

(No Model.)

2 Sheets—Sheet 1.

H. B. ROGERS.

WASHING MACHINE.

No. 328,432.

Patented Oct. 13, 1885.

Fig. 1.

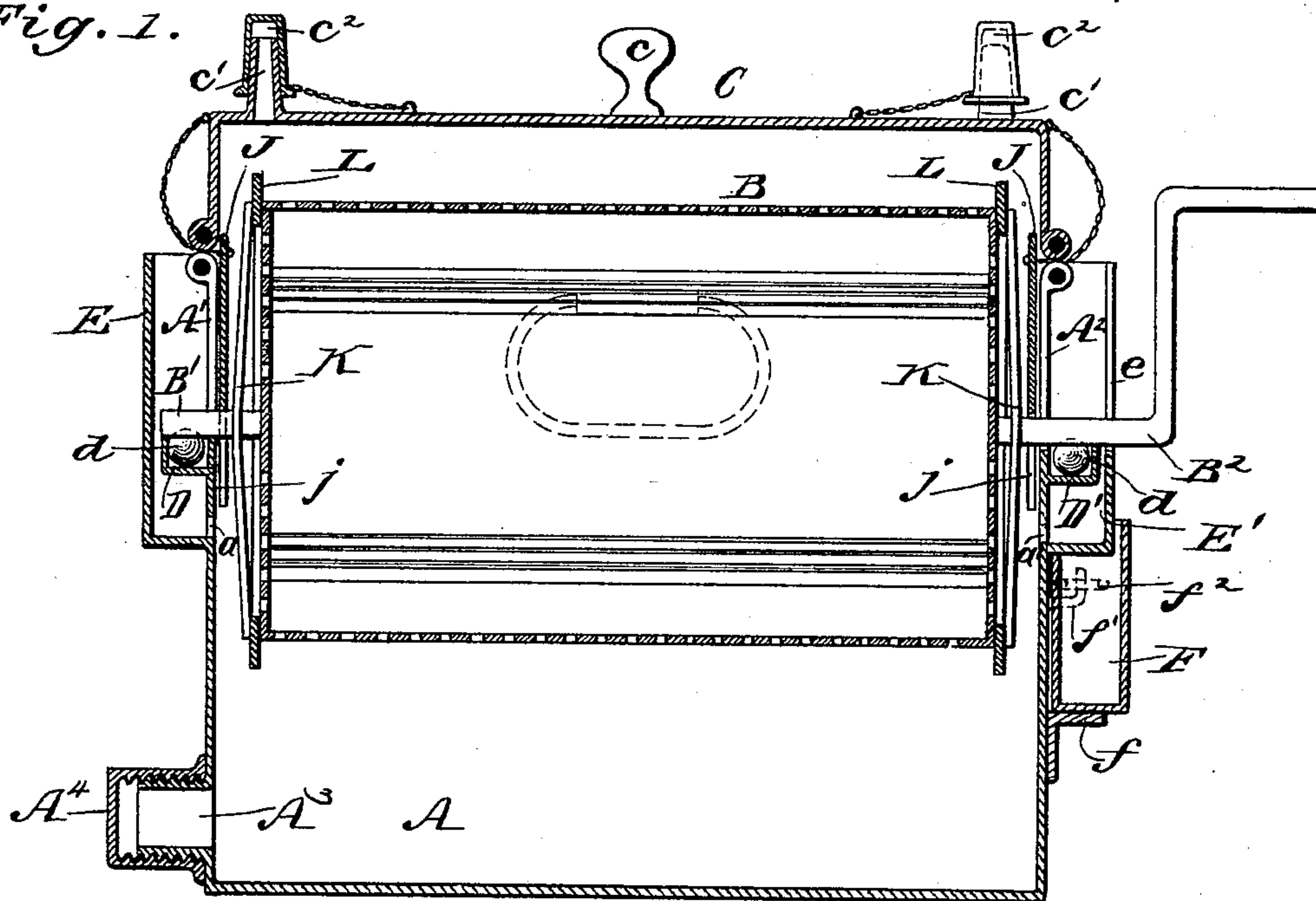
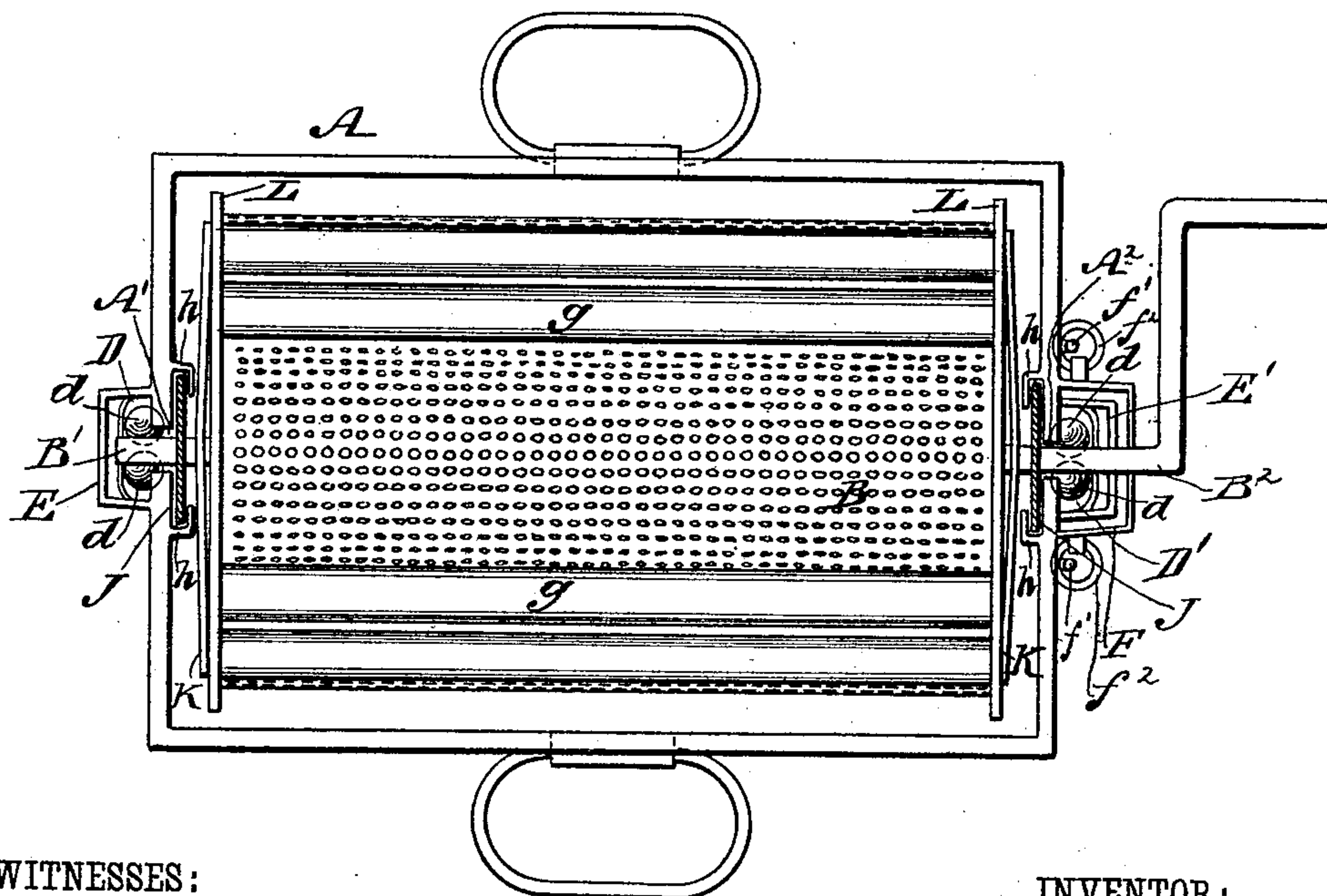


