

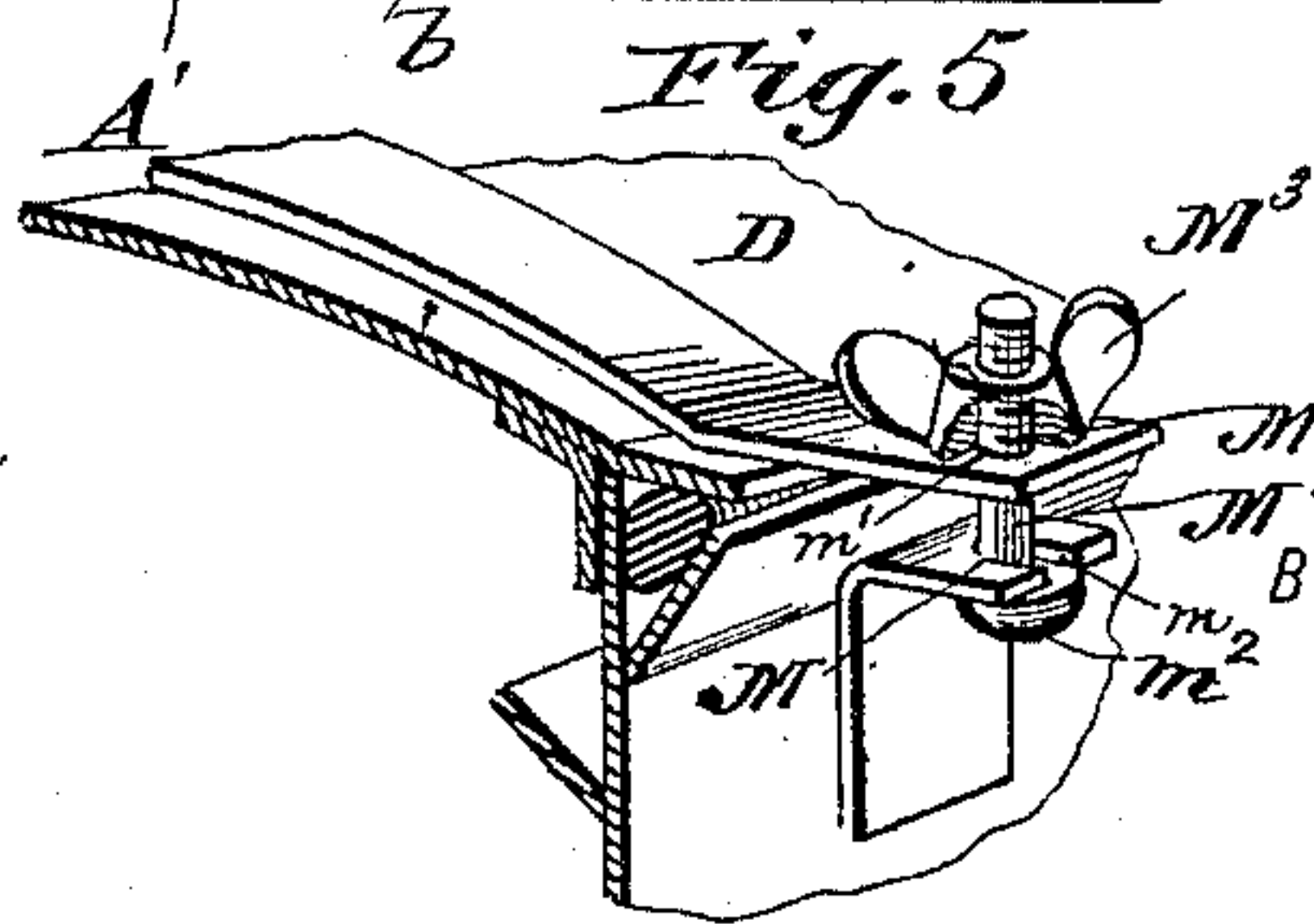
