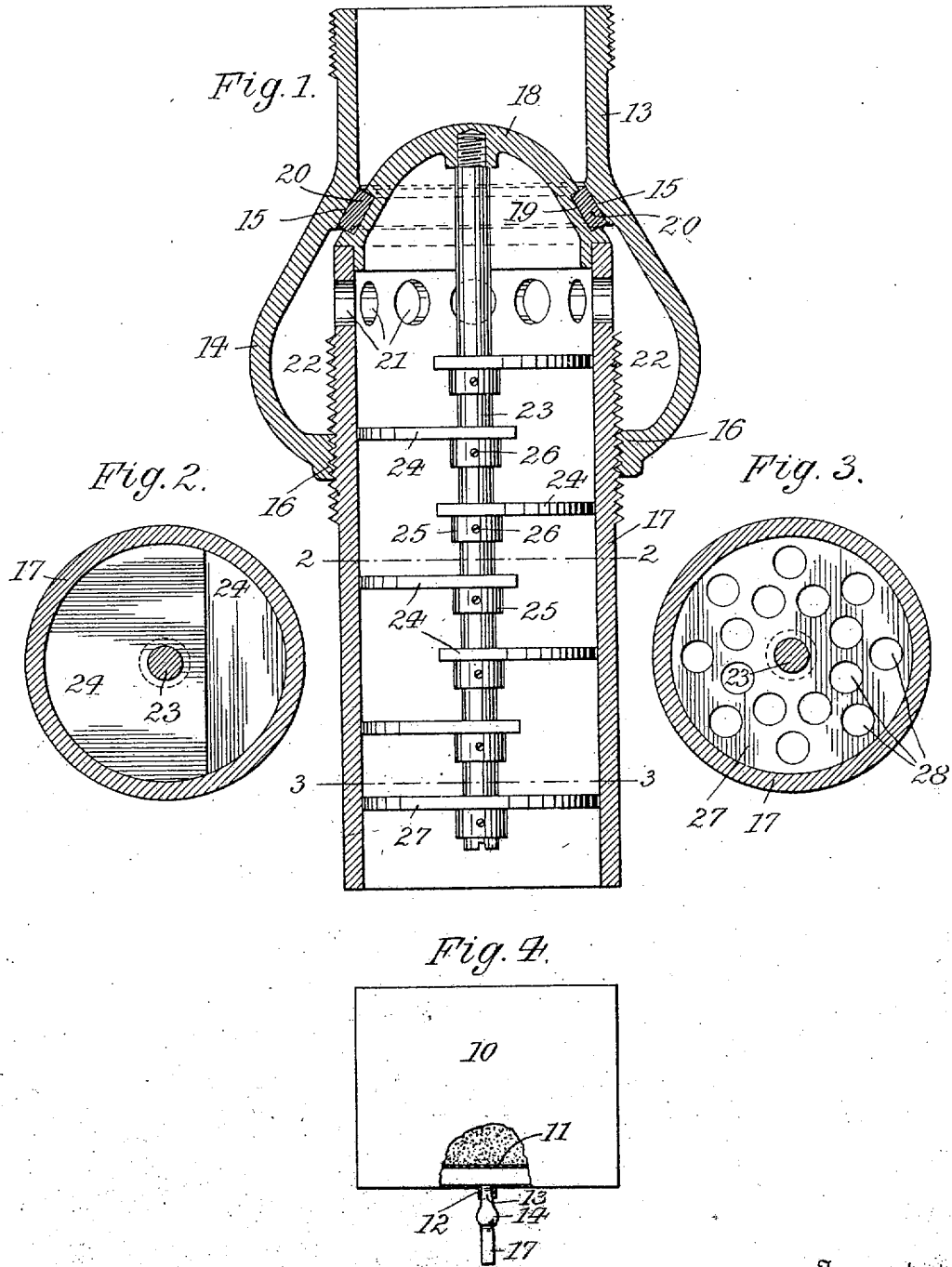


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 NOZZLE FOR FILTERS AND SIMILAR DEVICES.
 APPLICATION FILED SEPT. 14, 1909.

960,418.

Patented June 7, 1910.



Witnesses:
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UNITED STATES PATENT OFFICE.

