

No. 846,803.

PATENTED MAR. 12, 1907.

E. H. MILLS.
CHAIN LINK.

APPLICATION FILED JUNE 25, 1906.

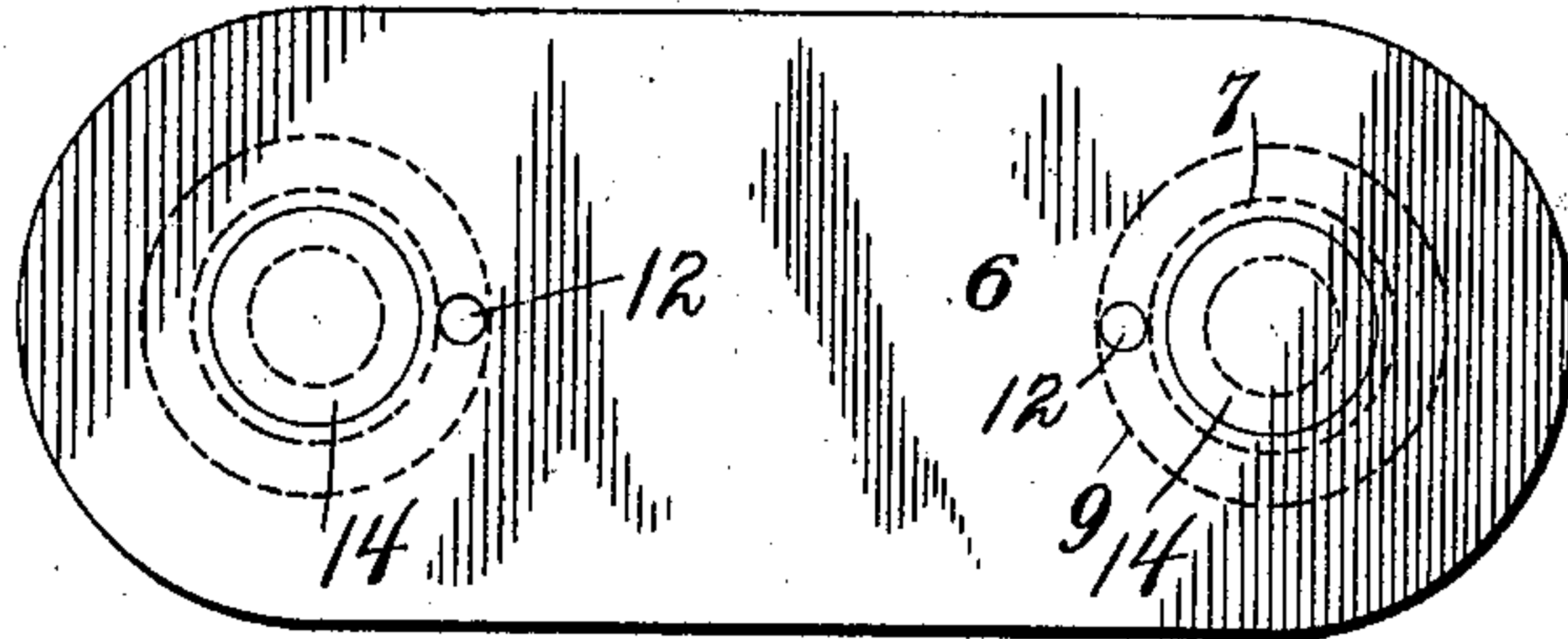


Fig. 1.

