

(No Model.)

2 Sheets—Sheet 1.

C. W. SCHWANENGEL & J. F. SACKSTEDER.

STOVEPIPE THIMBLE.

No. 600,894.

Patented Mar. 22, 1898.

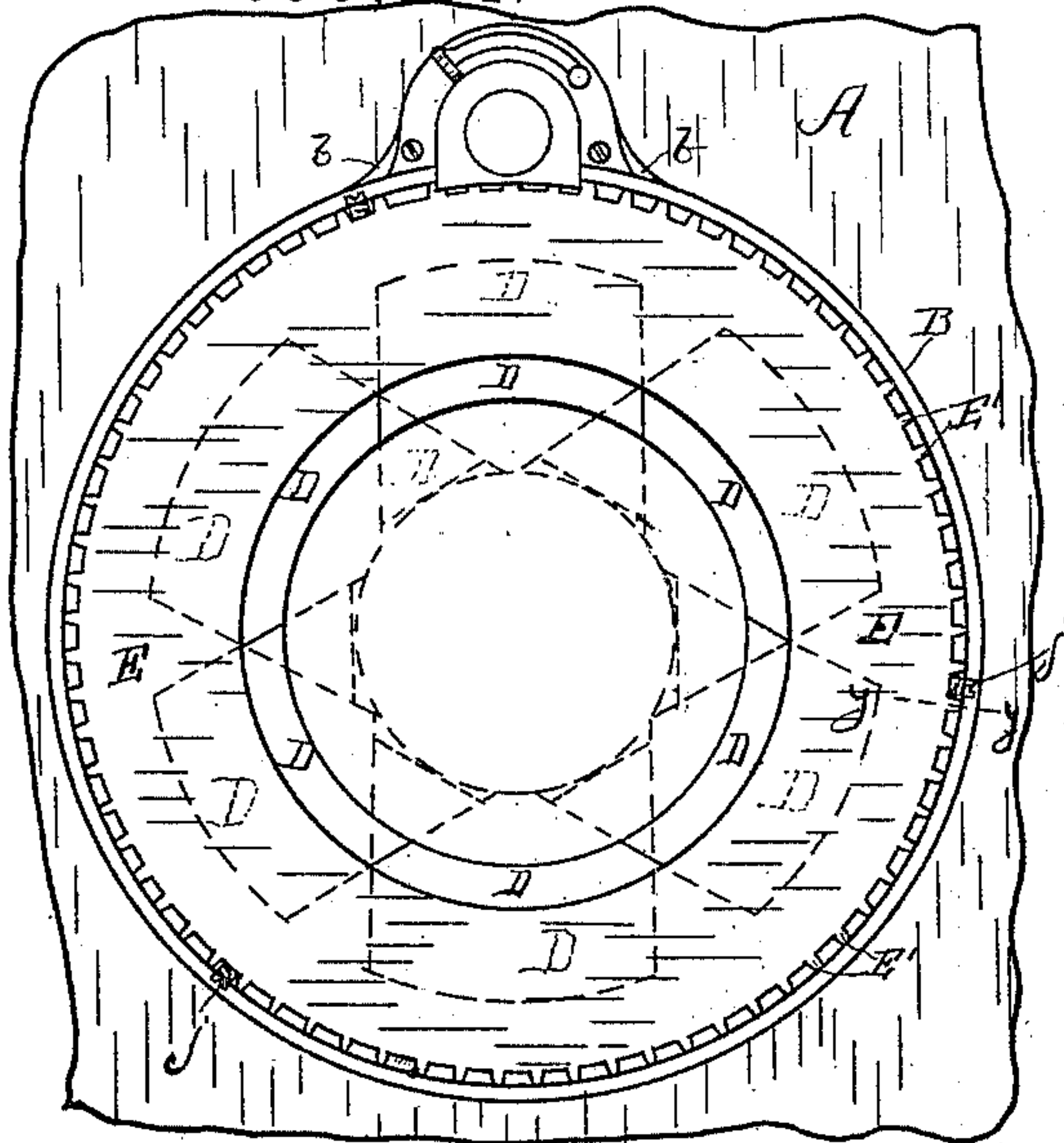


Fig 1.

