

(Model.)

W. D. EWART.

DRIVE CHAIN.

No. 255,960.

Patented Apr. 4, 1882.

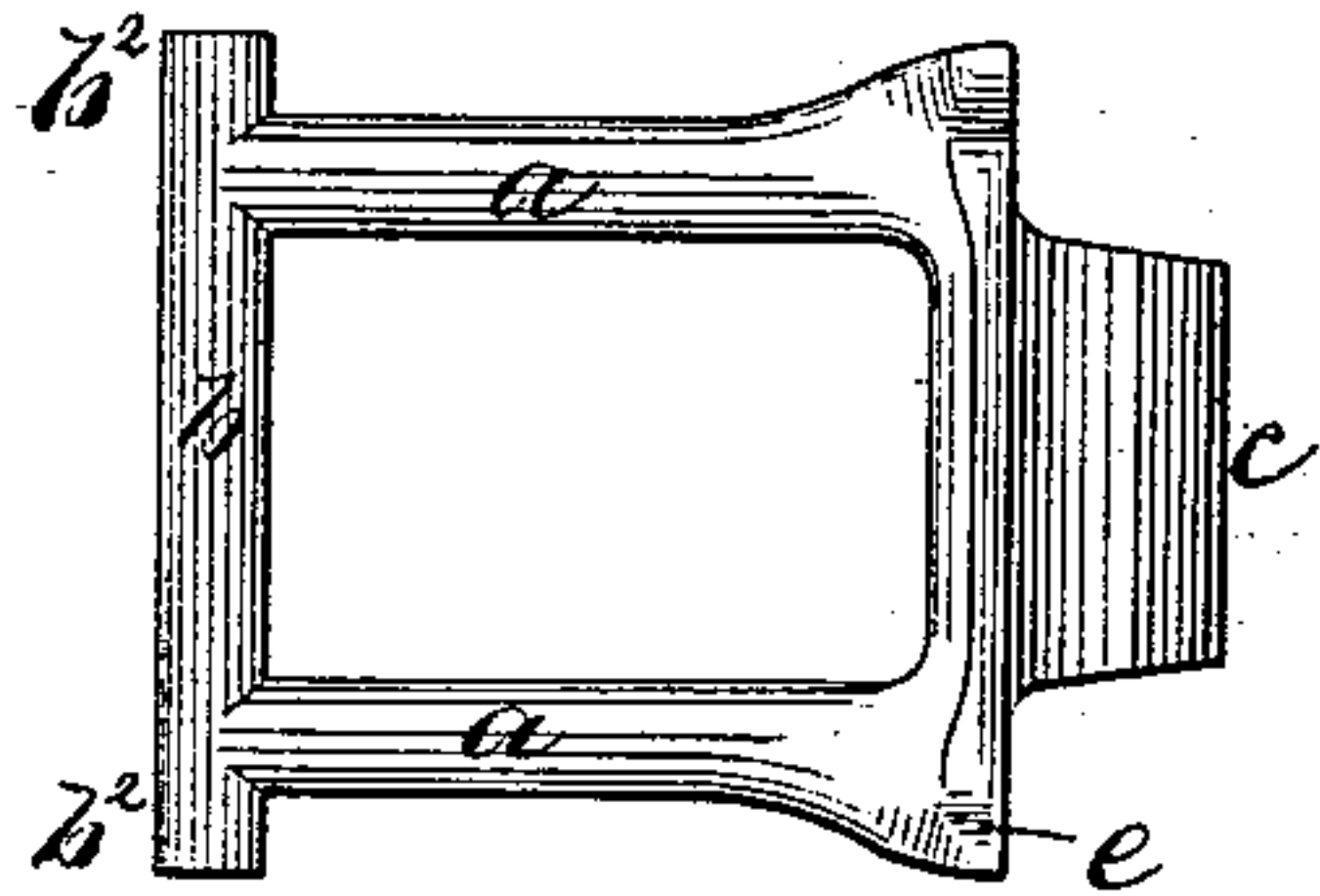


Fig. 1.

