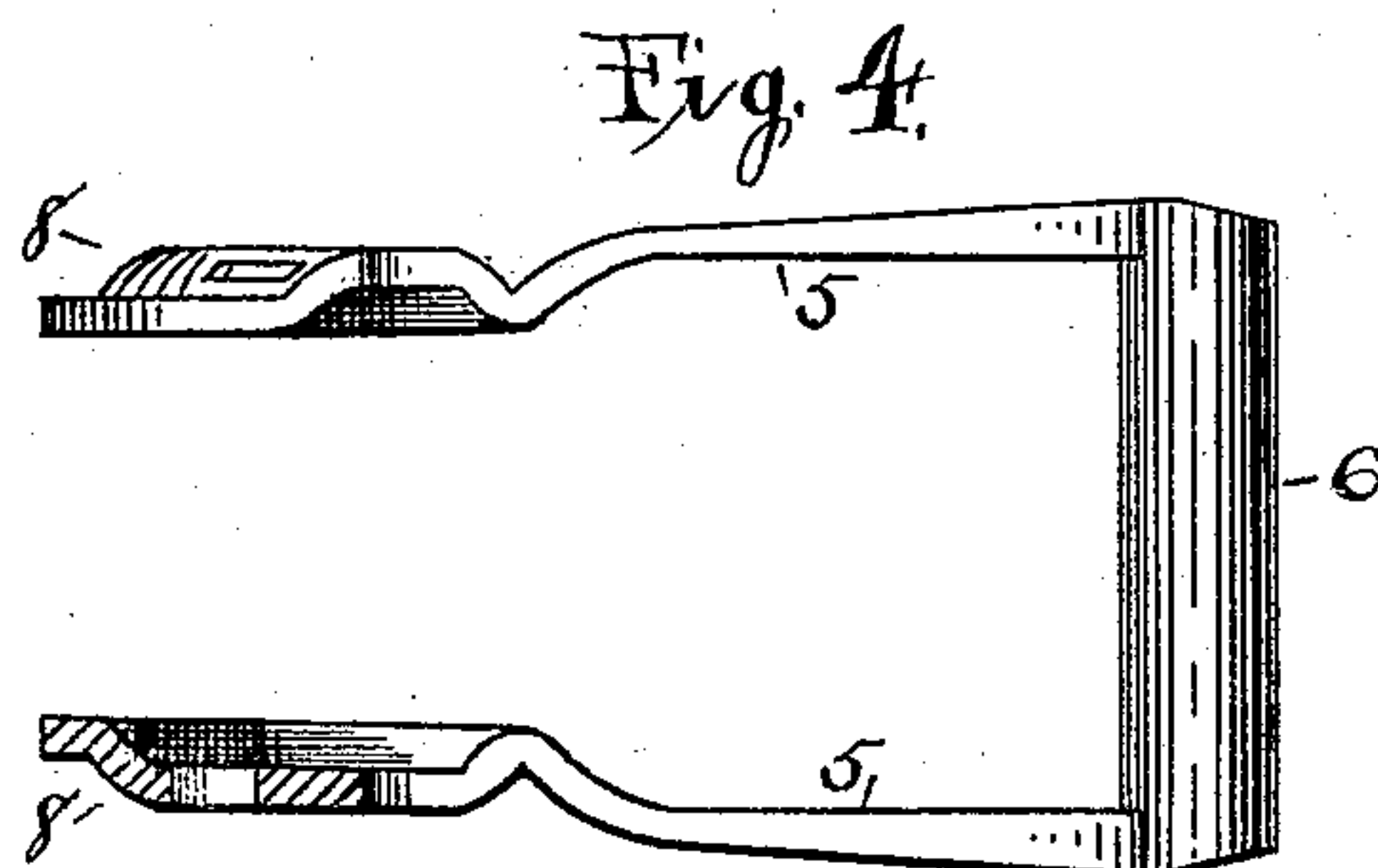
