

No. 673,749.

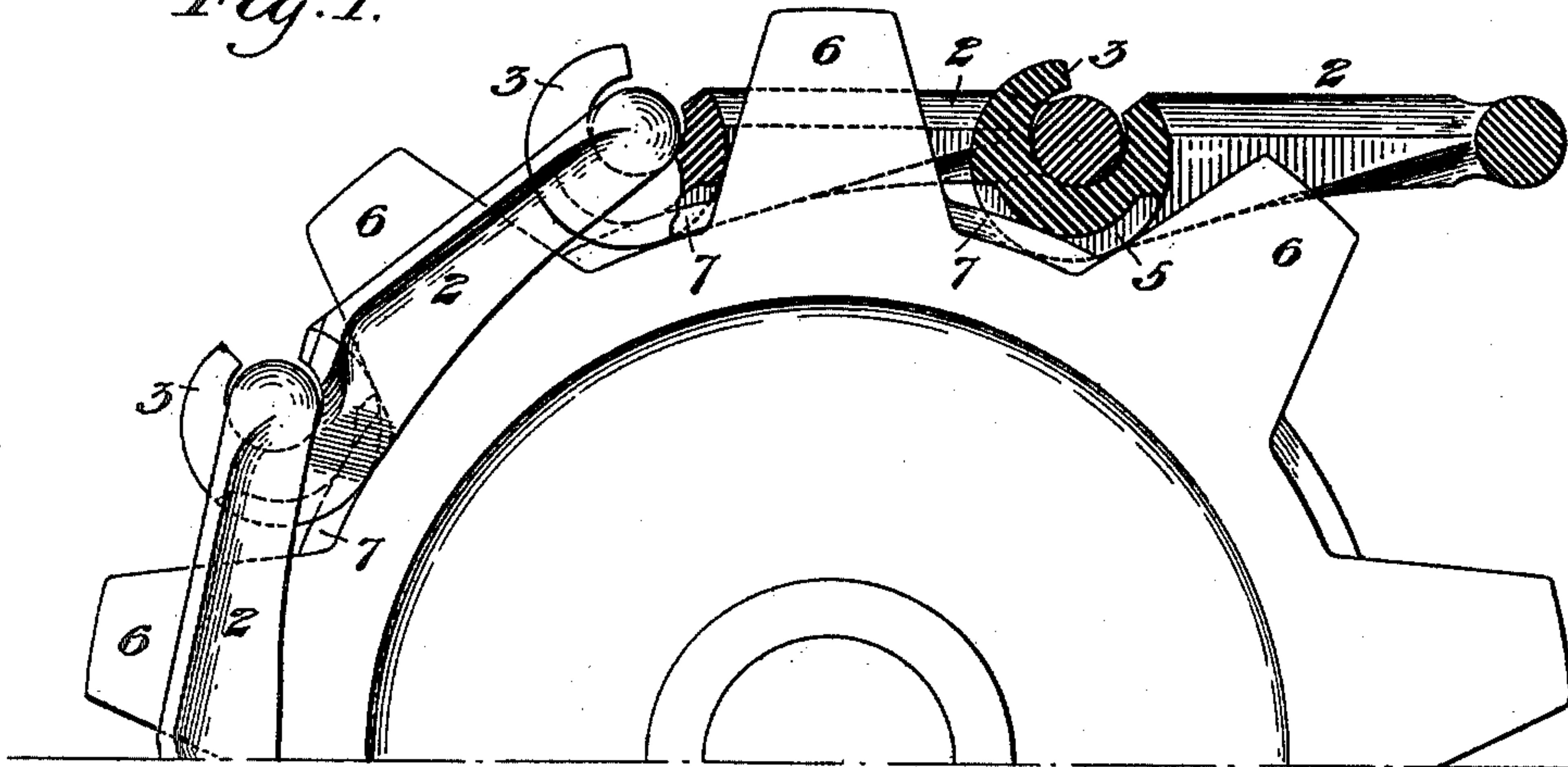
Patented May 7, 1901.

