(Model.)

J. GOODRICH.

DRIVE CHAIN.

No. 420,341. Patented Jan. 28, 1890.

Fig. 1

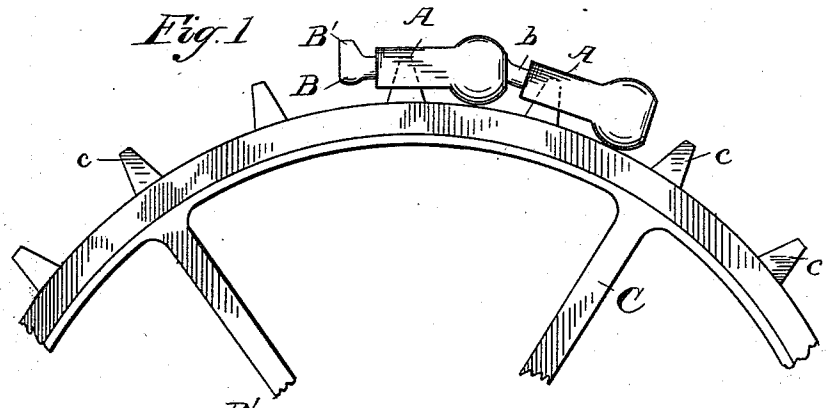


Fig. 2.

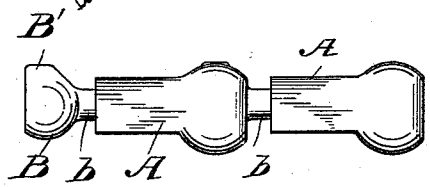


Fig. 3.

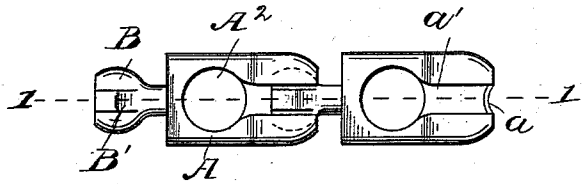
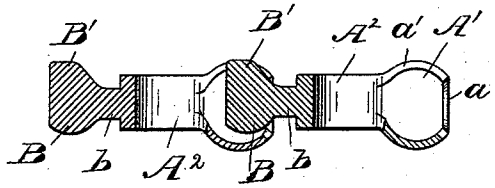


Fig 4.



Witnesses.
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UNITED STATES PATENT OFFICE.

JOSEPH GOODRICH, OF CHICAGO, ILLINOIS.

DRIVE-CHAIN.

SPECIFICATION forming part of Letters Patent No. 420,341, dated January 28, 1890.

Application filed April 26, 1888. Serial No. 271,998. (Model.)

To all whom it may concern:

Be it known that I, JOSEPH GOODRICH, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Drive-Chains, which is fully set forth in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of a construction embodying my invention, showing the drive-chain and sprocket-wheel; Fig. 2, a side elevation of the drive-chain detached; Fig. 3, a plan view of the same, and Fig. 4 a sectional view taken on the line 1 1 of Fig. 3.

Like letters refer to like parts in all the figures of the drawings.

My invention relates to drive-chains, and is in the nature of an improvement upon the invention set forth in an application filed by me July 29, 1887, Serial No. 245,640.

The object of my present invention is to provide means whereby the drive-chain set forth in my previous application may be rendered more certain in its engagement with the sprockets of the sprocket-wheel by preventing free axial rotation of the links thereof; and to this end my invention consists in certain novel features, which I will now proceed to describe, and will then particularly point out in the claims.

In the drawings, in which I have shown my invention practically carried out in one form, A represents the body of the link, which is provided at one end with a ball or sphere B, connected to the body by means of a reduced neck *b* of considerably less diameter than the ball. Within the body A, at the other end, is formed a socket A′ of dimensions corresponding substantially to those of the ball B, the said socket being provided at the end of the link with an opening *a* of somewhat greater diameter than the neck *b* and of less diameter than the ball B. A slot *a′* extends from this opening through the top of the link forward to the front of the socket A′, and at the forward end of said slot and socket there is formed at right angles to the longitudinal axis of the link a recess or aperture A^2 of a diameter at least equal to that of the ball B and extending, preferably, entirely through the body of the link from top to bottom. On the top of the ball B there is formed a projection B′ of less width than the slot *a′*, which projection, when the ball is in position in the socket A′, enters the said slot, as shown in the several figures of the drawings.

The operation is as follows: The ball B of one link is first inserted into the recess or aperture A^2 of the adjacent link, and is then moved rearward into the socket A′. This movement is permitted by reason of the slot *a′*, which permits the passage of the neck *b*. The link is then turned down into the position shown in the several figures of the drawings, when the ball B rests in the socket A′ and is retained therein. In this position the projection B′ rests in the slot *a′*, and while free play of the links with respect to each other is allowed to a limited extent in all directions the projection B′, by its engagement with the walls of the slot *a′*, prevents rotation of the links with respect to each other, and therefore serves to hold the apertures A^2 of the links always in position to engage with the sprockets *c* of the sprocket-wheel C. At the same time, since the said projection is of somewhat less width than the slot, it does not hinder the play of the links with relation to each other to the limited extent hereinbefore specified.

It is obvious that various modifications in details of construction and arrangement of parts may be made without departing from the principle of my invention, and I therefore do not wish to be understood as limiting myself strictly to the precise details hereinbefore described, and shown in the drawings.

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

1. A drive-chain link consisting of a body portion provided at one end with a ball or sphere connected thereto by a reduced neck, said ball or sphere being provided with a projection or lug and having at the other end a socket provided with an end opening of greater diameter than the neck and less diameter than the ball, a lateral aperture of sufficient diameter to receive the ball, and a slot ex-

tending from the said aperture to the end opening of the socket, substantially as and for the purposes specified.

2. A drive-chain composed of links, each provided at one end with a socket A′, having a reduced end aperture a, a transverse aperture A^2 at right angles thereto, and a slot a', extending from the aperture a to the aperture A^2 and having at the other end a ball B, with reduced neck b and with a projecting lug B′ to engage the slot a' of the adjacent link, substantially as and for the purposes specified.

JOSEPH GOODRICH.

Witnesses:
IRVINE MILLER,
CARRIE FEIGEL.