May 12, 1925. 1,537,598

S. L. GOLDMAN

DECANTING APPARATUS

Filed Oct. 19, 1921

Fig. 1.

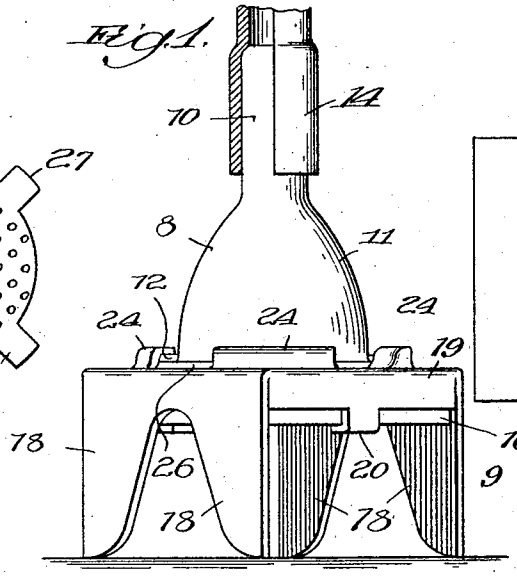


Fig. 3.

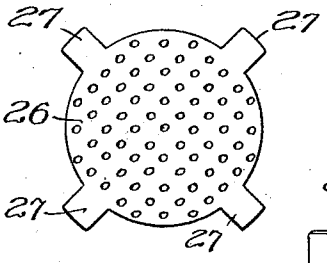


Fig. 4.

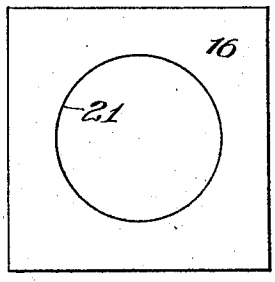


Fig. 2.

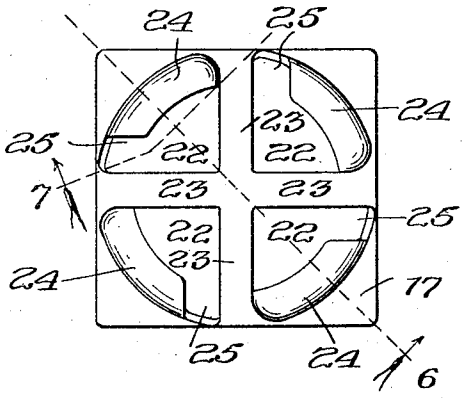


Fig. 5.

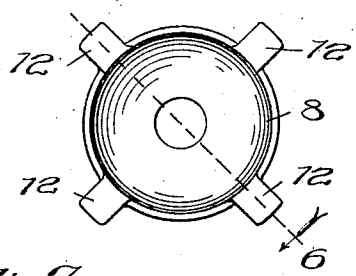


Fig. 6.

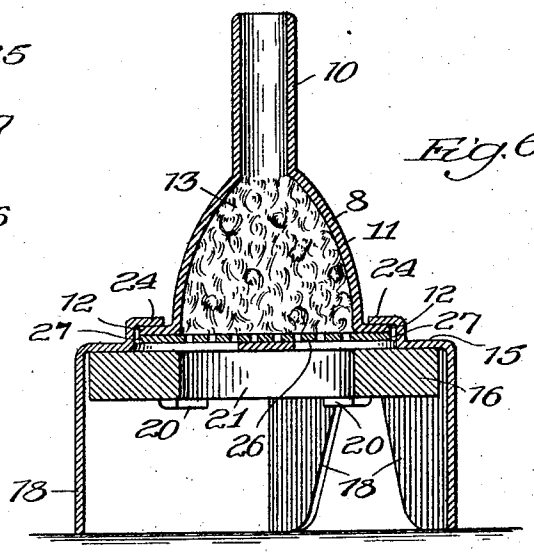
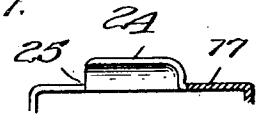


Fig. 7.



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UNITED STATES PATENT OFFICE.

