(Model.)

J. M. DODGE.

DRIVE CHAIN.

No. 256,552. Patented Apr. 18, 1882.

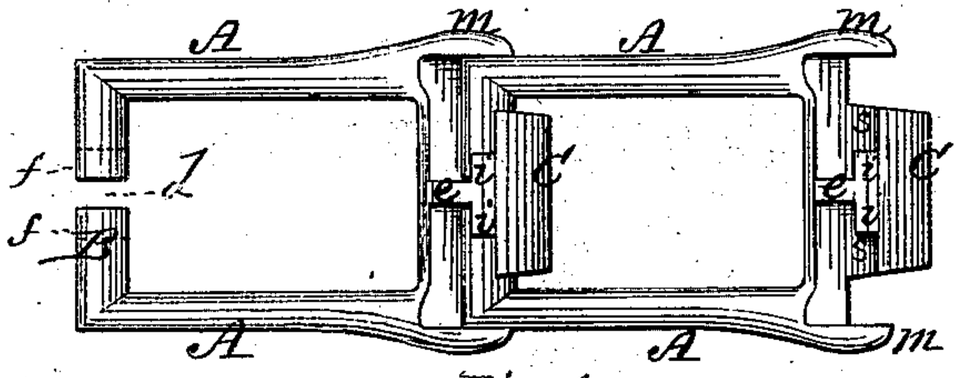

Fig. 1.

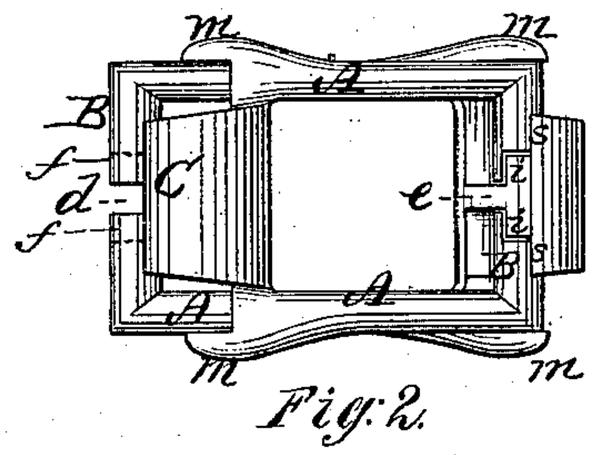

Fig. 2.

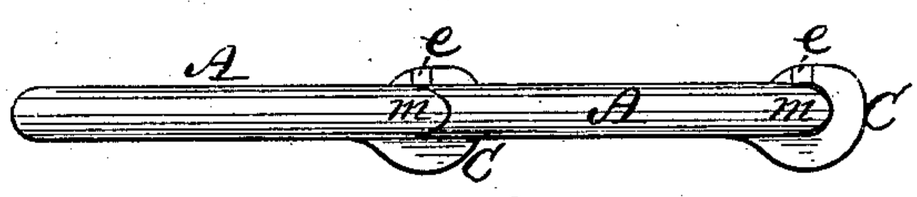

Fig. 3.

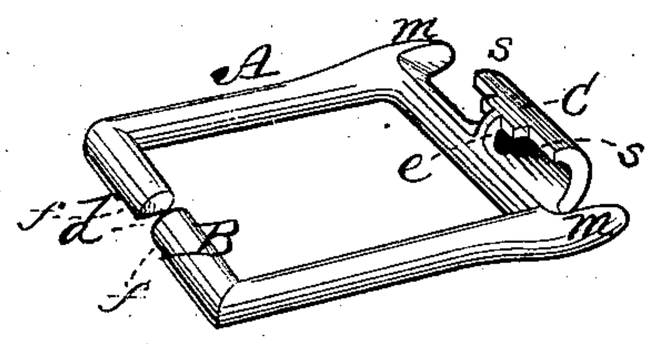

Fig. 4.

Witnesses;
E. C. Perkins
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Inventor;
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By att'y
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UNITED STATES PATENT OFFICE.

JAMES M. DODGE, OF CHICAGO, ILLINOIS.

DRIVE-CHAIN.

SPECIFICATION forming part of Letters Patent No. 256,552, dated April 18, 1882.

Application filed January 7, 1882. (Model.)

To all whom it may concern:

Be it known that I, JAMES MAPES DODGE, 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 a novel construction of that kind of drive-chain which is composed of duplicate detachable links or parts; and it consists in the structural form hereinafter more fully described, and particularly specified in the claim.

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

Figure 1 is a plan view of a portion of a chain embracing my invention. Fig. 2 is a similar view, showing the relative positions that any two links must be made to occupy in order to couple or uncouple them. Fig. 3 is a side or edge view of the same with the links turned into a working relative position, such as shown at Fig. 1. Fig. 4 is a perspective view of a single link detached.

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 divided end bar, and C the coupler hook or socket of the link.

The coupler-hook C is cast with a tie-piece or bridge, *e*, extending from the upper portion of the root of the hook over to the lips thereof, and located preferably about midway of the length of the coupler. This bridge or ligament *e* serves to greatly strengthen the hook and render the same incapable of bending or partially straightening out under any strain lengthwise of the chain.

The end bar of the link is made, as shown, in two parts, leaving an opening between them at *d* slightly wider than the width of the tie-piece or bridge *e*, in order to allow the ready passage of the part *e* through the space *d* during the insertion within the coupler-hook of one link of the divided end bar of another link. On the working side of the chain the divided end bar, B, has two depressions or cut-outs, at *f f*, as plainly illustrated.

The hook C is made with two cut-aways at *s s*, rendering the opening at these points slightly larger than the full diameter of the divided end bar, and forming lips *i i*, which reduce the opening on either side of the bridge or tie-piece *e* to an extent sufficient to just permit the easy passage therethrough of the reduced portions *f f* of the divided end bar.

The general result of this whole construction is that when two such links as shown are coupled together and brought to a position such as they would occupy during use, they cannot be separated, while by simply turning the parts into the relationship shown at Fig. 2 they may be easily detached.

The side bars, A A, of each link are elongated and bulged out at the hook end of the link, and are there formed into what I call "retainers" or "keepers" *m m*, which extend longitudinally far enough to securely hold the side bars of the adjacent link, as shown.

The inner adjacent surfaces of *m m* are distant from the ends of the hook C far enough to allow the side bars of the other link to pass easily between them during the operations of coupling and uncoupling the links; and when two links are brought into the position seen at Fig. 1 it will be observed that the side bars of one link are protected against any lateral spreading by the keepers *m m* on the next link, thus overcoming the serious objection which has heretofore arisen in the use of links having divided end bars and no provision for keeping the side bars (with which they are cast integral) from spreading outwardly.

I do not claim broadly a drive-chain link in which the lip and root of the coupler-hook are connected by a tie-piece; but

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

A drive-chain link having at one end a coupler-hook that is provided with bridge-piece *e* and retainers or keepers *m m* and at the other end a divided end bar, the whole adapted to operate as described, for the purposes set forth.

In witness whereof I have hereunto set my hand this 31st day of December, 1881.

JAMES M. DODGE.

In presence of—

T. S. FAUNTLEROY,

GEO. E. MARSHALL.