

(No Model.)

W. N. WHITELEY.

DRIVE CHAIN.

No. 333,804.

Patented Jan. 5, 1886.

Fig. 1.

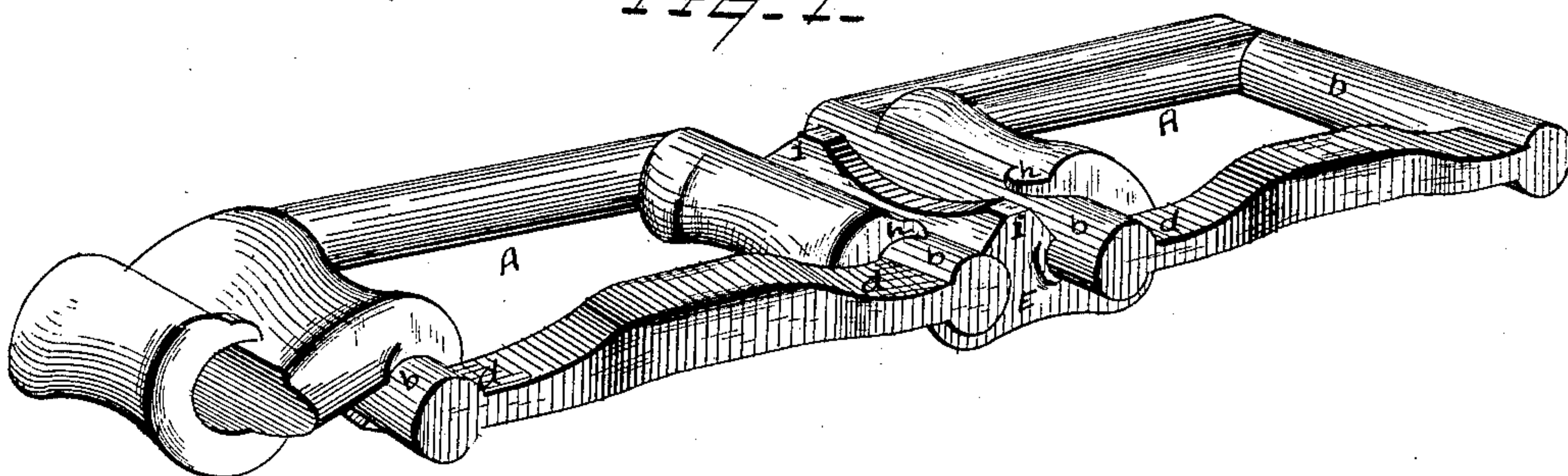


Fig. 2.

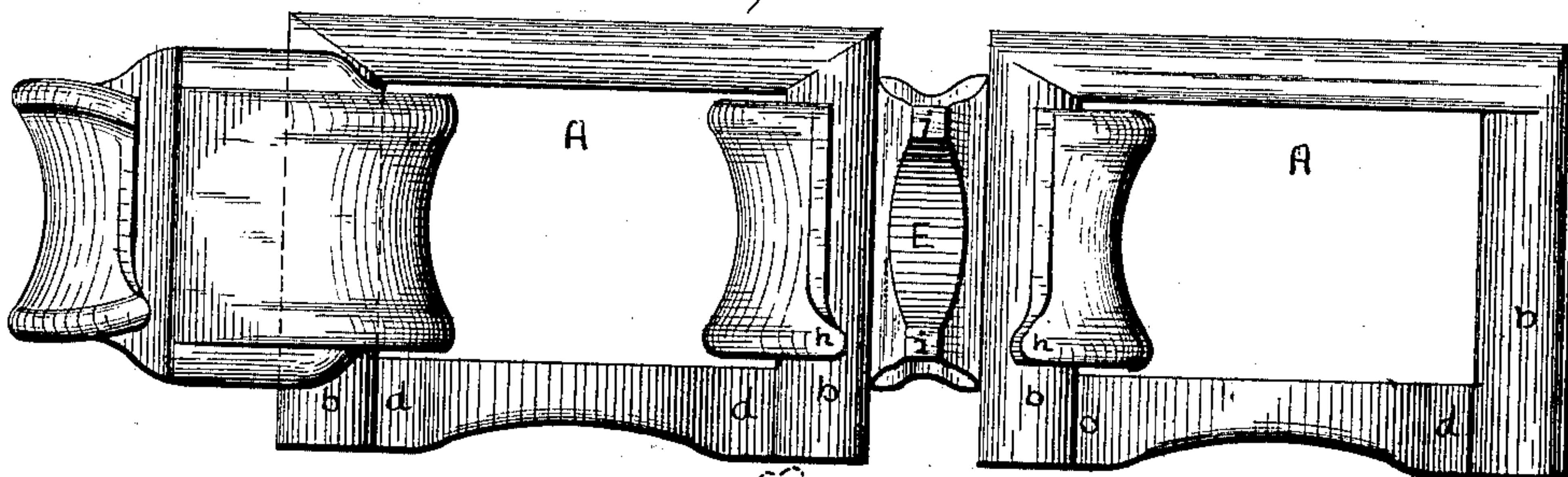


Fig. 3.

