J. F. ELLIS & C. ROBINSON.

Plow-Clevis.

No. 206,167. Patented July 23, 1878.

Fig. 1.

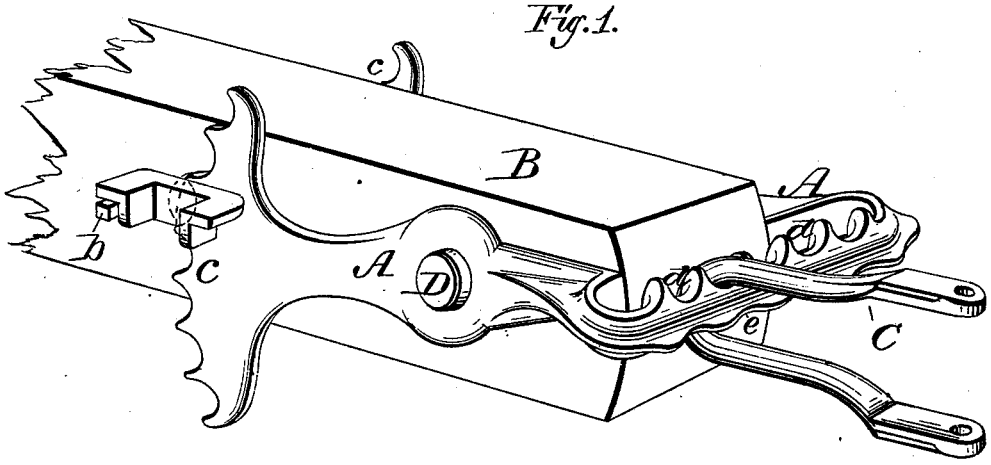


Fig. 2.

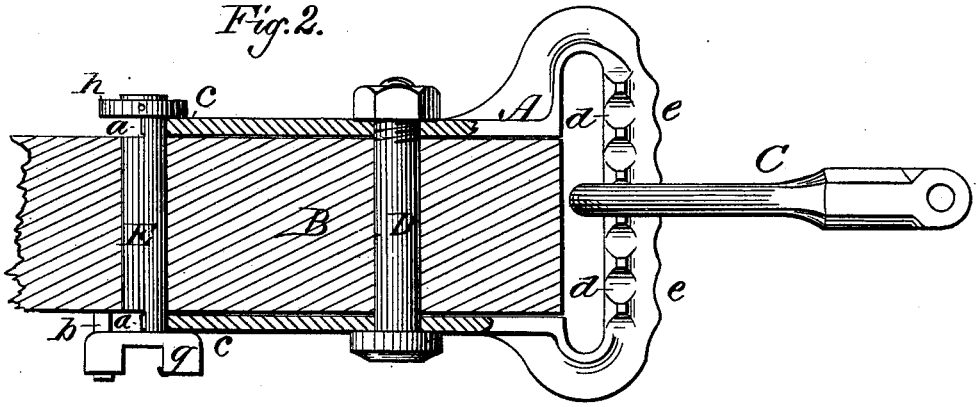
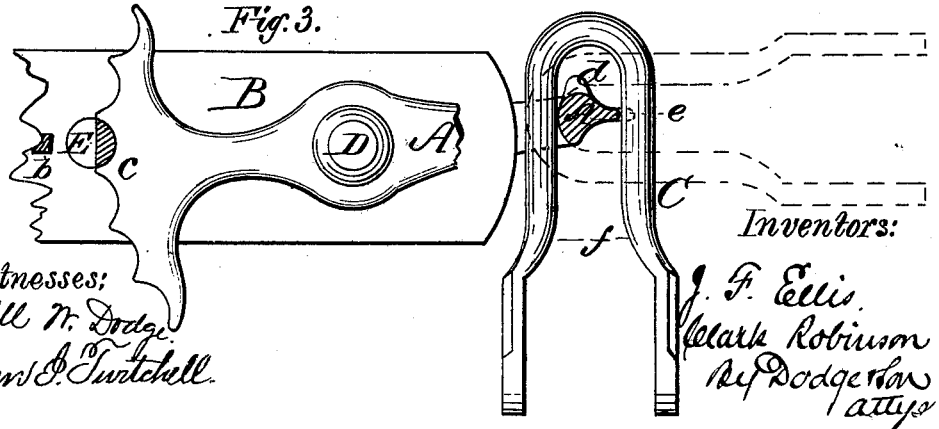


Fig. 3.



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UNITED STATES PATENT OFFICE.

JOSEPH F. ELLIS AND CLARK ROBINSON, OF EAU CLAIRE, WISCONSIN.

IMPROVEMENT IN PLOW-CLEVISES.

Specification forming part of Letters Patent No. **206,167**, dated July 23, 1878; application filed January 5, 1878.

