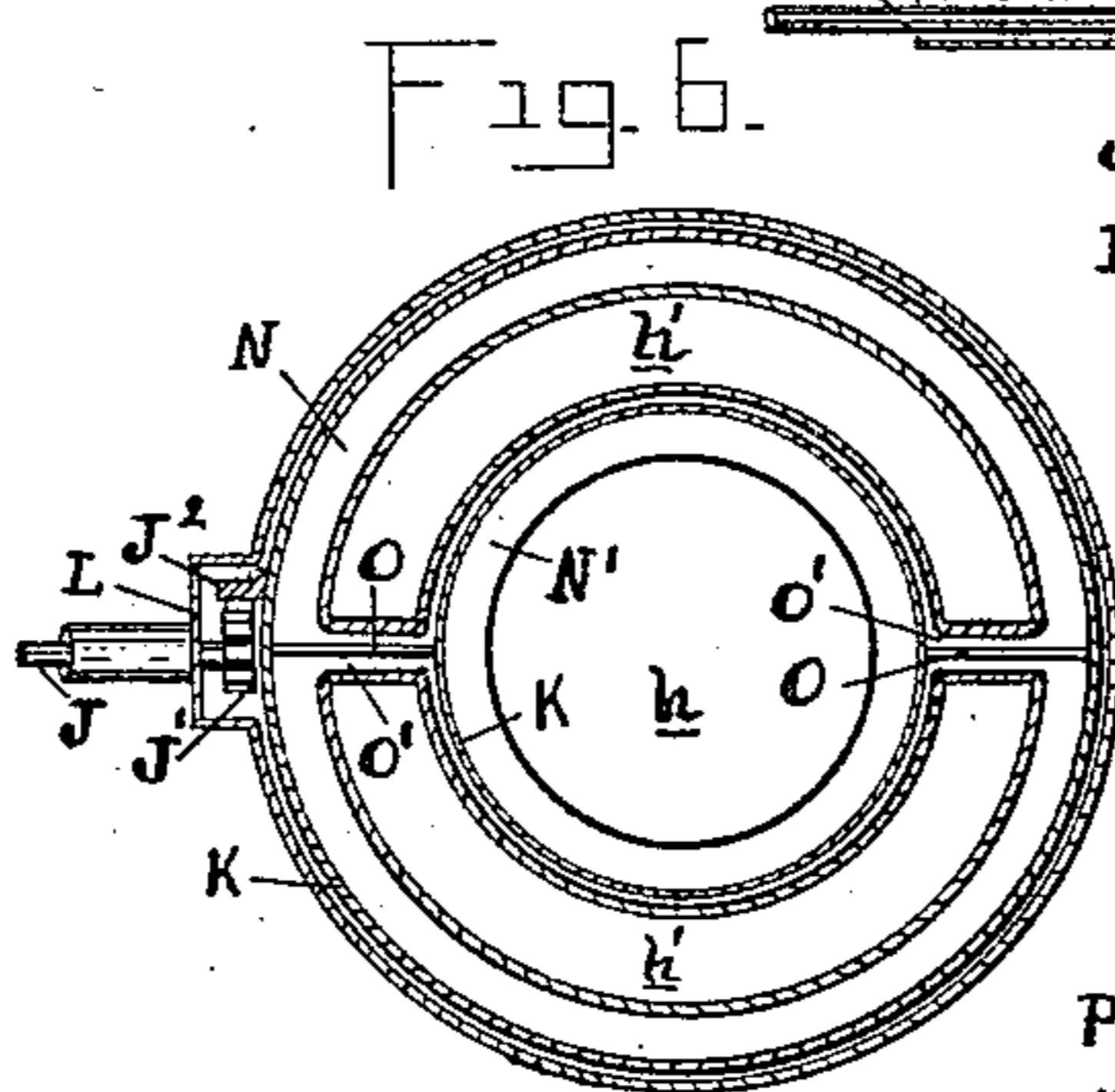
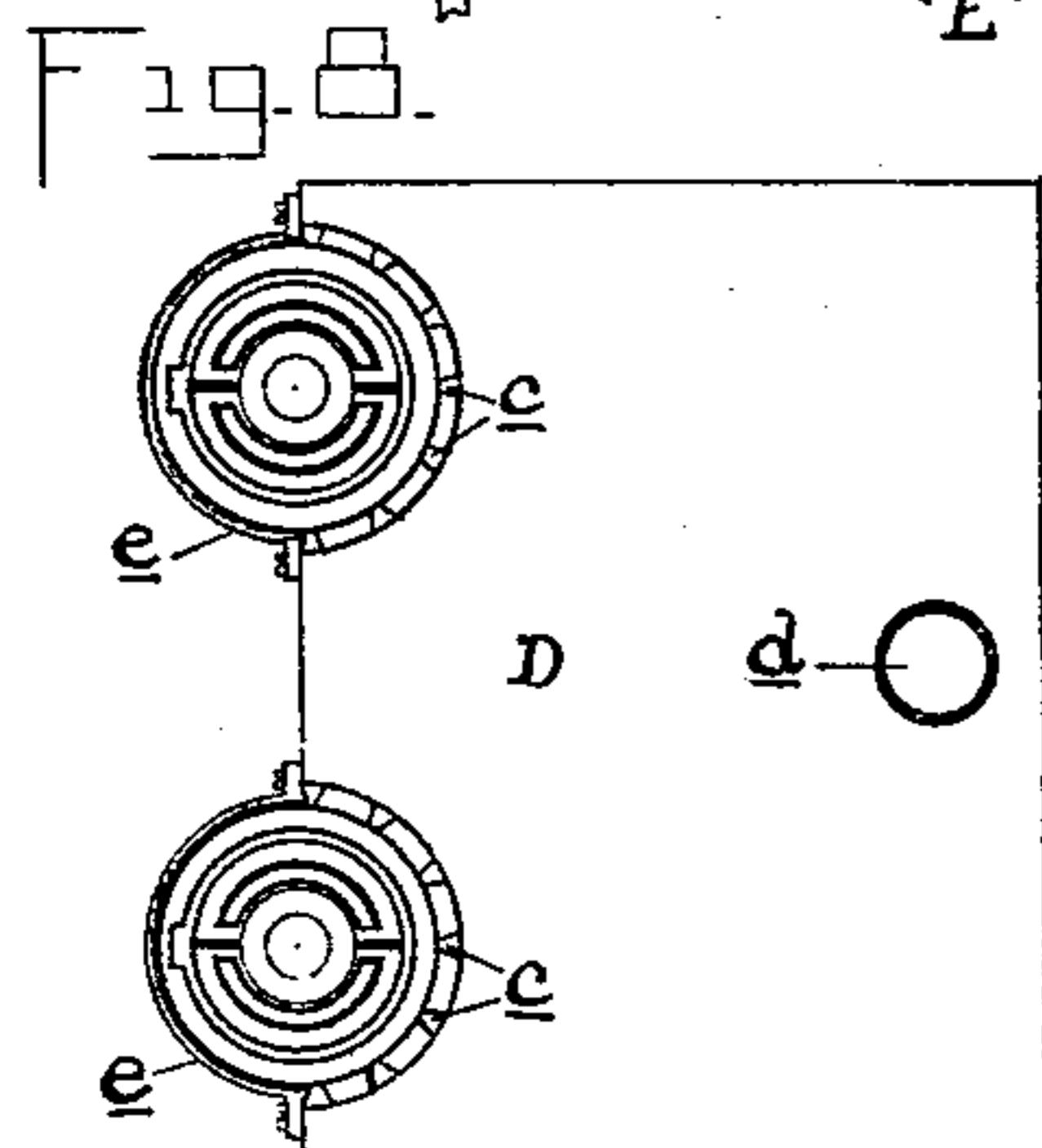