Fig. 2.



WITNESSES:

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INVENTOR:

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ATTORNEYS.

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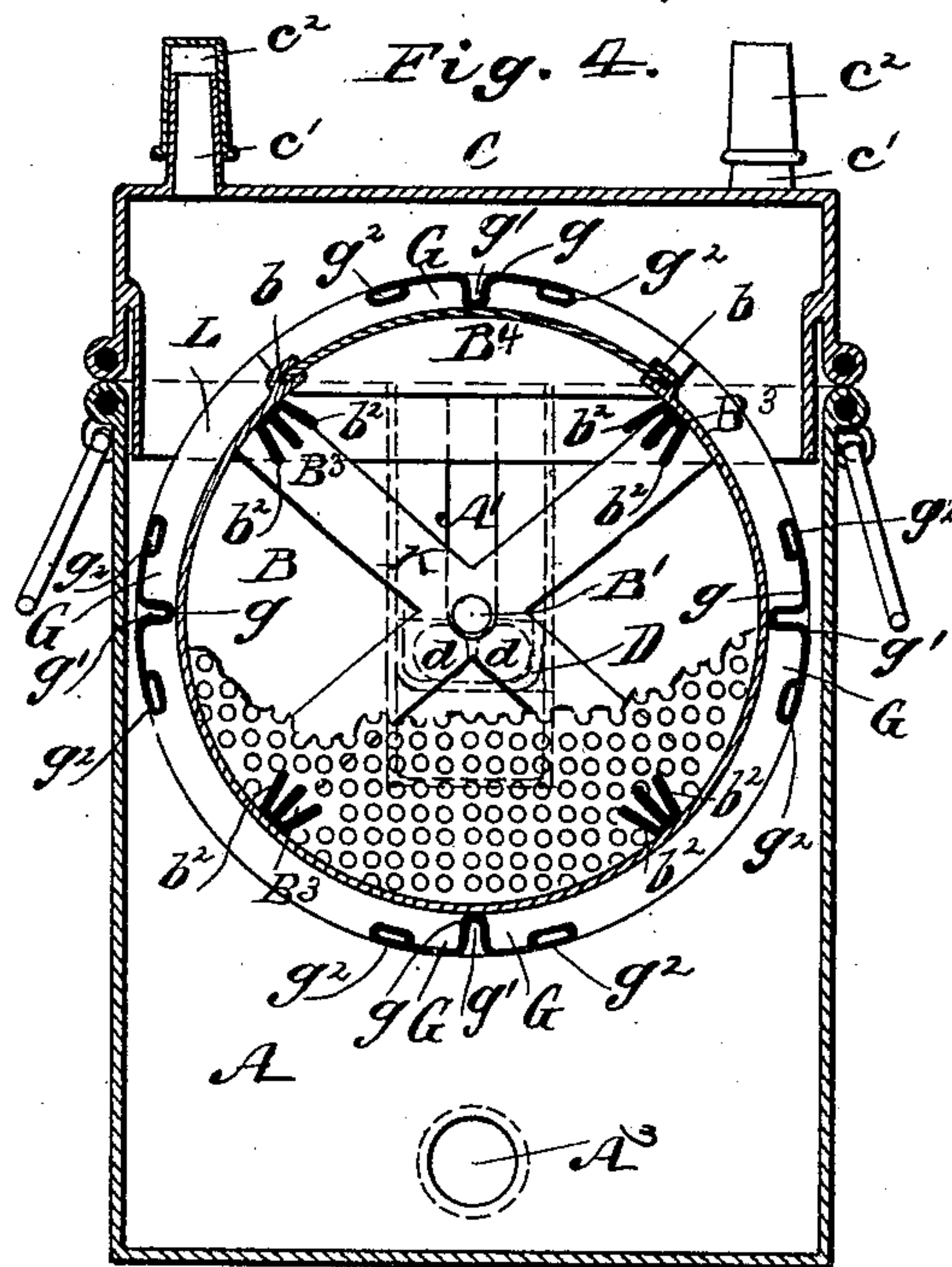
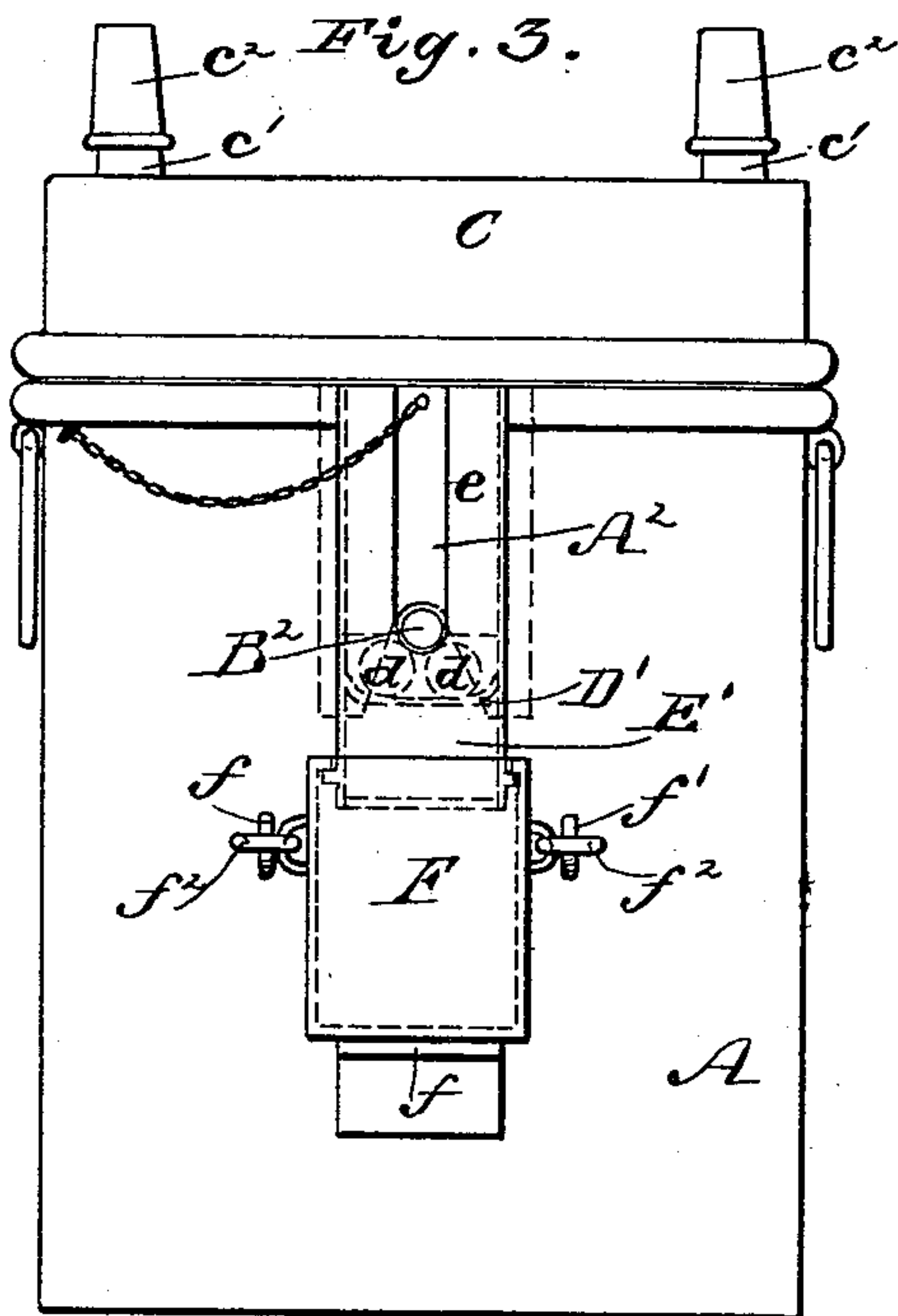


