

(No Model.)

J. H. WESTCOTT.
LATHE CHUCK.

No. 335,982.

Patented Feb. 9, 1886.

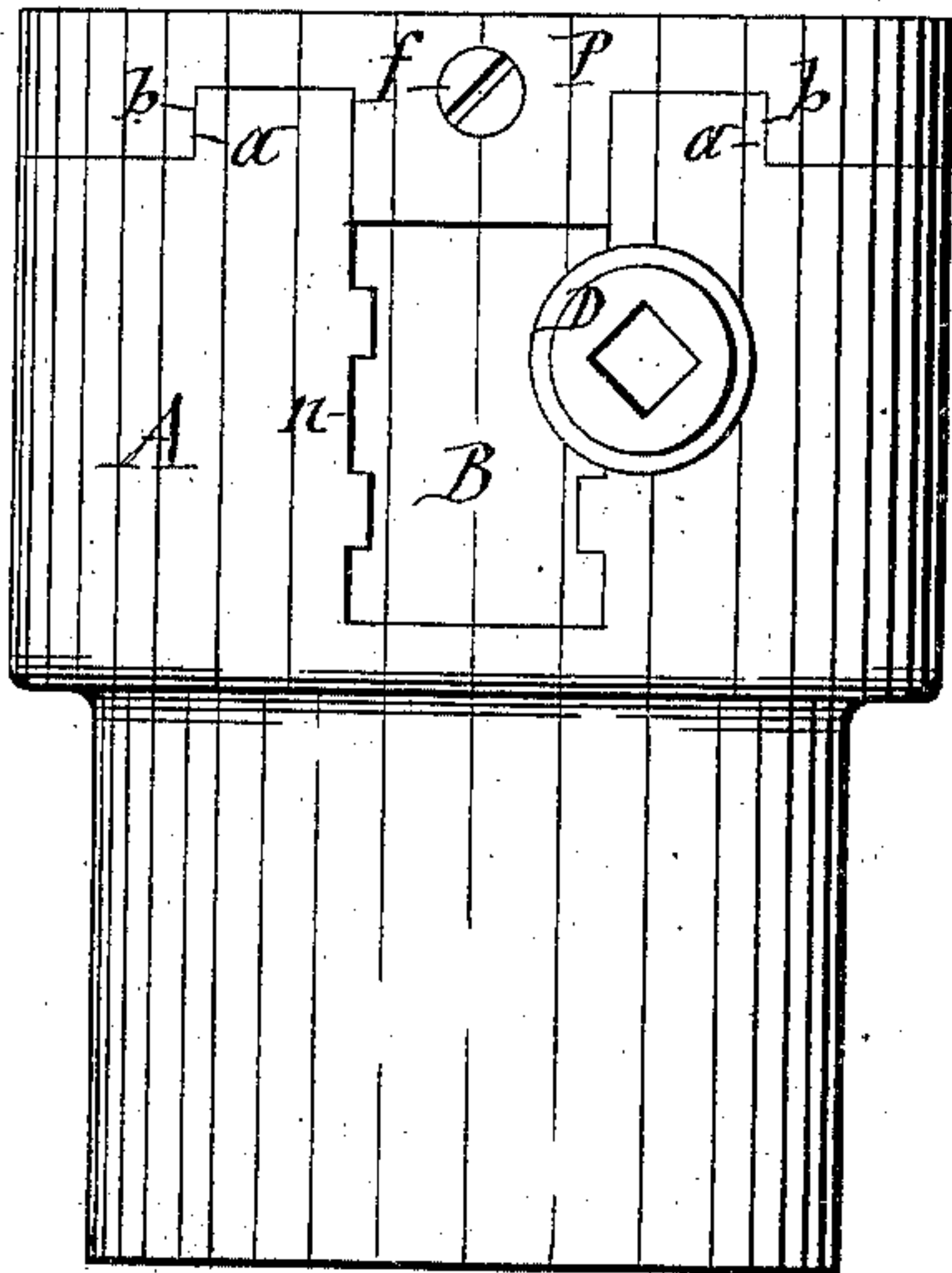


FIG-I-

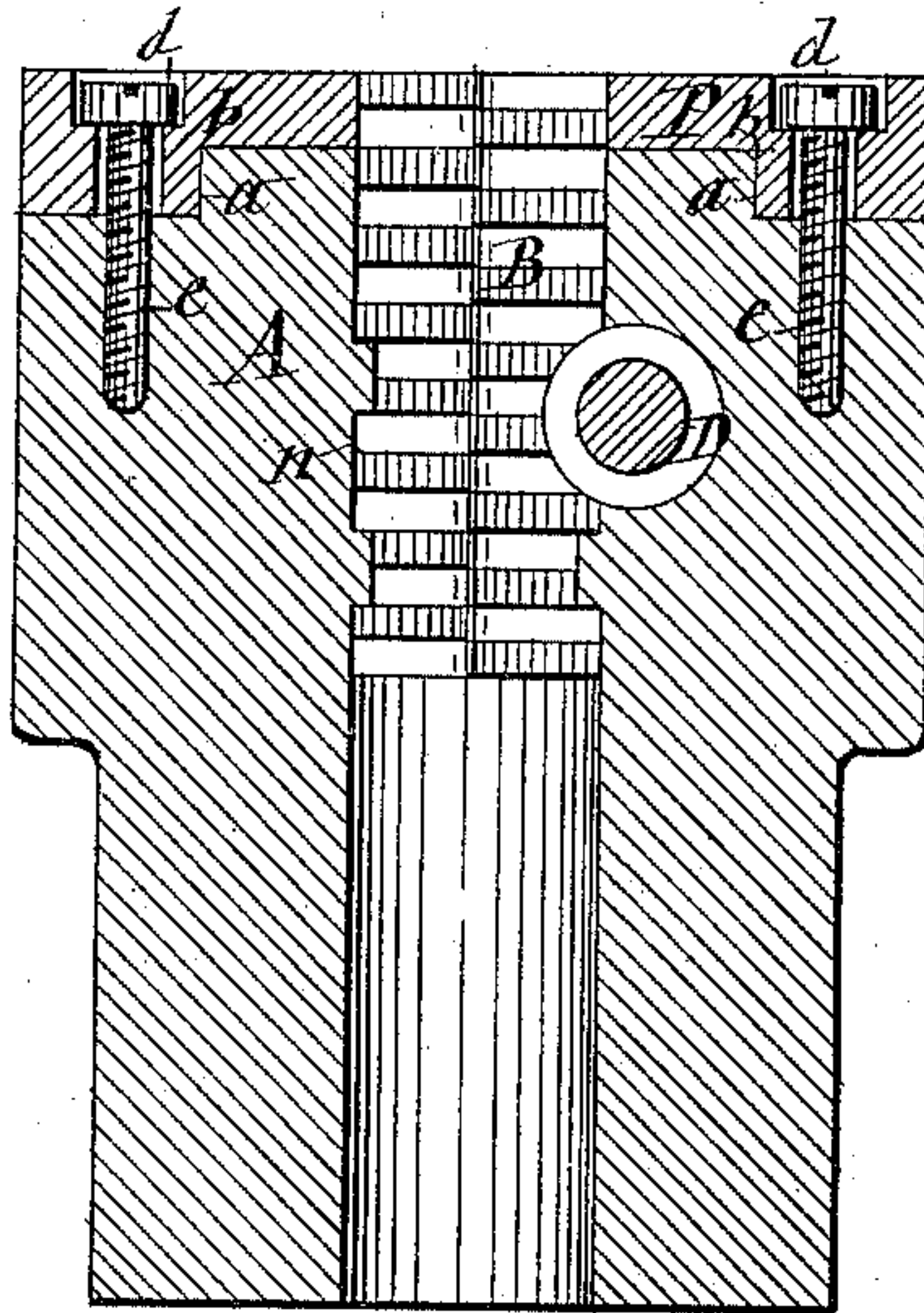