To all whom it may concern:

Be it known that we, JOSEPH F. ELLIS and CLARK ROBINSON, of Eau Claire, in the county of Eau Claire and State of Wisconsin, have invented certain Improvements in Plow-Clevises, of which the following is a specification:

Our invention relates to a plow-clevis capable of being adjusted to vary the depth to which the plow runs and the width of the strip cut by the same; and the improvements consist in a clevis pivoted midway between its ends upon a horizontal bolt or pin, and provided at its rear end with a curved rack or racks engaged and held or released at will by a bolt passing through the beam parallel to the pivotal bolt, said locking-bolt being cut away one-half its diameter opposite the rack or racks, so that it may be turned into or out of the notches of said rack, as desired; and in a secondary or smaller clevis, by which the whiffletree is attached to and adjusted upon the main clevis, this latter result being accomplished by forming a rack or notched surface upon the upper and front sides of the front end or cross-bar of the main clevis, with or in which the smaller clevis engages when in its ordinary position for use, but from which it may be disengaged by rising up until an enlarged portion comes opposite said racks or notched surfaces, when it may be moved over the same to the desired point and again dropped into place and there securely held.

In the accompanying drawings, Figure 1 represents a perspective view of our improved device; Fig. 2, a top-plan view of the same, showing the beam in section; and Fig. 3, a side view with a portion broken away.

In the drawings, A represents the main clevis, pivoted to the end of the beam B by or upon a horizontal bolt, D, upon which it is free to turn when not locked, so as to elevate or lower its forward end. At its rear end the clevis A is enlarged on one or both sides, and formed into a curved or segmental rack, *c*, concentric with the pivotal bolt D. Directly in rear of the curved rack *c* is placed a bolt, E, passing horizontally through the beam, and located one-half its diameter within the radius of the rack, as shown in Figs. 2 and 3. At a point directly opposite the face of each rack *c* the bolt E is cut away one-half its diameter, as represented in the same figures.

By this construction it will be seen that the bolt E may be turned with its notched side toward the racks *c*, and thus allow the same to pass through the notches *b*, in order to permit the clevis A to swing or turn vertically on its pivot; or it may be turned with its full side toward the rack and fitting into the notched face of the same, and thus prevent all further movement of the clevis. The bolt E is furnished at one end with an enlargement or head, *g*, of suitable form to receive a tool by which to turn it, and at the other with a washer or nut, *h*, each bearing upon the face of the racks, and thus preventing the bolt from moving endwise. A pin or stop, *b*, is placed at a suitable point for the head *g* of the bolt E to strike against when turned to the proper point in either direction.

It is apparent that any suitable shape may be given to the head *g*, or that it may be furnished with a handle or thumb-piece by which to turn it.

From the above it will be seen that by simply giving the bolt E a half-turn in one direction the clevis is released and may be adjusted to any required angle in relation to the beam, in which position it is readily and securely locked by giving the bolt a similar half-turn in the opposite direction.

In order to render the smaller or whiffletree clevis C adjustable upon the main clevis A from side to side, the upper side of the head or cross-bar of the main clevis is furnished with a rack or series of notches, *d*, and a similar notched form is given to the front edge of the same, the small clevis C engaging in one of said notches when in use, or when allowed to drop down of its own weight, but from which it may be readily released when desired.

The whiffletree-clevis is made in the form represented in Figs. 1 and 3, and consists of a looped end connecting two straight portions, which are arranged parallel to each other for some distance, and are then spread apart and flattened to receive the whiffletree. From the looped end to the point where the straight portions are spread apart there is sufficient space between said portions to permit them to extend

around the front or cross bar of the clevis A, between the projections or in the notches *d* of the same, but not to permit their being moved out of said notches. By turning the small clevis C down into the position indicated in Fig. 3, and then raising it straight up, the looped end is disengaged from the notches *d*, while the spread or widened portion *f* is brought opposite the front or cross bar of the clevis, and, being of sufficient width to clear the notched face *e* of the same, may be moved from side to side, as desired, and, when adjusted, dropped into place and locked.

It will be noticed that when in use the small clevis C extends forward in the position indicated in Fig. 1, and is then held in place by the rack or notched surface *d*, and that when allowed to drop down in turning or stopping the small clevis is held by the same and by the front notched face *e*, so that there is no danger of the adjustment being altered or interfered with thereby.

It will be observed that the above construction affords a very simple and cheap device, readily adjustable in all directions, and one which does not require the detachment of a single piece in its manipulation. The adjustments are made with great facility and ease, and the rack *d*, being formed upon the upper instead of the rear side of the cross-bar or head, permits the head to be placed nearer to the beam, which is very desirable.

Having thus described our invention, what we claim is—

1. The centrally-pivoted clevis A, having the notched rear end *c*, in combination with the rotating notched locking-bolt E, as shown.

2. The combination of the pivoted clevis A, having the notched rear end *c*, the rotary locking-bolt E, and the stop *b*, as shown.

3. The centrally-pivoted clevis A, having the two notched ends *c*, in combination with a single notched bolt locking both ends, as shown and described.

4. The clevis A, having the horizontal front, with notched ribs *d* and *e*, in combination with the pendent clevis C, having the contracted upper and widened lower end, as and for the purpose described.

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