

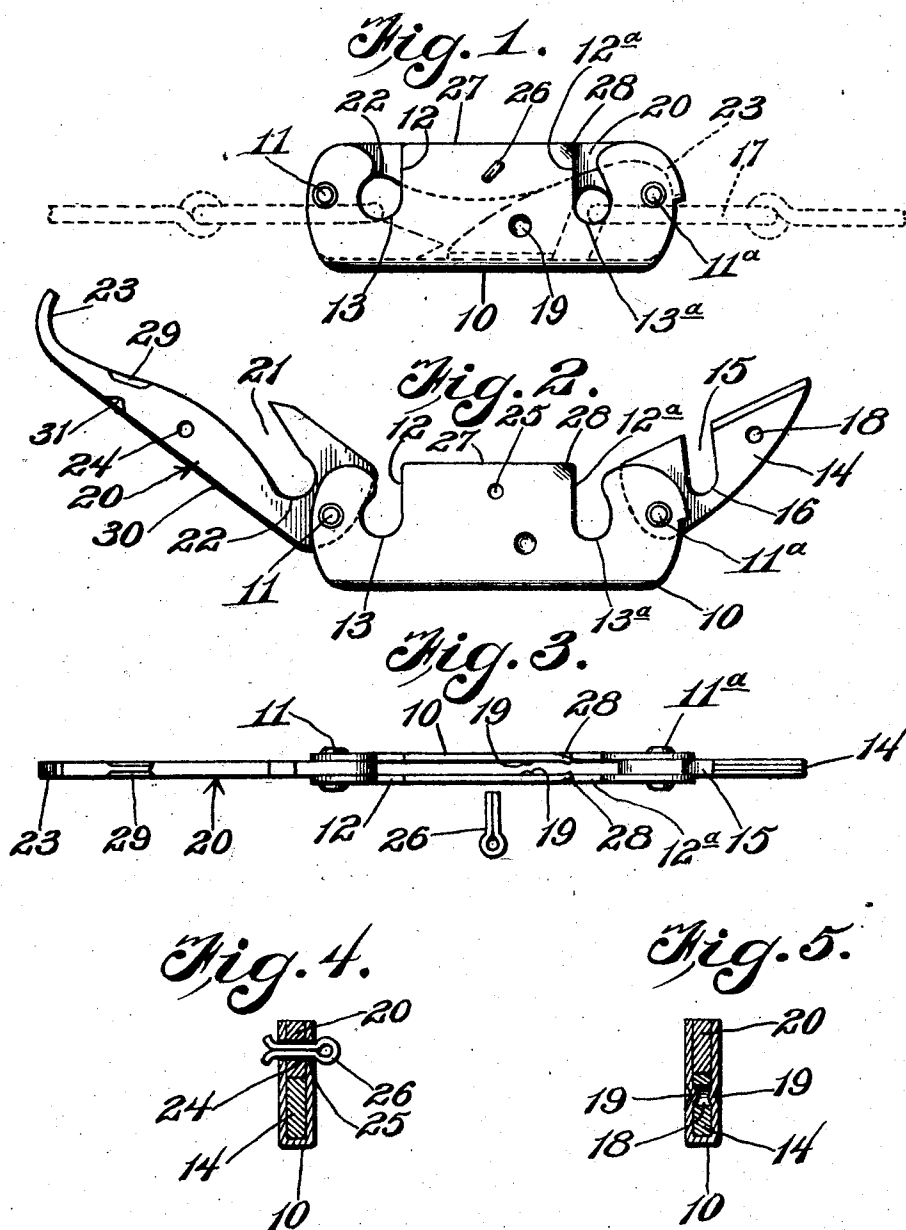
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J. H. YOUNT

CHAIN CONNECTER

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CHAIN CONNECTER.

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To all whom it may concern:

Be it known that I, JOHN H. YOUNT, a citizen of the United States, residing at Pierce, in the county of Armstrong and State of Pennsylvania, have invented certain new and useful Improvements in Chain Connecters, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to chain connectors and more particularly to a chain connector by means of which the end links of a chain may be connected to one another without the connector being permanently secured to either thereof.

An important object of the invention is to provide a device of this character having two fastening elements, one for engagement with each end of the chain and a single means for locking both of these fastening elements against movement to the open position.

A further object of the invention is to provide a device of this character which may be employed as a link in any chain of the link type.

These and other objects I attain by the construction shown in the accompanying drawing, wherein for the purpose of illustration is shown a preferred embodiment of my invention and wherein:—

Figure 1 is a side elevation of a chain connector constructed in accordance with my invention, the connector being shown in the closed position and a chain indicated in dotted lines;

Figure 2 is a similar view with parts of the connector in the open position;

Figure 3 is a plan view of the connector with parts in the open position;

Figure 4 is a longitudinal sectional view through the connector showing the fastener for the lever 20;

Figure 5 is a sectional view showing the retainer for the lever 14.

