

(No Model.)

J. C. DILWORTH.

OIL TANK.

No. 395,551.

Patented Jan. 1, 1889.

Fig. 1.

Fig. 4.

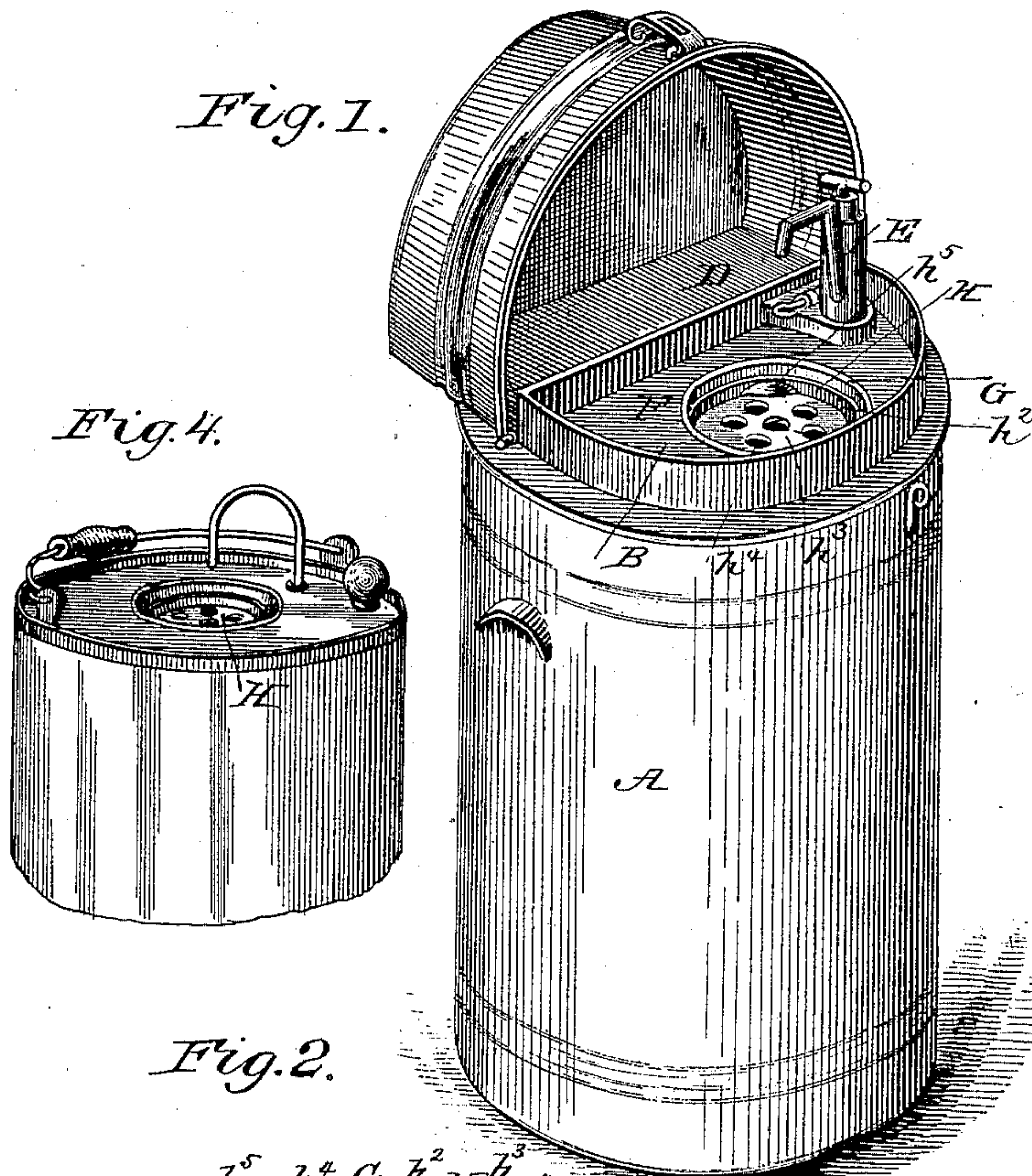


Fig. 2.