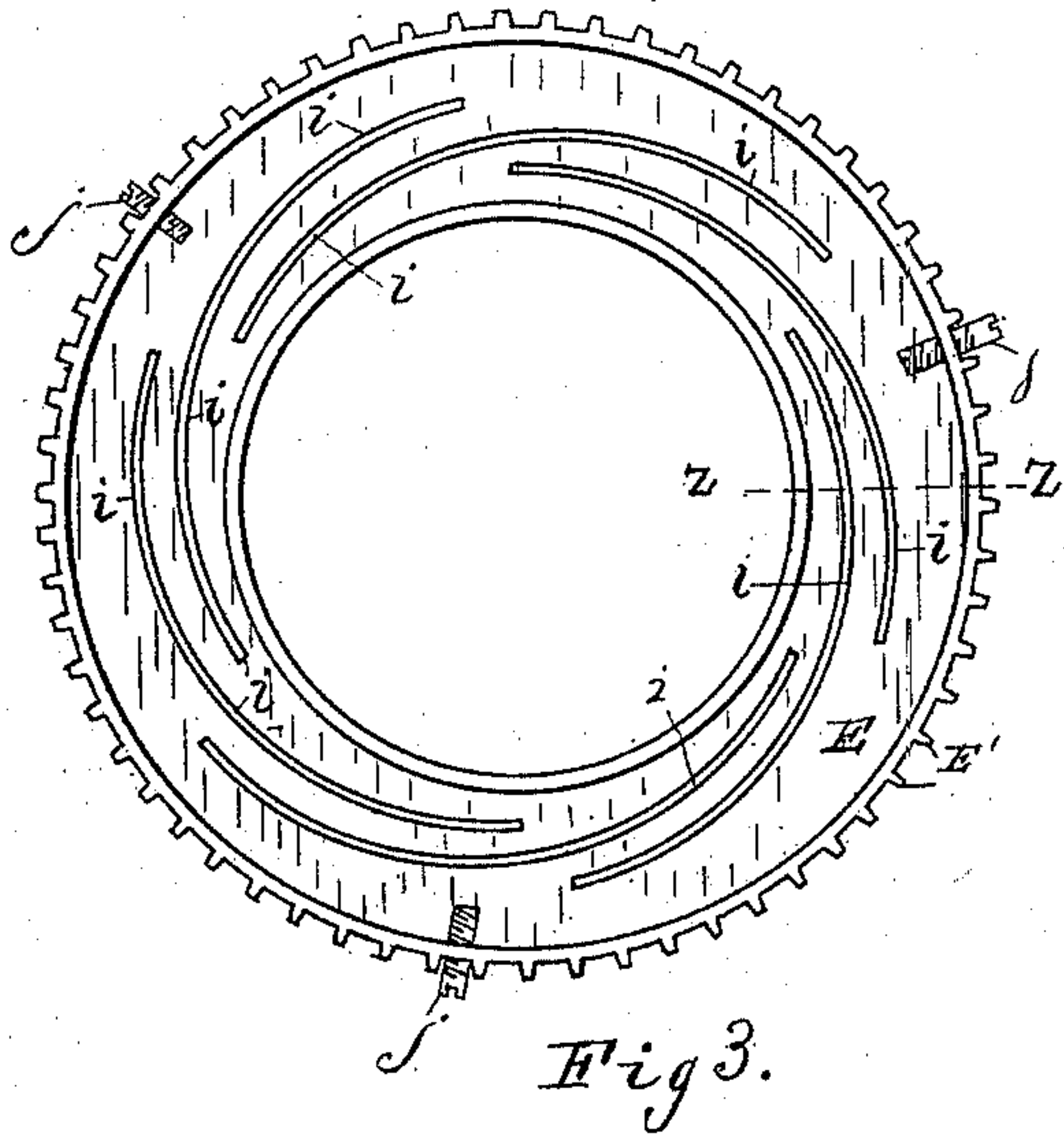


Fig 3.