SIGMUND L. GOLDMAN, OF CHICAGO, ILLINOIS.

DECANTING APPARATUS.

Application filed October 19, 1921. Serial No. 508,755.

To all whom it may concern:

Be it known that I, SIGMUND L. GOLDMAN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Decanting Apparatus, of which the following is a specification.

My invention relates, more particularly, to decanting apparatus involving the use of a member which is positioned in the liquid to be decanted and containing a passage through which the liquid is withdrawn, by suction action, from the receptacle containing it.

My primary object is to provided improvements in members of the character referred to, to the end that these members shall operate effectually to perform their purpose, be simple and economical of construction and readily cleansed of solid matter contained in the liquid and intercepted by the said member in the passage of the liquid therethrough.

As a premise to the following description it may be stated that certain of my improvements relate to a member of the character stated, whether this member be provided as a float member or as a sinker, whereas certain other features thereof relate to the member provided as a sinker.

I have therefore shown my improvements as embodied in a member of the sinker type, a description of the drawings being as follows:

Figure 1 is a view in elevation of a sinker member constructed in accordance with my invention. Figure 2 is a plan view of the lower, rest, portion of the device. Figure 3 is a plan view of a strainer member employed. Figure 4 is a plan view of a weight member forming a portion of the base, or rest, member. Figure 5 is a bottom plan view of the upper section of the device. Figure 6 is a section taken at the line 6 on Fig. 2 and viewed in the direction of the arrow; and Figure 7, a broken section taken at the irregular line 7 on Fig. 2 and viewed in the direction of the arrow.

The particular construction of device shown comprises an upper member 8 and a lower member 9 which are releasably connected together as hereinafter described.

The upper member 8, which is preferably stamped and drawn from a sheet of metal, is hollow and open at its upper and lower ends, its upper end portion being preferably in the form of a tube 10 and its lower portion of dome shape as represented at 11, the lower edge of the dome being formed with outwardly-extending lugs 12 shown as four in number and equidistantly spaced apart, the space provided within the dome 11 being filled with any suitable filtering material, represented at 13, such as sponge. The portion 10 of the member 8 is provided for attachment thereto of a tube, represented at 14 and which is preferably flexible, it being desired that a rubber tube be employed, through which the suction for decanting the liquid would be exerted, as for example by a siphoning action.

The base member 9 of the device is formed of a section 15 and a weight 16. The section 15 is preferably stamped from a single sheet of metal to present an upper plate-portion 17 and leg portions 18 which extend preferably at an angle of 90° to the plate portion 17 at opposite ends of this plate portion. At opposite sides of this plate portion the metal from which this member is formed is bent downwardly to present depending plate-like portions 19 provided intermediate their ends with depending lugs 20, the legs 18 and plate portions 19 forming a rectangular closure in which the weight member 16 shown as of square shape and centrally apertured at 21, extends, the member 16 being held in place by bending the lugs 20 into overlapping relation thereto as shown in the drawings.

The metal of the plate-portion 17 is cut away to provide the openings 22 separated by the integral strip portions 23 of the plate-portion 17, these strip portions being disposed at an angle of 90° to each other, each space 22 being in the form of a sector of a circle. The metal of the plate-portion 17 adjacent the outer marginal edges of the spaces 22 is deflected upwardly to form the flanges 24, corresponding ends of which are cut away, as represented at 25, to provide spaces between the strip sections 23 and the adjacent ends of each of the flanges 24, these spaces being so proportioned as to per-

mit the several lugs 12 on the member 8 to enter them and in such position extend below the flanges 24 and when the member 8 is rotated on the member 9, extend beneath these flanges 24 and in interlocked position relative thereto as shown in Fig. 6, for releasably securing these parts together. The device, in the form shown, also comprises a perforated disk 26 adapted to be located between the plate portion 17 at the strips 23 of the latter, and the lower edge of the member 8, thereby to form a sieving member, the disk 26 being preferably provided with radially-extending lugs 27 equidistantly spaced apart at which this disk is clamped in position upon assembling the parts 8 and 9 together, as stated.