OTTO SELG, OF NEW YORK, N. Y., ASSIGNOR TO THE SELG BREWERY APPARATUS COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

NOZZLE FOR FILTERS AND SIMILAR DEVICES.

960,418.

Specification of Letters Patent.

Patented June 7, 1910.

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To all whom it may concern:

Be it known that I, OTTO SELG, a citizen of the United States, residing at the city of New York, borough of Manhattan, county 5 and State of New York, have invented an Improved Nozzle for Filters and Similar Devices of which the following is a specification.

This invention relates to a liquid discharge 10 nozzle for filters, mash tubs and similar devices, within which a solid constituent of said liquid has been separated and retained.

The object of the invention is to prevent the clogging of the filter through suction by 15 the solid residue so that a free and unimpeded discharge of the liquid is insured.

In the accompanying drawing: Figure 1 is a longitudinal section of my improved nozzle, Fig. 2 a cross section on line 2—2, 20 Fig. 1, Fig. 3 a similar section on line 3—3, Fig. 1, and Fig. 4 a side view partly in section of a mash tub provided with my improved nozzle.

A mash tub, filter or similar device 10 is 25 provided with an inclosed strainer 11 and with a discharge pipe or spud 12 below said strainer. Into pipe 12 is screwed a nipple composed of an upper tubular section 13, a lower bulged or expanded section 14, and an 30 intermediate inclined section 15 forming a valve seat. Lower bulged section 14 has an inwardly extending threaded rim 16 which engages the upper threaded end of a centered pipe 17, depending from the nipple. This 35 pipe is surmounted by a coniform head or valve 18 that projects into upper nipple section 13 and has a circumferential groove which accommodates a packing ring 20 adapted to engage seat 15.

40 Upper end of pipe 17 extends into the bulged lower section 14 of the nipple, so that an annular chamber 22 is formed below valve seat 15 and above rim 16 that encompasses upper end of pipe 17. Communication be- 45 tween this chamber and the interior of pipe 17 is established by a series of lateral openings 21 formed in pipe 17 near the top thereof. Axially through pipe 17 extends a shaft 23 which depends from head 18 into 50 which it is tapped. This shaft carries below openings 21 a series of segmental baffle plates 24 which are so arranged that adjoining plates project in opposite directions. Baffle plates 24 are adjustably secured to 55 shaft 23 by integral hubs 25 tapped for the

reception of clamp screws 26 that impinge against the shaft. Below the baffle plates, there is fitted on shaft 23 a circular bottom plate 27 having a number of evenly distributed orifices 28 that insure a uniform 6 discharge of the filtrate.

When pipe 17 is screwed up, packing 20 will be forced against seat 15 so that the nozzle is closed. When the pipe is screwed down, the liquid will flow around valve 18, 6 into chamber 22 and thence through openings 21 into pipe 17. Within this pipe, the liquid will descend in a sinuous course over baffle plates 24, so that the formation of a rapidly descending solid stream is prevented 70 which would be liable to induce suction at strainer 11. The result is, that clogging of the strainer is obviated and a uniform discharge of the filtrate is obtained.

I claim:

1. A device of the character described, 75 comprising a nipple having a lower expanded section, a pipe projecting upwardly into said expanded section to form an intervening annular chamber that encompasses 80 the inclosed end of the pipe, perforations in the pipe that open into said chamber, and baffle plates within the pipe.

2. A device of the character described, comprising a nipple having a valve seat, an 85 expanded section below the valve seat, and a threaded inwardly extending rim at the lower end of the expanded section, a threaded pipe engaged by said rim and projecting upwardly into the expanded section to form 90 an intervening annular chamber that encompasses the inclosed end of the pipe, perforations in the pipe that open into said chamber, a valve on the pipe adapted to engage the valve seat, and baffle plates with- 95 in the pipe.

3. A device of the character described, comprising a nipple having a lower expanded section, a pipe engaged by the nipple and communicating therewith, a head 100 on the pipe, a shaft depending from said head into the pipe, and a series of baffle plates and a perforated bottom plate carried by the shaft.

Signed by me at New York city, N. Y., 105 this 11th day of September 1909.

OTTO SELG.

Witnesses:

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