

(Model.)

C. E. ALDEN.
DRIVE CHAIN.

No. 322,405.

Patented July 21, 1885.

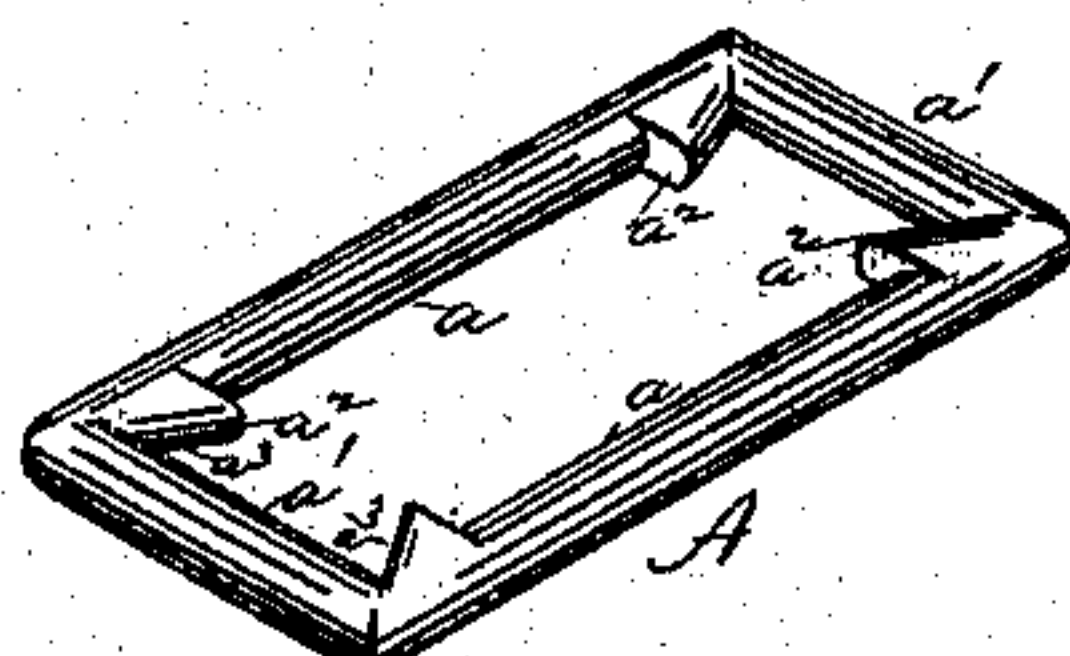


Fig. 1

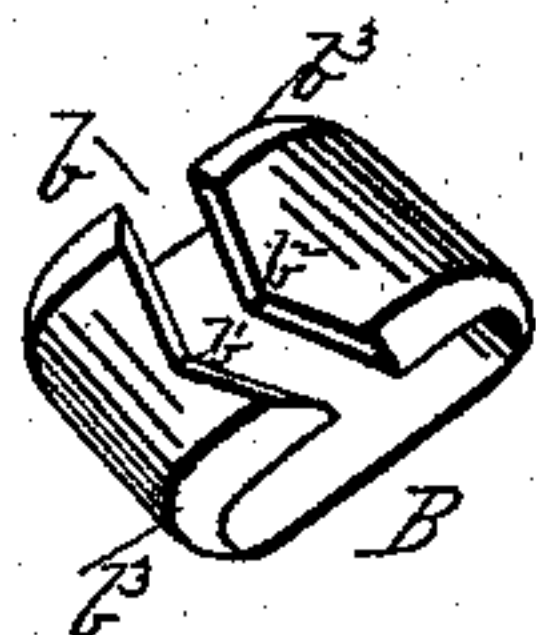


Fig. 2

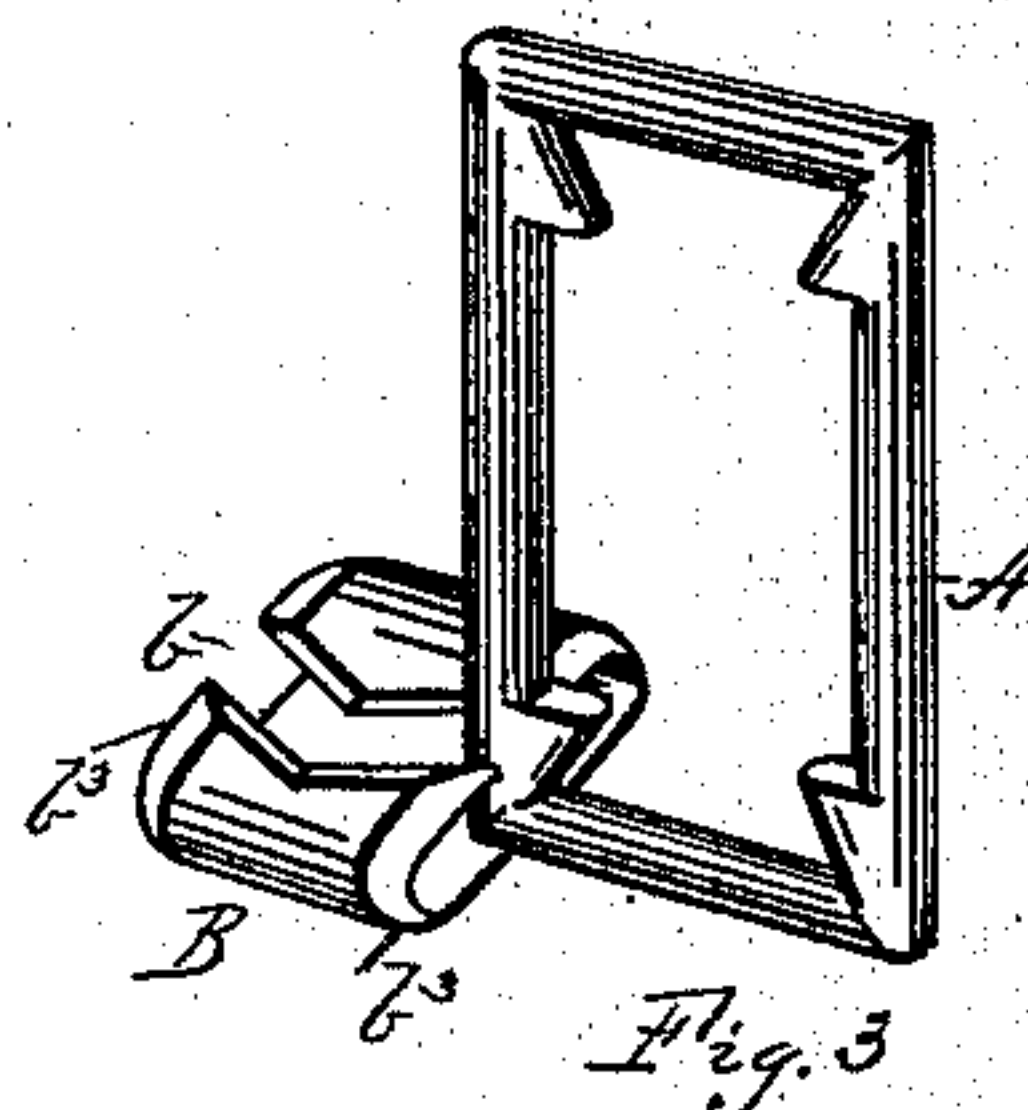


Fig. 3

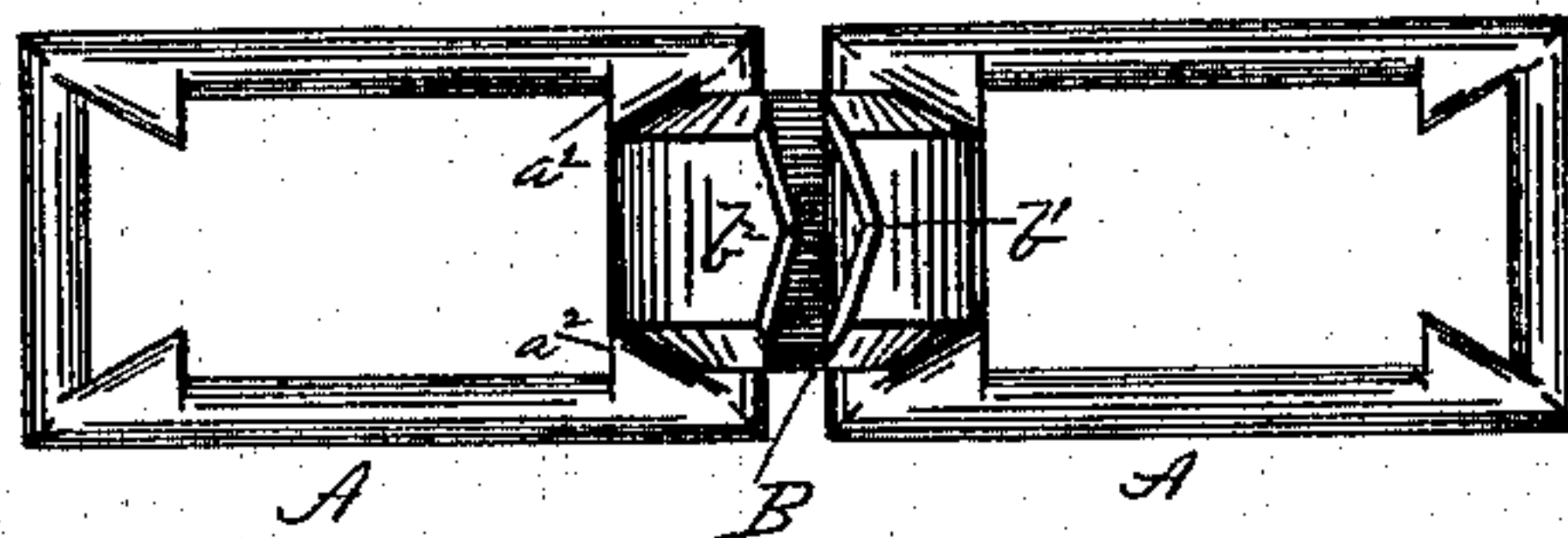


Fig. 4.

WITNESSES:

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UNITED STATES PATENT OFFICE.

CHARLES E. ALDEN, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR, BY
DIRECT AND MESNE ASSIGNMENTS, OF FIVE-EIGHTHS TO DAVID BUIST
AND JOHN CALDWELL, BOTH OF SAME PLACE.

DRIVE-CHAIN.

SPECIFICATION forming part of Letters Patent No. 322,405, dated July 21, 1885.

Application filed October 31, 1884. (Model.)

To all whom it may concern:

Be it known that I, CHARLES E. ALDEN, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Drive-Chains; and I do hereby declare the following to be a full, clear, and exact description of the invention, reference being had to the accompanying drawings, which form part of this specification, in which—

Figure 1 is a perspective view of link. Fig. 2 is a perspective view of coupler. Fig. 3 is a perspective view of link entering slot in coupler. Fig. 4 is a plan view of my invention.

My invention has for its object to provide a drive-chain the links of which are connected by a coupler and which are separable therefrom, so as to permit the chain to be constructed by adding links and couplers together in the manner hereinafter described.

My invention consists, essentially, in the peculiar construction of the links and of the couplers, as hereinafter described.

The links of my improved separable drive-chain are rectangular in shape, and are each formed with four internal projections, one at each corner. The coupler is of the C form with a V-shaped opening, through which one link at a time is passed in forming and disuniting the chain.