FIG-III-

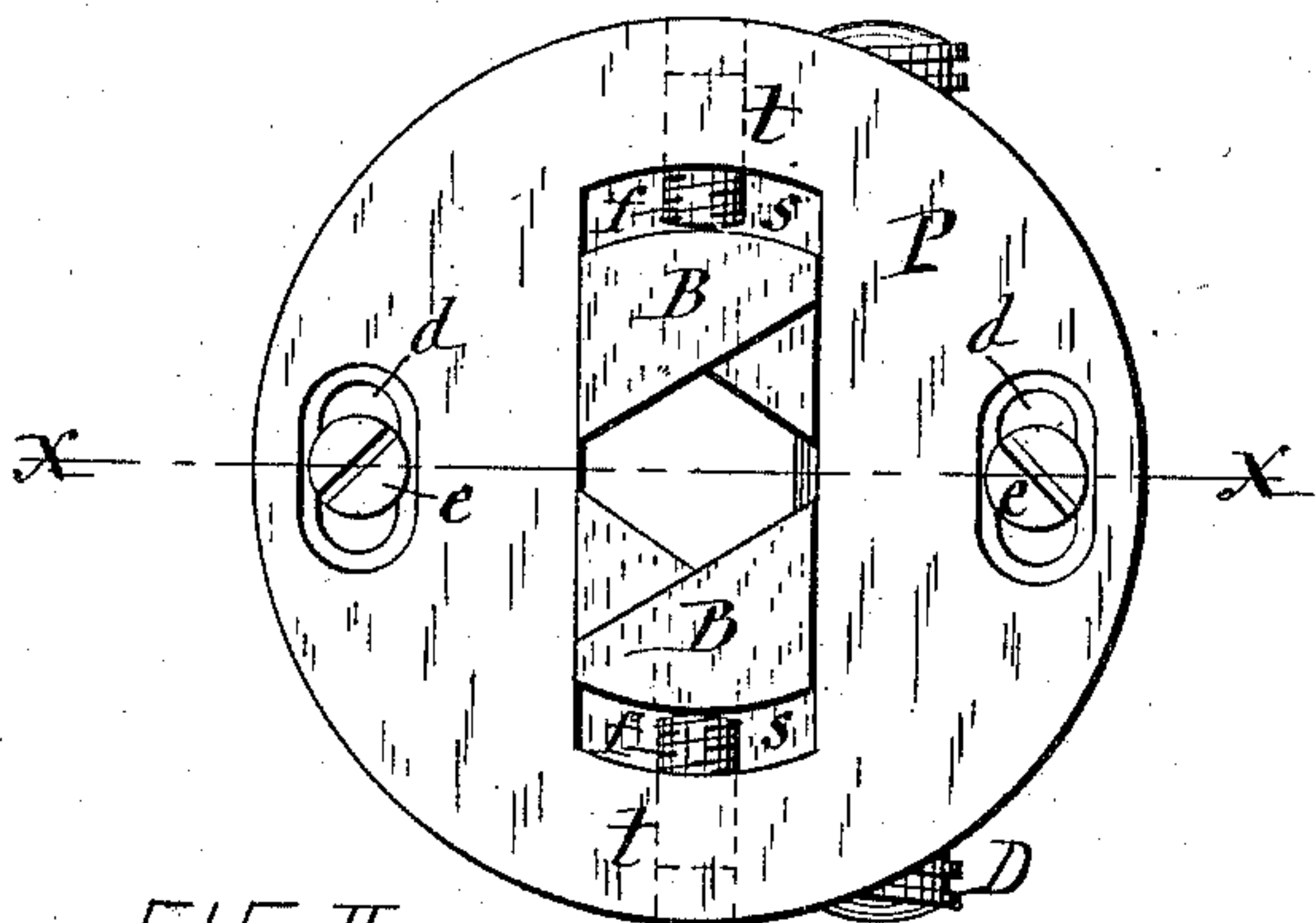


FIG-II-

