

(No Model.)

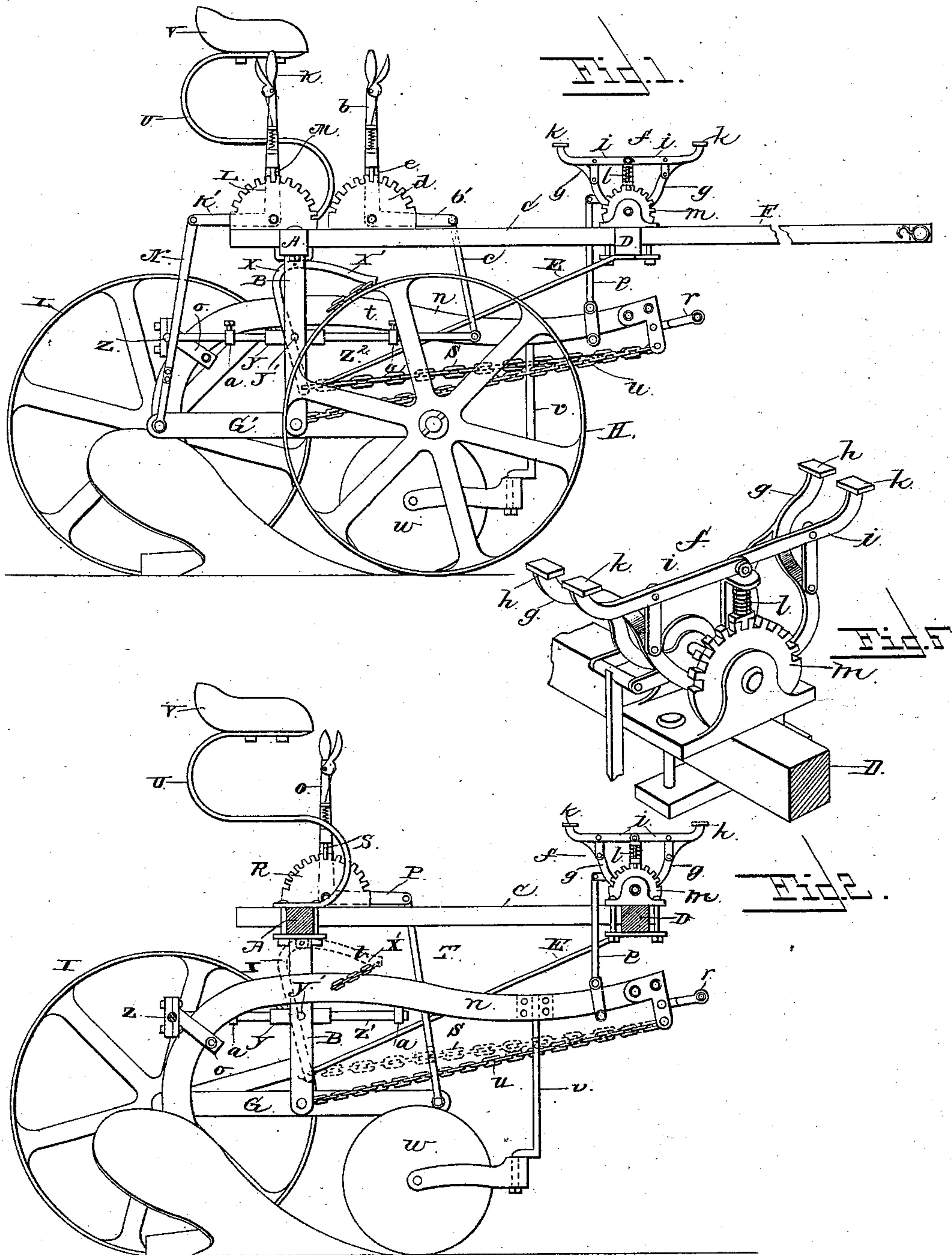
2 Sheets—Sheet 1.

O. C. BATEMAN.

SULKY PLOW.

No. 355,676.

Patented Jan. 11, 1887.



