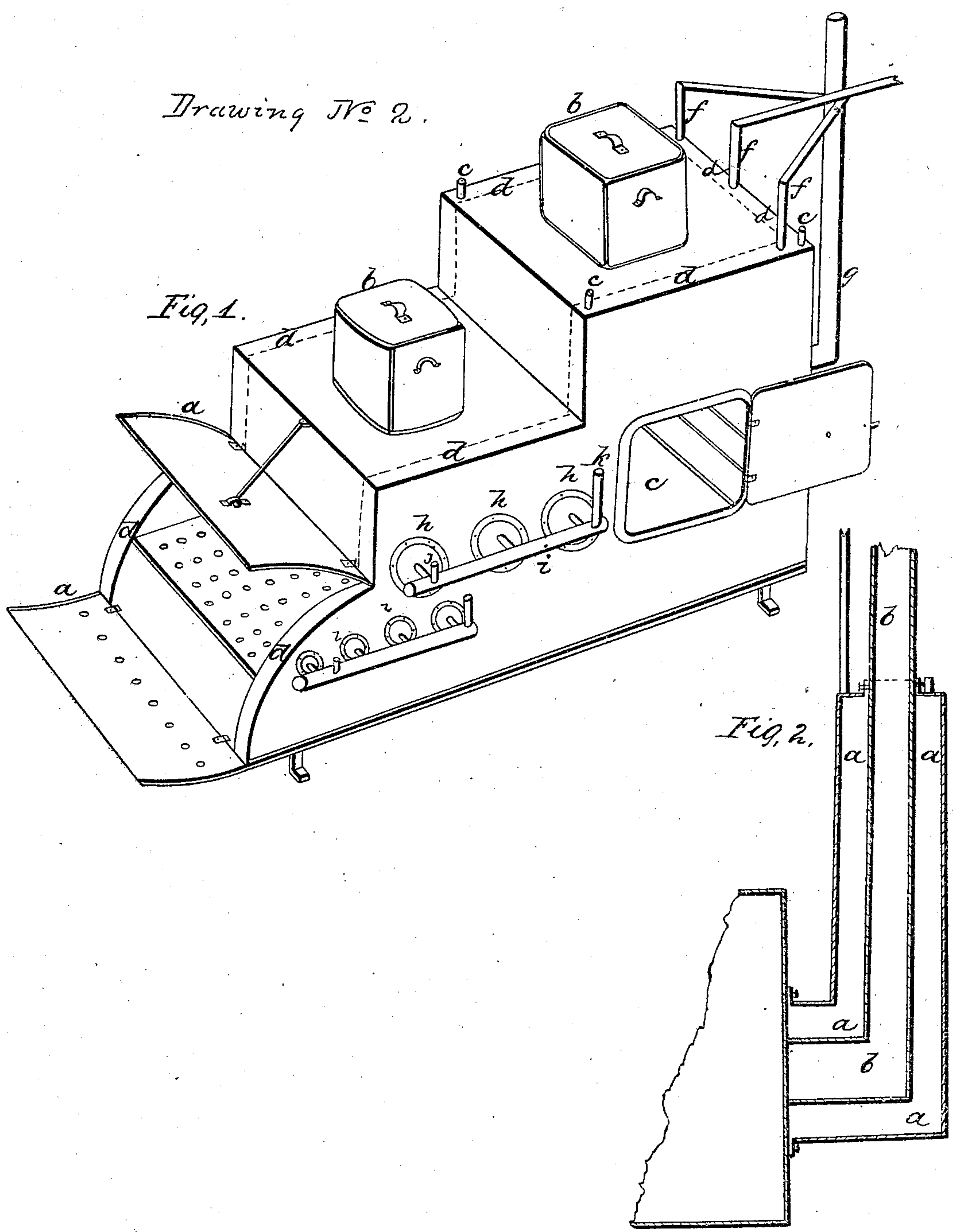


E. HUTCHINSON.  
SHIP'S GALLEY FOR