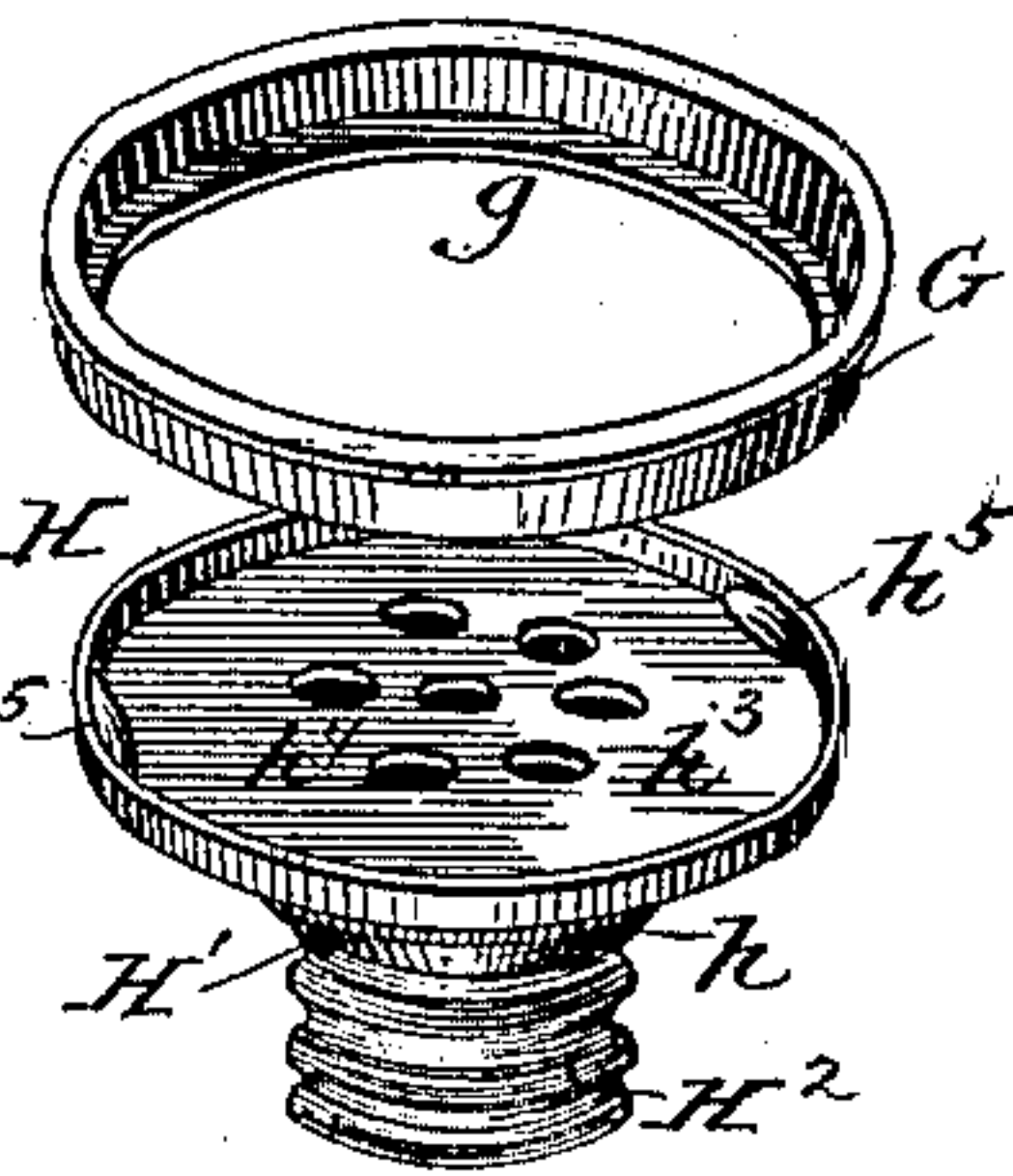
