

No. 622,548.

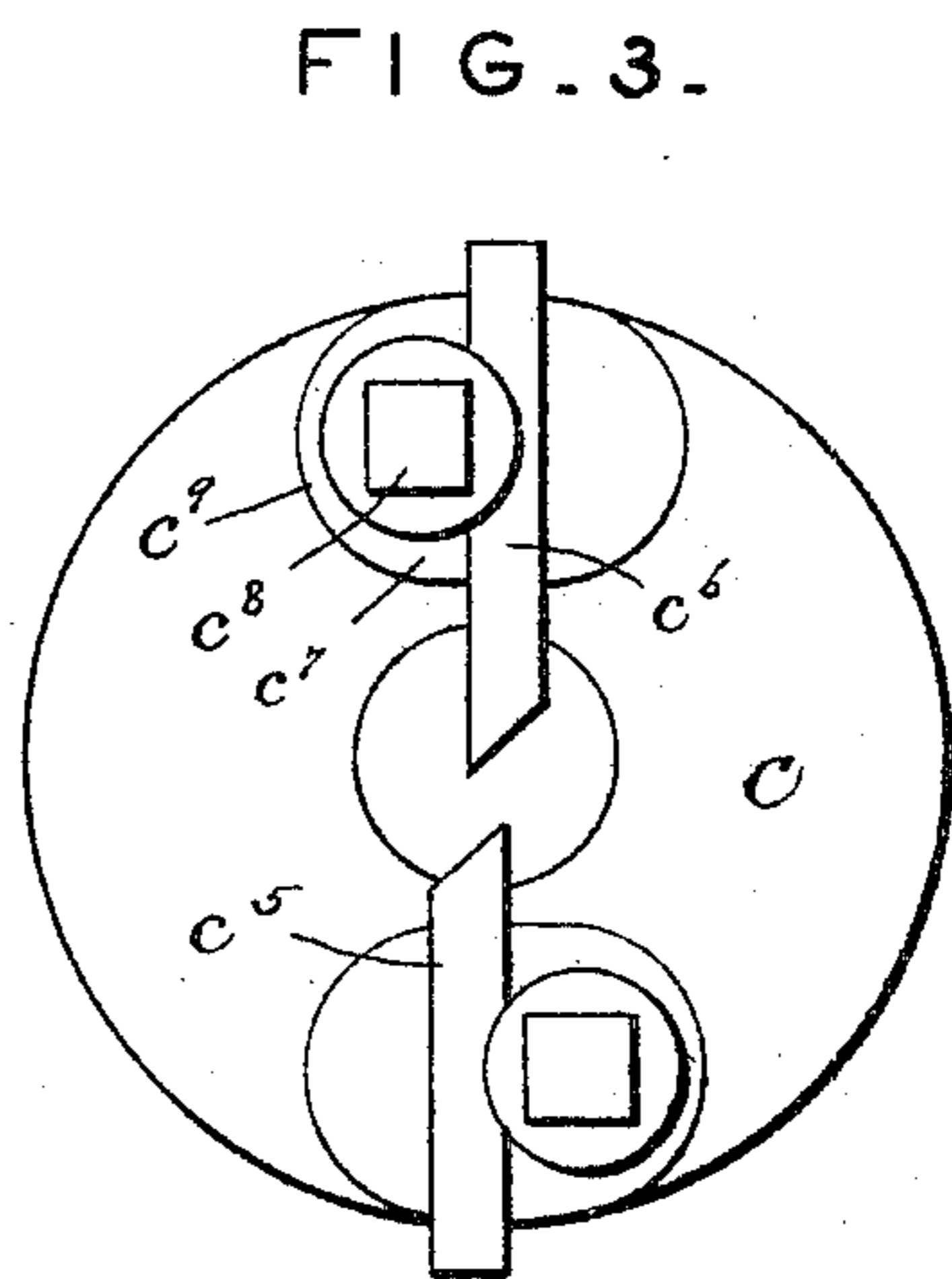
