

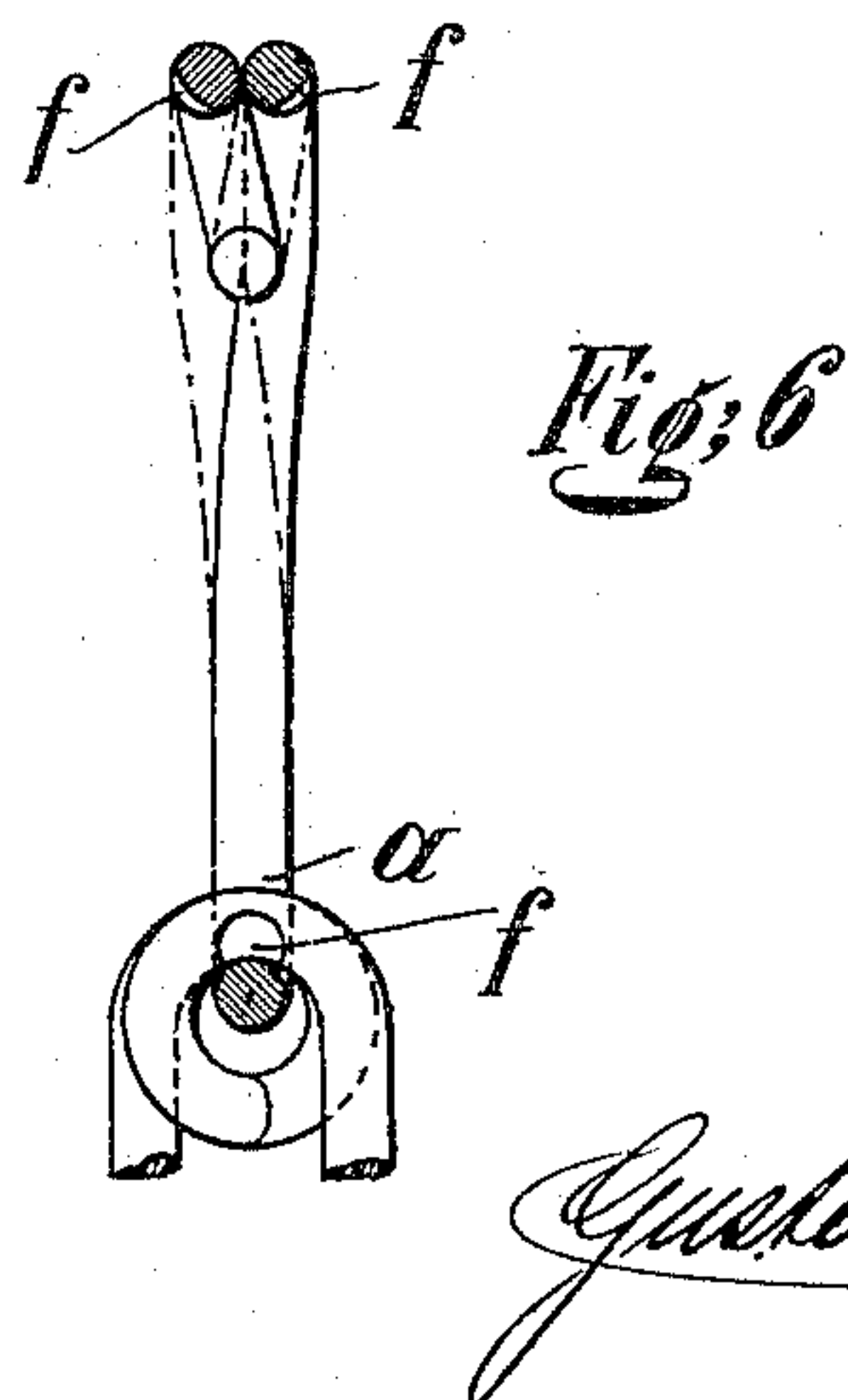
