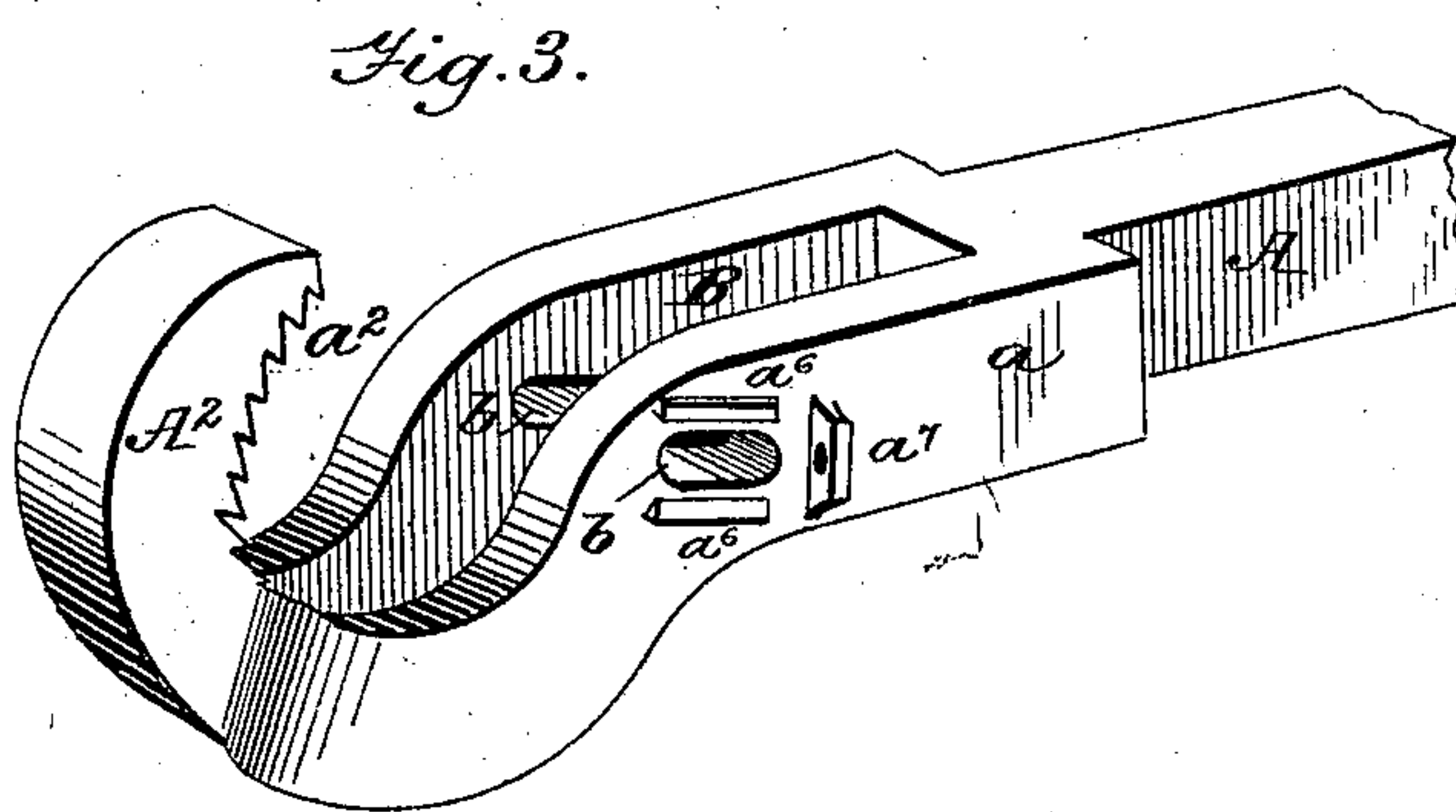
