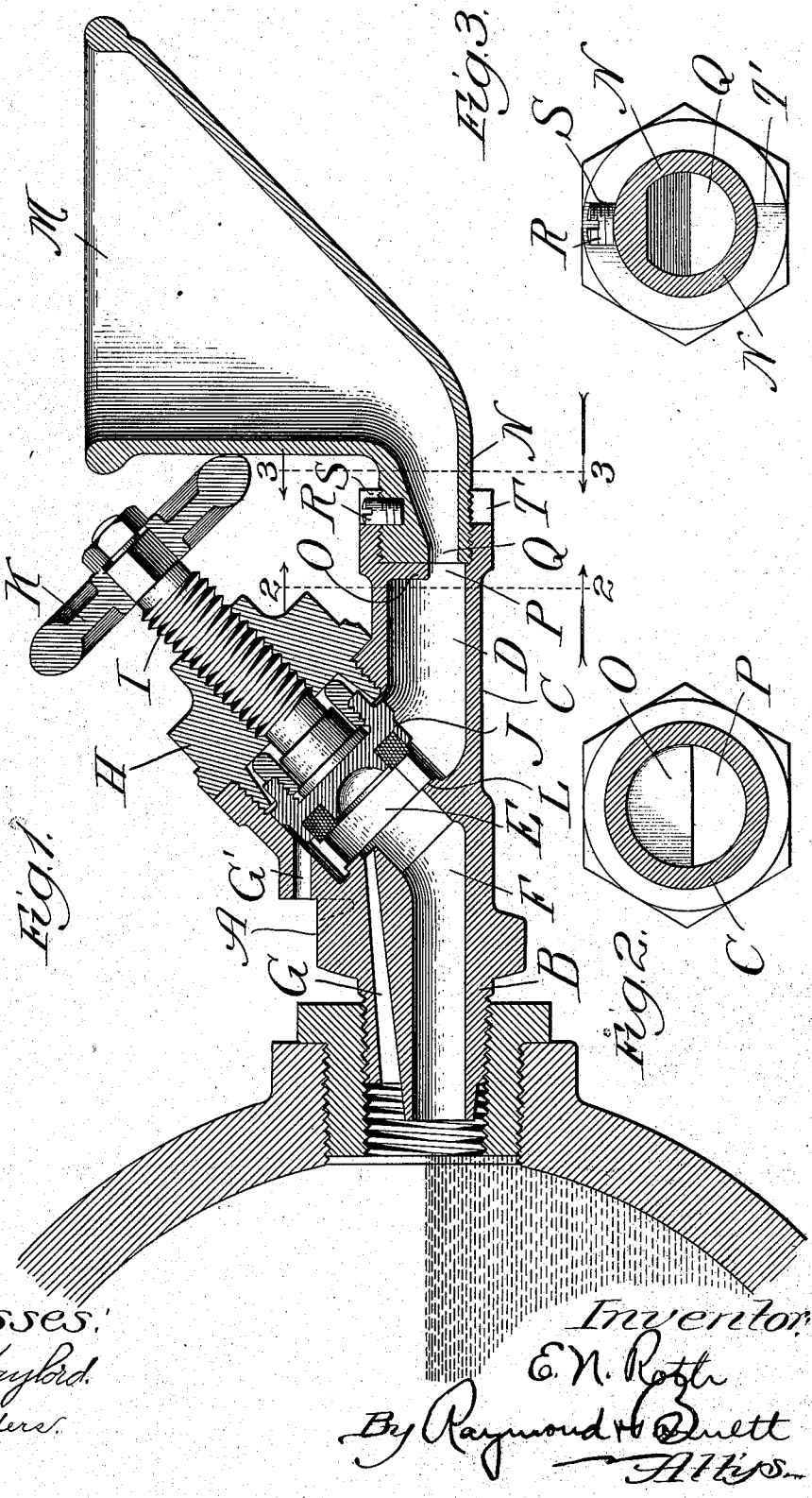
No. 885,865. PATENTED APR. 28, 1908.

E. N. ROTH.

FILLING ATTACHMENT.

APPLICATION FILED MAR. 17, 1906.



Witnesses:
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UNITED STATES PATENT OFFICE.

EDWARD N. ROTH, OF CHICAGO, ILLINOIS, ASSIGNOR TO EGBERT H. GOLD, OF CHICAGO, ILLINOIS.

FILLING ATTACHMENT.

No. 885,865. Specification of Letters Patent. Patented April 28, 1908.

Application filed March 17, 1906. Serial No. 306,604.

To all whom it may concern:

Be it known that I, EDWARD N. ROTH, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Filling Attachments, of which the following is a specification.

