E. A. COX.

CHAIN FASTENING.

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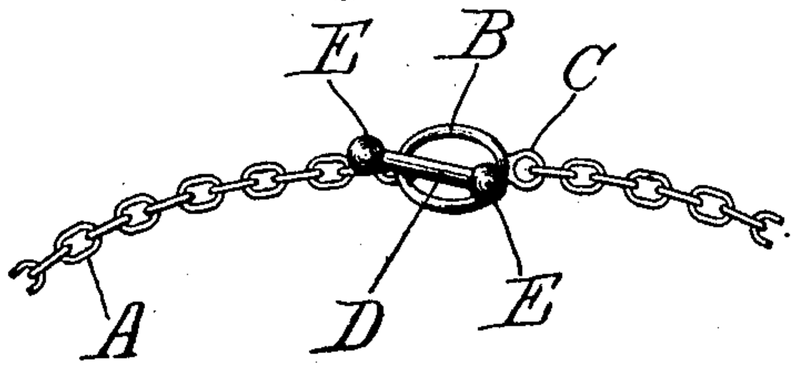
906,616. Patented Dec. 15, 1908.

Fig. 1.

Fig. 2.

Fig. 3.



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UNITED STATES PATENT OFFICE.

EDWARD A. COX, OF CHICAGO, ILLINOIS.

CHAIN-FASTENING.

No. 906,616. Specification of Letters Patent. Patented Dec. 15, 1908.

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To all whom it may concern:

Be it known that I, EDWARD A. COX, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Chain-Fasteners, of which the following is a specification.

My invention relates to a chain fastening, such as is used in securing chains. It is illustrated in the accompanying drawings, wherein

Figure 1 illustrates the chain and fastenings separated; Fig. 2, shows the two parts interlocked in one position, and Fig. 3, the parts interlocked in another position.

Like parts are indicated by the same letter in all the figures.

A is the chain, B the loop preferably oval, C an eye rigidly attached thereto at one end and adapted to engage the end of the chain.

D is the central portion of a dumb-bell shaped part having the two end balls E, E, and the rigidly secured eye F to which the chain is attached. It will be observed that the proportions are such that the two balls lies just outside of the outer margin of the loop when the parts are interlocked. The straight portion of the dumb-bell part lies on the top of the loop. Now if the bar attempts to turn, the ball must rise upon the rim of the loop and therefore it tends to remain approximately in the position shown in Fig. 2. If, however, the ball is pushed up on the rim it tends to return to its normal position. The relation of the parts is such that the straight bar with these balls at its end tends very strongly always to remain in approximately the position shown in Fig. 2, that is, in the most ornamental and most secure position, and this is accomplished by having the balls at the end of the approximately straight bar and having them at such a distance that they rise on the rim or loop when they tend to get into the normal position.

Since the cross bar takes the shape of a dumb-bell with a relatively light straight portion and large and heavy balls on the ends, it tends to remain in a balanced position when loose and always strongly tends to remain transverse to the line of the length of the chain. The balls being rounded, of course, have no tendency to catch or stick on the goods or clothing and if for any reason the chain is loose in the loop, the tendency last above referred to of the dumb-bell shaped cross bar to hang always in the position indicated, results in keeping the fastening safe even under such conditions. Of course, the cross bar does not have to be absolutely straight, but I have shown it in its preferred form. In that form it presents a highly ornamental appearance, has no tendency to be interfered with by the engagement of the ends of the bar with the ways assumes the position of safety and always strongly tends to return to the position of greatest safety under great or little pressure. The rigid eye on the end of the cross bar, of course, engages the loop on the inside, while the balls approach closely the outer side of the loop.

It will be noted that to get the desired result the length of the bar between the balls is approximately as great as the minor axis of the loop but less than the major axis.

I claim:

A chain and fastener comprising a chain with an oval loop at one end thereof and a cross bar at the other, said cross bar having midway thereof a rigid eye-shank and at each end a ball the length of the bar between the balls being as great as the minor axis of the loop but less than the major axis thereof, whereby when the cross bar is transverse to the oval loop the balls lie outside the rim of the loop and when parallel with the length of the loop one ball lies outside the rim of the loop and the other lies on the same so that the tendency of the cross bar is to find a position with both its balls outside the loop.

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