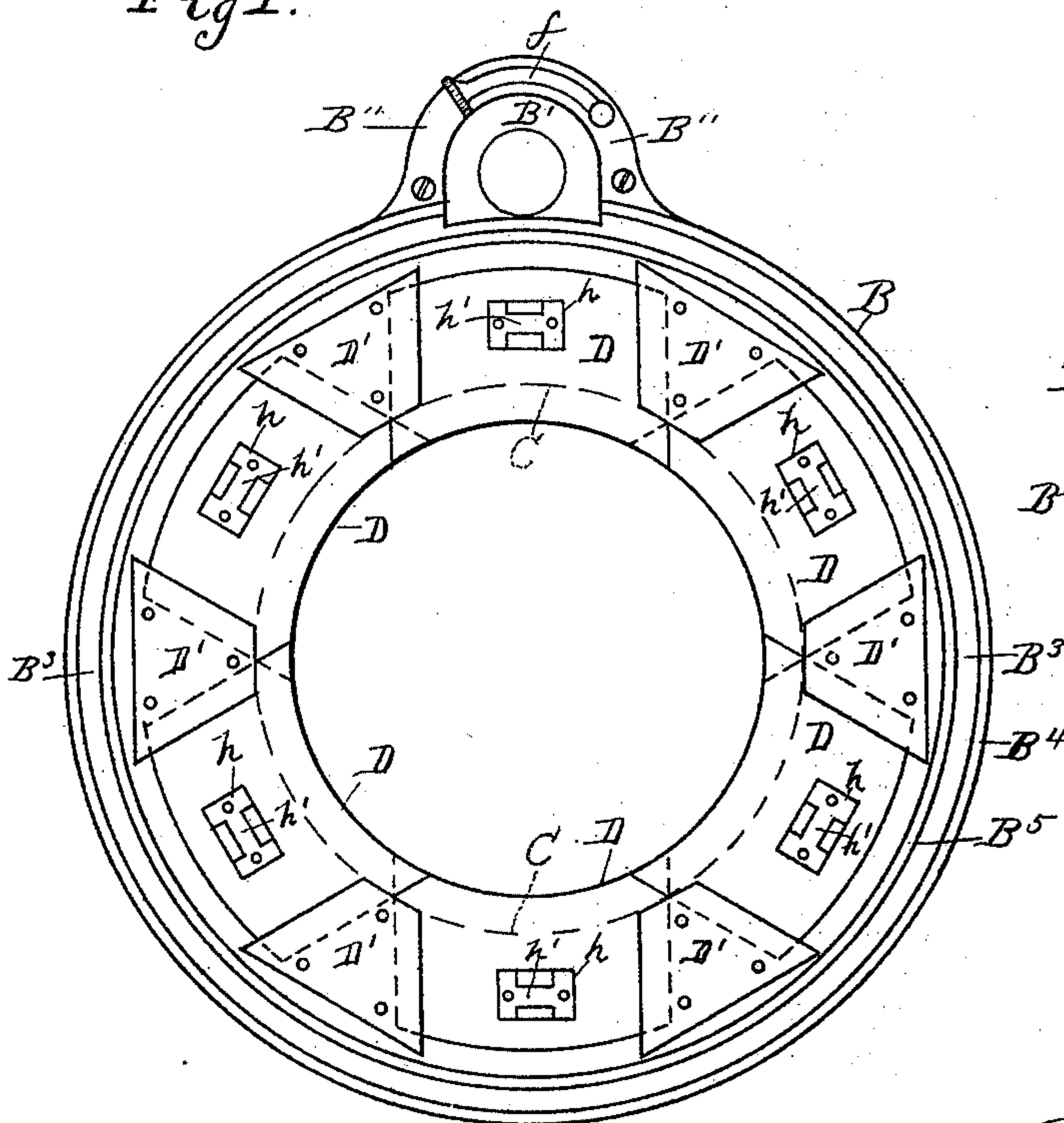


Fig 2.

