

(No Model.)

L. W. CLAYTON.
GRATE.

No. 448,634.

Patented Mar. 24, 1891.

Fig. 1.

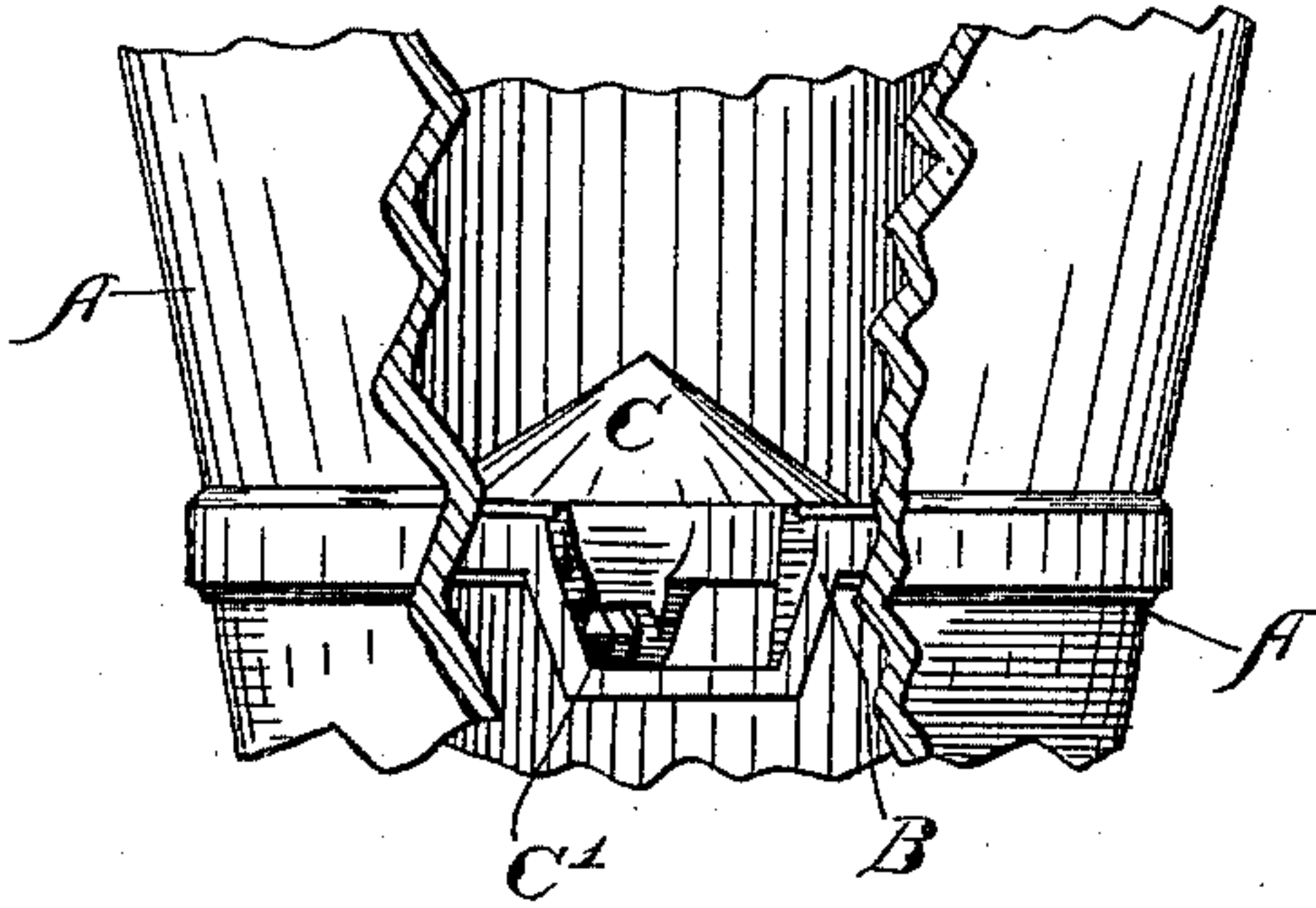


Fig. 2.

