

(No Model.)

2 Sheets—Sheet 1.

P. D. BECKWITH.
HEATING STOVE.

No. 289,802.

Patented Dec. 11, 1883.

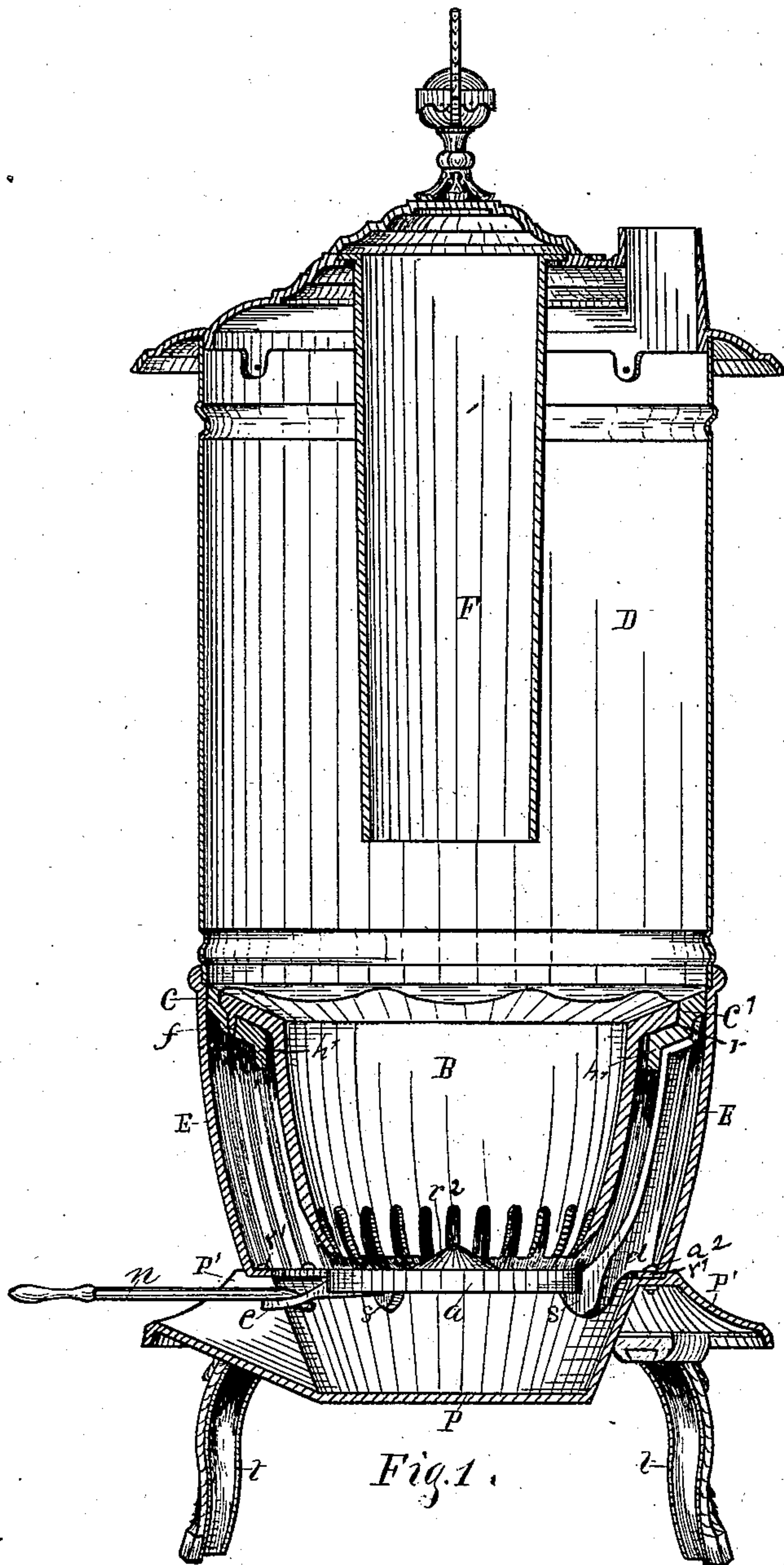


Fig. 1.

