

E. RATH.
Bottle-Stoppers.

No. 155,546.

Patented Sept. 29, 1874.

Fig: 1.

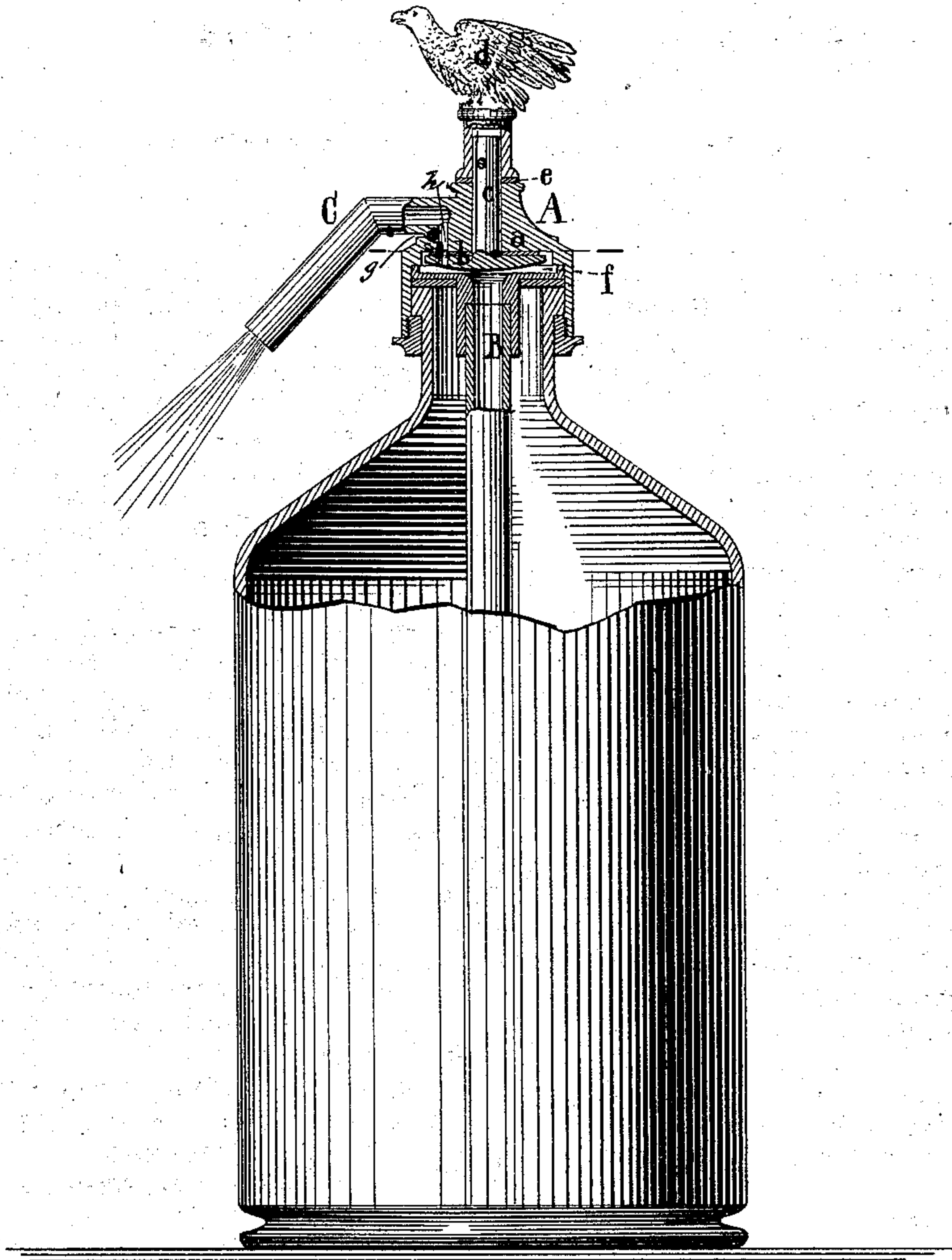
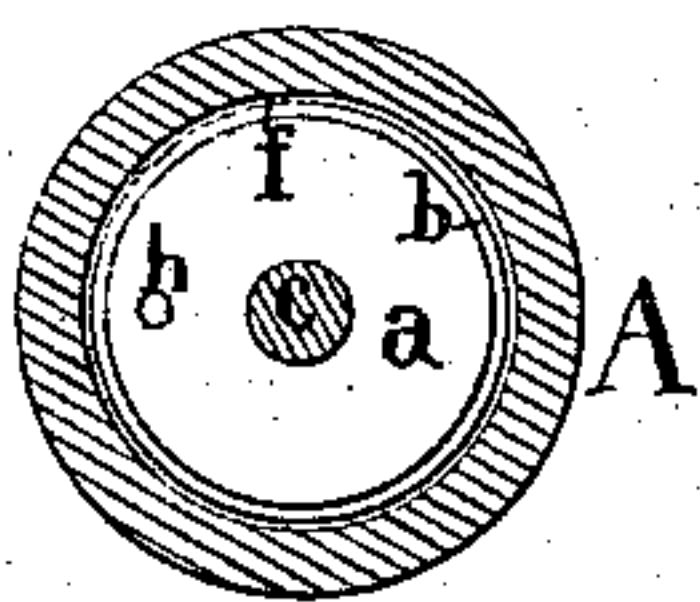


