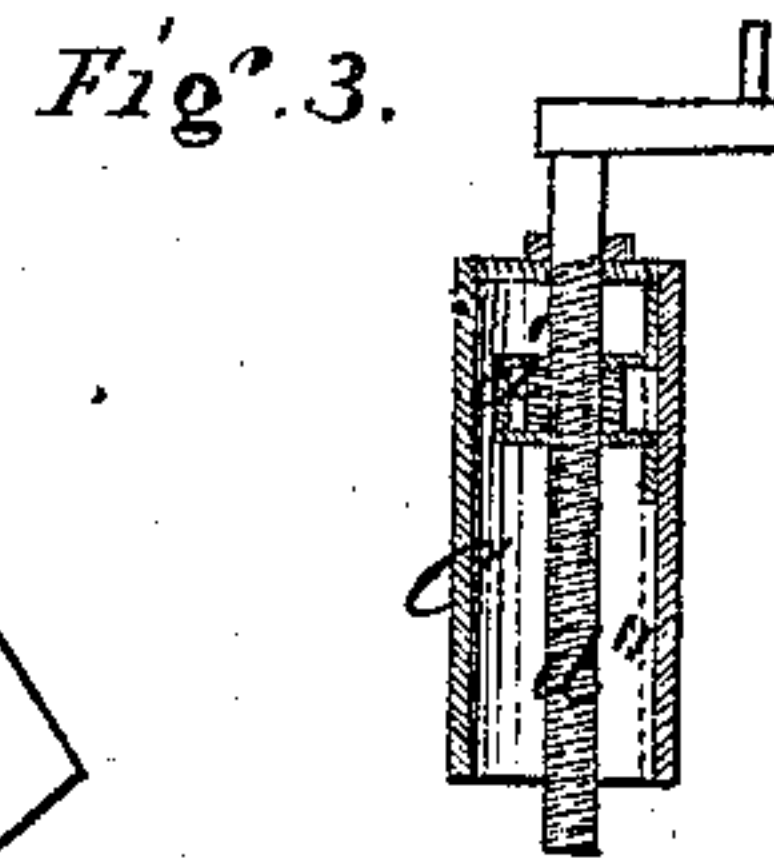