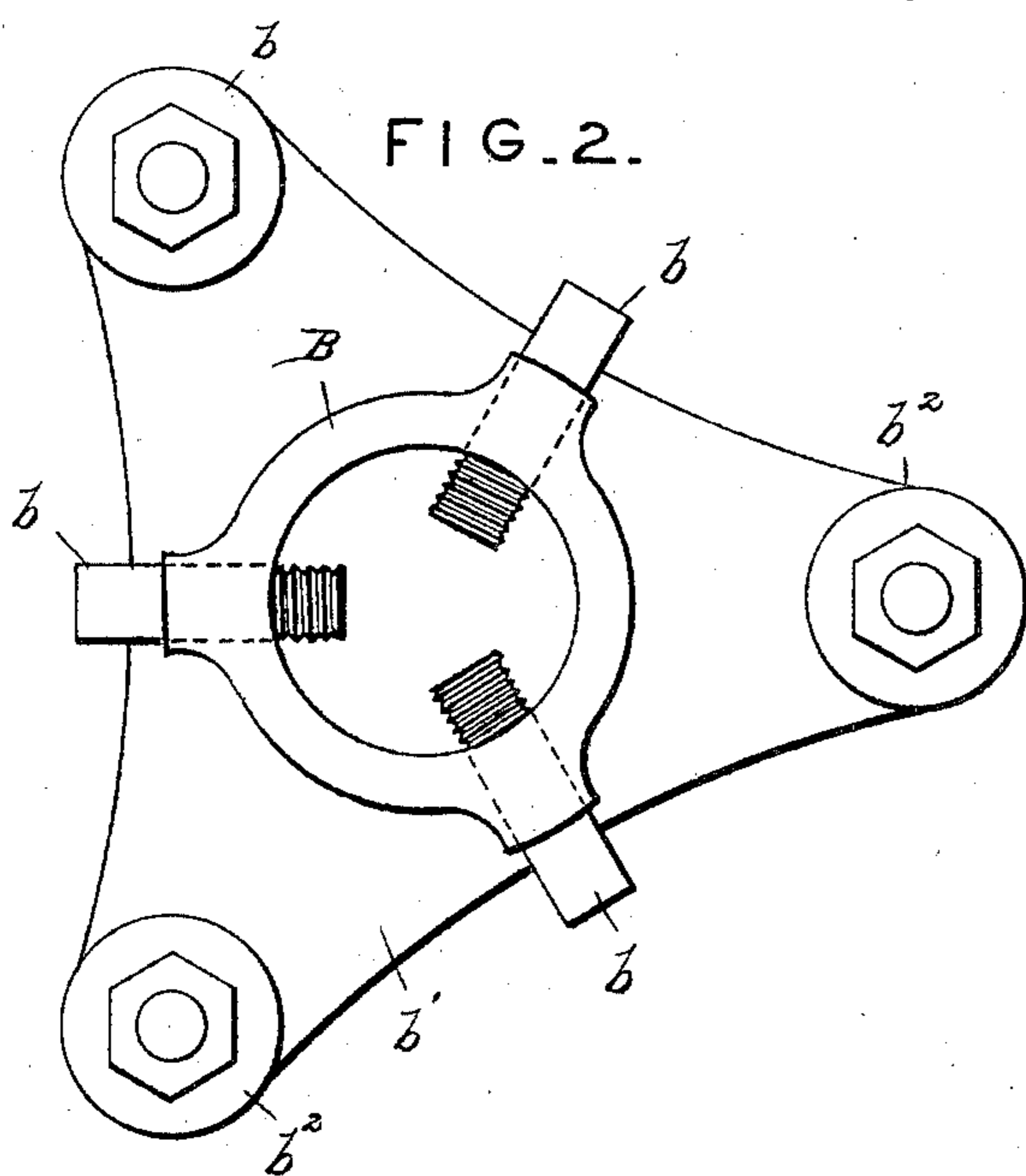
