To all whom it may concern:

Be it known that I, Peter Peterson, a citizen of the United States, residing at Reels, in the county of Pottawattamie and State of Iowa, have invented certain new and useful Improvements in Bolts; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention has relation to bolts of the variety specially designed for clevises and single and double trees and which can be used in connection with fifth-wheels, timber couplings, and the like where the parts connected thereby are not designed to be clamped.

The invention belongs to that type of bolts having a latch remote from the head and adapted to fold within the body to admit of the latter passing through the openings of the parts to which the bolt is to be applied, and which latch turns automatically after clearing the opening to sit crosswise of the bolt and opening to prevent accidental withdrawal of the bolt after being properly positioned.

The objects in view are to provide a bolt having a solid end to receive the blows of a hammer should it become necessary to forcibly dislodge it, to materially reduce the strain imposed upon the pivot of the latch, to limit the movement of the latch in each direction, and to simplify the construction of this class of bolts and to increase their efficiency.

With these ends in view and such others as appertain to the nature of the invention the latter consists, essentially, of the novel features and details of construction, which hereinafter will be more fully described, claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a bolt constructed in accordance with and embodying the essential features of the invention. Fig. 2 is a detail section showing the latch arranged crosswise of the bolt. Fig. 3 is a view similar to Fig. 2, showing the latch folded within the mortise and extending lengthwise of the bolt. Fig. 4 is a detail view of the latch. Fig. 5 is a perspective view of the form as adapted for general use.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The bolt, which may be of any of the usual forms and size, is provided at one end with a head 2 and at its opposite end with a mortise 3 extending lengthwise thereof upon a medial line. This mortise extends through the opposite sides of the bolt and terminates a short distance from the extremity of the bolt, whereby the end of the latter is solid, so as to sustain the blows of an instrument or tool rained thereon when it is required to forcibly dislodge the bolt from the parts connected thereby. The mortise is closed at its ends, thereby enabling the latter to receive and sustain the thrust of the pivot-latch when the bolt is in service. The outer end of the mortise 3 is inclined, as shown at 5, and corresponds approximately to the beveled or inclined end of the latch 4, thereby permitting the latter to fall within the mortise and occupy a minimum amount of room. The opposite or inner closed end of the mortise 3 is inclined, as shown at 7, and the extension 8 projects therefrom into the mortise and constitutes a stop for the beveled end of the latch to bear against when the latch is sitting crosswise of the bolt. The innermost extremity of the inclined end 5 is diagonally disposed with reference to the terminal of the projection 8 and cooperates therewith to limit the turning of the latch when the latter occupies a position right angles to the axial center of the bolt.

The latch 4 is pivoted midway of its ends to the bolt and is located in the mortise 3, and one end is made heavier than the other, whereby the latch will turn automatically by gravitational force upon its pivotal connection with the bolt and assume a position at right angles to said bolt and sit crosswise of the opening through which the bolt has been thrust and prevent accidental withdrawal or displacement of the bolt when in position. By cutting away one end portion of the latch, as shown at 6, the opposite end portion is made superior and will gravitate and cause the latch to automatically occupy a position at right angles to the openings through which the bolt has been passed. The upper edge 9 of the latch is made slightly convex, thereby enabling the heel portion to come beneath
the projection 8 and the toe portion to overlap the inclined end 5 and to come within the plane of the body of the bolt, so as not to offer any obstruction to the free passage of the bolt when placing it in position. The end 10 opposite the inclined end 6 is made round or cut away slightly, so as to obtain a snug fit against the inwardly-extending end portion of the heel 5.

When the bolt is constructed to be used in connection with clevises, single and double trees, fifth-wheels, and in places where it occupies a vertical position, its body is round; but when the bolt is designed to be used in a horizontal position it is essential that it be held from turning, so that the heavier end of the latch may occupy the lowermost position. In this form the bolt must be constructed so as to obviate its turning. As shown in Fig. 5, the body portion of the bolt adjacent to the head is made square or angular, as shown at 11, thereby preventing the turning of the bolt when in place, since the square portion 11 will occupy a corresponding opening in the part to which the bolt is applied.

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

In combination with the bolt having a longitudinal mortise closed at its ends and opening through opposite sides of the bolt, the outer end of the mortise being inclined and the inner end having a projection extending into the mortise and disposed diagonally opposite the inclined terminal of the said outer inclined end, of a latch pivoted midway of its ends to the bolt within the mortise and having its end portions at the same edge inclined to correspond with the inclined ends of the mortise, said parts being so proportioned and arranged that the latch will be engaged by both the inclined terminal and the projection, when it is disposed at right angles to the axis of the bolt, substantially as described.

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

PETER PETERSON. [L. s.]

Witnesses:
John I. Lutz,
P. J. McBride.