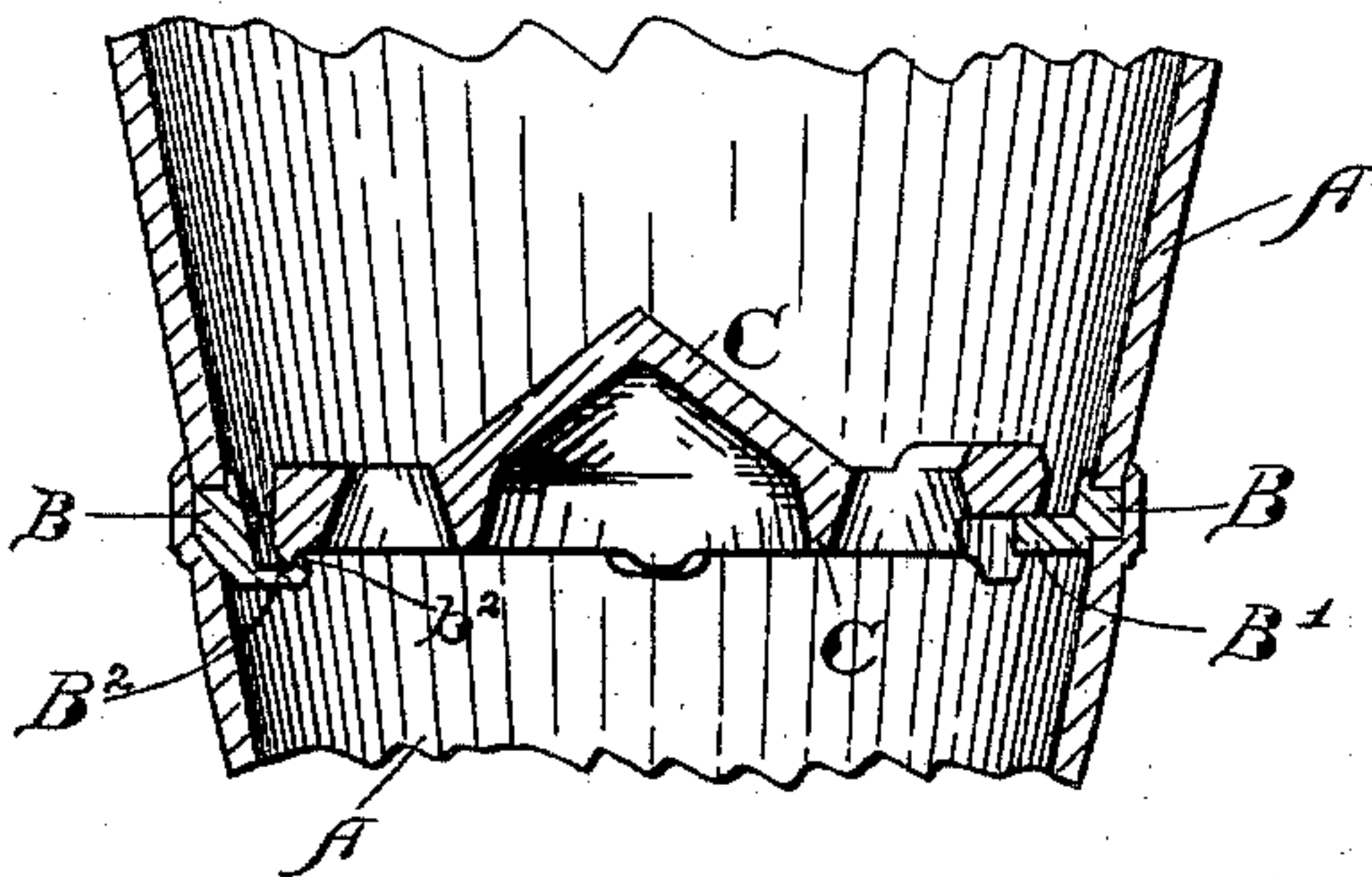


Fig. 3.

