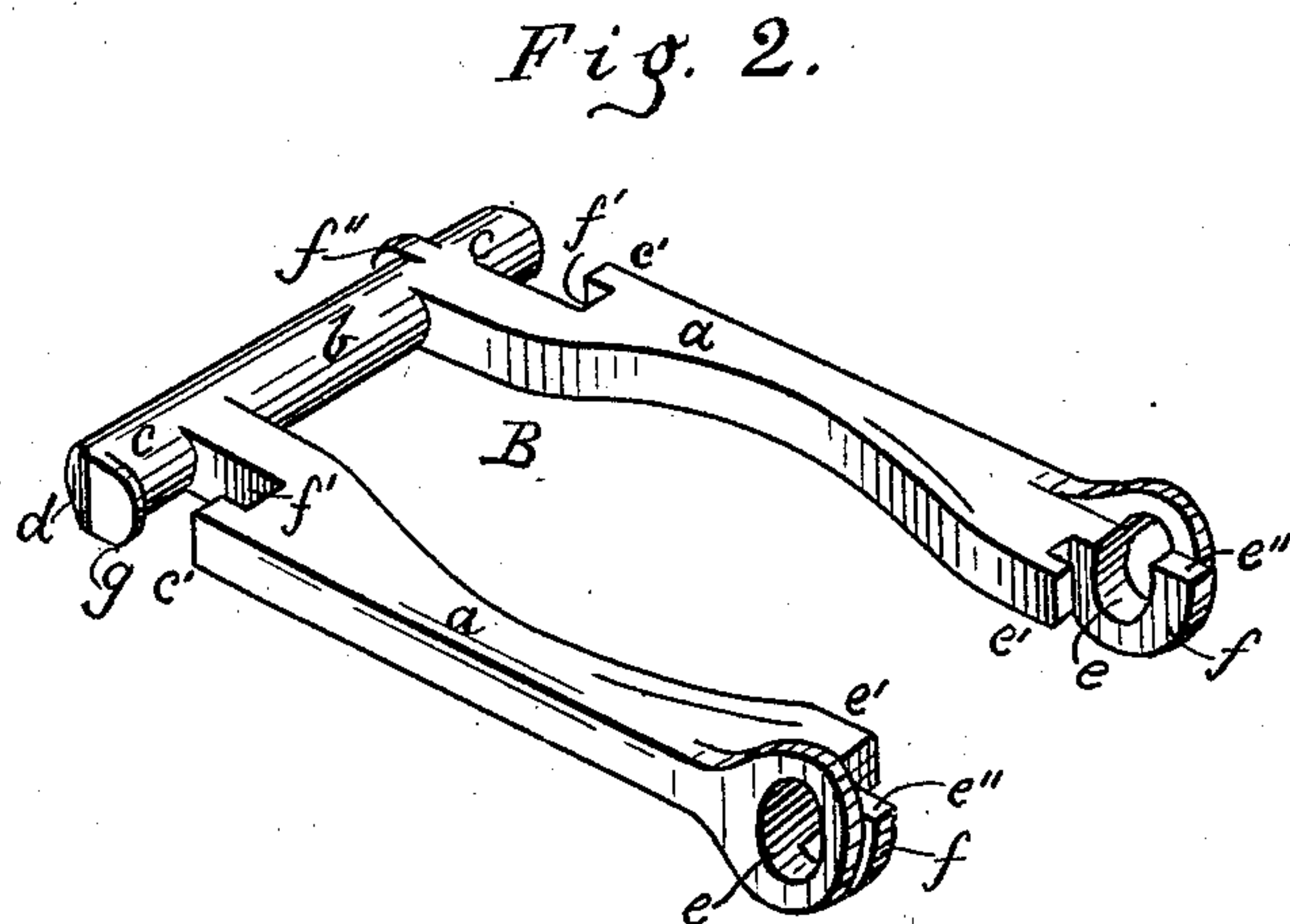
