C. STROBEL.

PATTERN CHAINS FOR LOOMS.

No. 188,981. Patented March 27, 1877.

Fig 1

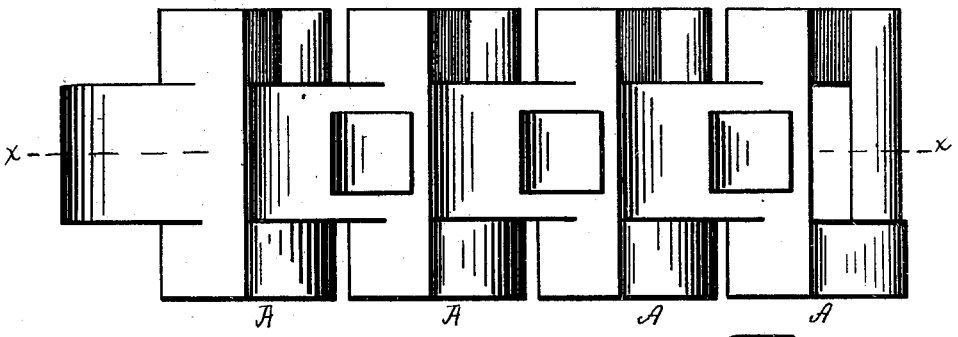


Fig 2

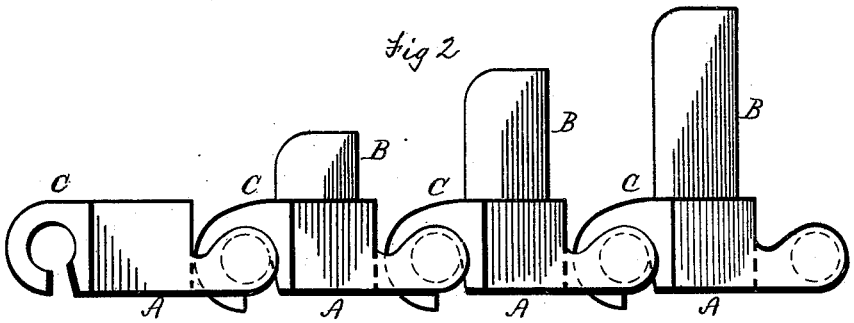


Fig 3

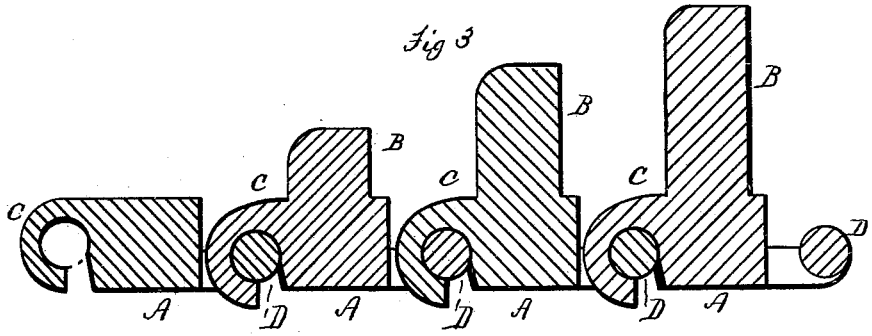


Fig 4

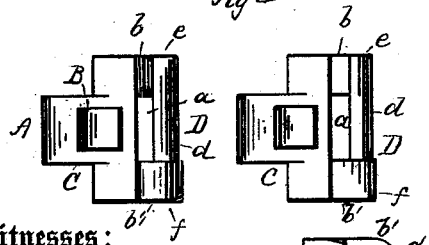


Fig 5

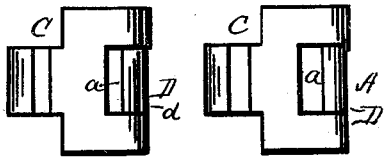


Fig 6

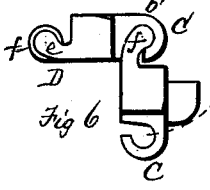
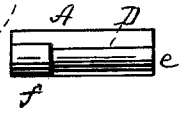


Fig 7



Witnesses:

Lewis H. Brous

J. C. Shaw

Inventor:

Charles Strobel,

by John A. Wiedersheim

Attorney.

UNITED STATES PATENT OFFICE.

CHARLES STROBEL, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN PATTERN-CHAINS FOR LOOMS.

Specification forming part of Letters Patent No. **188,981**, dated March 27, 1877; application filed December 30, 1876.

To all whom it may concern:

Be it known that I, CHARLES STROBEL, of city and county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Pattern-Chains for Looms, which improvement is fully set forth in the following specification and accompanying drawing.

Figure 1 is a face view of the chain embodying my invention. Fig. 2 is a side elevation thereof. Fig. 3 is a central section thereof in line *x x*, Fig. 1. Fig. 4 is a face view of two links detached. Fig. 5 is a bottom view of the same. Fig. 6 is a side elevation of two links in the act of being connected. Fig. 7 is a side view of one of the links.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists in so constructing the links of pattern-chains for looms that the links may be connected and disconnected by lateral motions.

Referring to the drawings, A represents the links of the pattern-chain, and B the pins thereof. At one side of each link there is formed an open eye, C, and at the opposite side a bar, D, said eye and bar extending in the transverse direction of the link. The bar is separated from the link, so as to leave a space, *a*, and connected to the body of the link, at the sides thereof, by longitudinally-extending projections, *b b'*, the bar being circular for the main portion of its length, as at *d*, elliptical at the place of union with the projection *b*, as at *e*, and enlarged or shouldered at the place of union with the projection *b'*, at at *f*.

When the links are to be connected or applied in order to make up the pattern, two of the said links are presented at an angle to each other, so that by sliding one link toward the other, transversely or laterally, the elliptical side of the bar D of one link will enter the eye C of the other link, the neck of the elliptical side passing through the open portion of said eye, (see Fig. 6,) the shoulder *f* limiting the motion. Now, move one link on the bar D as an axis, so that the two links will be at or about a right line, as seen in Figs. 2 and 3, and the hooked portion *c*, or end of the wall of the eye, will enter the space *a*, so as to protrude below the lower side of said space, and be confined between the projections *b b'*, whereby the two links will be prevented from lateral and longitudinal displacement. Then attach the other links in a similar manner, so as to complete the chain, and it will be seen that the links are connected without separate pivotal pins or fastening-screws, and a simple and reliable connection provided.

In order to detach the chain, swing one of the links to or about the position shown in Fig. 6, whereby the hooked portion *c* of the link A emerges from the space *a*, and is uncontrolled by the projection *b'*. Now draw one link laterally, and the links will be released, and then proceed with the other links, or with as many as are to be released.

The pattern-pins B will be cast solid with the bodies of the links, whereby they are in no danger of being struck loose or becoming detached. The pattern-chains may be made cheap, and the operative links are always in condition for connection one with another.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The link consisting of the eye portion C and the bar D, the latter being elliptical, circular, and enlarged or shouldered at various portions of its length, whereby said link is adapted to be connected to and disconnected from the chain by lateral movement, substantially as set forth.

CHARLES STROBEL.

Witnesses:

JOHN A. WIEDERSHEIM,

RANKEN CASSELS.