

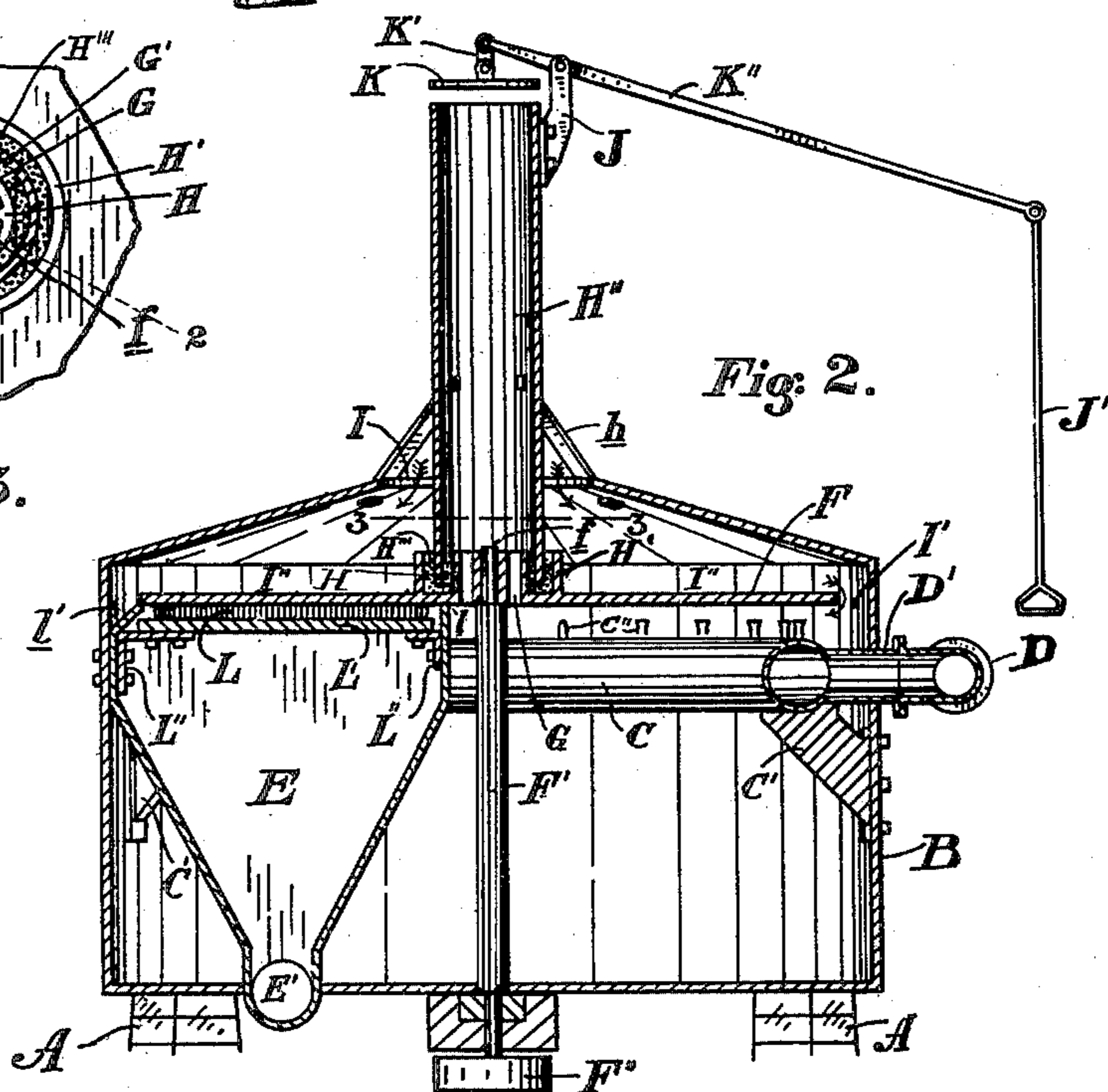