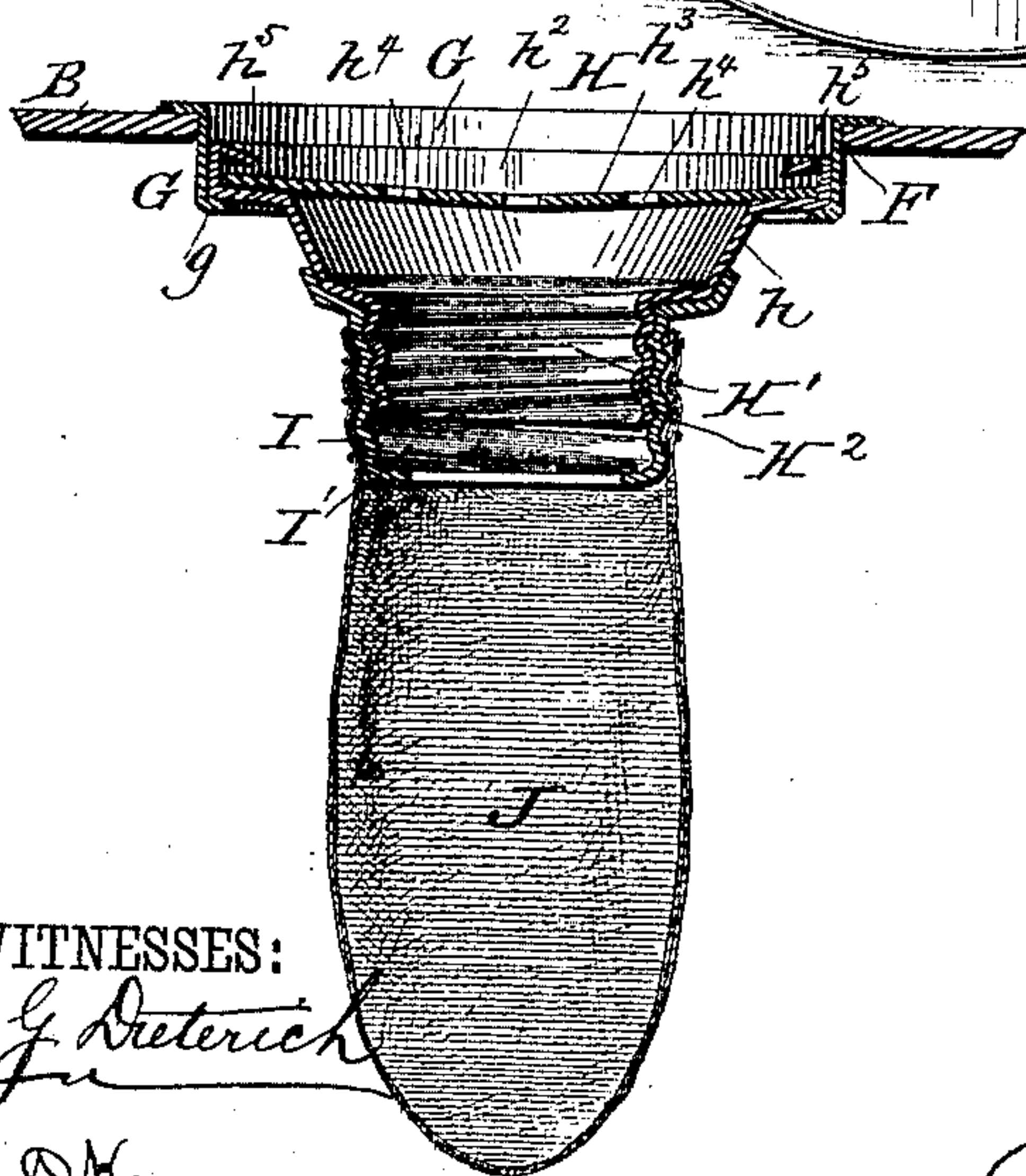


