

J. DUFOUR.  
DETACHABLE LINK.  
APPLICATION FILED MAY 20, 1908.

943,220.

Patented Dec. 14, 1909.

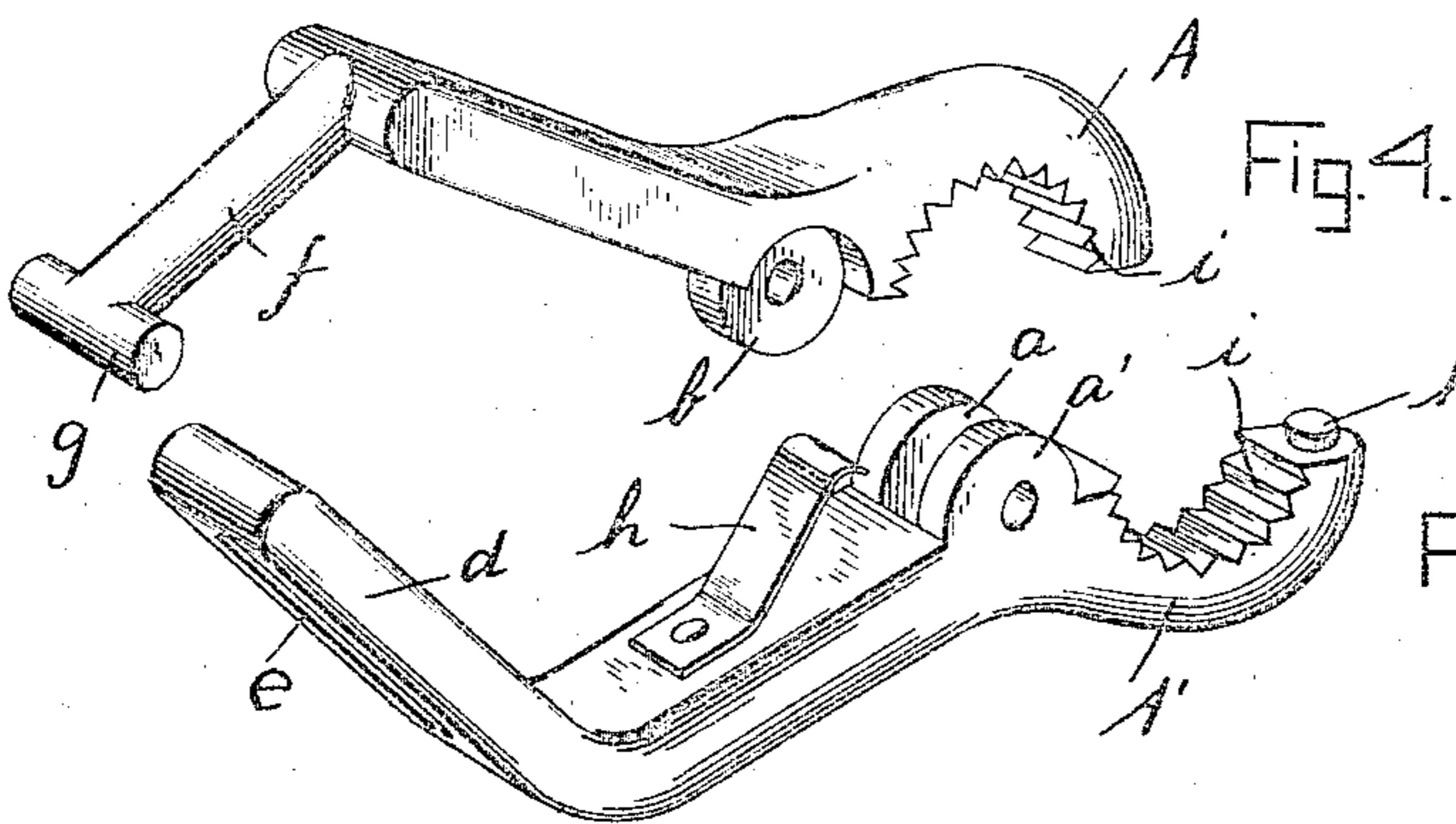
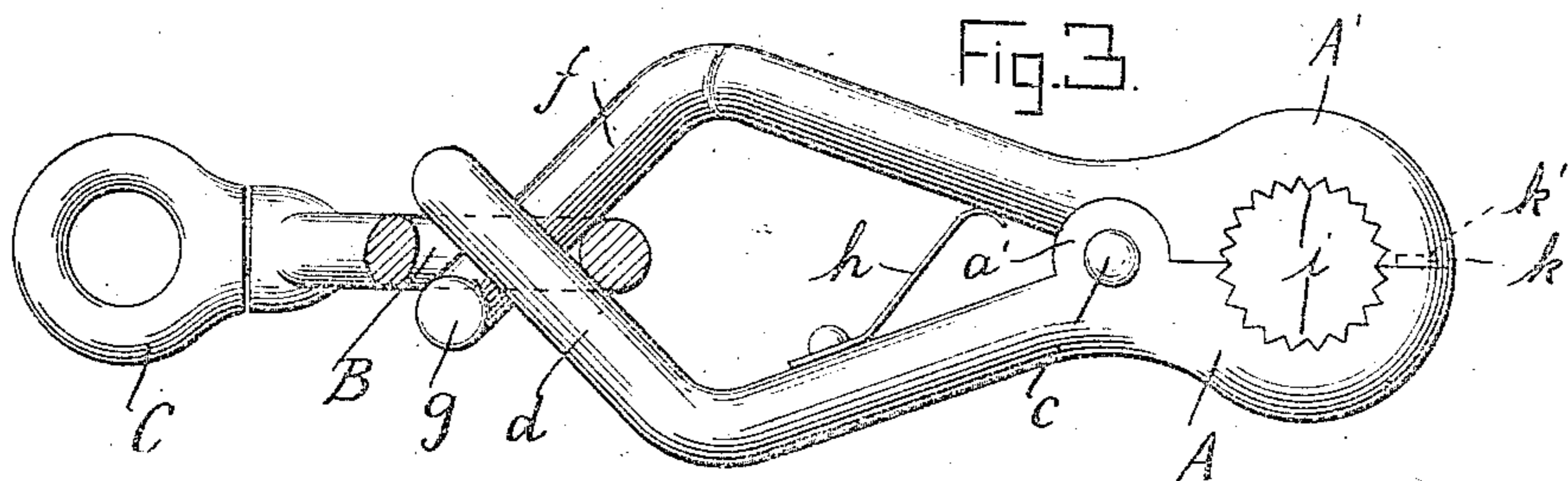
