

(No Model.)

C. A. TAPLIN.
DRIVE CHAIN LINK.

No. 500,223.

Patented June 27, 1893.

Fig. 1.

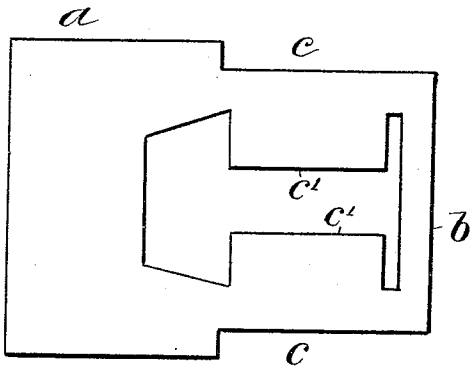


Fig. 4. Fig. 5.

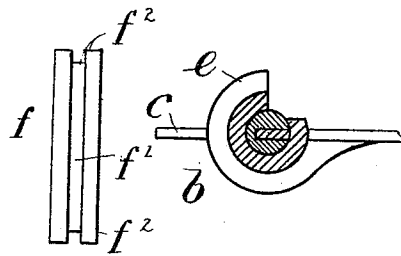


Fig. 2.

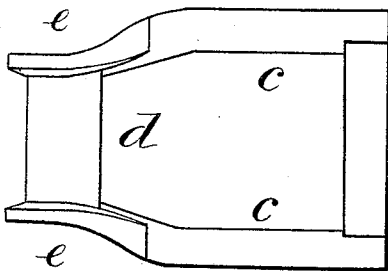


Fig. 6.

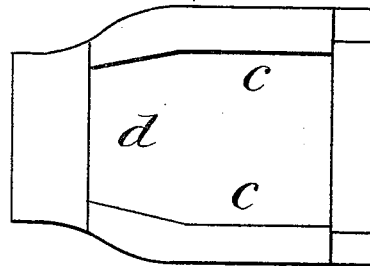


Fig. 3.

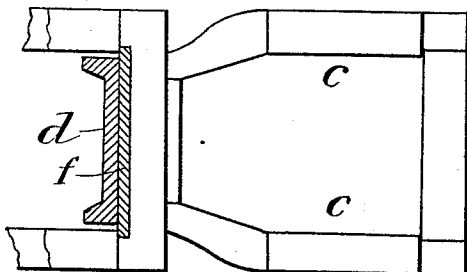
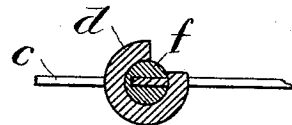


Fig. 7.



Witnesses:

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UNITED STATES PATENT OFFICE.

CLARENCE A. TAPLIN, OF NEW BRITAIN, CONNECTICUT.

DRIVE-CHAIN LINK.

SPECIFICATION forming part of Letters Patent No. 500,223, dated June 27, 1893.

Application filed May 31, 1892. Serial No. 435,095. (No model.)

To all whom it may concern:

Be it known that I, CLARENCE A. TAPLIN, of New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Drive-Chain Links, of which the following is a full, clear, and exact description, whereby anyone skilled in the art can make and use the same.

The object of my invention is to provide a link for a drive chain that may be made of sheet metal and will be strong and durable, and to this end my invention consists of the details of the several parts making up the link as a whole and in their combination as more particularly hereinafter described and pointed out in the claims.

Referring to the drawings:—Figure 1 is a detail plan view of the blank from which the link is formed. Fig. 2 is a detail plan view of the completed link. Fig. 3 is a detail plan view showing two links connected together and with the knuckle and false pintle cut in lengthwise section. Fig. 4 is a detail edge view of the false pintle. Fig. 5 is a detail view in cross section through the knuckle. Fig. 6 is a detail plan view of a modified form of link. Fig. 7 is a detail edge view in section showing the method of connecting two of the latter form of links.

