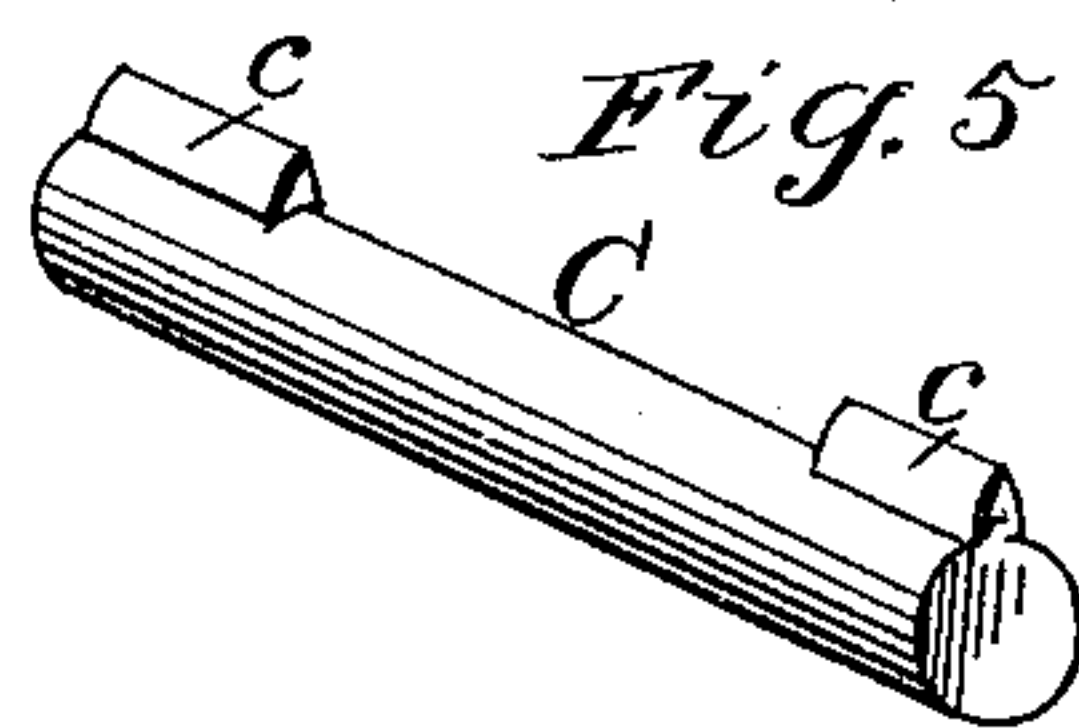
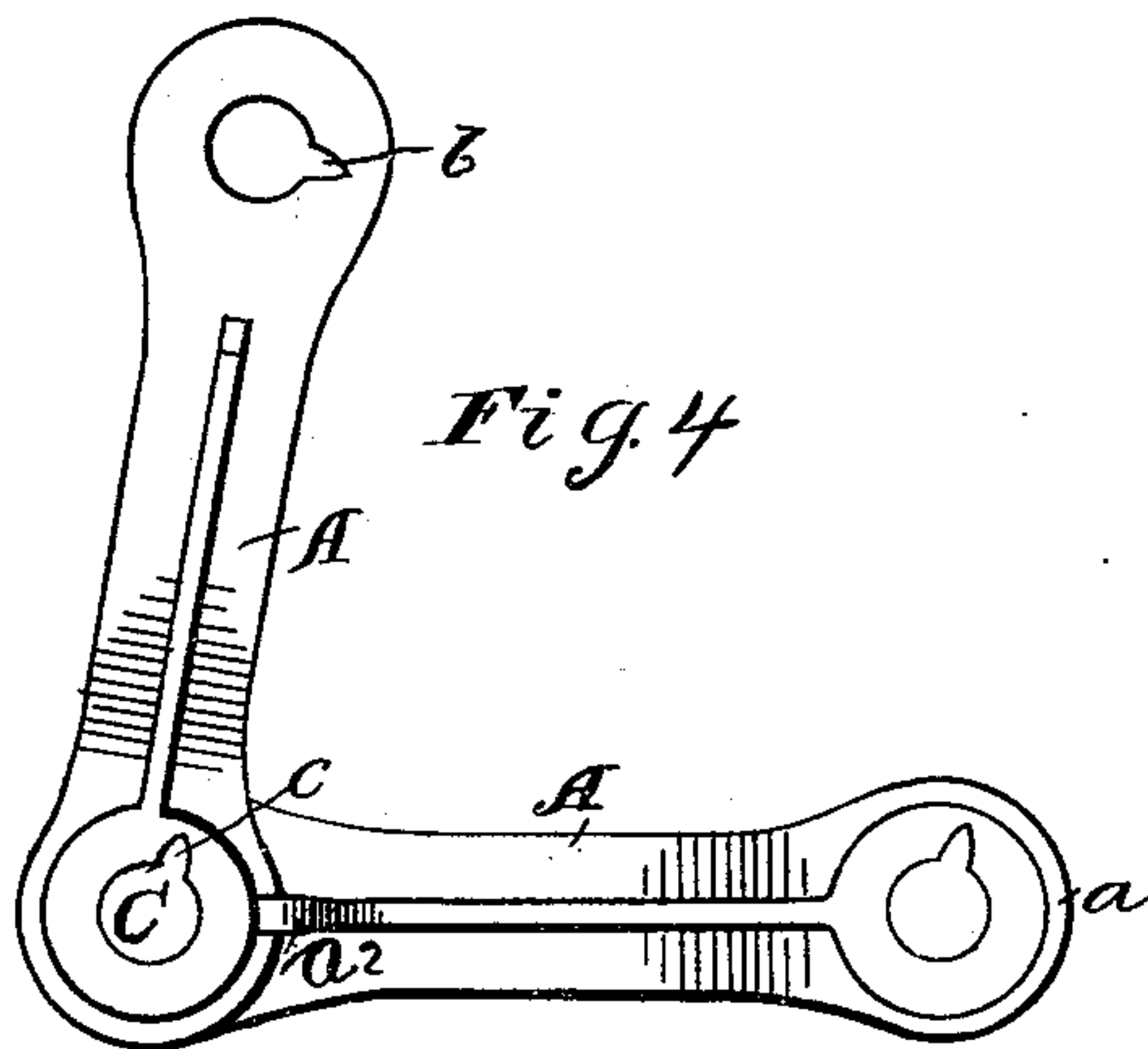
