

(No Model.)

S. DAVIDSON.  
CHAIN CROSS BAR.

No. 254,931.

Patented Mar. 14, 1882.

Fig. 1.

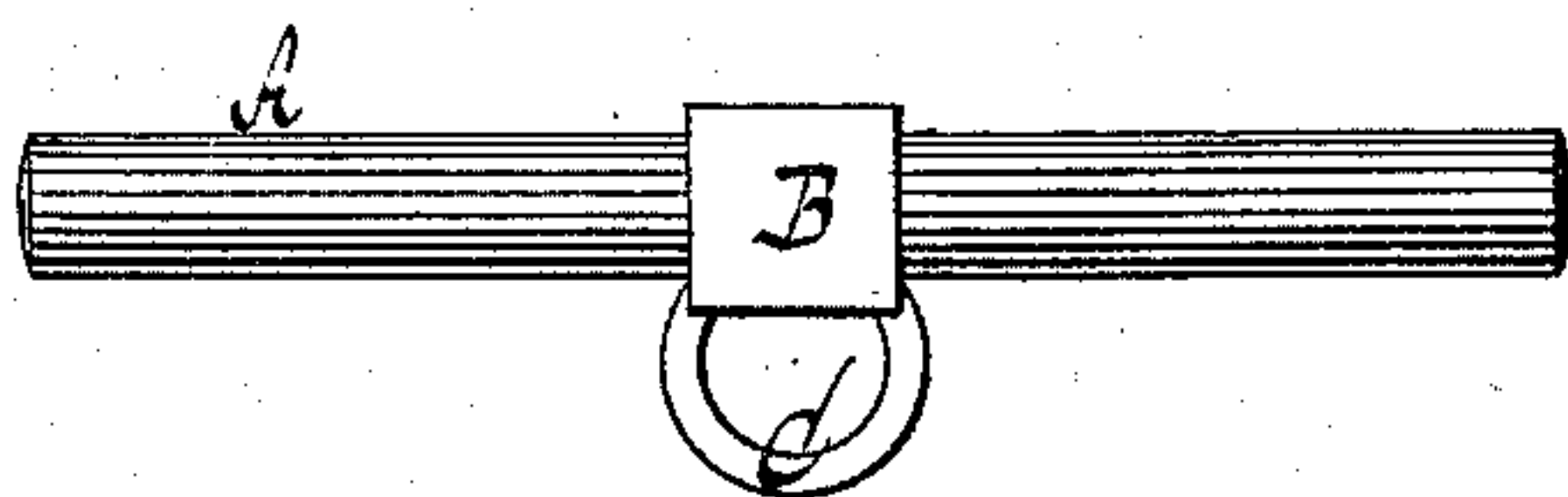


Fig. 2.