Fig. 3.

WITNESSES:

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JOHN C. DILWORTH, OF PITTSBURG, PENNSYLVANIA.

OIL-TANK.

SPECIFICATION forming part of Letters Patent No. 395,551, dated January 1, 1889.

Application filed October 22, 1888. Serial No. 288,860. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. DILWORTH, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Oil Tanks and Cans, of which the following is a specification.

My invention relates to certain improvements in the construction of metallic oil tanks and cans which are intended to contain petroleum and the like, and which are provided with a pump, with the aid of which the dealers and consumers can be supplied with a limited amount of the liquid.

In the construction of tanks of the character stated they are usually divided at their upper portion by a diaphragm, whereby a lower or oil chamber and an upper or pump chamber are provided. This diaphragm is usually formed with an opening through which the waste or drip oil is passed back into the oil-chamber. This opening is provided with a fixed plate having a series of small apertures, and is intended to act as a strainer to prevent large particles of dirt, &c., from entering into the oil-chamber. It has been found by practical experience that while such strainers keep out large particles of dirt, the finer qualities or dust is carried with the waste oil into the oil-chamber, settles upon the bottom of said chamber, and in a short while rusts the said bottom to such an extent that the utility of the tank is soon destroyed, as the cost of the replacement of a new bottom in a tank is nearly the same as the original cost of the tank.

To avoid the above-stated objections is the purpose of my invention, which consists in certain novel features of construction and peculiar combination of parts, which will be hereinafter fully described in the annexed specification, and particularly pointed out in the claims, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective of an oil-tank with my improvement applied. Fig. 2 is a detail cross-section of the straining device in position in the diaphragm. Fig. 3 is a detail perspective view of the several parts of the strainer detached, and Fig. 4 is a view of my invention applied to an oil-can.

In the accompanying drawings, A denotes

the tank; B, the diaphragm which divides the tank into two compartments, one of which, the lower, is the oil, and the other, D, the upper or pump compartment.

E denotes a pump of any ordinary construction.

F denotes the drip-aperture formed in the diaphragm, into which is fixedly secured an annular ring, G, provided at its lower edge with a horizontal flange, *g*.

H indicates the strainer, which is formed of a cup-shaped body, *h*, provided with a horizontal annular rim, *h'*, vertical flange *h*², and the strainer-plate proper, *h*³, which is provided with a series of apertures, *h*⁴, as shown.

By reference to the drawings it will be observed that the flange *h*² extends slightly above the plate *h*³, and is provided with finger-pieces *h*⁵, for a purpose presently explained.

H' denotes a depending nipple formed on the lower edge of the strainer, which is provided with an external screw-thread, H².

I represents a cup or ring provided with an internal screw-thread, I', by means of which it may be readily attached to or detached from the nipple H'. To this cup is secured, by means of the wire *j*, the pocket J, which is formed of cotton-flannel or any other material which is pervious to oil and impervious to the finer particles of dirt.

By connecting the filtering material to the strainer-cup in the manner described, it can be readily removed when worn, and be easily replaced by a new pocket.

By forming the strainer with a pocket, as described, it will be seen that it will be impossible for even the finest particles of dirt to enter the oil, which will therefore always remain in its normal state of purity, and as no dirt can collect upon the bottom of the tank the same will not rust or corrode, thereby greatly increasing the durability of the tank.

From the foregoing description, taken in connection with the drawings, the operation and advantages of my invention will be readily understood. By its construction it will be seen that the straining device may be quickly placed in position, the annular rim *h'* of the strainer resting upon the flange *g* of the annular ring G, and when desired the strainer may be readily removed by taking hold of the fin-

ger-pieces h^5 , and the pocket J cleaned, or, if rendered useless, can be removed and be replaced by a new one, as before stated.

This improvement may also be readily applied to oil-tanks now in use by cutting out the ordinary strainer-plate and inserting, by soldering, the annular ring G.

In using my improvement in connection with an oil-can, the same is placed in the central dished portion of the top, as clearly shown in Fig. 4.

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

15 1. The combination, with the diaphragm B of the oil-tank, provided with a waste-aperture, F, of an annular ring, G, secured in said aperture, provided with a horizontal flange, g , a strainer supported in said ring G, and a filtering-pocket secured to the lower end of the
20 strainer, substantially as shown and described.

2. In an oil-tank, the combination, with the diaphragm B, having a waste-opening, F, of a strainer removably supported in said opening, said strainer consisting of a body portion,
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h , an apertured plate forming the top of said body, said body formed with a depending nipple, H' , and a filtering-cloth extending over the mouth of said nipple, substantially as and for the purpose described.

3. As a new article of manufacture, a straining device for oil-tanks and the like, said device consisting of a ring, G, having an internal horizontal flange, g , said ring adapted to be secured in the waste-opening of the oil-tank diaphragm, a cup-shaped body portion, H, provided with a perforated horizontal plate across its upper face, the edge of said plate forming a flange whereby the body H may be supported on the flange g of the ring G, said body portion provided with a depending nipple, and a pocket, J, formed of filtering-cloth, detachably secured to said nipple, substantially as and for the purpose hereinbefore described.

JOHN C. DILWORTH.

Witnesses:

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SAMUEL MCCLAY.