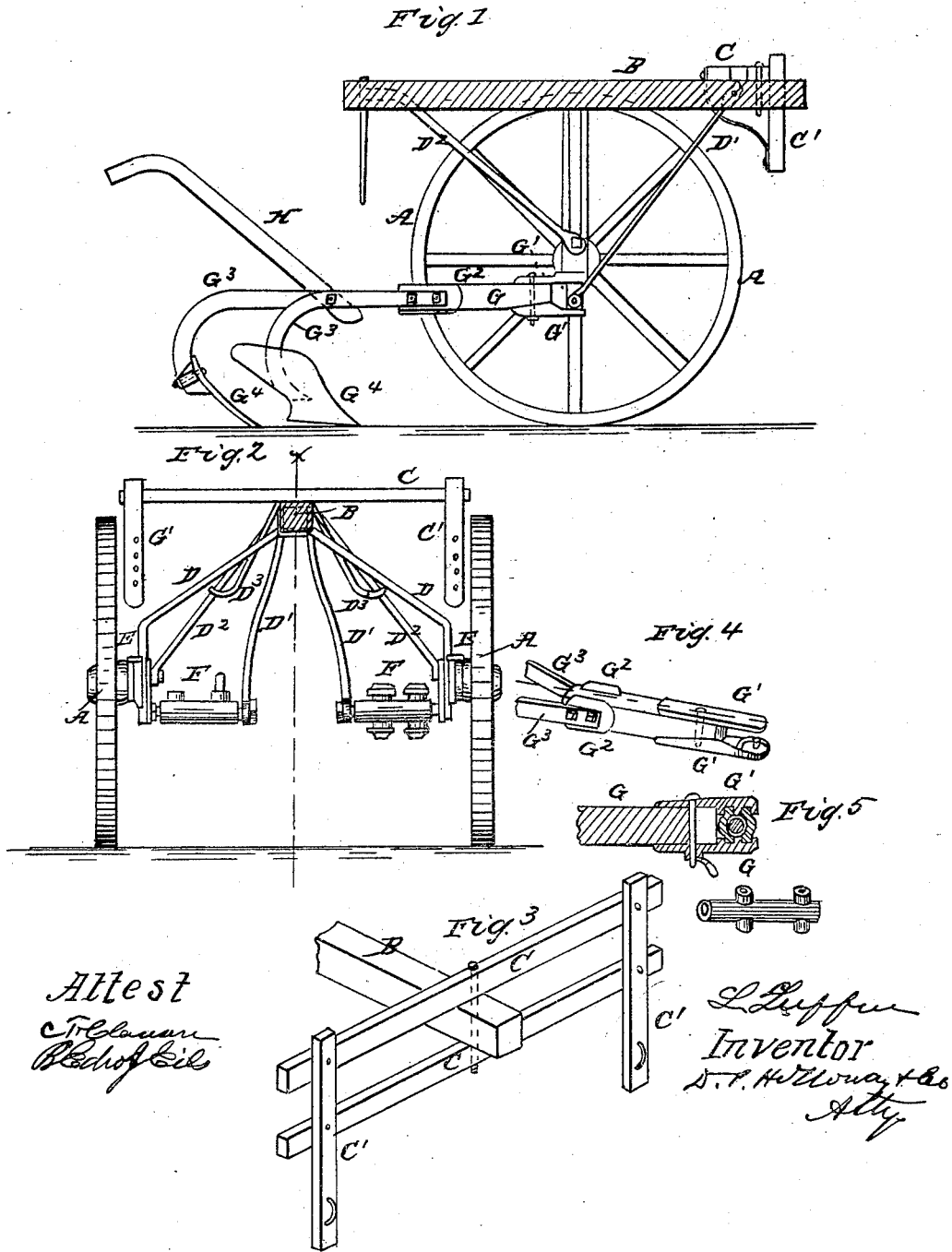


L. LUPPEN.  
Plow Coupling.

No. 108,274.

Patented Oct. 11, 1870.



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# UNITED STATES PATENT OFFICE.

LUPPE LUPPEN, OF PEKIN, ILLINOIS.

## IMPROVEMENT IN SHOVEL-PLOWS.

Specification forming part of Letters Patent No. 108,274, dated October 11, 1870.

*To all whom it may concern:*

Be it known that I, LUPPE LUPPEN, of Pekin, in the county of Tazewell and State of Illinois, have invented certain Improvements in Shovel-Plows; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the annexed drawings, making part of this specification, in which—

Figure 1 is a sectional elevation of a shovel-plow, showing my improved fastening for attaching the beam or beams to the axle-socket; and also the means by which the iron portions of the beams are attached to the wooden portion or draw-bar, and also an improved whiffle-tree or double-tree. Fig. 2 is a front end view, showing the system of braces which support the neap or tongue of the plow, the double-tree, axle-sockets, the means of connecting them to that portion of the axles over which the wheels revolve, and such wheels. Fig. 3 is a perspective view of the double-tree, showing how it is attached to the neap or tongue of the plow. Fig. 4 is a perspective view of the draw-bar, the clamps for attaching the iron beams thereto, and also the clamps for attaching the same to the axle-socket. Fig. 5 is a longitudinal vertical section of the draw-bar with a portion of the clamp attached thereto, showing how the same is attached to the axle-socket.