G. G. HOWE.  
DRIVE CHAIN LINK AND WHEEL.

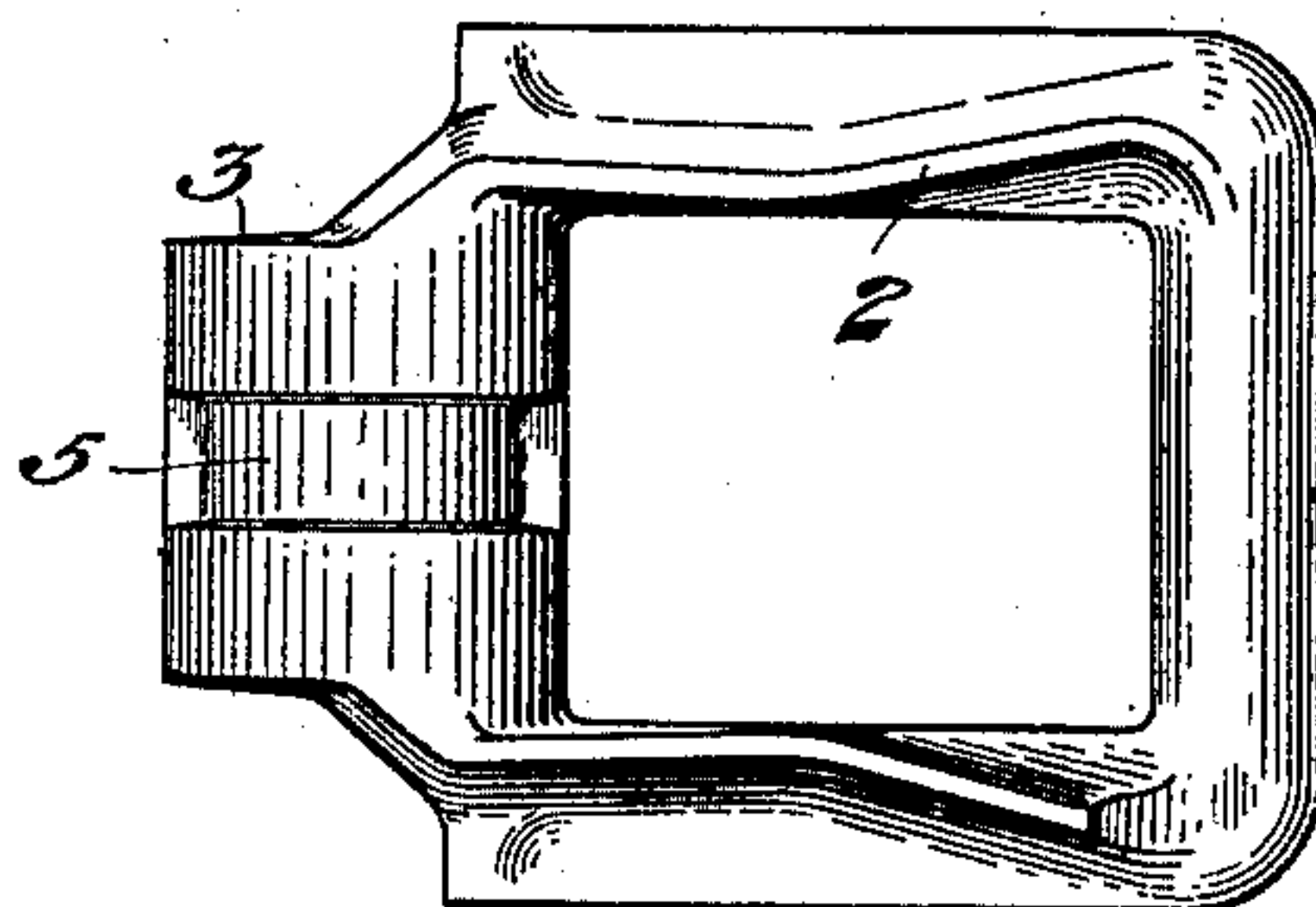
(Application filed May 22, 1900.)

(No Model.)

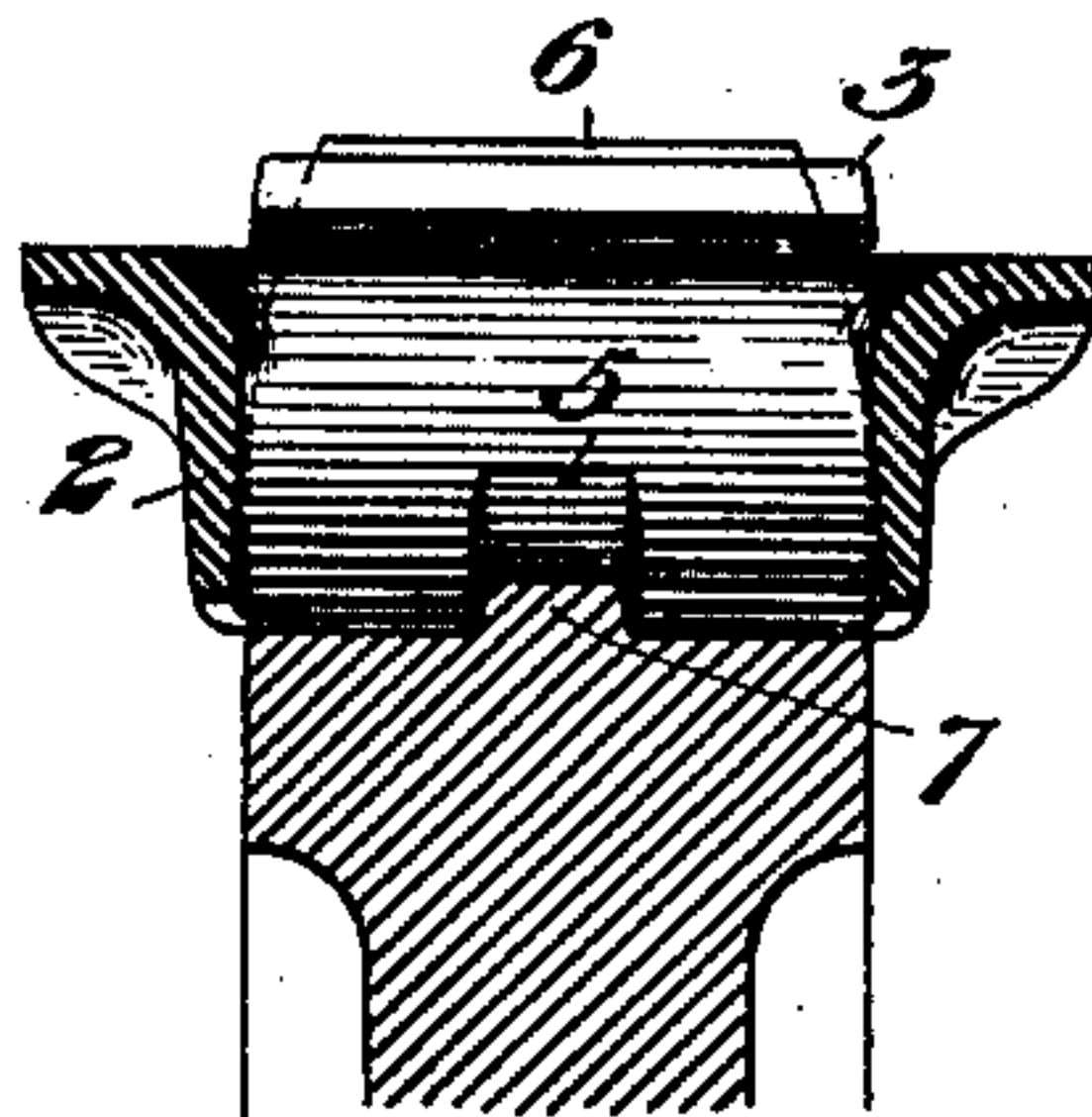
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



