

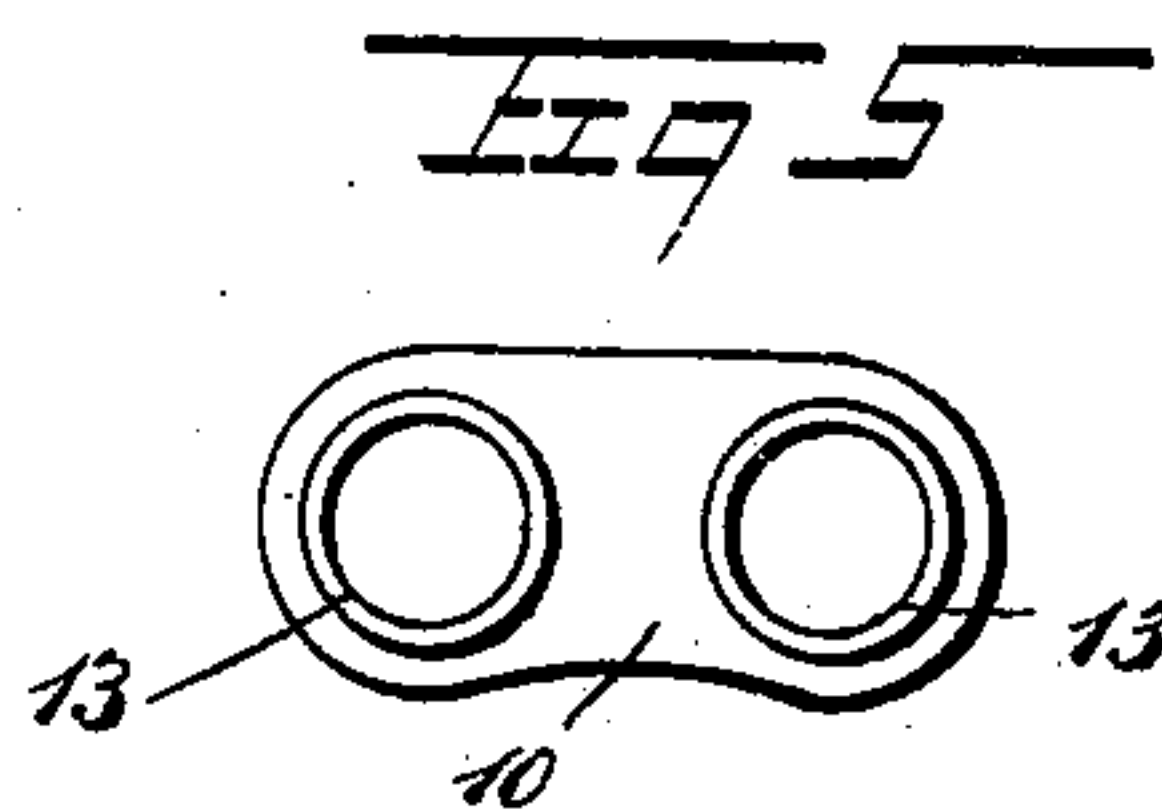
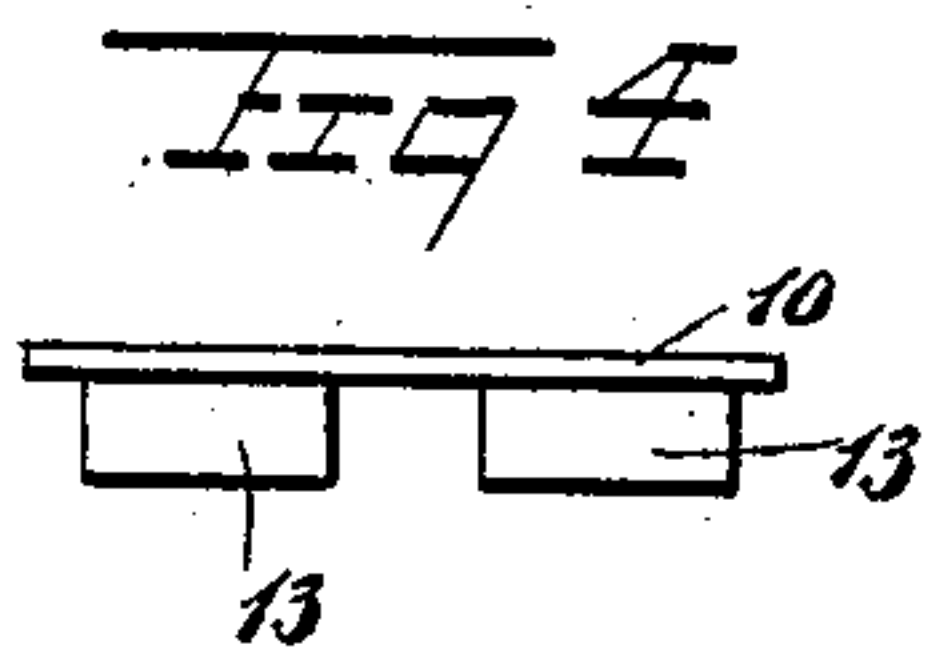