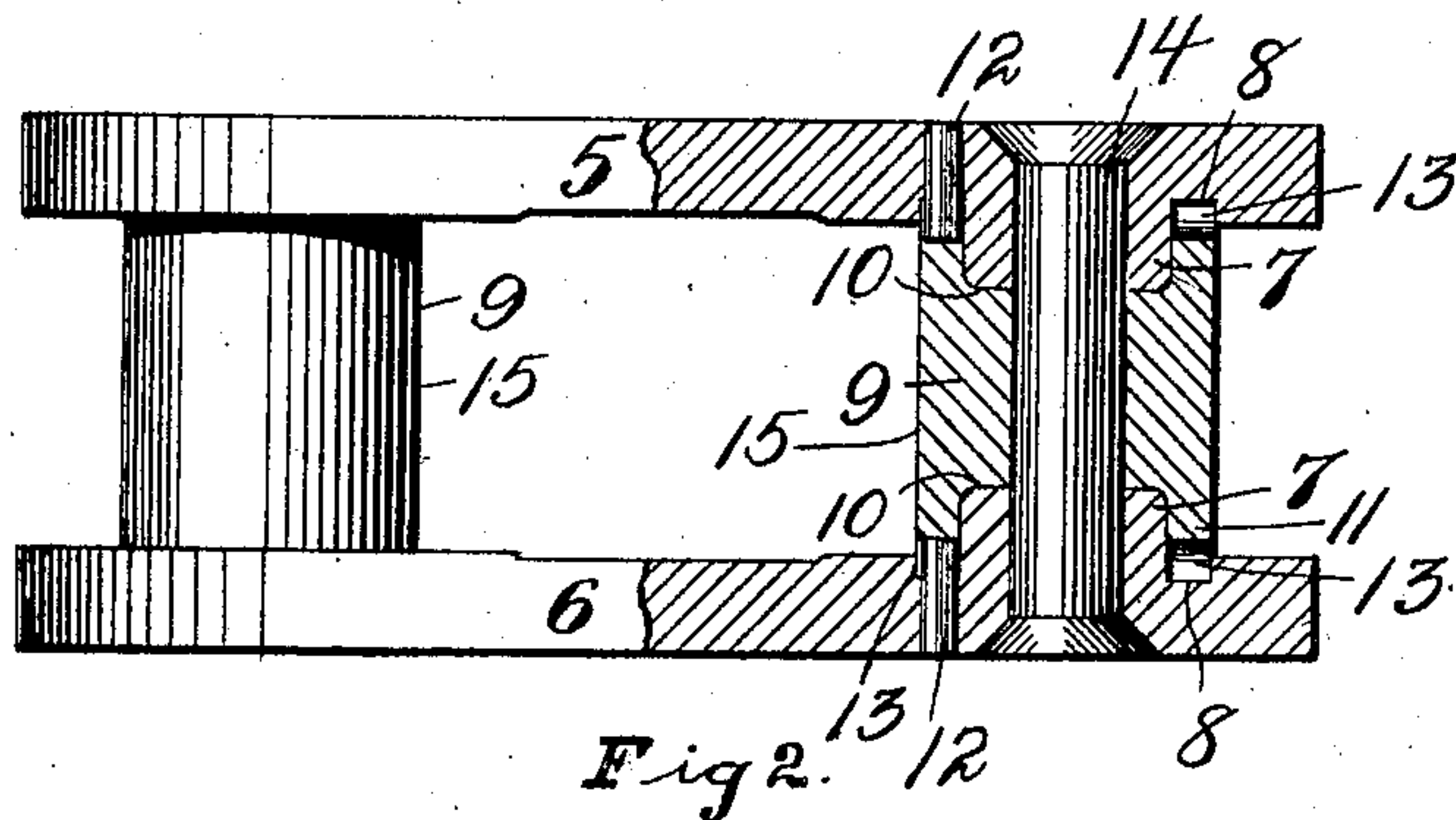


Fig. 2.