Witnesses
M. E. Fowler
J. W. Gamm

Inventor
Omer C. Bateman
By his Attorneys
C. A. Snowdon

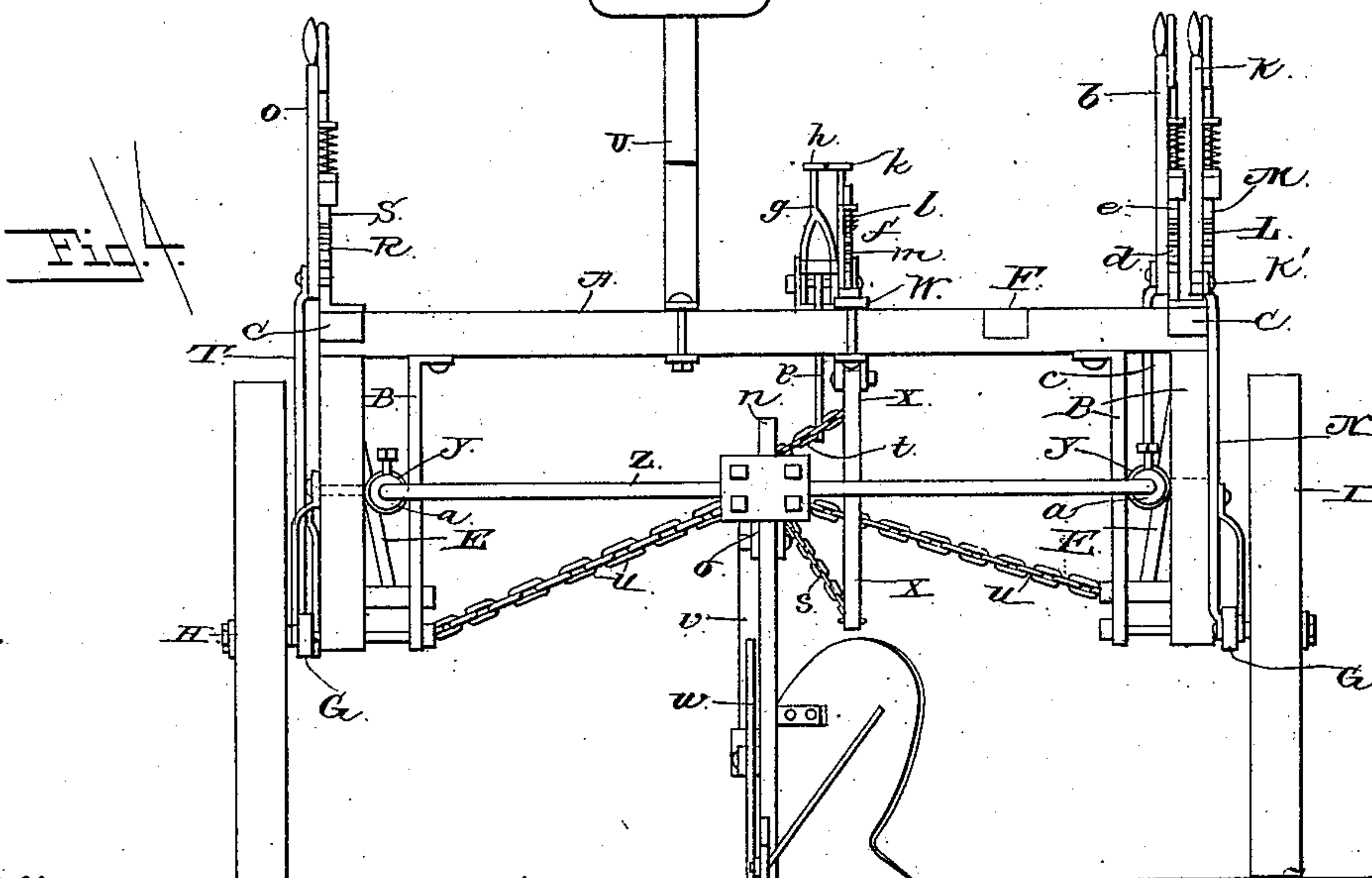