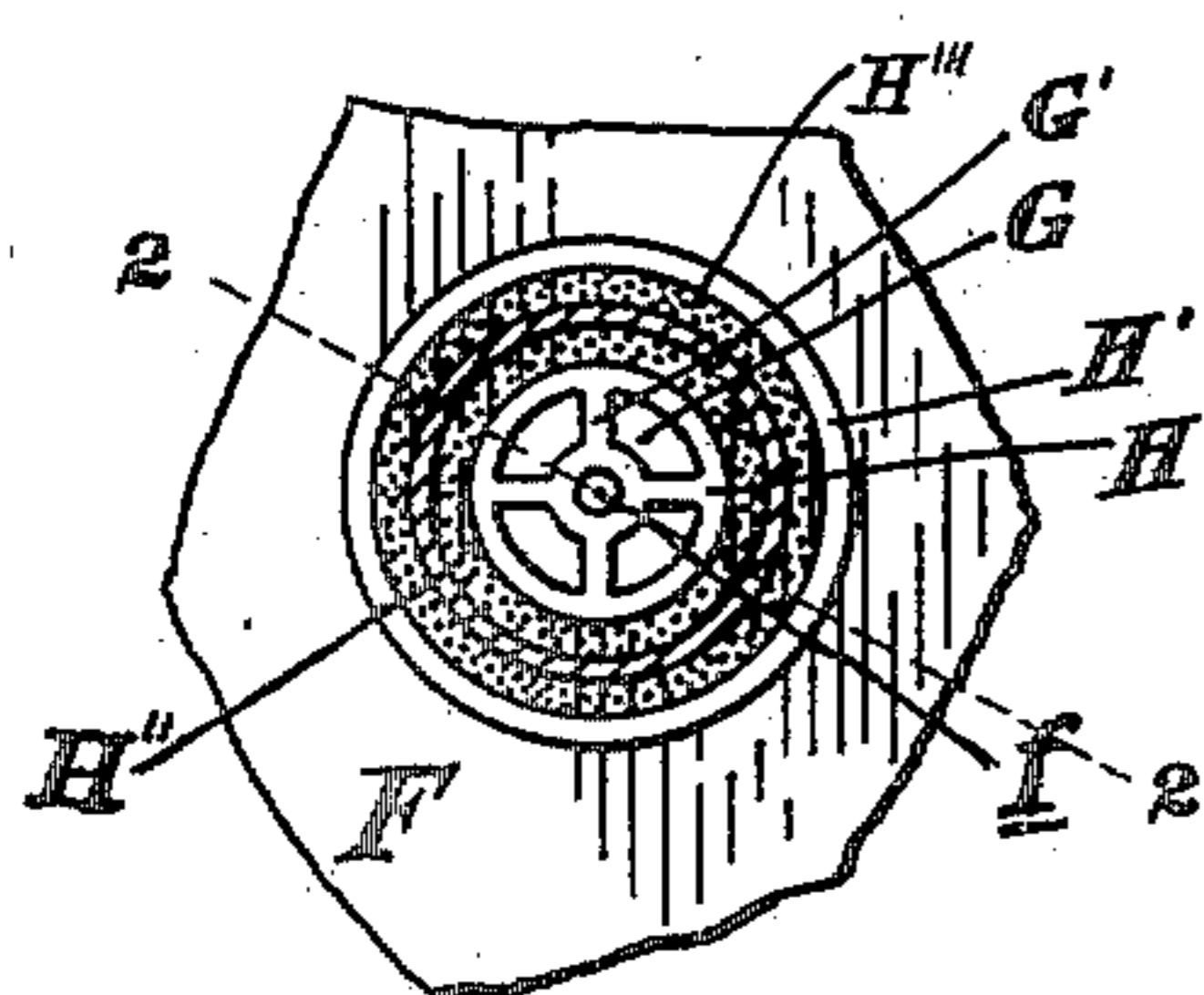