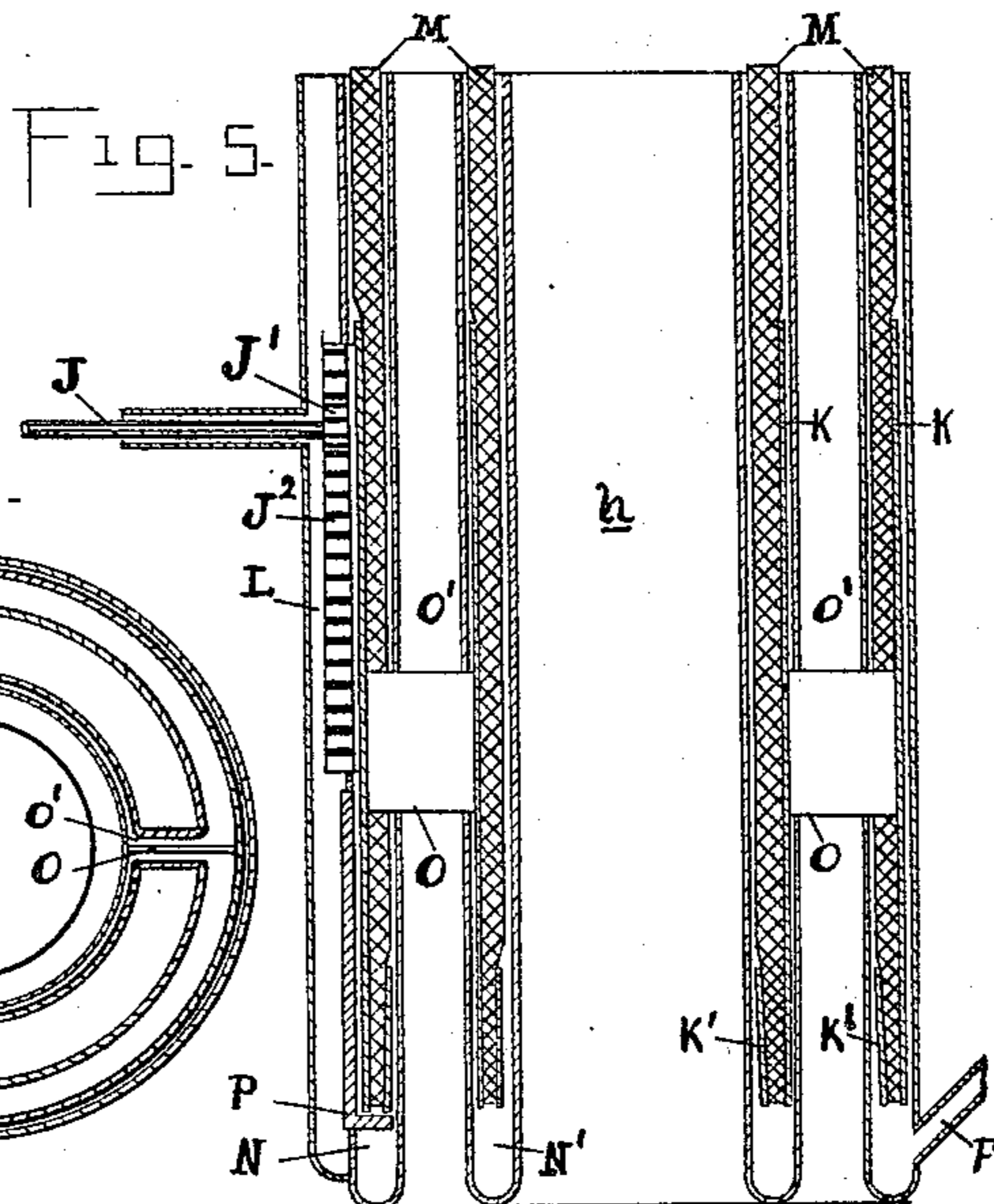