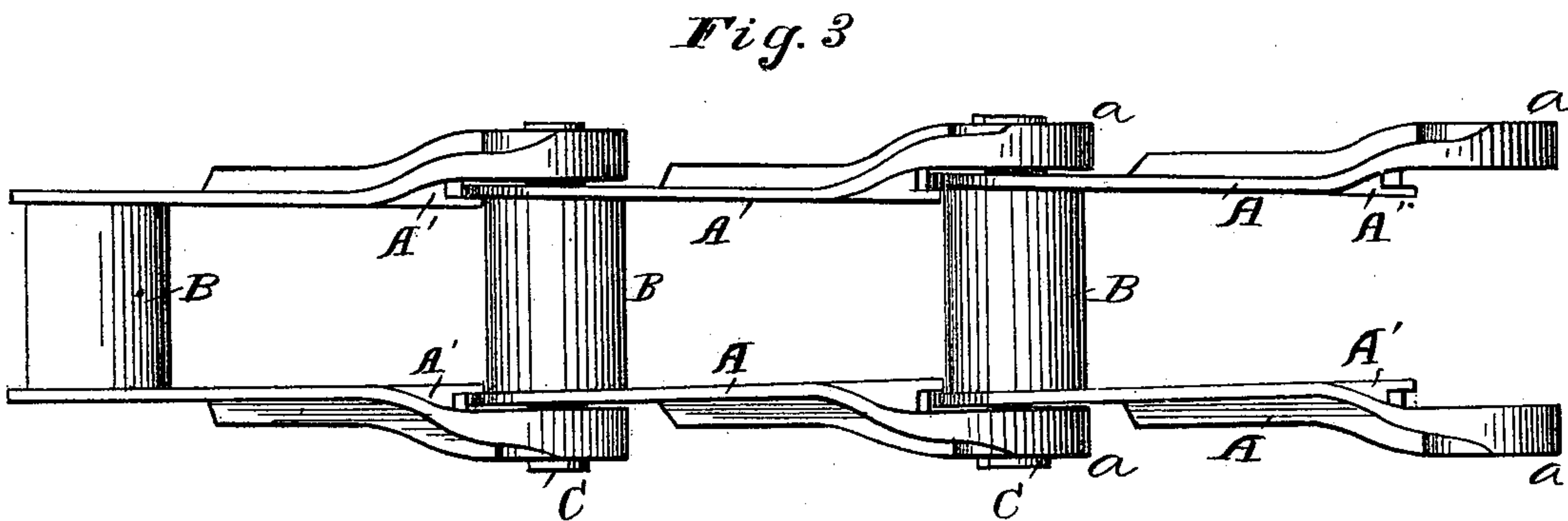