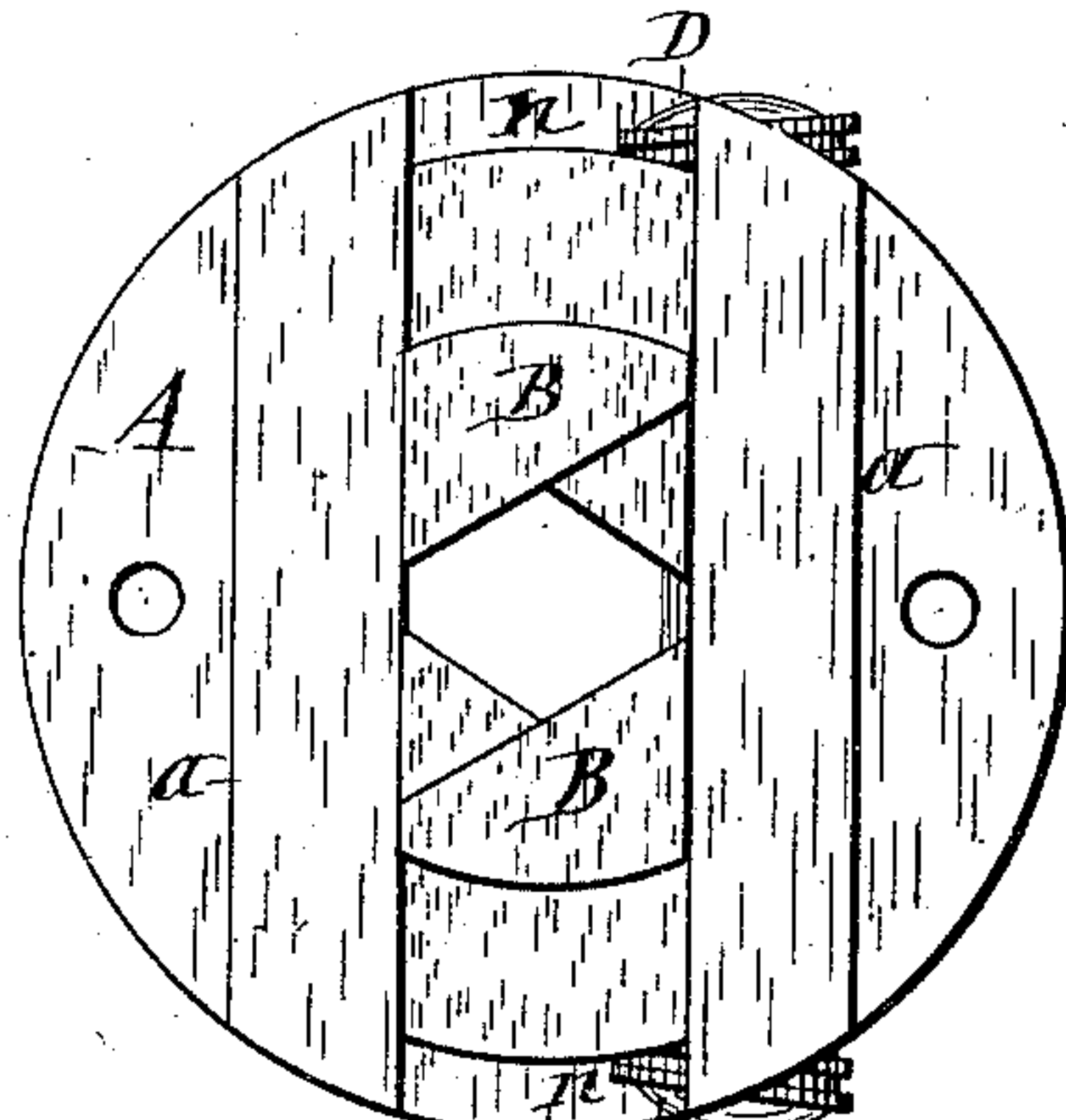
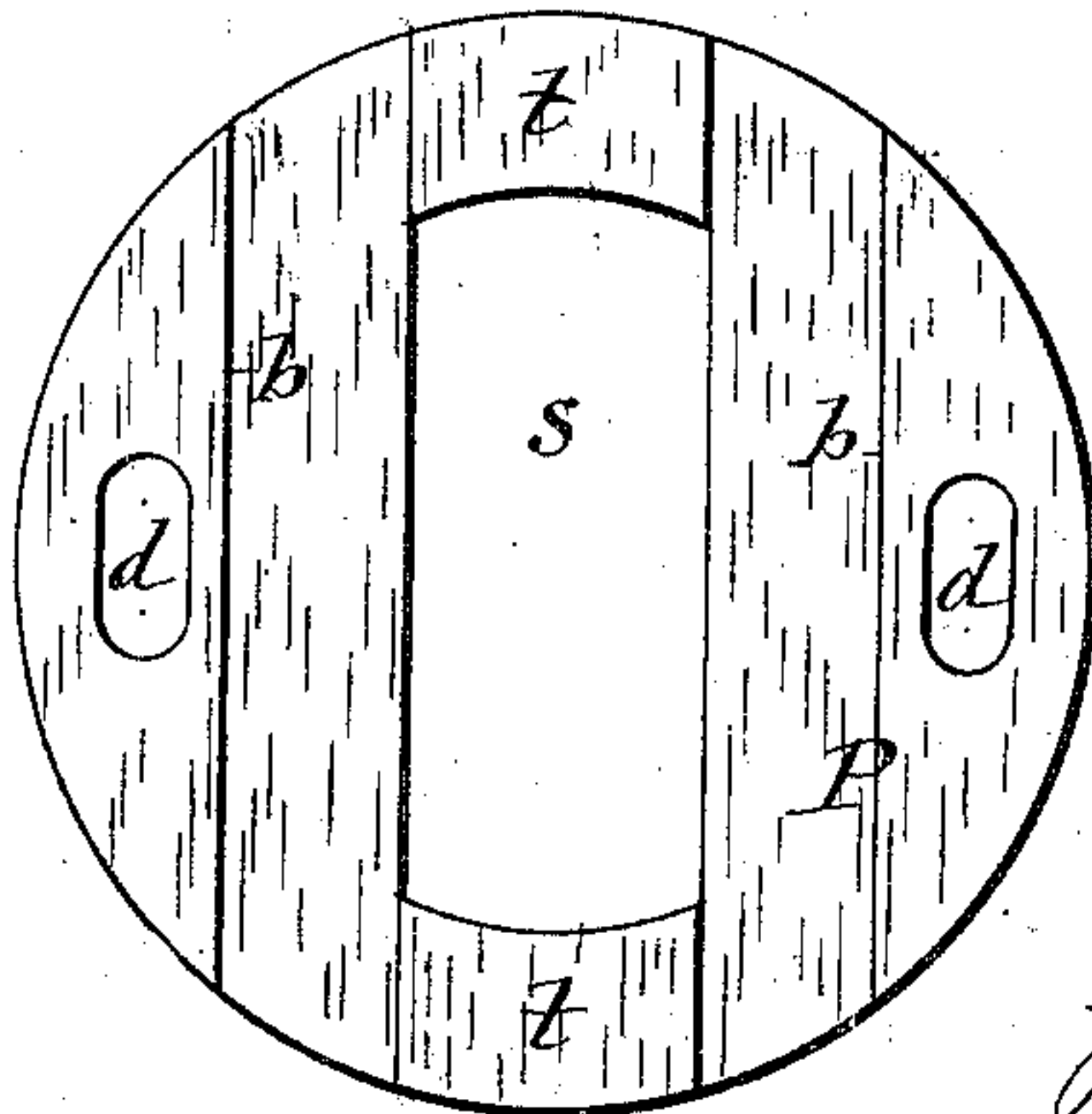