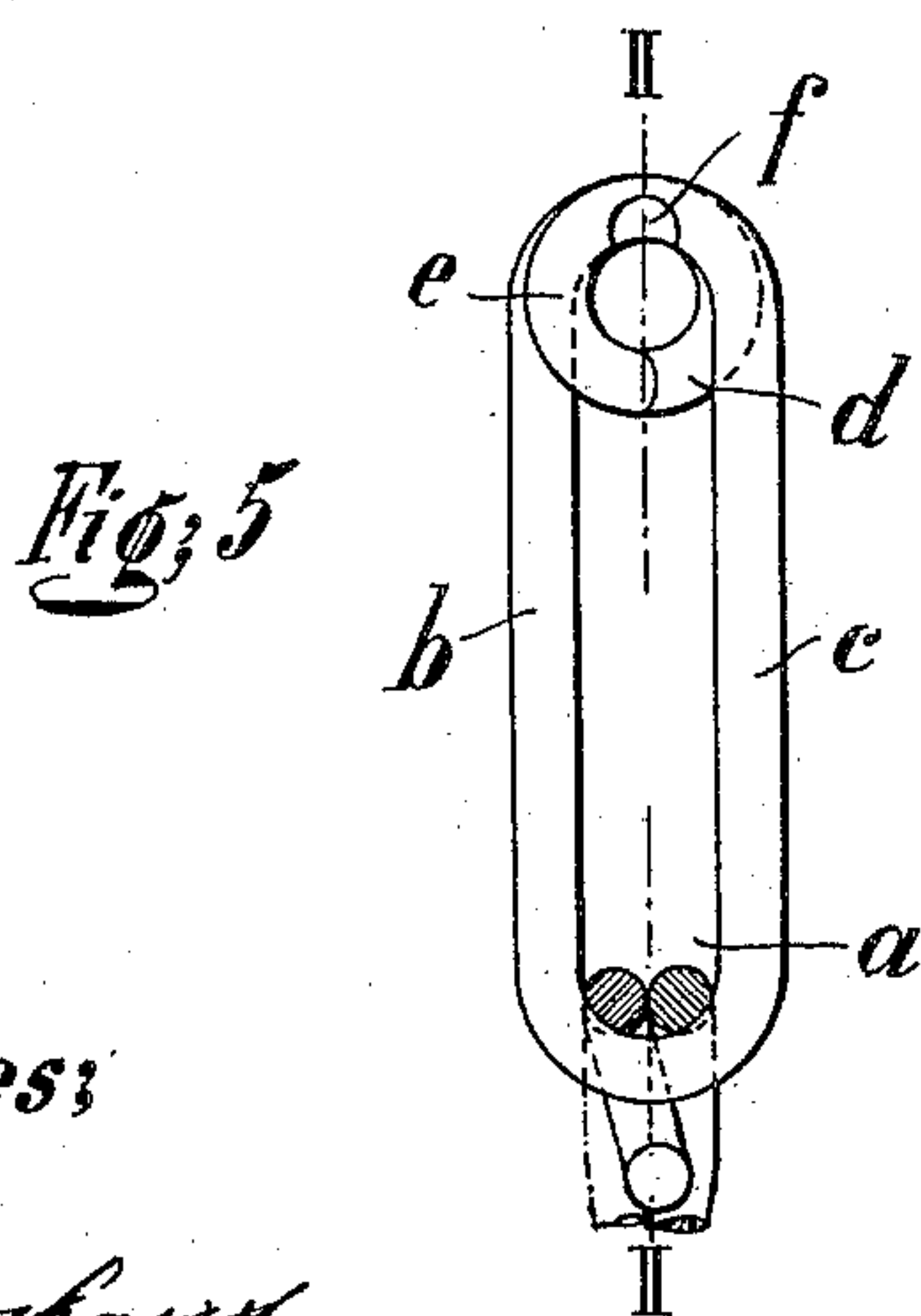
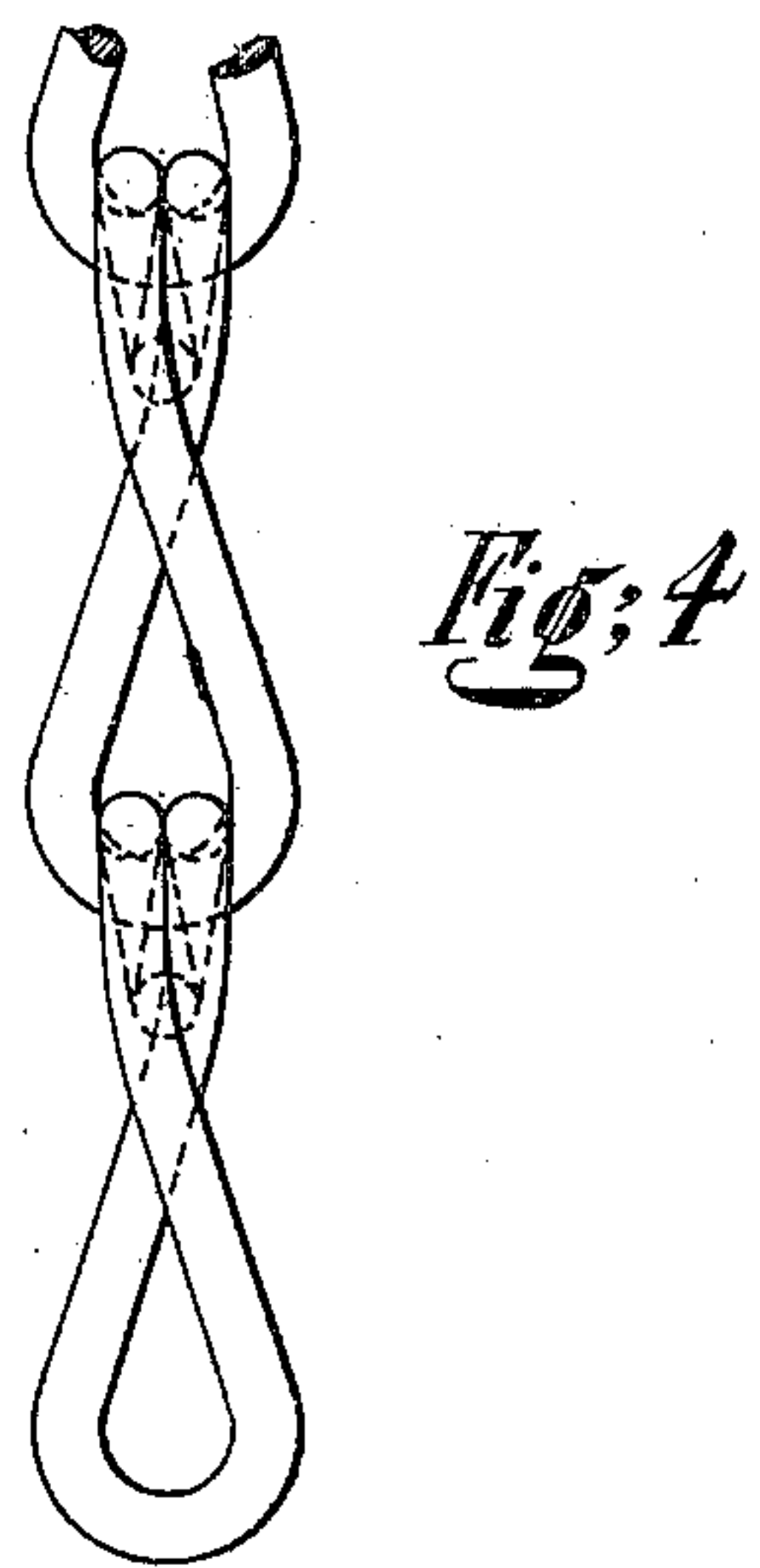
