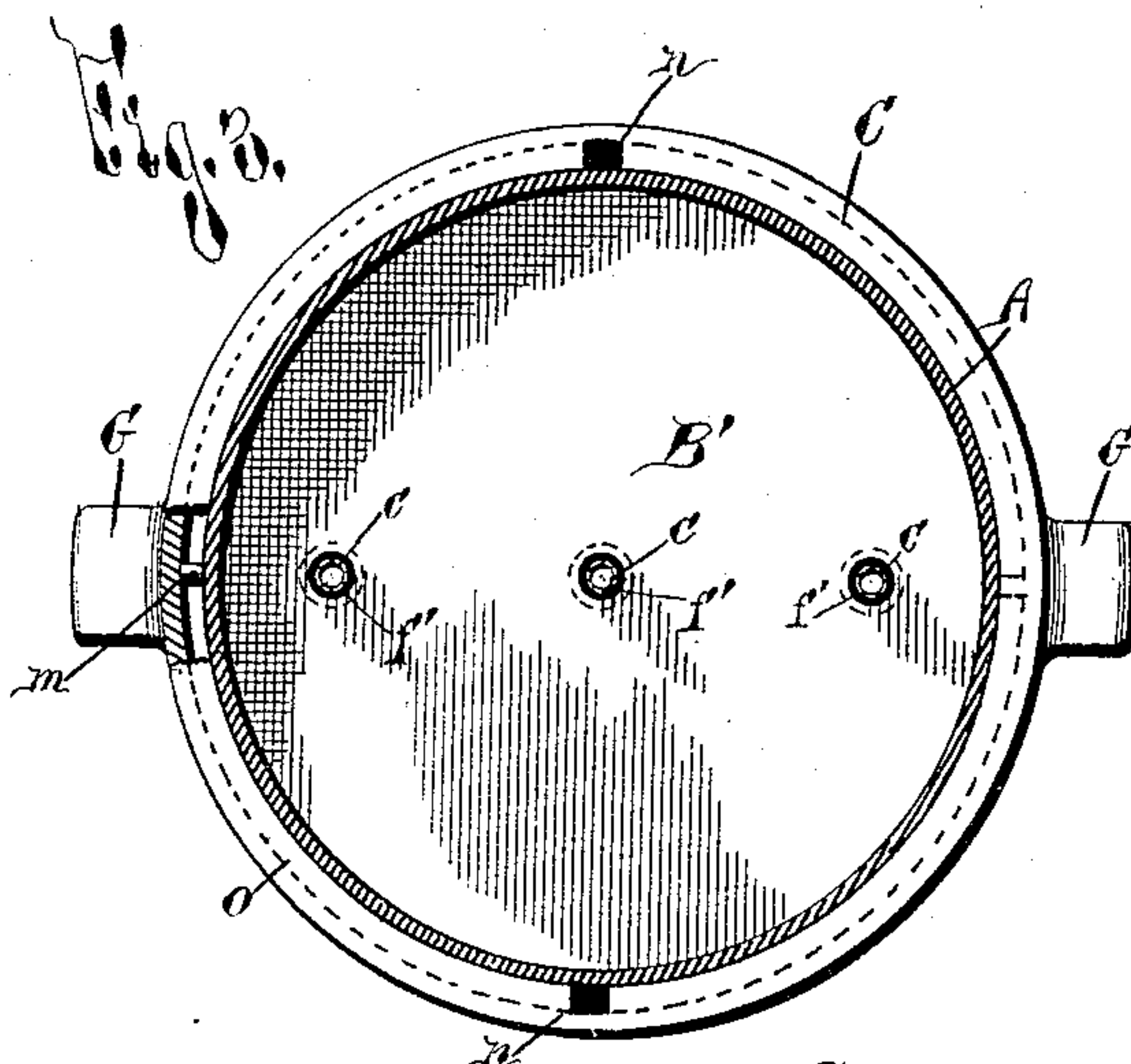
