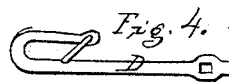
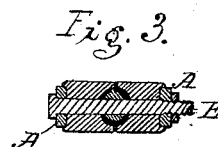
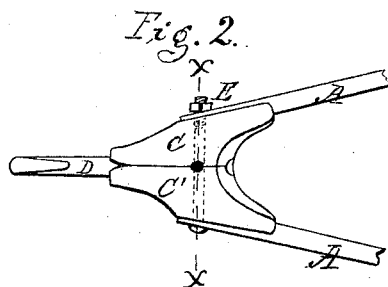
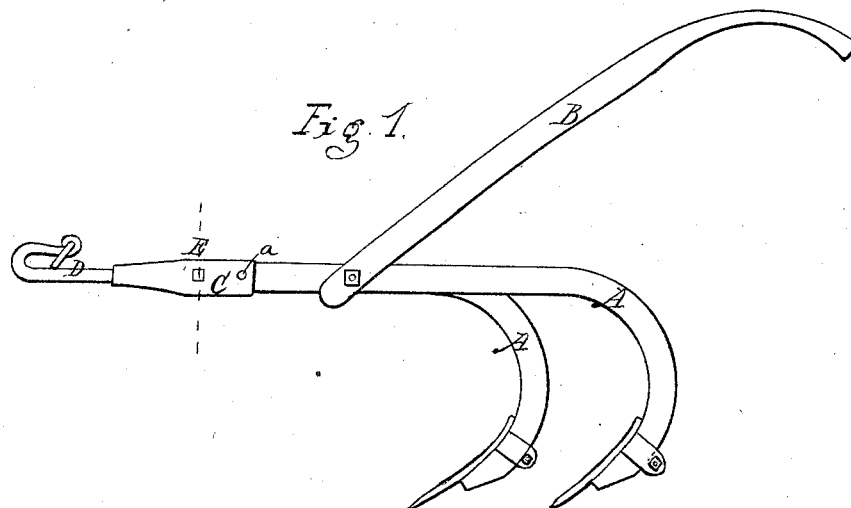


L. LUPPEN.

Cultivator.

No. 108,273.

Patented Oct. 11, 1870.



Attest
C. F. Clausen
C. E. J. Eils

L. Luppen
Inventor
D. P. Holloway & Co
Atty

UNITED STATES PATENT OFFICE.

LUPPE LUPPEN, OF PEKIN, ILLINOIS.

IMPROVEMENT IN SHOVEL-PLOWS.

Specification forming part of Letters Patent No. 108,273, 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 an elevation of a shovel-plow or cultivator having my improvement attached thereto. Fig. 2 is a plan view of my improved socket, with the draw-hook attached and portions of the beams, showing how they are secured thereto. Fig. 3 is a transverse section on line *xx* of Fig. 2, showing the position of the bolt which holds the parts in place. Fig. 4 is an elevation of the draw-hook, showing the aperture through which the bolt passes for the purpose of securing it to the socket.

Corresponding letters refer to corresponding parts in the several figures.

This invention relates to what are termed "shovel-plows" or "cultivators;" and it consists in a socket to which the beams of such plows, as well as the draw hook or bar, are attached, as will be more fully described hereinafter.

It is well known that when the beams or arms to which the shovels of a plow or cultivator are attached are made of wood they are liable to be broken from various causes, and also that unless great care is taken of them they soon decay. It is also well known that when the parts above named are made of iron great difficulty has been experienced in properly joining the parts together at or near the points where they unite with the draw hook or bar.

The object of this invention is to provide a remedy for the last-named difficulty.

To enable those skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A A in the annexed drawings refer to the beams of a plow or cultivator, which may be of the form shown, or of any other approved form that will suit the views of the constructor. They may be made of metal and of varying lengths, so as to cause the shovels which are attached to their rear ends to stand in proper relation to each other.

B refers to a handle, of which there are to be two, they being secured to the beams A A

in the manner shown in the drawings, or in any other convenient manner.

C C' refer to the socket to which the beams A A and the draw hook or bar are attached. This socket is constructed as shown in the drawings—that is to say, in two sections, the dividing-line being at or near the center, the rear portion of each half being provided with a recess for the reception of the ends of the beam, such portions being at an angle to a line drawn through the center of the draw hook or bar in the line of its motion sufficient to give the required distance between the rear ends of the beams when their front ends are secured thereto. The front ends of these sections are to be reduced in size, as shown in the drawings, and semicircular or otherwise shaped recesses are to be formed in each, which shall extend the entire length thereof, or to a point some distance in the rear of the point where the bolt E passes through them. These recesses, when the sections are joined together, form a single recess or aperture for the reception of the draw hook or bar, while their recesses upon their outer surfaces form a support for the front end of the beam, so that when they are secured together by means of a rivet, as shown at *a*, Fig. 1, and the bolt E is passed through them, their rear ends are prevented from dropping one below the other, and they are held firmly in their positions.

D refers to the draw hook or bar, which may be round or square, or of any other form in its cross-section. It is to be of such diameter as to cause it to fill the aperture formed upon or within the inner surfaces of the sections C C' of the socket, and is to be provided near its rear end with a hole, through which to pass the bolt E, soon to be described. The front end of the hook or bar may be formed as shown in the drawings, and be provided with a pivoted link, to prevent the whiffletree from becoming detached while in use; or it may be in any other desired form.

E refers to a bolt, which passes through the sections C C' of the socket, as shown at Fig. 3, so that when the parts are in position they shall be held firmly in their places, and so that when it is desirable to ship said plows this bolt may be withdrawn and the parts separated and closely packed, thus occupying much less room than they otherwise would.

Having thus described my invention, what I

claim, and desire to secure by Letters Patent,
is—

The arrangement, with reference to each
other, of the plow-beams 'A A, socket C C',
draw-bar D, and bolt E, substantially as and
for the purpose set forth.

In testimony whereof I have signed my name

to this specification in the presence of two sub-
scribing witnesses.

LUPPE LUPPEN.

Witnesses:

CHRIST. HEFFT,
LEMUEL ALLEN.