

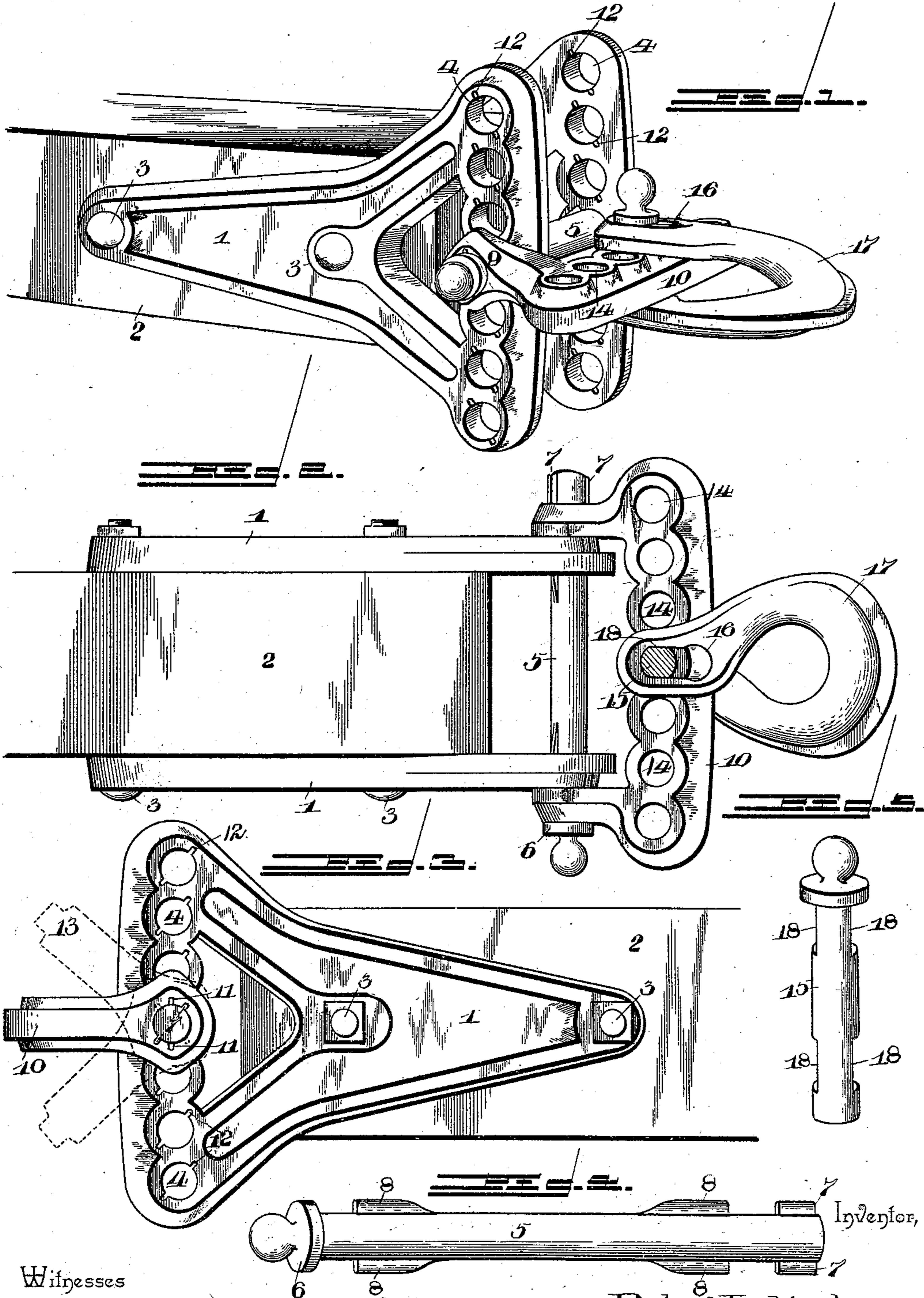
(No Model.)

2 Sheets—Sheet 1.

R. L. YEAKEY.  
CLEVIS.

No. 555,469.

Patented Feb. 25, 1896.



