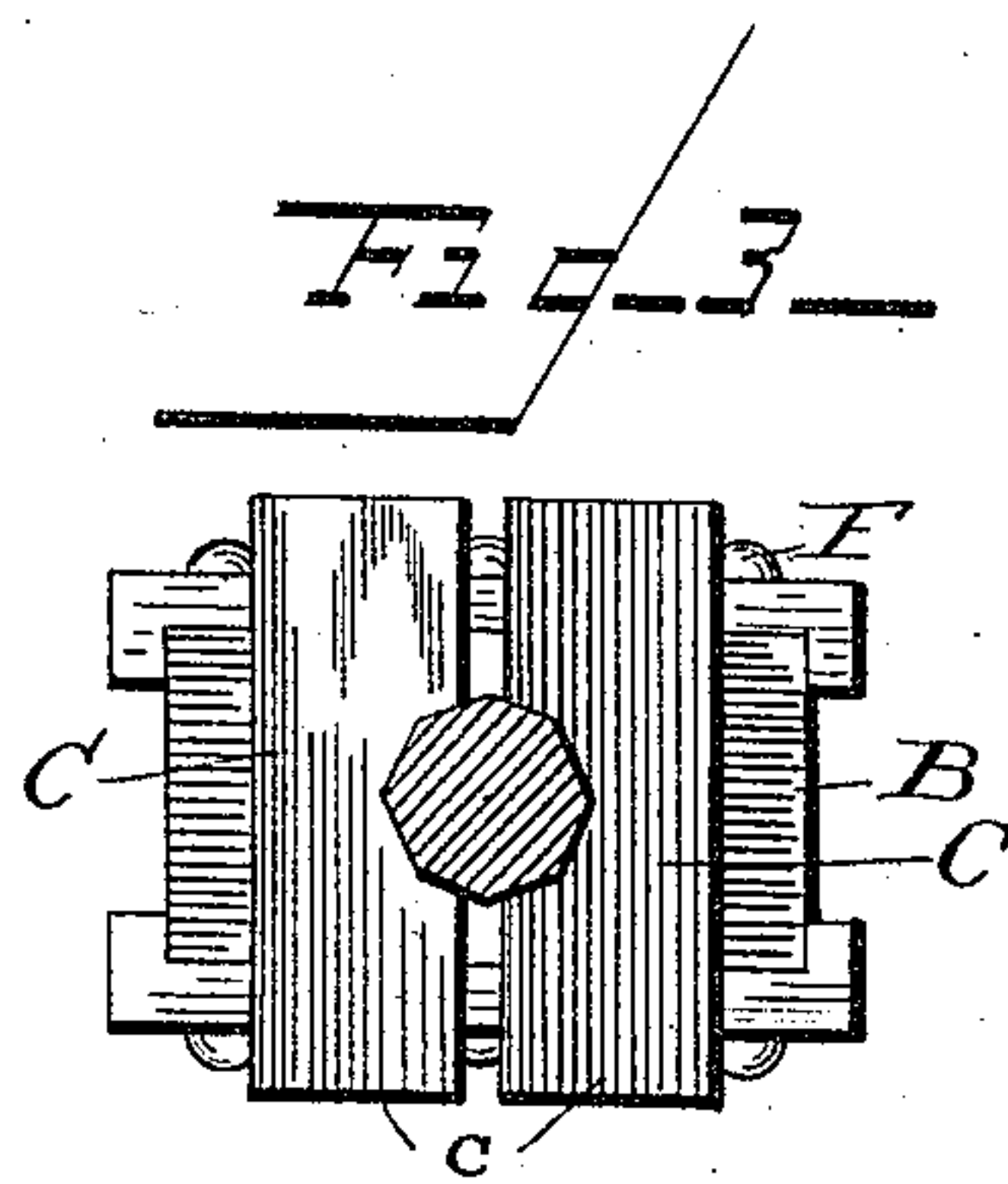
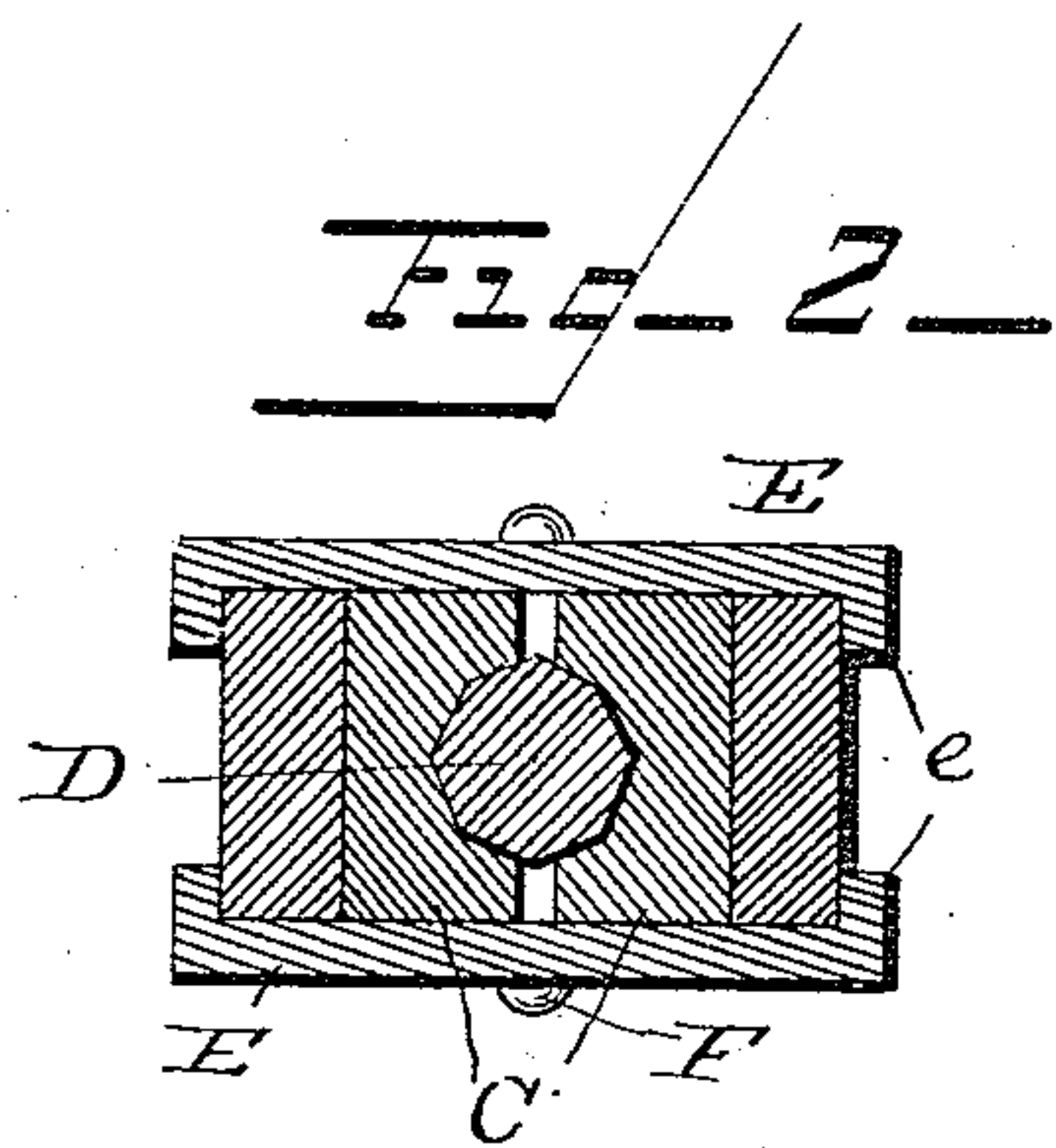
