

No. 610,387.

Patented Sept. 6, 1898.

G. W. DE WITT.

GANG PLOW.

(Application filed Nov. 17, 1897.)

(No Model.)

Fig. 1.

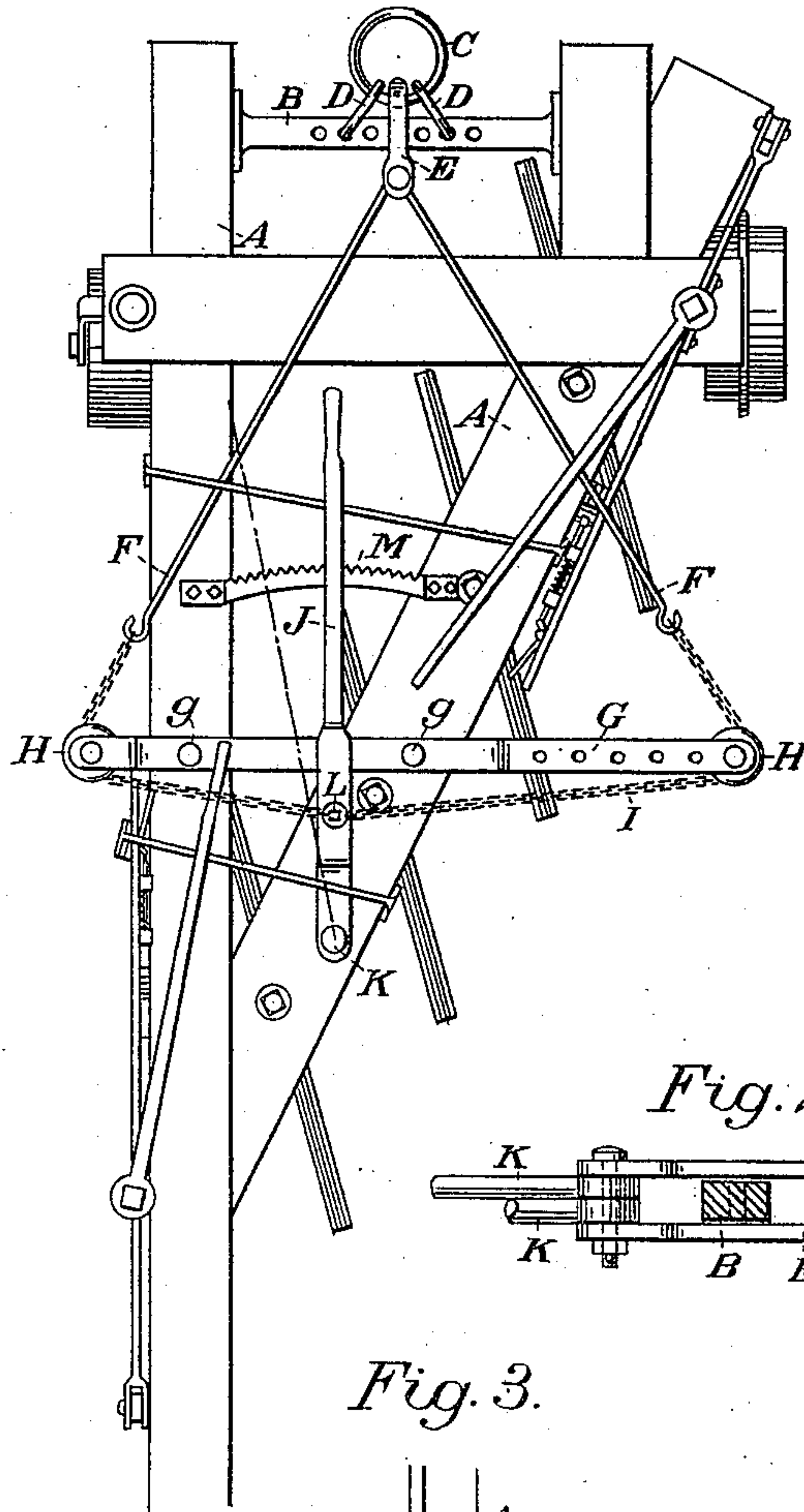


Fig. 2.