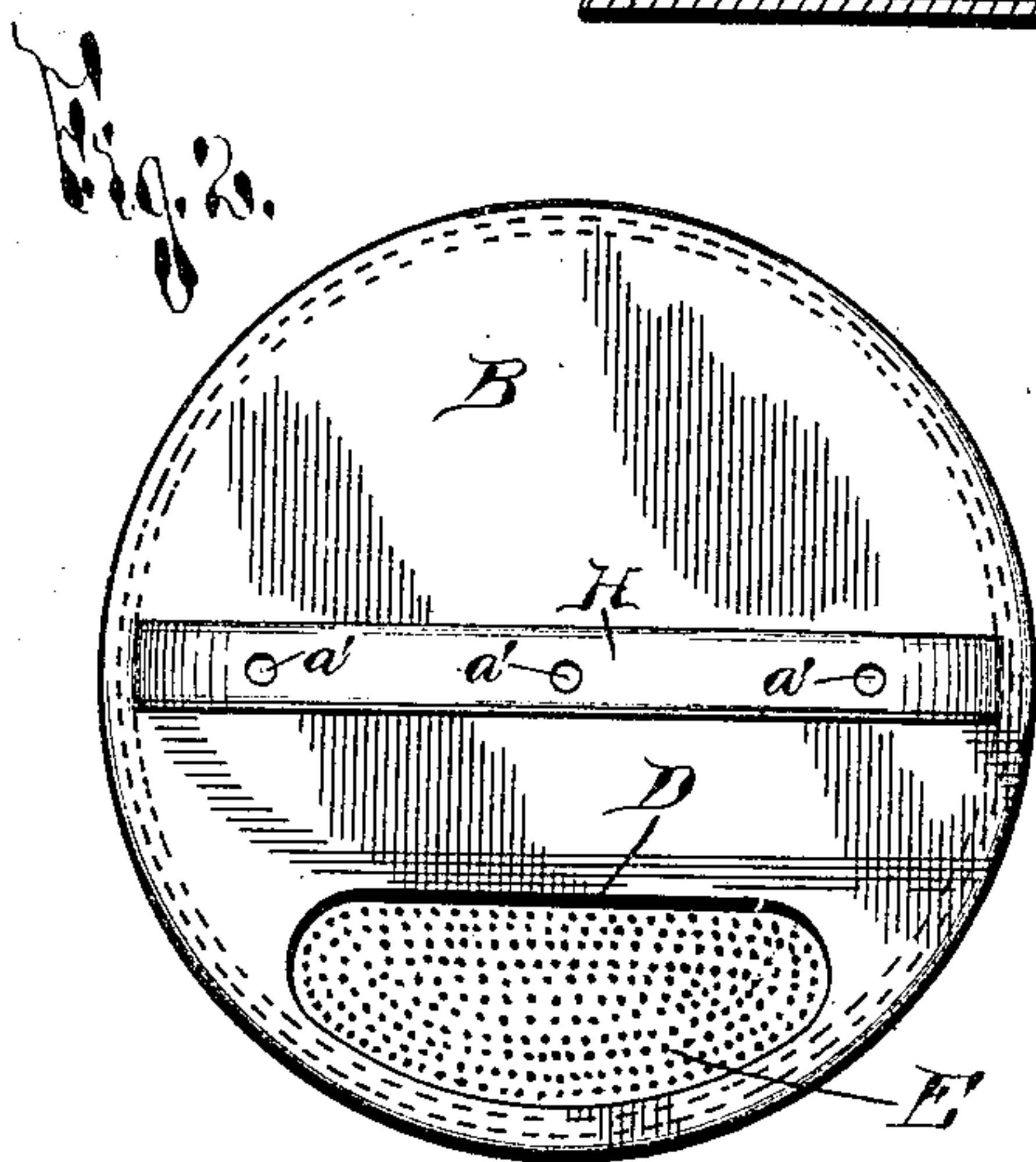