THE DISTILLATION OF SALT WATER.

2 SHEETS—SHEET 1.

*Drawing No 2.*

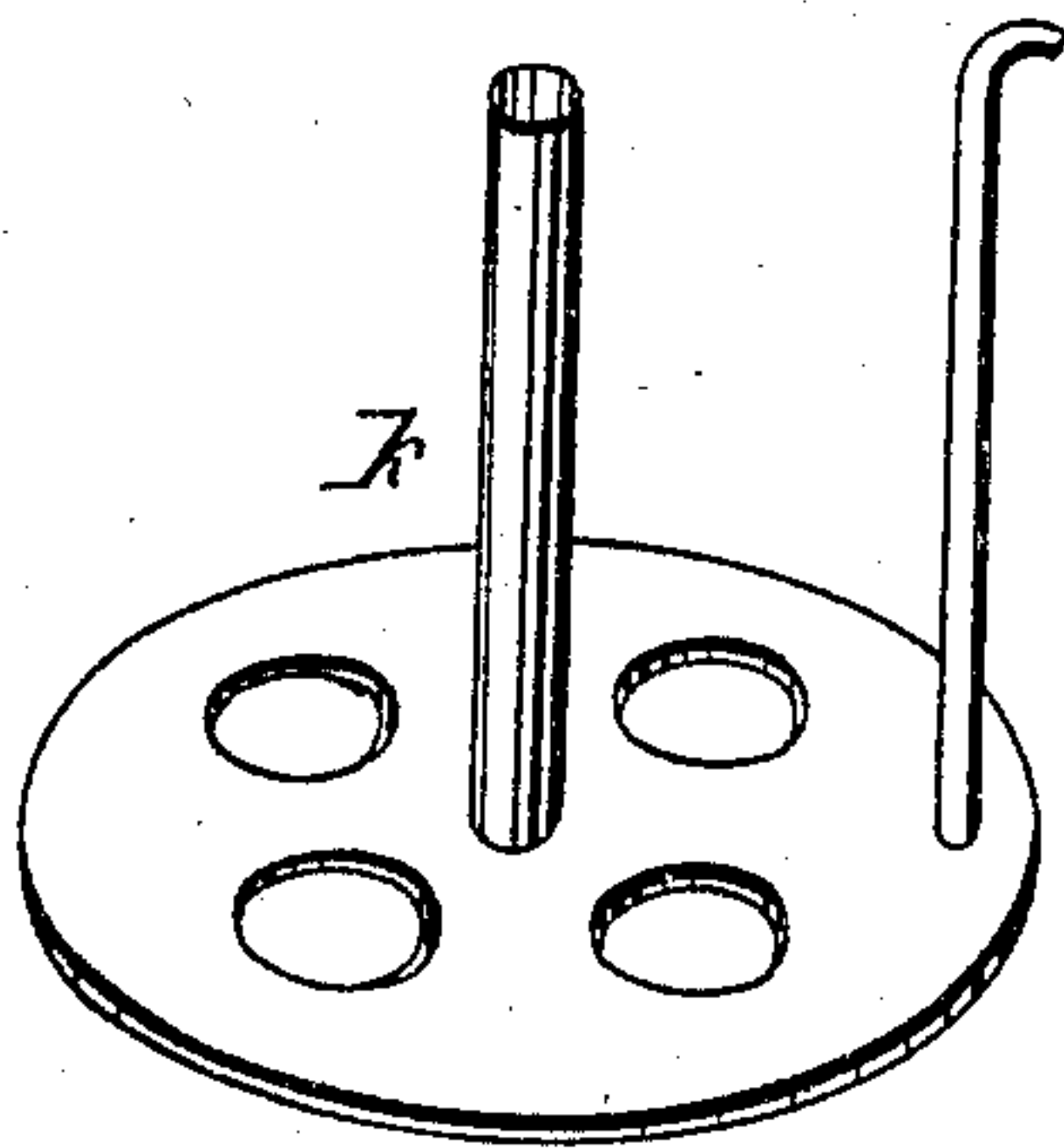
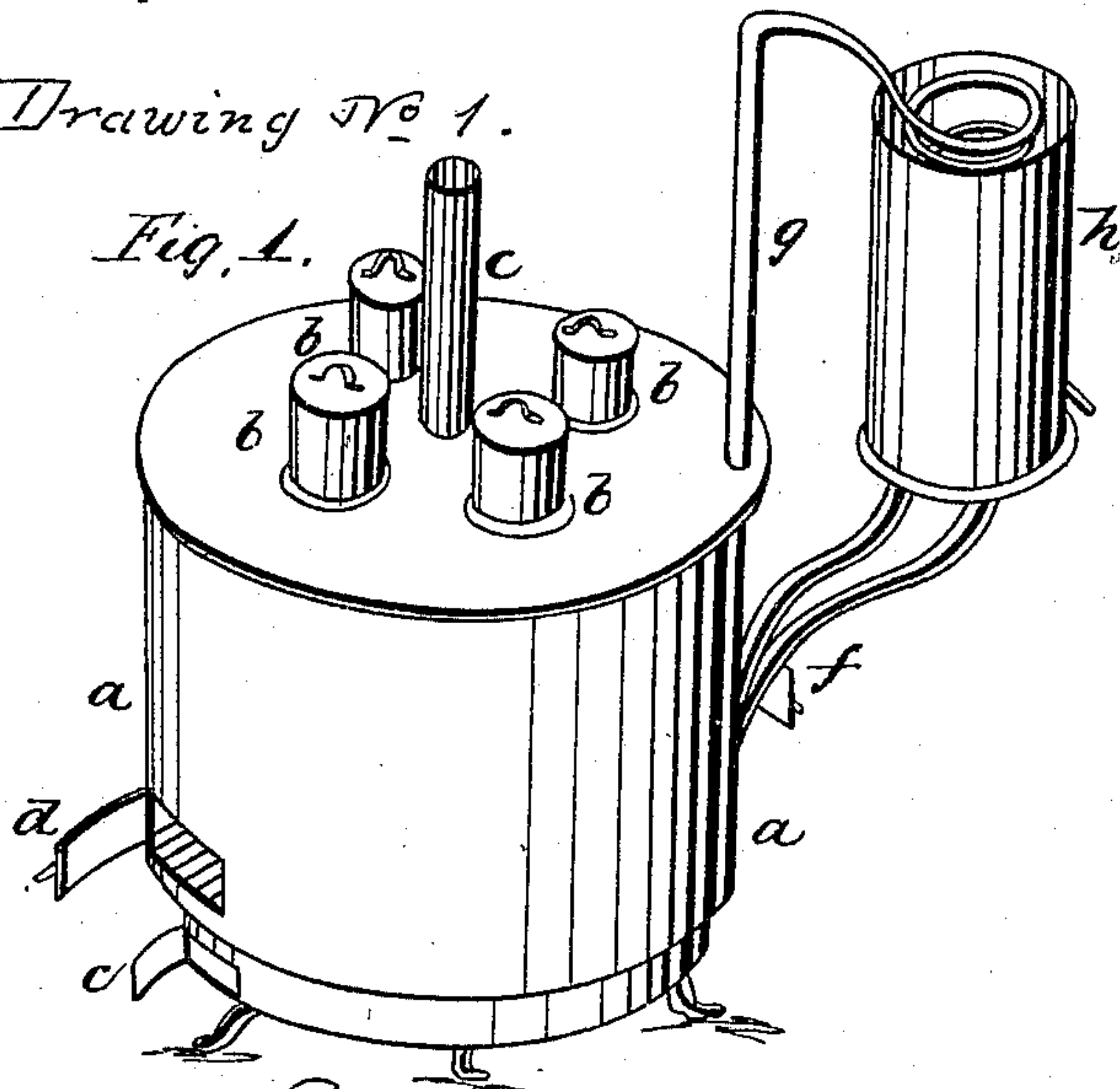