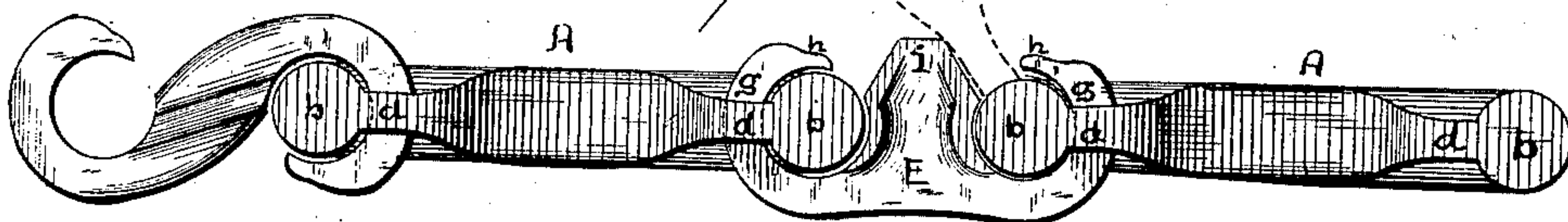
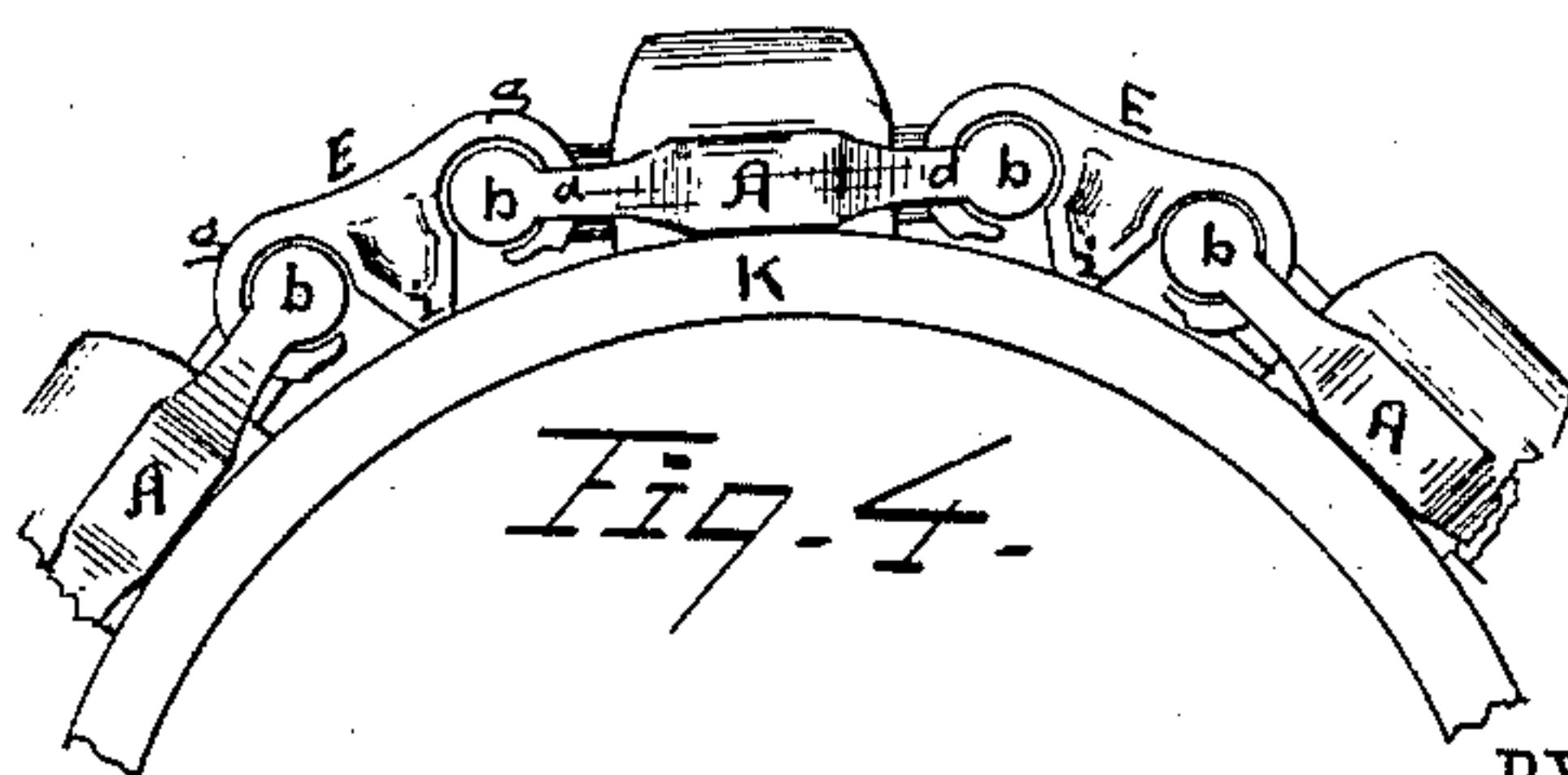


