A. B. TAYLOR.

DETACHABLE LINK CHAIN.

APPLICATION FILED OCT. 28, 1910.

992,740. **Patented May 16, 1911.**

Fig. 1.

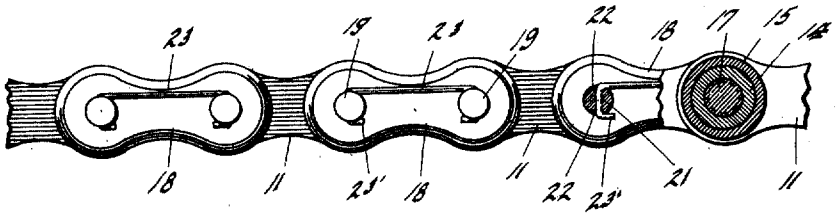


Fig. 2.

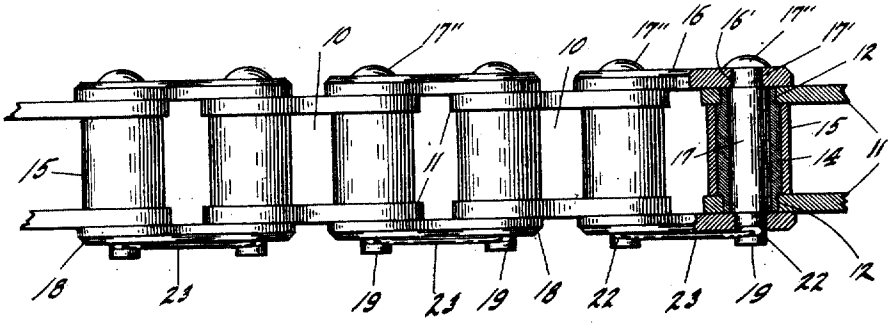


Fig. 3.

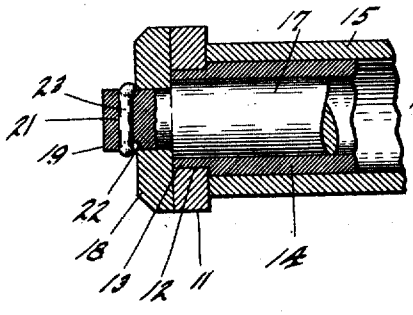
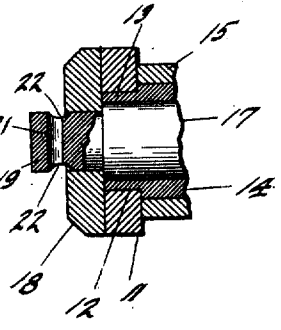


Fig. 4.



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UNITED STATES PATENT OFFICE.

ARTHUR B. TAYLOR, OF DETROIT, MICHIGAN, ASSIGNOR OF ONE-HALF TO WILLIAM P. CULVER, OF DETROIT, MICHIGAN.

DETACHABLE-LINK CHAIN.

992,740. Specification of Letters Patent. **Patented May 16, 1911.**

Application filed October 28, 1910. Serial No. 589,630.

To all whom it may concern:

Be it known that I, ARTHUR B. TAYLOR, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented a new and useful Detachable-Link Chain, of which the following is a specification.

The object of my invention is to produce a link belt or chain, the elements of which may be readily separated but provided with means by which the loose side bar may be tightly held in place.

The accompanying drawings illustrate my invention.

Figure 1 is a side elevation in partial vertical section of a chain embodying my invention; Fig. 2 a plan in partial horizontal section, Fig. 3 an axial section on a large scale, and Fig. 4 a view similar to Fig. 3 with the retainer omitted.

In the drawings, 10, 10 indicate identical links each of which is a unitary structure comprising two parallel side bars 11, 11 each perforated at each end by a perforation 12 adapted to receive the ensmalled end 13 of a tubular cross bar 14, the ensmalled end being no greater in length than the thickness of the side bar 11 and being firmly pressed into its perforation 12. Freely journaled on each cross bar 14 between the side bars 11 is a roller 15 which, however, may be omitted if desired. Each of these links 10 is, as already stated, a unitary structure, the individual elements of which are not intended to be readily separated by the user.

