

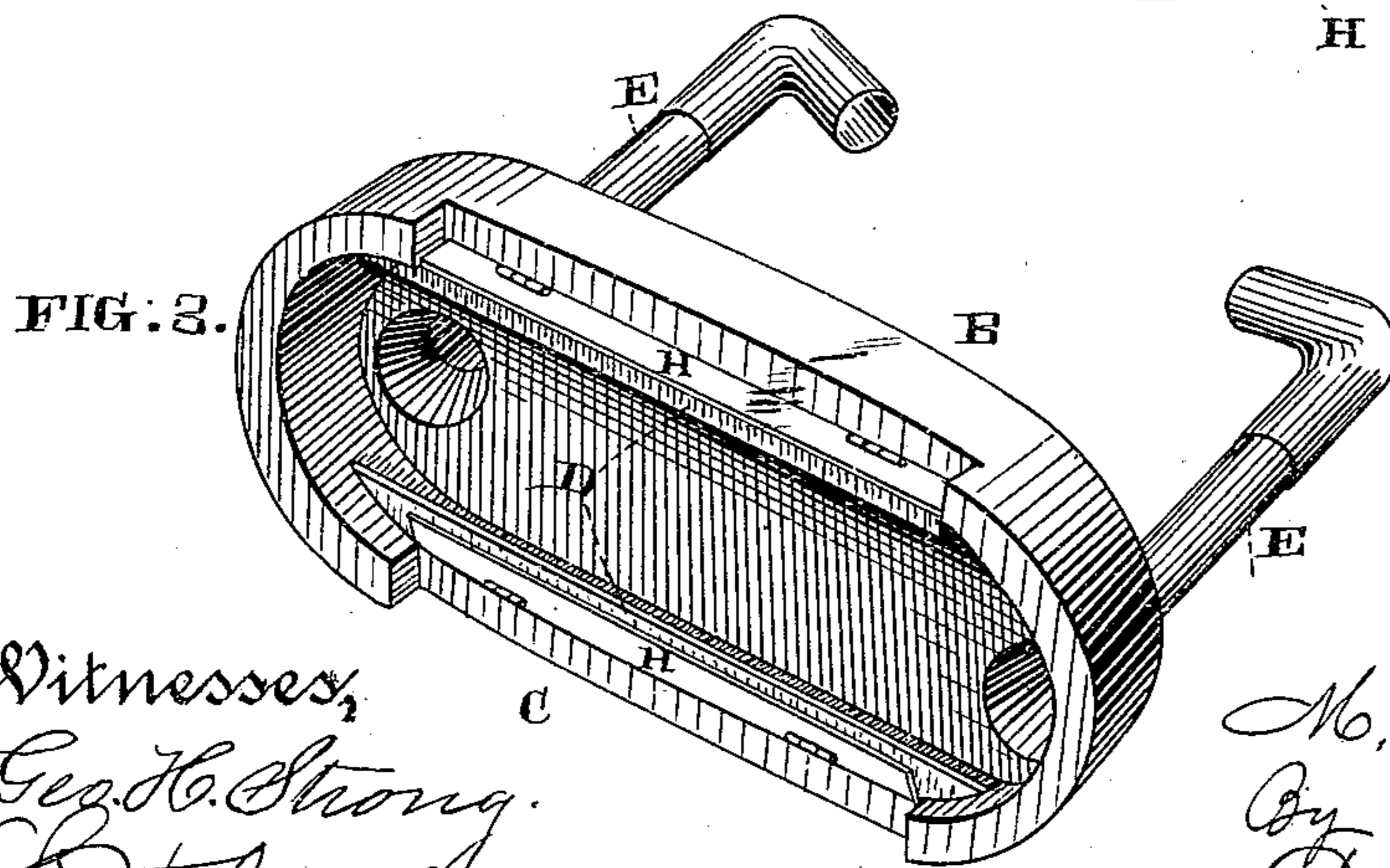
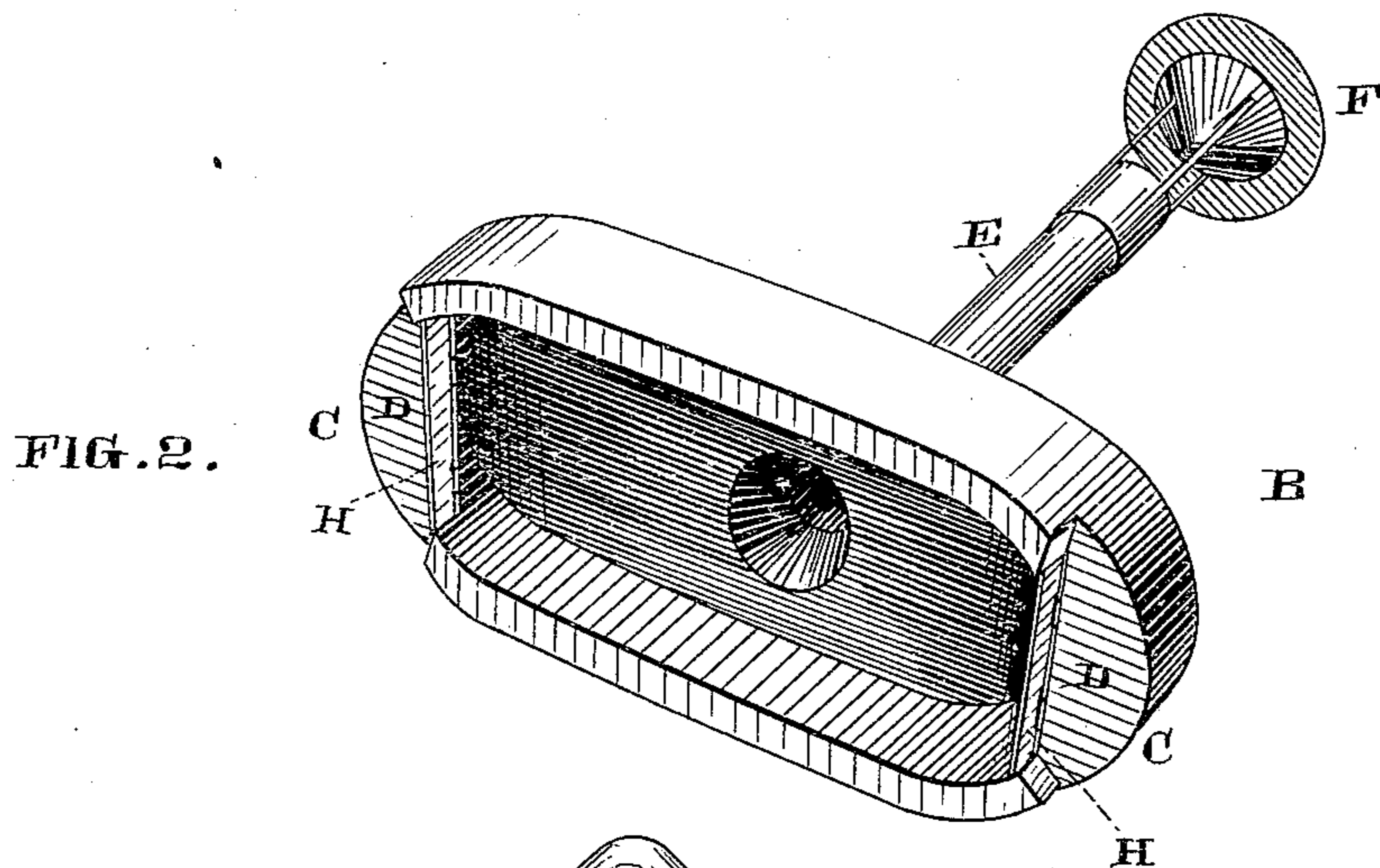