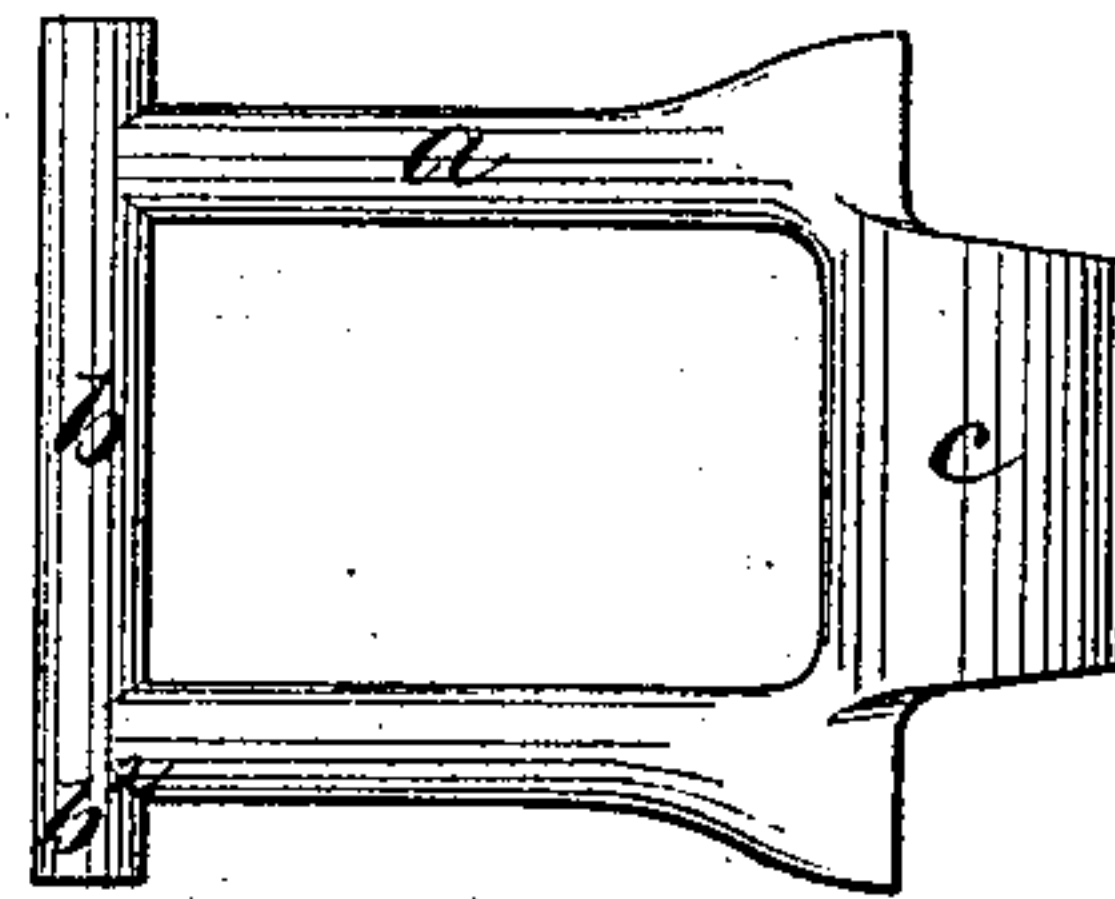


Fig. 2.



Fig. 3.

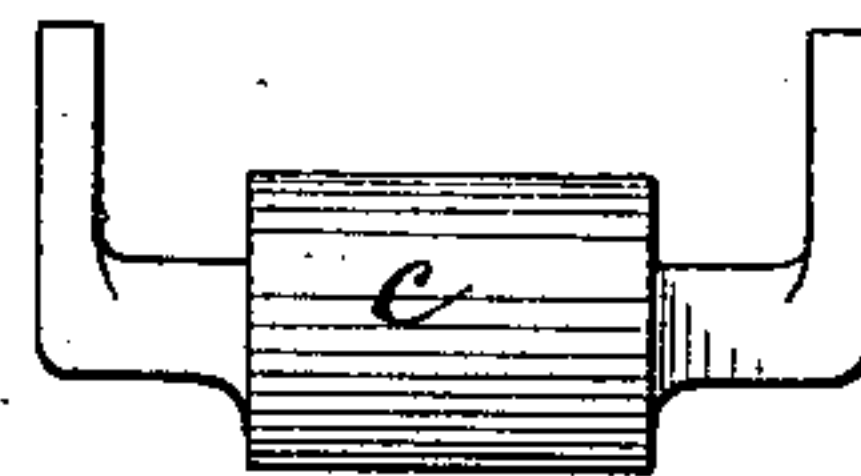


Fig. 4.