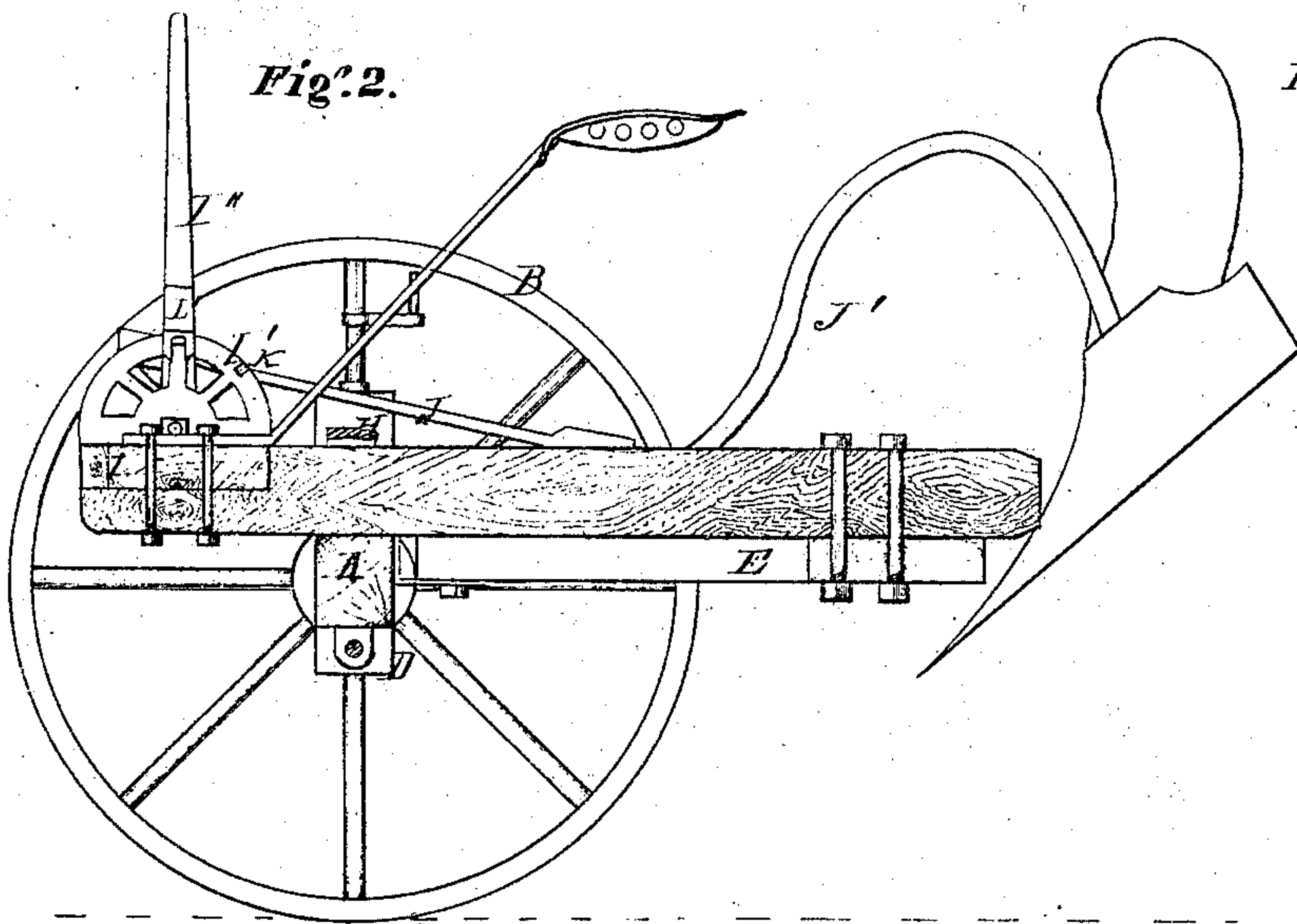
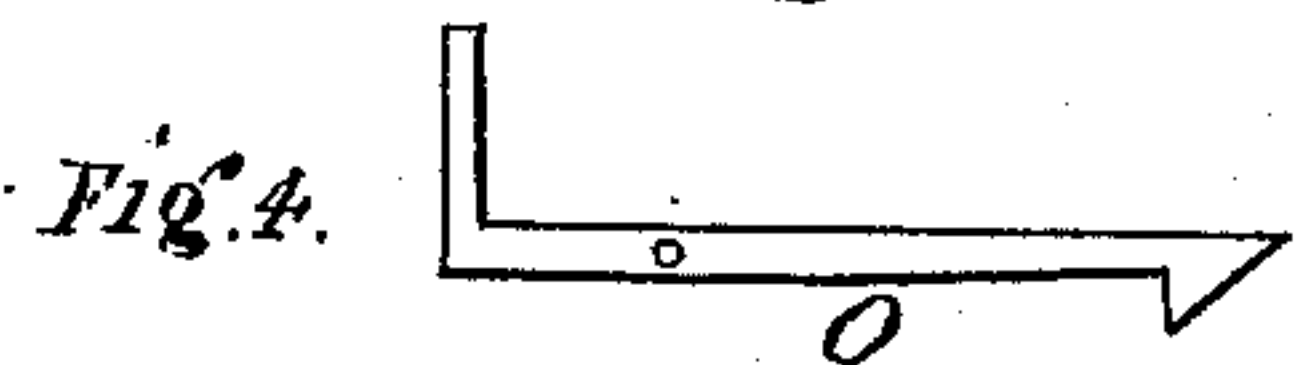