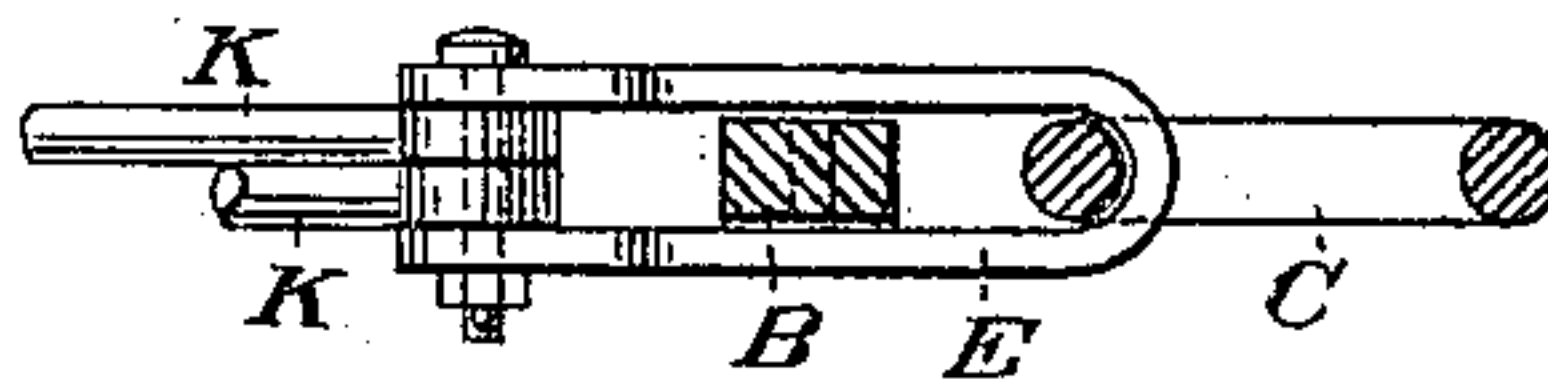
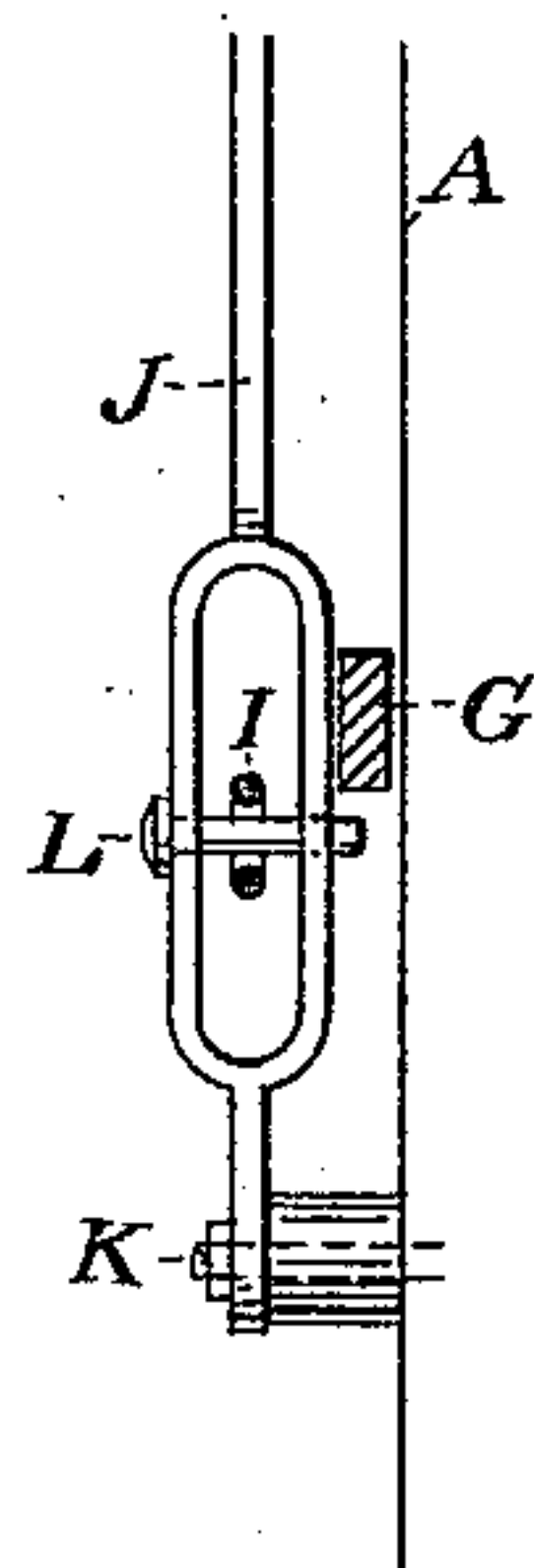