Witnesses

*Wm. H. Doyle.*  
*R. M. Smith.*

By his Attorneys, *Robert L. Yeakey,*

*C. A. Snow & Co.*

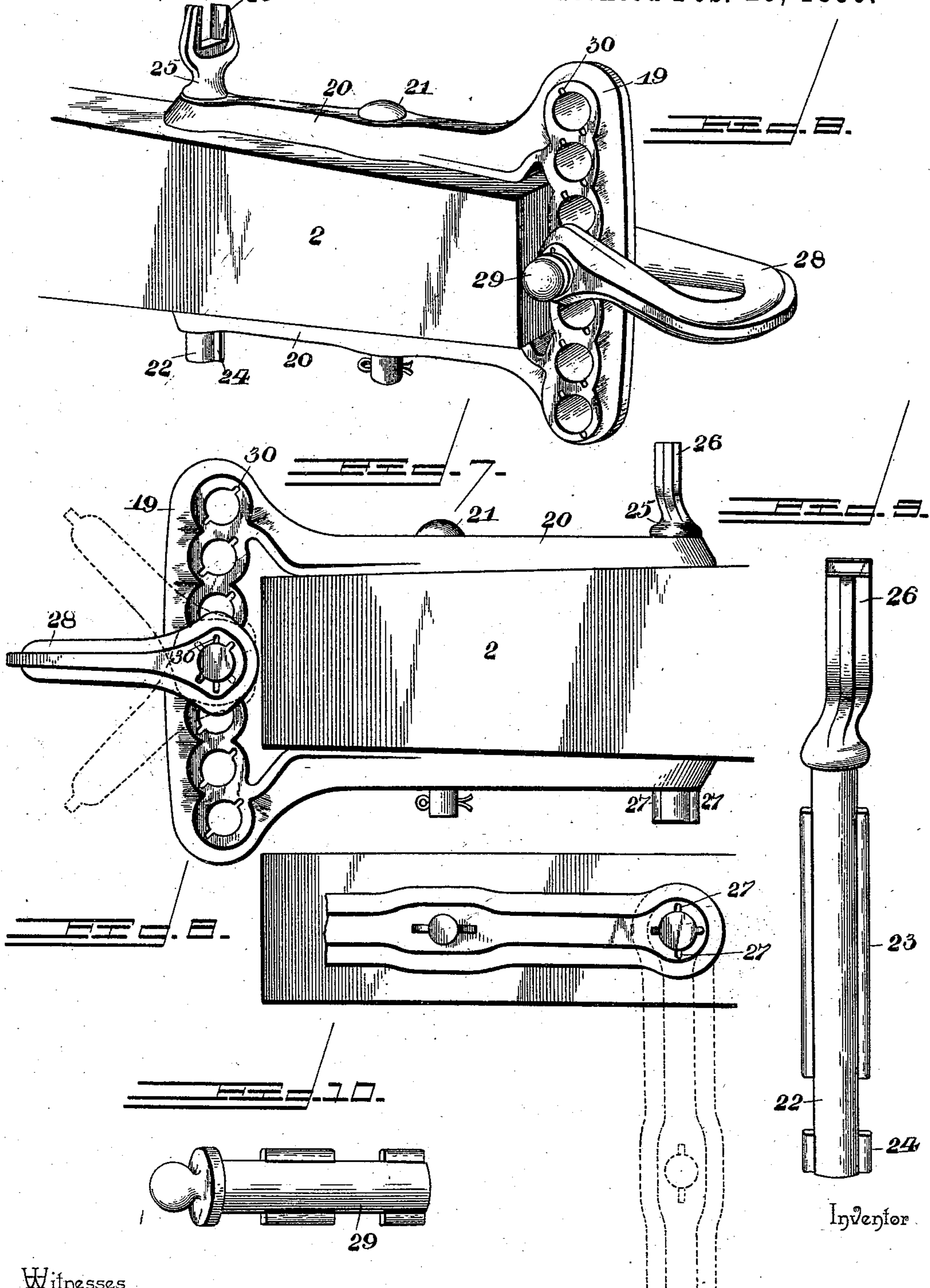
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# UNITED STATES PATENT OFFICE.