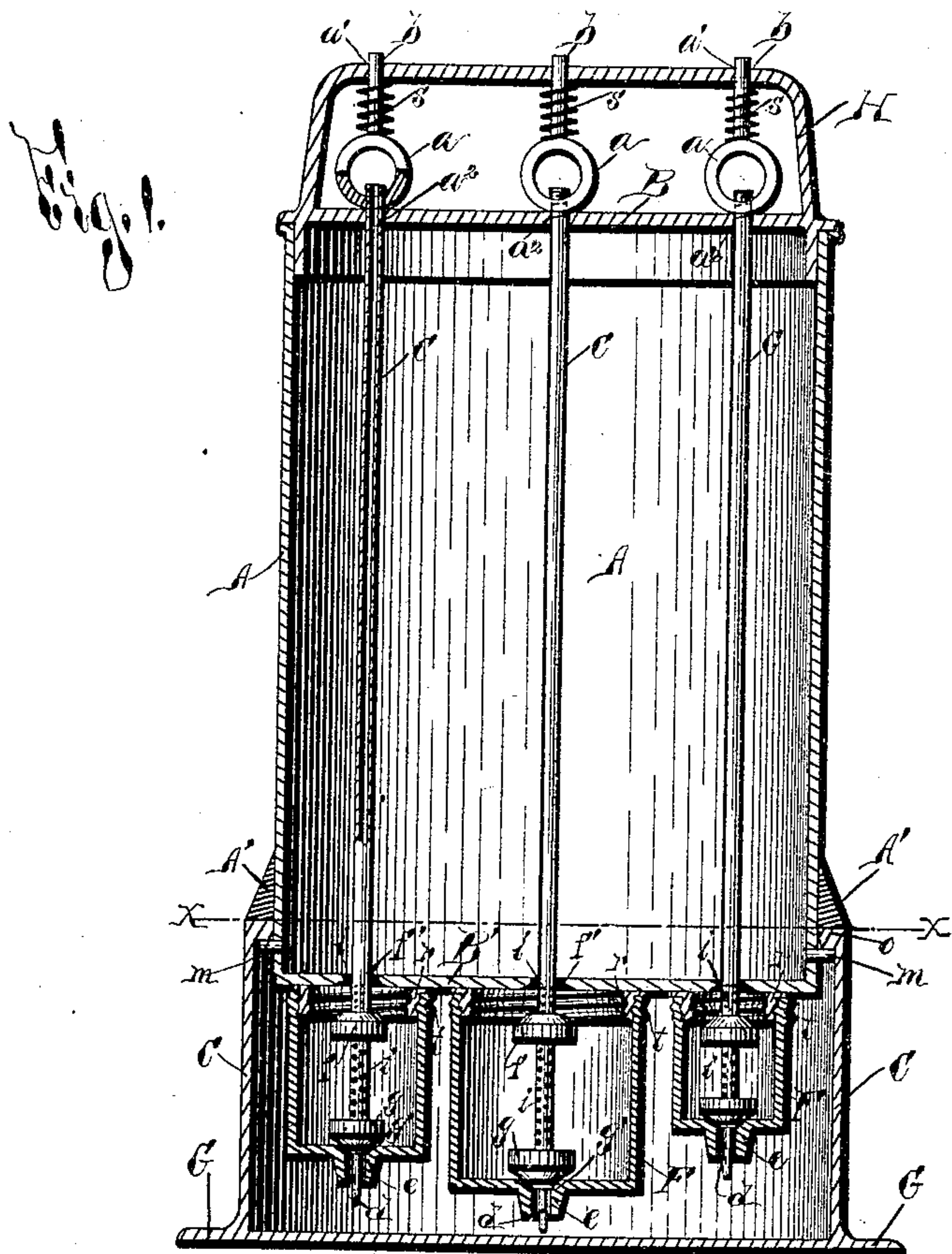