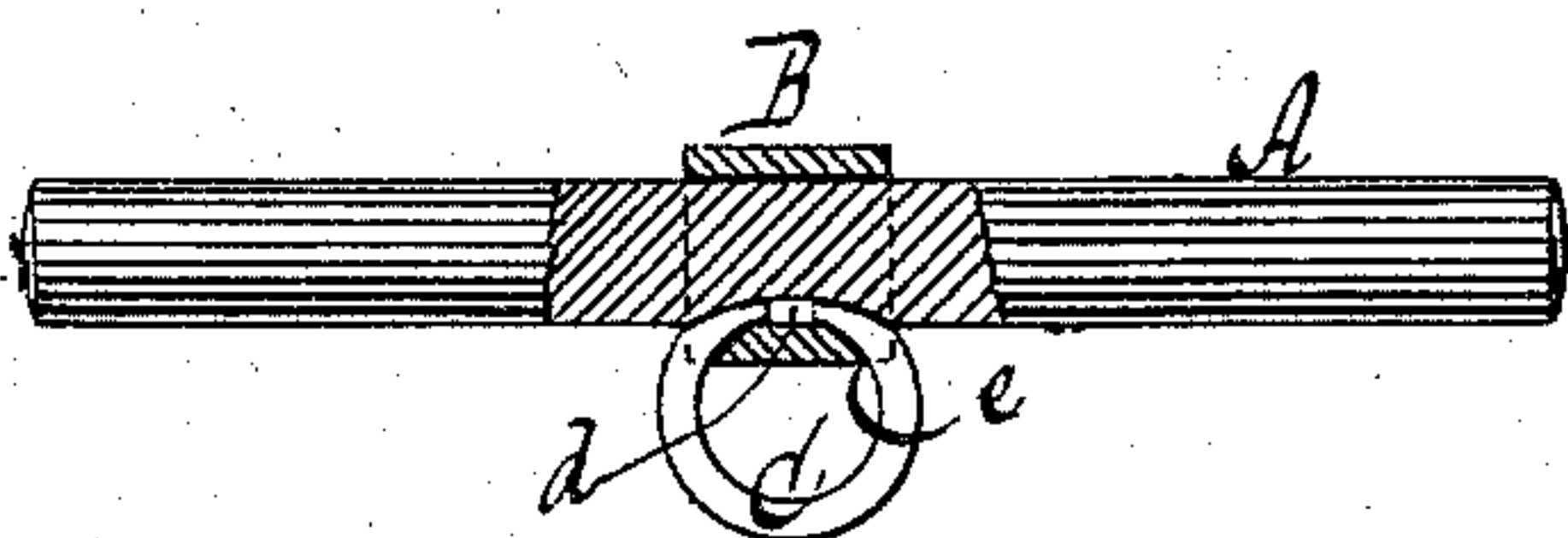


Fig. 3.



Fig. 4.

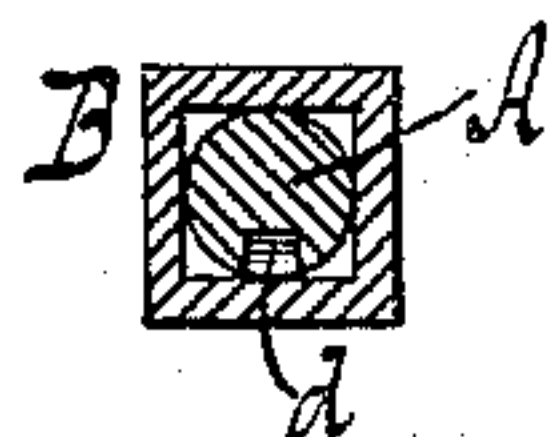


Fig. 5.



Fig. 6.