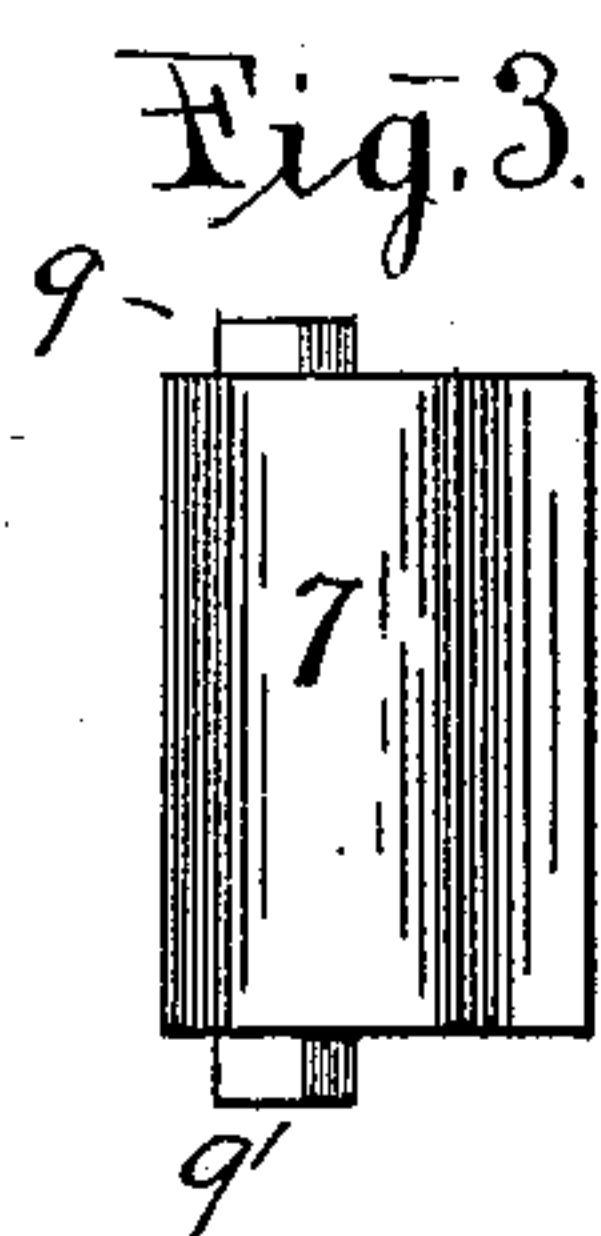
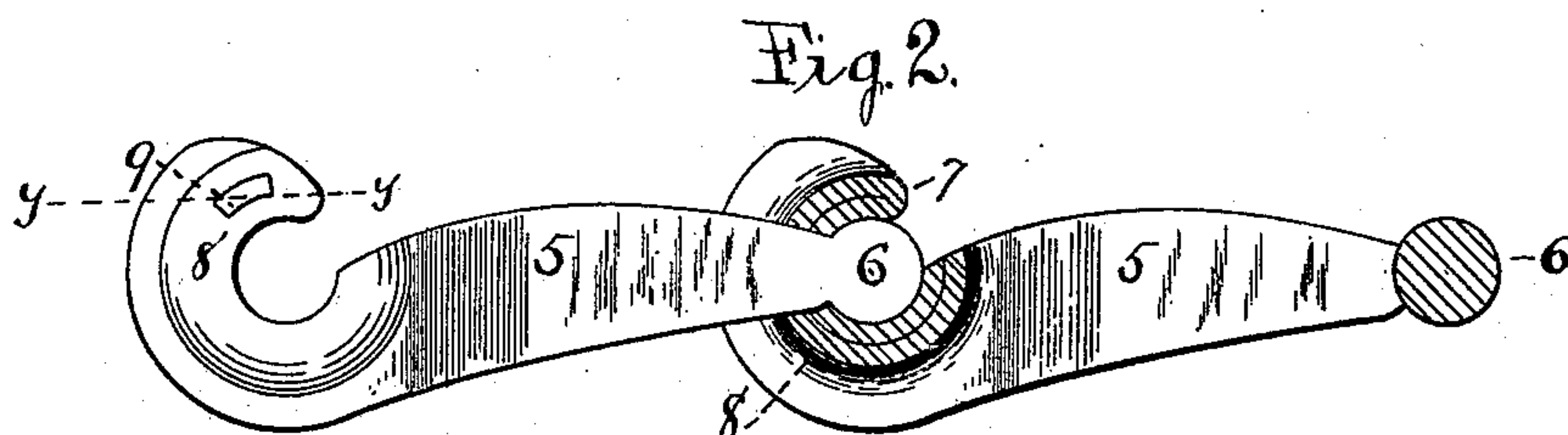