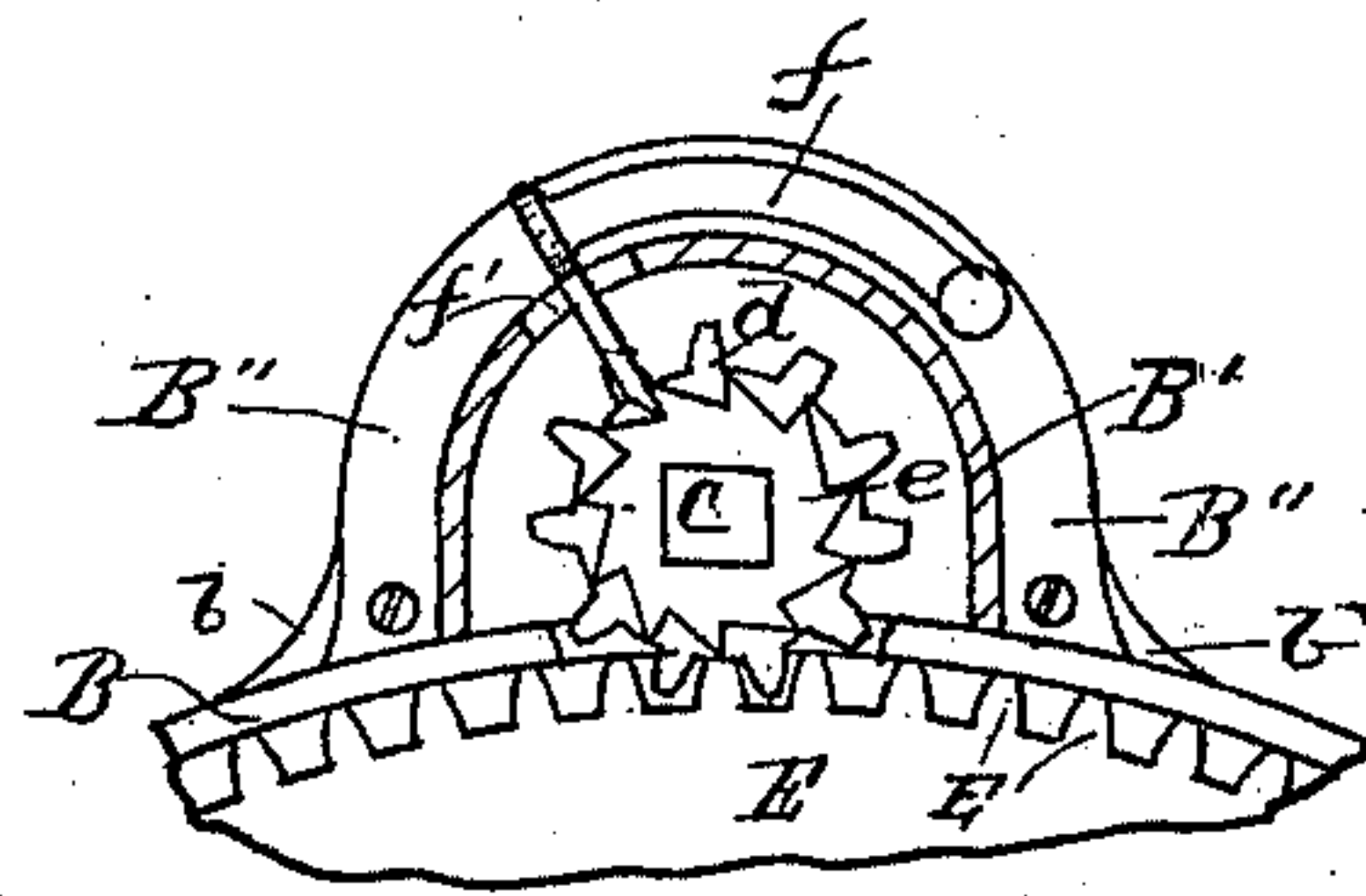


Fig 4.



Fig 5.

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Fig 6.

(No Model.)

