(Model.)

S. C. LECHNER.

CHAIN.

No. 267,003. Patented Nov. 7, 1882.

Fig. 1.

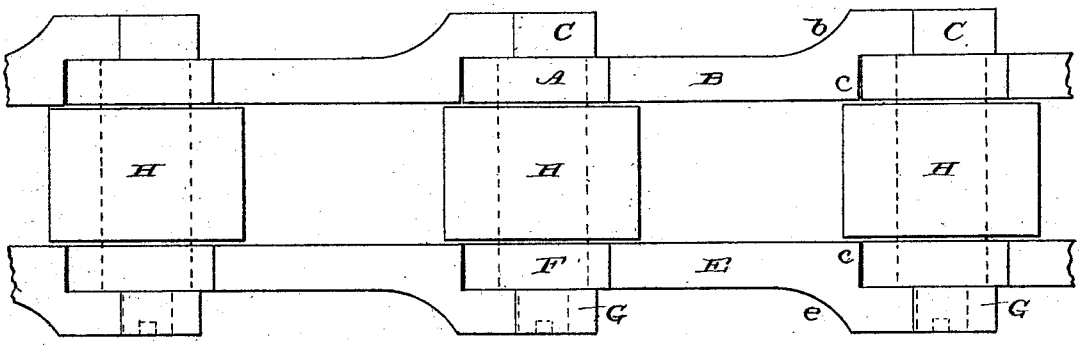


Fig. 2

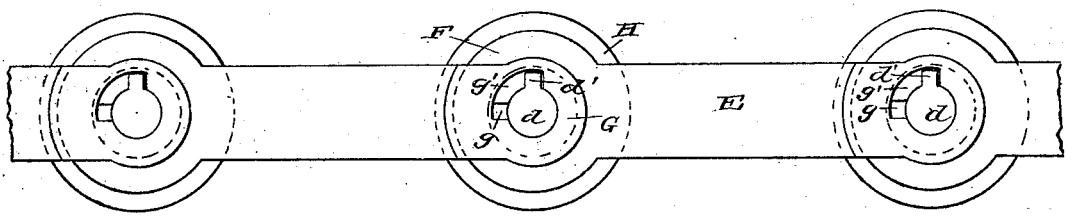


Fig. 3

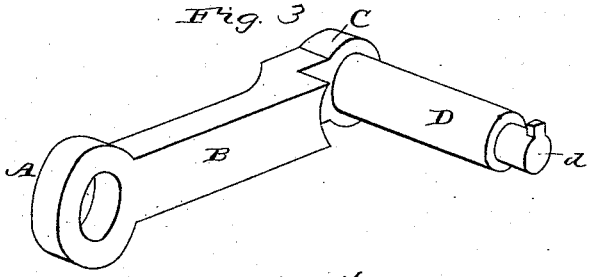
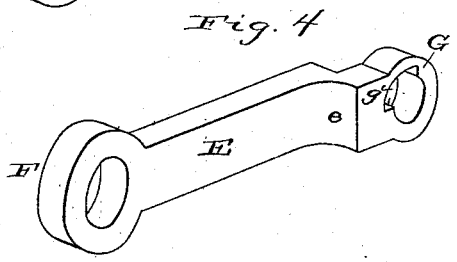


Fig. 4



Witnesses:
N. N. Low
J. S. Barker.

Inventor:
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by Dodge & Bliss
atty.

UNITED STATES PATENT OFFICE.

SAMUEL C. LECHNER, OF COLUMBUS, OHIO, ASSIGNOR OF TWO-THIRDS TO FRANCIS M. LECHNER, OF SAME PLACE.

CHAIN.

SPECIFICATION forming part of Letters Patent No. 267,003, dated November 7, 1882.

Application filed September 1, 1882. (Model.)

To all whom it may concern:

Be it known that I, SAMUEL C. LECHNER, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Chains, of which the following is a specification, reference being had therein to the accompanying drawings.

Figure 1 is a plan view of my improved chain, the links being straightened out or in working position. Fig. 2 is an edge view of Fig. 1. Fig. 3 is a perspective view of one of the side bars and its attached end bar. Fig. 4 is a detached view of the other side bar.

One object of my invention is to produce a two-part link the members of which shall be of simpler construction than any heretofore constructed, and which at the same time can be cast without the use of cores.

Referring to the accompanying drawings, A B C is one of the side bars, the part A being somewhat circular in shape, and provided with an aperture to receive the end bar of an adjacent link. The part B is by preference rectangular in cross-section, and is connected with the part C by means of an angular offset, *b*, whereby there is formed a shoulder at *c*.

D is an end bar, projecting at right angles from the expanded part C of the side bar, and is cast in the same piece therewith, one end of this end bar being reduced in size and forming a pintle, *d*, to receive the opposite side bar of the link.

d' is a locking-spur, projecting from the stud or pintle *d*, as shown plainly in Figs. 2 and 3. The other side bar consists of a practically-straight portion, E, expanded at one end in a circular form at F, where it is provided with a circular opening to receive the end bar of an adjacent link, and at its opposite end is connected by an offset, *e*, with a similar expanded circular portion, G, provided with a central opening of a diameter corresponding to that of the external diameter of pintle *d*.

g is a notch formed in the wall of said opening, of such size as to pass readily over the spur *d'* when the side bar E F G is turned at about a right angle relative to the opposing side bar of the link, and in a vertical plane parallel therewith, in which position it (the bar E F G) can be passed freely over the spur and onto the pintle. When both side bars of the link are in the position indicated in Figs. 1 and 2 the spur *d* prevents the removal of the side bar from the pintle. Thus an end bar thrust through the ends A F keeps the parts of the link in proper working position, and by the union of several such links a chain is formed, as will be readily understood.

g' is a recess formed in the outer face of the link E F G, and extending about a quarter of a circle, commencing at notch *g*, and is of such depth as will receive the spur *d'*, the end of the pintle being the meanwhile on a line with the outer face of the part G of the link.

I prefer the construction of the parts of the link in the manner above described—that is to say, with the recess *g'* in the outer face of the side bar, and with the spur *d'* so arranged as to lie entirely inside of said outer face of the side bar—because when the parts are so constructed the pintle does not project; but if such projection is not considered objectionable the recess *g'* may be dispensed with, and the pintle may be made long enough to bring the spur *d'* entirely through the side bar, so that it (the spur) shall be on the outer side and bear against the outer surface of the side bar.

H H' are friction-rollers, mounted on end bars, D, to engage with the sprocket-wheel spur.

In practice I usually cast the end pintle with a web or spline extending its entire length, and afterward cut off that portion of the web or spline which is adjacent to the end bar, D, thus leaving the locking-spur *d'* projecting from the outer end of the pintle. Thus I am enabled to cast both members of the link without using any core.

What I claim is—

The combination, with the side bar A B C and end bar, D, provided with pintle *d* and spur *d'*, of the bar E F G, provided with the opening to receive the pintle, and having the notch *g*, substantially as set forth.

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

SAMUEL C. LECHNER.

Witnesses:

F. F. D. ALBANY,

F. W. ARNOLD.