The links 10 are connected by links consisting of a side bar 16 and two pins 17, 17, rigidly connected to the side bar 16; and a loose side bar 18. The pins 17 are rigidly connected to the side bar 16 in any suitable manner as, for instance, by pressing the ensmalled end 17′ through a suitably formed perforation 16′, and then riveting or heading the tip of the projection 17′ over the outer face of link 16, as indicated at 17″. The opposite end 19 of each pin 17 is also smaller than the main body, the length of the main body being a very trifle greater than the distance between the outer faces of the side bars 11 of link 10. Each portion 19 has an axial length considerably exceeding the thickness of cross bar 18 and is adapted to receive one of said cross bars, the cross bar being suitably perforated for that purpose. Extending diametrically through each portion 19 beyond the outer face of the side bar 18 is a perforation 21 and at each end of this perforation I form a transverse groove 22 in the circumference of portion 19, said groove being offset, relative to the perforation 21, inwardly toward side bar 18 so as to extend inwardly beyond the outer face of said side bar when it is assembled in position on portions 19 of two pins 17. I then pass a retaining wire or rod 23 through each hole 21 and if it does not fit tightly up against the outer face of the link 18, a slight tap inwardly and downwardly upon the portion of the wire immediately at each end of each hole 21 will cause it to slide downwardly and inwardly in groove 22 and thus be set up tight against the side bar 18. If at any time any side bar 18 rattles, a slight tap on the retaining wire as described, will tighten up the parts.

It will be readily understood that the form of the retaining wire is rather immaterial and that its protruding ends may be bent or formed in any desired way to give the desired results. In the present drawings, I have shown what I believe to be commercially the more preferable form, the wire 23 extending between the two pins 17 of a connected link and having the tips 23′ bent toward each other.

In order to disassemble the parts, it is not advisable to attempt to save the retainer 23 because new ones can be supplied at less cost than the time consumed in attempting to save one.

I claim as my invention:

1. A chain comprising a multiplicity of links each comprising a pair of rigidly connected side bars, and a plurality of connecting links each consisting of a side bar, a pair of rigidly connected cross pins journaled in the adjacent ends of two of the first mentioned links, and a removable side bar, the pins of each connecting link extending through and beyond the main links and the projected ends each having a transverse hole formed therethrough beyond the outer face of the removable link and a transverse notch formed in the circumference of the projected end across the transverse opening and offset relative thereto inwardly beneath the outer face of the removable link.

2. A chain comprising a multiplicity of main links each consisting of a pair of side bars and a pair of tubular cross bars rigidly

connected; and a multiplicity of connecting links, each of said connecting links consisting of a side bar, a pair of pins rigidly connected with the side bar and projected through and beyond the tubular cross bars of the main links, a removable side bar mounted upon the projected ends of said pins, each of the said pins having in its projected end a transverse opening beyond the outer face of the removable link and a transverse notch formed in its circumference across the end of said transverse opening and offset therefrom inwardly beneath the outer face of the removable link, and a retaining pin mounted in said transverse opening and having offset ends serving to retain the said pin within the opening, one of said offset ends lying in the transverse groove and adapted to be distorted in said groove toward the outer face of the removable side bar.

3. A connecting link for chains comprising a side bar, a pair of transversely projecting pivot pins associated with said side bar and having free projecting ends, a second side bar sleeved over and connecting said projecting ends, each of said projecting ends having a transverse hole formed therethrough beyond the outer face of the second side bar and a transverse notch formed in the circumference of the projected end across the transverse hole and offset relative thereto inwardly beneath the outer face of the said second side bar, and a retaining pin mounted in said transverse hole and having offset ends serving to retain the said pin within the hole, one of said offset ends lying in the transverse groove and adapted to be distorted in said groove toward the outer face of the said second side bar.

4. A connecting link for chains comprising a side bar, a pair of transversely projecting pivot pins associated with said side bar and having free projecting ends, and a second side bar sleeved over and connecting said projecting ends, each of said projecting ends having a transverse hole formed therethrough beyond the outer face of the second side bar and a transverse notch formed in the circumference of the projected end across the transverse hole and offset relative thereto inwardly beneath the outer face of the said second side bar.

In witness whereof, I have hereunto set my hand and seal at Indianapolis, Indiana, this nineteenth day of October, A. D. one thousand nine hundred and ten.

ARTHUR B. TAYLOR. [L. S.]

Witnesses:
ARTHUR M. HOOD,
THOMAS W. MCMEANS.