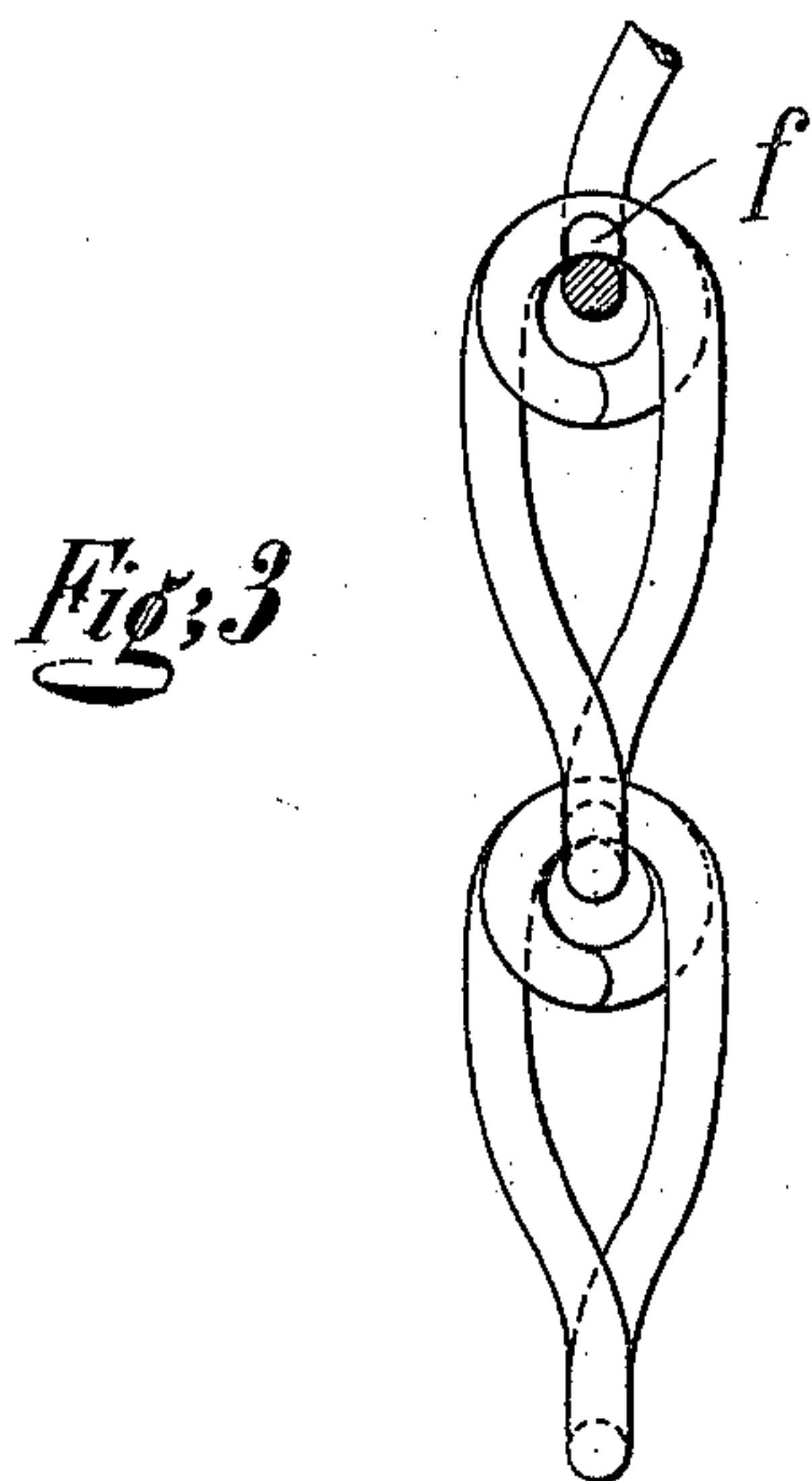