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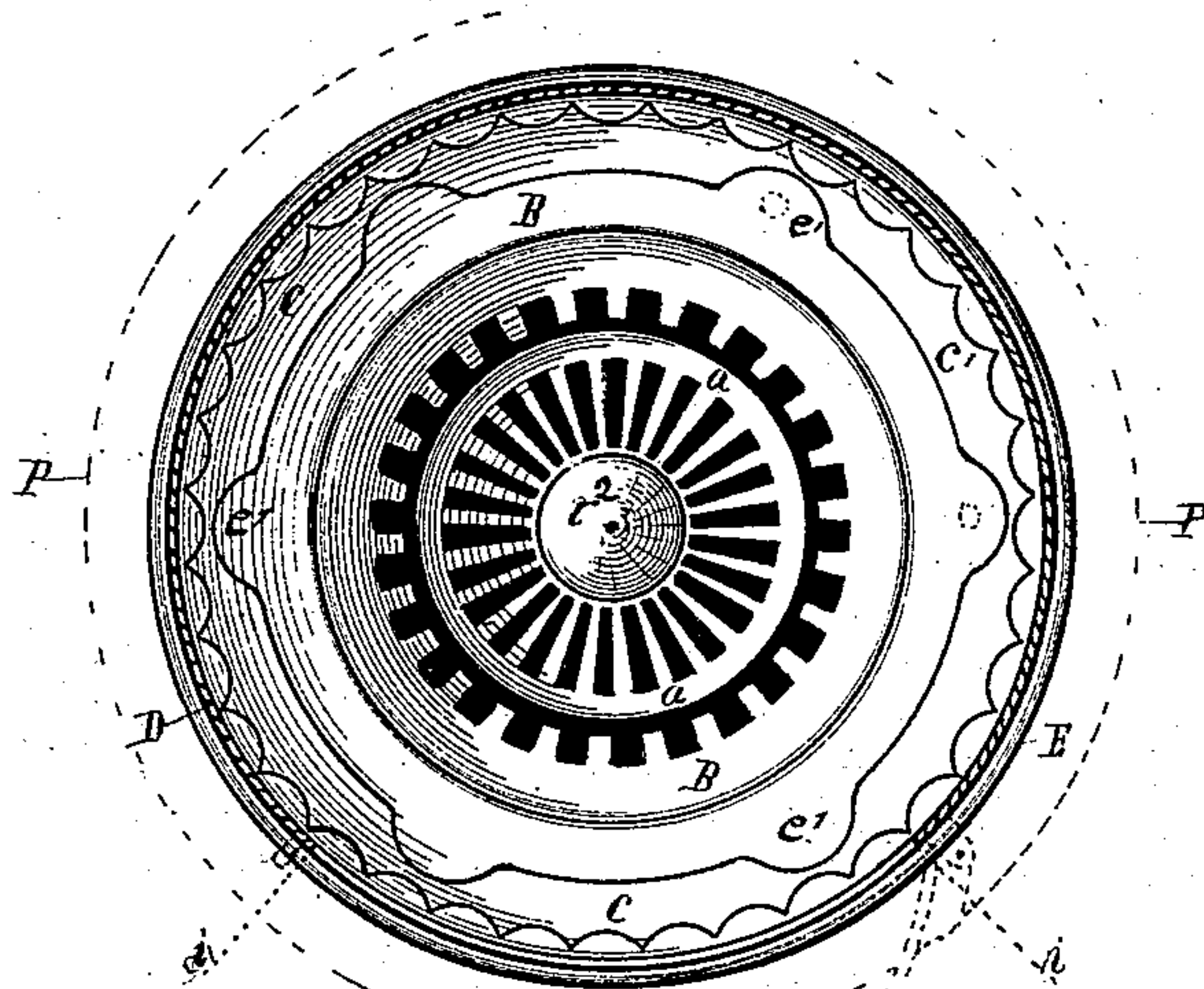