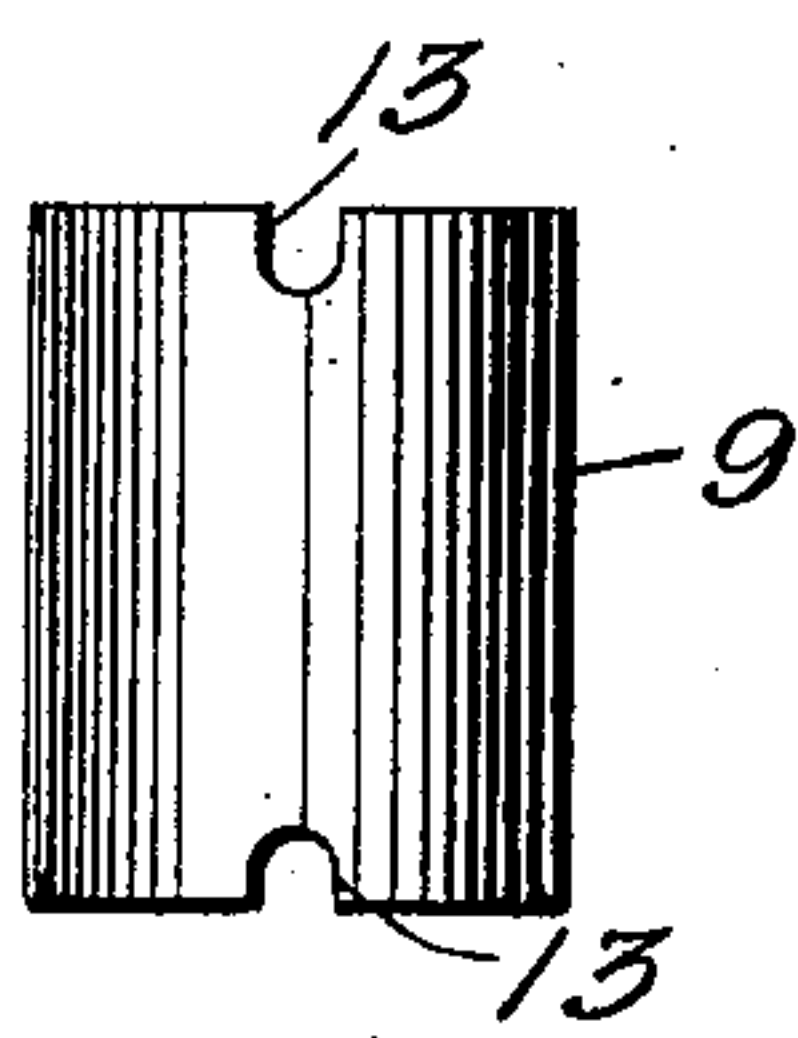


Fig. 3.

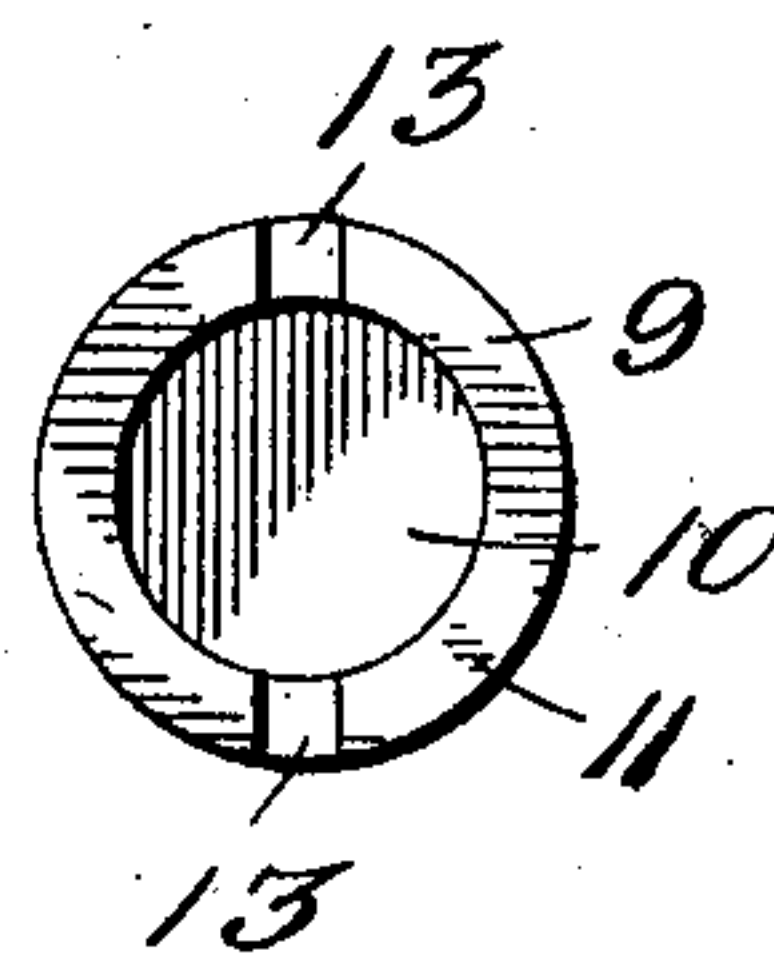


Fig. 4.

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EDWIN H. MILLS, OF COLUMBUS, OHIO, ASSIGNOR OF ONE-HALF TO LUTE
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CHAIN-LINK.

No. 846,803.

Specification of Letters Patent.

Patented March 12, 1907.

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To all whom it may concern:

Be it known that I, EDWIN H. MILLS, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Chain-Links, of which the following is a specification.

My invention relates to an improved chain-link; and has for its object the provision of a chain-link constructed in such manner as to increase the life of the link.

A further object of the invention is the provision of a chain-link comprising side plates, wrist-pins located between said side plates at each end thereof, and means for binding the wrist-pins and the side plates together, the side plates being exactly alike, by virtue of which they may both be made from the same die, and the wrist-pins being removable from said side plates, by virtue of which new wrist-pins may be inserted when the old ones are worn out without discarding the side plates.

