

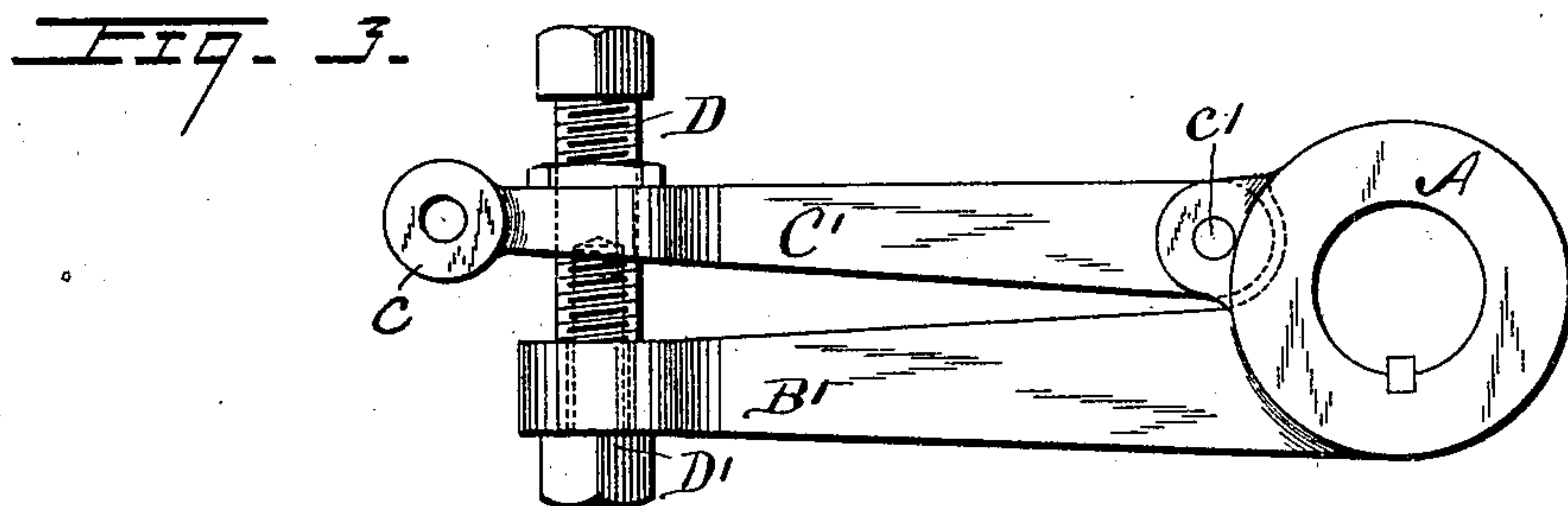
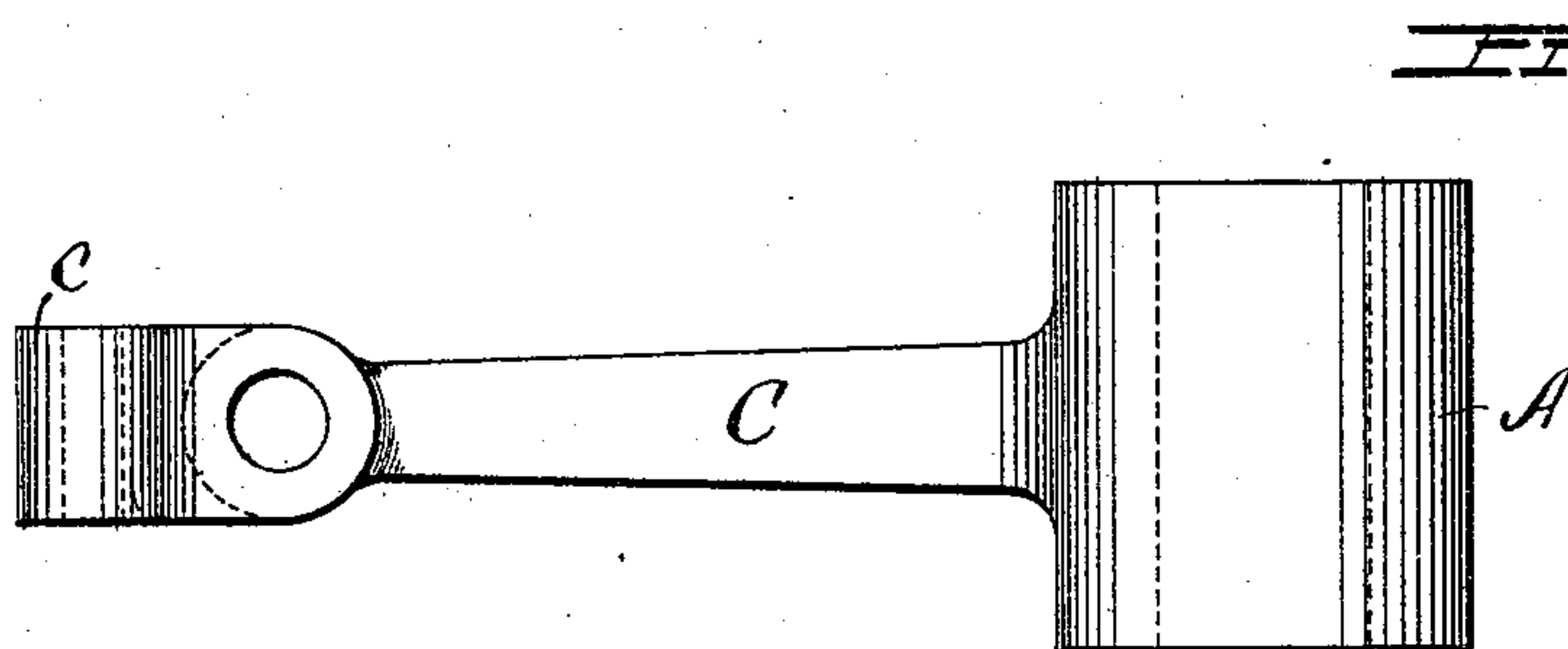