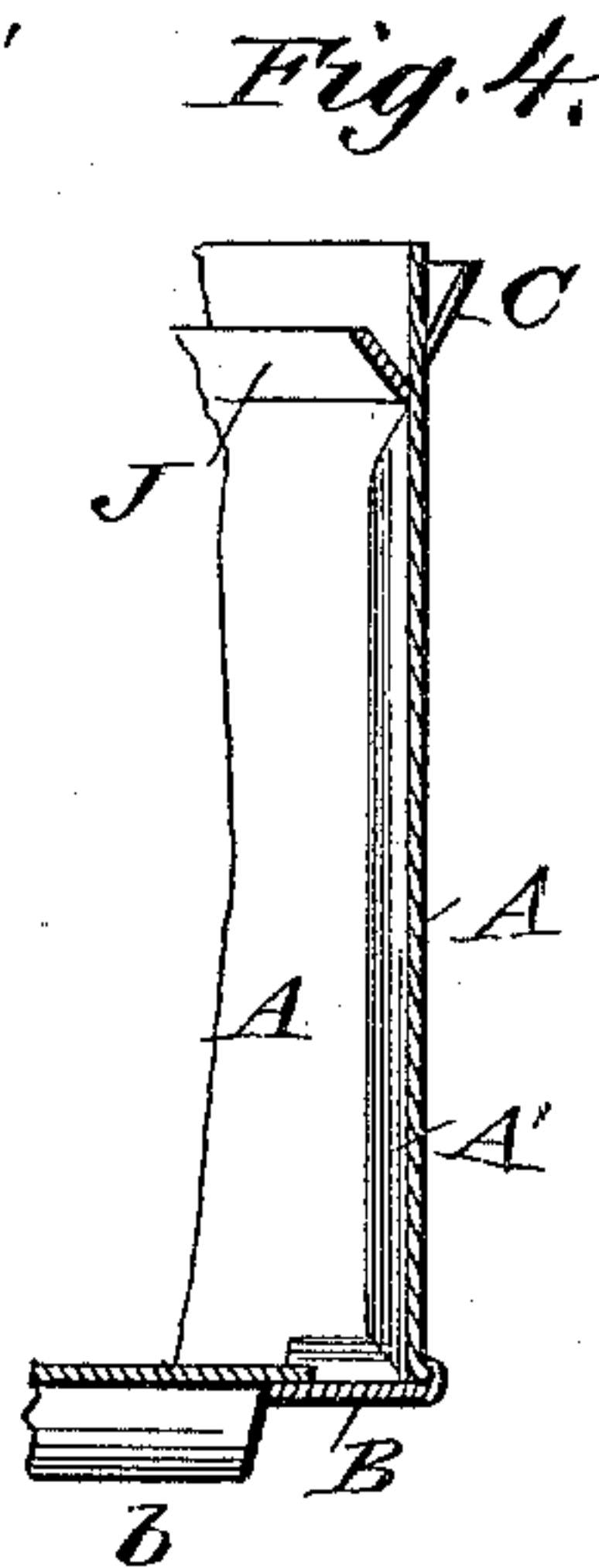
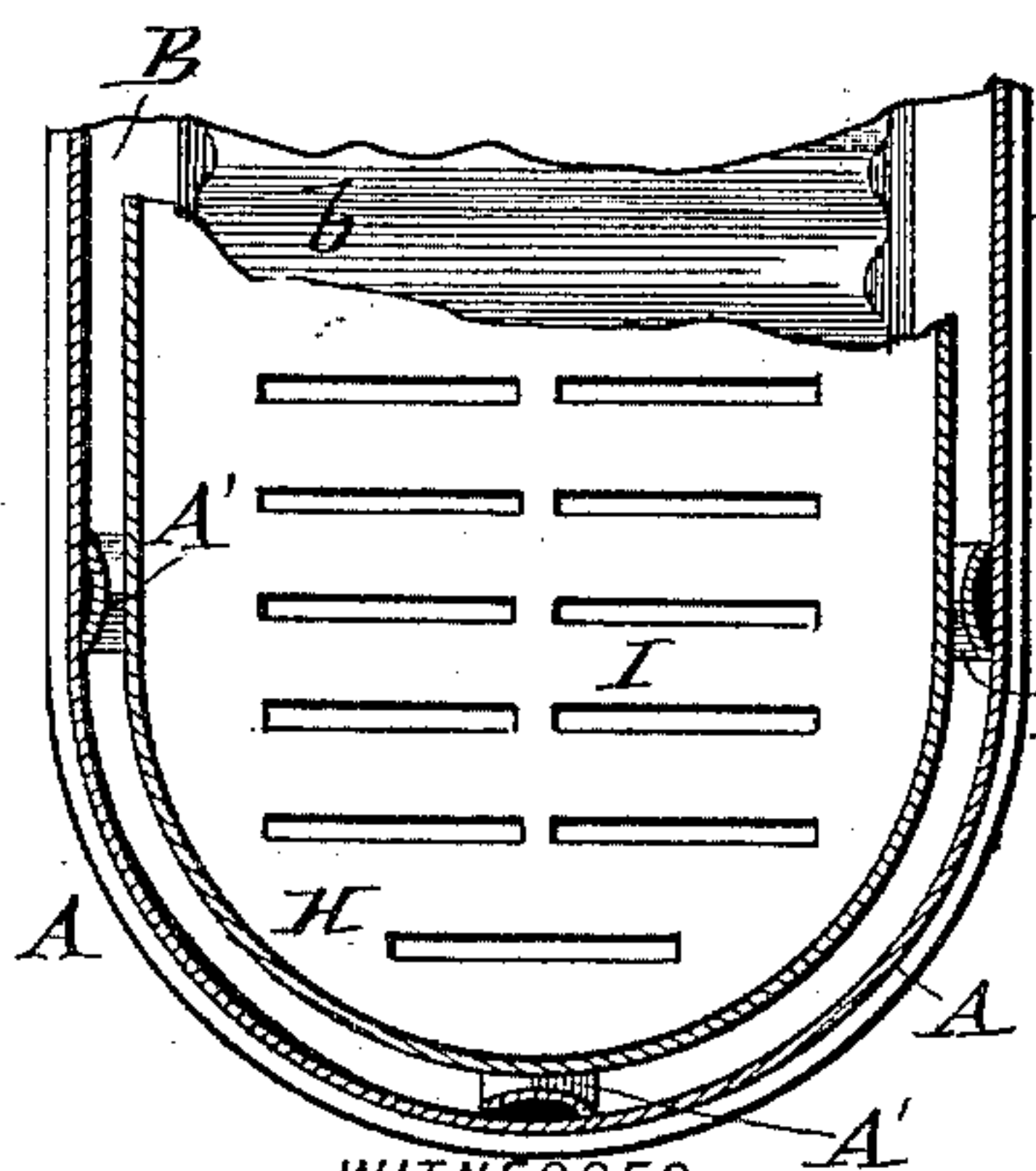