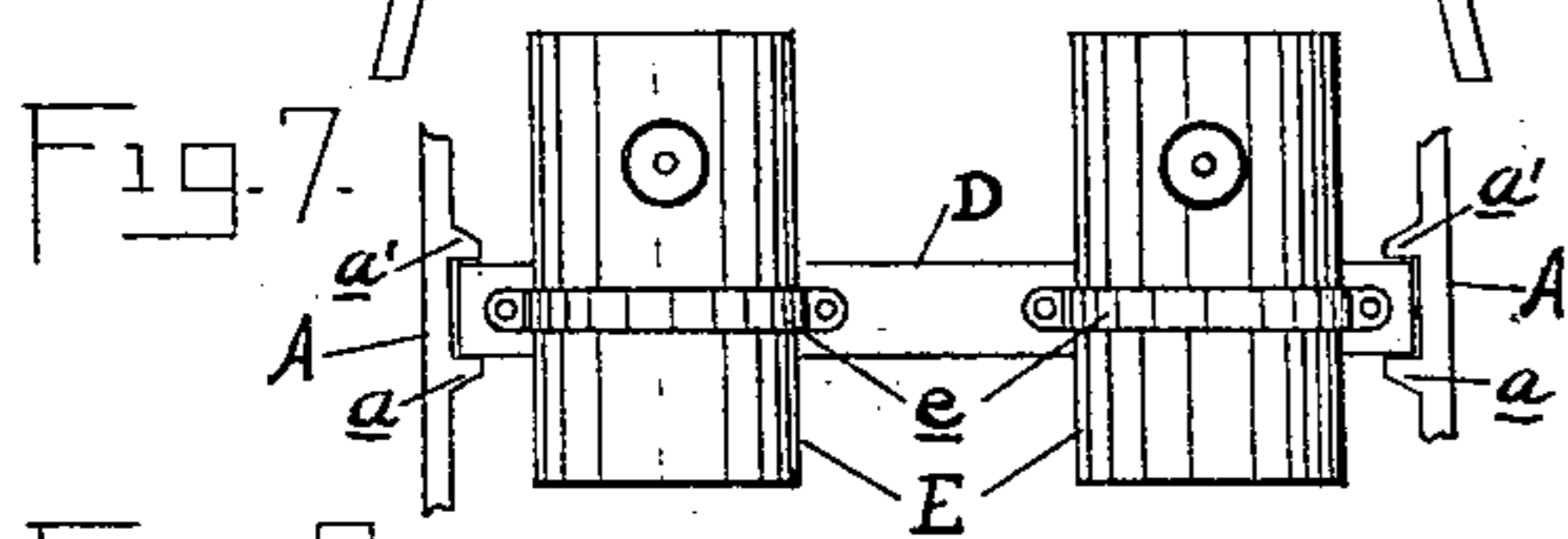
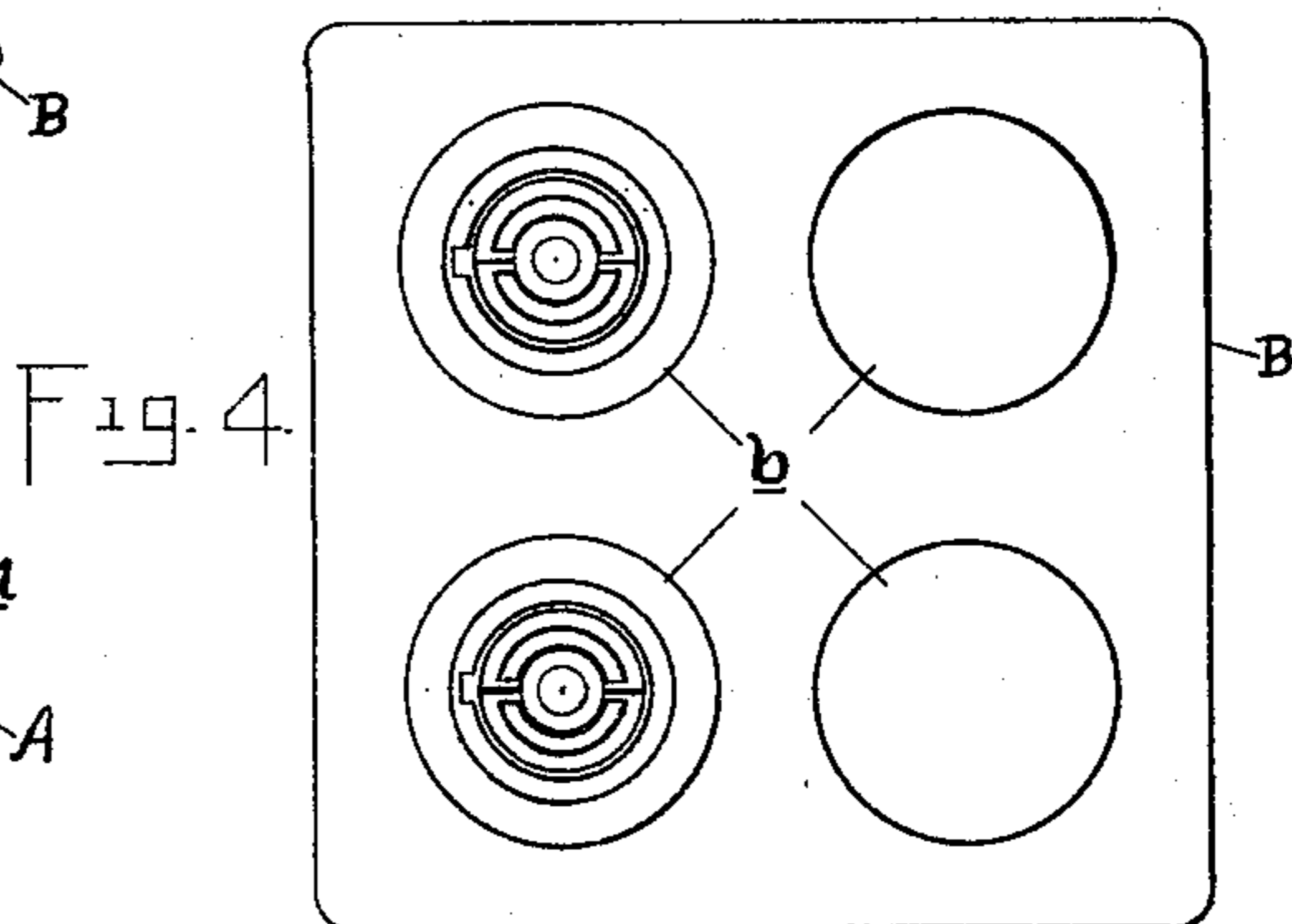