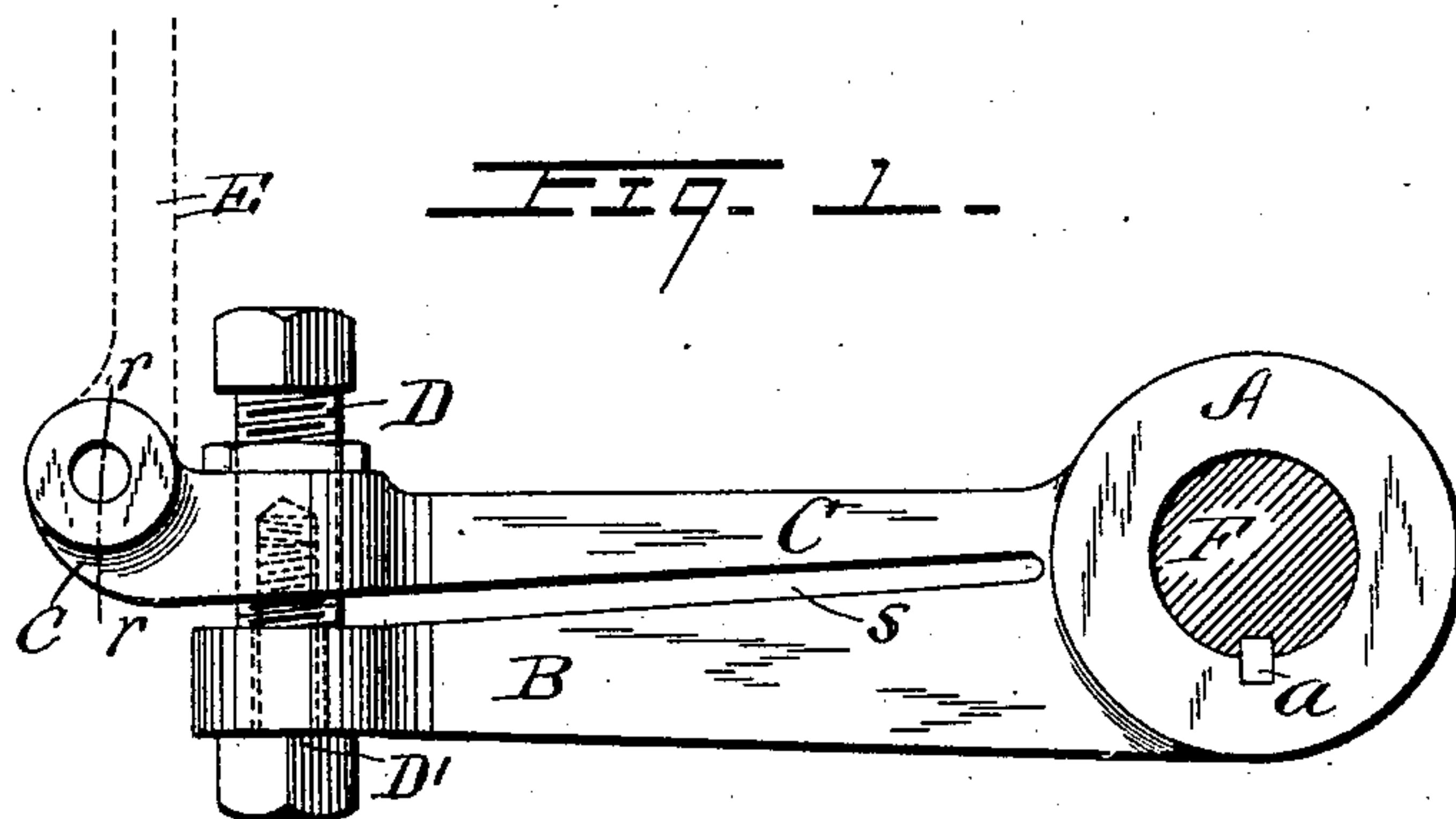
No. 711,724.

