No. 866,555. PATENTED SEPT. 17, 1907.

L. B. ALGER.

CLEVIS.

APPLICATION FILED JULY 11, 1906.

2 SHEETS—SHEET 1.

Fig. 1.

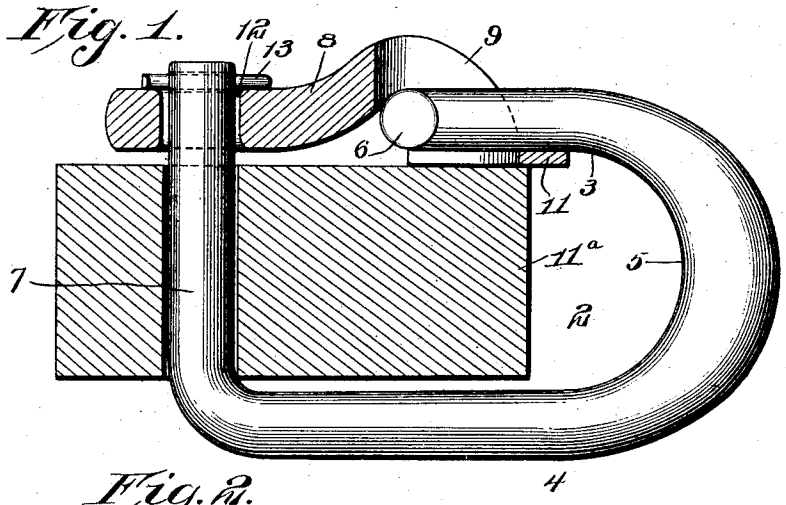


Fig. 2.

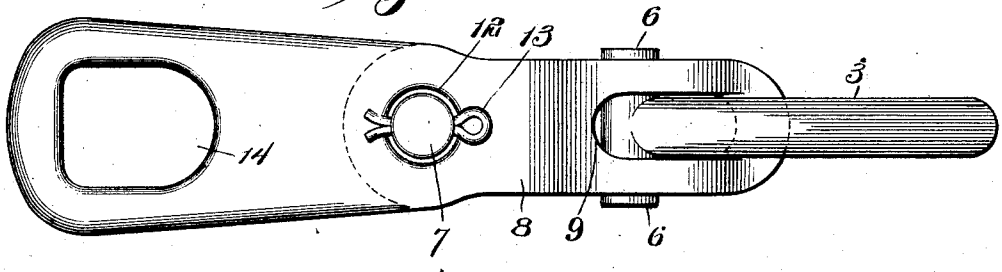
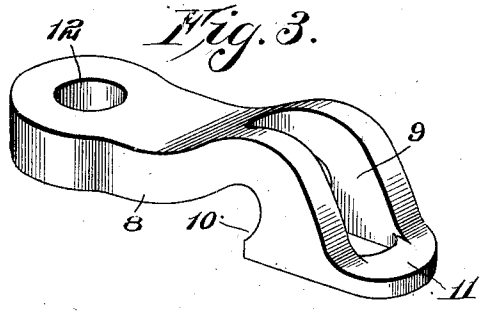


Fig. 3.