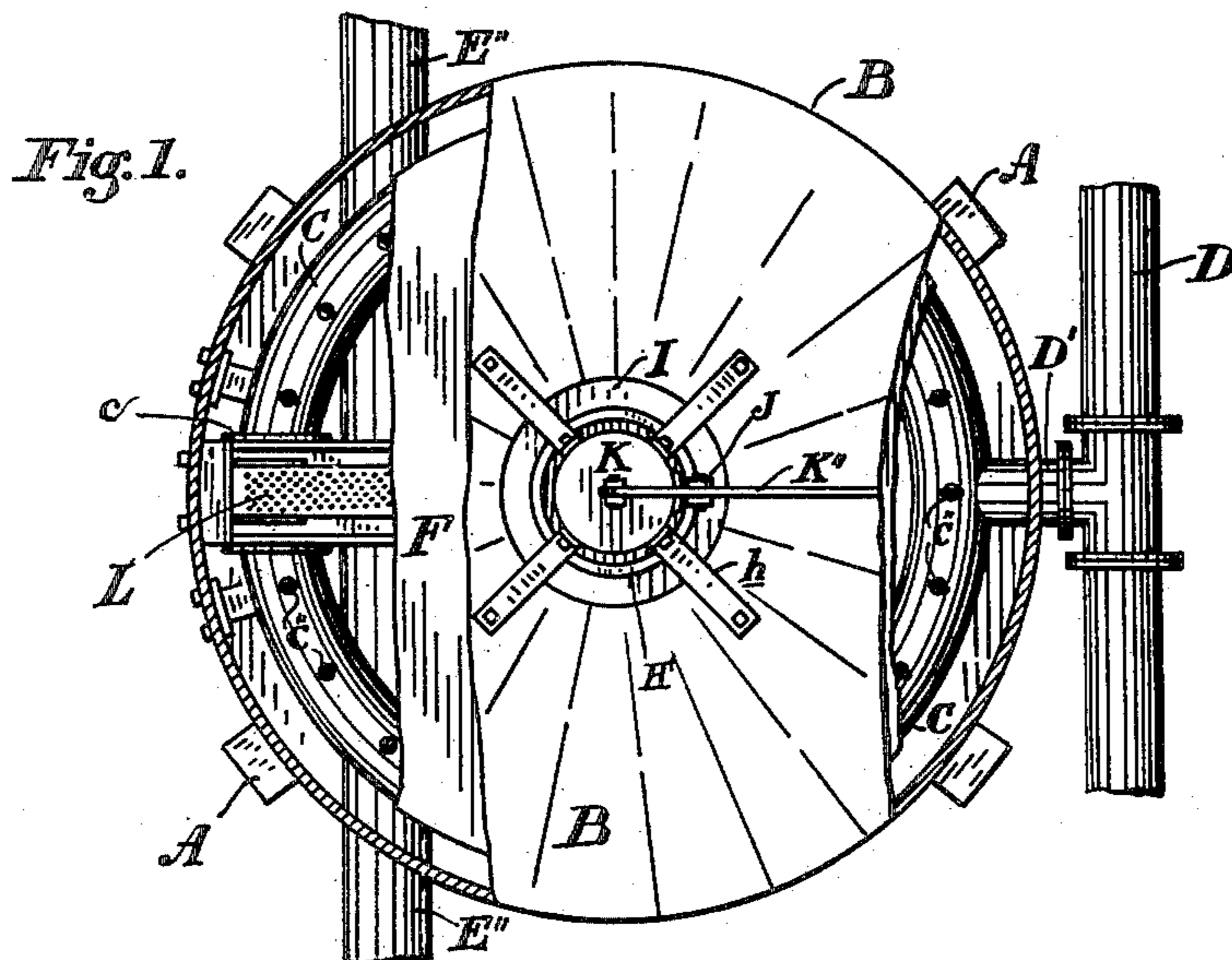
No. 668,045.

