

(No Model.)

B. HOLT.
LINK FOR DRIVING CHAINS.

No. 570,637.

Patented Nov. 3, 1896.

Fig. 1.

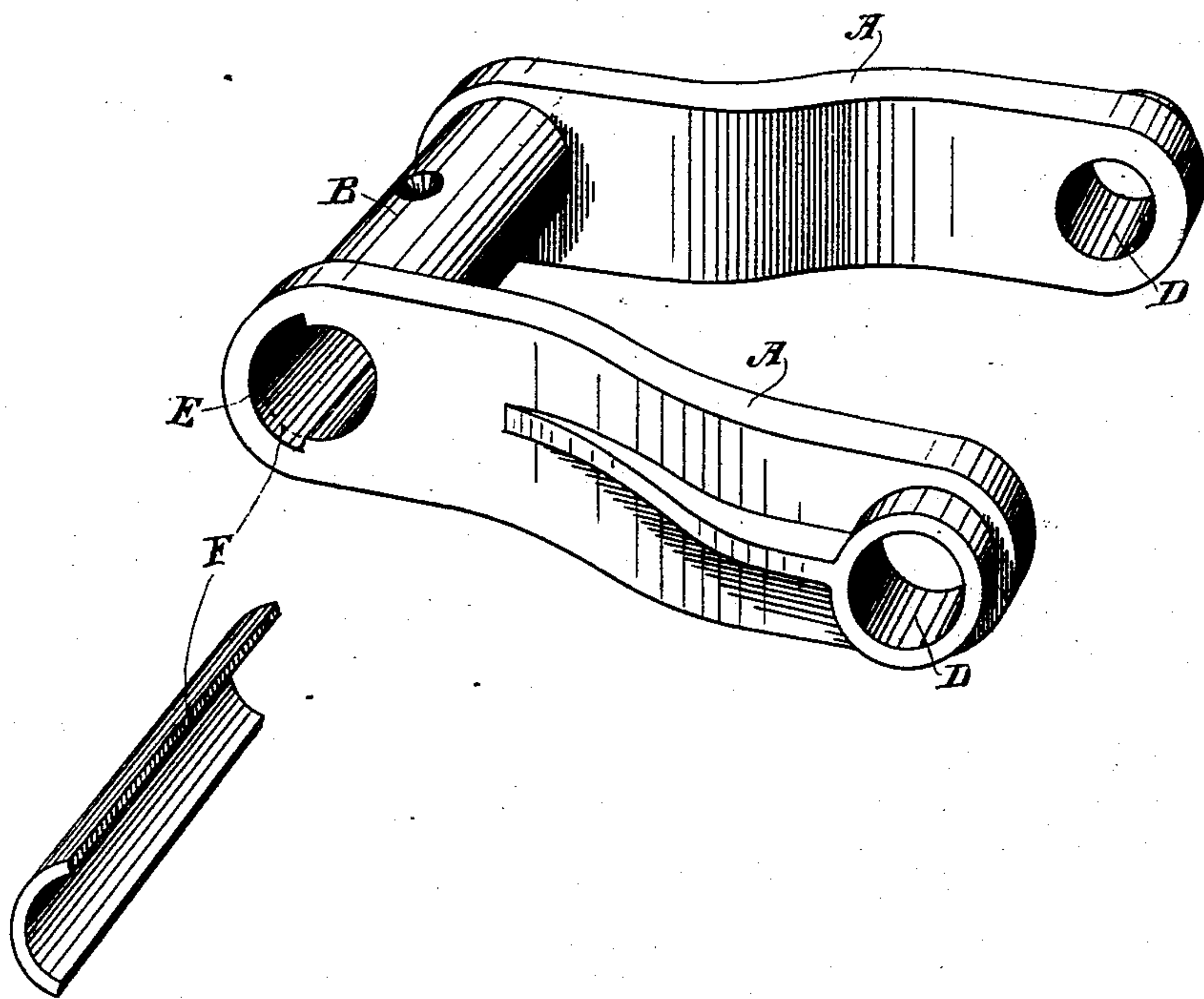
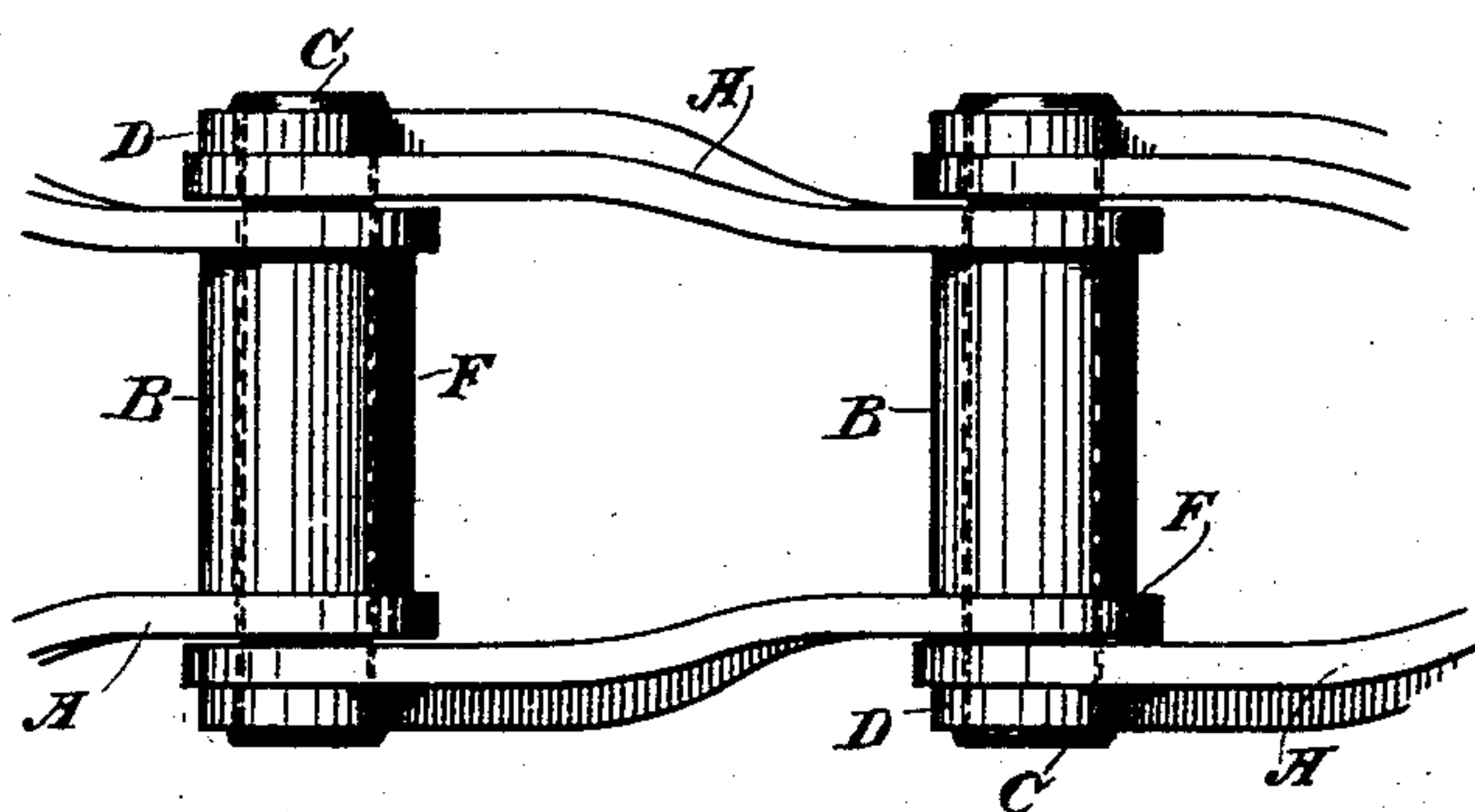


Fig. 2.



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UNITED STATES PATENT OFFICE.

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LINK FOR DRIVING-CHAINS.