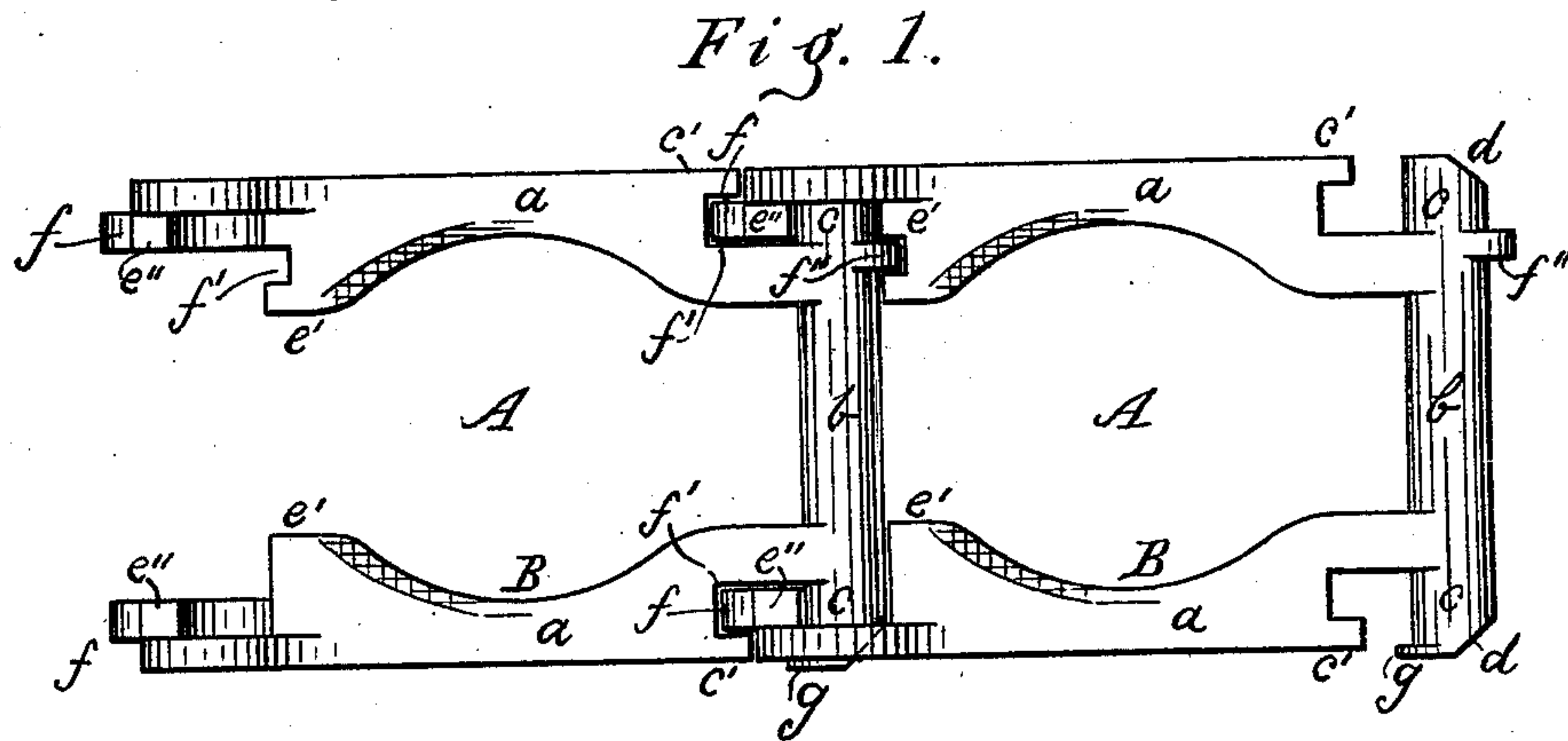