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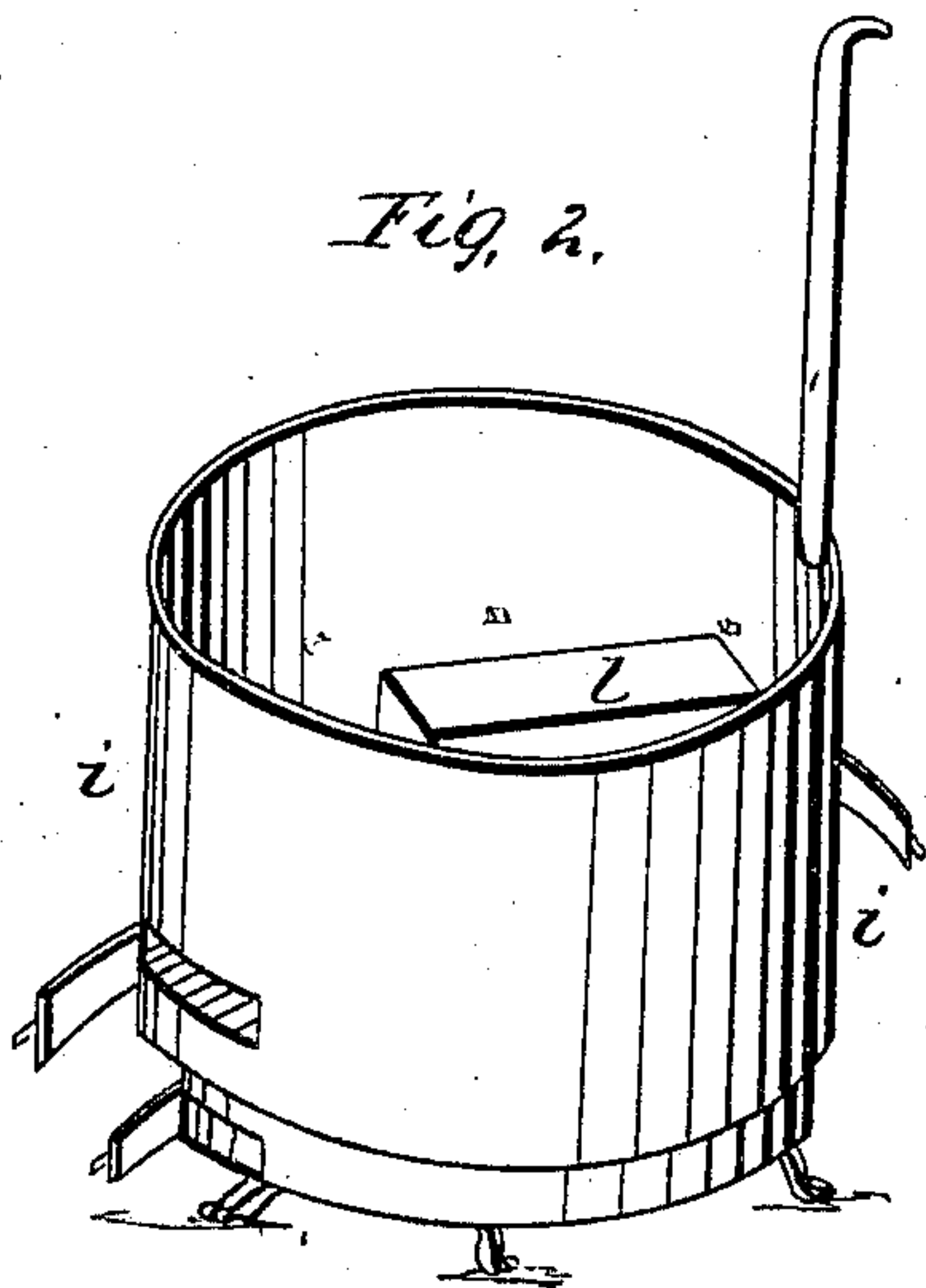
2 SHEETS—SHEET 2.