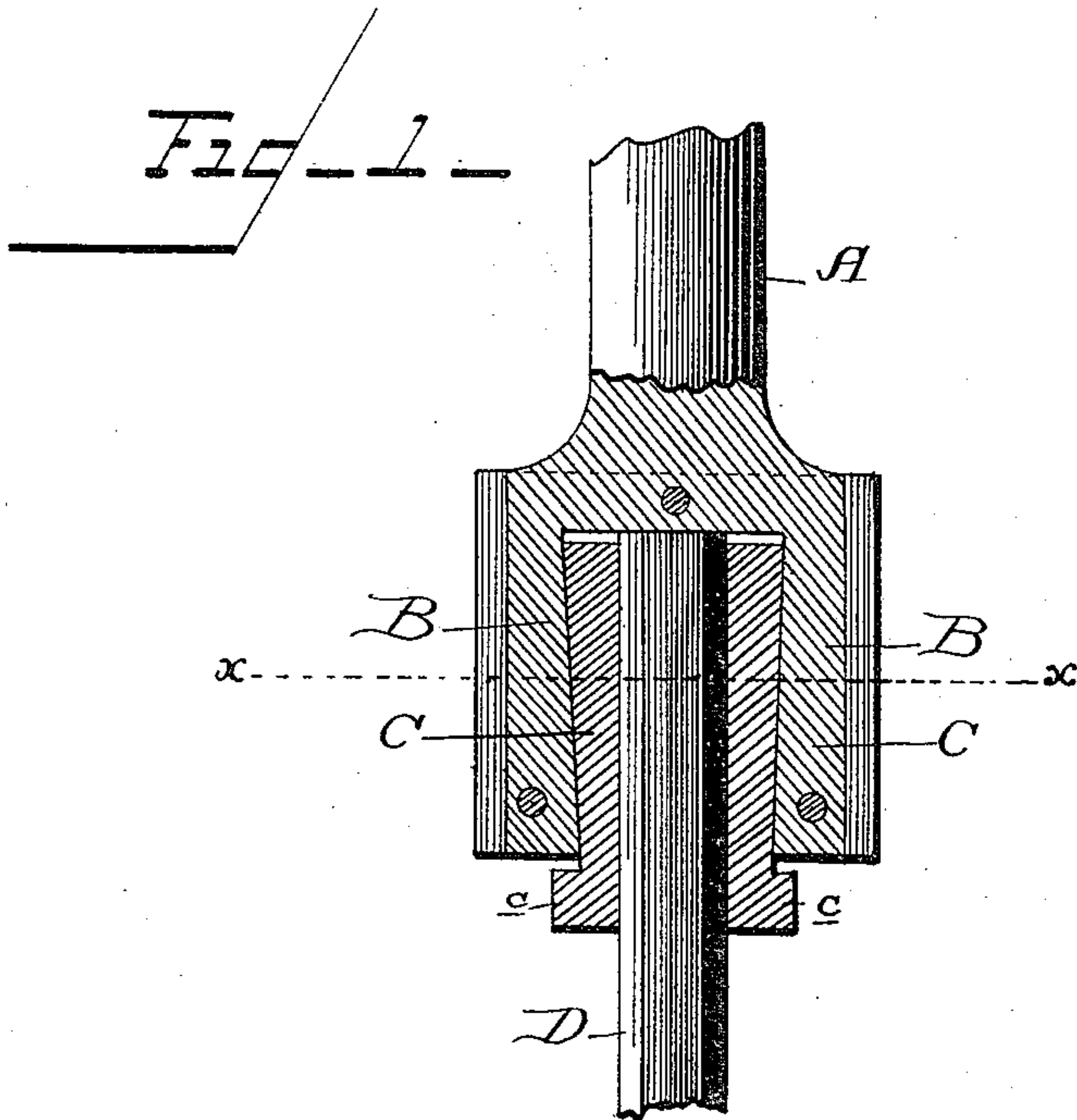