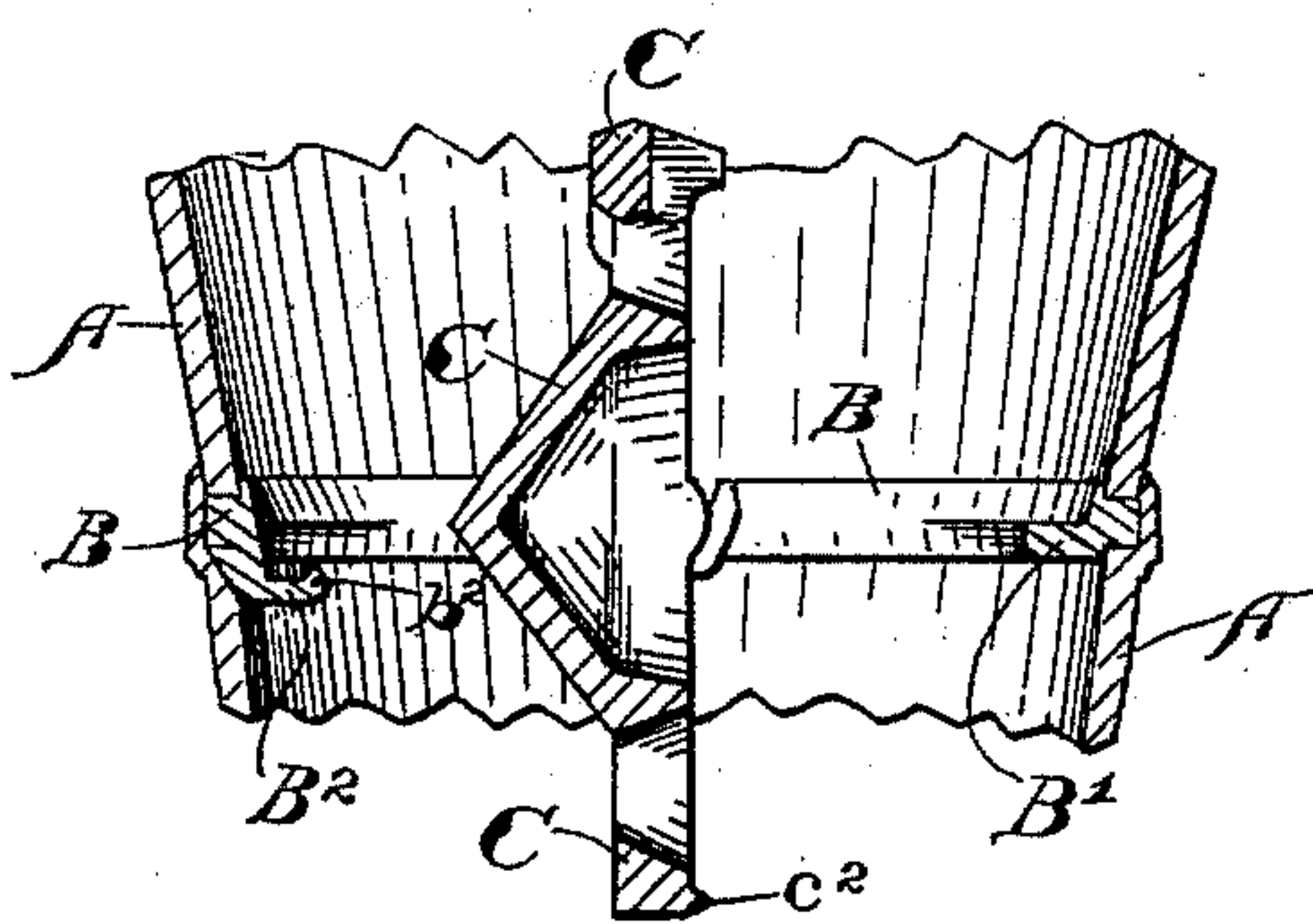


Fig. 4.