*Drawing No 1.*

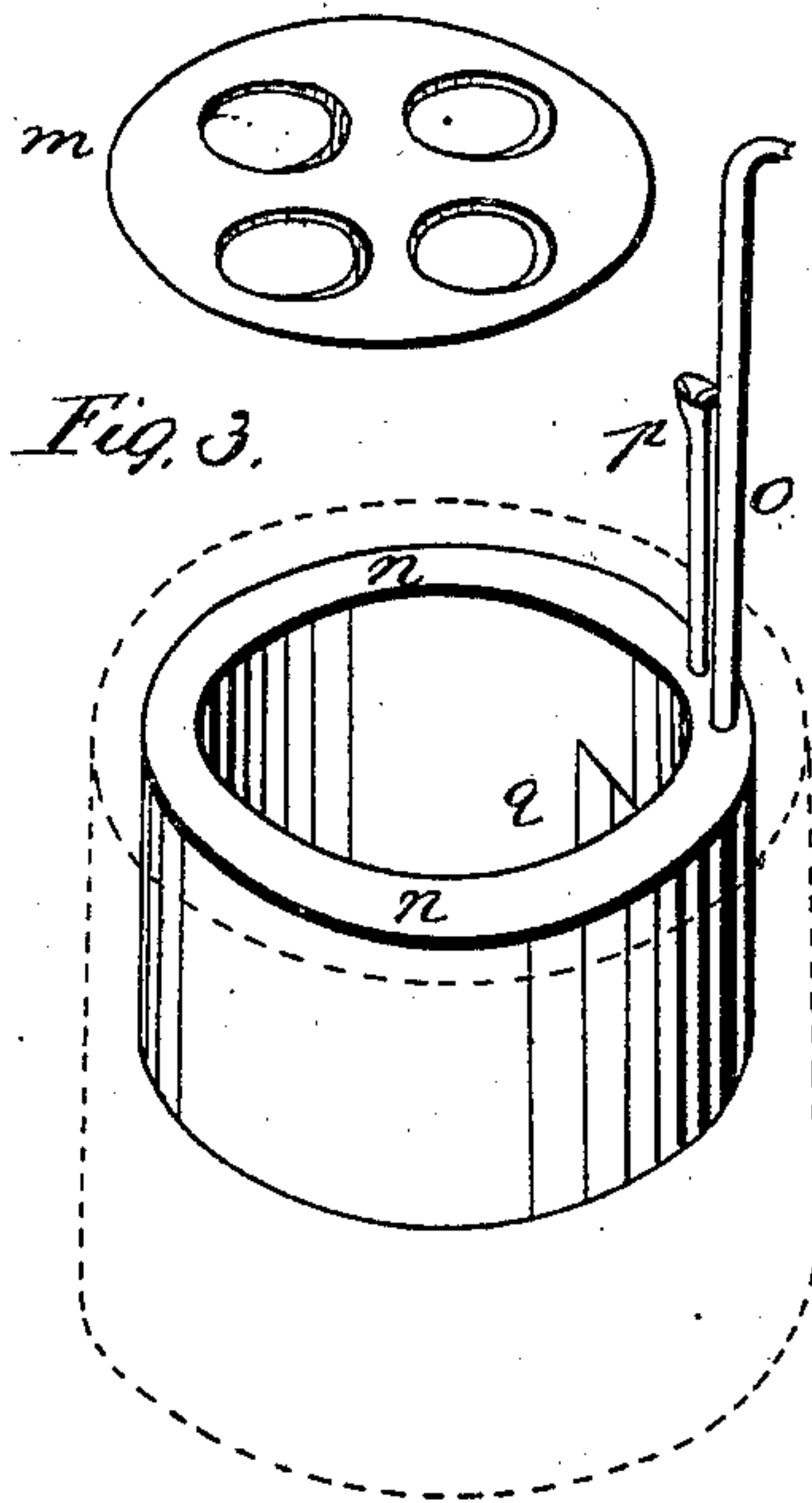
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*





# UNITED STATES PATENT OFFICE.

ENOCH HUTCHINSON, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN SHIPS' GALLEYS FOR THE DISTILLATION OF SALT-WATER.