Fig. 5.

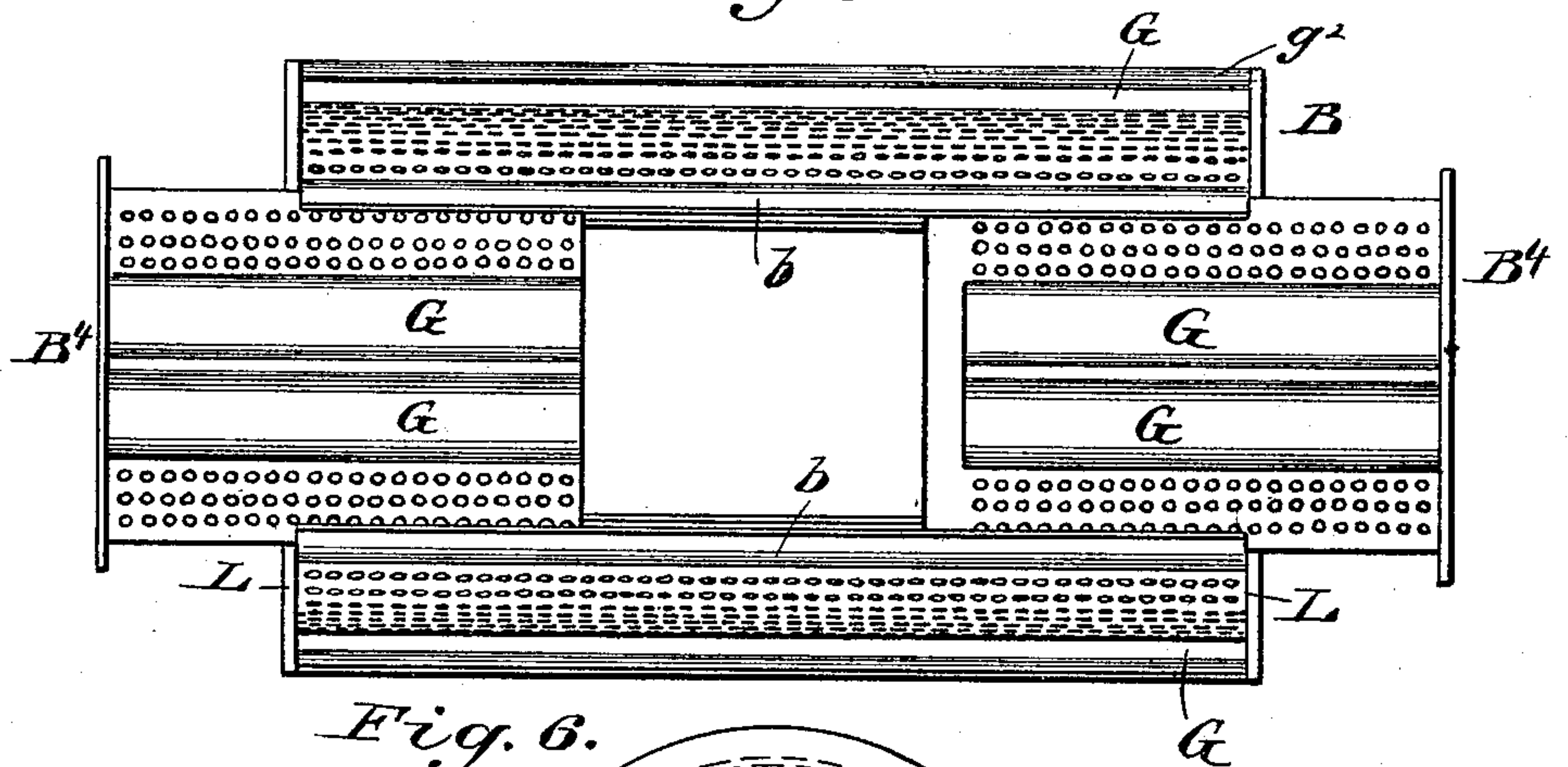
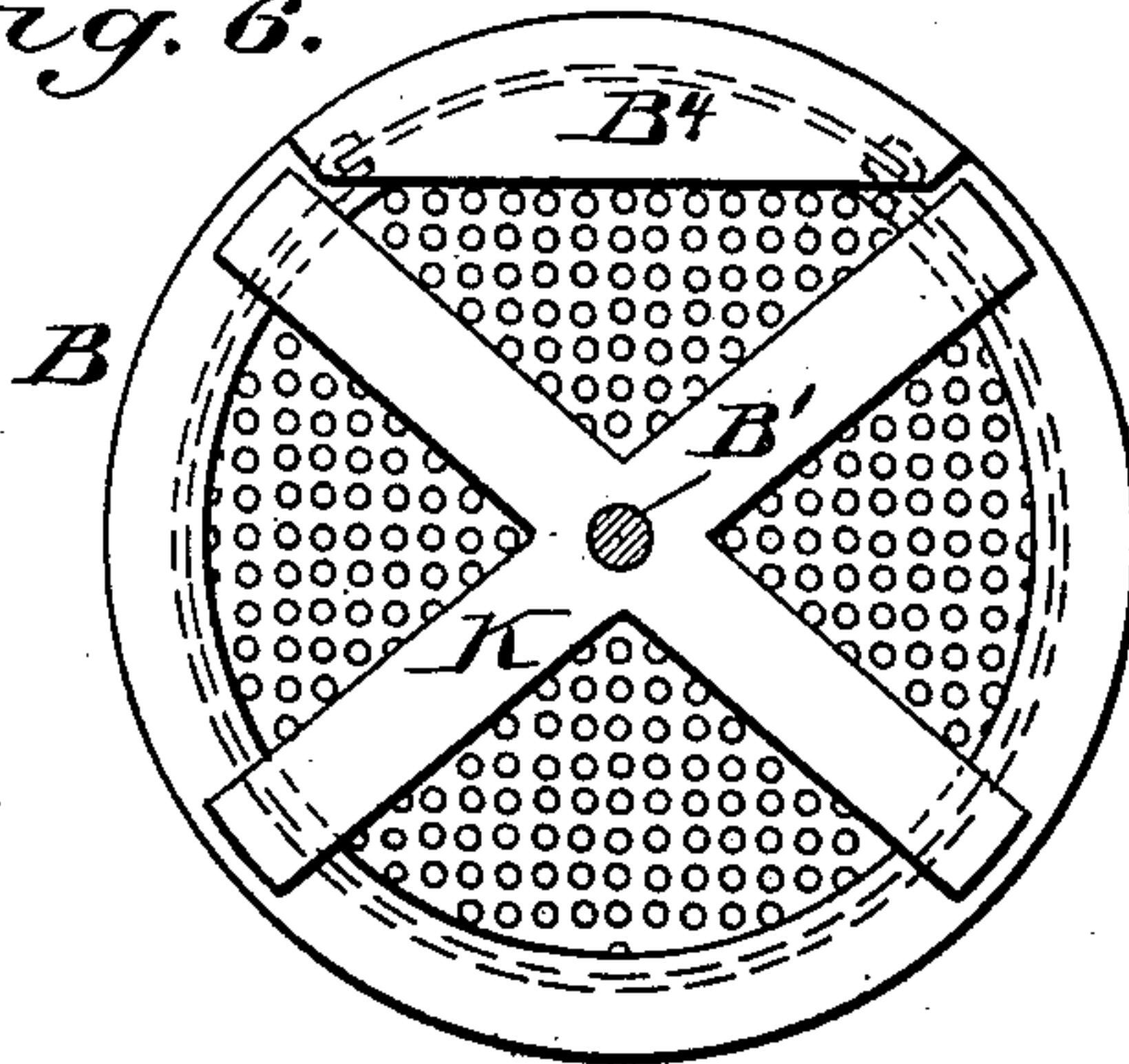


