J. W. POWERS.
Plow-Clevis.

No. 210,877. Patented Dec. 17, 1878.

Fig. 1.

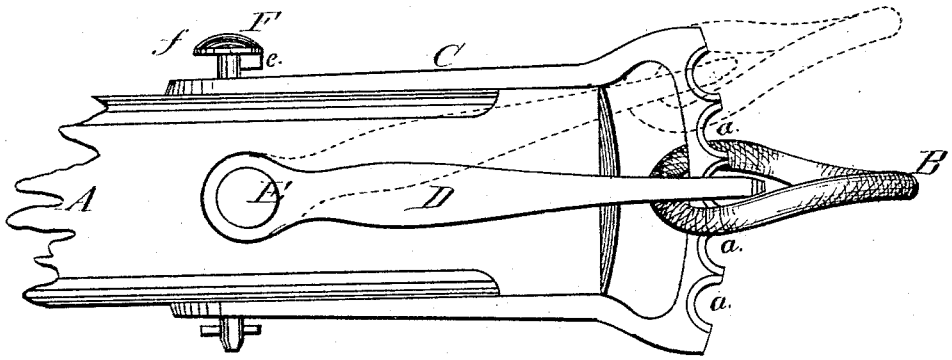


Fig. 2.

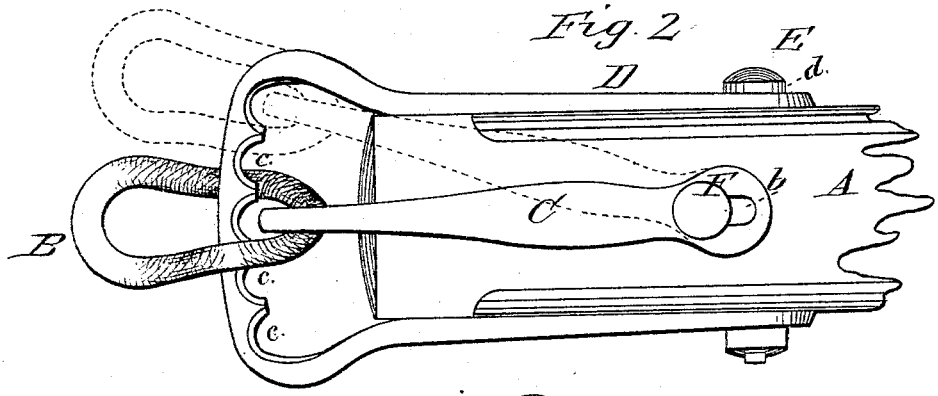
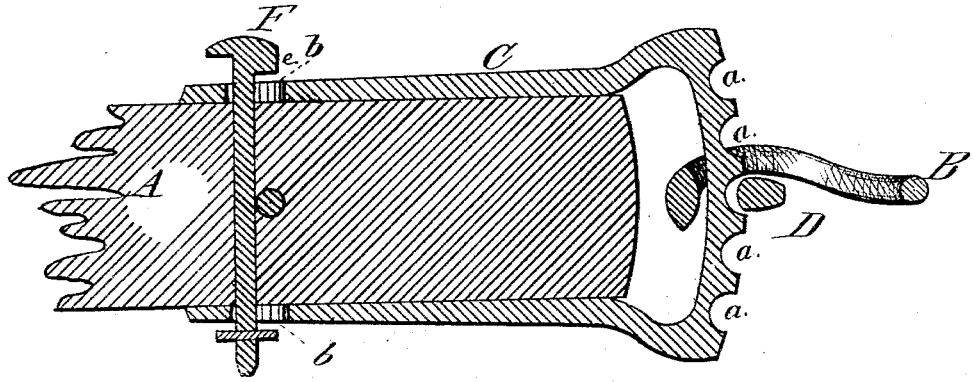


Fig. 3.



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JAY W. POWERS, OF PORTAGE, WISCONSIN.

IMPROVEMENT IN PLOW-CLEVISES.

Specification forming part of Letters Patent No. **210,877**, dated December 17, 1878; application filed August 27, 1878.

To all whom it may concern:

Be it known that I, JAY W. POWERS, of Portage, in the county of Columbia and State of Wisconsin, have invented a new and useful Improvement in a Plow-Clevis, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making a part of this specification.