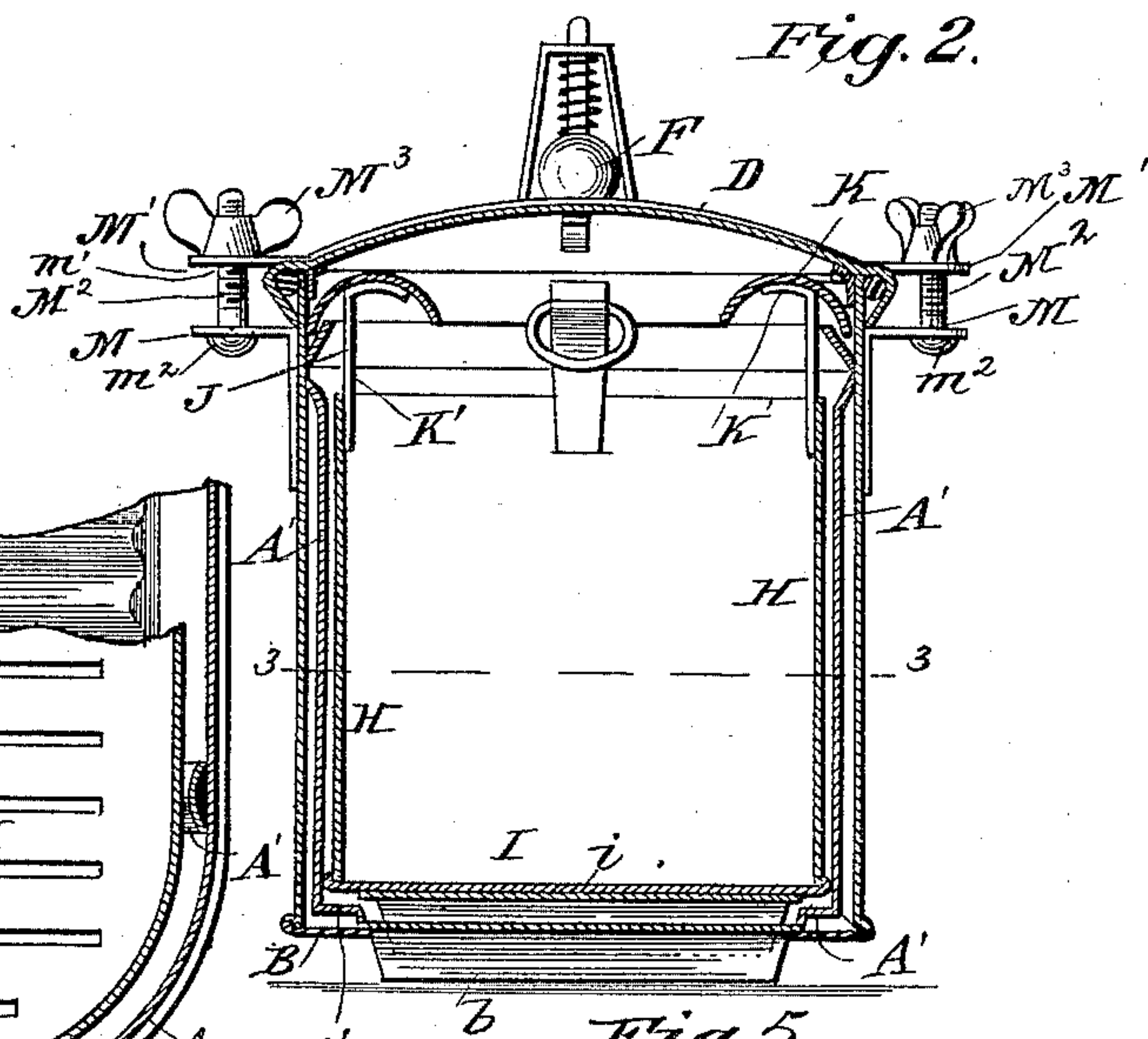