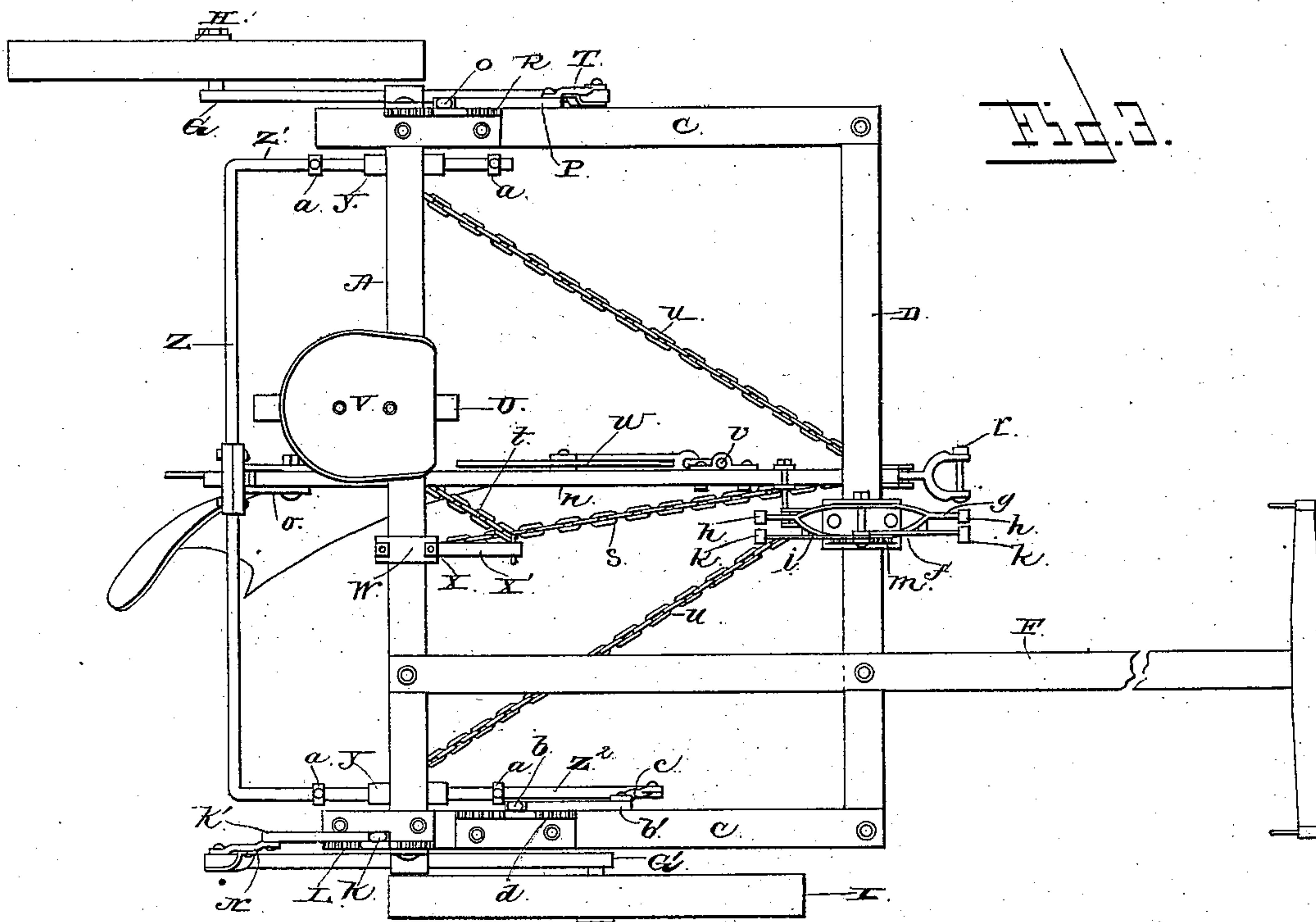
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UNITED STATES PATENT OFFICE.