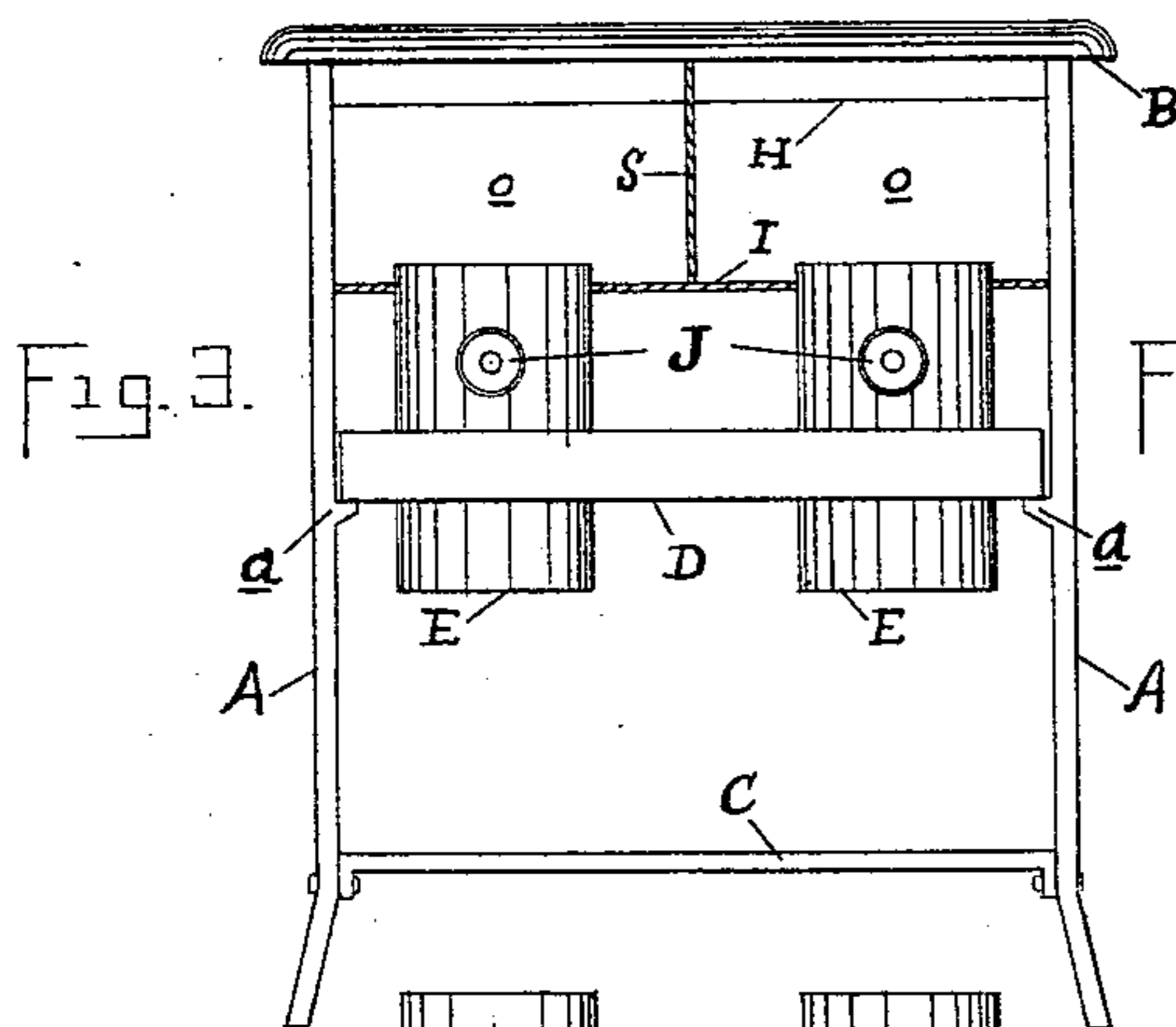