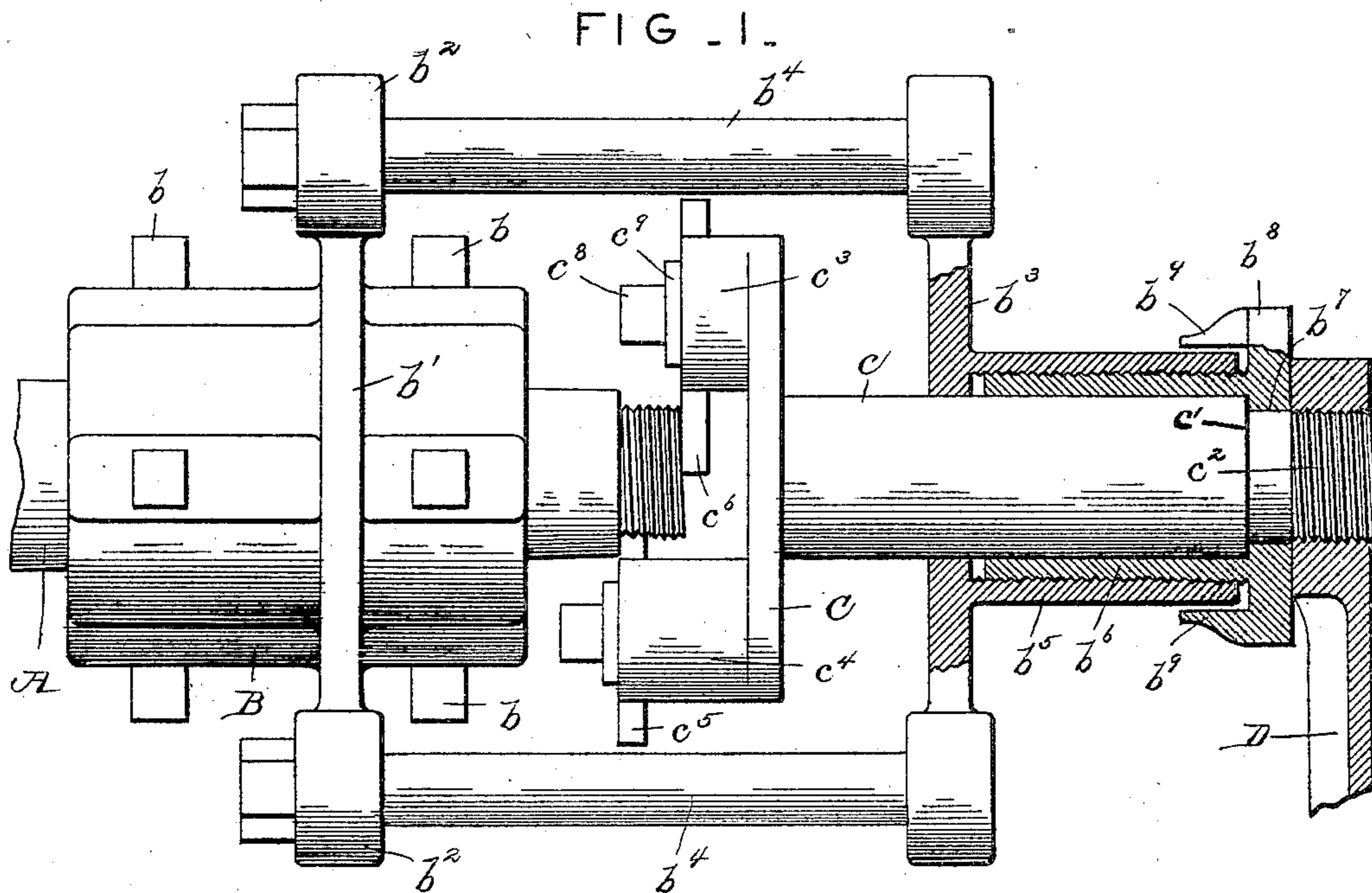
Patented Apr. 4, 1899.