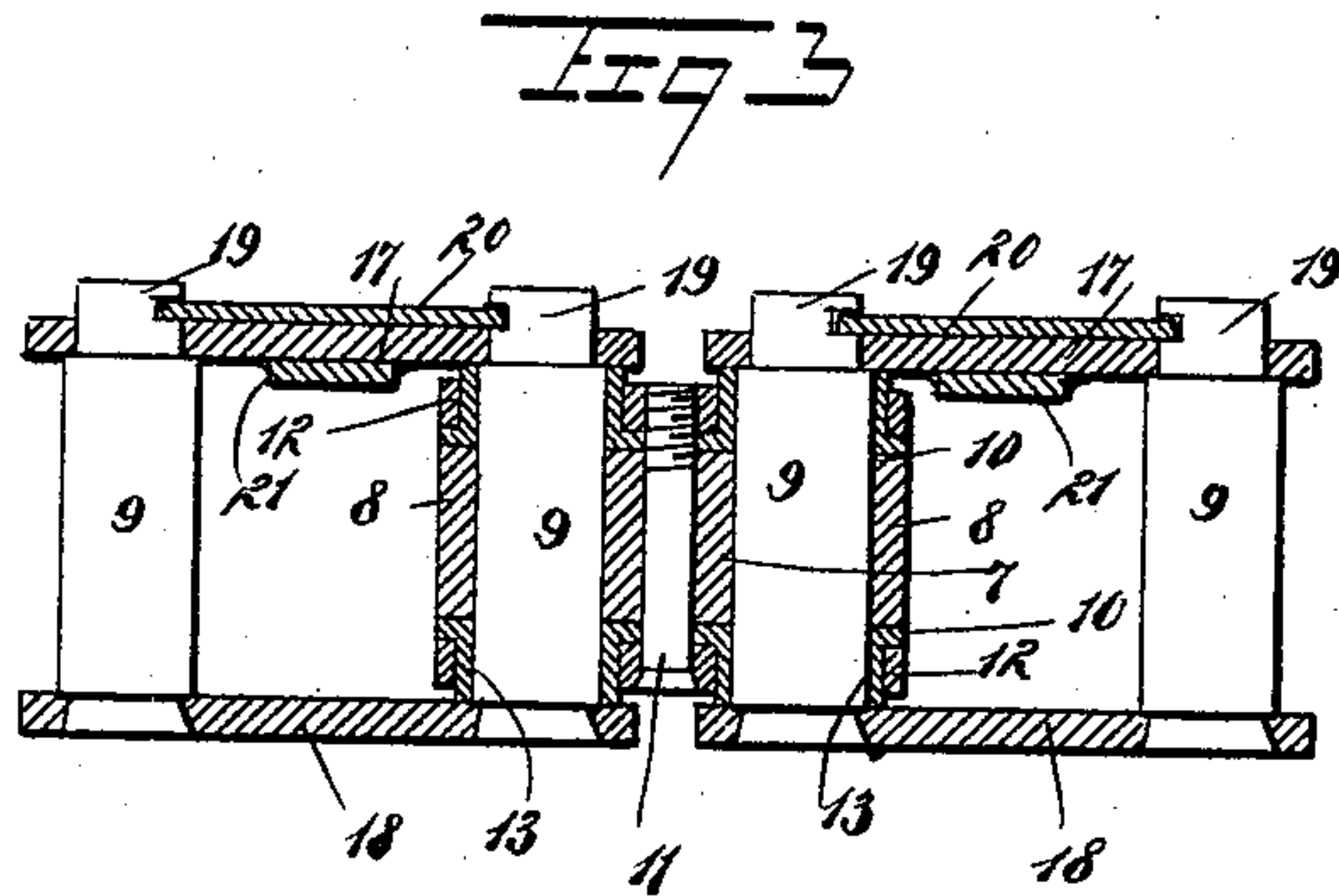
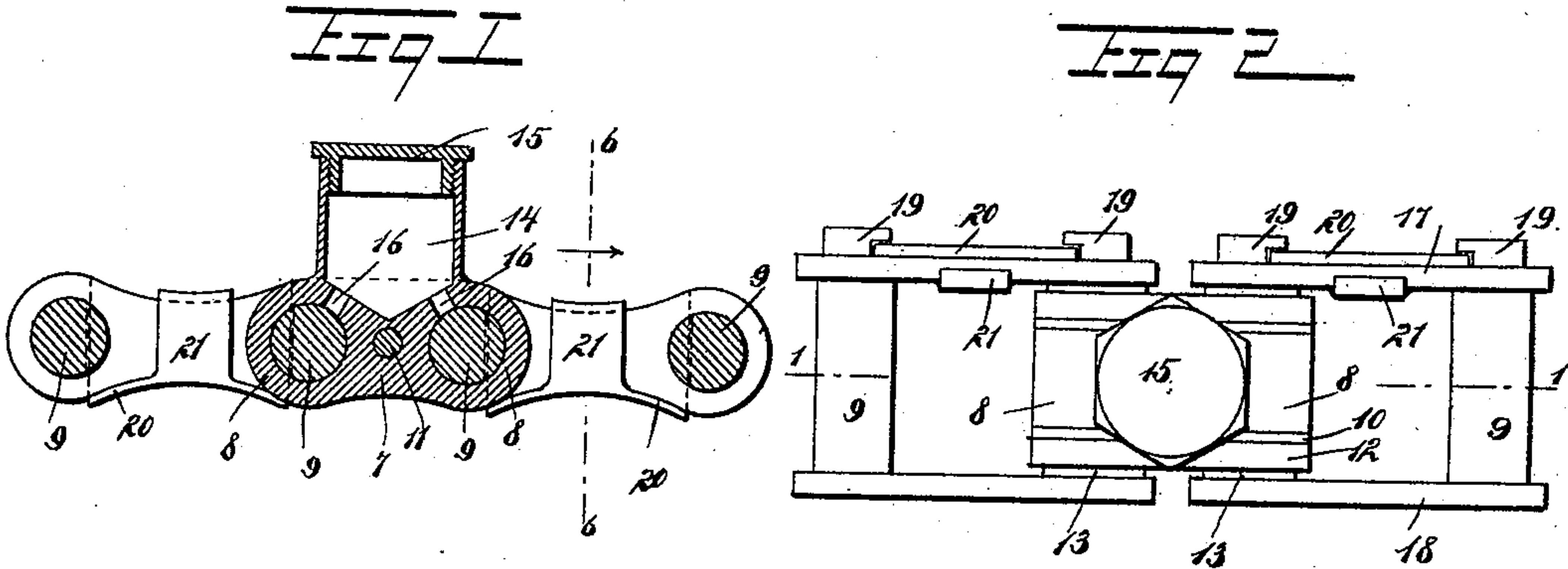
No. 615,807.

