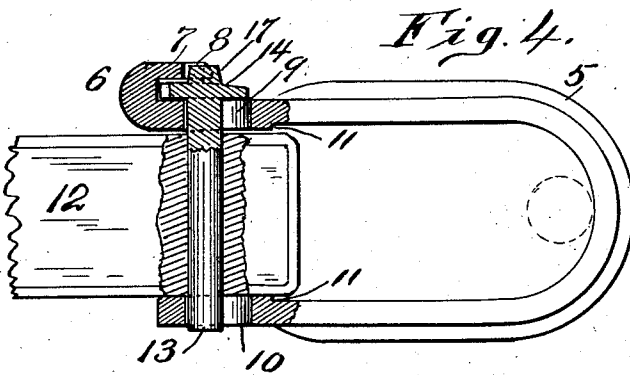
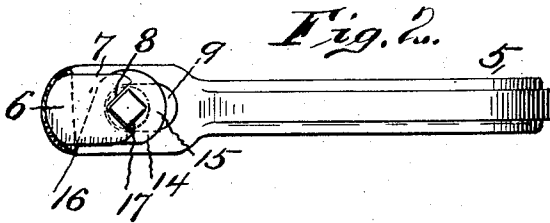
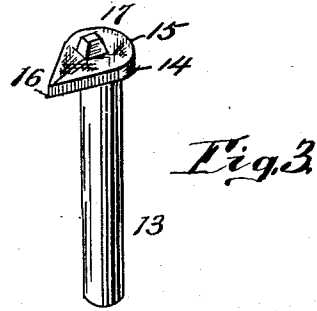
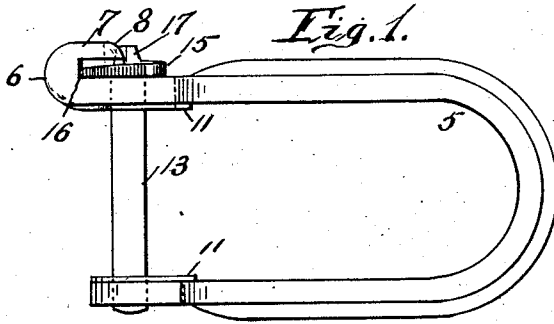


M. A. NELSON.
 OLEVIS.
 APPLICATION FILED FEB. 18, 1911.

1,009,552.

Patented Nov. 21, 1911.



Witnesses

C. W. Walker
 J. M. Copeland

Inventor
 Milford A. Nelson

By Eugene T. Johnson

Attorney

UNITED STATES PATENT OFFICE.

MILFORD A. NELSON, OF FOWLER, COLORADO.

CLEVIS.

1,009,552.

Specification of Letters Patent. Patented Nov. 21, 1911.

Application filed February 18, 1911. Serial No. 609,472.

To all whom it may concern:

Be it known that I, MILFORD A. NELSON, a citizen of the United States of America, residing at Fowler, in the county of Otero and State of Colorado, have invented certain new and useful Improvements in Clevises, of which the following is a specification.

This invention relates to improvements in clevises, the object thereof being to provide a clevis and pin therefor which are of such construction that the pin will be held against accidental displacement or removal without the use of movable or removable adjuncts, the parts being so constructed that the pin may be readily attached and detached when it is desired to apply or remove the clevis.

In the accompanying drawings which illustrate a preferred form or embodiment of my invention, Figure 1 is a side elevation of the clevis with the clevis-pin or bolt in place. Fig. 2 is a plan view, Fig. 3 is a perspective view of the clevis-pin or bolt detached, and Fig. 4 is a side elevation partly in section, showing the application of the invention.

The ends of the clevis are made to provide at the rear ends transversely enlarged ends having therethrough elongated openings or slots for the passage therethrough of the coupling-pin and the upper portion or member of the link 5 is formed with a part 6 that extends across the rear end of the upper member of the clevis 5 and provides above the plane of the upper member an overhanging and forwardly extending lip 7, which is cut away to provide therein an angular recess 8 having diverging walls which meet centrally above and slightly in advance of the rear end of the elongated aperture or slot 9, through the upper member of the clevis 5. The lower member of the clevis 5 is provided with a similar aperture or slot 10, the slots 9 and 10 each are of a size to readily admit of the passage therethrough of the pin or bolt. The adjacent faces of the clevis 5 are formed with bearing surfaces 11, which somewhat increase the thickness of the clevis adjacent to the slots 9 and 10 therethrough.