W. B. SHERMAN.

AXLE CUTTER.

(Application filed Mar. 29, 1897.)

(No Model.)



WITNESSES

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AXLE-CUTTER.

SPECIFICATION forming part of Letters Patent No. 622,548, dated April 4, 1899.

Application filed March 29, 1897. Serial No. 629,685. (No model.)

To all whom it may concern:

Be it known that I, WESLEY B. SHERMAN, a citizen of the United States, residing at Sioux City, in the county of Woodbury and State of Iowa, have invented certain new and useful Improvements in Axle-Cutters; 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.

The invention relates to improvements in axle-cutters.

The object of the present invention is to improve the construction of axle-cutters and to provide a simple, inexpensive, and efficient one, adapted to be readily carried from place to place and capable of operating on an axle without necessitating the removal of the same from the vehicle.

The invention consists in the construction and novel combination and arrangement of parts, as hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claim hereto appended.

In the drawings, Figure 1 is a plan view, partly in section, of an axle-cutter constructed in accordance with this invention and shown applied to an axle. Fig. 2 is a rear elevation of the same. Fig. 3 is a detail view of the cutting-disk, illustrating the arrangement of the cutters.

Like letters of reference designate corresponding parts in all the figures of the drawings.

B designates a clamping-sleeve adapted to be arranged on an axle A, as illustrated in Fig. 1 of the accompanying drawings, and it is rigidly secured to the said axle by a plurality of radially-arranged clamping screws or bolts b , mounted in threaded perforations of the sleeve and adapted to project into the central passage or opening of the same. The clamping screws or bolts b are preferably arranged in two annular series, located adjacent to the ends of the sleeve and adapted to enable the sleeve to be properly positioned with relation to the spindle. The sleeve is provided at a point between its ends with a substantially triangular plate b' , having enlargements b^2 at the ends of its arms. This plate b' is connected by longitudinal bolts b^4 with a corresponding similar-shaped plate b^3 ,

provided with an internally-screw-threaded sleeve b^5 , into which screws an exteriorly-screw-threaded sleeve b^6 . The sleeve b^5 , which is formed integral with the front triangular plate b^3 , extends outward therefrom, and the sleeve b^6 , which is arranged within the sleeve b^5 , is provided at its outer or front end with an inwardly-extending annular flange b^7 , forming an interior shoulder. The outer end of the sleeve b^6 is also provided with an outwardly-extending annular flange b^8 , having thumb-pieces b^9 , adapted to be readily grasped by the operator when it is desired to screw the sleeve b^6 into the sleeve b^5 and feed a cutter C.

The cutter comprises a disk or head and a shaft c , journaled in the sleeve b^6 and provided with an annular shoulder c' , which abuts against the annular flange b^7 , whereby the shaft c is caused to move inward when the sleeve b^6 is screwed inward. The outer end c^2 of the shaft c is screw-threaded and receives a crank-handle D, by means of which the shaft is rotated.

The inner face of the cutter-head is provided at diametrically opposite points with enlargements or studs c^3 and c^4 , which are of different heights, so as to project different distances from the face of the cutter-head for bringing the knives c^5 and c^6 , which are mounted at the ends of the studs or enlargements, in different planes to engage the end of the axle proper and the end of the journal or bearing portion of the same. The knives c^5 and c^6 are mounted in transverse grooves c^7 , cut in the tops of the studs or enlargements c^3 and c^4 , and are adjustably held in position by clamping screws or bolts c^8 , which screw into the said studs or enlargements. The screws or bolts carry nuts c^9 , which bear upon the tops or outer faces of the cutters c^5 and c^6 , which have their inner ends beveled, as shown.

When an axle is to be recut because of the wearing away of its inner shoulder, which makes the journal portion of said axle longer than the boxing in a wheel, the sleeve B is adjusted upon and securely clamped to the journal portion of the axle and the knives c^5 and c^6 are moved up in proper position for cutting the extremity of the axle and the outer end of the journal or bearing portion,

as clearly shown in Fig. 1 of the drawings. The crank-handle D is then operated to cause the knives to revolve around the axle, and as the cutting proceeds the knives are gradually moved forward by screwing the feeding-sleeve b^6 .

The invention has the following advantages: The axle-cutter, which is simple and comparatively inexpensive in construction, is portable and may be readily carried from place to place to cut axles of different vehicles, and it does not necessitate the removal of the running-gear from a vehicle, as a single wheel may be removed and the device applied to the axle while the remainder of the vehicle remains intact.

Changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

What I claim is—

In a device of the class described, the combination of a clamping-sleeve, a substantially

triangular frame b' centrally connected with the sleeve and located at a point between the ends thereof, the outer triangular frame provided with an outwardly-extending integral sleeve having interior screw-threads, bolts connecting the said frames, an exteriorly-threaded sleeve adjustably fitted therein and provided at its outer end with inwardly and outwardly extending flanges, the outwardly-extending flanges being arranged to be grasped by the operator, a cutter having a shaft arranged within the exteriorly-threaded sleeve and provided with a shoulder abutting against the inwardly-extending flange thereof, and means for rotating the shaft, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

WESLEY B. SHERMAN.

Witnesses:

A. C. DAVIS,
E. T. GRIFFEN.