(No Model.)

R. EAGAN.
MEASURING MILK CAN.

No. 397,788.

Patented Feb. 12, 1889.



Witnesses,
M. J. Parsons,
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UNITED STATES PATENT OFFICE.

RICHARD EAGAN, OF SYRACUSE, NEW YORK.

MEASURING MILK-CAN.

SPECIFICATION forming part of Letters Patent No. 397,788, dated February 12, 1889.

Application filed May 21, 1888. Serial No. 274,544. (No model.)

To all whom it may concern:

Be it known that I, RICHARD EAGAN, of the city of Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Milk-Cans, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

My invention relates to improvements in milk-cans of the class in which measuring-receptacles are secured underneath a portable fount or reservoir in which a supply of milk is kept, and the said measuring-receptacles are filled and discharged automatically through the medium of valves attached to a spindle operated by a finger-piece secured to the handle; and my improvement consists in the detail construction and arrangement of the parts, all as hereinafter more particularly described, and pointed out in the claims, whereby a much better measuring milk-can is produced than has been heretofore made.

In specifying my invention reference is had to the accompanying drawings, forming a part of this specification, in which, like letters of reference indicating corresponding parts in all the views, Figure 1 is a vertical section illustrating the general construction and arrangement of the parts. Fig. 2 is a top plan view of the top of the milk reservoir or fount detached, showing more particularly the opening and strainer in the top for the admission of the milk to the reservoir. Fig. 3 is a transverse section taken on the line $x x$ in Fig. 1, illustrating the interior construction of the milk-can and the tubular spindles which carry the operating-valves.

The letter A represents the milk reservoir or fount of the milk-can, which may be constructed of any desired size and shape. The milk-reservoir A is provided with the top B and the bottom B', as best shown in Fig. 1, the top B being provided with holes a^2 , through which pass the spindles which carry the valves opening into the measuring-receptacles F, secured to the bottom B' of the can A. The bottom B' is provided with valve-seats f' , Fig. 1, for valves f , mounted on a valve-stem, c , which will be presently explained. The measuring-receptacles F are secured to the bottom B' of the milk-can A, and are of different

sizes—say one having the capacity of a quart, another the capacity of a pint, and so on—according as desired, for measuring out milk. The measuring-receptacles F are secured to the can A in a threaded socket, r , as shown in Fig. 1, the upper part of the measuring-receptacle being provided with a thread, t , Fig. 1, which engages with the thread r , depending from the bottom of the can A.

The object of attaching the measuring-receptacles to the can A in the manner described is for the purpose of allowing the ready removal of the measuring-receptacles when it is desired to cleanse the same, and the described means afford a most desirable securing attachment for this purpose, since either measuring-receptacle can be securely attached and readily detached from the milk-can A.

In devices of this character as heretofore made and patented a difficulty has existed in the arrangement of the valves, which are usually attached to a rod at a distance apart sufficient to permit the closing of the opening which leads from the milk-can into the measuring-receptacle when the exit-valve in the bottom of the measuring-receptacle is opened to let out the milk therein, for the reason that, owing to the construction of the valves, a leakage would occur, and thereby the accuracy of the measuring-receptacle was practically destroyed. In order to overcome this defect, I mount the valves upon the stem extending directly through the measuring-receptacle, the lower end, d , of said stem fitting in the exit-nozzle e and serving to guide the valve-stem centrally in its vertical movement, thereby keeping the valve practically in line with its seat and preventing displacement when the valves are operated. I also secure the upper valve, f , to the stem in suitable proximity to its seat, f' , which is formed in the bottom of the can A with considerable flare, so that when the valve g is opened the valve f immediately enters its seat, f' , and thereby shuts off the flow of milk from the reservoir or can A into the measuring-receptacle, and an accurate measurement is thereby secured. It will be observed that the form of the valve and its seat largely contributes to the efficiency of the arrangement, and the difficulties due to the construction and ar-

rangement of the valves in the prior devices are entirely overcome.

In order to permit the operator to readily control the delivery of milk from the measuring-receptacle, the valve-stem *c* is provided with the finger-ring *a* in suitable proximity to the handle *H* of the can to make it convenient to grasp the ring *a* while the hand holds the can by the handle *H* and operates the valve by simply drawing upon the ring. A stem, *b*, extending upwardly from the ring *a*, passes through a hole, *a'*, in the handle *H* of the can, and a spiral spring, *s*, mounted on the stem *b*, serves to force back the spindle *c*, thereby closing the valve *g* in the measuring-receptacle *F* and opening the valve *f*, and the measuring-receptacle *F* is immediately refilled with milk from the can *A*. Thus it will be observed that the delivery of milk from the measuring-receptacle is readily accomplished by simply drawing up on the ring *a* in the manner described. If the receptacle *A* were filled with milk and no means were provided to allow air to enter the measuring-receptacle secured underneath the can *A*, the milk would not escape from the measuring-receptacle, and the accuracy of measurement would again be defective. Therefore, in order to secure the necessary air-supply I make the spindle or valve-stem *c* hollow, as shown in Figs. 1 and 3, and perforate the space *i* above the valve *f* and between the valves *f* and *g* in the measuring-receptacle. By this construction the necessary supply of air is admitted into the measuring-receptacle and its effective operation is thereby secured.

