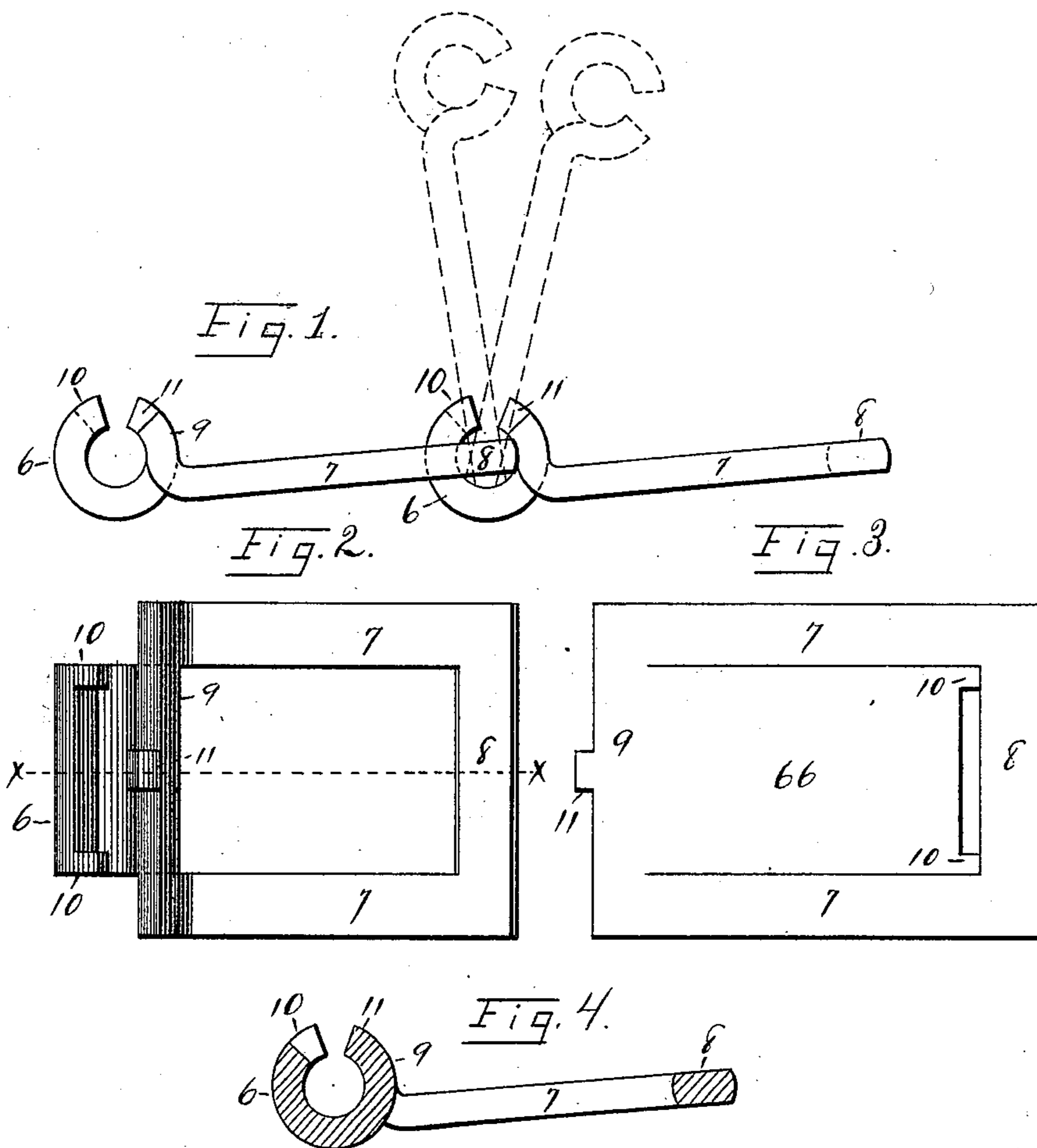


(No Model.)

T. CORSCADEN.
DRIVE CHAIN.

No. 518,307.

Patented Apr. 17, 1894.



WITNESSES
Arthur J. Beach.
Chas. M. Bungee

INVENTOR
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UNITED STATES PATENT OFFICE.

THOMAS CORSCADEN, OF NEW BRITAIN, CONNECTICUT, ASSIGNOR TO THE
STANLEY WORKS, OF SAME PLACE.