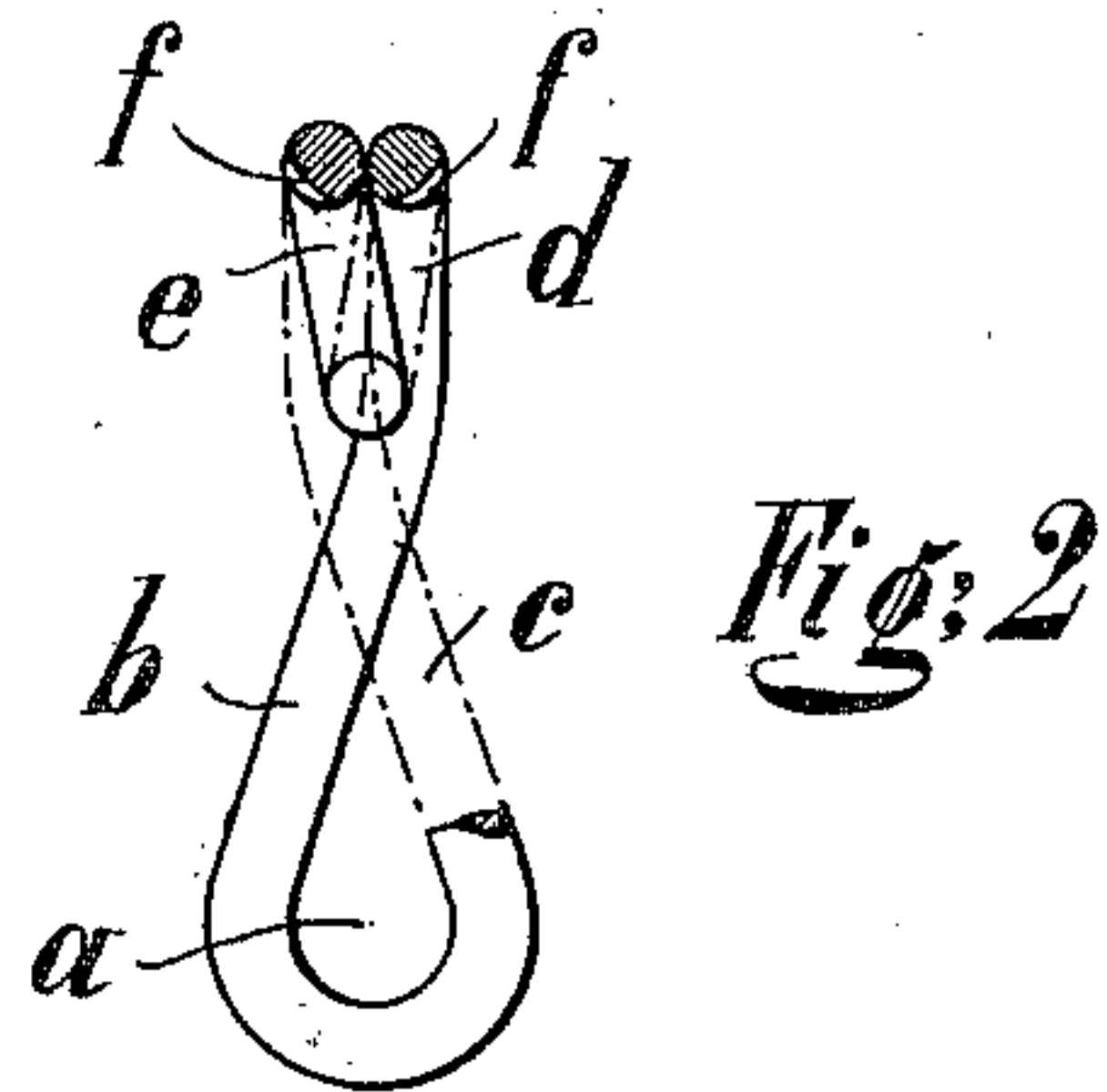