FIG-IV-

FIG-V-



WITNESSES

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UNITED STATES PATENT OFFICE.

JOHN H. WESTCOTT, OF ONEIDA, NEW YORK.

LATHE-CHUCK.

SPECIFICATION forming part of Letters Patent No. 335,982, dated February 9, 1886.

Application filed December 4, 1885. Serial No. 184,678. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. WESTCOTT, of Oneida, in the county of Madison, in the State of New York, have invented new and useful
5 Improvements in Lathe-Chucks, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

Experience has proven that the majority of
10 lathe-chucks which have the jaw-guiding grooves extending completely across them are so weakened by said grooves as to render them liable to spread and lose their requisite firm hold on the jaws when the tool or other ob-
15 ject held by the jaws is subjected to the operation of cutting or abrading.

The object of my present invention is to obviate the aforesaid defect; and to that end my invention consists in the application to
20 the chuck-head of extra stays for sustaining the jaws independently of their adjusting devices, and also in a novel construction and combination with the chuck-head of a tie-plate extending across the jaw-guiding grooves of
25 the chuck-head, and provided at opposite sides of said grooves with shoulders engaging corresponding shoulders on the chuck-head; and it furthermore consists in a novel combination of the aforesaid stays and tie-plate with the
30 chuck-head, all as hereinafter more fully explained, and specifically set forth in the claims.

In the accompanying drawings, Figure I is a side view of my improved chuck. Fig. II is a face view thereof. Fig. III is a transverse
35 section on line *x x*, Fig. II. Fig. IV is a face view of the chuck-head without the tie-plate, and Fig. V is a view of that side of the tie-plate by which it is seated on the chuck-head.

Similar letters of reference indicate corre-
40 sponding parts.