Fig. 3.



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UNITED STATES PATENT OFFICE.

GEORGE W. DE WITT, OF SAN ARDO, CALIFORNIA.

GANG-PLOW.

SPECIFICATION forming part of Letters Patent No. 610,387, dated September 6, 1898.

Application filed November 17, 1897. Serial No. 658,811. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. DE WITT, a citizen of the United States, residing at San Ardo, county of Monterey, State of California, have invented an Improvement in Gang-Plows; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to improvements in that class of plows in which the plows are supported from a triangular framework having wheels near the angles and means for attaching the team to a base of the triangular frame.

My invention consists, essentially, in a mechanism whereby the draft may be applied toward the rear of the triangular frame as well as at the front and means whereby the draft can be shifted from one side to the other of this portion of the frame, so as to hold the plow up to its work and resist the tendency to slide down a hill while working upon hill-sides.

In the accompanying drawings, Figure 1 is a plan view of my plow. Fig. 2 is a detail view of the clevis E. Fig. 3 is a detail view of the lever J.

The object of my present invention is to make connections between the front portion of the plow-frame and the draft which is applied at that point and a rear transverse bar in such a manner that the draft is partially diverged to this bar, and it may be shifted in such a manner as to pull upon either one end or the other of the bar, the operation serving, first, to steady the rear end of the plow-frame and prevent its swinging from side to side, and, secondly, to hold it up against any tendency to slip down the hill when working on the side hills.

A is the triangular frame such as is usual in this class of plows. It may be made of wood or iron in any usual or suitable manner and has the usual bearing-wheels at the angles, the plows being disposed in a gang, supported from the diagonal beam of the plow, so that they enter the soil and turn the furrows successively, any suitable or desired number of the plows being thus attached.

The draft-bar B extends across the front of the plow, which is the base of the triangle.

C is a ring connected by clevises D with the

draft-bar B, and by means of holes in this bar these clevises may be adjusted to pull upon the draft-bar as may be desired.

E is a clevis extending from the ring C rearwardly and is here shown clasping the front draft-bar B and having means at the rear end to connect with it either a rod or chains F. These rods or chains, of which there are two, diverge rearwardly and are in some manner connected with the rear portion of the plow-frame so that a direct connection may be had between the draft-ring or the draft-chain which is attached to it and the rear portion of the plow-frame. In the present case I have shown a transverse bar G, secured to the timbers A by bolts, as shown at g.

If desired, a series of holes may be made through the beams A, so that the bar G can be shifted forward or back and adjusted to any point where it is found most desirable to have the draft upon the rear portion of the frame take place. In the present case I have shown pulleys or rollers H journaled in the ends of the bar G, and around these rollers passes a chain or flexible connection I. This chain either extends to the clevis E or it may connect with hooks in the ends of rods F F, if such rods are interposed, and this enables me to lengthen or shorten the chain, so that when the parts are all connected up there will be a division of the draft, so that it pulls upon the front bar B of the plow-frame and also upon this transverse rear bar G.

As these plow-frames are of considerable length when the work is being done, there is a tendency of the rear portion of the frame to swing from side to side and not run steadily; but by transferring a portion of the draft to this transverse rear bar G the rear portion of the frame is steadied and prevented from jumping about.