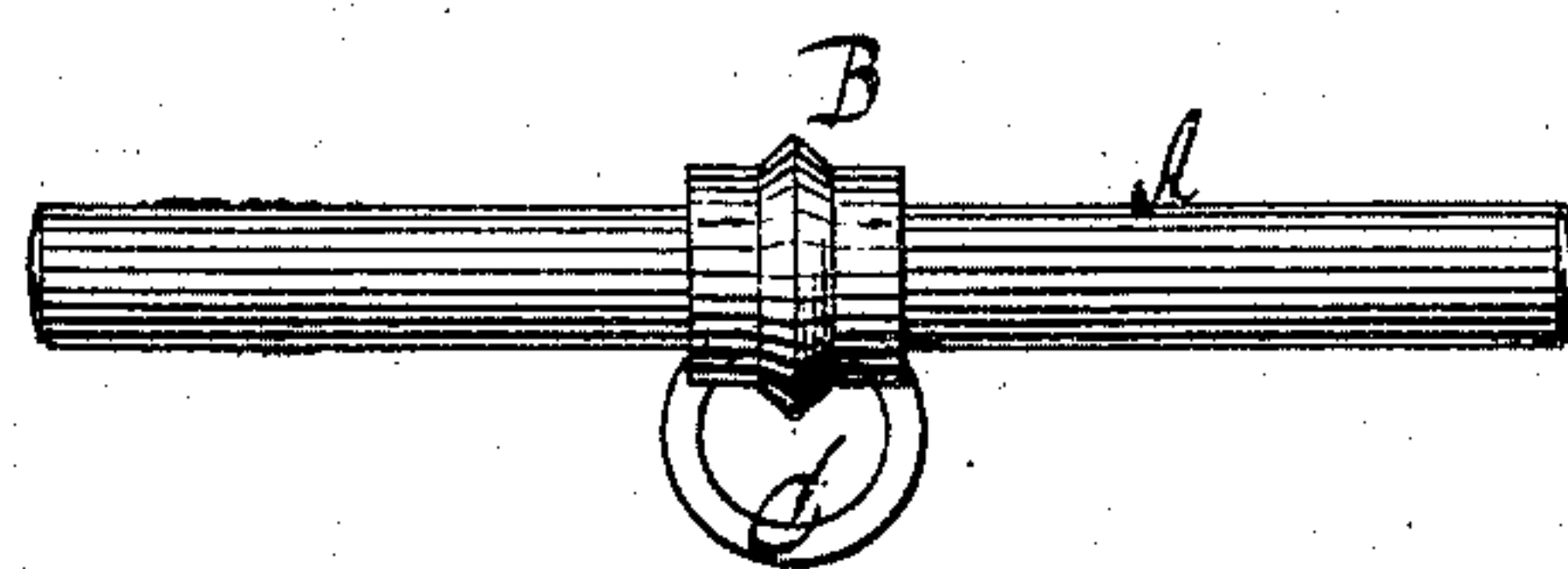


Fig. 7.

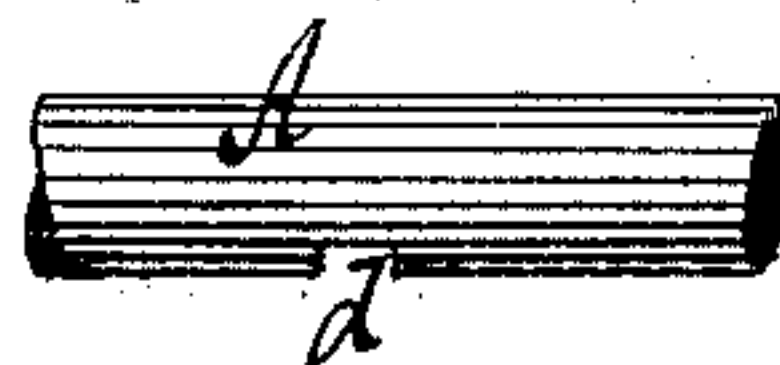


Fig. 8.

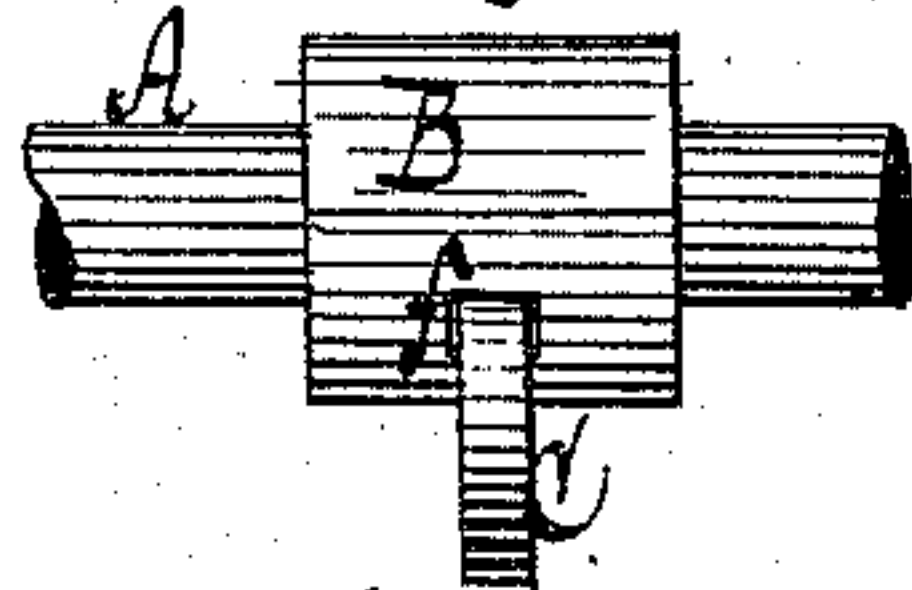


Fig. 9.



Witnesses  
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# UNITED STATES PATENT OFFICE.

SALOMON DAVIDSON, OF NEW YORK, N. Y.

## CHAIN CROSS-BAR.

SPECIFICATION forming part of Letters Patent No. 254,931, dated March 14, 1882.