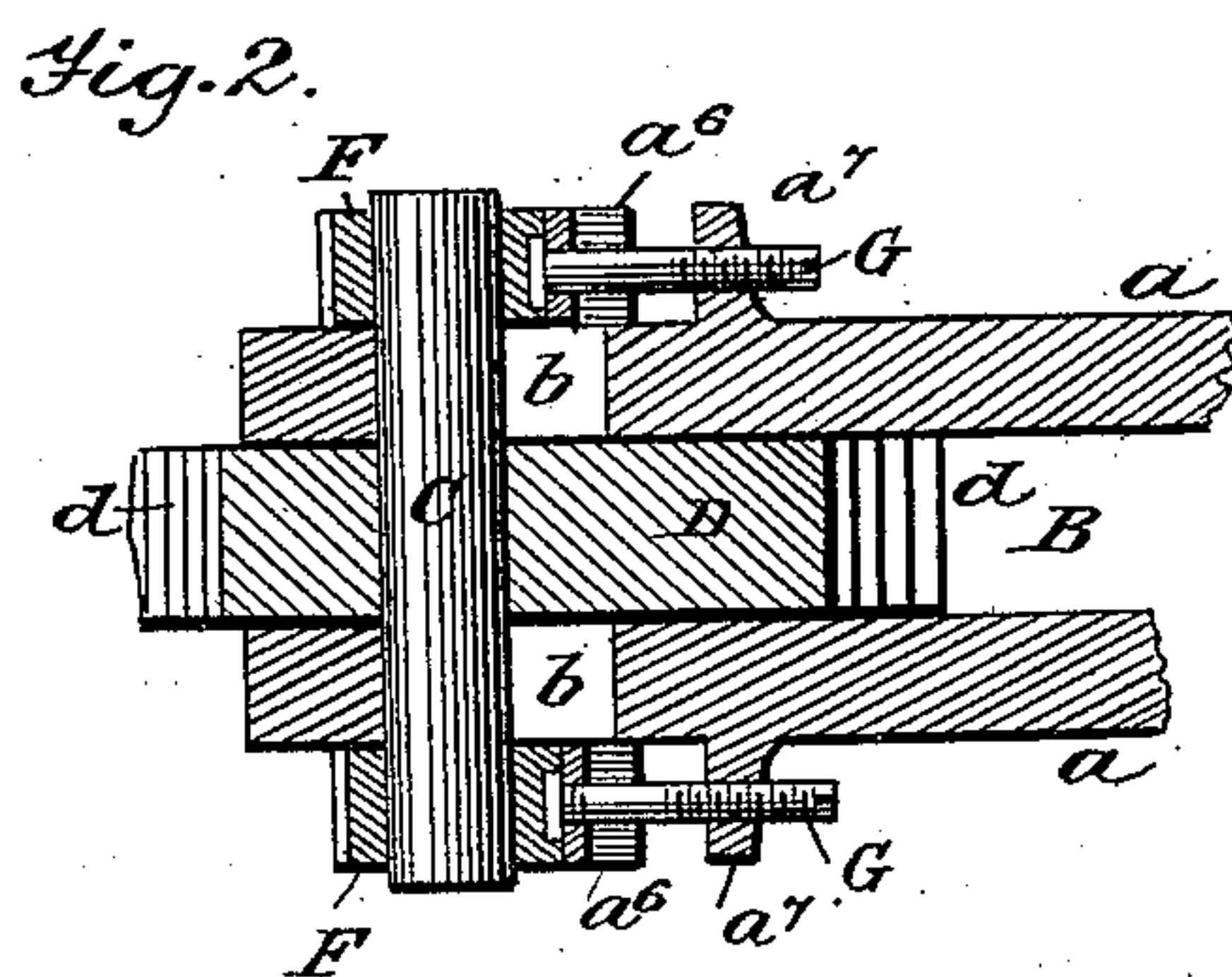