2 Sheets—Sheet 2.

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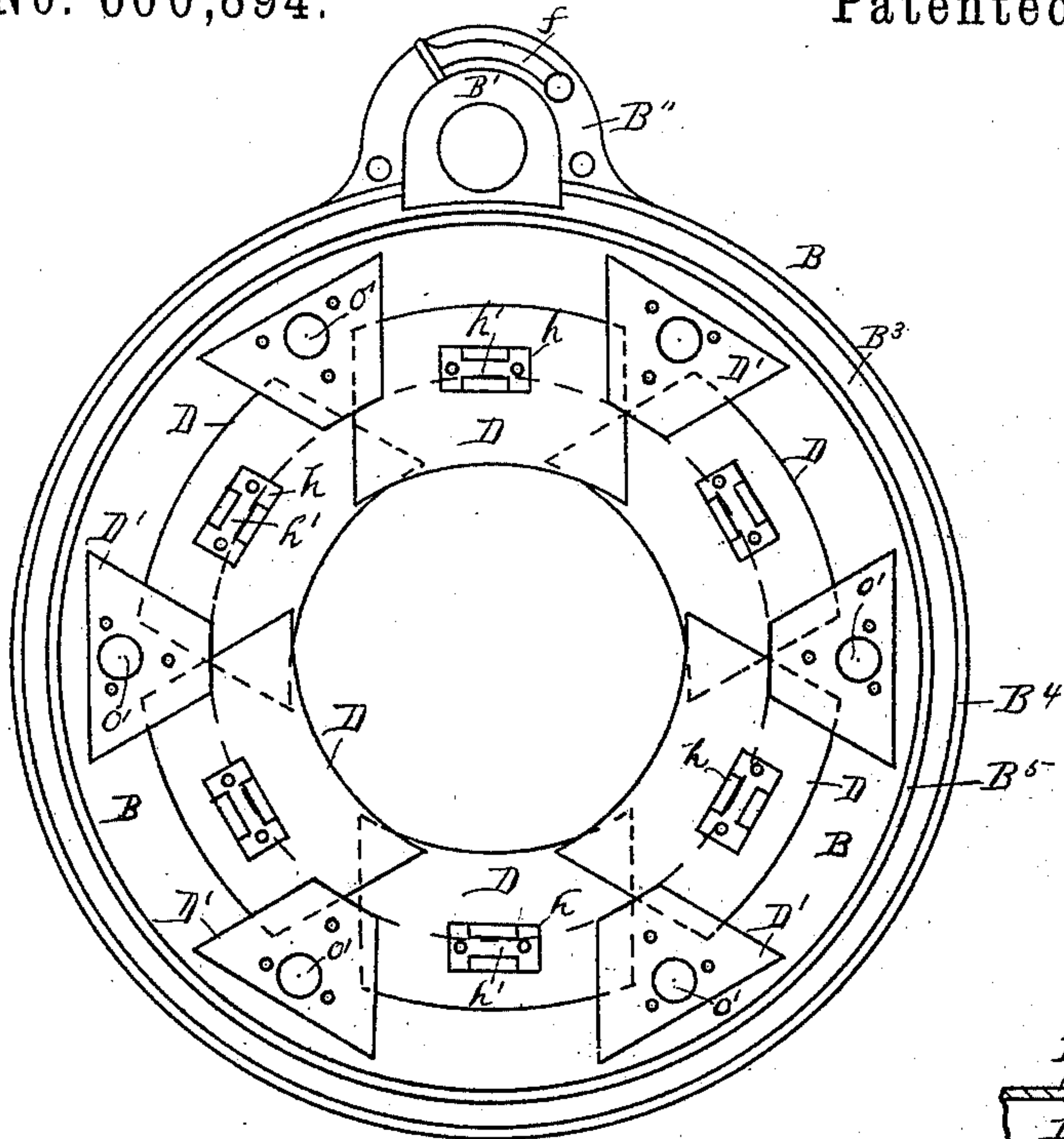


Fig 7.

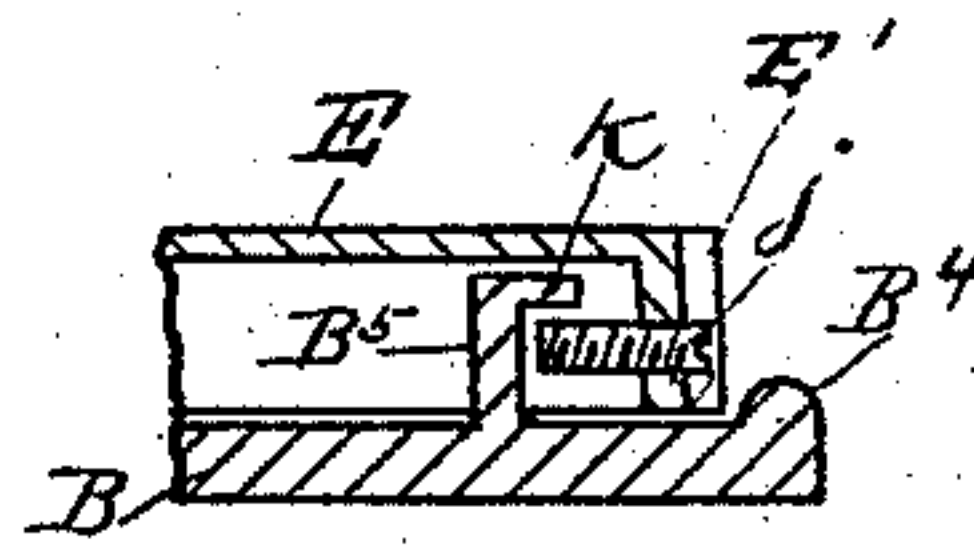


Fig 10.