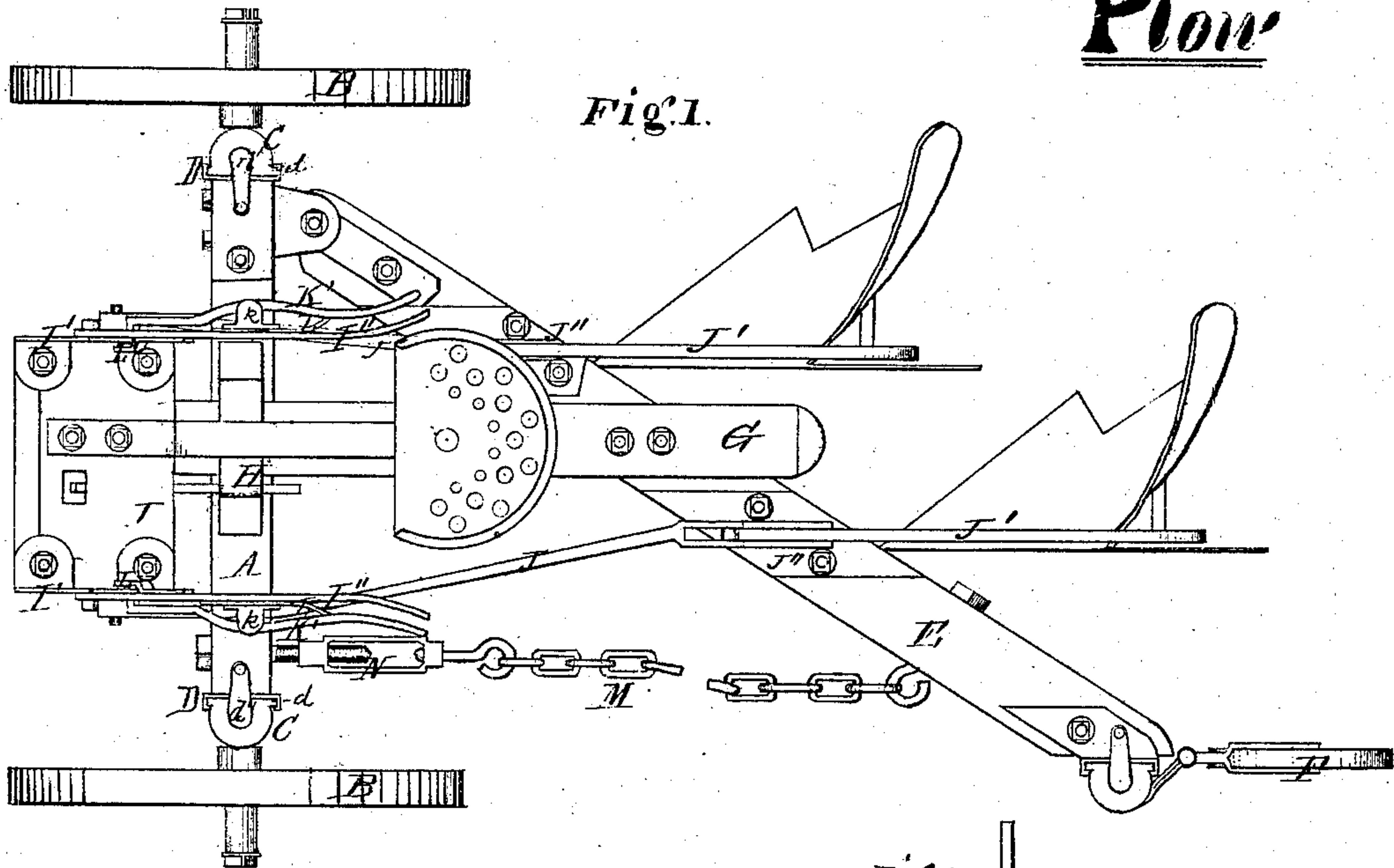