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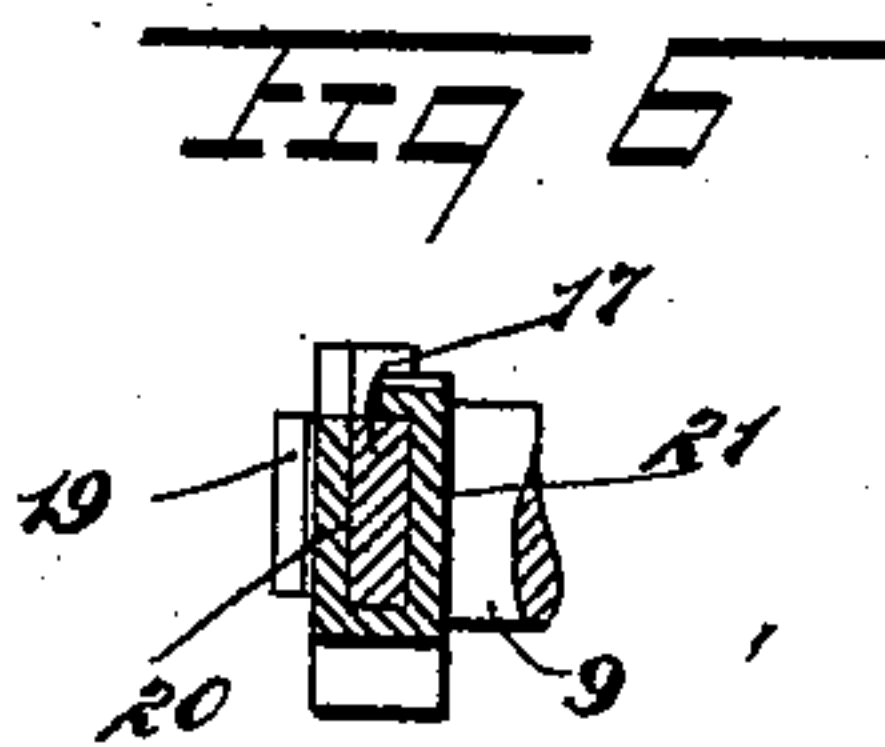
C. J. COOK.
SPROCKET CHAIN.

