

No. 818,469.

PATENTED APR. 24, 1906.

L. R. ROGERS.
DETACHABLE DRIVE CHAIN.
APPLICATION FILED AUG. 22, 1904.

2 SHEETS—SHEET 1.

Fig. 1.

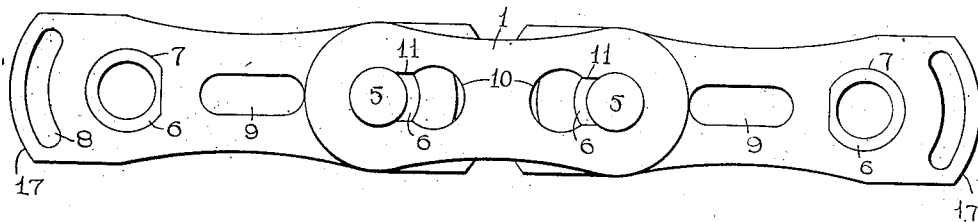


Fig. 2.

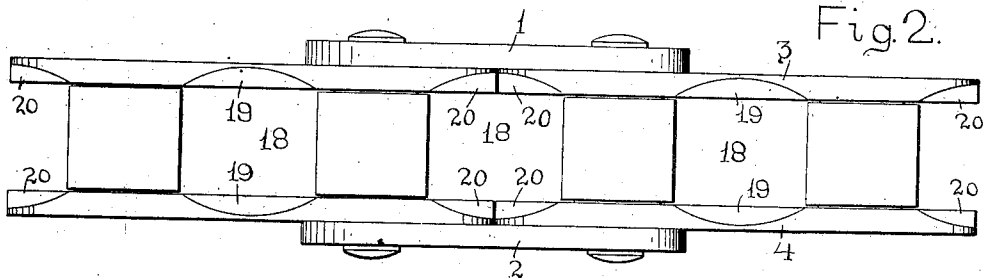


Fig. 3.

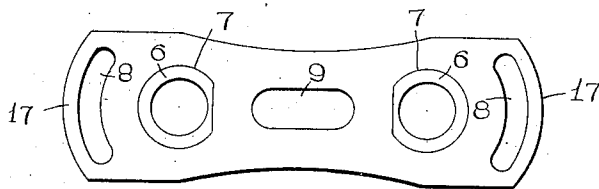
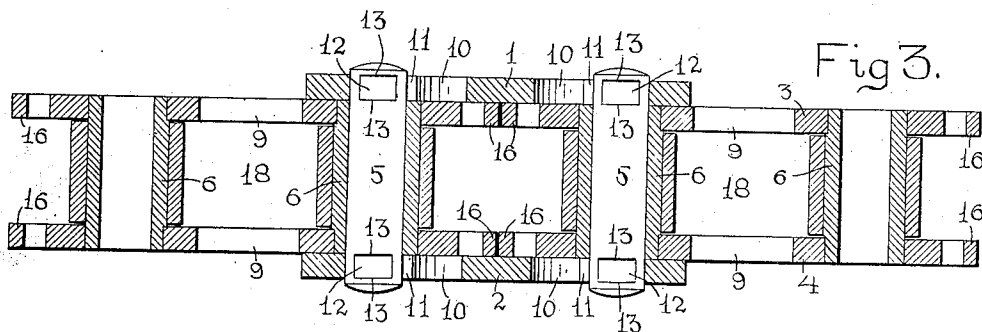


Fig. 4.

Witnesses

Roy D. Tolman.
Penelope Lamberbach.

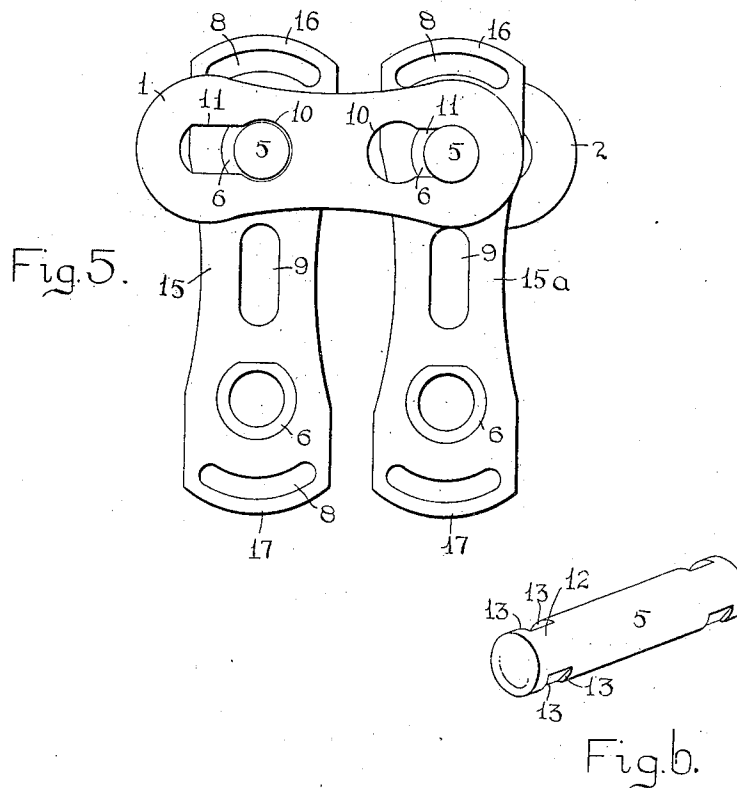
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2 SHEETS—SHEET 2.