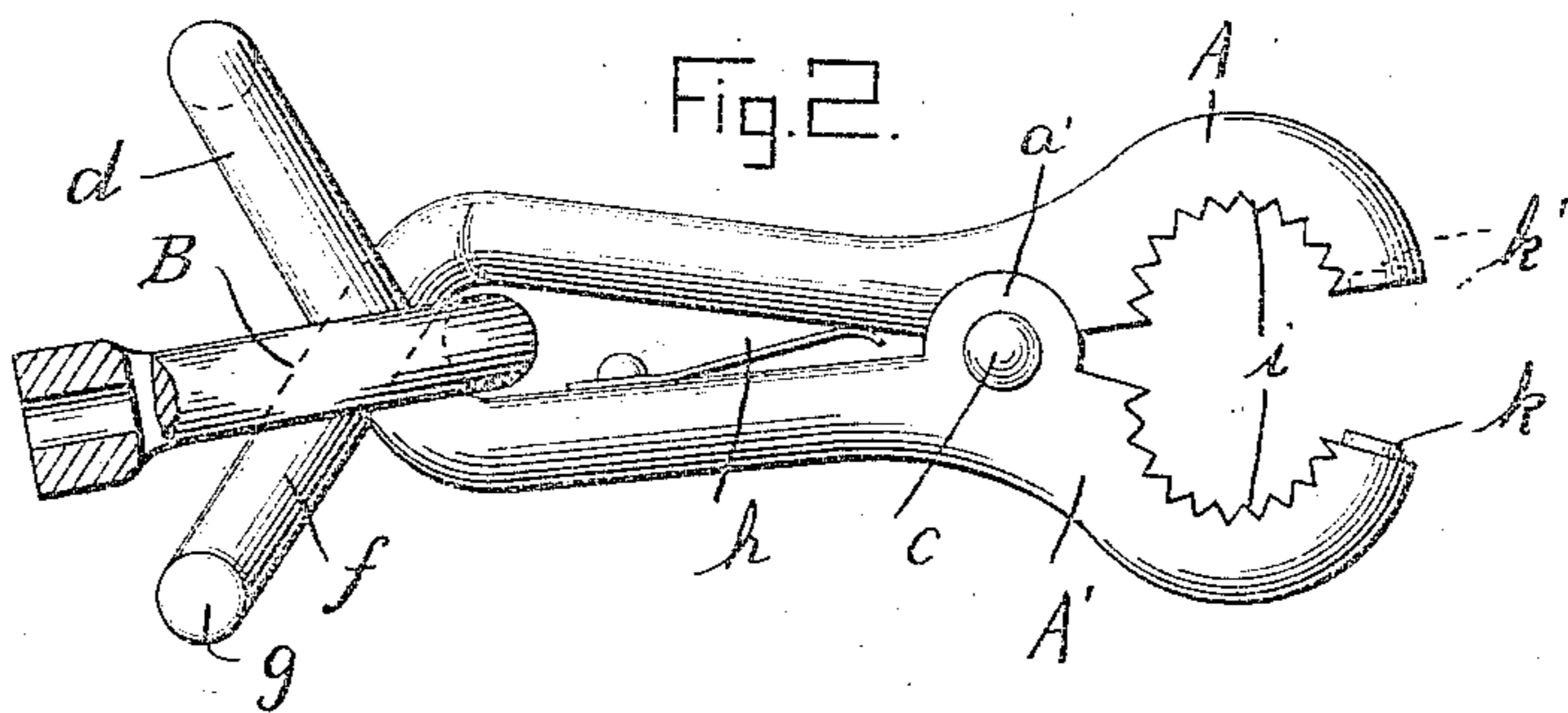
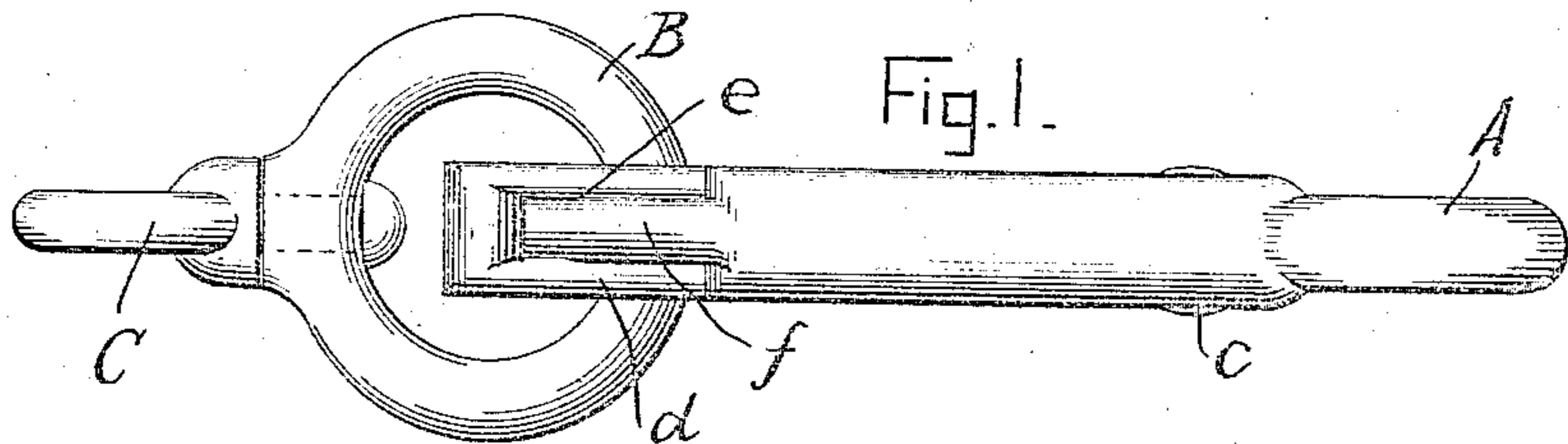