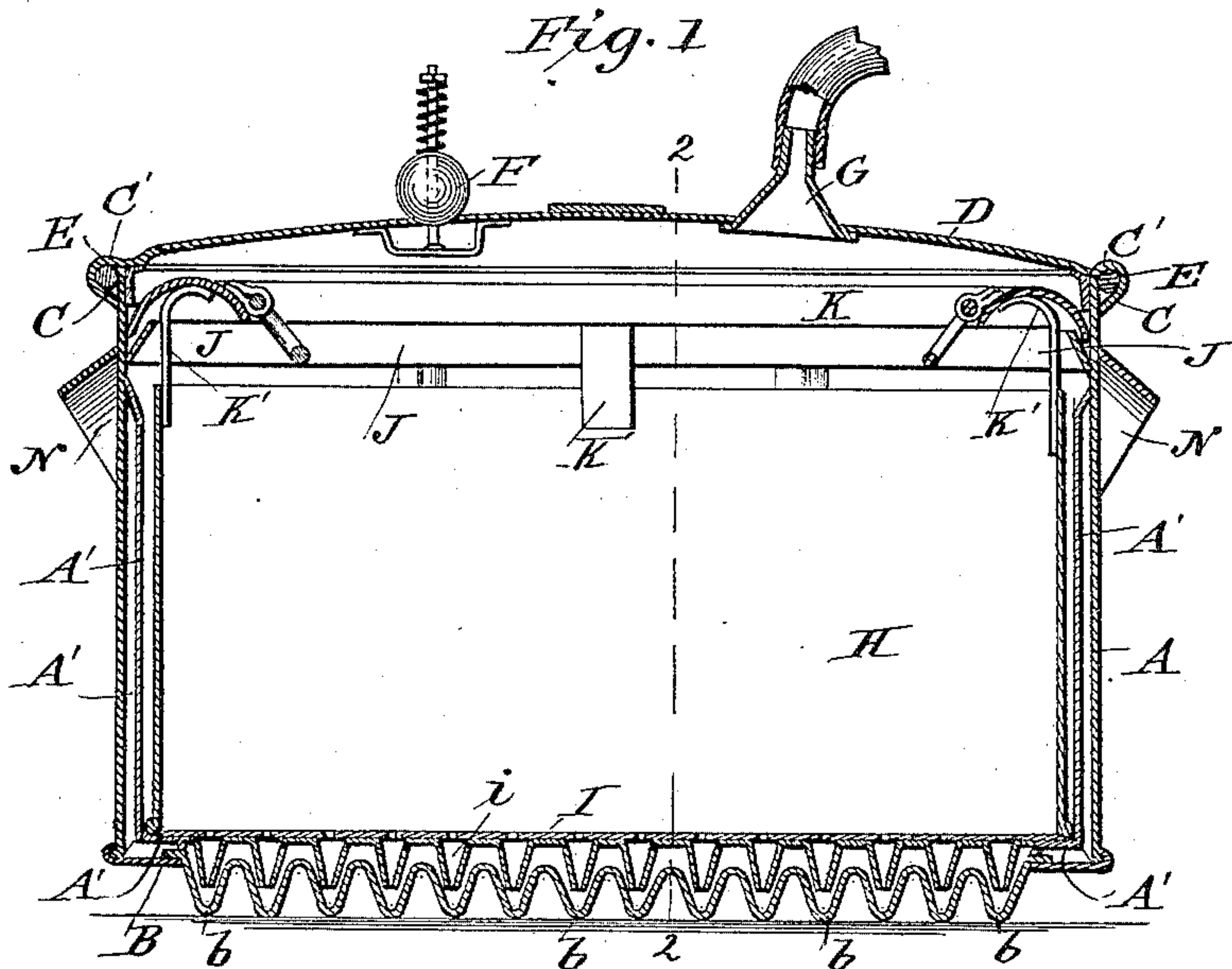
(Model.)