(Application filed Feb. 7, 1898.)

(No Model.)



WITNESSES:
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UNITED STATES PATENT OFFICE.

CHARLES JOHN COOK, OF NEW YORK, N. Y.

SPROCKET-CHAIN.

SPECIFICATION forming part of Letters Patent No. 615,807, dated December 13, 1898.

Application filed February 7, 1898. Serial No. 669,369. (No model.)

To all whom it may concern:

Be it known that I, CHARLES JOHN COOK, of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Sprocket-Chain, of which the following is a full, clear, and exact description.

This invention relates to a sprocket-chain designed especially for use on bicycles and having alternate block and plate links, the block-links being provided with oil-cups, by which a lubricant is fed to every pintle.

This specification is the disclosure of one form of the invention, while the claim defines the actual scope thereof.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional view of the invention on the line 1 1 of Fig. 2. Fig. 2 is a plan view of the invention. Fig. 3 is a sectional plan. Fig. 4 is a top view of one of the washers that are employed in connection with the block links. Fig. 5 is an outer side elevation of said washer, and Fig. 6 is a detail sectional view on the line 6 6 of Fig. 1.

Each block-link of the chain consists in a web or intermediate portion 7 with bearing or end portions 8. Through the bearing portions 8 of the block-links pintles 9, respectively, loosely extend. Lying against each side edge of each block-link is a washer-plate 10, the form of which is essentially the same as that of the block-links. (See Figs. 1 and 5.) The washers 10 are held rigidly in place on each block-link by means of screws 11, that extend transversely through the web 7 of said links and have their extremities connected with plates 12, lying, respectively, against the outer sides of the washers 10 and having orifices receiving the bosses 13 of the washers 10, such bosses being formed two on each washer, so as to receive the pintles 9. The washers 10 are to be formed of leather or analogous material and serve to prevent the entry of dust into the bearings 8 of the block-links. Formed on the outer side of each block-link is an oil-cup 14 with a screw-cover 15. Communication is established between the bearings 8 and the oil-cup 14 by means of ducts 16, running through the bearings.

By these means a lubricant is continually supplied to the pintles 9 and the bearings 8, and the action of the chain is not interfered with owing to the position of the cups 14 on the block-links.

The plate-links consist each of two side plates 17 and 18. The links 18 are riveted to the adjacent ends of the pintles 9, so as to be permanently attached thereto. The links 17 are removably attached to the pintles 9 by any proper means, an example of which will now be described. The links 17 have each two openings therein, respectively receiving the reduced ends 19 of the pintles 9. These ends 19 project beyond the plates 17 and are provided with notches in their contiguous faces. Each plate-link is provided with a key-plate 20. These plates are respectively located snugly against the outer faces of the plates 17 and bear into the notches of the contiguous reduced ends 19 of the pintles 9, whereby to hold the plates 17 firmly on the pintles and at the same time to prevent the turning of the pintles. Each key-plate 20 is provided with a spring locking-arm 21, that extends inwardly from each key-plate, and thence upwardly and finally outwardly, so as to pass around the bottom, the inner side, and a part of the upper edge of the respective plates 17. These spring locking-arms may be rapidly engaged and disengaged with and from the respective plates 17 in the acts of placing and displacing the key-plates 20.

A chain thus constructed may be very readily separated for the purposes of cleaning and repairing the chain, and owing to the peculiar construction thereof the parts run very easily without undue friction. The oil-cups 14 keep the bearings 8 supplied continuously with a lubricant, while the washers 10 prevent leakage at the ends of the pintles as well as the entry of dust into the bearings.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

A sprocket-chain consisting of a series of alternate plate and block links, each block-link consisting of a web or intermediate portion, and of a bearing at each end of the web, each bearing being provided with a duct for the admission of a lubricant thereto, an oil-

cup mounted on the web of each block-link and communicating with the ducts, pintles situate in the bearings of the block-links and connecting the plate-links, a washer located
5 at each side edge of the block - links, the washers having openings through which are passed the pintles, and the washers closely engaging the pintles to prevent the entry of dust to the bearings, plates lying respectively
10 against the outer faces of the washers and

encircling the pintles, and a screw passed through the web of each block-link and engaging the said plates thereof to hold the plates, the washers and the block-links rigidly together.

CHARLES JOHN COOK.

Witnesses:

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