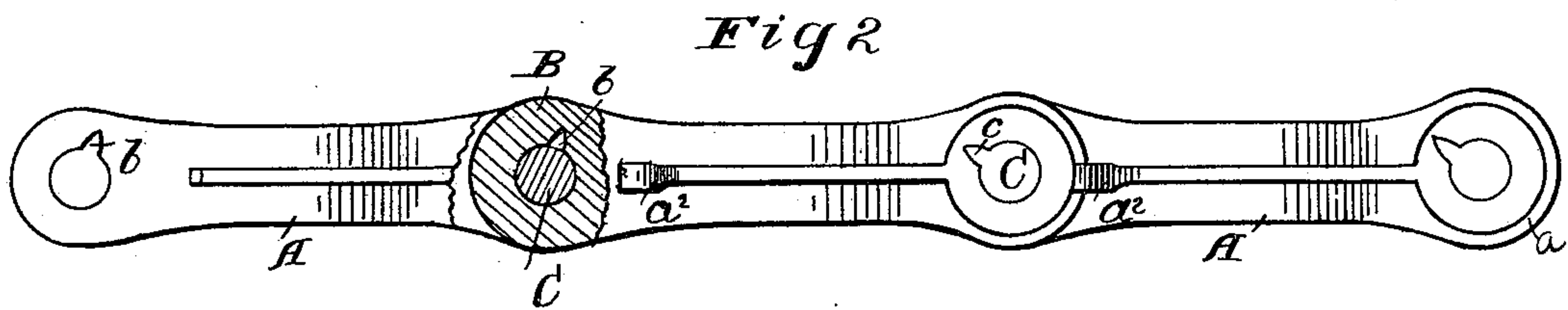
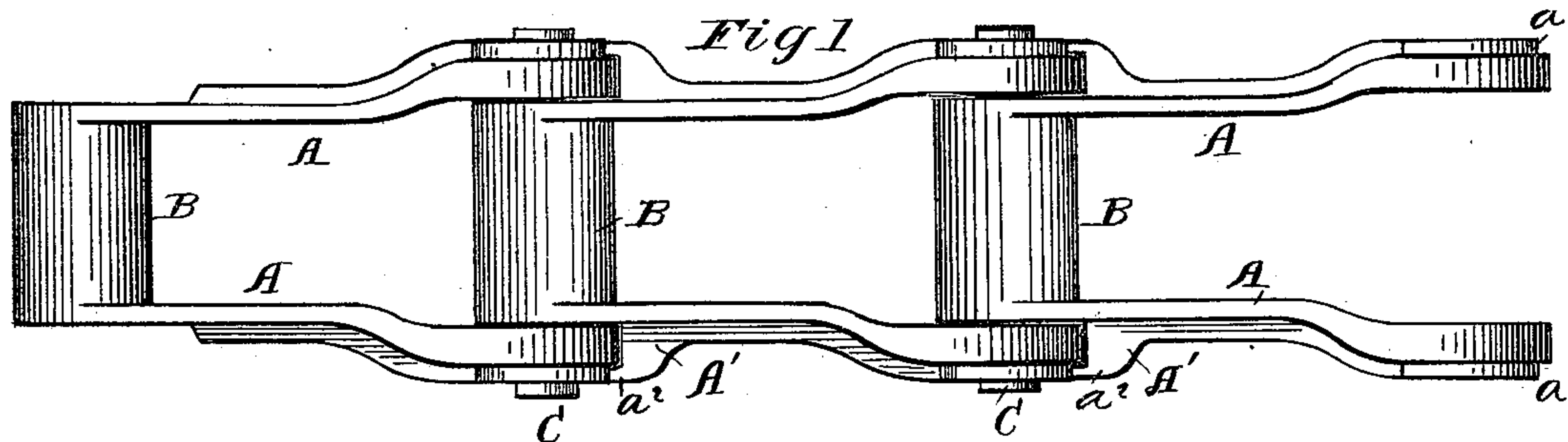