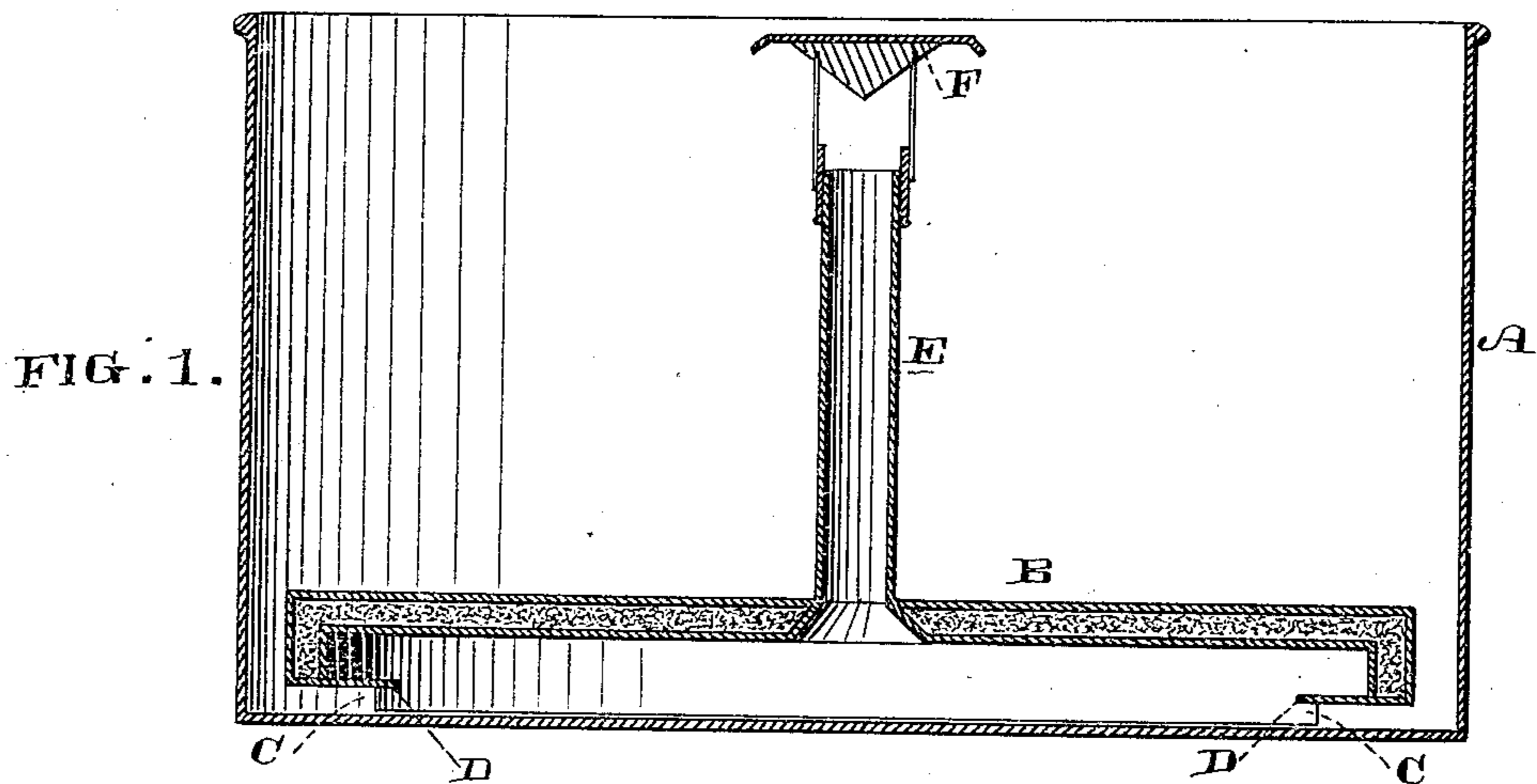
(No Model.)