Further objects and advantages of the invention will be set forth in the detailed description which now follows.

In the accompanying drawing, Figure 1 is a side elevation of a chain-link constructed in accordance with the invention. Fig. 2 is a view, partially in plan and partially in section, of the chain-link shown in Fig. 1. Fig. 3 is a detail plan view of one of the wrist-pins, hereinafter described; and Fig. 4 is an end elevation of said wrist-pin.

Like numerals designate corresponding parts in all of the figures of the drawing.

Referring to the drawing, the numerals 5 and 6 designate the side plates of a chain-link. At each end these side plates are provided with inwardly-extending bosses 7 and annular grooves 8, which surround said bosses. Comparatively large wrist-pins 9 are recessed at each end, as at 10, for the reception of the bosses 7. The annular flanges 11, formed by thus recessing the ends of the wrist-pins, enter the annular grooves 8, and are held against turning therein by dowel-pins 12. These dowel-pins pass through the side plates 5 and 6 and their inner ends engage notches 13, formed in the annular flanges 11 of the wrist-pins. Rivets or like fastening devices 14 pass through the side plates, the bosses 7, and through the wrist-pins and serve to bind all of said parts together.

By referring to Figs. 2, 3, and 4 it will be seen that each end of the wrist-pins has two of the notches 13 formed therein, said notches lying diametrically opposite each other.

When in use, it is apparent that practically all of the wear upon the wrist-pins 9 comes upon the inner faces 15 thereof. By providing the diametrically-opposed notches 13 it is possible by removing the dowel-pins when these inner faces have become worn to give the wrist-pins a half-turn and again secure said wrist-pins in position by reinserting the dowel-pins. This brings the unworn face of the wrist-pin in position to receive the wear and doubles the life of the link. By holding the wrist-pins against turning, which would tend to wear the side plates, the side plates are preserved against wear, and when the wrist-pins have been entirely worn out the side plates may be again utilized by merely substituting new wrist-pins for the old ones. By recessing the ends of the wrist-pins and by providing the bosses upon the side plates to enter said recessed ends the wrist-pins are given a firm bearing upon the side plates and are enabled to resist any strain which may be placed thereon without placing undue strain upon the rivets 14.

It is to be understood that the link herein shown and described is to be used in chains where a link such as shown forms the connecting link between members which encircle the wrist-pins 9 and have movement with relation to said wrist-pin 9. Such a construction as this is common in chains of various kinds—such, for instance, as bicycle and automobile chains—and requires no further description.

From the foregoing description it will be seen that simple and efficient means are herein provided for accomplishing the objects of the invention.

What I claim is—

1. A chain-link comprising a pair of side plates, a removable wrist-pin located between said side plates, a fastening device passing through the wrist-pin and the side plates for binding said side plates and wrist-pin together, there being bosses carried by the side plates and entering recesses formed in the ends of the wrist-pin, and means for preventing said wrist-pins from turning.

2. A chain-link comprising a pair of side plates having inwardly-extending bosses,

wrist-pins located between said side plates and having their ends recessed for the reception of said bosses, there being annular grooves formed in the side plates about said bosses for the reception of the ends of the wrist-pins, means for binding said side plates together, said means passing through the side plates and the wrist-pins, and means for preventing said wrist-pins from turning.

10 3. A chain-link comprising a pair of side plates, a removable wrist-pin located between said side plates and having notches formed in the ends thereof, and stop members which pass through the side plates and
15 engage in said notches.

4. A chain-link comprising a pair of side plates having inwardly-extending bosses formed thereon, removable wrist-pins having their ends recessed for the reception of said
20 bosses, and fastening devices passing through the wrist-pins and said side plates for binding said side plates together, and pins pass-

ing through said side plates and engaging notches formed in the ends of the wrist-pins.

5. A chain-link comprising a pair of side plates, there being inwardly-projecting bosses formed upon each of said side plates, a wrist-pin having cup-like ends adapted to receive said bosses, there being annular channels formed in the side plates about said bosses adapted to receive the ends of the wrist-pin, the end walls of the wrist-pin having diametrically-opposed notches formed therein, a fastening device passing through the side plates and the wrist-pin for binding
35 said side plates and wrist-pin together, and pins which pass through the side plates and engage said notches.

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

EDWIN H. MILLS.

Witnesses:

FRANK G. CAMPBELL,
A. L. PHELPS.