Specification forming part of Letters Patent No. 1,156, dated May 20, 1839.

*To all whom it may concern:*

Be it known that I, ENOCH HUTCHINSON, of Baltimore city and State of Maryland, have invented a new and useful Improvement on Ships' Galleys for Distilling Fresh Water from Salt-Water; and I do hereby declare that the following is a full and exact description of the apparatus, which I denominate the "fresh-water extractor."

The nature of my invention consists in placing a circular steam-generator made of copper or iron inside of the galley, allowing between the generator and outside of the galley one-thirtieth part of the diameter of the galley, which generator is to be filled with sea-water for distillation. The galley is to have two top plates, and the fire is to circulate on the inside of the generator, also between the generator and galley and between the two top plates, passing thence into the funnel. The advantages of this form are that it presents a much greater surface to the fire, the fire passing all round the generator, thereby causing a rapid conversion of water into steam.

In the accompanying drawings, which form a part of the specification, Figure 1 of Drawing No. 1 represents the galley made in a circular form and put together in any suitable manner. *a a* is the body of the galley; *b b b b*, boilers for cooking; *c*, funnel; *d*, furnace-door; *e*, ash-pit door; *f*, oven-door; *g*, steam-pipe leading from steam-generator to the condensing-worm; *h*, condensing-tub.

In Fig. 2, *i i* is the galley with the top plate, *k*, taken off and the cooking and condensing apparatus omitted. *l* is the oven.

Fig. 3 represents the steam-generator taken out of the galley. *m* is the plate which lies on the top *n n* of the generator, the object of which is to cause the fire to pass round between the sides of the generator and the galley and over the top of the generator and between the plates *m* and *k*. The space between the generator and galley and between the plates is to be about one-thirtieth of the diameter of the galley. *o* is the steam-pipe leading to the condenser. *p* is the pipe to supply the generator with water. *q* shows an arch in the generator which fits over the oven near its mouth. The dotted lines represent the galley and the relative position of the generator and galley.

Fig. 1 in Drawing No. 2 represents a galley

of the usual form constructed with the double sides. *a a* are doors or covers to close the mouth of the furnace. *b b* are two cooking-boilers. *c* represents the oven projected into the furnace. In this galley the sides *d d d* and *d d d* and the back *d d* from the outside to the dotted lines constitute the generator—that is, the dotted lines represent the inner plates of the generator, which and the outer plates may be from four to seven inches apart. *e e e* are inlets for the sea-water. *f f f* are steam-pipes which lead to the condenser. *g* is the funnel, passing out through the back of the generator from the furnace. *h h* represent one end of flues passing through the furnace from side to side. These flues are supplied with salt-water by means of the branch side pipe, *i*. The water is introduced at *j*, and the steam issues out at *k*, to be carried to the condenser. These flues are intended as another form of the generator, and as a substitute for the generator represented by the letters *d d d* and *d d d* and *d d*.

Fig. 2 represents the back of a galley, and also the funnel and another form of the generator, which may be used as a substitute for either of the generators already described.

*a a a a* is the generator, which may be round, square, or elliptical, formed to admit the funnel *b b* to pass up through it, the funnel constituting the inner plate or plates of the generator. *l l* in Fig. 1, Drawing No. 2, represents the manner in which flues may constitute the hearth or grating of the furnace.

What I claim as my invention, and desire to secure by Letters Patent, is not the combination of a generator and other distilling apparatus with a ship's galley for distilling purposes, as this is not new. All that I claim is—

1. The generator of the peculiar form herein specified, (represented by Figs. 1, 2, and 3 in Drawing No. 1,) in combination with a ship's galley.

2. The constructing of a generator for distilling purposes by making the sides of the galley double, so as to form a vessel for containing the salt-water to be distilled, all as herein specified.

ENOCH HUTCHINSON.

Witnesses:

D. H. McDONALD,  
RICHARD DONAHUE.