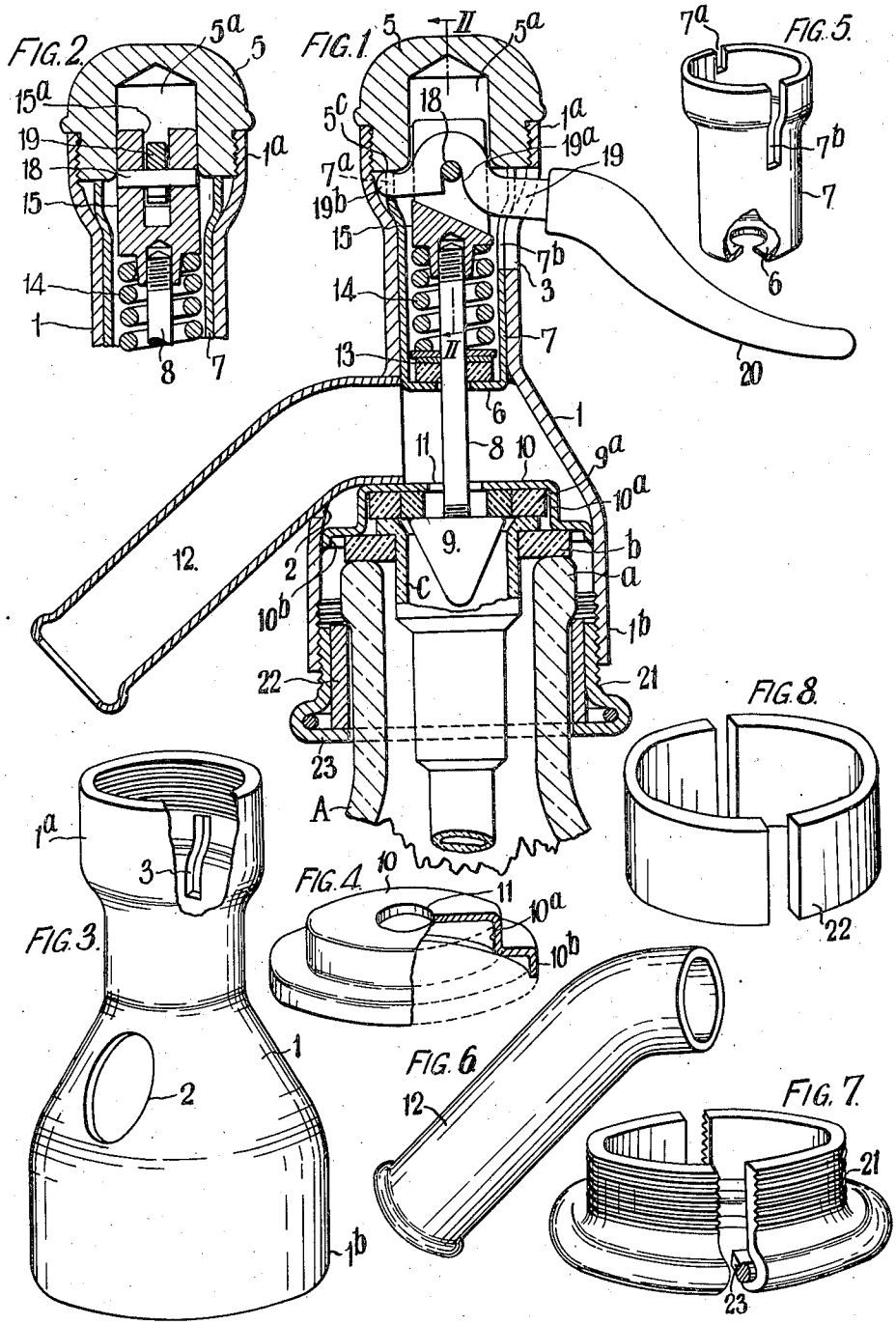
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SIPHON HEAD FOR MINERAL WATER BOTTLES

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SIPHON HEAD FOR MINERAL WATER BOTTLES

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5 Claims. (Cl. 215—5)

This invention relates to metal siphon heads for mineral water bottles of the kind provided with a lever for operating the valve, and has for its object to improve the method of manufacture and likewise the construction of such siphon heads so as to considerably reduce the cost of production while increasing the efficiency and strength and durability thereof.

Siphon heads of the kind referred to are usually cast in tin or other metals and alloys with and without porcelain, glass and other linings, and comprise a body portion furnished with a discharge spout and an internal waterway that is normally closed by the valve, the upper part of the siphon head serving to house the valve gear and operating lever, and being provided with a removable cap, while the skirt or lower portion of the body is secured to a siphon bottle or the like by means of a split ring mounted upon the exterior of the bottle neck.

According to the present invention the body, discharge spout and internal partitions of a metal siphon head of the kind referred to are formed from cupro-nickel or other suitable sheet metal blanks or tubes so that such elements can be readily and accurately assembled and secured together to form the siphon head, the removable cap of which latter is adapted to form a guide for the head of the valve spindle so as to secure accurate alignment of the valve with its seating, while the split neck ring by which the siphon head is secured to the siphon bottle or vase may be formed from a blank or blanks of cupro-nickel or other suitable metal, and is furnished with an internal soft metal or other suitable packing so as to prevent injury to the neck of the bottle or vase on which it is fitted.

The invention is further described with reference to the accompanying drawing, wherein similar references indicate like parts.

Fig. 1 is a vertical section illustrating one embodiment of the invention in a short lever mineral water siphon head; Fig. 2 is a fragmental vertical section on the line II—II Fig. 1, while Figs. 3–8 inclusive are detail views presently referred to further illustrating the construction of siphon head illustrated at Fig. 1.