Referring to the accompanying drawings, A designates the link, which is rectangular in form, having two sides, a a , and two ends, a' a' . At each of the corners of the link there is an internal projection, a^2 , having its inside edge, a^3 , beveled, as shown, said edge being that which is adjacent to the end a' on which it abuts.

B represents the coupler, the kerf or opening of which, b , is of V form, one of the ends of said coupler having a beveled terminal, b^2 , and the other end having a corresponding notch, b' . The two edges b^3 of the coupler are also beveled to fit snugly within and conformably to the beveled internal projections of the link.

The method of forming a chain composed

of the links and couplers described is to stand a link at right angles to a coupler in the position substantially as shown in Fig. 3 of the drawings, and then cause the entering side of the link to traverse the V-shaped kerf or opening in the coupler. The link is then turned down in the same plane as the coupler. The disconnection of the links and couplers is effected by reversing the motions described.

In inserting the links, that link which has its end in that side of the coupler to which the pointed end b^2 of the latter pertains must be inserted before the other link; and, conversely, the link which rests in the side of the coupler having the notched terminal b' must be withdrawn before the other link. In other words, the link to the left in Fig. 4 of the drawings must be inserted before the link to the right in said figure, and the link to the right must be withdrawn before the link to the left can be.

When the links and couplers are united as shown in Fig. 4, the chain will be perfectly flexible, while at the same time the adjacent ends of the links cannot come in contact with each other, the internal projections operating as stops to prevent endwise movement of said links within the couplers. It will therefore be impossible for the links of the chain to come apart in the ordinary use of the latter, although said chain may be readily put together and taken apart by hand when occasion demands.

The beveled sides of the internal link-projections and the correspondingly beveled edges of the couplers permit said couplers to rest inside of said projections or between the latter and the ends of the links, and at the same time allow perfect freedom of movement for said links in the couplers so far as the bending and flexibility of the chain is concerned.

I do not herein claim, broadly, a drive-chain having a coupler with a V or equivalent shaped groove for the introduction of a link, as I have reserved to myself the right to make the same the subject-matter of a claim in another application.

I am aware that a separable drive-chain has

heretofore been constructed of links united by **C**-couplers, and I do not therefore broadly claim such; but

What I do claim is—

5 1. The combination, in a chain, of links having internal projections with couplers having **V**-shaped slots or openings, substantially as shown and described.

10 2. The combination, with the chain-links A, each of which has four internal beveled

projections, of the **C**-shaped couplers having beveled edges, substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand.

CHAS. E. ALDEN.

Witnesses:

DAVID BUIST,
ISAIAH MATLACK.