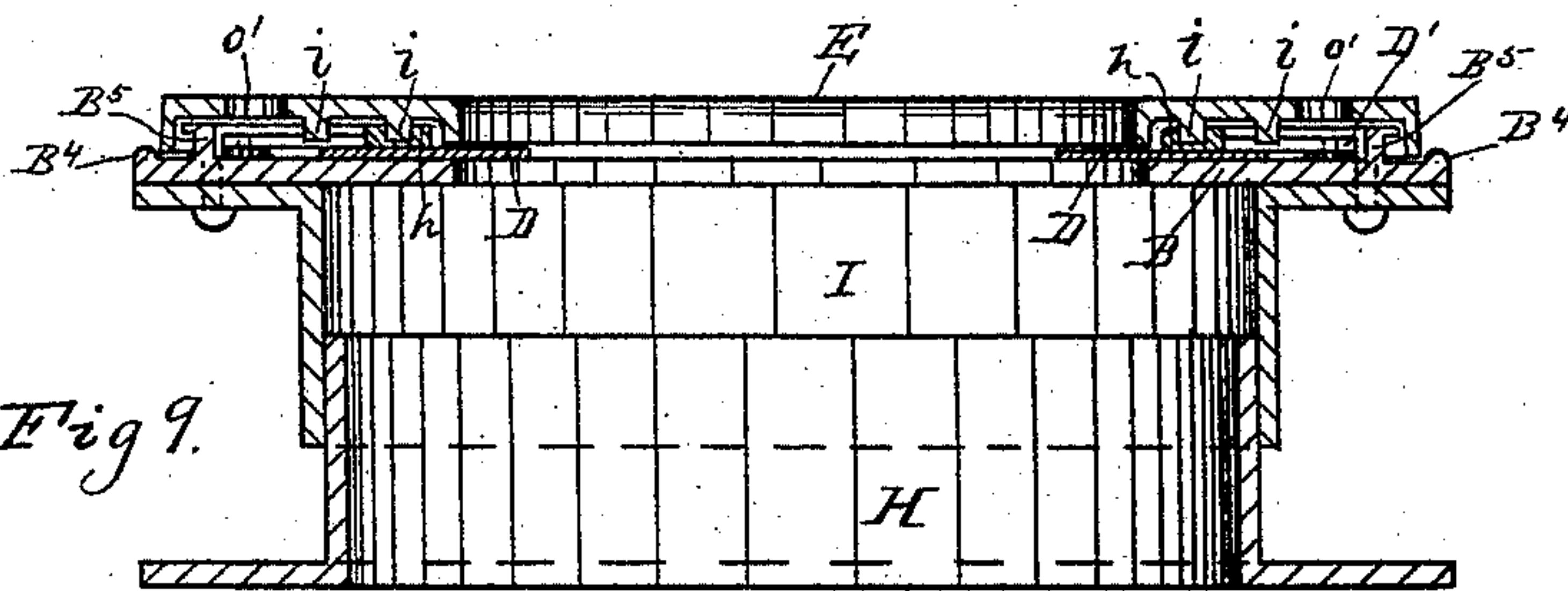


Fig 9.