My invention relates to improvements in filling attachments, and is especially adapted for use as a filling attachment for the expansion-drum of a hot-water car-heating system.

The object of my invention is to provide a device of the character described, in which the possibility of dust, cinders and the like finding their way into the valve mechanism, when the device is not in use as a filler, is obviated, and which shall be of simple and inexpensive construction.

These, and such other objects as may hereinafter appear, are attained by my invention, a preferred embodiment of which is shown in the accompanying drawings, in which like reference characters indicate the same parts throughout.

In the drawings, Figure 1 is a longitudinal section through the apparatus, showing the funnel in its upturned position, or the position which the same will assume when the device is being used as a filler. Fig. 2 is a vertical, cross-sectional view, the section being taken on the line 2—2 of Fig. 1, looking in the direction indicated by the arrows. Fig. 3 shows a vertical cross-section on the line 3—3 of Fig. 1, looking in the direction indicated by the arrows.

In the several figures of the drawings, A is a casting forming a valve casing and having a forwardly extending neck B and a rearwardly extending neck C. Leading inwardly through the neck C is a passage D, opening into a valve chamber E. Leading outwardly from the valve chamber E, through the neck B, is a water passage F and a vent or air passage G. The end of the neck B is screw-threaded for attachment to an expansion-drum, or other connection. The upper part of the valve chamber E is closed by a cap or bonnet H, through which extends the valve stem I, which carries upon its inner end the valve piece J and upon its outer end the hand-wheel K. The valve stem I is provided with screw-threads adapted to engage screw-threads upon the bonnet H. The rotation of the hand-wheel K and valve stem I in one direction carries the valve stem inwardly and causes the valve-piece J to seat itself upon the valve-seat L. Communication between the passages D and F is thus shut off. Rotation of the valve stem and hand-wheel in the opposite direction moves the valve piece J away from its seat L and establishes communication between the passages D and F.

The outer end of the neck C is interiorly screw-threaded. The filling funnel M is provided with a neck N, this neck N being exteriorly screw-threaded for connection with the screw-threaded neck C of the casting A. Near the outer end of the neck C the latter is interiorly provided with a lip O depending from the upper wall of the passage D and forming a partition extending slightly more than half-way across the passage. The opening P is thus restricted to a semi-circular form, as clearly shown in Fig. 2. The opening Q, through the end of the funnel-neck N, is similarly restricted to a semi-circular form, as shown in Fig. 1 and Fig. 3. These openings P and Q, as thus formed, are adapted to register with each other when the funnel is in the upturned position, as shown in Fig. 1, and to be out of register when the funnel is inverted. To limit the rotation of the funnel and prevent its becoming unscrewed and separated from the casting A, I provide the neck of the funnel with a check-screw R, and cut away the neck C at its end, as shown in Fig. 3, so as to form shoulders S and T against which the screw R may abut. The funnel is thus permitted to have a rotary movement through substantially one-half a revolution. When at the limit of its rotation in one direction, the open mouth of the funnel is upward and a continuous passage is provided from the funnel into the casing A. When the funnel is at the limit of its rotation in the other direction the mouth of the funnel is down and the passage from the funnel into the casing A is closed.

The operation of the device may be described as follows: When it is desired to fill the expansion-drum, or other connection, the funnel M is turned upwardly and the valve opened by rotating the hand-wheel K and valve stem I. Water being poured into the funnel will find its way into the passage D and thence through the valve chamber E to the passage F, whence it will flow out through the open end of said passage. As the water

flows through the device and into the tank the air displaced by it will find a vent through the passage G into the valve chamber E and thence out through the passage G′, leading from the valve chamber through the wall of the valve-casing. When the apparatus is sufficiently filled with water, the water will be forced through the air-outlet port G′, thereby indicating that fact. The valve may now be closed and the funnel inverted, the latter assuming the position shown in Fig. 4. The passage leading from the funnel into the casing is thereby closed and the entrance of dust, cinders, etc., into the valve effectually prevented. In devices of this class, as heretofore constructed, considerable trouble has been experienced by reason of the fact that dirt and cinders could find their way into the valve chamber, preventing the perfect seating of the valve and otherwise interfering with the perfect working of the device. By he use of my invention I am enabled to provide a form of filling attachment in which this source of trouble is eliminated.

I claim:

In a filling device, the combination with a casing having a fluid passage-way therethrough, of a partition at the end of said passage-way and closing the upper half thereof, a funnel, said funnel having a neck at substantially right angles to the funnel, said neck being rotatably connected with the casing and provided with a thickened part wedge shaped in longitudinal section which lies behind said partition when the funnel is in its upright position and which obstructs the passage from the funnel to the casing when the funnel is inverted.

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Witnesses:
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