Fig. 2

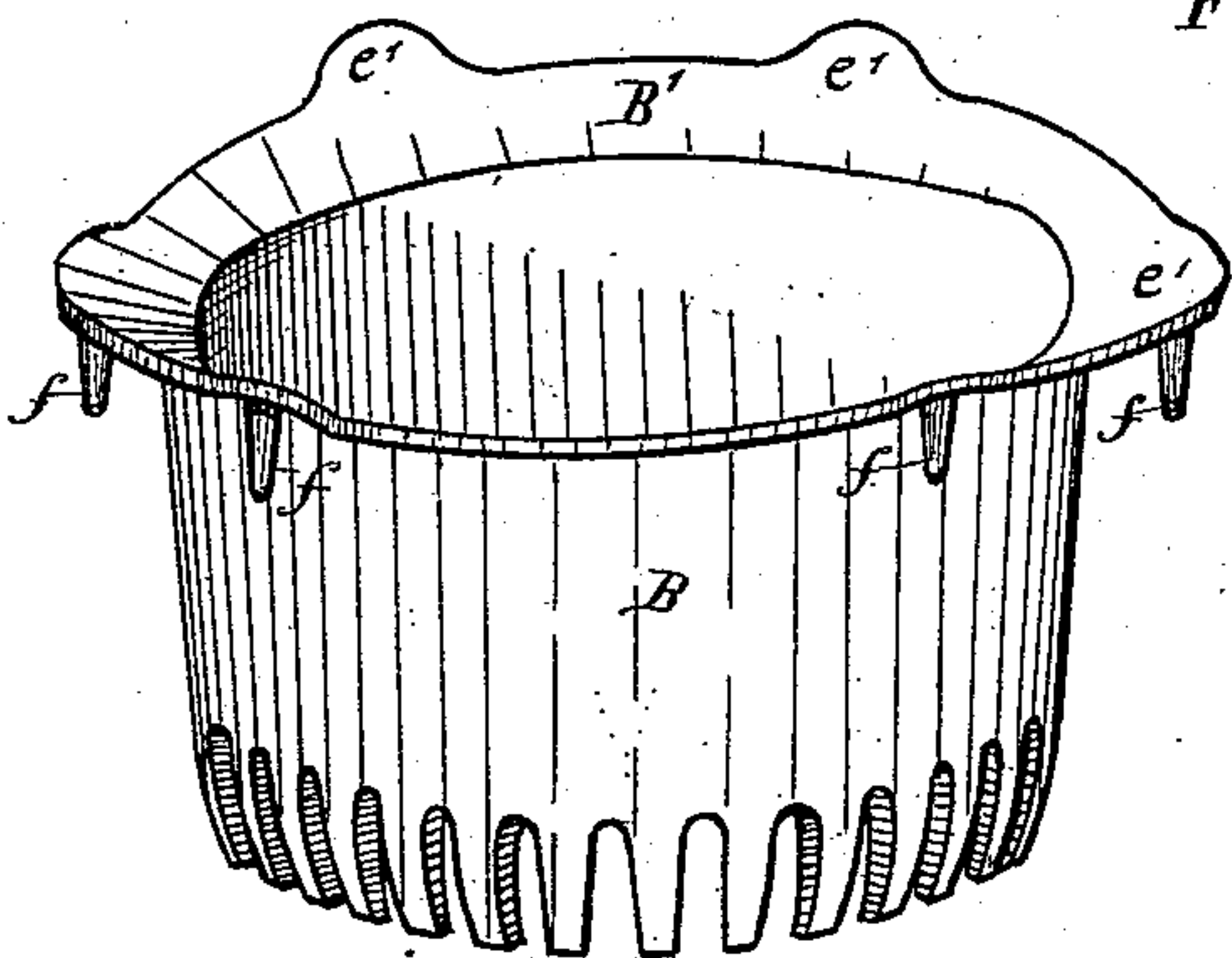


Fig. 3

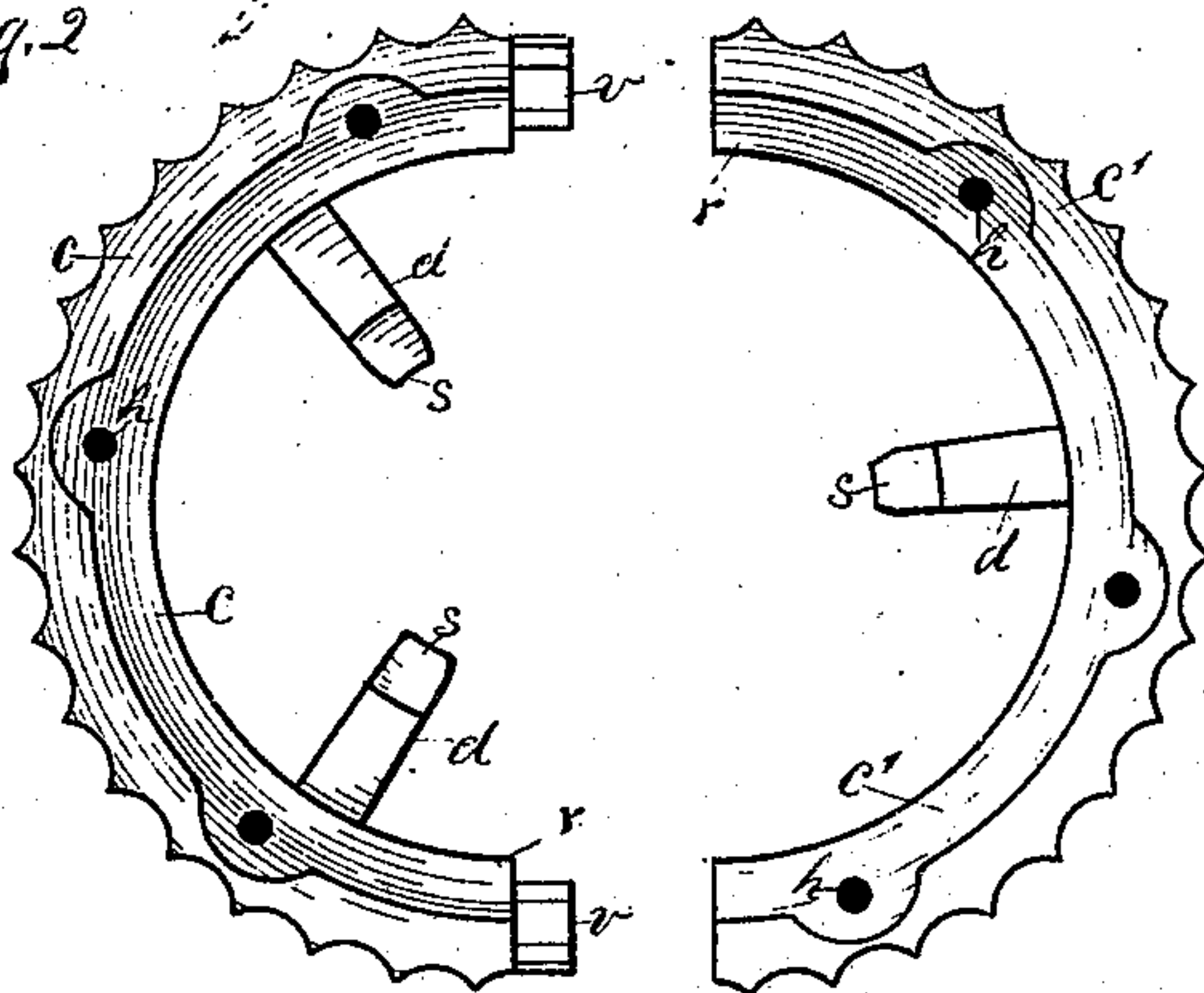


Fig. 4

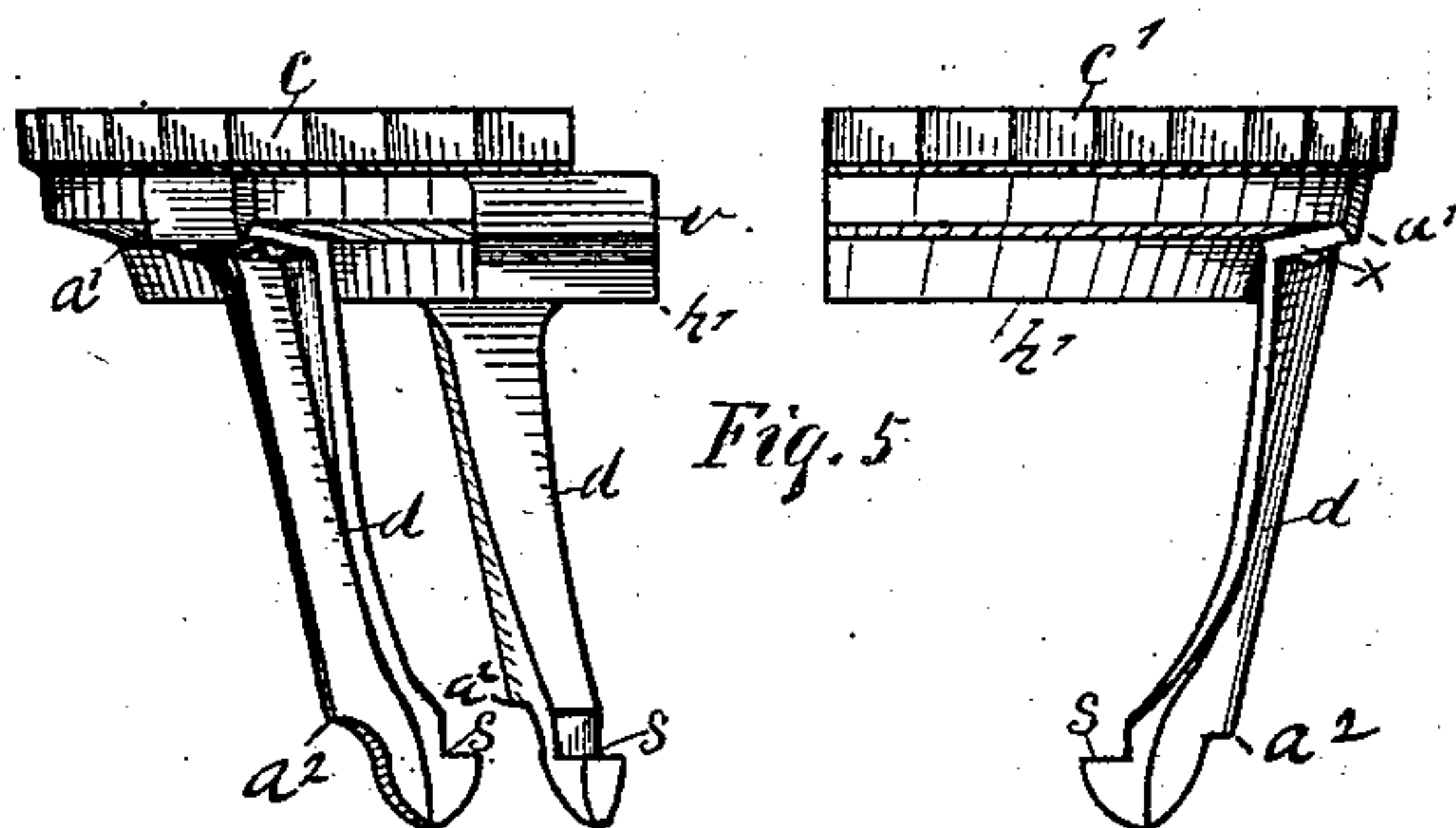


Fig. 5

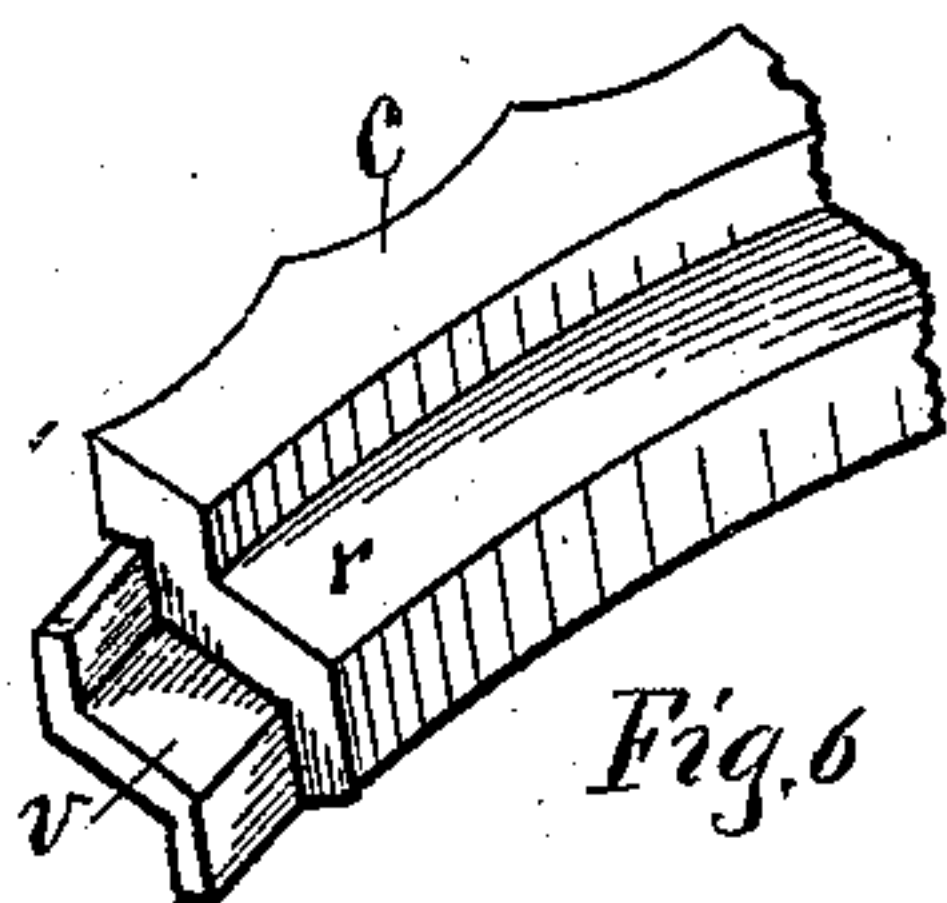


Fig. 6

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UNITED STATES PATENT OFFICE.

PHILO D. BECKWITH, OF DOWAGIAC, MICHIGAN.

HEATING-STOVE.

SPECIFICATION forming part of Letters Patent No. 289,802, dated December 11, 1883.

Application filed March 13, 1883. (No model.)

To all whom it may concern:

Be it known that I, PHILO D. BECKWITH, of Dowagiac, in the county of Cass and State of Michigan, have invented a new and useful Improvement in Heating-Stoves, relating to the "Round-Oak Stove" and all heating-stoves of this class; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification.