Witnesses

Roy D. Tolman.

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UNITED STATES PATENT OFFICE.

LEONARD R. ROGERS, OF WORCESTER, MASSACHUSETTS, ASSIGNOR TO
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DETACHABLE DRIVE-CHAIN.

No. 818,469.

Specification of Letters Patent.

Patented April 24, 1906.

Application filed August 22, 1904. Serial No. 221,617.

To all whom it may concern:

Be it known that I, LEONARD R. ROGERS, a citizen of the United States, residing at Worcester, in the county of Worcester and Commonwealth of Massachusetts, have invented a new and useful Improvement in Detachable Drive-Chains, of which the following is a specification accompanied by drawings, forming a part of the same, in which—

Figure 1 represents a side view of a portion of a drive-chain embodying my invention. Fig. 2 is a top view of the same. Fig. 3 is a central sectional view. Fig. 4 is a detached view of one of the central links. Fig. 5 is a side view of that portion of the chain shown in Fig. 1 with the central links turned at right angles to the side links in order to enable the central and side links to be separated, and Fig. 6 is a detached view of one of the pivotal pins.

Similar reference-figures refer to similar parts in the different views.

The drive-chain to which my invention relates comprises a series of side links 1 and 2, duplicates of each other, and also a series of central links 3 and 4, also duplicates of each other, said central and side links being pivotally connected by removable pivotal pins 5, said pivotal pins 5 being duplicates of each other. The central links 3 and 4 are connected near their opposite ends by sleeves 6, entering segmental holes 7 in the center links to prevent the sleeves from turning in the links. Openings 8 and 9 are preferably formed in the center links to reduce their weight. The side links 1 and 2 are provided with circular openings 10 sufficiently large to receive the ends of the pivotal pins 5, and extending toward the ends of the side links are slots 11, communicating with the openings 10 and adapted to receive the necks 12 of the pivotal pins 5, said necks 12 being formed on the pivotal pins by cutting away a portion of the pin on diametrically opposite sides and forming shoulders 13 13, adapted to inclose the sides of the side links 1 and 2.

The central and side links are assembled by placing the central links at right angles to the side links in order to allow a pivotal pin 5 to be inserted through the circular openings 10 of the side links and through the sleeves 6 of the central links, as represented by the central links 15, Fig. 5. The pivotal pins are then locked in place by drawing the center

link toward the end of the side link into the position shown by the link 15^a in Fig. 5, thereby carrying the neck of the pivotal pin 5 into the restricted slot 11, in which position the pivotal pin is held from longitudinal movement by the engagement of its shoulders 13 by the sides of the side link. When the pivotal pins 5 have been drawn into the slots of the other respective side links, the center links may then be rocked on their pivotal pins, to bring them into alinement with the side links, as shown in Figs. 1, 2, and 3. In this position of alinement of the central and side links the sliding movement of the central and side links one upon the other is prevented by increasing the length of the opposing ends of the central links to cause them to substantially abut, as shown at 16 16, Fig. 3, and the extended ends are rounded, as shown at 17 17, Fig. 4, concentrically with the pivotal pins to allow a rocking movement of the central links on the pivotal pins 5. The extension of the ends of the central links likewise secures a uniform width of all the spaces 18 18 throughout the chain, thereby securing a uniform engagement of the chain with the teeth of a sprocket-wheel, and in order to enable the links of the chain to engage more readily with the teeth of the sprocket-wheel the central section of the central links are chamfered, as shown at 19 19, Fig. 2, and the opposing ends are likewise chamfered at each corner, as shown at 20, Fig. 2.

When the chain is extended, as in use, the abutting ends 16 of the central links absolutely prevent any movement of the links which would bring the pivotal pins 5 into alinement with the circular openings 10 10 and allow the chain to become disconnected.

What I claim as my invention, and desire to secure by Letters Patent, is—

A drive-chain comprising central and side links arranged in pairs pivotal pins hinging said central and side links, said central links having their opposing ends between said side links extended to reduce the width of the space between said side links uniform with the space between the central links.

Dated this 20th day of August, 1904.

LEONARD R. ROGERS.

Witnesses:

PENELOPE COMBERBACH,
RUFUS B. FOWLER.