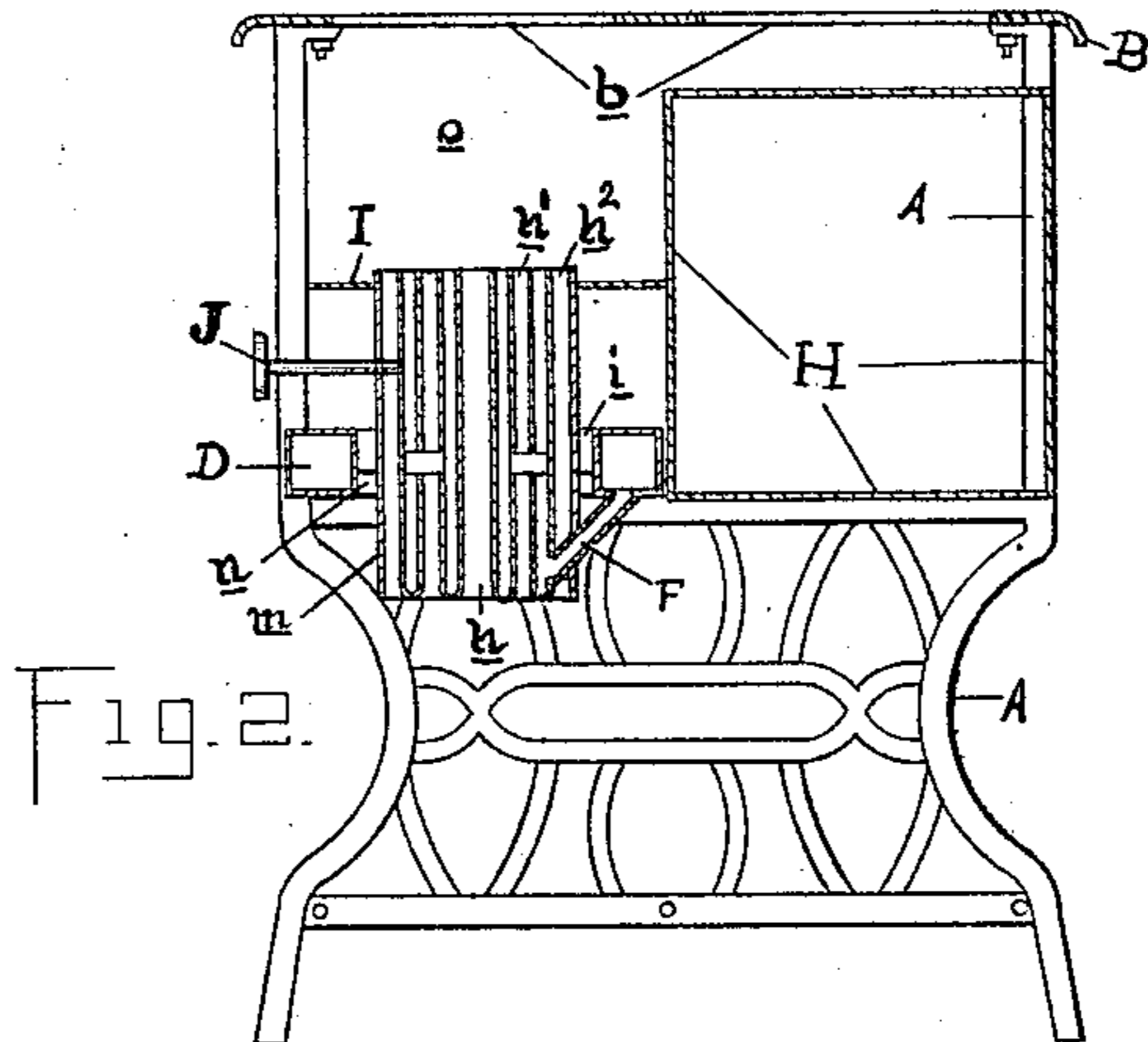
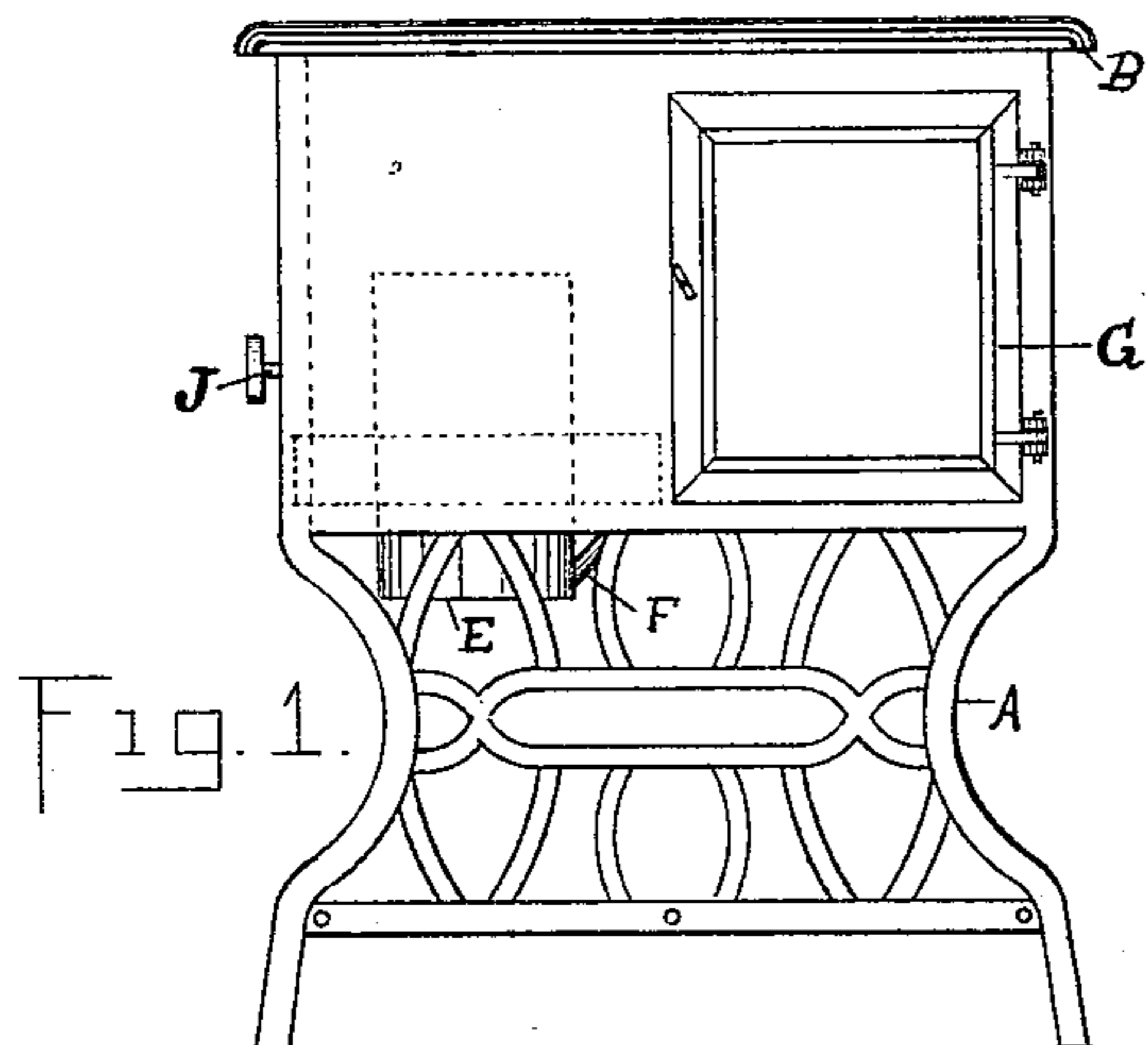