A denotes the chuck-head, which is provided with the diametric groove *n*, constituting two radial grooves, in each of which is guided one of the jaws B. A right-and-left
45 screw, D, extending through the chuck-head and engaging with corresponding screw-threads on the jaws serves to adjust said jaws so as to grip the tool or work.

The foregoing is the ordinary and well-
50 known construction, and requires no detail description here, especially as I do not limit

my invention to any particular form of jaws or means for adjusting the same. The face of the chuck-head A, I provide with straight shoulders *a a*, extending across the chuck-
55 head at opposite sides of and parallel with the jaw-guiding grooves *n*.

P represents a tie-plate, which is mounted on the face of the chuck-head, movable parallel with the jaw-guiding grooves *n* by means
60 of screws *e e*, passing through slots *d d* in the plate P, and entering screw-threaded sockets in the chuck-head, the slots *d d* being parallel with the groove *n*, to allow the plate P to move in the direction aforesaid. The plate P is also
65 provided with a slot, *s*, coinciding with the grooves *n*, and terminating with ties *t t*, which are parts of the plate extending across the grooves *n* back of the jaws B B. The side of
70 the plate P adjacent to the chuck-head is provided with parallel shoulders *b b*, extending across the plate and coinciding with the shoulders *a a*, which they embrace between them, and thus afford a secure hold for the plate P
75 on the chuck-head, so as to effectually prevent the latter from spreading. The parts of the plate B forming the sides of the slot *s* abutting against opposite sides of the jaws serve to brace the latter at right angles to their
80 guide-groove. The lateral strain on the jaws, instead of being transmitted to one side of the guide-groove *n*, is resisted by the engaging-shoulders *a* and *b* back of the opposite side of said groove.

ff represent set-screws extending through
85 correspondingly screw-threaded holes in the ties *t t*, and bearing with their inner ends against the backs of the jaws B B, as best seen in Fig. II of the drawings. These set-screws serve to sustain the jaws independently
90 of the adjusting-screw D or other adjusting device. Since the plate P is arranged movably on the chuck-head, the set-screws can be firmly set up against the jaws without danger of disturbing them from their concentricity
95 with the chuck-head, and the chuck-head is entirely relieved from any strain that may be exerted on the jaws in a direction parallel with the guide-grooves thereof. I do not, however, limit myself to the use of the aforesaid
100 set-screws, as it is obvious that keys or gibs or compensating blocks may be interposed

between the ties *t t* and backs of the jaws, to serve as stays for said jaws. Neither do I limit myself to the use of two of the aforesaid set-screws, inasmuch as one of them may be
5 dispensed with.

Having described my invention, what I claim is—

1. The combination, with the chuck-head, and jaws adjustably connected therewith, of
10 extra stays applied to the back of the jaws, to sustain the same independently of their adjusting devices, as set forth.

2. The combination, with the chuck-head having radial grooves, and jaws in said
15 grooves, of a plate secured to the chuck-head, movable parallel with the jaw-guiding grooves, and extending across said grooves back of the jaws, and adjustable stays interposed between the back of the jaws and adjacent parts of the
20 plate, substantially as and for the purpose specified.

3. The combination of the chuck-head having radial grooves, and jaws in said grooves, and the shoulders *a a* at opposite sides of and
25 parallel with the said grooves, the plate *P*, mounted movably on the chuck-head, and

having parallel shoulders *b b*, embracing between them the shoulders *a a*, and provided with the slot *s*, terminating with ties *t t*, and abutting with the sides of the slot against the
30 sides of the jaws, and adjustable stays interposed between said ties and back of the jaws, substantially as described and shown.

4. The combination of the chuck-head having radial grooves, and jaws in said grooves, and the shoulders *a a* at opposite sides of and
35 parallel with the grooves thereof, the plate *P*, having the slot *s*, terminating with ties *t t*, and provided with slots *d d* and with shoulders *b b*, the attaching-screws *e e*, passing through
40 the slots *d d*, and the set-screws *f f*, inserted in the ties and bearing against the back of the jaws, substantially as described and shown.

In testimony whereof I have hereunto signed my name and affixed my seal, in the presence
45 of two attesting witnesses, at Syracuse, in the county of Onondaga, in the State of New York, this 28th day of November, 1885.

JOHN H. WESTCOTT. [L. S.]

Witnesses:

C. CARSKADDAN,
H. SKINNER.