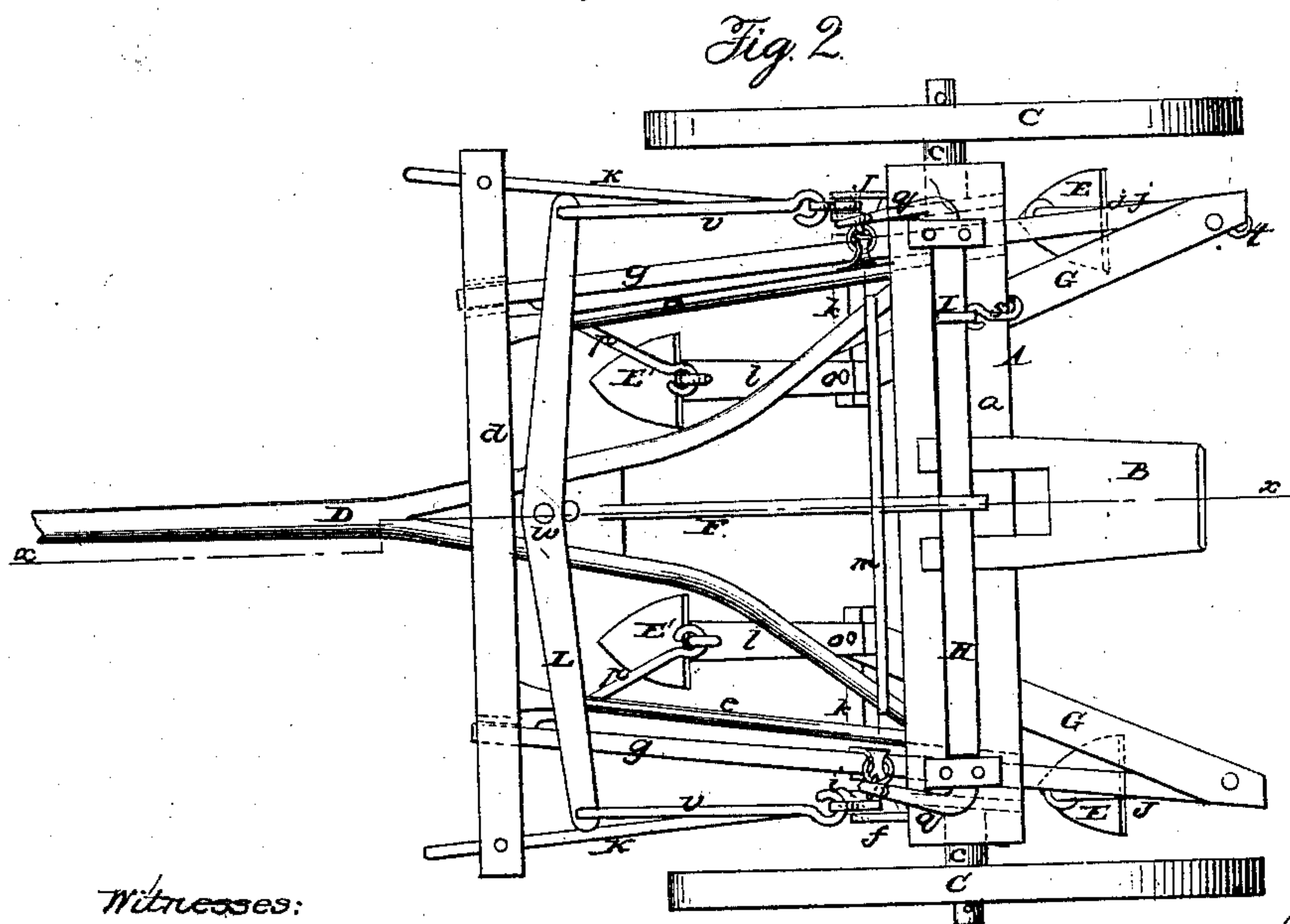
