Nov. 1, 1927. 1,647,799

F. L. HAMMER

STRAINER

Filed March 5, 1926

Fig. 1.

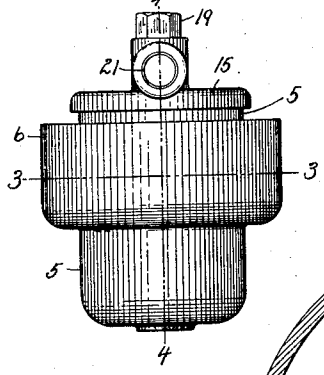


Fig. 2.

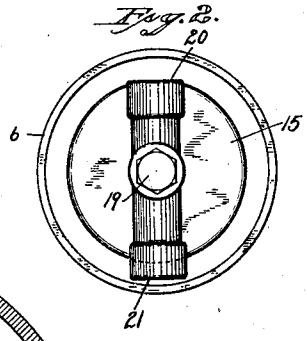


Fig. 3.

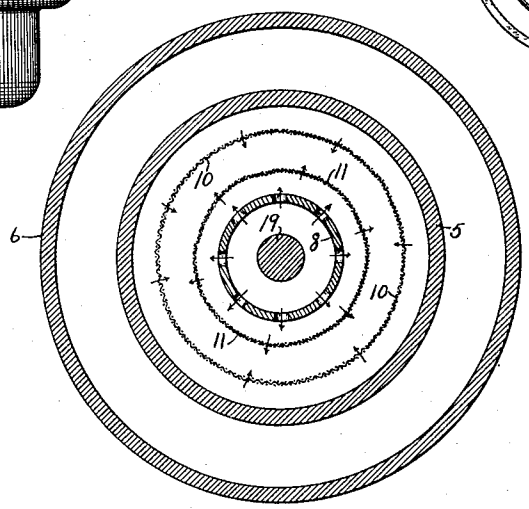
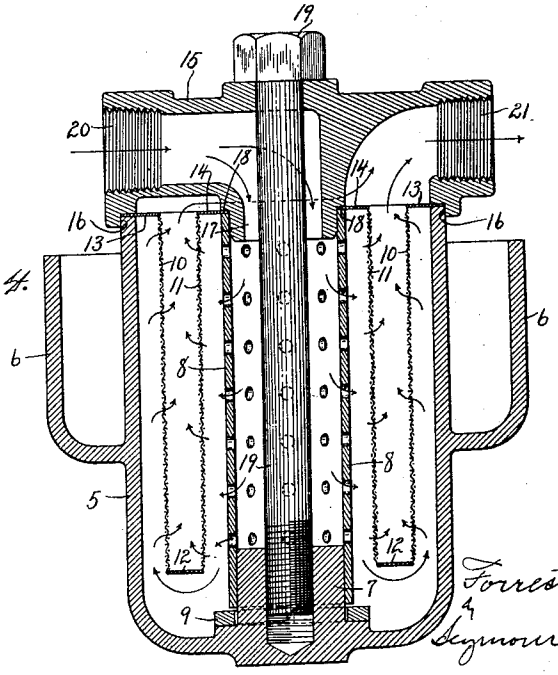


Fig. 4.



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UNITED STATES PATENT OFFICE.

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STRAINER.

Application filed March 5, 1926. Serial No. 92,446.

Fig. 1 is a side view of a strainer constructed in accordance with my invention.

Fig. 2 is a top view of the same.

Fig. 3 is a sectional view on the line 3—3 of Fig. 1, enlarged.

Fig. 4 is a sectional view on the line 4—4 of Fig. 1, enlarged.

This invention relates to improvement in strainers, and while adapted for use as a strainer for various kinds of fluids, is particularly adapted and intended for use as a strainer for oil, in connection with oil-burners, the object of the invention being to provide a simple and efficient strainer, located anywhere between the source of supply and the point where it is to be discharged, and the invention consists in the construction as hereinafter described and particularly recited in the claims.

In carrying out my invention, I employ a cup-shaped body 5, preferably of cast metal, with an external, annular drip-cup 6. Projecting upward from the bottom of the inside of the body is a post 7. Set over the post 7 is a perforated discharge-tube 8 preferably resting upon a spring-washer 9 surrounding the post 7 for the purpose as will hereinafter appear. Within the body and around the discharge-tube 8 are two concentric strainers 10 and 11, of fine-mesh wire. The lower ends of these strainers are connected by a ring 12. The upper edge of the outer strainer 10 is connected to a flange-ring 13, adapted to rest upon the upper edge of the body 5, while the inner strainer 11 is attached, at its upper end, to a flange-ring 14, the inner edge of which rests upon the upper end of the distributing-tube 8. The rings 13 and 14 are locked in place by a cap 15, which has a seat 16 to set over the upper end of the body and rest upon the outer edge of the flange-ring 13, and with an inwardly-projecting neck 17 setting into the upper end of the distributing-tube 8 and formed with a shoulder 18 to set over the inner edge of the flange-ring 14. This cap is held in place by a bolt 19 extending down through the distributing-tube 8 into a threaded opening formed for it in the post 7, whereby the tube 8 and strainers 10 and 11 are locked in position, the spring-washer 9 tending to hold the tube against the seat 18. The cap is provided with a threaded inlet-opening 20, for connection with a pipe from the source of supply, this inlet discharging into the tube 8. The cap is also formed with a threaded outlet-opening 21 through which the strained fluid passes.

Fluid from the source of supply enters the cap 15 and passes down through the tube 8 and out through any of the perforations therein, and thence through the inner strainer 10 to the discharge-outlet. If material is delivered faster than it is drawn out, it will partially fill the body, and any material around the outer strainer 10 will be drawn through that strainer. In many cases, strainers are used with a suction, so that practically only about as much fluid enters the strainer as is drawn off, but in any case, the fluid will be thoroughly strained before it passes to the discharge.

When it is desired to clear the strainer, it is only necessary to remove the cap and lift the strainers out of the body and remove any accumulation of foreign material which may collect upon the strainers.

It will be noted that the drip-cup projects beyond the inlets and outlets of the cap, so that any leakage at those points will be caught by the cup.

I claim:

1. A strainer, comprising a body formed at its bottom with a centrally-arranged, upwardly-extending post, a perforated tube set over said post, two concentric strainers within said body and around said tube, said strainers connected at their lower ends, and provided, at their upper ends, with flange-rings, the inner ring resting upon the upper end of said tube, and the outer ring resting upon the upper edge of said body, a cap adapted to set over said tube and formed with a central neck extending into said tube, an inlet-opening through said neck, and an outlet-opening at the opposite side, and a bolt extending down through the cap and tube into said post, whereby the cap is connected with the body.

2. A strainer, comprising a body formed at its bottom with a centrally-arranged, upwardly-extending post, a perforated tube set over said post, two concentric strainers within said body and around said tube, said strainers connected at their lower ends, and provided at their upper ends with flange-rings, the inner ring resting upon the upper end of said tube, and the outer ring resting

upon the upper edge of said body, a cap adapted to set over said tube and formed with a central neck extending into said tube, an inlet-opening through said neck, and an outlet-opening at the opposite side, a bolt extending down through the cap and tube into said post, whereby the cap is connected with the body, and a spring-washer around the said post and upon which the said tube rests.

In testimony whereof, I have signed this specification.

FORRESTER L. HAMMER.