Patented Oct. 21, 1902.

H. JANSSEN.
ADJUSTABLE CRANK.

(Application filed June 10, 1902.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

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ADJUSTABLE CRANK.

SPECIFICATION forming part of Letters Patent No. 711,724, dated October 21, 1902.

Application filed June 10, 1902. Serial No. 110,951. (No model.)

To all whom it may concern:

Be it known that I, HENRY JANSSEN, a citizen of the United States of America, and a resident of Wyomissing, near Reading, in the county of Berks and State of Pennsylvania, have invented certain new and useful Improvements in Adjustable Cranks, of which the following is a specification.

My invention relates to an improved crank designed particularly for imparting nicely-adjusted movement to connected parts from an oscillating shaft to which the crank is rigidly fixed—as, for instance, in certain knitting-machines in which the needles require to be raised and lowered into exact coöperating position with other parts.

My object is to provide for conveniently securing and maintaining such exact adjustment of movement from any number of cranks on the operating-shaft without requiring nicety in the securing of the cranks thereon and without change in the character of the resulting movement.

The invention is fully described in connection with the accompanying drawings, and the novel features are pointed out in the claims.

Figure 1 is an elevation, and Fig. 2 a plan view, of a preferred form of crank embodying my invention. Fig. 3 shows a slightly-modified construction.

The shaft hub or boss A of the crank is formed, as shown in Figs. 1 and 2, with an integral bifurcated arm or web B C, the portion B of which constitutes a rigid unyielding extension from the hub, while the portion C is so formed as to be readily bent toward the rigid portion B by means of a clamping-bolt D, which adjustably connects the two portions at a point adjacent to their outer ends, as shown, thus swinging the connection end c of the crank, which is formed at the outer extremity of the yielding arm portion C, approximately in an arc *rrr* around the hub-axis. The normal space between the portions formed by the longitudinal slot s permits of a limited movement, giving sufficient scope for adjustment of the operating connecting-

rod E about the shaft F independently of the rigid connection of the crank-hub A to the latter either by means of a key *a* or set-screws and without changing the throw of the crank. Thus the crank may be permanently secured to the shaft F in merely approximately correct position, and the mechanism carried by the connecting-rod E be thereafter accurately adjusted with quickness and ease, which is often a matter of considerable importance.

The clamping means provided for adjustably securing the two separated portions of the crank preferably consists, as shown, of a two-part bolt D D', the main part D of which is screw-threaded into the adjustable crank portion and has its lower end adjustably seated against the rigid crank portion, while the locking part D' passes loosely through said rigid crank portion and is screw-threaded into the main part D, thus rigidly uniting the two crank portions in adjusted position.

In the slightly-modified construction indicated in Fig. 3 the yielding arm member C' instead of forming an integral extension of the shaft-hub has its inner end pivotally supported in connection therewith at *c'*, thus permitting of considerable adjusting movement of its outer connecting-rod end *c* by means of suitable clamping means connecting it to the rigid arm member B'. The construction may evidently be otherwise modified.

What I claim is—

1. A crank having an arm comprising one member forming a rigid extension from the shaft-hub and another member provided with a rod-connecting pivot and secured to said rigid member so as to provide for arcual adjustment of said rod-connecting pivot relative to the hub.

2. An integrally-formed crank having a bifurcated arm or web one member of which forms a rigid and the other a yielding extension from the hub, said yielding member being provided with a connection end and adjustably fixed to the rigid member to vary the arcual position of said end relative to the hub.

3. An integrally-formed crank having a bi-

furcated arm or web one member of which
forms a rigid and the other a yielding exten-
sion from the hub, said yielding member be-
ing provided with a connection end and ad-
5 justable clamping means adjacent to said
connection end comprising an adjustable
screw for regulating the spread of the crank
members and a clamping-screw for locking

the latter in adjusted relation, substantially
as set forth.

Signed at Reading, Pennsylvania, this 5th
day of June, 1902.

HENRY JANSSEN.

Witnesses:

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