

O. ZERKOWITZ.
FUNNEL SEPARATOR.
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935,722.

Patented Oct. 5, 1909.

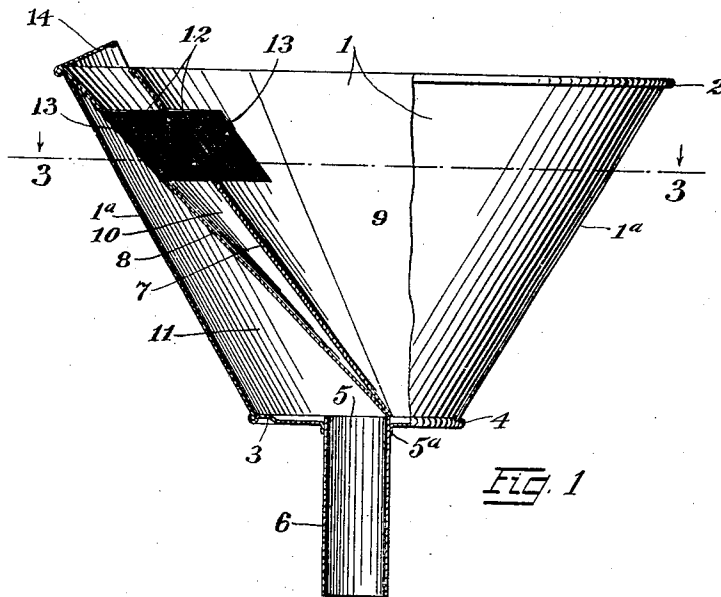


FIG. 1

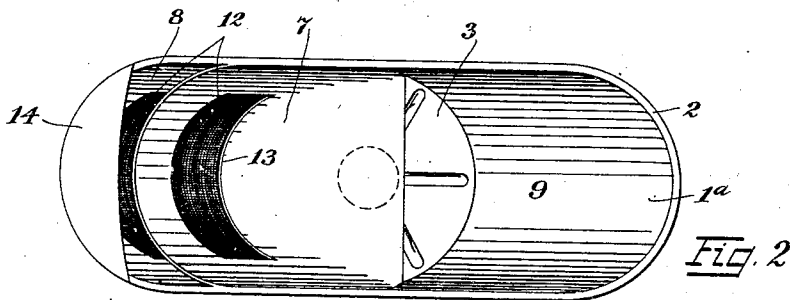


FIG. 2

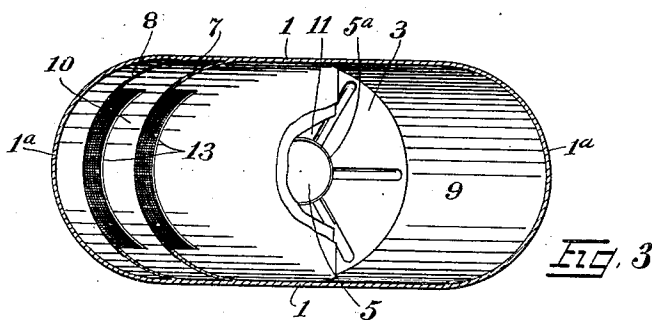


FIG. 3

Witnesses:

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UNITED STATES PATENT OFFICE.

OSCAR ZERKOWITZ, OF CLEVELAND, OHIO.

FUNNEL-SEPARATOR.

935,722.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, OSCAR ZERKOWITZ, a citizen of Austria-Hungary, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Funnel-Separators, of which the following is a specification.

My invention relates to improvements in funnel-separators for separating liquids of different specific gravities, particularly water from gasoline, the invention being specially designed for use in connection with automobiles, motor boats, stationary gasoline engines, and the like.

The primary object of the invention is to provide a generally improved liquid-separating funnel provided with one or more separating receptacles adapted to receive and contain the heavier liquid and foreign matter which will naturally settle and collect therein, said funnel being at the same time, exceedingly simple in construction, cheap of manufacture, and efficient in use.

Another object is to provide a funnel-separator of this class in which the separating receptacles are so disposed and arranged that after the separating process is finished, should any of the lighter liquid have accumulated in the separating receptacles, it may be readily passed through by the manipulation of the funnel leaving only the heavier liquid and foreign matter, thus preventing any wastage of the lighter liquid after the completion of the separating process.

With the above mentioned objects in view, the invention consists in the novel construction, arrangement, and combination of parts, hereinafter described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims.

Referring to the drawings, forming a part of this specification, Figure 1, is a side elevation of the improved funnel-separator, a portion of its side walls being broken away for the purpose of clearer illustration of its parts. Fig. 2, a top plan view of the same. Fig. 3, a horizontal cross sectional view taken through line 3—3 of Fig. 1.

Similar numerals of reference designate like parts throughout all the figures of the drawings.