(Model.)

D. J. SHELDRIK.
DRIVE CHAIN.

No. 403,893.

Patented May 21 1889.



Witnesses:
J. C. Turner
B. W. Sommers.

Inventor:
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UNITED STATES PATENT OFFICE.

DAVID J. SHELDRIK, OF COLUMBUS, OHIO.

DRIVE-CHAIN.

SPECIFICATION forming part of Letters Patent No. 403,893, dated May 21, 1889.

Application filed February 28, 1888. Serial No. 265,623. (Model.)

To all whom it may concern:

Be it known that I, DAVID J. SHELDRIK, 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 Drive-Chains, of which the following is a specification, reference being had therein to the accompanying drawings.

Figure 1 is a plan view of a chain containing my invention. Fig. 2 is an edge view, partly in section. Fig. 3 is a plan view of a modification. Fig. 4 shows two links in position for coupling or uncoupling. Fig. 5 is a detached view of one of the pintles.

This invention relates more particularly to that class of detachable drive-chains in which the links are substantially U-shaped and are coupled to each other by means of pintles having locking projections which, when the links are in working relation, engage with either the side bars or the tubular end bars to prevent said pintles from being accidentally moved endwise out of their seats. It has been found in operating this class of chains that sometimes when under heavy tension the outer ends of the side bars are liable to spread apart and slip off from the ends of the pintles, and it is to obviate such objection that I have made this invention.

Like reference-letters indicate like parts in all the figures.

Aa Aa are the side bars, united at their inner ends to a tubular end bar, B, and, by preference, formed integral therewith. In the outer ends of the side bars there are pintle-seats a' , which are circular in cross-section, except that they are notched at one side. The tubular end bar, B, has a pintle-seat which is circular in cross-section, except that upon one side it has a groove or throat, as at b .

Ccc is the pintle, cylindrical throughout its entire length, except that at its ends it is provided with spurs or lugs c , adapted to enter the notches and grooves above mentioned, so that when two links are placed in the position indicated in Fig. 4 the notches in the outer ends of the side bars will register with the groove in the tubular end bar, and the pintle can be thrust into the pintle-seats, after which the links can be straightened out, when

the engagement of the spurs c with the tubular end bar will prevent accidental displacement of the pintle.

A' A' (see Figs. 1 and 2) are ears or clasps projecting from the outer faces of the side bars, near their inner ends, the angular or bent-over ends a^2 of these ears overlapping and engaging with the outer faces of the outer ends, a , of the side bars in such manner as to resist any tendency of these side bars to spread apart and be drawn off from the ends of the pintles. In order to insure the most satisfactory operation of these parts, I propose to form the outer edges of the ends a in arcs of circles which are concentric to the pintles.

In Fig. 3 the ears are formed upon the inner faces of the side bars, as at EE, the tubular end bar being provided with projecting flanges e , whereby substantially the same end is attained.

By an examination of Fig. 1 it will be seen that the portions of the ends a of the side bars with which the ears A' A' engage are of reduced thickness, and therefore the ears do not project beyond either the ends of the pintles or the adjacent parts of the end bars, and therefore there is practically no liability of the ends of these ears coming in contact with anything which may be situated close to the line of travel of the chain.

From the above it will be readily understood that my invention operates differently from any of the earlier constructions, in that, among other things, the ears A' or E, either or both, may be made to overlap and engage with the opposing faces at whatever angle the links may be placed to each other when vibrating about the pintles, and thus prevent spreading apart of the ends of the side bars in any position which the chain may assume, whether running over a sprocket-wheel or over a relatively-small tightener engaging with the opposite side of the chain, such capability being due to the fact that the concentric flanges c or the corresponding shoulders on the outer faces of the ends a of the side bars may be continuous and unbroken throughout their entire extent. Another difference is this: In putting my chain together the tubular end bar of one link can be thrust

bodily between the ends *a a* of the side bars, and the flanges *e e* or shoulders at *a a* thrust between the ears *A'* or *E*, or both, when the pintle-seats are in proper relation to receive the pintle, after which the pintle may be thrust endwise into place.

I am aware that overlapping lugs or ears engaging with the ends of side bars to prevent them from spreading are old, and hence do not claim them broadly.

What I claim is—

In a drive-chain, the combination of the **U**-shaped links having in the ends of the side

bars the circular pintle-seats provided with grooves *b*, the overlapping ears formed on the side bars on parallel planes therewith and adapted to prevent the outer ends of the side bars from spreading, and the cylindrical pintles provided with spurs *c c*, substantially as set forth.

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

DAVID J. SHELDRIK.

Witnesses:

RALPH VANDORN,
JOHN A. KEGHT.