OMER CONGER BATEMAN, OF TAYLOR RIDGE, ILLINOIS.

SULKY-PLOW.

SPECIFICATION forming part of Letters Patent No. 355,676, dated January 11, 1887.

Application filed October 22, 1886. Serial No. 216,900. (No model.)

To all whom it may concern:

Be it known that I, OMER CONGER BATEMAN, a citizen of the United States, residing at Taylor Ridge, in the county of Rock Island and State of Illinois, have invented a new and useful Improvement in Sulky-Plows, of which the following is a specification.

My invention relates to an improvement in sulky-plows; and it consists in the peculiar construction and combination of devices, that will be more fully set forth hereinafter, and particularly pointed out in the claims.

In the drawings, Figure 1 is a side elevation of a sulky-plow embodying my improvements. Fig. 2 is a vertical longitudinal sectional view of the same. Fig. 3 is a top plan view. Fig. 4 is a rear elevation. Fig. 5 is a detail view of the rocking lever.

A represents the axle, which is provided at its extremities with the depending arms B, which are arranged in pairs, as shown. To the ends of the horizontal portion of the axle are secured the rear ends of forwardly-extending longitudinal beams C. The front ends of the said beams are connected by a transverse beam, D.

E represents inclined braces, which connect the lower ends of the arms B with the front ends of the beams C. It will be observed that the axle and the beams C and D constitute the frame of the sulky.

F represents the tongue, which has its rear portion bolted to the beam D and the axle near one side of the frame.

Between the lower ends of one pair of arms, B, is pivoted a lever-arm, G, and between the lower ends of the other pair of arms is pivoted a lever, G'. The rear end of the said arm G has an outwardly-extending spindle, on which is mounted a supporting-wheel, H, and the front end of the lever-arm G' is provided with an outwardly-extending spindle, on which is mounted a supporting-wheel, I.

K represents a hand-lever, which is pivoted to the right-hand side of the frame, and is provided with a rearwardly-extending arm, K'. The said lever works against a segment-plate, L, having a series of peripheral notches, and a lever is provided with the usual spring-actuated locking-bolt, M, adapted to engage one of the said notches, and thereby secure the latter at any desired inclination. The rear

end of the arm K' is connected to the rear end of the lever-arm G' by a link, N.

O represents a hand-lever, which is pivoted to the opposite side of the frame from the lever M, and is provided with a forwardly-extending arm, P. This hand-lever O bears against a segment-plate, R, provided with peripheral notches, and the lever is also provided with a spring-actuated latching-bolt, S, adapted to engage the said notches. The front end of the arm C is connected to the front end of the lever-arm G by means of a link, T.

From the foregoing description it will be observed that the wheel I is in advance of the wheel H, thereby perfectly balancing the sulky-frame, and that by means of the hand-levers K and O the lever-arms G and G' may be inclined to any desired angle, independently of each other, and thereby raise or lower either side of the sulky-frame, and thus maintain it in a level position when on a hillside or uneven ground.

To the center of the axle is attached a supporting-spring, U, and a seat, V, for the driver, is secured to the upper end of the said supporting-spring. On one side of the said spring, a clip, W, is bolted to the axle, and is provided with depending ears, between which is pivoted a depending lever, X, which has a forwardly and downwardly curved arm, X'.

Y represents a pair of hollow cylindrical sleeves, which are provided at their centers with trunnions Y', that are journaled in horizontal transverse openings made in the pairs of arms B.

Z represents a yoke, which is provided with forwardly extending arms Z' and Z". The said latter arm is longer than the former, and both the said arms are passed through the pivoted sleeves Y. Adjustable collars a are secured on the arms of the yoke by means of set-screws, and thereby serve to limit the forward and rearward movement of the yoke-arms in the sleeves.

b represents a hand-lever, which is similar in construction to the levers K and O, and is pivoted to one side of the frame, and has an arm, b', which is connected to the front end of the yoke-arm Z" by means of a link c. By means of this lever the yoke may be raised or lowered on the rear side of the sulky-frame, for the purpose to be hereinafter described.

The lever-arm *b* is provided with the usual detent segment-plate, *d*, and the spring-actuated latching-bolt *e*, to engage the said plate and secure the lever at any desired point.

5 *f* represents a rocking lever, which is pivoted on the cross-beam *D*, and is provided with the forwardly and rearwardly extending curved arms *g*, having the pedals *h*. Trip-arms *i* are fulcrumed to the rocking lever, and
10 have their inner ends connected together, the outer ends of the said trip-arms extending parallel with the arms *g* and having the pedals *k*. To the inner ends of the trip-levers is attached a spring-actuated bolt, *l*, which is
15 adapted to engage the peripheral notches in the segment detent-plate *m*, which is also attached to the beam *D*.