The stove herein represented is one on which I have obtained several Letters Patent, and was designed for burning wood.

My present invention consists in the arrangement of a basket, a shaking-grate, and the means employed for supporting the parts within the fire-pot of the stove; also, in the construction of the parts that enables me to use a coal-basket cast integral, one that may be readily inserted or taken out through the ordinary stove-door, as set forth in the following specification.

This invention is designed as an improvement upon my Letters Patent, dated April 28, 1874, No. 150,277, and is designed for burning hard and soft coal.

In order to aid others skilled in the art to which my invention belongs to make and use it, I will proceed to describe its construction and operation, with reference to the drawings, making a part of this, in which—

Figure 1 is a sectional view of the stove containing my present invention. Fig. 2 is a top perspective of my invention within the fire-pot of the same. Fig. 3 is an enlarged perspective of the coal-basket, showing flange B', having pintles *f* projecting therefrom. Fig. 4 is a top plan of the sectional supporting-ring CC' having supporting-legs *d d d* attached thereto. Fig. 5 is an elevated plan of the same, showing the manner of attaching the legs. Fig. 6 is a detached end portion of the ring C, showing the supporting-arm *v*, as will be hereinafter set forth.

In the drawings, Fig. 1, D represents the sheet-iron body of the stove; E, the fire-pot; P', the base of the stove supported by the legs *t t*, and F the magazine, all of which are old.

The fire-pot E is corrugated, as shown in Figs. 1 and 2. I place within the fire-pot

the sectional ring CC', the periphery of which is made fluted, thus fitting to the form of the fire-pot, as shown in Figs. 1 and 2. The ring lies just within the top of the fire-pot, and has a sloping upper side extending inward, being provided with an annular rabbet *r*. (See Figs. 1, 4, and 6.) The depth of the rabbet is equal to the thickness of the flange B' of the basket. The ring has a series of vertical holes, *h*, through it. Opposite the holes the upper surface of the ring is rabbeted, for the purpose hereinafter described. The part C of the ring is provided at its free ends with projecting arms *v*. (See Figs. 4, 5, and 6.) These arms are cast upon the under side of the ring or part C, corresponding in form to the under side of said ring.