(No Model.)

W. S. SHARPNECK.
ROCK DRILL CHUCK.

No. 441,026.

Patented Nov. 18, 1890.



Witnesses
Thos. E. Robertson
J. Ernest.

Inventor
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UNITED STATES PATENT OFFICE.

WILLIAM S. SHARPNECK, OF CHICAGO, ILLINOIS.

ROCK-DRILL CHUCK.

SPECIFICATION forming part of Letters Patent No. 441,026, dated November 18, 1890.

Application filed September 11, 1890. Serial No. 364,610. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. SHARPNECK, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Rock-Drill Chucks, of which the following is a specification, reference being had therein to the accompanying drawings.

10 The object of this improvement is to provide a chuck which will be cheaply made and not likely to get out of order, and at the same time be strong, secure, and convenient in use.

15 The invention consists in the peculiar construction, arrangement, and combinations of parts hereinafter more particularly described, and then definitely claimed.

20 In the accompanying drawings, Figure 1 is a vertical section of a chuck constructed according to my improvement. Fig. 2 is a section through the line *x x*, Fig. 1; and Fig. 3 is a bottom plan of the chuck with the drill in section.

25 Referring now to the details of the drawings by letter, A represents the piston-rod of a power-drill having its lower end formed into a fork B, the space between the sides of the fork being of a dovetail shape, in which space two sliding, tapering, or wedge-shaped jaws C are set, having projections *c* and provided with concavities in which is set the drill D. At each side of the fork are plates E, which serve the double purpose of holding the fork from spreading and keeping the jaws C in place. These plates are secured by bolts or screws F passing through them and into the fork, and are provided with angular projections *e*, which help to keep the

fork from spreading and take off lateral strain from the bolts or screws.

40 To secure a drill in the chuck, all that is necessary is to set the drill in place with its end against the end of the opening in the fork, and give the jaws C a light blow with a hammer on the projections *c* to draw them outward from the chuck, and then as the drill strikes the rock the jar causes the jaws to move outward until they can move no farther, and thus, owing to the wedge shape of the jaws and of the recess or opening in the fork, the drill becomes perfectly fast in the socket, and the continual jar caused by the drill striking the rock only holds the drill more firmly in place. To release the drill, it is only necessary to drive the jaws back into the recess in the chuck and the drill is loosened.

What I claim as new is—

1. The combination of the piston-rod A, terminating in a fork B, having a dovetail opening, with the wedge-shaped jaws C, and plates E for securing the jaws in place, substantially as described.

2. The combination of the piston-rod A, terminating in a fork B, having a dovetail opening, with the wedge-shaped jaws C, and plates E, having angular projections embracing the fork, substantially as and for the purpose specified.

70 In testimony whereof I affix my signature, in presence of two witnesses, this 9th day of September, 1890.

WILLIAM S. SHARPNECK.

Witnesses:

A. P. BOYNTON,
S. B. BOYNTON.