Corresponding letters refer to corresponding parts in the several figures.

This invention relates to that class of shovel-plows which are mounted upon wheels; and it consists in the construction, combination, and arrangement of some of its parts, as will be more fully explained hereinafter.

A in the drawings refers to the wheels of the plow, which may be of any size required, and of any approved form of construction.

B refers to the neap or tongue of the plow, which is placed upon the braces D D, as shown in Fig. 2. This neap is to be of sufficient length to reach forward for a distance sufficient to admit of its front end being attached to the harness of the animals which are used to draw the plow.

C C refer to the double-tree, which consists of one or more bars of wood or other material, which are pivoted to the neap or tongue at the proper point for attaching the animals

thereto. These bars are to be of sufficient length to carry their ends out from the tongue far enough to admit of there being attached thereto vertical arms, to which the whiffle-trees are attached. These arms extend downward, so as to bring the tugs of the harness about in a line with the point where they are attached to the collar, and are provided with a hook or staple to which to attach the whiffle-tree, as shown in Fig. 3.

D D refer to braces which extend from the inner end of the axles up to and connect with the tongue. These braces may consist of a single bar of metal, as shown, or they may be made of separate bars and joined to the tongue by bolts. Through the lower vertical portion of these braces—or, as they may be termed, “extensions of the axle”—holes are formed for the reception of bolts for attaching them to the portions of the axle upon which the wheels revolve. These holes may be elongated, so as to permit the braces to be raised or lowered, and with them the sockets to which the beams of the plows or the draw-bars connected therewith are attached.

D' D' refer to braces which extend from the tongue at a point near where the double-tree is pivoted thereto, and are bolted to the inner ends of that portion of the axle which passes through the sockets F F.

D<sup>2</sup> D<sup>2</sup> refer to another pair of braces, which extend from the tongue down to and receive in their lower ends the bolts which pass through the braces D and through that portion of the axle upon which the wheels are fixed.

D<sup>3</sup> D<sup>3</sup> refer to hooks, which are attached to the rear end of the tongue, from which point they extend downward, their lower ends being in position to receive the beams of the plow when the same have been raised and placed thereon for the purpose of keeping the shovels clear of the ground while being transported from place to place.

E E refer to those portions of the axle upon which the wheels are fixed, they consisting of a vertical flanged portion, with an arm projecting therefrom at a right angle, upon which the wheels rotate. The flanges upon the vertical portions are for the purpose of embracing the edges of the braces D D, and thus prevent their turning thereon.

F F refer to the sockets to which the for-

ward ends of the plow-beams or the draw-bars are attached. They consist of horizontal tubes, through which a portion of the axle or an arm bolted thereto passes, and upon the upper and lower sides of which projections are formed, which projections have vertical recesses in them for the reception of pins upon the ends of the draw-bar or of the plow-beam.

G refers to the draw-bar, which in this instance is made of wood, but which, if preferred, may be made of metal. To the front end of this bar the clamps which connect it with the socket F are bolted, while to its rear end the sockets which receive the beams of the plow are secured.

G' G' refer to the socket upon the end of the draw-bar, which consists of two plates of metal having flanges upon their edges to embrace the sides of the draw-bar, and upon their front ends circular flanges to project over the projections upon sockets F. In the centers of the circular flanges pins are made to project, which pins enter the recesses formed in the projections F, as clearly shown in Fig. 5. These plates are held in place by a bolt or bolts, which pass through them and through the draw-bar, and they provide a means by which the plows may be swung from that point, so as to be made to run at any desired distance from the growing crop.

G<sup>2</sup> G<sup>2</sup> refer to the sockets which are placed upon the rear end of the draw-bar, they being made of metal, and provided with flanges for embracing the edges of said bar upon their inner surface, and upon their outer surface with flanges, between which the ends of the

plow-beams pass and are held, as shown in Fig. 4.

G<sup>3</sup> G<sup>3</sup> refer to the beams of the plow, which are of metal, and may be of any length and size required, their lower ends being provided with any approved form of shovel or share.

H refers to the handle of the plows, of which there will be two for each plow.

It will be observed that the machine herein described and shown is intended for the use of two or more plows at the same time, and that it is so constructed and arranged that it will run astride the row of corn or other crop which is to be cultivated with it.

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

1. The clamp composed of the plates G' G', which are constructed with central pins and annular flanges surrounding the same upon their opposing faces, in combination with the axle-socket F, to form a coupling, substantially as set forth.

2. The arrangement relatively to each other of the axle-socket F, clamp G' G', draw-bar G, sockets G<sup>2</sup> G<sup>2</sup>, and plow-beams G<sup>3</sup> G<sup>3</sup>, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

LUPPE LUPPEN.

Witnesses:

CHRIST. HEFFT,  
LEMUEL ALLEN.