Application filed January 28, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, SALOMON DAVIDSON, a citizen of the United States, residing at New York, in the county and State of New York, have invented new and useful Improvements in Chain Cross-Bars, of which the following is a specification.

This invention relates to cross-bars for chains, and especially vest-chains, the function of such bars being to hang the chains to vests. For the purpose of applying the cross-bar to a chain it is provided with a coupling ring or eye at about its mid-length, and prior to my invention this ring has been secured in place by means of solder.

The object of my invention is to produce a simple and effective means for securing the coupling-ring to the cross-bar without the use of solder, thereby reducing the cost of manufacture and imparting to the article a superior finish.

To this end it consists in a bar having a groove or depression at about its mid-length, combined with a collar fitted on the bar and a cleft coupling-ring inserted into the groove of the bar through the collar, so that the ring is firmly retained in such groove by the collar, while the latter at the same time is held in place on the bar by the ring. Notches or openings are formed in the collar coincident with the bar-groove, to receive the coupling-ring, and by this means an improved connection of the collar is produced.

This invention is illustrated in the accompanying drawings, in which Figure 1 represents a side view. Fig. 2 is a part side view and a part longitudinal section. Fig. 3 is a side view of the bar, showing its groove. Fig. 4 is a cross-section of the bar and collar. Fig. 5 is a side view thereof. Fig. 6 is a side elevation of a modification; Fig. 7, an end view of another modification; Fig. 8, a side elevation of Fig. 7, and Fig. 9 a detached view of the bar shown in Figs. 7 and 8.

The letter A designates the bar, B the collar, and C the coupling ring or link.

The bar A is round; but it can also be made flat, square, or polygonal, or of any other desired shape in cross-section; and at about the mid-length of the bar is formed a groove or depression, *d*, preferably with straight sides and a curved bottom.

In the example shown, omitting Fig. 6, the collar B is square; but the shape thereof, like that of the bar, can be varied, Fig. 6 showing the same as being made round; and the collar, moreover, may be left plain, or it may be ornamented by perforations, engraving, or other suitable means. In the example shown in Fig. 6 the collar B is made in sections, the remaining figures showing the same as being made in one piece.

The coupling-ring C has a thickness equal to the width of the groove *d* of the bar, and it is cleft in contradistinction to being left continuous or endless, while it is inserted into the bar-groove through the collar B. In the example shown in Figs. 1 to 6, inclusive, the ring C is brought into the bar *d* by expanding the ring and inserting the ends thereof into the collar B from its opposite ends, at the same time holding the collar in a suitable position to cause the ends of the ring to enter the groove, as shown in Fig. 2. At the points where the ring C enters the collar B in the figures last referred to, the collar is provided with notches or openings *e*, which coincide with the bar-groove *d* and with each other, and which receive or contain in them the shank of the ring, so that the latter engages the collar by that means. In the example shown in Fig. 7 the ring C and the groove *d* occupy a position at right angles to that shown in the preceding figures, and the ends of the ring are inserted into the groove from a lateral direction through openings *f* formed in the collar for this purpose.

It will be seen that by the collar B the ring C is firmly retained in the bar-groove *d*, the collar acting as a tie, and hence the ring is thereby connected to the bar in an efficient manner without requiring any soldering, while the collar in turn is held in place on the bar by the ring. In Figs. 1 to 6, inclusive, the notches or openings *e* have the effect of preventing a transverse or rotary movement of the collar B, and thus improve its connection with the bar.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination, substantially as hereinbefore set forth, of the bar having a groove or depression at about its mid-length, the collar fitted on the bar, and the cleft coupling-

ring inserted into the bar-groove through the collar.

2. The combination, substantially as hereinbefore set forth, of the bar having a groove  
5 or depression at about its mid-length, the collar fitted on the bar and provided with notches or openings coinciding with the bar-groove, and the coupling-ring inserted into the bar-groove through the collar and engaging the  
10 collar notches or openings.

In testimony whereof I have hereunto set my hand and seal in the presence of two subscribing witnesses.

SALOMON DAVIDSON. [L. S.]

Witnesses:

W. HAUFF,  
CHAS. WAHLERS.