(Model.)

A. ASSMUS.  
DRIVE CHAIN.

No. 280,780.

Patented July 10, 1883.



Witnesses:  
T. B. Halpermy.  
Solomon F. Weaver.

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per F. F. Rams -  
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# UNITED STATES PATENT OFFICE.

ADOLPH ASSMUS, OF CHICAGO, ILLINOIS.

## DRIVE-CHAIN.

SPECIFICATION forming part of Letters Patent No. 280,780, dated July 10, 1883.

Application filed September 18, 1882. (Model.)

*To all whom it may concern:*

Be it known that I, ADOLPH ASSMUS, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful  
5 Improvements in Detachable Drive-Chain Links, of which the following, in connection with the accompanying drawings, is a specification.

In the drawings, Figure 1 is a top or plan  
10 view of a detachable drive-chain made of links embodying my invention, and Fig. 2 is a like representation of the link shown in Fig. 1.

Like letters of reference indicate like parts.

My invention relates to that class of detach-  
15 able drive-chains in which the links are so constructed that accidental uncoupling is prevented by the employment of such means that each link must be intentionally moved articulatingly, and also laterally with relation to its  
20 fellow before disconnection can occur.

My object is to provide improved means for accomplishing the result above referred to; and to that end my invention consists in certain novel features of construction, which are  
25 hereinafter specifically set forth in my claim.

In the drawings, A represents a portion of a detachable drive-chain embodying my invention, and B B are the links, which, when  
30 coupled together, constitute a chain, A. The links B B each consist of side bars, *a a*, and of a cylindrical end bar, *b*, which connects the side bars at one end of the link. The end bars *b b* project laterally a considerable way from their points of attachment to the side bars, as  
35 shown at *c c*, and directly back of and some way removed from the projecting parts *c c* are abrupt shoulders *e' e'*, extending laterally outward from the side bars, as shown. I deem it  
40 preferable to bevel the ends of the bars *b b*, as shown at *d d*, for the purpose hereinafter referred to.

*e e* are cylindrical openings or eyes in the side bar ends not connected by an end bar *b*, and *e' e'* are abrupt shoulders located next to  
45 the eyes *e e*, and projecting laterally inward from the side bars, as shown. The rim or annulus which forms each eye *e* is cut away at the top thereof, as shown at *e'' e''*, so that the said annulus has a broad and also a narrow  
50 portion.

To couple these links I hold one vertically

and the other horizontally, or nearly so, then tilt the vertical one laterally and insert one of the projecting parts *c c* into one of the eyes *e e*, then lower the raised side of the tilted link  
55 and move that link laterally in such a direction as to carry the other projecting part *c* into the other eye *e*, and then arrange the said link horizontally. The thicker parts of the rings forming the eyes *e e* of one link will then  
60 be in contact with the side bars of next link, and all further lateral movement will be prevented until one link is again arranged vertically, when it may be uncoupled by being  
65 pushed laterally against the thinner part of the ring of one eye, which will draw it out from the other eye, then tilted and drawn from the horizontal link.

It will be perceived that these links are incapable of being uncoupled while they are in  
70 working position, but that they may be uncoupled and again coupled with facility when necessary. It will also be perceived that three movements are necessary in order to uncouple  
75 the links—the vertical or articulating movement, the laterally-sliding movement, and the tilting and withdrawing of the link—thus rendering accidental uncoupling impossible.

So far as now described, the shoulders *e' e'* perform no mechanical functions, but are not  
80 essential, but preferable, as the chain is thereby made to have a uniformly straight edge, thus avoiding the liability of its catching on parts of machinery to which it may be attached. The shoulders *e' e'* perform the function of a  
85 stop to prevent the link from being turned too far when articulated for being uncoupled, and so that it will then stop at the proper place for being moved laterally. The purpose in beveling the ends of the end bars, *b b*, as shown  
90 at *d*, is to aid coupling and uncoupling of the links without making the end bars too short to engage the eyes *e e* along the whole width of the annulus of the eyes. It is possible that under some circumstances additional  
95 features of construction may be deemed desirable, and I will now refer to some such features. A shoulder, *f*, on one link enters a corresponding notch, *f'*, on the next link, and a rib or shoulder, *f''*, on the end bar, *b*, enters a  
100 corresponding notch in the shoulder *e'*, the purpose of which shoulders and notches is to



prevent the spreading of those ends of the links which are not connected by a permanent end bar, *b*.

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

A drive-chain in which are combined the detachable links *BB*, having side bars wherein are the cylindrical eyes *ee*, each formed by means  
10 of a complete ring or annulus with a portion, *e''*, cut away laterally, and having the inwardly-projecting shoulders *e' e'* thereon near the open ends of the links, and one of the said shoulders

having therein a notch, *f'*, the opposite ends of the side bars being connected by means of 15 end bars, *bb*, having beveled ends and extending laterally beyond their points of connection with the side bars, the said end bars having thereon a lip or rib, *g*, and a rib or shoulder, *f''*, substantially as and for the purposes speci- 20 fied.

ADOLPH ASSMUS.

Witnesses:

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