Fig. 6.



WITNESSES:

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UNITED STATES PATENT OFFICE.

HENRY B. ROGERS, OF MARSHALL, MISSOURI.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 328,432, dated October 13, 1885.

Application filed February 3, 1885. Serial No. 154,826. (No model.)

To all whom it may concern:

Be it known that I, HENRY B. ROGERS, of Marshall, in the county of Saline and State of Missouri, have invented a new and Improved Washing-Machine, of which the following is a full, clear, and exact description.

My invention relates to a washing-machine wherein a revolving perforated drum is used, placed in a boiler or reservoir, the clothes to be washed being placed within the perforated drum; and the invention consists of the construction, arrangement, and combination of parts, all as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a central sectional elevation of my new and improved washing-machine. Fig. 2 is a plan view thereof, the cover being removed. Fig. 3 is an end elevation of the washing-machine. Fig. 4 is a transverse sectional elevation. Fig. 5 is a plan view of the perforated drum removed from the reservoir and the cover partly removed, and Fig. 6 is an end elevation of the drum.

A represents the reservoir, B the perforated drum, and C is the cover of the reservoir, which cover is provided with knob *c*, for lifting it, and with the escape-tube *c'*, adapted to be closed by caps *c''* for regulating the pressure of steam inside of the reservoir A.