H. J. F. ROSE.

WASH BOILER.

No. 430,486.

Patented June 17, 1890.



WITNESSES:  
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# UNITED STATES PATENT OFFICE.

HENRY J. F. ROSE, OF HIGH BLUFF, MANITOBA, CANADA.

## WASH-BOILER.

SPECIFICATION forming part of Letters Patent No. 430,486, dated June 17, 1890.

Application filed January 30, 1889. Serial No. 298,146. (Model.)

*To all whom it may concern:*

Be it known that I, HENRY JOHN FOX ROSE, a citizen of the Dominion of Canada, residing at High Bluff, in the county of Portage La Prairie, in the Province of Manitoba, Canada, have invented new and useful Improvements in Washing and Steaming Machines, of which the following is a specification, reference being made to the accompanying drawings, in  
10 which—

Figure 1 is a vertical longitudinal section of my improved boiler. Fig. 2 is a vertical cross-section thereof. Fig. 3 is a horizontal section on about line 3 3 of Fig. 2 of a part  
15 of my boiler. Fig. 4 is a detached vertical section of a part of the outer case, and Fig. 5 is a detail view illustrating the fastenings for the top.

The invention consists in certain novel constructions and combinations of parts, as will be hereinafter described, and pointed out in the claims.

In the drawings, A is the body of the outside boiler or tank, which is provided with a  
25 corrugated bottom B. These corrugations *b* extend from side to side of the tank-bottom B and are arranged close together.

C is a groove formed round the outside of A at the top and corresponds to a similar one  
30 C' on the under side of the lid D for the purpose of receiving the round india-rubber ring or band E, so that when the lid D is screwed down to the boiler A the ring E is compressed and prevents the escape of steam round the  
35 lid.

F is a small spring safety-valve to prevent overpressure.

G is a short tube projecting from the lid D, to which a hose or pipe can be attached for  
40 conducting steam into a barrel for cooking feed or other purposes.