J.H. GLASS.

117404

Plow



Witnesses
E. B. Sales,
J. B. Curtis

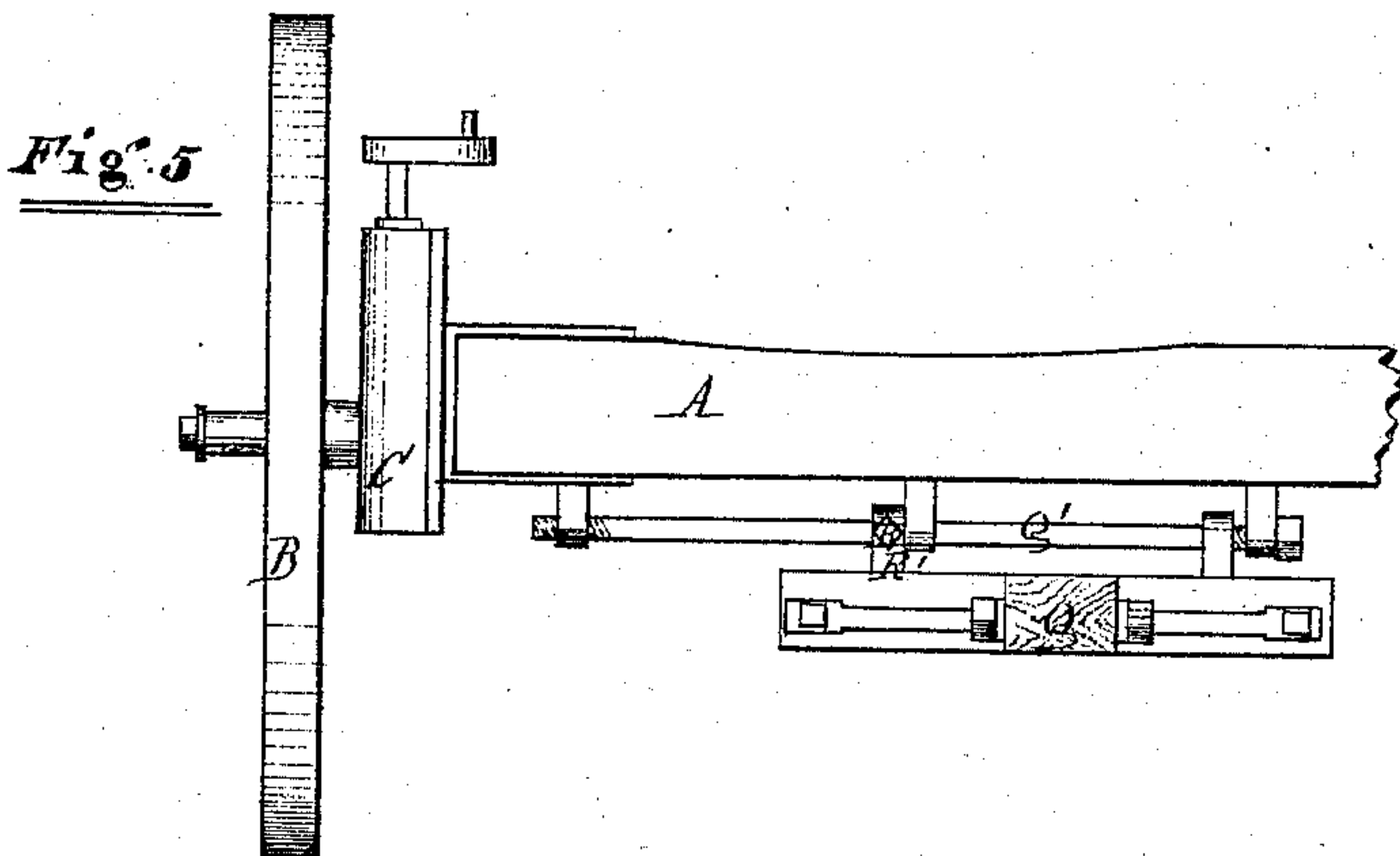
Inventor
J. H. Glass
Chapman & Co. Attys.