It will be understood that in the use of the device, as shown, the device upon being introduced into a body of liquid to be decanted, sinks to the bottom of the receptacle in which the liquid is contained and rests on its legs 18, the member 16 being provided to afford to the device sufficient weight to cause it to sink as stated and bear down on the bottom of the receptacle with such firmness that it cannot be readily shifted, thereby to avoid disturbing the sediment in the bottom of the receptacle, it being noted that the bottom of the passage in the device extends a considerable distance above the bottom surfaces of the legs 18, so that the liquid drawn from the receptacle through the device and tube 14 is that which is above any accumulations of sediment in the receptacle. It may be here stated that it is desired that the various stamped metal parts of the structure be made from relatively thin metal, and this is made possible by the provision of the member 16 which affords to the device the necessary weight to cause it to sink in the liquid and seat with the desired firmness upon the bottom of the receptacle. While the device is shown as provided with both a screening disk 26 and a body of filtering material 13, it will be readily understood that, especially where the filtering material 13 is of sponge, the disk 26 may be omitted, in which case it would be desirable to provide the flanges 24 of less height. Furthermore, under some conditions of use, the screening device 26 may be all that it is necessary to provide to effect the desired straining of the liquid. Where the screening device is omitted the portions 23 prevent displacement of the filtering material 13.

It will be noted that by providing the device as shown and described it may be made almost wholly of sheet metal and very economically and may be provided as a very small and compact device, which also makes for economy in manufacture. Furthermore, by providing the illustrated and described means for releasably holding the two sections 8 and 9 together, the parts may be readily assembled and disassembled, the latter as for the purpose of permitting the interior of the device to be cleaned.

While I have illustrated and described a particular construction embodying my invention, I do not wish to be understood as intending to limit it thereto as the same may be variously modified and altered without departing from the spirit of my invention.

What I claim as new, and desire to secure by Letters Patent, is:

1. A sinker comprising a tubular upper section and a lower section connected with said upper section and formed of a portion formed from a sheet of material and providing depending portions spaced apart, the upper portion of said sheet containing an aperture registering with the interior of said upper section and a weight-member connected with said lower section.

2. A sinker comprising a tubular upper section and a lower section connected with said upper section and formed of a portion formed from a sheet of material and providing depending portions spaced apart, the upper portion of said sheet containing an aperture registering with the interior of said upper member, and an apertured weight-member located at the under side of said lower section and secured thereto, the aperture in said weight-member registering with the opening in the upper portion of said sheet.

3. A sinker formed of an upper, tubular, section, and a lower section releasably connected therewith, the upper portion of said lower section being of openwork construction and at the spaces provided thereby communicating with the interior of said upper section.

4. A sinker comprising a tubular upper section formed with an expanded lower portion for receiving filtering material and provided at its lower portion with laterally extending lugs, and a lower section formed of a plate member having integral legs depending therefrom at opposite sides thereof, with parts depending from said plate section at the other opposite sides of said plate portion, said plate portion being of openwork construction to provide spaces which register with the lower end of said tubular member, said plate portion being also provided with upwardly deflected portions spaced from each other at their ends and affording flanges extending above the plane of said plate portion and with which said lugs are adapted to overlappingly engage when said sections are relatively rotated, for releasably connecting said sections together, and an apertured weight-member located at the under side of said plate portion and with which said parts on said plate portion, overlap, for holding said weight-member in place, the

aperture in said weight-member registering with the spaces in said plate portion.

5. A member formed of upper and lower sections, said upper section containing a passage through which liquid from the body thereof in which said member is located, is drawn, and in which filtering material is located, said lower section being formed with a plate-portion apertured to present spaces which register with said passage, with an integral part of the plate portion extending crosswise of said passage.

6. A member formed of upper and lower sections, said upper section containing a passage through which liquid from the body thereof in which said member is located, is drawn, and in which filtering material is located, said lower section being formed with a plate-portion apertured to present spaces which register with said passage, with integral strip portions between which said spaces are presented extending across said passage.

SIGMUND L. GOLDMAN.