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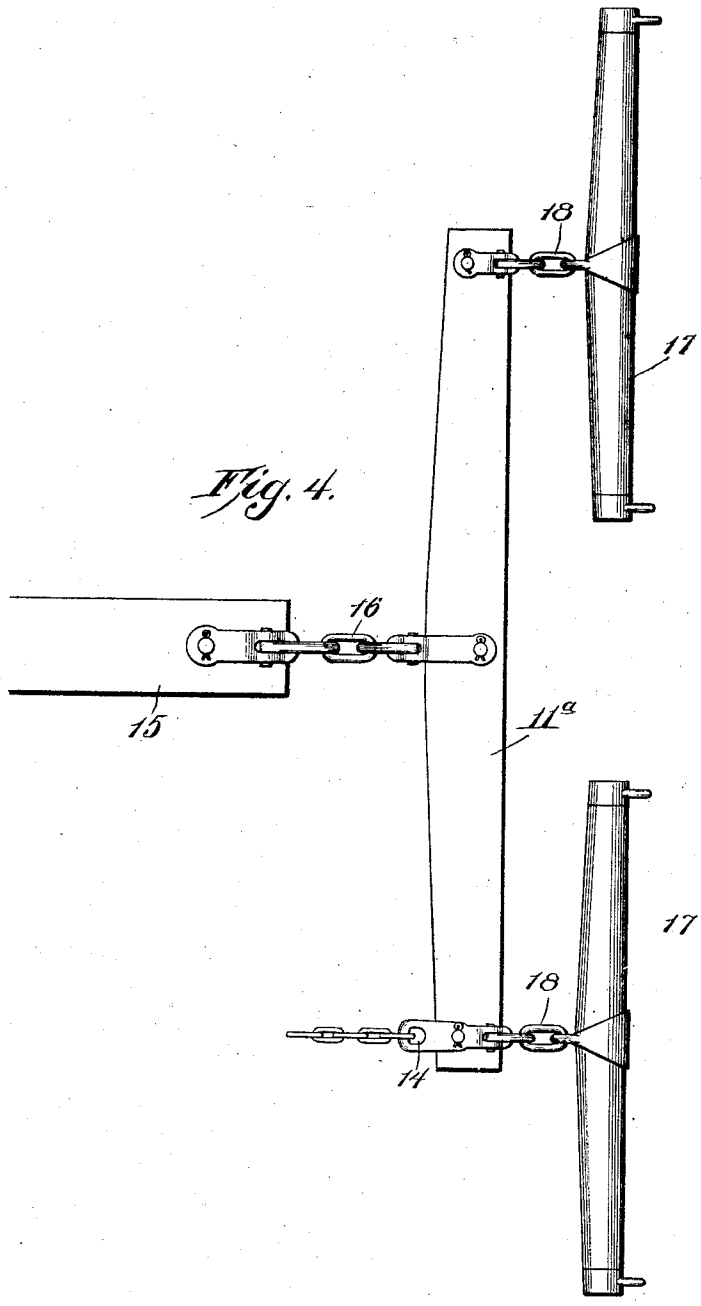
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2 SHEETS—SHEET 2.

Fig. 4.



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CLEVIS.

No. 866,555. Specification of Letters Patent. Patented Sept. 17, 1907.

Application filed July 11, 1906. Serial No. 325,635.

To all whom it may concern:

Be it known that I, LEWIS B. ALGER, a citizen of the United States, residing at Chelsea, in the county of Washtenaw and State of Michigan, have invented new and useful Improvements in Clevises, of which the following is a specification.

My invention relates to clevises, and its primary object is to provide a device of this character which is constructed to permit a whiffle-tree to be readily and quickly attached thereto and removed therefrom, and to permit it to be readily and quickly attached to and removed from a whiffle-tree, whereby a whiffle-tree may be secured to a plow beam or to a vehicle, and whereby swingle trees may be secured to the whiffle-tree.

A further object of the invention is to provide a clevis which is simple and durable, and one which may be manufactured and sold at a comparatively low cost.

With the above and other objects in view, the invention consists in the construction, combination and arrangement of parts hereinafter fully described, claimed and illustrated in the accompanying drawings, wherein:

Figure 1 is a side elevation of a clevis, constructed in accordance with my invention, the same being shown in applied position upon a whiffle-tree, the link and whiffle-tree being in section. Fig. 2 is a top plan view, illustrating the clevis modified to adapt it for use in connection with a stay chain. Fig. 3 is a detail perspective view of the link, Fig. 4 is a top plan view, illustrating different applications of the clevis.

Referring to the drawings by reference numerals, 2 designates the clevis body which comprises parallel portions 3 and 4 and a bowed connecting portion 5. The end of the parallel portion 3 is provided with laterally extending lugs 6, and the portion 4 is extended beyond the end of the portion 3 and formed to provide a bolt 7, which is disposed in the plane of the body 2 and at right angle with relation to the portion 4. The free or upper end of the bolt 7 extends above the portion 3 and is spaced from the end of said portion to permit the application of the clevis. This space is bridged by a link 8, which is adapted to prevent the accidental displacement of the clevis from a plow beam or other implement or vehicle or from a whiffle-tree. The link 8 is pivotally mounted upon the portion 3 in a manner to permit it to be swung to clear the space intervening between the end of the portion 3 and the bolt 7 or to bridge said space, and it has one of its ends provided with a slot 9 extending vertically therethrough and adapted for the reception of the end of the portion 3. The under edges of the walls of the slot 9 are removed to provide under cut shoulders 10, said shoulders being adapted for engagement with the lugs 6 to pivotally mount the link 8 upon the portion 3. The extreme front end of the link 8 is provided with a horizontally disposed shelf 11, which is arranged in the plane of the shoulders 10, and which is adapted to engage the under surface of the portion 3 to prevent the link from swinging down below the plane of said portion. This shelf also prevents the portion 3 from being sprung upwardly when the pressure of a pull is exerted on any part of the bowed portion 5, that is to say, the shoulders 10 and the shelf 11, together with the lugs 6, make this joint practically as strong and unpliable as a continuous piece of iron in the portion 4. The free end of the link 8 is provided with an opening 12 adapted for the reception of the free end of the bolt 7 when the link is swung to bridge the space between the end of the portion 3 and the bolt 7. When the clevis is applied to the ends of a whiffle-tree, designated 11^a in Figs. 1 and 4 of the drawings, or to a plow beam, designated 15 in Fig. 4 of the drawings, the shelf 11 rests upon the upper surface of either the plow beam or whiffle-tree, and in view thereof the link 8 is prevented from being accidentally forced upwardly out of engagement with the bolt 7. In some applications of the clevis, the shelf 11 does not come in contact with the member to which the clevis is applied, and in order to prevent the link 8 from being accidentally forced upward out of engagement with the bolt 7, a pin 13 is removably applied to the bolt at a point above the link. To permit the application of a stay-chain when the clevis is used upon the end of a whiffle-tree, the link 8 is extended a considerable distance beyond the bolt 7 and provided with an opening 14 for the reception of the hook of the stay-chain. When the stay-chain is used, the weight of the same prevents the link from swinging upwardly out of engagement with the bolt 7, thereby obviating the necessity of the use of the pin 13. The manner in which the stay-chain is applied to the link is fully illustrated in Fig. 4 of the drawings.