Referring now more particularly to the drawings, the numeral 10 generally designates a casing U-shaped in cross section and having open ends. The arms of the U adjacent each end thereof are connected by transversely extending pivot elements 11, 11^a and inwardly of each pivot element, these arms are provided with slots 12^a and 12 opening through the ends of the arms and having at their inner ends substantially

semi-circular coves 13, 13^a arranged inwardly of a line connecting the pivot elements 11 from the ends of the arms. Upon the pivot element 11^a between the arms is mounted a lever 14 swingable to a position where it is concealed between the arms of the U-shaped member 10. In what is its inner edge when in this position, this lever has formed therein a notch 15, the inner end of which is in the form of a semi-circular cove 16 for combining with the cove 13^a when the lever is in said position to produce an opening through which a chain link 17 may pass. This chain link, in applying the device, is first engaged with the cove 16 of the lever after which the lever is swung to its closed position and directed by the cove 16 into the notch 12^a and finally into the cove 13^a. The lever has formed therethrough adjacent the free end thereof an opening 18 receiving tits 19 formed upon adjacent faces of the arms of the U by pressing the material of the U inwardly at the proper points. These tits serve as a means for preventing accidental displacement of the lever 14 while manipulating the corresponding lever 20 mounted upon the pivot 11.

The lever 20 is similar in its construction to the lever 14 having a notch 21, the inner end of which forms a semi-circular cove 22, the purpose of which is the same as the purpose of the cove 16. The notch 21, however, inclines toward the outer end of the lever from the cove and the lever 20 is of considerably greater length than the lever 14, being of a length equal to the length of the casing 10 and having its end portion 23 shaped to fit against what is the upper surface of the lever 14 when in closed position. This lever has formed therethrough an opening 24 which, when the lever is in closed position, aligns with openings 25 formed in the arms of the U at the approximate center of the casing to permit passage of a securing element, such as a cotter pin 26 therethrough.

The notch 12^a has its inner wall or that wall most nearly adjacent the center of the casing at substantially right angles to the upper edge 27 of the casing and at the corners provided upon the arms by the formation of these notches, the material is bent inwardly, as indicated at 28, so that the space between these corners is slightly smaller than the thickness of the lever 20 so that in

placing the lever 20 in its position in the casing, it is necessary to force the arms apart to permit passage between the corners. In order to assist the wedging action of the lever, the face thereof which is in advance during movement of the lever to closed position, has its corners slightly bevelled, as at 29. When in closed position, the back face 30 of the lever is flush with the upper edges of the arms of the U-shaped casing and at its back edge, the lever is provided in opposite faces with notches 31 in which the in-bent corners 28 may engage to hold the lever against accidental displacement.

It will be obvious that a device of this character may be readily applied to a chain for connecting the links of the same or may be used as a link for joining two lengths of chain. After the levers are in closed position, pull upon the chain acts to force the levers further toward the closed position and to prevent accidental opening thereof. Such accidental opening is, however, positively prevented by the single securing element 26, locking the lever in position.

Since the construction hereinbefore set forth is obviously capable of a certain range of change and modification without materially departing from the spirit of the invention, I do not limit myself to such specific structure except as hereinafter claimed.

I claim:—

1. In a chain connector, a U-shaped casing provided in the arms thereof adjacent the opposite ends thereof with aligned notches each formed at its inner end with a link receiving cove, a lever pivoted between the arms of the casing at each end of the casing and between the notch at such end and the end of the casing, each of said levers having a link receiving notch and combining with the adjacent notches of the casing when in closed position to provide a link receiving opening, said levers when in closed position, lying in overlapped relation and means extending through the casing and the lever which is arranged outermost in the casing preventing movement of the lever.

2. In a chain connector, a U-shaped casing provided in the arms thereof adjacent the opposite ends thereof with aligned notches each formed at its inner end with

a link receiving cove, a lever pivoted between the arms of the casing at each end of the casing and between the notch at such end and the end of the casing, each of said levers having a link receiving notch and combining with the adjacent notches of the casing when in closed position to provide a link receiving opening, said levers when in closed position lying in overlapped relation, said casing having detents yieldably engaging said levers to maintain the same in closed position.

3. In a chain connector, a U-shaped casing provided in the arms thereof adjacent the opposite ends thereof with aligned notches each formed at its inner end with a link receiving cove, a lever pivoted between the arms of the casing at each end of the casing and between the notch at such end and the end of the casing, each of said levers having a link receiving notch and combining with the adjacent notches of the casing when in closed position to provide a link receiving opening, said levers when in closed position lying in overlapped relation and means upon the casing yieldably engaging the outermost lever when in closed position to maintain the lever in such position.

4. In a chain connector, a U-shaped casing provided in the arms thereof adjacent the opposite ends thereof with aligned notches each formed at its inner end with a link receiving cove, a lever pivoted between the arms of the casing at each end of the casing and between the notch at such end and the end of the casing, each of said levers having a link receiving notch and combining with the adjacent notches of the casing when in closed position to provide a link receiving opening, said levers when in closed position, lying in overlapped relation, means upon the casing yieldably engaging the lever which is arranged innermost in the casing when in closed position for resisting movement of the lever and means extending through the casing and the lever which is arranged outermost in the casing in closed position of the levers for positively preventing movement of the levers.

In testimony whereof I hereunto affix my signature.

JOHN H. YOUNT.