SPECIFICATION forming part of Letters Patent No. 570,637, dated November 3, 1896.

Application filed February 20, 1896. Serial No. 579,992. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN HOLT, a citizen of the United States, residing at Stockton, county of San Joaquin, State of California, have invented an Improvement in Links for Driving-Chains; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to certain improvements in the links of which driving-chains are composed.

It consists of a segmental removable bushing fitted within the corresponding recess in the bolt or pin hole of the link and in the line of draft, so that the wear is confined to this part, which may be replaced when worn out without sacrificing the link itself.

In the accompanying drawings, Figure 1 is a perspective view of a single link, showing the application of the wear-plate or shoe. Fig. 2 is a plan view of a section of the chain to show its character.

My invention is especially adapted to that class of chains in which the links are cast in malleable metal, with sides separated to greater distance at one end than the other and having reverse curves, so that the narrower end of one link fits between the wider end of the opposite one. The narrower ends of these links have a permanent bar cast integral with and extending between them, and this bar is cored out, having a hole through it to receive a pin, the ends of which are fixed or secured in holes made in the wider end of the adjacent link.

A A are the side bars of a link of this description, and B is the sleeve or barrel which unites the narrower end of the link and which is adapted to fit into the teeth of the sprocket-wheel over which such chains pass and through which the power is transmitted. This sleeve or barrel is made hollow from end to end, as shown, to receive the pin C. The ends of this pin pass through the reinforced or extended holes D, made through the opposite or more widely separated ends of the links, and the ends of the pin are firmly headed or secured in these openings so as to have no motion. This leaves the central portion of the pin fitting within the opening in the barrel B, which turns upon this part of the pin as the chain alternately bends and

straightens in passing around the sprocket-wheels. The tension being always a pulling one the wear between the pin and the interior of the barrel is such that the hole soon becomes elongated to such an extent that new links are continually required to keep the chain in anything like the proper working condition, and this is especially true where the chains are employed upon traveling harvesters, threshing-machines, or in other places where a great deal of grit and dust will accumulate and penetrate between these wearing-surfaces.

In order to preserve the chain-links and reduce the expense of replacing them, I cast each of the links with a segmental recess E in the interior of the barrel B, this recess being offset from the pin-hole and extending from end to end of the barrel upon the side against which the pressure and wear are brought. Within this recess is fitted a segmental steel wear-plate F, the shape of which is the same as that of the segmental recess, so that it can be easily slipped in or out. The length of this plate is equal to the distance between the outer faces of the link at this point, and when the link is introduced between the more widely separated ends of the next adjacent one, as shown in Fig. 2, the pin C is passed through the openings D and through the opening in the barrel B, and the ends of the pin are then headed or otherwise firmly fixed in the openings D, so that the movable joint is between the interior of the barrel B and the surface of the pin C where it passes through the barrel. Any wear that takes place is brought upon the pin and the segment F, and this segment can be replaced at any time when too much worn for further use. In this manner I am enabled to save the links from wear for an indefinite period, as there is no other portion which is greatly affected by the wear.

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

1. The improvement in drive-chain links, consisting of a link having side bars more widely separated at one end than the other and having a sleeve or barrel cast with and extending between the narrower ends, a pin or bolt, the ends of which are fixed in open-

ings in the wider end of the link, said sleeve
or barrel being a complete cylinder and hav-
ing its pin-hole offset upon the side against
which the pressure and wear are brought,
5 with the offset extending from end to end of
the barrel, and a segmental wear-plate fitted
to said offset and removable endwise there-
from.

2. The combination, with a link carrying
10 a pin, of a companion link having a sleeve or
barrel to receive said pin, said barrel being
a complete cylinder and having in the inner

wall against which the pressure and wear are
brought, a segmental channel or recess, offset
from the pin-hole and extending from end to 15
end of the barrel, and a separate segmental
wear-plate fitting said offset and removable
endwise therefrom.

In witness whereof I have hereunto set my
hand.

BENJAMIN HOLT.

Witnesses:

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G. L. DICKENSON.