OIL STOVE.

No. 451,964.

Patented May 12, 1891.

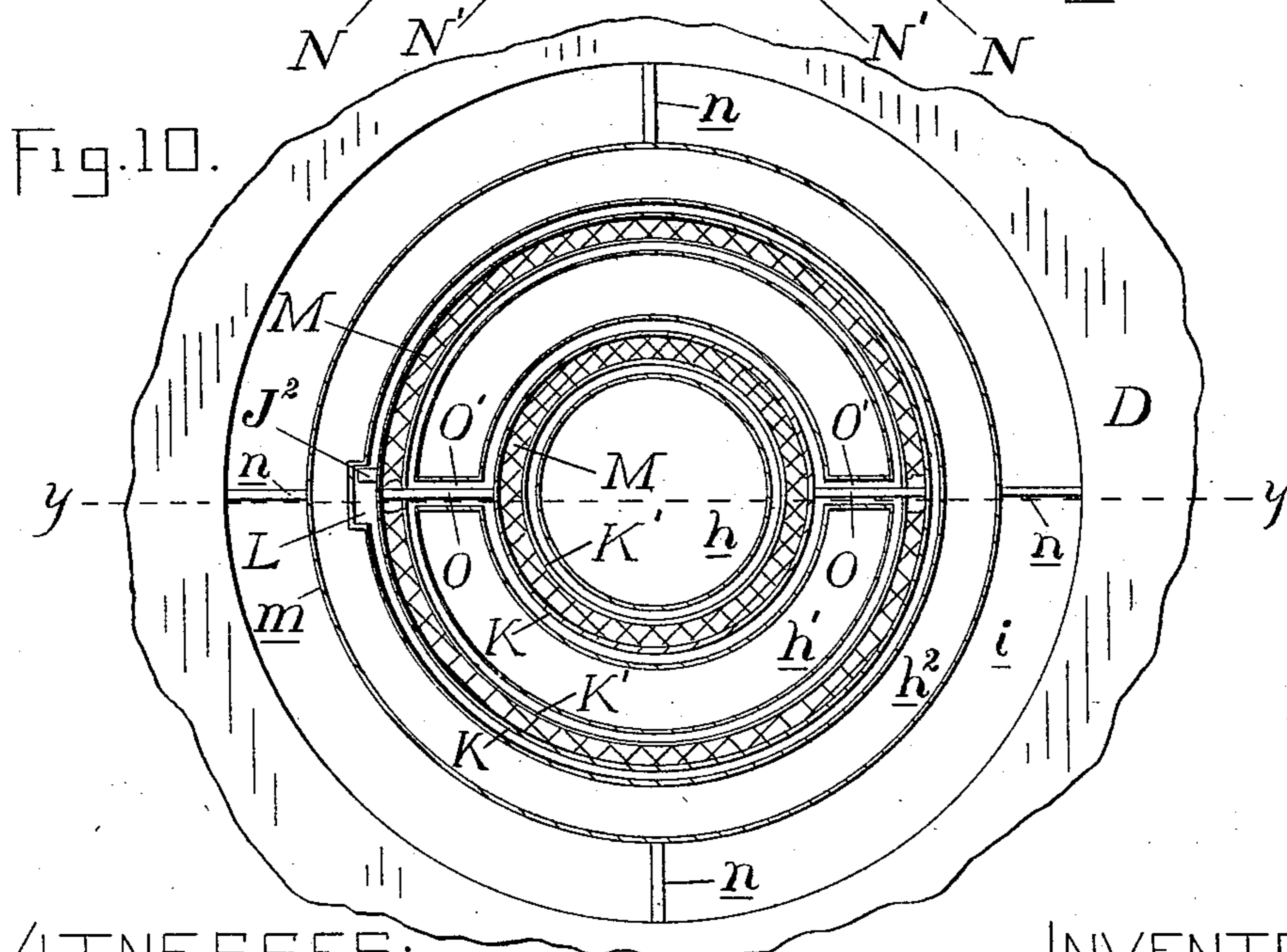
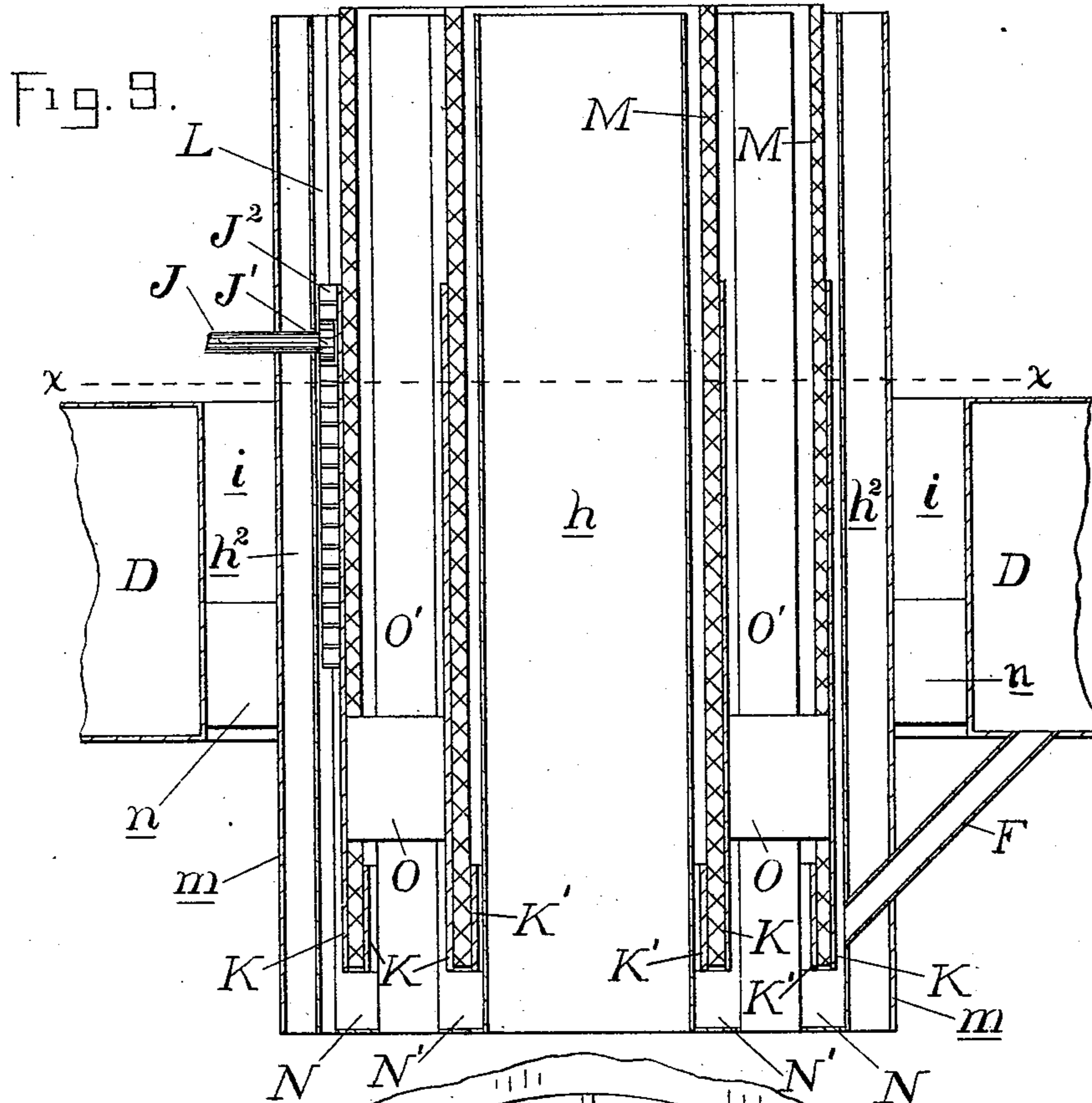