Fig. 5.

WITNESSES  
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# UNITED STATES PATENT OFFICE.

JOHN DUFOUR, OF THE DALLES, OREGON.

DETACHABLE LINK.

943,220.

Specification of Letters Patent.

Patented Dec. 14, 1909.

Application filed May 20, 1908. Serial No. 433,900.

To all whom it may concern:

Be it known that I, JOHN DUFOUR, a citizen of the United States, residing at The Dalles, in the county of Wasco and State of Oregon, have invented certain new and useful Improvements in Detachable 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 certain improvements in detachable links or the like, and is intended as a self-gripping device or snap hook to be used on chains, harness tugs, bridle reins, lifting cranes, and blocks and tackle, although it is susceptible of a variety of other applications in devices where there is desired a safe, strong, and absolute gripping connection, and at the same time an easy method of releasing.

An object of my invention is to provide a device of the character just mentioned, which possesses the greatest resisting strength possible, the parts being so related that the strain of the load is distributed equally throughout.

A further object is the provision of a gripping device the parts of which are adapted to be held automatically in normal or holding position, and which grip instantly when any weight or pull comes upon them.

Other objects and advantages will appear from the description as set forth in the specification hereinafter, and pointed out in the claims.

In the drawings hereto appended Figure 1 is a side elevation of the device in closed position. Fig. 2 is a top plan view of the device in open position. Fig. 3 is a top plan view of the device in closed position. Figs. 4 and 5 are detail views of the gripping jaws.

Referring more particularly to the several views, in which like characters of reference refer to corresponding parts in the different figures, A, A<sup>1</sup> designate the gripping jaws, which are pivotally connected, as shown by lugs a, a<sup>1</sup>, on the jaw A<sup>1</sup>. These lugs embrace an ear b on jaw A, the parts being secured together by a suitable pin c. The jaw A<sup>1</sup> has an angular rear arm or lever d which is provided with a slot e. The jaw A is formed at its rear end into a neck f, the angle, of which corresponds to that of arm

d. The neck f is arranged for movement in slot e, and is provided with an enlarged head g. A spring h is suitably secured to one of the jaws, its free end abutting the other jaw, and effecting, normally, a closing of the jaws. Ridges or teeth i are cut into the jaws to enable the device to be employed for the purpose of gripping a circular pipe or the like. The jaw A<sup>1</sup> is provided with an abutment k which is adapted to engage the recess k<sup>1</sup>, and serve to hold the jaws firmly in locking position.

B is a ring, for connecting the device to the chain or other instrumentality with which it is being employed, such connection being had through a ring C swiveled to ring B. It will be apparent that when there is a strain or load on the ring C, the jaws will be absolutely prevented from separating by reason of ring B engaging and forcing the head g to the extreme end of slot e, although the spring h has sufficient power under normal conditions, to force the jaws to closed position and grip a member, even though no pull is exerted on the ring C. When it is desired to release the jaws, it is only necessary to separate the rear ends against the tension of spring h, which can be accomplished very quickly and readily.

I have disclosed the invention in a form which includes my preferred embodiment, but various changes and departure may be made in the present structure, and still be comprehended by the spirit of the invention. What I desire to secure by Letters-Patent, and claim, is:—

1. A device of the character described including a pair of gripping jaws, rearwardly extending arms carried thereby, one of said arms being provided with an opening adapted to receive the other of said arms, and a spring positioned between the arms and serving to hold said jaws normally closed.

2. A device of the character described including a pair of gripping jaws, rearwardly extending arms carried thereby, one of said arms being arranged to project constantly through an opening in the other arm.

3. A device of the character described including a pair of gripping jaws, rearwardly extending arms carried thereby, one of said arms being constantly in engagement with a slotted portion of the other arm, and an enlarged head carried by the first-mentioned arm.

4. A device of the character described in-

cluding a pair of gripping arms, lugs carried by one of said jaws and embracing an ear on the other jaw, a spring for holding said jaws normally closed, rearwardly extending arms carried by the jaws, one of said  
5 arms being arranged to engage a slotted portion in the other arm, and an enlarged head carried by said first mentioned arm.

In testimony whereof, I affix my signature, in the presence of two subscribing witnesses. 10

JOHN DUFOUR.

Witnesses:

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