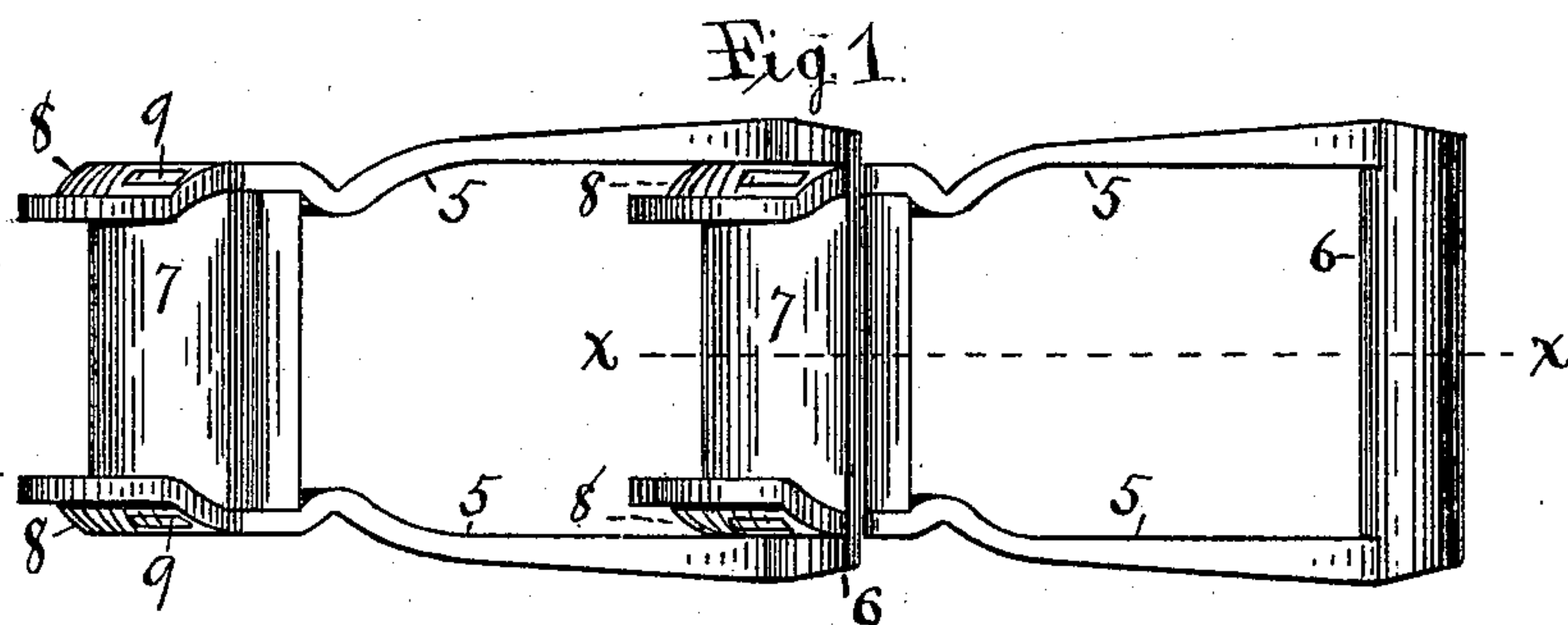