To permit a whiffle-tree to be connected with the plow beam by my improved clevis, a clevis is applied to the center of the whiffle-tree and one to the end of the plow beam and the bowed portions 5 of the clevises are passed through a link 16 as fully illustrated in Fig. 4 of the drawings. I have also illustrated in this figure the manner in which swingle trees may be connected to a whiffle-tree by my improved clevis, wherein 17 designates the swingle trees and 18 the links connecting the swingle trees to the clevises.

In applying the clevis to an implement or to the center of the whiffle-tree, the pin 13 is removed and the link 8 swung out to clear the space between the end of the portion 3 and the bolt 7, after which the attachment is made by simply inserting the bolt 7 through an opening in the implement or whiffle-tree. After the clevis has been applied, the link 8 is swung downwardly to bridge the space and the pin 13 applied to the bolt 7. In applying the clevis to the end of a whiffle-tree, the link 8 is swung upwardly to clear the space, and the

clevis is adjusted from the rear of the whiffle-tree by inserting the bolt 7 in an opening in the whiffle-tree and swinging the link downwardly into engagement with the bolt 7, after which the clevis is turned around the end of the whiffle-tree from the rear to the front of the whiffle-tree. If the link 8 is provided with the opening 14, the hook of the stay-chain is placed in engagement with the opening after the clevis is in position. In view of the fact that the link 8 is connected to the bolt 7, and in view of the connection between the link and the portion 3, any strain placed upon the bowed portion 5 will be prevented from distorting the clevis body.

From the foregoing description taken in connection with the accompanying drawings, the construction and mode of operation of the invention will be understood without further extended description.

Changes in the form, proportions and minor details of construction may be made within the scope of the invention without departing from the spirit or sacrificing any of the advantages thereof.

Having fully described and illustrated my invention, what I claim is:

1. The herein described clevis, comprising a substantially U-shaped member having a pair of parallel arms of unequal lengths, the shorter arm having lugs extending laterally from opposite sides thereof and the longer arm having an extension disposed at right angles thereto, constituting a bolt spaced from the opposing end of the shorter arm, and a link member having an opening to engage said bolt and provided at one end with a slot to engage the shorter arm of the first named member, a transverse portion at the outer end of said slot to bear under said shorter arm and on the beam or tree, and provide a broadened surface to prevent the said arm from wearing on the beam or tree, and undercut shoulders at the inner end of said slot to receive the lugs of said arm and co-act with said lugs in pivotally and detachably connecting said link member to the shorter arm of the first named member.

2. The herein described clevis comprising a substantially U-shaped member having a pair of parallel arms of unequal lengths, the shorter arm having lugs extending laterally from opposite sides thereof and the longer arm having an extension disposed at right angles thereto, constituting a bolt spaced from the opposing end of the shorter arm, and a link member having an opening to engage said bolt and provided at one end with a slot to engage the shorter arm of the first named member, a transverse portion at the outer end of said slot to bear under said shorter arm and on the beam or tree, and provide a broadened surface to prevent the said arm from wearing on the beam or tree, and undercut shoulders at the inner end of said slot to receive the lugs of said arm and co-act with said lugs in pivotally and detachably connecting said link member to the shorter arm or the first named member, said link member having a longitudinal extension provided with an opening for the purpose set forth.

In testimony whereof, I affix my signature in presence of two witnesses.

LEWIS B. ALGER.

Witnesses:
JAMES S. GORMAN,
GEORGE E. GANIARD.