WITNESSES

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# UNITED STATES PATENT OFFICE.

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## DRIVE-CHAIN LINK AND WHEEL.

SPECIFICATION forming part of Letters Patent No. 673,749, dated May 7, 1901.

Application filed May 22, 1900. Serial No. 17,508. (No model.)

*To all whom it may concern:*

Be it known that I, GLENN G. HOWE, of Indianapolis, Marion county, Indiana, have invented a new and useful Improvement in Drive-Chain Links and Wheels, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a partial side elevation of a sprocket-wheel, showing the application of the chain thereto, the links thereof being partially in section. Fig. 2 is a bottom plan view of one of the said links, and Fig. 3 is a detail sectional view of Fig. 1.

My invention relates to an improvement in the links of drive-chains and in their adaptation to the sprocket-wheels with which they are employed; and it consists, mainly, in forming on the under or rear side of the hook of the link a longitudinal recess. This construction not only affects the relation of the chain to its sprocket-wheel, but it affords another important benefit in respect to the link itself, for it overcomes the difficulty which has been experienced heretofore in the manufacture of the links of drive-chains by reason of the liability of the metal to shrink and to crack in the hook, which is necessarily made thicker than the other portions.

In the drawings, 2 represents the body of the link, which may be of any suitable construction, and 3 is the hook.

Instead of forming the rear side of the hook, which constitutes one of the end portions of the link, of simple cylindrical section, as before, I form in the same a recess 5, of less width than the distance between the side bars of the link, at a point immediately contiguous to said end portion, which extends partially around the end portion in the direction of the length of the link and preferably through a part only of the depth of the metal. The sprocket-wheel 6, with which the chain is to be used, has between its teeth cross-ribs 7, of less width than the teeth, which extend at right angles to the teeth and are therefore parallel with the recesses on the rear side of the hooks of the links, so that when the chain is applied to the wheel these ribs will engage

and fit in the recesses and will find a bearing on the bases thereof. Therefore although the presence of the recesses lessens the weight of metal in the links it does not impair the bearing-surface of the hooks upon the sprocket-wheel, and I thus attain the purposes of my invention without lessening the efficiency of the chain or increasing its liability to wear by reason of diminished bearing-surface. The links constructed as above described are superior in strength to links having the unrecessed hooks commonly used heretofore. Shrinkage during casting is prevented, and when my improved link has been cast it will be found that the hook is sound and free from flaws, and when annealed the conversion of the metal into malleable condition will be much more complete than has been possible heretofore.

It will be understood that the form of the link may be varied without departure from my invention as defined in the following claims, since

What I claim is—

1. A link for drive-chains, having in the rear side of its end portion a longitudinal recess of less width than the distance between the side bars of the link at a point immediately contiguous to said end portion, said recess extending only partially around the end portion and adapted to engage cross-ribs of a sprocket-wheel; substantially as described.

2. A sprocket-wheel having between its teeth cross-ribs of less width than the teeth, adapted to engage longitudinally recesses in the hooks of the chain; substantially as described.

3. The combination with a sprocket-wheel having cross-ribs between its teeth, of a drive-chain whose links are provided with longitudinal recesses at the rear sides of the end portions of the links; substantially as described.

In testimony whereof I have hereunto set my hand.

GLENN G. HOWE.

Witnesses:

CLINTON E. PROUSE,  
H. D. GORDON.