(No Model.)

T. CORSCADEN.

MANUFACTURE OF DRIVE CHAIN LINKS.

No. 467,659. Patented Jan. 26, 1892.

Fig. 1.

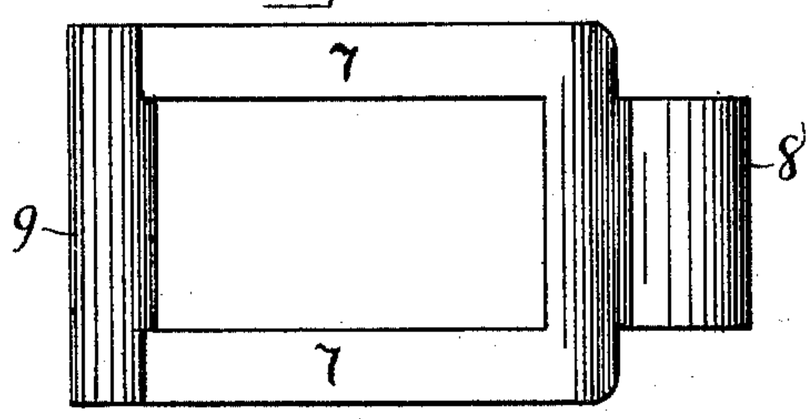


Fig. 2

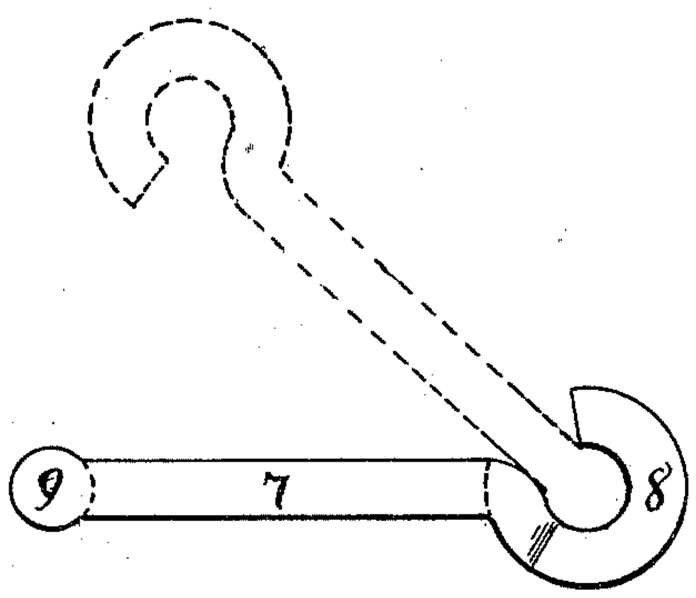
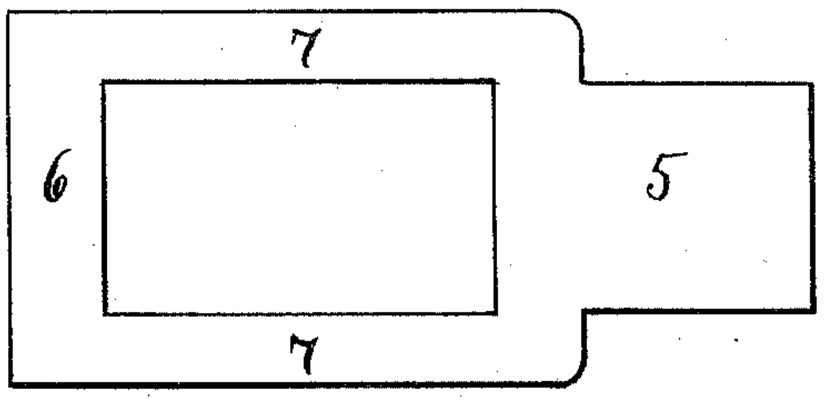


Fig. 3.