My invention consists in providing for the side draft by placing on the end of a plow-beam a clevis in a vertical position, and providing for the up and down draft by placing upon the same beam another clevis in a horizontal position, the two combining to form one clevis. The vertical clevis being placed a little back of the other admits of its swinging horizontally upon its bolt, either to the right or to the left, in a curvilinear course within the other, thus providing for the side draft, so as to throw the plow either to or from "land," as it is called. The horizontal clevis swings vertically upon its bolt in a curvilinear course outside the other, which provides for the up and down draft, thus throwing the plow into or out of the ground, thereby regulating the depth of the furrow. A link or ring clasps both clevises at the point of contact with each other, to which the team may be attached in the usual manner.

My invention is illustrated more in detail in the accompanying drawings, in which Figure 1 is a longitudinal side elevation; Fig. 2, a view looking downward, and Fig. 3 a longitudinal vertical section.

In Figs. 1, 2, and 3, A represents the forward end of a plow-beam; B, the link or ring; C, the vertical clevis; D, the horizontal clevis; E, the horizontal bolt, and F the vertical or lock bolt. The vertical clevis C is provided at its forward end with a number of notches, *a a a*, whose purpose will hereinafter be described, and near its rear end with an elliptical or oblong hole, through which the vertical lock-bolt F passes, which secures it to the beam A. The horizontal clevis D is provided on the inner surface of its forward end with a number of notches, *c c c*, which correspond in size with the notches *a* of the vertical clevis C, and near its rear end with a round hole, *d*, through which the draft-bolt E passes in a horizontal direction, which secures it to the beam A. The link B clasps both clevises, its rear end standing obliquely, while its forward end, owing to its being twisted, lies in a horizontal position, which is desirable. The lock-bolt F is provided with the head *f*, attached to which, at one side of its lower surface, is the key *e*, whose purpose will hereinafter be understood.

In attaching my clevis to the beam of a plow, I bore a hole the size of my bolt through the beam A in a vertical direction, and at right angles to that, or in a horizontal direction, I bore another hole the diameter of the bolt forward of the first, as shown in Fig. 3, so that the two bolts, when in place, will cross each other, touching in the center of the beam. I then place the link B onto both clevises, as shown in Figs. 1 and 2, and place the clevises upon the beam A in their respective positions. The bolt E, I then put through the round hole *d* of the horizontal clevis D, then through the beam, securing it by a screw-nut, key, or other suitable device. I then place the lock-bolt F in the elliptical hole *b* of the vertical clevis, thence down through the beam A, and secure it with a key or a screw-nut.

When it is desired to change the draft of the plow, all that is necessary to do is to lift the lock-bolt F upward, to allow the key *e* of the bolt-head *f* to rise above the clevis C, sufficient longitudinal play having been given it for that purpose, when the clevis C may be slid backward until the notches *a* are disengaged from the notches *c*, with which they interlock, when either clevis may be swung upon its bolt in a curvilinear course to the point desired, when, by sliding the clevis C forward until the notches *a* again interlock with the notches *c*, by its own weight the lock-bolt F will drop into place, when the key *e*, resting in the elliptical hole *b* in front of the bolt, will prevent the clevis C from again sliding backward, and the two clevises are securely locked together.

I do not wish to confine myself to the particular shapes of the parts shown, as it is apparent that they may be changed without departing from the description given; and I claim that the transposition of the vertical clevis C and the longitudinal clevis D would be in accordance with the spirit of my invention.

It will be observed that the construction of my clevis is such that it is adapted to being cast of malleable iron, swaged or "dropped out," as it is usually called, or forged, thus adapting it to all sections of the country. It will also be seen that in securing it to the beam by bolts passing through it in opposite directions, thus getting the strength of the wood both ways, and drawing from four different points, there is less liability of breaking the plow-beam than when the draft comes all on one bolt and draws from one direction only, and the beam need not be as heavy as heretofore.

The link clasping the two clevises at the point of contact with each other, the strain is at all times equally divided between them, thereby securing the greatest degree of strength possible with the material used, and the clevis may therefore be much lighter than those now in use.

In contradistinction to the present construction of clevises, wherein metal is distributed to where by chance it may be needed, thereby rendering them heavy and expensive, mine is so constructed as to carry the metal to any point where it may be needed, to be again transported to some other point, without the removal of bolts or the use of tools, and can therefore be very light and inexpensive.

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

1. The vertical clevis C, provided at its rear end with the elliptical or oblong hole *b*, and at its forward end with the anterior notches, *a a a*, standing at right angles to and interlocking with an ordinary draft-clevis, provided at its forward end with the posterior notches, *c c c*, the two combining to form one clevis, as specified.

2. In combination with the vertical clevis C and the horizontal clevis D, the twisted link B and the lock-bolt F, substantially as described, and for the purposes specified.

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Witnesses:
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