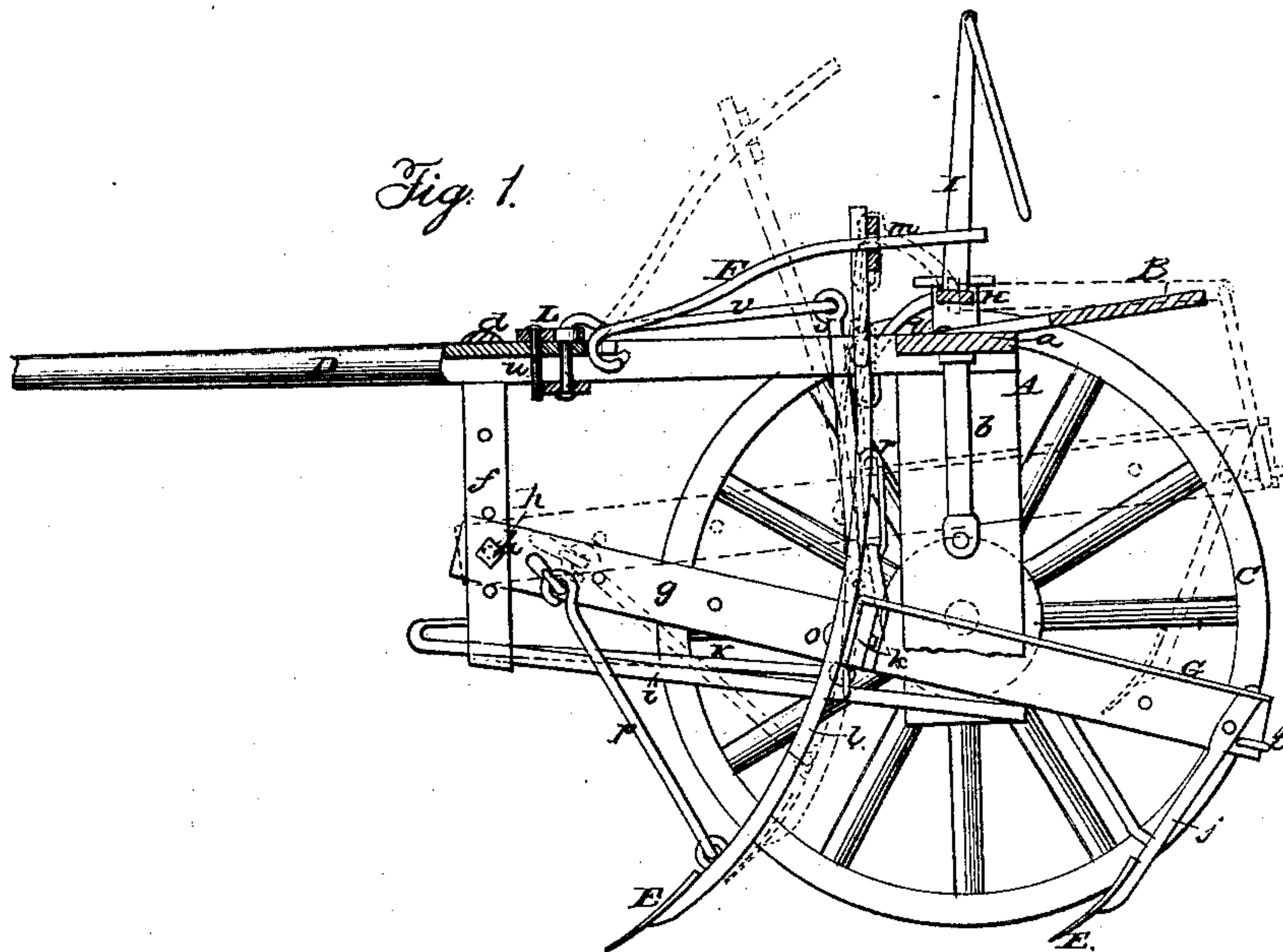