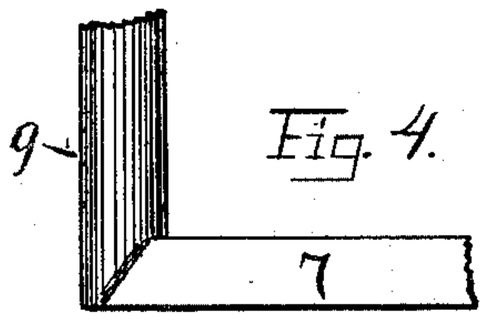


Fig. 4.

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THOMAS CORSCADEN, OF NEW BRITAIN, CONNECTICUT.

MANUFACTURE OF DRIVE-CHAIN LINKS.

SPECIFICATION forming part of Letters Patent No. 467,659, dated January 26, 1892.

Application filed September 21, 1891. Serial No. 406,291. (No model.)

To all whom it may concern:

Be it known that I, THOMAS CORSCADEN, 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 the Manufacture of Drive-Chains, of which the following is a specification.

In the accompanying drawings, Figure 1 is a plan view of one of the links for my chain. Fig. 2 is a side elevation or edge view of the same, together with a second link in broken lines. Fig. 3 is a plan view of the blank from which said links are formed; and Fig. 4 is a plan view of one corner of one of my links with a slightly-different finish.

My chain is of the class wherein all the links are alike, each having at one end an open knuckle portion and at the other end a pintle portion, the pintle portion of one link being adapted to be slipped endwise into the knuckle portion of one of the other links when the two are in the relative position shown in Fig. 2. An example of a drive-chain of this class is found in Patent No. 154,594, dated September 1, 1874, to W. D. Ewart.

I first cut out the blank in the form shown in Fig. 3 from a plain flat sheet of metal of uniform thickness. This blank has a middle opening of substantially the same shape and size as that in the completed link, one end of the blank being provided with a knuckle-blank 5 and the other end with a rectangular pintle-blank 6, which may be of a width lengthwise of the blank to give it the desired area in cross-section. The side bars 7 7 of the blank are of the same form as in the completed link—that is, rectangular in cross-section. The knuckle-blank is rolled or coiled into the knuckle portion 8, substantially the same as the knuckle of a hinge, only the blank is shorter, so as to leave an opening at the back of the knuckle portion of a width about equal to the thickness of the metal from which the link is formed, and consequently about equal to the thickness of the side bars 7. The pintle-blank 6 is swaged to change it from its rectangular form (shown in Fig. 3) to the round form of the pintle portion 9, (shown in Figs. 1 and 2,) the diameter of the pintle portion being of a size to fit the axial opening through the knuckle portion, the same being somewhat in excess of the thickness of the side bars. For example, if the side bars are one-quarter of an inch thick, a proper size for the diameter of the pintle portion and axial opening through the knuckle portion would be three-eighths of an inch.

The junction of the side bars and the pintle portion may have any desired finish, provided the side bars are left of full size and no part projects diametrically beyond the periphery of the pintle portion at one end thereof, preferably at either end. By placing one link with its pintle portion in axial alignment with the knuckle portion of another link, with said links in the relative position illustrated in Fig. 2, they may be slipped together, and when in proper longitudinal alignment they may be turned on their hinged end to bring the ends or side edges of the knuckle portion inside of the side bars, thereby preventing their detachment unless the links are turned back into the relative position shown in Fig. 2. Inasmuch as all the links are alike, I consider it unnecessary to show a series of connected links further than the same is shown in Fig. 2.

By my improvements the links are cheaply and quickly formed, are of solid wrought metal of a single thickness throughout, and of a form which gives the greatest possible amount of strength, will work smoothly, and present a large wearing and guiding surface.

I claim as my invention—

That improvement in the manufacture of drive-chain links which consists in cutting out from sheet metal a link-blank of uniform thickness having a knuckle-blank, rectangular pintle-blank, and side bars, rolling the knuckle-blank into a knuckle portion, and swaging the pintle-blank into a solid pintle portion of a diameter greater than the original thickness of the blank, substantially as described, and for the purpose specified.

THOMAS CORSCADEN.

Witnesses:
JAMES SHEPARD,
HILMER SVENSON.