Fig. 4.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

WILLIAM N. WHITELEY, OF SPRINGFIELD, OHIO.

## DRIVE-CHAIN.

SPECIFICATION forming part of Letters Patent No. 333,804, dated January 5, 1886.

Application filed August 14, 1885. Serial No. 174,371. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM N. WHITELEY, of Springfield, in the county of Clark and State of Ohio, have invented new and useful Improvements in Drive-Chains; and I hereby declare that the following is a full and accurate description of the same, reference being had to the accompanying drawings, wherein—

Figure 1 is a perspective view of my invention. Fig. 2 is a plan of the same. Fig. 3 is an edge elevation. Fig. 4 is an end elevation showing the chain in place on a sprocket-wheel.

My invention belongs to that class of drive-chains which have cast-metal links capable of being connected or disconnected at will; and it more particularly relates to that class of said chains where the links are of uniform shape and are connected by interposed couplers of different shape, in contradistinction to that class wherein each link is at one end provided with a coupler integral with the link.

I am aware that plain cast-metal links have been heretofore united by cast-metal couplers, and therefore do not claim, broadly, that way of uniting such links. I am not aware, however, that such couplers have been provided with a central bearing portion to support the chain upon the sprocket-wheel without resting upon the points of the coupling-hooks.

A A are the links of my chain. They are rectangular in form and uniform. The end bars, *b b*, are cylindrical, and the side bars may be cylindrical or angular in cross-section, as preferred; but at one or both sides said slide bars are thinned at their points of junction with the cylindrical end bars, as at *d*, and to preserve strength the side bars may be made wider at their thin points, as shown. The couplers E are also uniform. They are provided at each end with a hook, *g*, to receive the cylindrical bar *b* of the link, and the open slot or space in front of the point of the hook is just sufficient to permit the passage of the thin portion *d* of the link side bar, so that in the well-known way the links and couplers may be connected; but it is sometimes neces-

sary that disengagement be prevented, and for that purpose the point of the hook is provided with a projecting spur, *h*, much thinner than the hook, so that it may be bent up or down without changing the circular sectional form of the hook. In making molds for casting these hooks it is necessary to use a chill to produce the requisite uniformity of size and circular section, and convenience makes it desirable to use a plain cylindrical chill, and to raise the spur *h* before the link can be entered.

Chains of this description are almost exclusively used for the transmission of power. They are employed with sprocket-wheels, the sprockets whereof enter the links of the chain, and thereby prevent slipping.

To support the link while passing over the sprocket-wheel without resting upon or wearing the points of the hooks, I provide the coupler E with a central projecting portion, *i*, which is interposed between the end bars, *b*, of the adjacent links, and thereby separates said end bars and keeps them in place, and also supports the links as they pass over the sprocket H without resting upon and wearing the points of the hooks.

Having described my invention, I claim as new—

A chain constructed of alternate links and couplers, the couplers having open slots at the points of the hooks to admit the end bars, *b*, of the links A, and each hook having a spur, *h*, projecting partly over said open slot, capable of being closed down without bending the hook out of circular form to prevent disengagement, the coupler having also a central portion, *i*, projecting upward between the hooks to retain the end bars, *b*, in their proper working position, and to support the chain on the sprocket-wheel, substantially as and for the purpose set forth.

WILLIAM N. WHITELEY.

Witnesses:

SOL J. HOUCK,  
F. B. FURNISS.