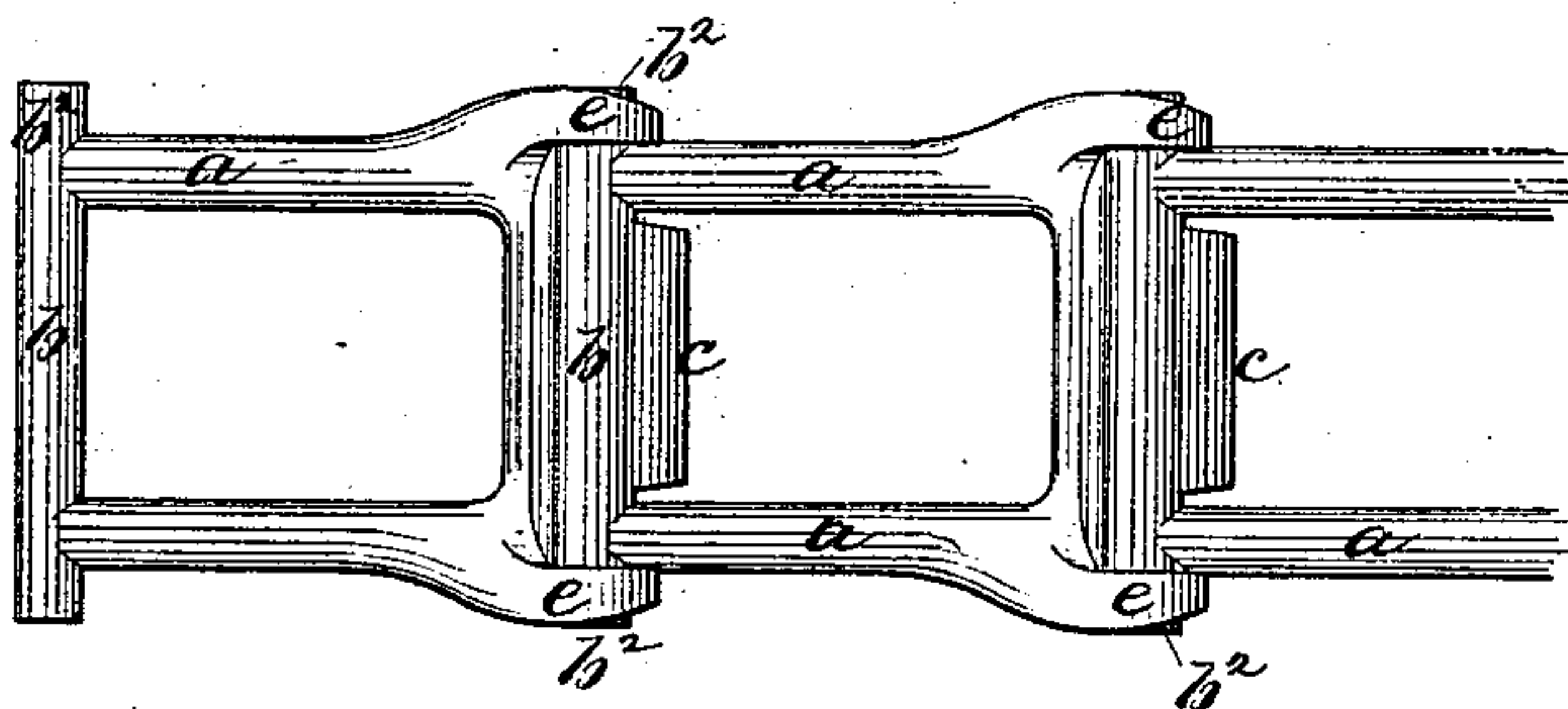


Fig. 5.