In order to prevent the dripping of milk from the measuring-receptacles, and at the same time to protect the nozzles *e* of such receptacles from dirt, &c., and to afford a base which will maintain the milk-can in an upright position when not in use in delivering milk, I provide the cap *C*, Fig. 1, the said cap being provided with a rim, *o*, having the oppositely-arranged slots *n n*, Fig. 3, which allow the passage of pins *m m*, projecting from opposite sides of the can *A* near the bottom thereof, the said pins and slots affording interlocking means whereby the cap *C* is secured to the can *A*. A flanged rim, *A'*, is secured to the can *A*, as shown in Fig. 1, and affords a support for the cap *C*, while the steps *G G*, projecting from the base of the cap *C*, afford a bearing for the foot of the operator to enable him to remove the cap from the milk-can, which is accomplished by resting the device on the floor, placing the foot on the step *G*, and turning the can *A* by its handle *H* until the pins *m* register with the slots *n*, when the can *A* may be readily lifted from the cap and operated to measure and deliver milk automatically, as previously described. The handle *H* is preferably constructed as shown in Fig. 1; but I do not restrict myself to any specific form of construction, since this feature may be varied without departing from the spirit of my invention.

In the top *B* of my improved milk-can I provide an opening, *D*, into which I secure a strainer, *E*, as best shown in Fig. 2, said opening *D* and strainer *E* serving to allow the can *A* to be filled with milk. It will be observed that when the valve-stem *c* is pulled upwardly by means of the ring *a* the valve *f* enters the valve-seat *f'*, thereby closing the opening in the bottom of the milk-can *A*, while the valve *g* is withdrawn from its seat *g'*, and the exit-nozzle *e* is thereby opened, allowing the milk to flow from the measuring-receptacle, and then the valve *g* closes automatically by reason of the action of the spring *s* when pressure is removed from the ring *a*.

The device is simple in construction, effective in operation, and affords a very desirable means for measuring and delivering milk, producing considerable saving in the waste of milk incident to transferring it from the can to the measure and thence to a receptacle.

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

1. The combination of the can *A*, provided with measuring-receptacles depending below the bottom of the can, a valve mechanism, substantially as described, operated from the top of the can to control the flow of the milk from the can into the receptacles and from the receptacles, and a detachable cap for inclosing the measuring-receptacles, substantially as and for the purpose set forth.

2. The can *A*, having rim *A'* and pins *m*, in combination with the cap *C*, having rim *o*, slots *n n*, and steps *G*, and the measuring-receptacles *F*, having valves for controlling the flow of milk from the can into the receptacles and from the receptacles from the top of the can, all substantially as and for the purpose set forth.

3. The combination of the can *A*, handle *H*, rings *a*, having stems *b*, extending through holes *a'* in the handle *H*, spiral springs *s*, mounted on the stems *b*, valve-stems *c*, provided with valves *f g* in the measuring-receptacle *F*, the stem *c*, having ends *d* stepped in the discharge-nozzles *e*, substantially as and for the purpose set forth.

4. The combination of the can *A*, provided with the thread *r*, depending from the bottom *B'*, the receptacle *F*, having corresponding thread, *t*, valves *f g*, the combined air-tube and valve-stem *c*, the operating-ring *a*, located in convenient proximity to the handle *H*, and the detachable inclosing-cap *C*, all constructed and arranged substantially as and for the purpose set forth.

In testimony whereof I have hereunto signed my name, in the presence of two attesting witnesses, at Syracuse, in the county of Onondaga, in the State of New York, this 18th day of May, 1888.

RICHARD EAGAN.

Witnesses:

FREDERICK H. GIBBS,
E. WEISBURG.