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No. 451,964.

Patented May 12, 1891.



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UNITED STATES PATENT OFFICE.

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OIL-STOVE.

SPECIFICATION forming part of Letters Patent No. 451,964, dated May 12, 1891.

Application filed June 23, 1890. Serial No. 356,342. (No model.)

To all whom it may concern:

Be it known that I, LEWIS T. WILCOX, a citizen of the United States, residing at Jackson, in the county of Jackson and State of Michigan, have invented certain new and useful Improvements in Oil-Stoves; and I do hereby declare the following to be a full, clear, and exact description of the invention, which 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.

This invention relates to new and useful improvements in oil-stoves; and it consists in the construction, combination, and arrangement of parts, as fully hereinafter set forth and claimed.

The objects of the improvements hereinafter described are to produce an inexpensive, convenient, and efficient stove, and by the peculiar construction of the burner it will produce a great heat, and rendering the stove particularly desirable for cooking purposes.

Referring to the drawings, Figure 1 is a side elevation of my improved stove. Fig. 2 is a vertical longitudinal section through the center of one of the burners. Fig. 3 is a front vertical view of the same with the front removed, the partitions I and S being shown in section. Fig. 4 is a top plan view of the same. Fig. 5 is an enlarged vertical central section through the wick-tube. Fig. 6 is a plan view of the wick-tube in section with the wicks removed. Fig. 7 is a detached front view of an oil-tank, burners, and supporting-brackets of a modified form; and Fig. 8 is a plan view of the same without the brackets. Fig. 9 is an enlarged vertical section of the wick-tube and attachments on line *y y* of Fig. 10. Fig. 10 is a plan of the wick-tube and attachments in section on line *x x* of Fig. 9.

