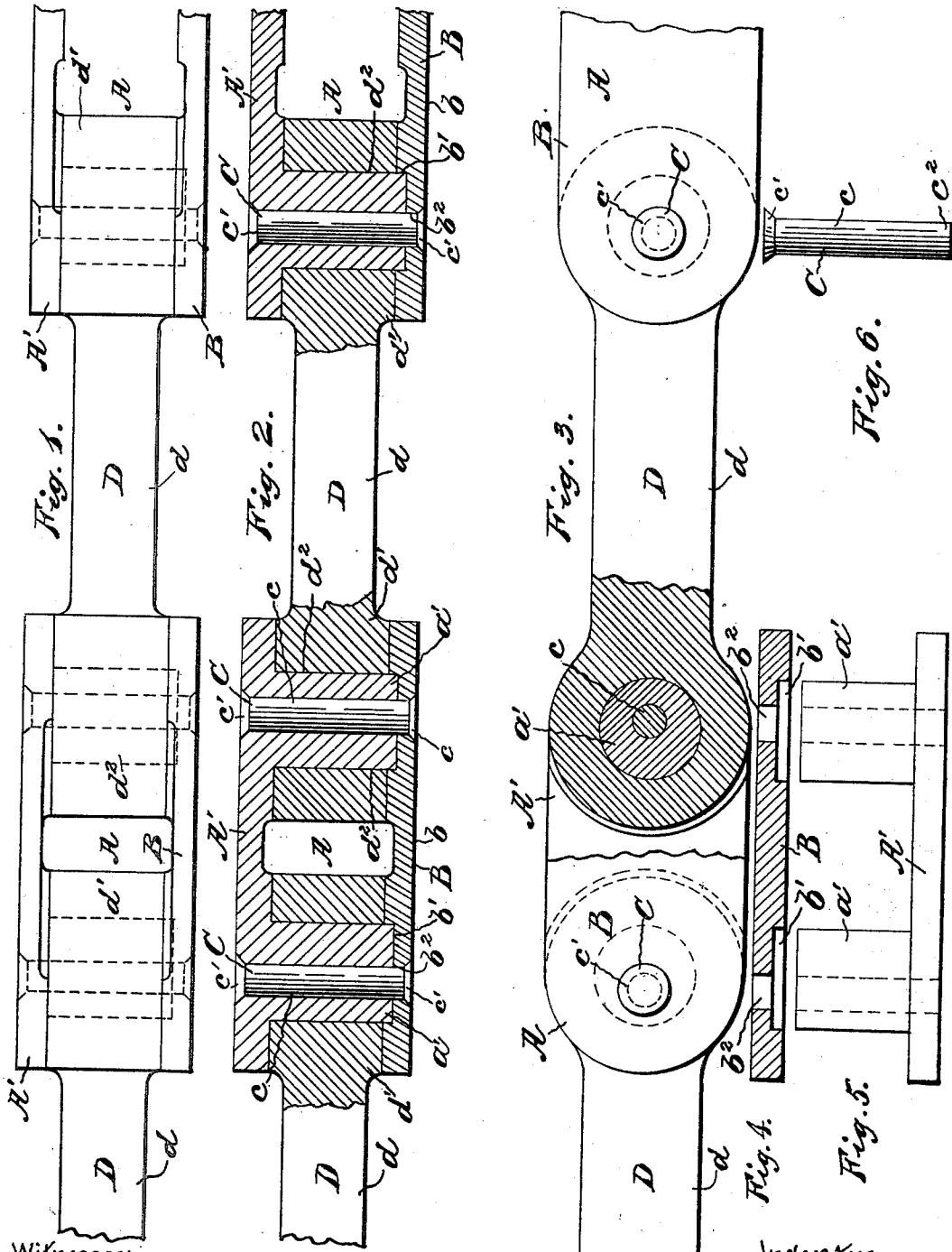


T. G. AULTMAN.
LINK FOR CHAINS.

(Application filed May 11, 1901.)

(No. Model.)



Witnesses:
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UNITED STATES PATENT OFFICE.

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LINK FOR CHAINS.

SPECIFICATION forming part of Letters Patent No. 697,190, dated April 8, 1902.

Application filed May 11, 1901. Serial No. 59,736. (No model.)