(No Model.)

W. H. HART.
DRIVE CHAIN.

No. 507,362.

Patented Oct. 24, 1893.



Witnesses.

Brayton S. Lewis.

C. Darwin Loomis Jr. By

Inventor.

Wm H. Hart
James Shepard.
Atty.

UNITED STATES PATENT OFFICE.

WILLIAM H. HART, OF NEW BRITAIN, CONNECTICUT, ASSIGNOR TO THE
STANLEY WORKS, OF SAME PLACE.

DRIVE-CHAIN.

SPECIFICATION forming part of Letters Patent No. 507,362, dated October 24, 1893.

Application filed July 20, 1892. Renewed August 12, 1893. Serial No. 483,018. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. HART, a citizen of the United States, residing at New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Drive-Chains, of which the following is a specification.

My invention relates to improvements in drive chains, and the principal object of my improvements is to form a strong and efficient drive chain with but little or no waste of metal and at a small cost.

In the accompanying drawings, Figure 1 is a plan view of two of my drive-chain links connected together. Fig. 2 is a side elevation of one of said links together with a central longitudinal section of the other link on the line xx of Fig. 1. Fig. 3 is a detached plan view of the knuckle portion of my link, and Fig. 4 is a detached plan view of the side bars and pintle portion, one of said side bars being partly in section on the line yy of Fig. 2.

I form the side bars 5 and pintle 6 from a single piece of metal, the side bars being left open at the end opposite the pintle and long enough to inclose the end of the separately formed knuckle portion 7. These may be readily formed from a single bar or strip of wrought metal by bending or doubling the metal to leave the pintle portion in the middle and compress the metal edgewise to round the pintle and preferably flatten the outer end of the side bars and also striking them into a beaded or cup shaped form as at 8. I also shape the outer ends of the side bars into the form of a hook, the opening in which is co-incident with the interior of the knuckle portion. These side bars and integral pintle portion may be thus readily formed from a single piece by means of suitable dies. The knuckle portion 7 is substantially in the form of a hollow cylinder slotted at one side the bore or opening lengthwise through said cylinder being of the proper size to receive the pintle. I prefer to form this knuckle portion 7 of a single piece of metal doubled upon itself and rolled into form as shown. I also

prefer to form tenons 9 on the outer thickness of this knuckle portion at a point near the slot therein and at the top, when in the position shown in Fig. 2. I also perforate the cup shaped ends of the side bars at points co-incident with these tenons. The parts being thus prepared, the knuckle portion is placed between the outer or hooked ends of the side bars with the tenons 9 received in the perforations thereof while the ends of the knuckle portion also fit into and are received by the cup shaped depressions in the ends of the side bars. The tenons may then be headed slightly to hold the parts together when the links are detached. In use the knuckle portion of the chain link will be received between the ends of the side bars at the pintle portion of another link so that then there is no liability of the side bars spreading away from the knuckle portion. The strain upon the link as exerted upon the knuckle portion will be received by the cup shaped depressions at the ends of the side bars thereby making a strong and firm connection of the separately formed knuckle portion therewith.

The general operation of the chain and the manner of assembling the links is the same as in prior chain links of this class.

I claim as my invention—

1. The herein described drive chain link consisting of the side bars and pintle formed from a single piece of metal, the outer ends of the side bars being in the form of broad plate like hooks the diameter of the openings in said hooks corresponding to the diameter of said pintle, and the separately formed knuckle portion in the form of a hollow and slotted cylinder secured between the broad sides of said hooks with its inner surface matching the walls of the openings through said hooks, substantially as described and for the purpose specified.

2. In a drive chain link the side bars having their ends in the form of a hook and confronting cup shaped depressions, and the knuckle portion in the form of a slotted cylinder secured to said hooks with its ends rest-

ing in said cup shaped depressions, substantially as described and for the purpose specified.

3. In a drive chain link the side bars having the ends in hooked form and the knuckle portion rolled from a strip of metal doubled upon itself and provided with the tenons 9 which are received in and secured to corre-

sponding notches in said side bars, substantially as described and for the purpose specified.

WM. H. HART.

Witnesses:

BRAYTON S. LEWIS,
JAMES SHEPARD.