C. J. BUCHNER.

Wheel-Cultivator.

No. 41,677.

Patented Feb. 23, 1864.



Witnesses:  
*J. W. Cornish*  
*Wm. H. Deneke*

Inventor:  
*C. J. Buchner*  
*per Munn & Co.*  
*attorneys*



# UNITED STATES PATENT OFFICE.

C. J. BUCHNER, OF PAXTON, ILLINOIS.

## IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. 41,677, dated February 23, 1864.

*To all whom it may concern:*

Be it known that I, C. J. BUCHNER, of Paxton, in the county of Ford and State of Illinois, have invented a new and Improved Corn-Plow; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side section view of my invention, taken in the line *xx*, Fig. 2; Fig. 2, a plan or top view of the same.

Similar letters of reference indicate corresponding parts in the two figures.

This invention relates to a new and improved corn-plow of that class which are mounted on wheels and are provided with a driver's seat.

The object of the invention is to obtain a plow of the class specified which may be manipulated by the driver with the greatest facility and be completely under his control, and also have a draft-equalizer of simple construction to insure an even pull of the team and a uniform draft movement of the machine.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents the frame of the machine, which is composed of a horizontal plate, *a*, having a pendent slotted plate, *b*, attached to each end of it.

B is the driver's seat, attached at right angles to the plate *a*, and projecting a short distance behind in a slightly inclined position. To the lower part of each pendant *b*, at its outer side, there is attached an axle, *c*; and C C are wheels, which are fitted loosely on said axles.

D is the draft-pole, the back end of which is forked or divaricated and is attached permanently to plate *a*. To the draft-pole, just in front of the forked part, there is attached a cross-bar, *d*, which is a trifle longer than the plate *a*, said bar *d* being braced from *a* by rods *e e*. To the cross-bar *d*, near each end of it, there is attached a pendant, *f*, and these pendants are slotted vertically to receive the front ends of beams *g g*, which are secured in the pendants *f* by pins *h*, and pass through the slotted pendants *b*. The lower ends of the pendants *f* are braced by rods *i* from the lower ends of the pendants *b* of plate *a*.

To the back end of each beam *g* there is at-

tached an inclined plow-standard, *j*. These standards have each a plow, *E*, secured to its lower end, and to each beam *g*, at about its center, there is attached at right angles a short bar, *k*. These bars *k* project horizontally from the inner sides of the beams *g*, and have each a curved plow-standard, *t*, secured to them, the upper ends of said standards being connected by a cross bar, *m*, the latter being secured to the former by pivots *n*. The standards *t t* are also secured to the bars *k* by the pivots *o*, and the lower ends of said standards are connected to the front parts of the beams *g* by links *p*. The standards *t* have plows *E'* attached to their lower ends.

F is a lever, the front end of which is connected by a hook to the draft-pole D at the junction of the fork. This lever passes through the cross-bar *m*, which connects the upper ends of the two standards *t t*, and extends within the reach of the driver on seat B.

G G represent two foot-bars, which are secured to the back end of the beams *g g* and to the outer ends of the bars *k*. The feet of the driver rest on the bars G G.

H is a horizontal shaft, the bearings of which are on the plate *a*. This shaft has a lever, I, attached to it, which is within reach of the driver on seat B, and at each end of said shaft there is an arm, *q*, projecting from the shaft at right angles. These arms are connected by chains *r* with the beams *g*, and by drawing the lever I backward the bars *g g* and plows *E E'* will be raised, and the latter may be secured in an elevated state above the surface of the ground by means of a hook, *s*, which is attached to the outer end of I, being inserted in a staple, *t*, at the back end of one of bars *g*. This elevated position of the plows is shown in red in Fig. 1.

The plows are kept down in a proper working position by the feet of the driver, and they may be subjected to a greater or less downward pressure, as circumstances may require. The plows *E'*, which are attached to the standards *t*, may be moved laterally by actuating the lever F, and as these plows operate one at each side of the row of corn, the plows may be adjusted laterally so as to conform to the sinuosities of the rows.

To the outer side of each pendant *b*, near its lower end, there is attached a lever, J, each having a draft-rod, K, connected to its lower

end. These draft-rods extend forward as far as the cross-bar *d*, and their front ends are supported by chains *u* from said bar. The upper ends of the levers *J* are connected by rods *v v* with a lever, *I*, the fulcrum-pin *w* of which passes into the draft-pole *D* just back of the bar *d*.

The whiffletrees are attached to the front ends of the draft-rods *K*, and it will be seen that by this arrangement a perfect draft-equalizer is obtained, as the two draft-rods are connected through the medium of the levers *J J* and *I*, and if one horse pulls more than the other, the latter will be pulled back, and in resisting that movement equally divide the draft. Hence the machine will be drawn along with a uniform movement and without being liable to be deflected or moved from one side to the other.

I do not claim broadly the rising and falling plows, nor do I claim the laterally-moving plows, for they have been previously used; but,

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

The combination of the horizontal connecting-plate *a*, pendent slotted plates *b b* and *ff*, beams *g g*, rods *i i*, bracing foot-bars *G G*, and transverse bars *K K*, all as herein shown and described.

C. J. BUCHNER.

Witnesses:

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