To all whom it may concern:

Be it known that I, THOMAS G. AULTMAN, a citizen of the United States, residing at Fairmont, in the county of Marion and State of West Virginia, have invented certain new and useful Improvements in Links for Chains and other Purposes, of which the following is a specification, reference being had therein to the accompanying drawings.

Figure 1 is a plan view of a portion of a chain embodying my improvements. Fig. 2 is a longitudinal section of the same. Fig. 3 is a view partly in side elevation, partly in vertical section. Fig. 4 is a longitudinal section of one of the side bars. Fig. 5 is a top view of the other side bar and of the two end bars which are cast integral therewith. Fig. 6 shows the pintle by which the side bars can be fastened together.

This invention relates to improvements in chains of the sort used for transmitting power, for conveying, for elevating, and the like.

The object is to provide a chain which can be built up of but few parts, in which extended articulating surfaces shall be provided, whose links can be readily coupled together or separated, if need be, and which shall have a strength greater than is incident to those of the same general character with which I am acquainted.

When the chain is made in the way illustrated in the drawings, it consists of links of two sorts, those of one sort alternating with those of the other.

A indicates the links of one of the kinds, and the intermediate alternate links are indicated by D. The links A are each formed in two principal parts, one indicated by A' and the other by B. The part A' has the side bar proper and integral therewith the two laterally-projecting end bars a' a' . The opposite side bar B is substantially flat, it being more or less plate-like, as shown at b , and having the sockets or cavities b' and the apertures b^2 . The cavities b' are of the same diameter and conformation as are the free ends of the end bars a' , and the latter can be fitted into them snugly, so as to provide an interlocking engagement of the side bars B with the two end bars.

The intermediate links D are each formed with the central shank part d and with the expanded heads d' , which are provided with the apertures d^2 of a diameter such that they can receive and be fitted to the end bars a' of the adjacent links. The articulating of the links occurs at the engaging surfaces of the heads d' and the end bars a' .

When the parts A' and B are fastened together, they provide an exceedingly strong link for connecting together the two neighboring links D D, much stronger than if the bar B were also cast integral with the end bars a' . The cavities b' are of such depth as to provide a firm seating for the ends of the end bars a' , and the working strains are transmitted in such way as to avoid fracture.

By casting the two end bars a' integral with the side bar A' the cost of manufacture is greatly reduced and the labor incident to handling the parts and to building up the chain is also reduced, while at the same time, as above described, the chain when the parts are put together is possessed of greatly-increased strength.

The two side elements of the links A can be secured together in any suitable way. At present I prefer to follow the plan shown—that is to say, to employ riveted pins C, the body parts c of which can be passed through the aforesaid apertures b^2 in the bar B and through apertures a^2 formed in the end bars a' and in the side bar of the part A', and each pin having initially sufficient metal at c^2 to permit it to be upset or riveted, as at $c' c'$.

The links can be made of any suitable dimensions. The one indicated by A can be so shaped that the sprocket-teeth of the driving or guiding wheel can enter the aperture between the adjacent ends of the links D D, or the said teeth can engage with the ends of the links A. Again, the links D can be of different shape and with sprocket-apertures, if preferred.

What I claim is—

1. A connecting link or element for chains and other structures comprising separable side bars, one side bar having two end bars integral therewith, and the other side bar having interlocking engagement detachably

with the ends of the said end bars, and means independent of the end bars for connecting said side bars together.

2. A connecting link or element for chains and other structures comprising a side bar formed with two integral inwardly-projecting end bars, each end bar having a transverse aperture and an opposing side bar having sockets or cavities in its inner surface to detachably engage positively with the ends of the said end bars, and having apertures respectively registering with the apertures in the end bars, and pins passing through the said end bars and separable side bars, substantially as set forth.

3. A chain for transmitting power and other

purposes, comprising links or elements each made up of a longitudinal or side bar having two tubular transverse bars integral with the ends thereof, and a longitudinal or side bar recessed to form seats for the transverse bars and pins passing through the sides and transverse bars and making a rigid structure thereof, and intermediate links connecting the links first named.

In testimony whereof I affix my signature in presence of two witnesses.

THOMAS G. AULTMAN.

Witnesses:

FRANK GETHING,
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