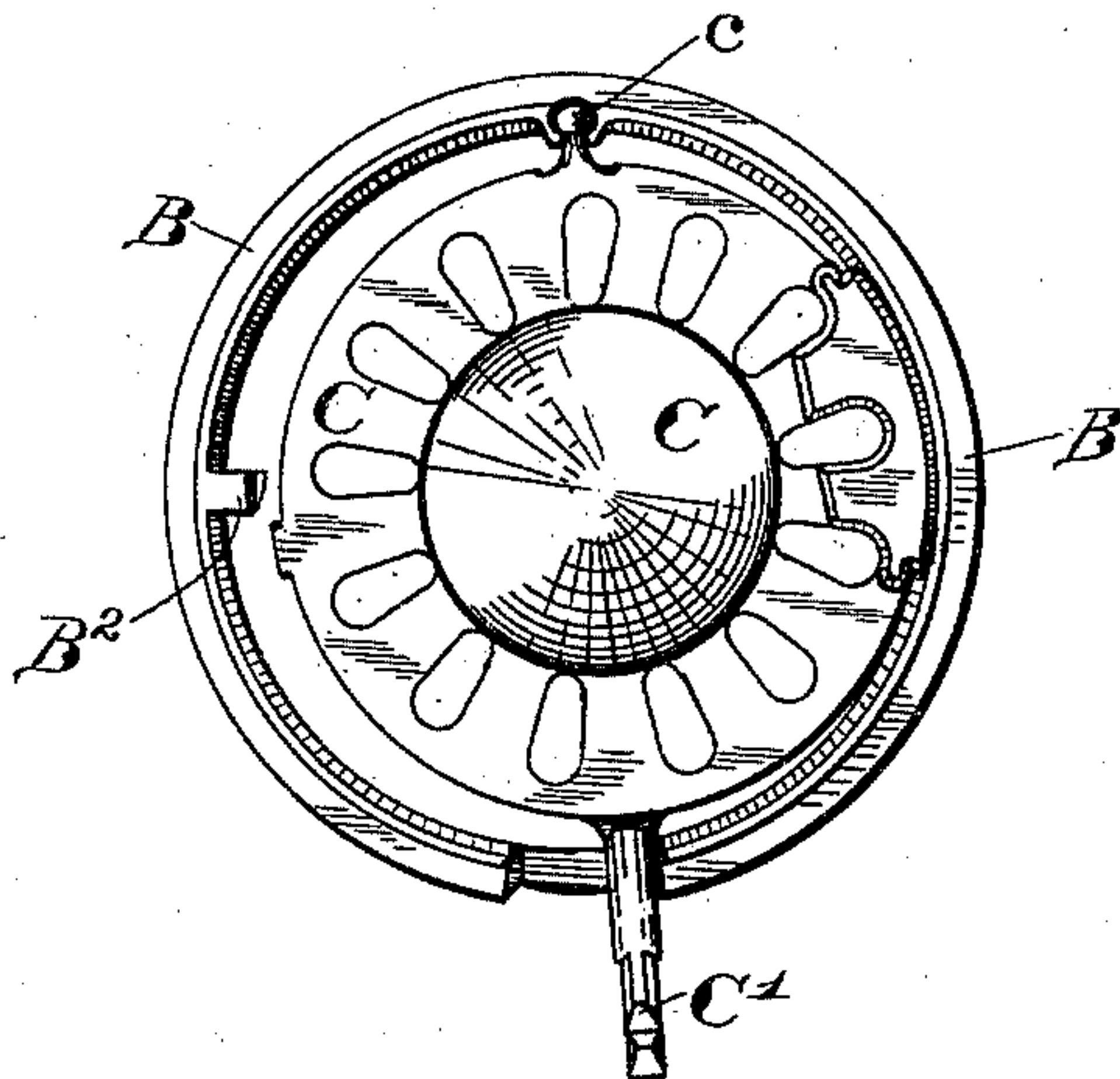
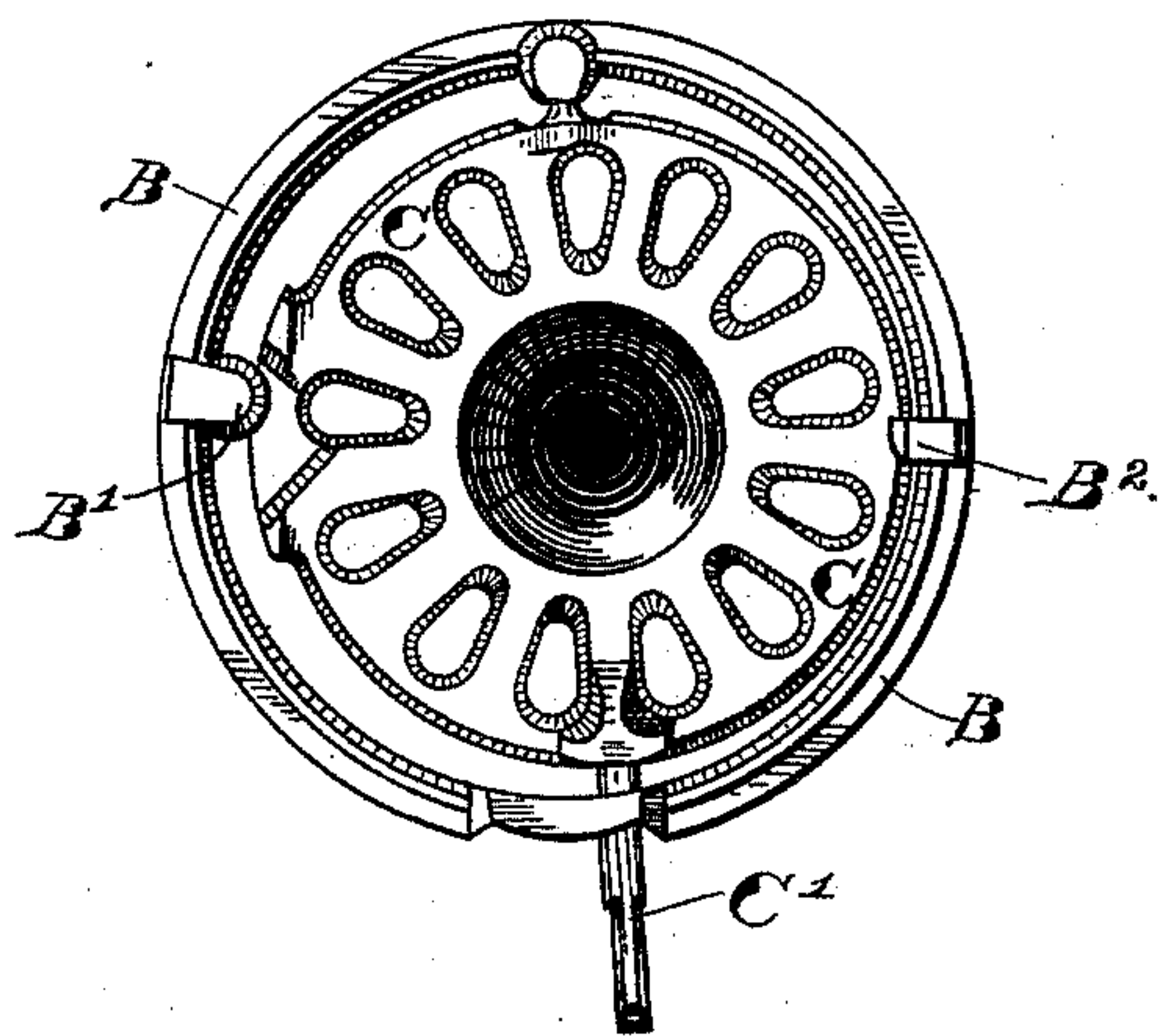