Patented Feb. 12, 1901.

L. HOUZE & C. DHÉ.  
APPARATUS FOR MAKING LAMPBLACK.

(Application filed June 27, 1900.)

(No Model.)



WITNESSES,

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# UNITED STATES PATENT OFFICE.

LUC HOuze, OF MONTPELIER, AND CHARLES DHÉ, OF HARTFORD CITY,  
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## APPARATUS FOR MAKING LAMPBLACK.

SPECIFICATION forming part of Letters Patent No. 668,045, dated February 12, 1901.

Application filed June 27, 1900. Serial No. 21,712. (No model.)

*To all whom it may concern:*

Be it known that we, LUC HOuze, a resident of Montpelier, and CHARLES DHÉ, a resident of Hartford City, county of Blackford, and State of Indiana, citizens of the United States, have invented a new and useful Lampblack Apparatus, of which the following is a specification.

The aim and purpose of this invention is to provide a lampblack apparatus so constructed that the greatest amount of black will be produced from a flame and deposited on the collecting-plate. As is well known, in producing lampblack it is necessary to regulate the amount of air which passes to the flame to procure the best results and the maximum amount of black therefrom.

The object of this invention is to provide an apparatus with means to regulate the amount of air which passes to the flame and place the flame in a closed combustion-chamber, so that the amount of air can be positively regulated and varied to suit the different requirements of the flame and produce the greatest amount of black.

A further object is to dispense with cooling devices for the collecting-plate and at the same time heat the air.

These and other objects not hereinbefore mentioned are accomplished by the construction illustrated in the accompanying drawings, wherein like letters of reference indicate corresponding parts in the several views, and in which—

Figure 1 is a top plan view of our apparatus, parts being broken away. Fig. 2 is a vertical central longitudinal section through Fig. 1 and on the line 2 2 of Fig. 3; and Fig. 3 is a detail top plan view of the central portion of the collecting-plate, showing the chimney in section and looking downward from the line 3 3, Fig. 2.

In the drawings, A designates a suitable foundation, on which rests a receptacle or combustion-chamber B. Within this chamber is an annular pipe C, which is supported by brackets C'. The pipe C is provided with a series of jets C''. The pipe C is provided with gas from a supply-pipe D, which has a branch pipe D' leading therefrom to the pipe C. The pipe C is not continuous entirely

around the chamber, but is broken, leaving a space. The ends of the pipe where broken are covered with a cap c. Within this space is located the collecting-chamber E. This chamber has inclined end walls, terminating in a trough E'. This trough E' connects with a pipe E''. The lampblack after being formed, as hereinafter described, is carried from the trough through the pipe in any suitable well-known manner. (Not shown.)

Above the jets or burners on the pipe C is positioned the collecting-plate F. This plate is supported by the shaft F' and is adapted to be revolved by means of the pulley F'' on the outside of the combustion-chamber. While we have shown this means of revolving the plate, we do not desire to limit ourselves to this style, as it is obvious that the plate might be revolved in any suitable manner, or, in fact, the plate might be stationary and the burners revolve and still be within the spirit of our invention.

As before stated, in producing lampblack it is absolutely necessary to control the amount of air which reaches the flame to produce good results, and for that reason it is necessary to have an opening in the combustion-chamber for the ingress of air and an opening for the egress of air. The collecting-plate, at its center, is provided with an opening G. (Plainly shown in Fig. 3.) Extending across this opening at right angles to each other are two webs G'. The shaft F', at its upper end, is reduced, forming a pin f. This pin extends upwardly through the webs at their meeting-point, thereby supporting the plate, as plainly shown in Figs. 2 and 3. Around this opening are two concentric annular flanges H and H', respectively, forming a groove, in which the lower end of the chimney H'' is placed. This chimney is supported by the braces h, which are connected to the outside of the chimney and rest upon the top of the combustion-chamber. The lower end of the chimney rests in a sand packing H''', so as to make a tight joint between the same and plate. In operation the plate will revolve so slowly that the sand will not be disturbed and the joint will always be sealed thereby.