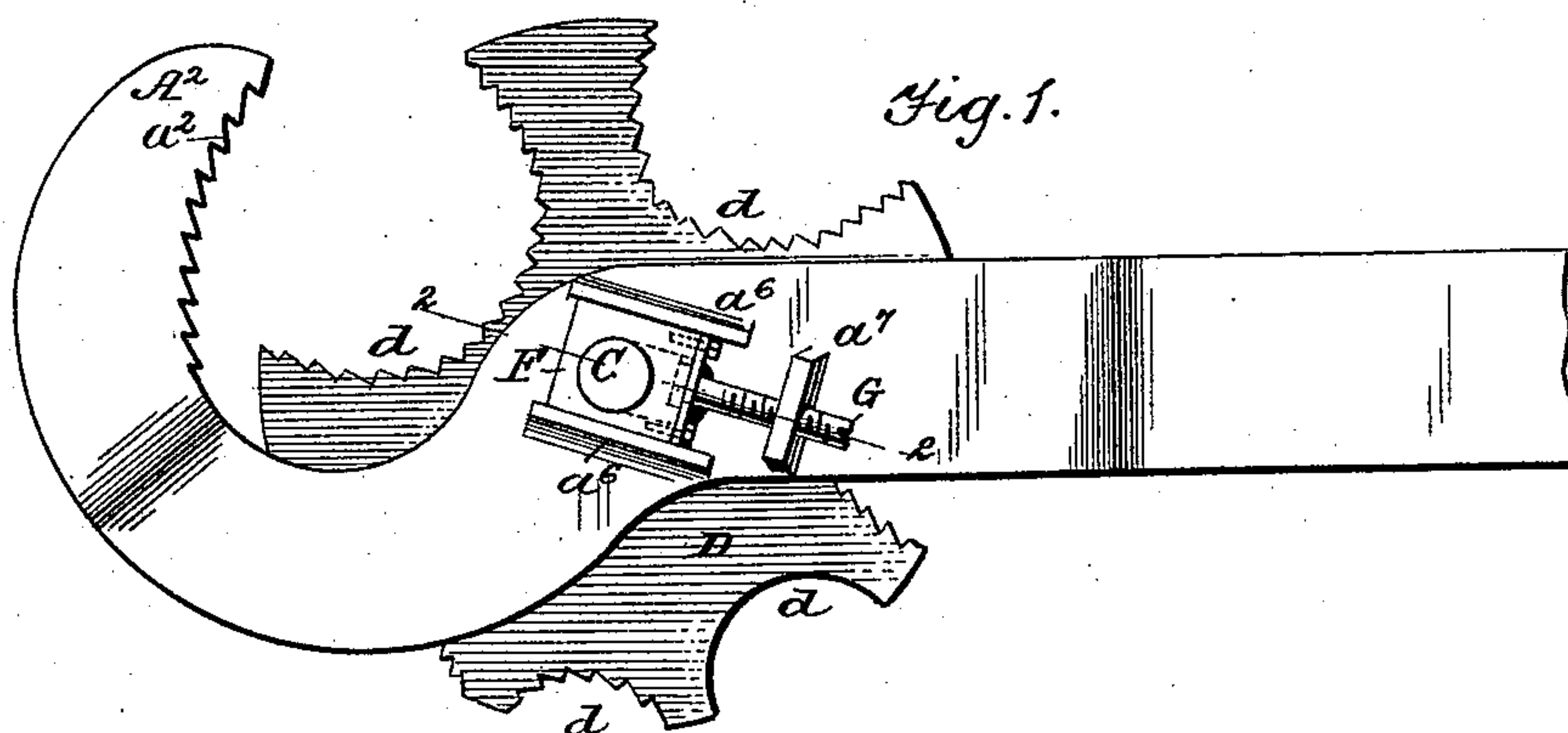