ROBERT L. YEAKEY, OF FORD'S FERRY, ASSIGNOR OF ONE-HALF TO J. P. PIERCE, C. J. PIERCE, AND E. M. MCFEE, OF MARION, KENTUCKY.

## CLEVIS.

SPECIFICATION forming part of Letters Patent No. 555,469, dated February 25, 1896.

Application filed December 9, 1895. Serial No. 571,585. (No model.)

*To all whom it may concern:*

Be it known that I, ROBERT L. YEAKEY, a citizen of the United States, residing at Ford's Ferry, in the county of Crittenden and State of Kentucky, have invented a new and useful Clevis, of which the following is a specification.

This invention relates to an improvement in clevises, and has for its object to provide a simple, inexpensive and efficient clevis for all kinds of agricultural implements, in which superior and improved means are provided whereby the point of draft may be varied either vertically or laterally, according to the degree of sharpness of the plow-point, shovel, &c., the state of the soil, whether wet or dry, and according to other conditions.

The principal object of the invention is to provide a novel form of locking-pin for connecting the several parts of the clevis in a manner that will dispense with any additional means for locking the pin in place, such as a screw or cotter-pin, &c.

To this end the invention consists in a clevis embodying certain novel features and details of construction and arrangement of parts, as hereinafter fully described, illustrated in the drawings and finally pointed out in the claim.

In the accompanying drawings, Figure 1 is a perspective view of an improved clevis constructed in accordance with this invention. Fig. 2 is a plan view of the same. Fig. 3 is a side elevation thereof. Fig. 4 is a detail perspective view of the lock-pin which connects the fixed and pivoted members of the clevis. Fig. 5 is a similar view of the pin which pivotally connects the twisted link with the horizontal pivoted member of the clevis. Fig. 6 illustrates a simplified form of clevis in perspective. Fig. 7 is a side elevation of the same. Fig. 8 is a bottom plan view showing the manner of detaching the clevis from the tongue of the machine. Fig. 9 is a detail perspective view of the wrench-pin. Fig. 10 is a similar view of the lock-pin which connects the two members of the clevis.

Similar numerals of reference designate corresponding parts in the several figures of the drawings.

Referring to the accompanying drawings, 1

designates a pair of stationary twin side plates secured upon opposite sides of the advance end of the beam or tongue 2 of a plow or cultivator, as the case may be. These plates are substantially triangular in their general shape and are secured firmly in place by means of two or more transverse bolts 3 passing through the same and the beam 2. At their forward or expanded ends the plates 1 are each provided with a vertical or segmental series of transversely-aligning pin-openings 4 corresponding in size to and adapted to receive a transverse lock-pin 5. This lock-pin has at one end an enlargement or head 6, and at its opposite end a pair of diametrically-opposite ribs or tongues 7 projecting radially therefrom. Intermediate its ends and adjacent to each end the lock-pin 5 is provided with diametrically-opposite and radially-disposed ribs or tongues 8 arranged in longitudinal alignment with the aforesaid ribs or tongues.

Sufficient space is allowed between the head 6 and the tongues 8, adjacent thereto, and also between the tongues 7 and 8 at the opposite end of the pin, for the reception of the rearward extensions or arms 9 of a horizontally-disposed and vertically-swinging bar or link 10. The extensions or arms 9 embrace or lie upon the outside of the expanded front ends of the plates 1 and are perforated to receive the lock-pin 5. Oppositely-disposed grooves 11 are formed as extensions of the perforations in the arms 9, and these grooves are so disposed that when the clevis member 10 is brought to a horizontal position, as shown in Figs. 1 and 3, the said grooves 11 will be vertically above and beneath the openings in the arms 9. Each of the openings 4 above referred to is also provided with oppositely-disposed grooves or extensions 12, and these grooves have an oblique disposition or extend at an angle of about forty-five degrees. In order to connect the clevis member 10 with the stationary plates 1 it is necessary to tilt said member 10 upward to an angle of about forty-five degrees, as shown at 13 in Fig. 3. In this position the grooves 11 of the member 10 will align with the grooves 12 of the plates 1 and will allow the lock-pin 5 to be introduced through the openings in the arms 9

and also through the openings 4. Upon the head 6 of the pin coming in contact with the adjacent arm 9 the clevis member 10 will be allowed to swing downward. This will carry the grooves 11 thereof out of alignment with the tongues 7 of the pin, and the latter may not thereafter be withdrawn, except by again raising the member 10.