On the under side of the part C are two lugs, *a'*, and one on the part C'. These lugs meet and support the upper end of the legs *d d d*, as shown in Fig. 5. These legs are attached to the ring, as shown at *x*, and are provided at the lower end with shoulders *a*². (See Figs. 1 and 5.) These shoulders rest upon the annular flanges *r'* of the fire-pot. (See Fig. 1.)

On the inner or facing side of the legs at the bottom I provide horizontal supports S, (see Figs. 1 and 5,) for the purpose hereinafter mentioned.

Fig. 3 represents the basket. This retains the combustible matter, and is provided at the top with an obliquely-flaring flange, having convexed projections or ears *e'*, and pendant from the under side thereof is a series of pintles, *f*.

In the drawings, Figs. 1 and 2, *a* represents the bottom or reciprocating grate, and is provided with a conical center, *r*², having radial openings from the base of the cone outward.

For the purpose of admitting air through the articles of combustion and allowing ashes and the like to pass down into the ash-pan P, (see Figs. 1 and 2,) I cast upon the periphery of the grate *a* an arm, *e*, projecting downward and outward, having an opening in the same to receive the shaker *n*, as shown in Fig. 1. The shaker *n* is inserted through the usual hearth-opening of the stove, and is reciprocated horizontally, thus freeing the fire of ashes and refuse. The grate *a* is supported below the basket, and lies upon the horizontal

supports S of the legs *d d d*. (See Figs. 1 and 5.)

It will also be observed that the bearings S have vertical shoulders, which meet the edge of the grate *a*, (see Fig. 1,) thus preventing the grate from working away from the center when shaken.

I provide the flange of the basket with ears *e'*, to enable placing the pintles *f* at a proper distance from the side of the basket, which also allows me to place the series of holes *h* in the ring at midway of its width, so that when the basket is suspended within the ring, as shown in Figs. 1 and 2, the pintles *f* will pass through the holes *h* back of and free from the lower vertical flange, *h'*, of the ring C C'. (See Figs. 1 and 5.) As the pintles enter the holes, the ears *e'* fill the concave rabbeted portion of the ring, while the flange B' enters the annular rabbet *r* of the ring, as shown in Fig. 1, thus bringing the surface of the flange of the basket and that of the ring on a line with each other, forming an upwardly-flaring flange from the mouth of the basket to the walls of the fire-pot E.

In order that the air entering at the base of the stove shall be driven through the basket of combustible matter, the circle of the stove at the top of the fire-pot must be closed, all of which is accomplished by this arrangement, also allowing a free circulation of heated air between the fire-pot and the basket, as shown in Fig. 1.

It is obvious that the basket with pintles and sectional ring, when united in the manner set forth, are firmly interlocked.

It being necessary to construct the parts so that they may be readily put into or taken out at the common stove-door, the basket is made small enough to pass through the door, but the distance across the door, as indicated

by dotted lines *i i* of Fig. 2, being less than across the fire-pot at the top, I make the flaring ring C C' in two parts in order to pass them through the door.

It will also be observed that when the parts are in position, as shown in Fig. 1, the legs *d d d* support them, also the weight of combustible matter, and that the legs form a support for the grate *a* in the manner set forth.

When using the stove for burning soft coal or wood, the magazine F may be taken out through the top of the stove, when the usual door-feed may be used.

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

1. The sectional flaring ring, fitting within the top of the fire-pot of the herein-described stove, being adapted to encircle and support the basket, (cast integral,) as and for the purposes set forth.

2. In a heating-stove, the combination of the sectional ring having leg-supports attached thereto, being adapted to fit within the fire-pot of the stove, said leg-supports resting upon the horizontal flange of the fire-pot, substantially as set forth.

3. The coal-basket, cast integral, having a flaring flange with a series of pintles projecting downward from said flange, for the purposes specified.

4. The combination of the sectional ring with leg-supports attached thereto, said supports resting upon the flange of the fire-pot, being also provided with horizontal supports for receiving and retaining the reciprocating grate, substantially as set forth.

PHILO D. BECKWITH.

Witnesses:

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F. E. LEE.