Fig. 5.



WITNESSES.

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UNITED STATES PATENT OFFICE.

LEONIDAS W. CLAYTON, OF INDIANAPOLIS, INDIANA.

GRATE.

SPECIFICATION forming part of Letters Patent No. 448,634, dated March 24, 1891.

Application filed May 24, 1890. Serial No. 352,978. (No model.)

To all whom it may concern:

Be it known that I, LEONIDAS W. CLAYTON, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Grates, of which the following is a specification.

The object of my said invention is to provide a grate for stoves, which may be so manipulated as to be either a dumping, shaking, or stationary grate, as may be desired. This object is accomplished by making the movable portion of the grate somewhat less in diameter than that which surrounds it, arranging a pivot-mounting therefor at the rear side, and providing lugs upon the surrounding portion upon the two sides thereof, one of which projects far enough to sustain the movable portion without regard to its position, and the other of which will sustain it when in one position, but not when in the other, the structure being such that the movable portion can be shifted from side to side, swinging on its pivot.

It further consists in certain details of construction, as will be hereinafter more particularly described and claimed.

Referring to the accompanying drawings, which are made a part hereof, and on which similar letters of reference indicate similar parts, Figure 1 is a front elevation of the grate and immediately adjacent portions of the stove-body, said stove-body being broken away to show said grate; Fig. 2, a central sectional view through the grate and immediately adjacent portions; Fig. 3, a similar view with the movable portion of the grate turned on edge in the position it occupies when the grate is "dumped;" Fig. 4, a top or plan view of the grate separately, and Fig. 5 an under side plan of the same.

In said drawings the portions marked A represent the portions of the stove adjacent to the grate; B, the ring or stationary portion of said grate, and C the shaking or movable portion of the grate.

The portions A represent those parts of a stove which are immediately adjacent to the grate, and are or may be of any usual or desired construction. As is common, they support the grate in position.