The improved funnel-separator comprises a funnel-body or main body portion, prefer-

ably flattened or elongated forming parallel side walls 1, for the purpose of more conveniently storing and handling the same, the rounded end walls 1^a, being tapered downwardly and inwardly as shown. The walls of the funnel-body are provided with a beading 2, at their upper edges and at their lower edges are secured to the marginal edges of a bottom 3, by means of a beaded seam 4.

The bottom 3, is provided with a centrally-located flanged drain-opening 5, carrying a tubular funnel spout 6, the upper end of said tubular spout, preferably extending into said opening flush with the said bottom 3, and secured therein by means of soldering about the flange 5^a, thereof.

The funnel-body of the improved funnel-separator is provided with a drain-chamber for the escape of the lighter liquid, and may be provided with one or more separating receptacles for the reception of the heavier liquid, the present embodiment of the invention being provided with a plurality of angularly-disposed division walls 7, and 8, forming a main separating receptacle 9, an auxiliary separating receptacle 10, and a drain chamber 11, said main and auxiliary receptacles communicating with each other and with said drain-chamber by means of foraminous material 12, arranged at the upper portions of the division walls 7, and 8, the foraminous material being, preferably, in the form of wire gauze of very fine mesh (200 mesh gives good results). In the present embodiment of the invention, the division walls are angularly disposed the upper portions diverging and being provided with openings 13, covered with foraminous material 12, at one side of the funnel body and their lower portions converging above and at the opposite side of the drain-opening 5, the division wall 8, being secured along the beading 2, and forming conjointly with the walls of the funnel-body the drain-chamber 11.

After the separating or straining process is finished, the water or heavier liquid together with any accumulated foreign matter collected in the main and auxiliary separating receptacle 9, and 10, respectively, may be thrown out. In case very little water is noticed to have accumulated the funnel-separator should be held at an incline with the strainer side down. The lighter liquid or gasoline being permitted to flow through the foraminous material 12, the cap 14, pre-

venting the overflow of the lighter liquid or gasoline as it flows down over the division walls 7, and 8.

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

1. A funnel-separator for liquids of different specific gravities, comprising a funnel-body having a drain-opening and containing an angular division wall providing a main separating receptacle and a lateral drain-chamber, said division wall having its lower portion extending above and across said drain-opening and provided at its upper portion with foraminous material affording communication between the upper portions of said separating receptacle and said drain-chamber.

2. A funnel-separator for liquids of different specific gravities, comprising a funnel-body having a drain-opening and provided with a division wall extending from the upper portion of said funnel-body and having its lower portion extending above and covering said drain-opening forming a drain-chamber and a separating receptacle, said division wall being provided at its upper portion with foraminous material for separating the heavier from the lighter liquid.

3. A funnel-separator for liquids of different specific gravities, comprising a funnel-body divided into a main receiving and separating receptacle, an auxiliary separating receptacle, and a drain-chamber, said main and auxiliary receptacles communicating with each other and with said drain-chamber by means of overflow-openings covered with foraminous material.

4. A funnel-separator for liquids of different specific gravities, comprising a funnel-body provided with a drain-opening and containing a plurality of angularly disposed strainer division walls having their lower ends covering said drain-opening and forming a plurality of separating receptacles for the reception of the heavier liquid and a drain-chamber for the escape of the lighter liquid.

5. A funnel separator for liquids of different specific gravities, comprising a funnel-body having a drain-opening and provided at its side with division walls forming

a receiving and main separating receptacle, a drain-chamber, and an intermediate separating receptacle, said division walls having their lower portions disposed above said drain-opening and intermediate said drain-chamber and said main separating receptacle and having their upper portions provided with foraminous material providing communication between said drain-chamber and said intermediate and main separating receptacles.

6. A funnel-separator for liquids of different specific gravities, comprising a funnel-body carrying a bottom provided with a drain-opening and a plurality of division walls having their upper portions provided with foraminous material at one side of said funnel-body and their lower portions disposed on said bottom above said drain-opening on the opposite side thereof, one of said division walls forming, conjointly with the walls of said funnel-body, a drain-chamber.

7. A funnel-separator for liquids of different specific gravities, comprising a funnel-body provided with a drain-opening and carrying a plurality of division walls having their upper portions diverging and provided with foraminous material at one side of said funnel-body and their lower portions converging above and at the opposite side of said drain-opening, said division walls providing a receiving main separating receptacle, an auxiliary separating receptacle, and a drain-chamber.

8. In a funnel-separator for liquids of different specific gravities, a funnel-body containing a division wall converging at the upper portion of one side thereof and diverging at the lower portion providing a main separating receptacle and a lateral drain-chamber, said division wall being provided at its upper portion with foraminous material for separating the heavier from the lighter liquid, and a cap carried by said funnel-body above the upper portion of said division wall.

In testimony whereof I have affixed my signature, in presence of two witnesses.

OSCAR ZERKOWITZ.

Witnesses:

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FRANK BILLMAN.