The vertically-swinging clevis member 10 is provided with a transversely-extending series of pin-openings 14, any one of which may receive a vertical pin 15, passing through a pair of vertically-aligned slots 16 in the rear ends of a twisted link 17, to which the team is hitched. The pin 15 has a head at its upper end forming a shoulder for limiting its downward movement, and is provided, adjacent to its top and bottom, with oppositely-disposed depressions or flattened portions 18, which are adapted to permit the shank of the pin to be received in the reduced rear portions of the slots 16, as shown in Fig. 2. The forward portions of the slots 16 are enlarged sufficiently to be equal to the largest diameter of the pin 15, so that the latter may be introduced through the ends of the twisted link, and the latter be thereafter moved forward to lock the pin in place. It will thus be seen that provision is made either for the vertical or lateral adjustment of the point of draft for adapting the plow or other implement to required conditions.

Fig. 6 shows the clevis in its simplified form, in which but a single stationary member 19 is employed having rearwardly-extending arms 20 arranged above and beneath the beam and tongue 2 and secured intermediately by a pin 21, and at their rear ends by a wrench-pin 22. This pin 22 has longitudinally-extending tongues 23 and 24 arranged diametrically opposite upon the shank of the pin and for the same purpose subserved by the tongues 7 and 8 of the lock-pin 5, above described. This pin also has a head 25, which is extended to form a wrench 26 for adjusting the various nuts about the implement, thus adding to the utility of the device as a whole. This pin passes through openings in the rear extremities of the arms 20, and also through a vertical opening in the beam or tongue 2, and all of said openings are formed with oppositely-disposed extensions or grooves 27, the grooves of the arms 20 being arranged transversely opposite and the grooves in the beam or tongue 2 being arranged longitudinally opposite. By reason of this particular disposition of the grooves it is necessary to vibrate the clevis member 19 into the position indicated in dotted lines in Fig. 8 in order to bring the grooves 27 thereof into alignment with the corresponding grooves in the beam or tongue. While in this position the lock-pin 22 may be inserted and thereafter the

clevis member may be vibrated to its proper position, as shown in Fig. 6, after which it will be impossible to displace the lock-pin 22.

28 designates a vertically-swinging draft-link of substantially U shape and having its perforated rear ends mounted upon a horizontal transverse pin 29, which, as shown in Fig. 10, resembles in general construction the lock-pin 5, above described. The perforations of the link 28 and the clevis member 19 are also correspondingly grooved, as indicated at 30, in a manner similar to the openings in the plates 1, above described, so that it is necessary to elevate the said link to an angle of about forty-five degrees before the lock-pin 29 may be inserted. The general construction and operation is identical with that shown and described in connection with Fig. 1.

By means of the construction above described it will be seen that a very simple, inexpensive and efficient clevis is obtained, in which provision is made for locking the pivotal pins in place without the necessity of extraneous devices in the form of cotter-pins, &c. It also dispenses with the necessity for screw-threading the pin and using a nut thereon which would be liable to rust and become fast. There is also no possibility of either member of the clevis becoming broken by reason of the lock-pin becoming accidentally withdrawn partially in such manner as to throw the entire strain upon a single point.

The device will be found very reliable in use and convenient in practice and will effect a considerable saving of time heretofore spent in the repairing of broken clevises.

Changes in the form, proportion and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed as new is—

A clevis comprising a fixed and movable member each formed with pin-openings provided with oppositely-disposed extensions or grooves, the extensions or grooves of the openings in the fixed member being disposed obliquely to the line of draft, and a lock-pin and pivot common to both members and provided with sets of radially-disposed and longitudinally-aligned ribs or tongues spaced apart longitudinally to engage the said members, substantially in the manner and for the purpose specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

ROBERT L. YEAKEY.

Witnesses:

H. K. WOODS,  
HARRY CARNAHAN.