When the plow is running upon a hillside, it is desirable to hold it up to the work. If the landside is the uphill side, then the draft must be brought upon that side of the rear portion of the frame to steady and keep it up. If the plow is running in the other direction, the draft is transferred to the opposite side. This may be effected by lengthening or shortening the chain or connections upon one side or the other. In the present case I have shown this as being easily effected by reason

of the flexible chain I passing around the rollers H at the ends of the bar G and a lever J, fulcrumed upon the plow-frame at K and having a pin or connection L, which is adapted
5 to pass through any link of the chain, so as to lock the latter to the lever.

I have shown the lever J as being made with an open yoke at the point where the chain crosses it, so that the chain passes
10 through the yoke, and the pin L being dropped through holes made in the top and bottom of the yoke will engage the chain-links and hold them properly in place. The lever extends to a point within convenient reach of an operator and may be held at any point by the
15 usual curved toothed rack M, with which it is adapted to engage.

The operation will then be as follows: If the plow is running with the landside up the hill,
20 the lever J is moved so as to move the chain around the pulleys H, shortening the connections F on one side and lengthening them correspondingly on the other. This brings the draft through the draft-chain, the clevis
25 E, and the shortened chain F upon the projecting end of the cross-bar G, and the pull upon this tends to hold the rear end of the frame and its attached plows well up against the land and prevents the plow from sliding
30 down the hill away from its work. If the opposite side or shares of the plow are on the uphill side, the lever is changed so as to shift the draft to the other end of the bar G and thus hold that portion of the plow up to its work.
35 Upon level ground the draft may be made centrally, pulling evenly upon the opposite ends of the bar G, and this, as before stated, will steady the plows and prevent the rear part of the frame from jumping about. The
40 bar G may have holes made in it at intervals, and the rollers or pulleys H can be shifted to points nearer the center, if desired; or the connections of the rods or chains F can be made directly to the bar, with any means for
45 shortening or lengthening these connections upon one side or the other for the purpose above described.

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

1. In a gang-plow of the class described, means for connecting the draft-chain with the front of the plow and also divergingly with the rear portion thereof as described.

55 2. In a plow of the character described, a draft connection with the front beam of the plow, a transverse bar fixed to the plow-frame between the front and rear ends, diverging

connecting rods or chains extending from the front draft to the ends of said intermediate
60 transverse beam.

3. In a plow of the character described, means for connecting the draft-chain with the front beam of the plow, a transverse beam fixed across the plow-frame between the front
65 and rear ends, diverging connecting rods or chains extending from the front draft-chain to the ends of the intermediate bar and means for transferring the draft to one end or the other of said bar.

4. In a plow of the character described, a draft-chain, means for connecting it with the front of the plow-frame, a transverse bar fixed to said frame intermediate between the
70 front and rear ends, rods or chains connecting the front draft with the rear transverse bar at points upon either side of a central line of draft, and a lever whereby the draft appliance may be shifted so as to transfer the pull to either end of the cross-bar.

5. In a plow of the character described, a draft-chain and connections between it and the front of the plow, a transverse bar secured to the plow-frame intermediate between
75 the front and the rear ends, said bar having rollers journaled in its ends, a chain passing around said rollers and connections between it and the front draft appliances, a lever fulcrumed upon the plow-frame and connected with the chain whereby by the movement of
80 the lever, the chain is shortened upon one side and lengthened upon the other and the draft transferred to either end of the transverse bar.

6. In a plow of the character described, a
95 draft-chain, a ring with which it is connected, clevises by which said ring is adjustably attached to the front bar of the plow-frame, a clevis extending from the ring rearwardly, rods or chains connected with and diverging
100 rearwardly from said clevis, a transverse bar fixed across the plow-frame intermediate between its front and rear ends having pulleys journaled at either side of the central line of draft, a chain connecting with the diverging
105 draft-rods and passing around said pulleys, a lever fulcrumed to the frame connected with said chain so that by movement of the lever the draft is transferred from one side to the other of the plow-frame.

In witness whereof I have hereunto set my hand.

GEORGE W. DE WITT.

Witnesses:

GEO. H. STRONG,
S. H. NOURSE.