H is the body of the inner casing, and is made smaller than A, so as to leave a water-space under and all round it, and is kept in  
45 place by supports attached to A and B. These supports are ribs A', which are soldered or otherwise suitably secured to the outer casing and extend down the inner side thereof and in along the upper side of the bottom B, as  
50 shown in Figs. 2 and 4. This inner casing is provided with a bottom I, with tube-like portions or corrugations *i* corresponding in num-

ber and arrangement to the corrugations *b*, and fitted to drop down in such corrugations nearly to the bottom thereof, the lower ends  
55 of corrugations *i* being perforated to permit the outflow of water from the corrugations *i* into the corrugations *b*. It will be seen that the supports operate to hold the inner case clear of the sides and bottom of the outer  
60 case, providing the spaces up through which steam and water are discharged into the inner casing.

J is a narrow strip or flange of metal, secured to A by its lower edge, its upper edge  
65 projecting slightly inward. The deflector K is an annular plate curved or arched upward in cross-section, with its outer and inner edges projecting, respectively, to the outer and inner sides of the inner case. This deflector is  
70 attached by short legs K' to the body of the inner casing H, and its outer edge fits down between J and A, thus forming a joint and preventing the ascending stream of water passing the outer edge of the deflector K, at  
75 the same time allowing of the easy removal of the inner tank or casing H.

In order to secure the top or lid tightly in the tank A, I provide lugs M on the tank A and lugs M' on the top, the lugs M having  
80 slots *m*, and the lugs M' having openings *m'*. The bolts M<sup>2</sup> have heads *m*<sup>2</sup>, which fit under the lugs M, the bolts extending up through slots *m* and openings *m'*, and having their upper ends threaded to receive the nuts M<sup>3</sup>. By  
85 this construction the top may be tightly clamped to the tank or body, as will be understood from the drawings. Handles N are provided on the boiler at its opposite ends.

When used as a washing-machine, the necessary amount of water is placed in the in-  
90 nertank and the soap cut up and added. As soon as heat is applied, the water in the space between the tubes expands and begins to ascend in the water-space between the tanks A  
95 and H, the tubes in I allowing the water in H to descend into the outer tubes in B. As the heat increases, the water is forced up against the deflector K and discharges into H over its upper edge in a continuous all-round  
100 shower upon the clothes placed in the tank H. By the rapid circulation of the soapy water at an intense heat, and the regular discharge and even suction caused by the tubu-



lar bottom I, drawing it through the fabric, clothes are quickly and thoroughly washed.

When used for cooking feed by steam, or a continuous jet of low-pressure steam is required for any purpose, the rubber ring E is put in the groove C, and the lid D put on and screwed tight by two bolts with thumb-nuts to the lugs or ears M, forming a tight joint and causing the steam to issue from the tube G, whence it may be conducted by hose or pipe to the desired point.

When it is desired to make the machine complete in itself and portable for outdoor use, it can be made of any shape or pattern and fitted to a suitable stove or furnace having two wheels and detachable handles. The corrugations in the bottoms B can be made round or flat or any convenient shape or length, according to circumstances.

I make no claim to the method of washing clothes by forcing a stream of highly-heated water and steam through the material, for I am aware that it is not new; but

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The improved wash-boiler herein described, having the bottom of its outer casing or tank formed with a plurality of corrugations, and the bottom of its inner casing provided with perforated corrugation-like portions fitting in the corrugations of the tank,

substantially as and for the purposes set forth.

2. In an apparatus substantially as described, the combination of the outer case or tank, the inner case, and the supports consisting of ribs A', having vertical portions extended along the inner sides of the outer tank and horizontal portions extended in along the bottom of such outer tank and below the inner casing, substantially as set forth.

3. The improved wash-boiler herein described, comprising the outer tank A, having its bottom B formed with corrugations b, provided near its upper end with an inwardly-projected flange J, and having below such flange supports A', the inner casing having its bottom formed with perforated tube-like portions or corrugations fitting in the corrugations of the outer casing or tank, such inner tank being rested on the supports A', the uprights or legs K', mounted on and projected above the inner tank, and the curved deflector supported on said uprights and fitting at its outer edge over the flange J, all substantially as and for the purposes set forth.

January 21, 1889.

H. J. F. ROSE.

Witnesses:

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JAS. F. HAY.