2 Sheets Sheet 2

J. H. GLASS.

117404

Plow.



Witnesses.

E. A. Bates,
G. B. Curtis

Inventor.

J. H. Glass
Chipmunk Farm Co
Utah.

UNITED STATES PATENT OFFICE.

JAMES H. GLASS, OF MCGREGOR, IOWA, ASSIGNOR, BY MESNE ASSIGNMENT,
TO LOUISA J. GLASS.

IMPROVEMENT IN GANG-PLOWS.

Specification forming part of Letters Patent No. 117,404, dated July 25, 1871.

To all whom it may concern:

Be it known that I, JAMES H. GLASS, of McGregor, in the county of Clayton and State of Iowa, have invented a new and valuable Improvement in Gang-Plows; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a top view of my invention. Fig. 2 is a central vertical section of the same. Figs. 3 and 4 are detached views of the same. Fig. 5 is a partial front view and section.

This invention has relation to certain improvements in gang-plows, consisting in the application and arrangement of devices for the purpose of regulating the depth and number of furrows, guiding the implement in its course, and otherwise increasing its utility, as hereinafter described.

In the accompanying drawing illustrating this invention, A represents the axle, and B B the driving-wheels of a gang-plow. The latter are journaled to the boxes C, flanged at *d* to slide vertically on guiding-plates D secured to the ends of the axle A, and holding screw-studs *d'*, through which work crank-screws *d''*, the turning of which raises or lowers the wheels, so that one may be made to run in a furrow while the other passes over the solid ground, the axle remaining horizontal. E denotes an oblique beam, hinged at one end to one side of the axle A and at the other holding a caster-wheel, F, which is secured to a box, arranged and operating to raise or lower the caster in precisely the same manner as those marked C, and already described, operate to raise the wheels B. These boxes preserve the screws from rusting or clogging up. G represents a longitudinal beam, bolted to the upper side of the oblique beam E. The former extends over the axle, passing through a loop, H, rising from the axle. To the forward end of said longitudinal beam a frame, marked I, is secured, and to the ends of said frame notched semicircular plates I' bolted. I'' denotes arms pivoted to and outside the plates I', and coupled, by rods J, to the

bent plow-beams J', which are pivoted to long channeled boxes J'', so formed to render the plow-beams firm, attached to the upper side of the oblique beam E. The moving of the arms I'' raises or lowers the plows to any desired point, so as to adapt them to the depth of furrows, as may be desired. The notches K, formed on the edges of the notched plates I', are intended to hold the ends of the dogs K', which are pivoted to lugs *k* projecting from the arms I'', and have bent ends which enter the notches *k* through slots cut in said arms. The dogs are held engaged to the notched plate by springs L, and are used for the purpose of holding the plows at any desired elevation. L' indicates guiding-flanges overlapping the plates I'. The relative angles of the axle and oblique beam may be changed, by reason of their being hinged together. When the axle is turned back toward the beam it may be held by means of the chain M and shackle N, which also render it adjustable. A dog, O, pivoted to the side of the longitudinal beam G, and formed with a beveled hooking end, is employed to hold the axle at a right angle to the longitudinal beam. One end of said dog projects through a slot in the frame I so as to be within reach of the driver's foot, he being seated on the elevated seat. Q denotes the draft-pole, hinged to a transverse rod, Q', which is arranged underneath the axle, and of such a length as to allow the draft-pole considerable lateral adjustment, which is regulated by a screw, R, passing through one or both of the hinges R'.

I claim as my invention—

1. The box C, operated as described, and serving as a protection for the screw and studs *d'*, in combination with the flanged plate D, constructed and arranged substantially as specified.

2. The dog O, in combination with the chain M, shackle N, hinged beam E, axle A, and beam G, substantially as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JAMES H. GLASS.

Witnesses:

P. N. TRAHN,
JOHN T. STONEMAN.