DRIVE-CHAIN.

SPECIFICATION forming part of Letters Patent No. 518,307, dated April 17, 1894.

Application filed January 21, 1892. Serial No. 418,768. (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 Sheet-Metal Chains, of which the following is a specification.

My invention relates to improvements in sheet metal chains and the main object of my improvement is to construct a flat, strong and generally efficient chain from sheet metal at a small cost and without any waste of stock.

In the accompanying drawings, Figure 1 is a side elevation of two connected detachable links made in accordance with my improvement. Fig. 2 is a plan view of one of said links. Fig. 3 is a plan view of the blank from which said links are formed. Fig. 4 is a sectional view of one of said links on the line x , x of Fig. 2.

I form my link blanks from a flat plate of sheet metal by cutting into blanks whose contour is substantially a right angled parallelogram, but in some cases I form a short and small lug at one end as shown in Fig. 3. I also slit the body portion of the blanks on three lines that are parallel to the two longest sides and one end of the blank, leaving a hook blank 66, as shown in said Fig. 3; and I prefer to further cut the free end of said hook so as to form a lug 10 at each corner. By thus cutting this hook blank I form side bars 7 and cross bar 8 at one end while the hook blank remains connected therewith by a web 9 at the end opposite said cross bar 8. I also swage or dress the cross bar to form its inner and outer edges, as well as the ends of the cross that are flush therewith, into a curved form corresponding to the curve on the inside of the hook 6 in the finished link. The free end of the hook blank is then bent out from between the side bars in a downward direction with reference to the position shown in Figs. 1 and 4, and over into the hook 6 by one continuous roll or bend without any reverse curve, while the side bars are also bent near the connecting web 9 to turn said web into a position at an angle to the length of said side bars and also curving said web, thereby changing that end of the blank Fig. 3, into the form shown in Figs. 1, 2 and 4. In this

form of chain, with detachable links, I purposely make the hook blank of such length that when thus bent a slot is left between the end of the hook and the connecting web of a width fully equal to the thickness of the side bars and cross bar whereby the links may be attached and detached to and from each other by slipping them sidewise and hooking together in a somewhat similar manner to that of putting together ordinary drive chain links of this class. In ordinary chains of this class the cross bars that enter the hooks are rounded and of a diameter greater than the slot in the hooks, but I have shown a flattened cross bar which in one direction is of the same thickness as the side bars and consequently one in which the chain links might become accidentally detached in handling, or have the outer edge of the cross bar enter the slot in the hook from the inside, provided such cross bar was used with a hook having the ordinary straight slot. By the employment of the lugs 10 and 11 the side walls of the slot are angular instead of straight from side to side and the hook embraces so much of a complete circle that the slot therein when viewed in side view as in Fig. 1, is less than the thickness of the cross bar 8 so that this cross bar is radially supported in all directions when placed within said hook. The slot however when measured on any one longitudinal line is of the full width of the thickness of the side bars and cross bar. In order to put the links together the cross bar of one link is placed by the side of the hook of another link when the links have the relative positions indicated by the right hand link and the broken line contour at the right of Fig. 1; then slipping them together sidewise until the outside corner formed by the ends of one side bar and the cross bar 8 is stopped on the lug 11; then turning the links away from each other on the axis of the hook a distance corresponding to a change from the position represented by the right hand broken line link contour to that of the left hand broken line link contour in Fig. 1; then slipping sidewise until the same corner stops on one of the lugs 10; then rocking the links back into the position indicated by the right hand broken line contour; then slipping them farther sidewise until the

inside corner of the cross bar and opposite or rear side bar strikes the lug 11 and the hook registers with the opening between the side bars, when the links may be turned to extend lengthwise of the chain as shown by the full lines in Fig. 1.

By the employment of the lugs to form an angular slot in the hook I can employ a flattened cross bar within the slotted hook of a detachable chain.

I claim as my invention—

A sheet metal chain link, having a flattened end cross bar, side bars, connecting web and

hook, with lugs 10 at the outer corners of said hook and the lug 11 on said connecting web at a point between said lugs 10, the width of the slot between the edges of the hook and web measured in the direction of the link's length being less than the width of said cross bar and fully equal to its thickness, substantially as described and for the purpose specified.

THOMAS CORSCADEN.

Witnesses:

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