank-arm *c'*, connected

by pitman *d* to a lever D, pivoted to the beam above the plow, and having a hand-latch engaging a sector fixed to the beam, by which means the front wheel may be adjusted vertically, so as to elevate or depress the front end of beam.

E designates a bracket fixed to or cast on the rear part of the beam, and in it is journaled a stub rock-shaft F, to one end of which is fixed a lever F', provided with a hand-latch engaging a toothed sector *e* on bracket E.

G designate a landside-wheel journaled on a stub-shaft *g* in the lower end of yoke *g*², which is rigidly connected to the shaft F, so that by rocking this shaft the landside-wheel is swung vertically, and thereby raised or lowered and can be held at any point.

H designates a metal bar attached to the beam and projecting horizontally from the furrow side thereof, just in advance of the plow, and braced by rods *h* or in other suitable manner.

I designates a cranked shaft, one end of which is journaled in bearings formed on or secured to outer end of the bar H, and on the lower end of said shaft is journaled the land-wheel *i*.

J is a lever loosely mounted on the shaft near the end of bar H and having a hand-latch engaging a toothed sector H' on the end of said bar. This lever has a short horizontal arm *j*, projecting rearwardly and loosely engaging a slot *k* in the upper end of a link-plate K, the lower end of which is strung on the axle *c* near the hub of wheel *i*. A spring K' is interposed between the bottom of slot *k* and end of arm *j*, and should be stout enough to hold arm *j* in the upper end of the slot, so as to keep the hub of wheel *i* separated as far as possible from the end of arm *j*. By this construction when lever J is adjusted it shifts shaft I through link K correspondingly, thereby shifting the land-wheel, and when the plow is in operation if wheel *i* strikes an obstruction, forcing it backward, the shaft H will swing backward, causing the compression of spring K', but, however, relieving strain on the lever and not disturbing the plowshare, thereby enabling the plow to cut furrows of more nearly regular depth in irregular stony

ground than could be done if the wheel J were rigidly locked to the beam. In other words, it will be seen that we have a cushioned, yielding, and self-adjusting connection between
 5 the land-wheel and beam. A driver's seat may be put on the beam or bar H in a position where the occupant can easily manipulate all the levers and thereby have the plow entirely under his control.

10 Having described our invention, what we claim as new, and desire to secure by Letters Patent thereon, is—

1. The combination, with the plow-beam, of the casting having a rounded face bearing
 15 against the side of beam, the bolts for securing and adjusting said casting, and the rocking crank-shaft connected to said casting and adjusted therewith, means for rocking said shaft, and the wheel thereon, substantially as
 20 described.

2. The combination, with the plow-beam, of the tubular casting having a depending flange rounded on its inner face and bearing against the side of the beam, the bolts in the ends of
 25 said flange connecting the same adjustably to the beam, the crank-shaft journaled in said casting, the wheel thereon, and the devices for adjusting said crank-shaft, substantially as described.

30 3. The combination of the beam, the bracket on the rear thereof, the horizontal stub rock-shaft journaled therein, and the sector on said

bracket, with the vertically-swinging yoke connected to said rock-shaft, the wheel carried thereby, and the lever connected to said
 35 rock-shaft for adjusting said yoke, substantially as described.

4. The combination of the bar, the cranked shaft journaled thereon, the wheel on the lower end of said shaft, the armed lever piv-
 40 oted above the wheel, and the plate loosely connected to the shaft beside the wheel, and the yielding spring-controlled connection between the upper end of said plate and the arm of lever, substantially as described.

5. The combination of the beam, the bar connected thereto, the crank-shaft journaled on the extremity of said bar, the wheel on the lower end thereof, the lever loosely pivoted on
 50 the shaft above the wheel, the plate loosely connected to the shaft beside the wheel and having its upper end slotted and engaged by an arm on the lower end of the lever, and the spring interposed between the plate and said arm, and means for adjusting and locking
 55 said lever, substantially as described.

In testimony that we claim the foregoing as our own we affix our signatures in presence of two witnesses.

EDMUND C. WESTERVELT.
 CHAS. W. CLAPP.

Witnesses:

JAMES DUSHANE,
 HARVEY H. HUMPHREY.