A A are side frames of the stove of any suitable design, constructed of iron or steel, provided with brackets *a a*, which may form a part of the frames, or may be separate pieces secured thereto; and B is the top of the stove, constructed of iron or steel, provided with circular openings *b*, and resting upon and secured to the side frames A. The side frames

may be provided with brackets *a* and *a'*, as shown in Fig. 7, forming a groove in which the oil-tank is supported, and is permitted to be withdrawn, as desired. The brackets *a* and *a'*, or either of them, may extend the full length of the side frames, or only a portion of the distance, as required, depending somewhat upon the construction of the oil-tank.

C is a strengthening-brace, preferably constructed of sheet metal, and of the same plan as the top B, and serving the purpose of a shelf secured to the side frames at either side.

D is the oil-tank, preferably constructed of sheet metal, rectangular in plan, supported on brackets *a a*, is provided with circular openings extending entirely through the same, and within which is secured the burners E E by a series of supporting-braces *n*; and F is a tube conveying the oil from the tank to the burners. The tank is also provided with a filling-aperture *d* and an ordinary screw-cap and nozzle.

In Fig. 8 I have shown a modified form of oil-tank, which is designed to extend under the oven and which is provided with a semi-circular opening or passage within which is secured the burners, and supported in this position by a series of braces *c* and bands *e*. The tank may be constructed rectangular in plan, and the burners supported and secured wholly at one side of the same, if desired.

G is a door constructed of any suitable sheet or cast metal and hinged to the frame A.

The oven is designed for a warming-oven and the rear wall and doors may be omitted, if desired.

H indicates the side walls to the oven, preferably constructed of sheet metal, secured in the position shown and extending entirely through the stove. The side and the top adjoining the combustion-chamber *o* serve as the side walls of said combustion-chamber.

I is a piece of sheet metal of the form shown, fitted around the burners in such a manner as to exclude the air from passing around the outer sides of the burners to the combustion-chamber. This section of metal I may be removably secured to the burners in such a manner as to be removed from the stove when the tank and burners are withdrawn; or it may be hinged to the wall H and

adapted to be raised at the front side and permit the burners to be withdrawn or suitably supported in any desired manner.

S is a section of ordinary sheet metal secured in the position shown, serving as a partition between the combustion-chambers *o*.

Any ordinary casting or piece of sheet metal of any desired design or construction, but preferably secured by hinges, serves as the front of the stove.

The burner consists of two circular wick-tubes *N* and *N'*, arranged one within the other, preferably constructed of sheet-brass or other suitable sheet metal. Within each wick-tube is an annular sleeve *K*, which sleeves are secured rigidly together by a series of braces *O*, preferably two, as shown, the passage *O'* being formed between the wick-tubes *N* and *N'* for the passage of this brace *O*. The annular wicks *M* are arranged within the sleeves *K*, slits being made in the outer wick to pass down over the braces *O*, and the wicks are held in this position by annular bands *K'*, which firmly hold the wicks between sleeves *K* and bands *K'*. If desired, the sleeves *K* may be provided on their outside with suitable springs, the ends of which may extend under the wicks and bands *K'* to further aid in holding them in position, the spring on the outer sleeve (shown at *P*, Fig. 5) adapted to move in channel *L*, and a similar spring on the inner sleeve adapted to move in passage *O'*.

J is a shaft, to which is secured gear-wheel *J'*, and *J²* is a rack-bar secured to the outer side of sleeve *K* and with which the gear-wheel engages, the channel *L* being formed in the outer wick-tube for the passage of this rack-bar. By this means I can raise or lower both wicks simultaneously; and by the use of but one rack-bar and gear-wheel, and the sleeves which hold the wicks being rigidly secured together, the wicks must always be of an even height, and by arranging one wick within the other I get the greatest possible heat.

The annular casing *m* is constructed around the outside of the burner, forming the air-passage *h²*, supplying air to the outside of the flame and forming the air-passage *i* between it and the oil-tank, preventing the tank from becoming heated. The air-passage *h'* between the two wick-tubes supplies the air to the inner side of the outer flame and the outer side of the inner flame, and the central air-

passage *h* supplies the air to the inner side of the flame.

In the construction of the burner I do not wish to be confined to two wick-tubes, as it is obvious that three, four, or more wick-tubes may be used, following out the same plan of construction.

In the drawings I have shown a stove with two burners and a four-hole top; but I do not wish to be confined to this number, as it is obvious that one, two, or more burners may be used, and that there may be one, two, or more holes to each burner, following out this plan.

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

1. In an oil-stove, the combination of two concentric wick-tubes having wick-holding sleeves rigidly secured together by braces adapted to move in passages *O'* formed between the tubes, and a ratchet operated from the outside of said wick-tubes for simultaneously adjusting the wicks of said tubes, substantially as shown and described.

2. In an oil-stove, the combination of a burner consisting of two concentric wick-tubes *N* *N'*, the wick-holding sleeves *K*, rigidly secured together by braces *O*, adapted to move in passages *O'* formed between the tubes, air-passages *h*, *h'*, and *h²*, and the rack *J²* and pinion *J'* for simultaneously adjusting the wicks, substantially as described.

3. In an oil-stove, the combination, with the burner secured to and communicating with the oil-tank, said burner consisting of two concentric wick-tubes arranged as shown and described, with air-spaces on either side of each tube, and the connecting passages *O'* formed between them, the wick-holding sleeves *K*, rigidly secured together by braces *O*, of the rack *J²* on the outer sleeve, and the pinion *J'*, meshing therewith and operated by the shaft *J* and simultaneously adjusting both of the wicks within said wick-tubes, substantially as described.

4. In an oil-stove, the combination, with an oil-tank having a semicircular concave passage, of a suitable burner secured therein by bands *e*, substantially as described.

In testimony whereof I affix my signature in the presence of two witnesses.

LEWIS T. WILCOX.

Witnesses:

O. J. R. HANNA,
CHARLES H. BROWN.