M. F. D. C. DANNMEYER.

WASH BOILER.

No. 329,628.

Patented Nov. 3, 1885.



Witnesses,
Geo. H. Strong.
J. H. House.

Inventor,
M. F. D. C. Dannmeyer
By
Dewey & Co.
Attorneys

UNITED STATES PATENT OFFICE.

MARTIN F. D. C. DANNMEYER, OF SAN FRANCISCO, CALIFORNIA.

WASH-BOILER.

SPECIFICATION forming part of Letters Patent No. 329,628, dated November 3, 1885.

Application filed March 6, 1885. Serial No. 157,970. (No model.)

To all whom it may concern:

Be it known that I, MARTIN F. D. C. DANNMEYER, of the city and county of San Francisco, State of California, have invented an
5 Improvement in Wash-Boilers; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to certain improvements in wash-boilers or devices in which
10 clothes are cleansed by the operation of a continuous stream of hot water; and it consists of an outer inclosing case or boiler and an interior diaphragm formed with double walls and top, with a filling of non-conducting material,
15 this diaphragm resting upon the bottom of the outside boiler, and having a space beneath it and passages by which the water may pass from above into this space, with directing-plates and upwardly-extending pipes whereby
20 the circulation is maintained, all of which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 is a view of one form of my device. Fig. 2 is a perspective view. Fig. 3 shows the
25 arrangement for two water pipes or passages.