In the accompanying drawings the letter *a* denotes a blank that is made of suitable sheet metal, low grade steel preferred, and this blank is cut or stamped to shape. The central portion is cut away leaving at one end a somewhat narrow bar *b*, side parts *c* and enough metal at one end to roll up to form the knuckle *d*. On the inner edges of the side parts there are also left wings *c'* which are intended to be folded down upon the side parts for the purpose of strengthening the parts. The outer edges of the blank at the knuckle end are also left with slight extensions in order to afford sufficient metal in swaging up ribs *e*.

In order to enable the link to be made from comparatively thin metal and yet have sufficient strength in the knuckle end to prevent straightening out or distortion under the pull to which the chain link is subjected in use, it is reinforced by swaging up the rib *e* on the ends of the knuckle *d*, these ribs extending to a degree into the side parts of the link, the

blank having been left as stated of a suitable width to provide an excess of metal to form the ribs of sufficient size to effect the purpose in hand.

It is not essential in the practice of my invention that the ribs shall be formed on the knuckle end of the blank and in fact the invention contemplates the construction of a drive chain link without such ribs, although such a construction is not shown in the drawings, and in such a case the blank may be rolled into cylindrical shape and then compressed lengthwise of the knuckle and widthwise of the blank a mandrel being used within the knuckle so as to keep the socket of proper size. This swaging up of the metal of itself adds great strength to the knuckle.

In order to thicken up and compress the knuckle end and also to form the rib the blank is held in suitable tools or dies and pressure exerted edgewise of the blank by said die parts and the result of the operation is that the rib is suitably formed and at the same time the whole knuckle end is contracted lengthwise of the knuckle *d* and widthwise of the blank thus forming an extremely strong and durable knuckle.

The bar *b* is not of proper shape in cross section to afford suitable connecting means with another link and it is built up to the required shape by means of a reinforce *f* that consists of a cylindrical piece of metal having a slot *f'* along one side that adapts it to slip onto the bar *b* and to be compressed tightly upon it. As an aid in preventing the reinforce from removal the slot *f'* is extended around the ends at *f''* so that the side bars *c* fit into these extensions as illustrated in Figs. 2 and 4 of the drawings, and the reinforce is thus more securely held against any accidental removal. One end of the reinforce is opened out so as to enable it to be slipped into place beyond the edge *c''* of the fold on the side part and these ends are then closed down upon the bar and securely held in place by means of the shoulders *c''*.

The knuckle *d* is bent to proper shape and size to receive the pintle in an open socket and any two links are engaged in the ordinary manner by slipping the pintle into the socket in the knuckle while the side parts of both links extend in substantially the same

direction, and then extending the links by turning the pintle within the socket within the knuckle until the two lie in substantially the same plane, the said bars lying against the edge of the knuckle.

5 I claim as my invention—

1. A drive chain link made of thin metal and comprising a body part having a central opening with a knuckle at one end of the body part having a swaged rib at each end of the knuckle, the folded reinforce at the end of the side parts of the frame of the link, and the cylindrical pintle formed by a slotted cylindrical reinforce secured to the cross bar of the frame at the opposite end from the knuckle, all substantially as described.

2. A drive chain link made of sheet metal and comprising a frame like body part having at one end a knuckle with an integral swaged rib at each end thereof and at the opposite end of the link a cylindrical pintle formed by a slotted cylindrical reinforce said slot engaging both the cross bar and the side parts of the frame all substantially as described.

3. As an improved article of manufacture

a blank for a drive chain link cut from sheet metal and composed of side parts with a narrow bar at one end and with a bar at the opposite end wider than the body part of the link, all substantially as described.

4. As an improved article of manufacture a blank for a drive chain link cut from sheet metal composed of side parts having inward extending wings, a narrow bar formed at one end of the blank and a bar at the opposite end of the blank wider than the body part of the link, all substantially as described.

5. A drive chain link made of thin metal comprising a body part having a central opening with a knuckle at one end of the body part, the folded reinforce at the end of the side parts of the frame of the link, the cylindrical pintle formed by a slotted cylindrical reinforce secured to the cross bar of the frame at the opposite end from the knuckle, all substantially as described.

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Witnesses:

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