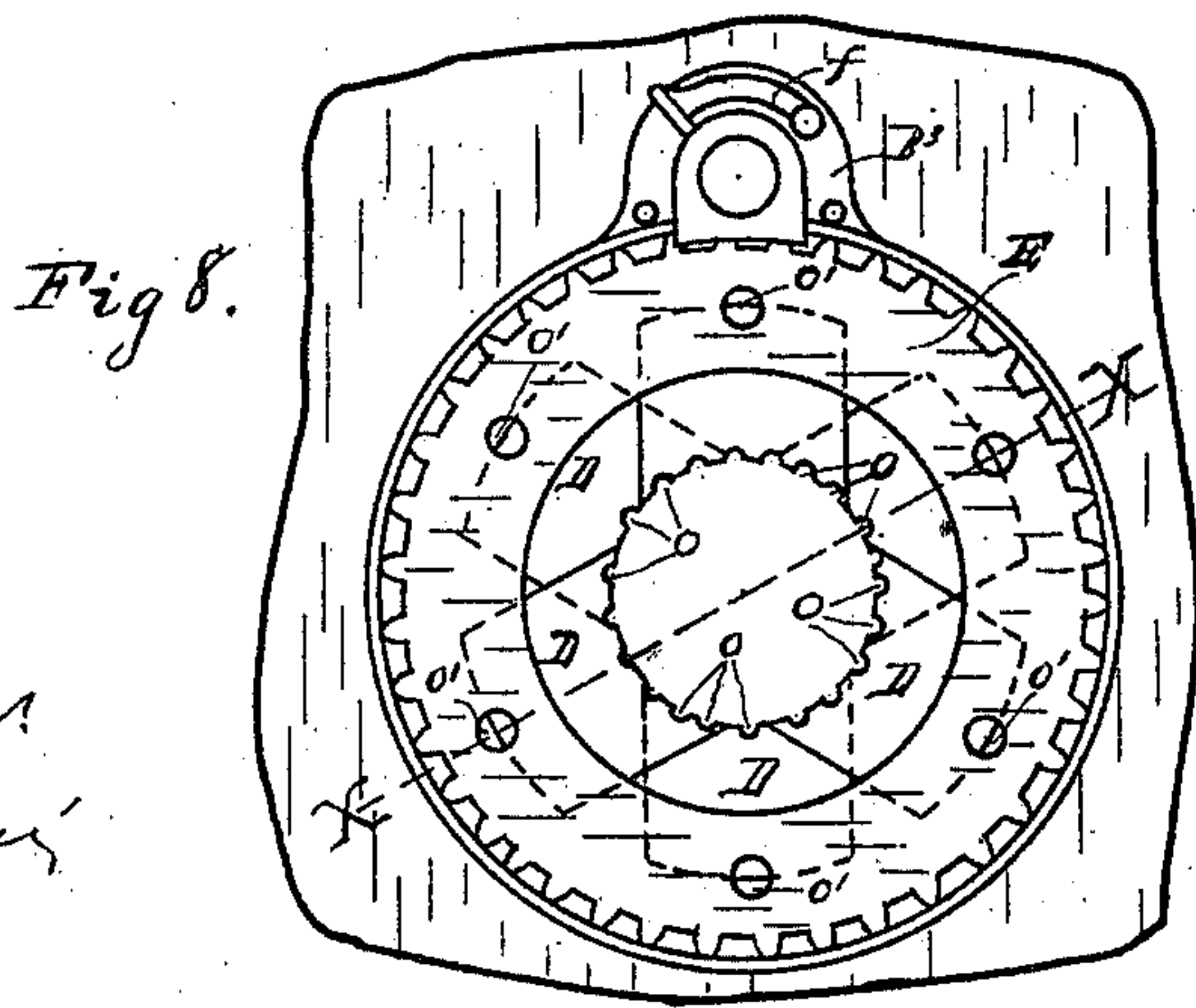


Fig 8.

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UNITED STATES PATENT OFFICE.

CHARLES W. SCHWANENGEL AND JOSEPH F. SACKSTEDER, OF DAYTON,
OHIO.

STOVEPIPE-THIMBLE.

SPECIFICATION forming part of Letters Patent No. 600,894, dated March 22, 1898.

Application filed December 7, 1896. Serial No. 614,700. (No model.)

To all whom it may concern:

Be it known that we, CHARLES W. SCHWANENGEL and JOSEPH F. SACKSTEDER, citizens of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Stovepipe-Thimbles; and we do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

Our invention relates to new and useful improvements in stovepipe-thimbles, and comprises a stovepipe-thimble such as is hereinafter fully described in the specification and set forth in the claim.

Referring to the accompanying drawings, which form a part of this application, Figure 1 is an elevation of our improved stovepipe-thimble placed in an opening in a wall. Fig. 2 is a slightly-larger front view of the thimble with the front plate removed. Fig. 3 is a view of the inner side of the front plate. Fig. 4 is an enlarged view of the upper portion, showing the gearing. Fig. 5 is a transverse section on the line *z z*, Fig. 3. Fig. 6 is a detached side elevation of one of the guides. Fig. 7 is a front view of the thimble with the outer or front plate removed. Fig. 8 is a modification in which the thimble is adapted to be placed in a ceiling or horizontal wall. Fig. 9 is a section on the line *x x*, Fig. 8. Fig. 10 is a section through the outer edge of the plates on the line *y y*, Fig. 1.

Similar letters of reference indicate corresponding parts in the several views.