A is an exterior boiler or shell, of any suitable or desired size, which is fitted to receive water and clothing and to rest upon the stove, or to have an independent heater, as may be
30 best suited for the work to be done.

B is a device which is fitted to rest upon the bottom of the boiler. The top and walls of this device are made double, and a filling of non-conducting material is placed in the spaces thus
35 formed, so that little or no heat passes directly through the top and walls of this device. It is made a little smaller in every direction than the interior diameter of the boiler, and the sides extend downward, so that a space is left between
40 the bottom of the boiler and the top of this device. Either the sides, as shown in Fig. 1, or the ends, as shown in Fig. 2, are continued down, so as to rest upon the bottom of the boiler, while the intermediate portion forms
45 spaces, as shown at C, through which the water coming down around the sides of this device may pass freely into the spaces beneath it.

D D are horizontal plates, which extend a short distance inward toward the center from
50 the ends in Fig. 1, or from the sides, as in Fig.

2, and these serve to give direction to the inflowing current of water, so that it passes directly toward the center over the bottom of the boiler. Through the center or ends of the top, large openings are made, and pipes E extend upward to a point near the top of the boiler. In Fig. 1 I have shown a single pipe which extends upward from the center, and it has a deflecting-plate, F, supported above
55 its top, so that the water passing out through the top of the pipe strikes this deflector, and is by it thrown outward in every direction toward the sides of the boiler. In Fig. 2 I have shown two of these pipes, the upper ends of which may be curved or have deflectors for
60 a similar purpose. The ebullition of the water beneath the device B causes the hotter portion of the water and steam to pass upward through the pipes E and be discharged in a constant stream over the top of the clothes. This produces a certain vacuum in this chamber below, and the result is that the water is forced downward through the clothes by atmospheric pressure, passing around the sides, and thence beneath through the open spaces C.
75 In some cases doors or flaps H are hinged so as to fall down over the spaces C and close them against any outward flow of water from the chamber beneath. The hinges are so arranged that the doors will easily open inwardly to admit the water. The horizontal plates D just above these spaces serve to direct this current along the bottom of the boiler and prevent its intermingling or interfering with the water which is in the upper part of the chamber, thus causing a smooth and rapid flow of water all the time. By reason of the non-conducting material forming the top and sides of this device little or no heat passes directly up into the body of water which fills the boiler above this chamber, and consequently the heat is confined in the chamber of the device B, thus causing a powerful current to be discharged upward through the pipes, and an
85 equally strong downward current through the clothes, which are thus very effectually cleaned.

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

1. In a wash-boiler, a removable chamber 100

fitted to the lower part of the boiler, and having double walls and sides, with a filling of non-conducting material, substantially as herein described.

5 2. In a wash-boiler, a chamber having its top and walls made non-conducting, with the sides or ends extending downward so as to rest upon the bottom of the boiler, with intermediate spaces opening from the exterior of the chamber beneath, in combination with vertical pipes or passages extending upward from said chamber to the top of the boiler, substantially as herein described.

3. A wash-boiler having a chamber of smaller dimensions fitted to rest upon the bottom so as to form an inclosed space beneath, the walls and top of said chamber being filled with a material which is a non-conductor of heat, and pipes or passages extending upward from this said chamber to the top of the boiler, in combination with deflectors by which the water is distributed from the upper end of the pipes, substantially as herein described.

4. A wash-boiler having within it a cham-

ber of smaller diameter, the sides or ends of which rest upon the bottom of the boiler so as to form an inclosed space beneath, the top and sides being made non-conducting, as shown, and pipes or passages extending upward from the inclosed chamber to the top of the boiler, in combination with horizontal guides or plates extending inwardly above the passages which lead to the chamber, substantially as herein described.

5. A wash-boiler having within it a chamber of smaller diameter, the sides or ends of which rest upon the bottom of the boiler so as to form an inclosed space beneath, and upwardly-extending pipes or passages from said chamber, in combination with the inwardly-opening doors or valves H, substantially as herein described.

In witness whereof I have hereunto set my hand.

MARTIN F. D. C. DANNMEYER.

Witnesses:

S. H. NOURSE,
H. C. LEE.