On the top of the chimney is located a damper K for controlling the amount of air to be

fed to the burners. This damper is of a size to fit snugly over the top of the chimney, if desired, and is supported and operated by means of a link K', which has its upper end  
 5 pivoted to the end of a lever K'', which is pivoted on a bracket J, secured to the chimney. This lever is operated by means of a handle J'. By this construction it will be readily seen that the damper can be moved  
 10 to control the opening in the chimney and the amount of air which is fed to the flames.

The top of the combustion-chamber does not extend to the sides of the chimney, leaving an annular opening I for the ingress of  
 15 air directly above and adjacent the center of the collecting-plate. The collecting-plate has a diameter less than the diameter of the combustion-chamber, leaving an annular opening I' between the periphery of the plate and  
 20 inner side of the chamber. By this construction there will be a passage-way I'' directly above the top of the plate, leading from the opening I to the opening I' and extending practically all over the plate.

It will readily be seen that the air will follow the course indicated by the arrows, Fig. 2, and that the air will first pass over the plate, then around the periphery of the plate and under the same to the burners, and then  
 30 to the center and out through the chimney. The burners being located near the edge or periphery of the plate and the opening for the escape of the air near the center thereof, the air first passing over the burners and then  
 35 to the central opening, the flames will have a tendency to spread entirely over the bottom of the plate, thereby making an even deposit and producing the greatest amount of black.

By having the opening for the air directly  
 40 above the plate and providing the passage-way so that the air will first pass over the plate before reaching the burners it will readily be seen that the air will not only be heated, making a better combustion for the flames,  
 45 but that the cool air as it first comes into the chamber will cool the plate, making it unnecessary to use water or other objectionable means for cooling.

We intend in the manufacture of lamp-  
 50 black to use a number of these apparatus in a room, and by forming each combustion-chamber to be closed with an independent air-controlling device we can control each chamber separately and procure the maximum amount  
 55 of lampblack from each chamber.

Located in the collecting-chamber E is a collecting-brush L, which bears against the plate F, as plainly shown in Fig. 2. This brush is supported by a base-plate L'. The  
 60 opposite ends of the base-plate are supported

by brackets L'', secured to the end walls of the collecting-chamber. The inner end and side walls of the collecting-chamber extend up close to the under side of the collecting-plate, as shown at l, Fig. 2. The front side  
 65 wall of the collecting-chamber is bent inwardly to bear against the under side of the collecting-plate, as shown at l', Fig. 2. By this construction no air can escape or leak in through the collecting-chamber. The means  
 70 for collecting the black and conveying it from the trough can be varied at will, as it is obvious that it forms no part of the present invention.

We are aware that many minor changes  
 75 can be made in the construction and arrangement of parts without in the least departing from the nature and principles of our invention.

Having thus described our invention, what  
 80 we claim, and desire to secure by Letters Patent, is—

1. In a lampblack apparatus, the combination with a combustion-chamber, of a collecting-plate in the chamber located near the top  
 85 of the combustion-chamber and formed with a central opening, the top of the chamber and plate forming a passage-way between the same, a passage-way between the edge of the plate and side of the chamber leading to the  
 90 passage-way between the top and plate, burners under the plate, a chimney over the central opening of the plate and an opening in the top of the chamber located over the plate and leading to the passage-way between the  
 95 top and collecting-plate.

2. In a lampblack apparatus, the combination with a combustion-chamber, of a collecting-plate in the chamber located near the top  
 100 of the combustion-chamber and provided with a central opening, the top of the chamber and plate forming a passage-way between the same, a passage-way between the edge of the plate and side of the chamber connecting with  
 105 the passage-way between the top and plate, a chimney over the central opening of the plate, an opening in the top of the chamber located over the central portion of the plate and leading to the passage-way between the top and  
 110 collecting-plate, and a series of burners located under the plate and adjacent the outer edge thereof.

In testimony whereof we have hereunto set our signatures in the presence of two witnesses.

LUC HOUZE.  
 CHARLES DHÉ.

Witnesses:

JOHN A. BONHAM,  
 JESSIE A. MARLAY.