A designates a wall having an opening in which the thimble is placed. The said thimble consists of the following parts:

B designates a rear plate having a projecting portion *b*, in which the rear end of a shaft *c* is mounted. *d* and *e* designate a toothed pinion and a ratchet-wheel, respectively, which are mounted on said shaft, and *B'* is a housing, the flange *B''* of which is secured to the projecting portion *b*. This housing incloses the wheels *d* and *e* and provides a bearing for the outer end of the shaft *c*. The extreme

outer end of said shaft is provided with a square terminal, which may be turned with a wrench or other suitable implement.

f is a detent pivoted to the upper part of the flange *B''* and projecting through an opening *f'* in the housing to engage with the ratchet-wheel *e* to prevent any reverse movement of the pinion *d*.

Further reference will be hereinafter made to the above-described mechanism.

Referring, further, to the rear plate B, *B³* designates a circular channel therein formed by ridges *B⁴* and *B⁵*. The dotted circle C, Fig. 2, indicates the inner circular edge of the plate. D designates a series of radial slides which are placed against the inner side of said plate B. These slides are maintained in sliding positions by means of guiding-plates *D'*, which are rigidly secured to the rear plate B and loosely inclose said slides. As indicated by dotted lines, the inner ends of each alternate slide are overlapped by the adjacent slides on each side. As shown in Fig. 1, the inner full circle represents the inner ends of the slides when said slides are moved out to their extreme outer positions to admit of the largest pipe. The dotted circle represents the area of the opening when the slides are moved to their innermost positions. In Fig. 7 they are shown as moved into their extreme inner positions. The inward and outward movements are effected by the following mechanism: *h* designates a series of guides having channels *h'*, and of which there is one rigidly attached to each slide. E designates an outer plate having an inner circular opening of a diameter corresponding to that of the plate B and having upon its inner side cams or projections *i* substantially of the curvatures and lengths shown in Fig. 3. When the said plate is placed in position, as shown in Fig. 1, one of these cams *i* fits in each of the channels *h'* in the guides *h*, and as the said plate E is turned movement is imparted to the slides D inward and outward according to the parts of the cams *i* that are in contact with said guides. E' designates peripheral teeth on the plate E, that are in mesh with the pinion *d*, and said plate is thereby rotated to impart the desired movement to the slides. When the plate E is

placed in position, as shown in Figs. 1 and 8, its outer rim fits into the channel B^3 , and it is maintained in said position by set-screws j , that penetrate the periphery of said plate 5 between any two of the teeth, and have their inner ends projected below an annular shoulder k , formed on the flange B^5 . There is essentially some clearance between the outer side of the flange and the screws in order that 10 the plate E may turn, as shown in Fig. 10.

The construction shown in Figs. 8 and 9 has some modifications which adapt it to be placed in the ceiling. Referring to this construction, H designates a flanged sleeve or 15 thimble which is inserted in the opening in the ceiling. I is another thimble which is riveted to the plate B and fits over the thimble H. The rest of the construction is substantially the same as hereinbefore described, 20 with the addition of means for ventilation, which consists in providing the inner ends of each of the slides D with openings o' , through which air may escape from the room to the flue. There are also openings o' through 25 the inner and outer plates B and E and the guides D' .

Having fully described our invention, we claim—

30 A stovepipe-thimble comprising an annular plate B having a housing B' , and annular

flanges B^4 and B^5 forming an annular channel B^3 , the flange B^5 also terminating in a laterally-projected shoulder k , a series of slides D mounted against the inner face of said plate 35 B, a guide h mounted on each of said slides, a series of guide-plates D' secured to the face of the plate B each of said plates D' inclosing the edges of each two adjacent slides D, an outer inclosing plate E having a series of ribs i , and provided with a laterally-projected rim 40 with teeth thereon, the said rim being adapted to enter the groove B^3 on the plate B, and the ribs i being adapted to enter the guides h , a series of screws j penetrating the rim of the plate E, and projecting beneath the shoulder 45 k on the plate B whereby said plates E and B are maintained in an operative position, and a pinion d inclosed in the housing B' and engaging with the teeth on the plate E to rotate the said plate and thereby move the slides D, 50 substantially as and for the purposes specified.

In testimony whereof we affix our signatures in presence of two witnesses.

CHARLES W. SCHWANENGEL.
JOSEPH F. SACKSTEDER.

Witnesses:

R. J. MCCARTY,
H. L. FERNEDING.