The reservoir A is correspondingly slotted at its opposite ends, as shown at *A'* *A''*, to receive the gudgeon and crank-shaft *B'* *B''* of the drum B. Below the slots *A'*, upon the outside of the reservoir A, is formed the shallow box- ledges *D* *D'*, in which are placed the anti-friction balls *d*—two in each box—on which balls the gudgeon *B'* and crank *B''* rest, so that these shallow boxes and balls constitute anti-friction journals for the perforated drum B. Around the journal-box *D* and open slot *A'*, upon the end of the reservoir A, is formed upon the outside of the reservoir the box *E*, to catch any suds or water that may find its way through the slot *A'*, and at the bottom of the box *E* is formed through the end wall of the reservoir the return-opening *a*, for conducting back into the reservoir any water or suds that may find its way into the box *E*. At the other end of the reservoir A, around the jour-

nal-box *D'* and slot *A''*, is secured to the outside of the reservoir the box *E'*, to catch any water or suds that may issue from the slot *A''*, and at the bottom of this box is formed through the wall of the reservoir the opening *a'*, for returning the water or suds in the box to the interior of the reservoir. The box *E'* is slotted, as shown at *e*, to permit the passage of the crank-shaft *B''*, and below the box *E'* is attached to the outside of the reservoir A the box or cup *F*, to catch any water or suds that may overflow the box *E'*. In this instance the box *F* is held in place by the ledge *f* and the hooks *f'* *f''*, secured to the end wall of the reservoir, and the side rings, *f''* *f'''*, secured to the box *F*, as shown clearly in Figs. 2 and 3.

The drum B is made cylindrical in form and preferably of finely perforated galvanized iron. The covers or doors *B'* *B''* are made concaved, and they slide in flanges *b* *b'*, so that the drum may be opened by drawing the covers outward away from each other, as illustrated in Fig. 5. Within the drum B is secured, to the inner surface thereof, the ribs or agitators *B'*. These are formed of two or more (three, in this instance) parallel ribs, *b''*, that form troughs between them, so that when clothes are placed in the drum and water in the reservoir and the drum revolved the ribs or agitators not only agitate the clothes by raising and dropping them as the drum revolves, but also carry water and suds up in the troughs between the ribs and keep a continual flow or fall of water upon the clothes, which is very effective in removing the dirt from them. Upon the outer surface of the drum B, I form the water-elevators *G* *G'*, which as the drum revolves elevates water and suds to the upper part of the drum and causes it to pass through the perforations of the drum and fall almost continuously upon the clothes within, which is also very effective in removing the dirt.

For closing the slots *A'* *A''* in the ends of the reservoir A, to prevent as much as possible the escape of water, I secure to the end walls of the reservoir, upon the inside, the flanges *h* *h'*, and provide the sliding plates *J* *J'*, which are adapted to be shoved down between the flanges *h*, as shown in Figs. 1 and 2. The plates *J* are each notched at the lower end, as shown at *j*, to straddle the gudgeon *B'* and crank-shaft *B''*, as shown in Fig. 1.

The ends of the drum B are strengthened by the spider-pieces K, the arms of which are secured to the end rings, L, which are of greater external diameter than the drum B, so that they form flanges to the drum, as shown clearly in Fig. 2, and the elevators G are formed by securing to and between these flanges L plates g, of galvanized metal, bent in the center, as shown at g', and folded at their edges, as shown at g², to stiffen and strengthen the elevators.

In use the clothing to be washed will be placed in the drum B through doors B¹ B⁴ and these doors closed. Then the cylinder will be placed in the reservoir A and the reservoir supplied with soap and water to submerge the lower part of the drum. Then the whole will be placed upon the stove and heated and the drum revolved in the mean time by the crank B². The revolution of the drum will agitate the clothes, and the ribs b² will raise them and let them fall, and will also cause the water to fall upon them as the drum revolves, and the elevators G will also elevate

water to drop upon the clothes, so that by constantly revolving the drum the clothes will be washed clean in a very short space of time.

An opening, A³, closed by cap A⁴, is provided in reservoir A for drawing the water from the reservoir after the washing is finished.

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

1. The combination, with the reservoir A, provided with box E', of the separate box F, adapted to be held below the box E' to catch any water or suds that may issue from the box E', substantially as described.

2. The reservoir A, provided with the ledge f and hooks f', in combination with the box F, provided with rings f², substantially as and for the purposes set forth.

HENRY B. ROGERS.

Witnesses:

JAMES W. REID,
JAC. VANDYKE.