The stationary portion B of the grate is

shown in the form of an annular ring mounted upon the stove portions A and arranged to sustain the shaking or movable portion of the grate. It is provided with a socket or recess at the rear, into which a ball-like or other suitable-shaped projection on the part C enters, whereby said part C is pivoted thereon, and two projections B' B² on the two sides which extend out and serve to sustain said movable portion when in its various positions, as will be presently explained. In order to maintain the two portions on substantially the same level, the front of this portion B commonly embodies a depression through which the stem or handle C' on the portion C projects to the outside, and this depression is of sufficient size to permit the necessary movement of said shaking or movable portion. The projection B' extends out far enough so that the part C will not escape therefrom when moved as far it can be toward the other side, and thus prevents the side of said part C, supported thereby, from being turned down toward the bottom of the stove, whatever the position of said part C may be. The projection B² on the contrary projects far enough to receive the edge of the part C when said part C is moved toward the side where said projection B² is, but is not long enough to prevent said part C from being turned down or dumped when it is moved toward the other side. It is preferably provided with a small lip b², with which a corresponding lip on said part C will engage, and thus in a measure lock the two parts together. This is so that when the movable part is resting upon this projection it will be held to position thereby until purposely removed, and thus insures that the grate shall not be dumped accidentally.

The part C is, generally speaking, of substantially a common form, preferably substantially round and perforated, as usual. It has a rearward projection c, the end of which is preferably globular in form, which rests in the recess at the rear of the surrounding part B and serves as a pivot upon which the part C may be either moved from side to side or turned on edge in dumping the grate. At the front it has the ordinary operating stem or handle portion C', which extends out through the depressed portion at the front of the sur-

rounding portion B, as previously explained, and by which it is operated. On the under side it preferably has projections which extend down alongside the projection B' on the part B, and the space between which projections forms a seat which rests on said projection B'. At the other side it has a lip c^2 , which is adapted to pass over and engage behind the lip b^2 on the projection B², upon which its edge upon occasion is adapted to rest. These lips b^2 c^2 are small, in order that the movable portion C need only be lifted slightly to enable the lips to be disengaged and the part C to be moved toward the other side. As shown most plainly in Fig. 1, the opening through which the handle C' passes is of sufficient size to permit a slight lifting of the grate as well as the shaking from side to side.

As will be readily seen, when the part C is moved toward the side where the projection B² is and the lips c^2 and b^2 are engaged the grate is held firmly in position and is not likely to be accidentally misplaced by the weight of the fuel or the stirring of the fuel in operation. When, however, the part C is moved toward the other side, it can be readily dumped, and it can be readily shaken at all times in the ordinary and well-known manner. The opening through which the handle C' passes is preferably just wide enough to permit the range of movement necessary to the above-described operation, and the structure must be such in any event that the movement will be properly limited in order to obtain the best results.

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

1. The combination, in a grate, of a stationary part having two projections, one upon each side of its pivot-points or axis of oscillation, and a movable part pivoted to said stationary part at the rear and provided with an operating device at the front and adapted to rest upon said two projections and be thereby held to stationary position or be moved from one of said projections, as desired, substantially as and for the purposes set forth.

2. The combination of a stationary part and a movable part of a grate, said movable part

being eccentrically pivoted and said stationary part having projections extending under the movable part, whereby both sides of said movable part may be supported when in one position, but whereby one side may be permitted to escape from engagement therewith when in the other position, substantially as set forth.

3. The combination, with a stationary part and a movable part of a grate, of projections extending from the sides of said stationary part at the point of engagement with said projections toward the center of the grate and under said movable part, one of which said projections is longer than the movement of said movable part and the other of which is shorter, said movement being limited to correspond to the length of said projections, substantially as described, and for the purpose specified.

4. The combination, in a grate, of a stationary part surrounding the movable part and provided with projections on its sides, which extend inwardly toward and facing each other, one of which is provided with a small engaging catch or lip, and a movable part mounted in bearings on said stationary part at the sides not carrying said projections and provided at one side with a corresponding small engaging catch or lip adapted to engage with the catch or lip on the stationary part, said parts being arranged and operating substantially as set forth.

5. The combination, in a grate, of a stationary part in the form of an annular ring having a recess or socket at its rear, projections extending inwardly from its opposite sides toward and facing each other and a depression at its front, a movable part having a projection resting in said socket, whereby it is permitted a pivotal movement therein, a handle or operating part extending to the front through said depression and adapted to rest upon and be controlled by said projections, substantially as described, and for the purpose set forth.

In witness whereof I have hereunto set my hand and seal, at Indianapolis, Indiana, this 1st day of April, 1890.

LEONIDAS W. CLAYTON. [L. S.]

Witnesses:

CHESTER BRADFORD,
JAMES A. WALSH.