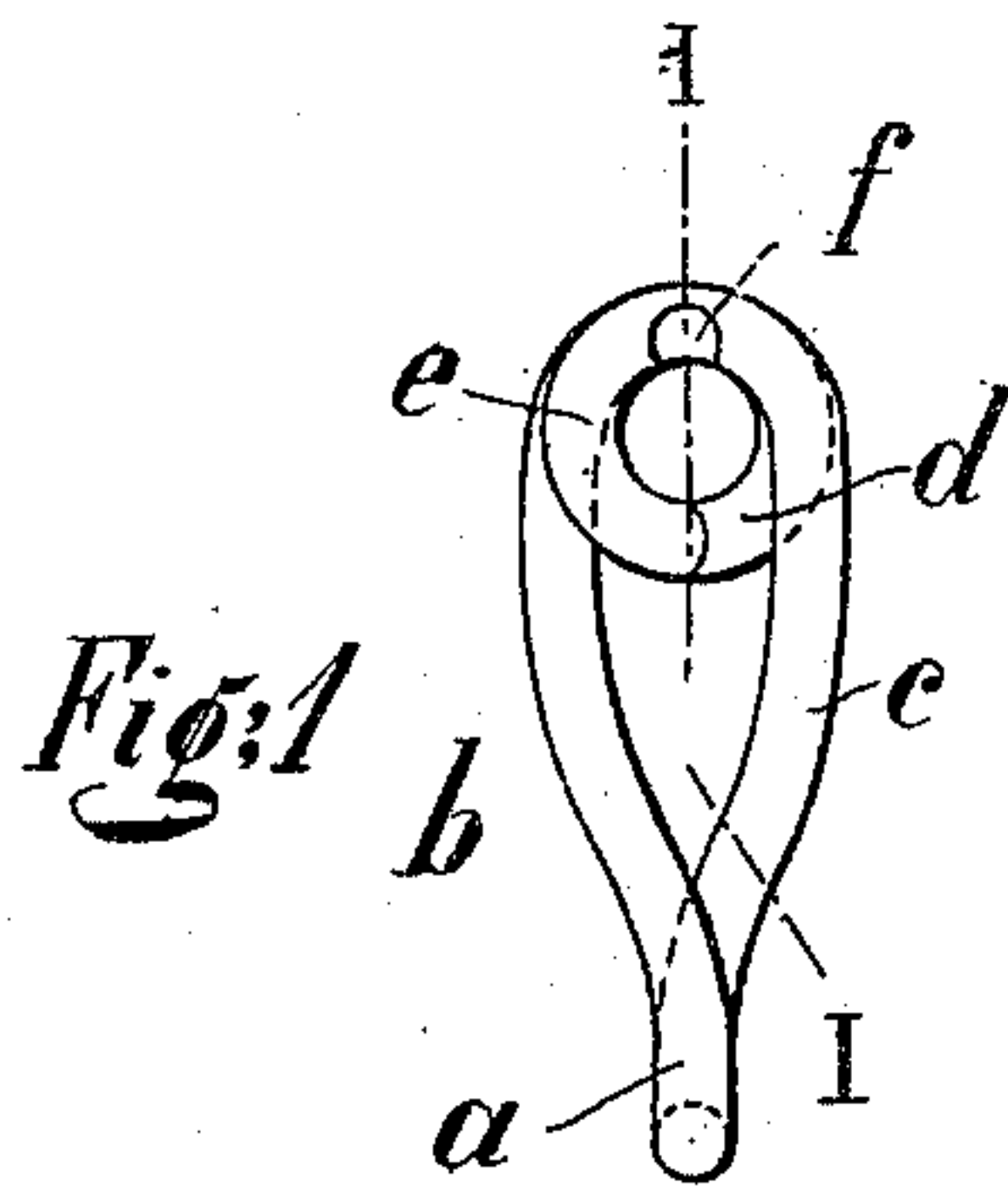
No. 688,914.