n represents the plow-beam, the rear portion of which is connected to the yoke *Z* by means
20 of a link, *o*. The front end of the plow-beam is connected to the rocking lever *f* by means of a link, *p*. The extreme front end of the plow-beam is provided with a clevis, *r*, for the attachment of the whiffletree, to which the
25 team is hitched, so that the draft is exerted directly on the plow. From the front end of the plow-beam extends a chain, *s*, which is attached to the rear end of the lever *X*. A chain, *t*, connects the front end of the lever-arm
30 *X'* to the plow-beam at a suitable distance from the rear end of the latter. Brace-chains *u* extend from the chain *s* to the lower ends of the arms *B*, and are attached to the bolts on which the lever-arms *G* and *G'* are fulcrumed.
35 The clip *o* and the clip *W* are movable laterally on the yoke and the axle, respectively, thereby permitting the plow to be adjusted laterally below the frame. By moving the hand-lever *b* the yoke *Z* may be raised or low-
40 ered, so as to raise or lower the rear end of the plow-beam, and by moving the rocking lever *f* the front end of the plow-beam may be raised or lowered, and thus the plow may be either raised entirely above the ground or
45 lowered thereto and caused to work at any desired depth, and it may be tilted so as to run in the furrow at any desired inclination.

The rocking lever *f* is operated by the feet of the driver, and before pressing upon either
50 of the pedals *h*, so as to move the said lever, the driver places one foot upon one of the pedals *k*, thus causing the bolt *l* to disengage the segment-plate *n*.

The plow-beam is provided with a vertically-adjustable standard, *v*, to which is attached a trailing revolving roller, *w*, that runs in advance of the plow.

The function of the lever *X* and the chains that connect the arms thereof to the plow-
60 beam is to relieve the bar or yoke *Z* from strain, and also to steady the plow and cause it to run steadily and evenly in the furrow. As the lever *Z* is free to turn on its pivot, it

offers no opposition to the raising or lowering of either end of the plow-beam, or when the
65 plow is raised from the ground. The draft of the team is exerted directly on the front end of the plow-beam, and a portion of the strain is transferred through the chain *s*, the lever *X*, and the chain *t* to the central portion
70 of the beam. This supports the weight of the plow, and causes it to bear very lightly on the bottom of the furrow, thereby materially lightening the draft.

Having thus described my invention, I
claim—

1. In a sulky-plow, the combination of the frame having the yoke or bar *Z*, the plow-beam having its rear end pivoted to the said
80 yoke or bar, the lever *X*, pivoted to the frame and depending therefrom and having the arm *X'*, the chain *t*, connecting the said arm to the plow-beam, and the chain *s*, connecting the lower end of the lever *S* to the front end of the
85 plow-beam, substantially as described.

2. The combination, in a sulky-plow, of the frame having the depending lever *X*, provided with the arm *X'*, the plow-beam, the chain *t*, connecting the plow-beam with the
90 arm *X'*, the chain *s*, connecting the lower end of the lever *X* to the front end of the plow-beam, and the braces *u*, extending from the chain *s*, substantially as described.

3. The combination, in a sulky-plow, of the frame, the depending lever *X*, pivoted thereto
95 and having the arm *X'*, the plow-beam, the chain *t*, connecting the plow-beam near its center with the arm *X'*, and the chain *s*, connecting the lower end of the lever *X* with the front end of the plow, substantially as described.

4. The combination of the sulky-frame having the depending arms *B*, the yoke *Z*, pivoted
100 to the said arms, the lever *b* to raise and lower the said yoke, the lever *X*, pivoted to the sulky-frame and depending therefrom, the plow having the rear end of its beam pivoted
105 to the yoke, the chain *s*, connecting the front end of the plow-beam to the lower end of the lever *X*, the chain *t*, connecting the central portion of the plow-beam to the upper end
110 of the said lever, and the lever to raise and lower the front end of the plow-beam, substantially as described.

5. The combination, in a sulky-plow, of the plow-beam, the rocking foot-lever *g*, connected
115 to the front end of the plow-beam, the notched segment-plate *m*, and the pivoted foot-levers *i*, having the bolt *l*, to engage the said segment-plate, substantially as described.

In testimony that I claim the foregoing as
120 my own I have hereto affixed my signature in presence of two witnesses.

OMER CONGER BATEMAN.

Witnesses:

JOHN M. HAUCK,

DANNIE TWELFTRES.