(No Model.)

C. GROGAN.
PIPE WRENCH.

No. 577,250.

Patented Feb. 16, 1897.



WITNESSES:

J. E. Luckett.
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INVENTOR

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BY

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UNITED STATES PATENT OFFICE.

CHARLES GROGAN, OF GATE CITY, VIRGINIA, ASSIGNOR OF NINETEEN
TWENTY-FOURTHS TO HARRY P. GROGAN, GEORGE A. EWING, AND
R. F. McCONNELL, OF SAME PLACE.

PIPE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 577,250, dated February 16, 1897.

Application filed August 26, 1896. Serial No. 603,968. (No model.)

To all whom it may concern:

Be it known that I, CHARLES GROGAN, residing at Gate City, in the county of Scott and State of Virginia, have invented a new and Improved Pipe-Wrench, of which the following is a specification.

My invention relates to improvements in pipe-wrenches; and it consists in novel features of construction and combination of parts, such as will be first described in detail and then specifically pointed out in the appended claims, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of a wrench constructed in accordance with my invention. Fig. 2 is a horizontal section of the same, taken on the line 2 2 of Fig. 1. Fig. 3 is a detail perspective view of the solid jaw member.

Referring to the accompanying drawings, A indicates the handle or body portion of the wrench, which near its forward end is thickened, as at *a*, and provided with a slotway B, the side walls of which have alining elongated slots *b b*, through which the ends of the pivot-pin C pass, which ends are journaled in slide-blocks F, adjustably held in dovetailed guide-flanges *a*⁶, integrally formed with the body A, by means of screw-bolts G, operating in threaded bearings *a*⁷ of the body A and swivelly connected with the blocks F, such blocks and slots being disposed in an inclined plane, so as to move the jaw D, which is mounted on the pivot-pin C, in a direct line away from the biting-face of the fixed jaw A².

By reference to Fig. 1 it will be noticed that the forward end of the member *a*, at a point just in advance of the axis of the jaw D, bends down below the horizontal plane of such axis, then upward above such plane, and inward, the same terminating a fixed jaw A², the biting or serrated face *a*² of which is above the horizontal plane of the axis of the revolving jaw D. The jaw D consists of a circular disk centrally journaled on the pivot-pin C, provided with a series of concavities or incut biting-faces *d*, which may have solid tooth portions, as shown, or, if desired, detachable grip-faces.

The concavities *d* are made in different sizes, so as to provide, as it were, a series of

eccentric bearing or grip teeth, whereby the wrench is adapted to grip pipes of different diameters.

The fixed jaw A² is so bent or inclined inward and of such a length above the aperture of the pivotal jaw D and the biting-faces of such jaw D so arranged that when the pipe is gripped the entire or gripping power of the two jaws is at a point above the axis of the jaw D, thereby producing a maximum leverage and a positive and quick-increasing grip force as the wrench is moved in a biting or grip direction, such arrangement of parts also providing for a quick release of the wrench when the same is moved to its releasing position.

From the foregoing description, taken in connection with the accompanying drawings, it is thought the advantages of my invention will readily appear. The same is of a very simple and economical construction, of few parts, and capable of easy manipulation.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A pipe-wrench comprising a body portion slotted at a point near its front end, and such end terminating in a fixed jaw, and having at a point in line with its slotway elongated slots in its side members extending in the direction of the grip-point of the jaws, of a revolving jaw having eccentrically-arranged biting-seats, having its journals seated in the elongated slots and means for moving the revolving jaw toward the fixed jaw and holding it to its adjusted positions substantially as shown and described.

2. In a pipe-wrench the combination with the body member A having a fixed jaw A² elongated slots *a*² and guides *a*⁶ of the revolving jaw D, having its journals extended through the slots *a*², the journal-blocks F held to slide in the guides *a*⁶ and means for adjusting the blocks F secured to the body A all arranged substantially as shown and for the purposes described.

CHARLES GROGAN.

Witnesses:

GEO. W. HICKAM,
W. W. NICKELS.