Fig. 6.

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WILLIAM D. EWART, OF CHICAGO, ILLINOIS.

DRIVE-CHAIN.

SPECIFICATION forming part of Letters Patent No. 255,960, dated April 4, 1882.

Application filed January 30, 1882. (Model.)

To all whom it may concern:

Be it known that I, WILLIAM DANA EWART, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Drive-Chains; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this application.

My invention relates to that kind of drive-chains which are known as non-detachable chains, and in which a series of centrally open duplicate links are employed, hinged together by means of open coupler-hooks and some sort of keeper devices at one end of the links, and the end bar (which acts as a pintle) at the other end of the links; and my invention consists essentially in a link for the kind of chain referred to having the bar at one end extended or projected beyond each of the side bars and having its other end provided with prongs adapted to be bent round the projecting or extended portions of the end bar of a similar link, and with an open coupler-hook for the reception of the main portion of the end bar of such similar link, all as will be hereinafter more fully explained and more specifically claimed.

To enable those skilled in the art to which my invention relates to make and use the same, I will now proceed to more fully explain it, referring by letters to the accompanying drawings, in which—

Figure 1 is a plan view of a link made according to my invention and showing one side of the link. Fig. 2 is a plan of the opposite side of the link. Fig. 3 is an edge view of the same, and Fig. 4 is an end view. At Figs. 5 and 6 is shown, in plan and edge view respectively, a chain formed of links cast in the form seen in the preceding figures.

In the several figures the same part will be found designated by the same letter of reference.

$a a$ are the side bars, b the end bar, and c the open coupler-hook of the link, which is preferably rectangular in contour and centrally open, to work on the usual sprocket-wheel. The end bar, b , is extended beyond the side

bars, $a a$, as shown at $b^2 b^2$, and at the other end of the link are two prongs or keepers, $e e$, which project at about right angles to the plane of the link, are located outside of the outer lines of the side bars, as shown, and about in line with root of the open coupler-hook c . The side bars, $a a$, are slightly enlarged outwardly at and near their junctions with the hook end of the link, (see Fig. 1,) and the prongs $e e$ are long enough to be capable, when bent down, of partially encircling the end-bar projections, $b^2 b^2$, of another link, while their relationship to the ends of the hook c (which is, as usual, about equal in length to the width of the opening between the side bars, $a a$) is such that when bent round said projections $b^2 b^2$ of another link there will be sufficient room for the side bars of such other link to swing freely between the said bent prongs and the ends of the hook c , all as clearly illustrated at Figs. 5 and 6.

It will be understood that a chain made of links such as shown, coupled together in the manner illustrated, will be very strong, light, and durable, and that the links composing such a chain can be very economically made, since they can be cast without any coring.

By the placement of the keeper devices $e e$ out of line with the side bars, as shown, and by the use of the extensions $b^2 b^2$, the keepers of one link may be bent around the end bars of another link to a greater extent than would be possible were they located where their bent-over ends would meet the lip of the coupler-hook c , while at the same time the articulated links of a chain composed of such links as shown are held in the proper relative position laterally of the chain, in any positions into which two links may be turned on their axis of articulation.

The edges of a chain such as shown are, it will be seen, practically ribbon-like, so that there is no liability of the chain catching against any of the devices of machines on which drive-chains are usually employed.

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

1. A chain-link having the projections or extensions $b^2 b^2$ at one end, and provided with an

open coupler-hook, *c*, and prongs or keeper devices *e e* at the other end, the whole constructed and adapted to operate as described.

2. A drive-chain composed of links each of
5 which has the projections *b² b²* at one end and the open hook *c* and keeper devices *e e* at the other end, and all of which are coupled and held together by the insertion of the end bar, *b*, within the coupler-hooks *c*, and the partial

encirclement of the projections *b² b²* by the keepers *e e*, as set forth.

In witness whereof I have hereunto set my hand this 3d day of January, 1882.

WILLIAM D. EWART.

In presence of—

E. A. TURNER,
A. D. DANA.