A clevis of the construction shown has openings for the passage of the pin or bolt, an overhanging lip with an angular recess and a vertical transverse wall against which the diverging sides of the head of the cou-

pling pin will abut when forward pressure is applied to the clevis and the head of the pin is partially overlaid by the overhanging portion or lip of the link member of the clevis.

The part 12, as a plow-beam, double or swingle-tree, to be connected to the clevis by a pin has an aperture that is about the same diameter as that of the pin. The pin 13 is of such length that the distance from the under side of its head to its lower end equals the distance between the top of the upper member of the clevis 5 and the under side of the lower member and the diameter is slightly less than the width of the slots 9 and 10.

Formed integral with the pin 13 is the head 14 which is shaped to provide a projecting rim or flange, a portion 15 thereof being semicircular and concentric with the body portion of the pin, the other side of the head from the concentric portion having converging sides which terminate in a point 16 and said head carries an upward extending and centrally projecting part 17 which in height is about equal to the thickness of the overhanging lip 7. The part 17 may be rectangular in cross section, two of the sides being at right angles to the greatest length of the flange or head and in use this part will lie well within the recess formed in the overhanging lip and will serve to prevent accumulation of dirt therein when the pin is in place. The vertical wall below the overhanging lip extends across the upper member of the clevis and is of such width that when the pin bears against the rear portion of the slot the pointed part of the head or flange will be under the lip and to one side of the center, a forward movement of the clevis effecting a partial turning of the pin to put the angular part of the head of the pin out of alinement with the recess in the overhanging lip so that the pin can not be removed until the clevis is moved rearward and the pin turned to bring the walls of the notch in the lip and the converging sides of the head of the pin in alinement when the pin may be removed. The semi-circular portion of the head is such as to prevent removal of the pin unless positioned to put the angular portion of the pin in alinement with the recess, and it will be noted that in use that the semi-circular portion of the head will overlies the major part of the slot or opening through which the pin is passed.

When the pin 13 is passed through the openings 9 and 10 in the ends of the clevis, the point on the head of the pin will be in line with the recess and will pass through the recess to a point below the lip, and when the clevis is drawn upon the point contacting with the straight horizontal wall will turn or effect a partial rotation of the pin, and when such partial rotation of the pin has taken place the pin will abut against the rear walls of the openings 9 and 10.

The invention may be modified to the extent of providing openings for the pin which may be other than slots as shown as the same result may be attained by circular openings of greater diameter than the diameter of the pin.

I claim—

1. In a clevis the combination with a clevis having pin receiving apertures through the members thereof one of the members having a transverse wall and a lip which is formed to provide a recess there-through, of a clevis-pin provided with a part having two converging sides such part being of a size to be passed through the recess and when overlaid by the lip will engage the transverse wall.

2. The combination with a clevis having upper and lower members with pin receiving apertures therethrough, an upper member provided with a transverse wall which carries a lip having therein a recess, of a clevis-pin comprising a head having a semi-circular projecting portion that projects from one side and an angular projecting portion on the opposite side such angular

projecting portion being adapted to be passed through the recess in the lip and engage the transverse wall to impart a partial rotary movement to the pin when draft is applied to the clevis.

3. In combination with a clevis its members having therethrough openings for the passage of a clevis-pin, a vertical wall that extends across one end of the clevis in the rear of the opening through the upper member, an overhanging lip that is cutaway to provide a recess with forwardly diverging sides, of a clevis-pin provided with a flange shaped to pass through the recess in the lip only when the clevis-pin is positioned to engage with the forward portion of the opening through the upper member of the clevis.

4. The combination with a clevis having openings for the reception of a clevis-pin, a part on the clevis that extends above the plane of the upper member of the clevis which is shaped to provide a forwardly extending lip with an angular recess, of a clevis-pin having a flange shaped to provide a part that is concentric with the circumference of the pin and a part having converging sides which meet at a distance which is greater from the circumference of the pin than the other parts of the head and a centrally projecting nib that extends above the plane of the pin and is adapted to enter the recess when the lip overlies the flange.

MILFORD A. NELSON.

Witnesses:

H. T. GIBSON,
J. W. LYNCH.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."