Referring to the drawing, the siphon head comprises a body or shell 1 sub-divided internally by perforated horizontal partitions 6 and 10 and furnished with a spout 12, each of which elements is drawn down or die-pressed in one piece to the required shape and dimensions from an appropriate tube or blank of cupro-nickel or other suitable metal so that the same can be accurately assembled and soldered or otherwise secured together as indicated at Fig. 1 to form the siphon head.

The body shell 1 is apertured on one side at 2 to receive one end of the spout 12 and is slotted on its opposite side at 3 to accommodate the valve lever, while its upper portion terminates in an expanded internally threaded open end 1a for the reception of the screw cap 5.

The partition 6 is formed by the centrally perforated closed end of a cup or sleeve 7, the open end of which is expanded and slotted on opposite sides at 7a—7b as shown at Fig. 5, such sleeve being inserted in the upper part of the body shell so that the slots therein register with the slot 3 in the shell, while the lower end of the sleeve slightly overlaps the spout aperture 2 and forms an abutment for the inner end of the spout 12.

The partition 10 is stepped to form a central recess 10a and a peripheral flange 10b, such partition being soldered or otherwise secured in the lower part of the body shell so as to abut the inner end of the spout 12 as indicated at Fig. 1.

The partitions 6 and 10 are arranged in the body shell with their central perforations in alignment with each other, so that the spindle 8 of the valve 9 can work therethrough, the perforation in the upper partition 6 forming a guide for the valve spindle while the perforation 11 in the lower partition 10 is of sufficient diameter to form the waterway past the valve stem.

The upper partition 6 carries the perforated packing washers 13 for the valve stem together with the valve spring 14 which is mounted between the packing washers and a head or plunger 15 secured to the upper end of the valve spindle 8, the lower end of which carries the valve 9 which normally seats against a perforated valve seating piece 9a housed in the central recess 10a of the lower partition 10.

The head or plunger 15 at the upper end of the valve spindle 8 is of circular cross section and is formed with a central vertical slot 15a in which is secured a cross pin 18 so as to form a bearing for the valve operating lever 19 which is shaped so as to pass through the slot 3 in the body shell 1 and the slots 7a—7b in the sleeve 7, and is recessed as indicated at 19a for engagement with the cross pin 18 in the head 15 of the valve spindle.

The cap 5 is formed with a central recess 5a and is adapted to screw into the open upper end 1a of the siphon head body a sufficient distance for its central recess to engage the head 15 of

the valve stem **8** and thus form a guide for the latter, while the inner end **5***d* of the cap serves as a fulcrum for the inner end **19***b* of the valve operating lever, the outer end of which extends through the slot **3** in the siphon head body and terminates in a finger grip or handle **20**.

When the lever is depressed to open the valve **9** in the ordinary manner its inner end fulcrums against the inner end of the cap **5**, while the slot **7***a* in the sleeve **7** forms a stop which takes the thrust of the inner end of the lever when the latter is used as a handle for carrying the siphon bottle or the like on which the head is mounted and thus prevents inadvertent operation of the valve.

The skirt or lower end **1***b* of the body shell is internally screw threaded for engagement with an externally threaded split neck ring **21** by means of which it is mounted in known manner upon the neck of the siphon bottle, vase or the like indicated at A Fig. 1.

In accordance with the present invention the neck ring **21** is made of sufficient internal diameter to accommodate a soft metal, fibre or other suitable packing **22** and is formed with an internal flange **23** which serves to support the packing, while such improved neck ring may be cast in the ordinary manner or be die-pressed from a suitable metal blank or blanks. In the construction illustrated, the neck ring is die pressed from a blank or blanks of cupro-nickel or other suitable sheet metal so as to support a divided soft metal packing ring **22** which projects slightly above the upper edge of the neck ring and engages the external clip or collar *a* so shielding the same from contact with the threaded neck ring.

A suitable neck washer *b* is interposed as usual between the mouth of the siphon bottle A and the adjacent face of the lower partition **10** of the siphon head so as to take the thrust of the latter as it is screwed on to the neck ring **21**. In the construction illustrated the neck washer *b* forms an elastic support for the externally flanged siphon tube carrier *c* which is clamped between the neck washer and the elastic valve seating when the siphon head is secured in position on the neck ring.

What I claim is:—

1. A mineral water siphon head comprising an apertured body shell internally sub-divided by two centrally perforated partitions and furnished with a spout and a removable cap adapted to co-operate with a head on the valve spindle and form a guide therefor.

2. A mineral water siphon head according to claim 1 having an internally flanged split neck ring furnished with an internal packing supported by the internal flange of said neck ring for securing the siphon head to the neck of the siphon bottle or like container.

3. A siphon head comprising a body, a pair of transverse partitions in the body and spaced apart, a spout extending from the body and having its inlet end arranged in the space between said partitions, a cap forming a closure for the outer end of the body, a valve having a spindle passing through the partitions, a head on the outer end of the valve spindle and a valve operating lever fulcrumed in said head and at its inner end abutting against the inner side of said cap.

4. A siphon head as claimed in claim 3, in which the head on the valve spindle has a transverse slot to receive the lever and is also provided with a fulcrum pin extending across the slot and the lever is provided with an inwardly opening slot to receive the fulcrum pin.

5. The method of constructing metal siphon heads consisting in separately forming a body shell provided with a spout aperture in its wall, internal partitions for said body shell and a discharge spout, and then assembling and securing these elements together by first inserting one partition in said body shell so that it slightly overlaps the spout aperture and forms an abutment for the inner end of the spout, then attaching the spout to the body shell, and then inserting a second partition in said body shell and securing it in place when it has been brought into engagement with said spout forming an abutment for said second partition.

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