Patented Dec. 17, 1901.

G. WILKE.
CHAIN LINK.

(Application filed June 1, 1901.)

(No Model.)



Witnesses:

O. H. King
J. H. Hittnerhaus,

Inventor;

Gustav Wilke

UNITED STATES PATENT OFFICE.

GUSTAV WILKE, OF GRÜNE, GERMANY.

CHAIN-LINK.

SPECIFICATION forming part of Letters Patent No. 688,914, dated December 17, 1901.

Application filed June 1, 1901. Serial No. 62,791. (No model.)

To all whom it may concern:

Be it known that I, GUSTAV WILKE, a citizen of the German Empire, residing at Grüne, in the Province of Westphalia, Kingdom of Prussia, Germany, have invented certain new and useful Improvements in Chain-Links; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in chain-links made of wire without welding, and of that kind of links where at one side the ends of the wire are bent to form an eye or ring, in or through which the next following link is slung and held together with the preceding one. It has been found that these eyes open when these chains are exposed to a great strain, and it is the object of my present invention to prevent this opening of the eyes, and I attain this by the means described hereinafter and shown on the accompanying drawings, on which—

Figure 1 shows the new link in side view. Fig. 2 shows the same, partly in section, along line I I of Fig. 1. Fig. 3 shows the combination of three such links as part of a chain. Fig. 4 is a view seen at right angles to Fig. 3. Fig. 5 shows a side view of a link of the same kind, both ends lying in the same plane instead of being twisted, as in the case of Figs. 1 to 4. Fig. 6 is a vertical section along line II II of Fig. 5.

A piece of wire of suitable length is bent so as to form the loop *a*, and so that the shanks *b* and *c* lie in parallel or nearly-parallel planes. The ends of the shanks are further bent to form each a nearly-complete eye or ring *d* and

e, respectively, and both ends are pressed toward each other, so that they meet in the middle, and thus form together a completely-closed eye. In Figs. 1 to 4 the links are twisted so that the ends of the same stand at right angles to each other, whereas in Figs. 5 and 6 the link is not twisted, both ends—that is, the loop *a* and the eyes *d e*—lying in the same plane. This is irrelevant. Now it will be observed that at the outside of the eyes *d* and *e* notches *f* are made, into which the part of wire forming the loop *a* of each link is laid or held, as will be best seen from Figs. 4 and 5. By this I attain the remarkable effect that the eyes *d e* cannot open, and the stronger the pull is on a chain of this sort the firmer these eyes are held together. The power of resistance of such a chain is therefore greatly improved, so that it is even stronger than that of a chain with welded links.

I am aware that chains of similar construction have been known before; but I am not aware that they have been provided with the characteristic notches.

What I therefore claim, and desire to secure by Letters Patent, is—

In a chain-link the combination of eyes *d, e* at one end of the link with notches *f* at the outside of the wire forming said eyes as described and illustrated and for the purpose set forth.

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

GUSTAV WILKE.

Witnesses:

OTTO KÖNIG,

T. A. RITTERSHAUS.