Fig: 2.



Witnesses:

Chas. Wahlers
Henry Gentner

Inventor.

Emil Rath
per
Van Santvoord & Hauff
attys

UNITED STATES PATENT OFFICE.

EMIL RATH, OF HOBOKEN, NEW JERSEY.

IMPROVEMENT IN BOTTLE-STOPPERS.

Specification forming part of Letters Patent No. **155,546**, dated September 29, 1874; application filed September 11, 1874.

To all whom it may concern:

Be it known that I, EMIL RATH, of Hoboken, in the county of Hudson and State of New Jersey, have invented a certain new and Improved Bottle-Stopper, of which the following is a specification:

This invention consists in a disk-valve which works against a seat formed at the upper surface of a chamber, which is formed in a head capable of being secured to a bottle, said disk being provided with a stem that extends up through the head, while both the disk and its seat are furnished with holes, the hole in the seat being made to communicate with a discharge-spout that emanates from the side of the head in such a manner that the disk is held up against its seat by the pressure of the gases in the vessel to which the head is attached, and when said disk is turned in the proper direction the liquid from the bottle discharges without coming in contact with any spring or other metal part liable to corrode, and at the same time a bottle-stopper is produced which is simple, cheap, durable, and easily operated.

This invention is illustrated in the accompanying drawing, in which Figure 1 represents a vertical central section. Fig. 2 is a horizontal section.

Similar letters indicate corresponding parts.

In this drawing, the letter A designates a head, in the interior of which is formed a seat, *a*, against which works the disk or valve *b*. The head A is intended to be secured to the top of a bottle containing liquid under pressure, and the seat *a* forms the top of a chamber, *f*, which communicates, by a descending pipe, B, with the interior of the bottle. From the valve *b* rises a stem, *c*, through the top of the head A, and on the outer end of this stem is secured a handle, *d*, and between the handle and the top of the head is placed a washer, *e*, preferably made in the form of a spring, so that by its action the valve *b* is held up against the seat *a*. The handle *d* is, by preference, made in the form of an eagle, or in

any other suitable ornamental form. From one side of the head A extends the discharge-spout C, and this spout communicates with the chamber *f* by means of a hole or port, *g*, extending through the seat *a*. In the disk or valve *b* is also a hole, *h*, and if said valve is turned in the proper position, the hole *h* coincides with the port *g*, and the liquid from the interior of the bottle is free to discharge. This position is indicated by the handle *d*, which is secured to the stem of the valve in such a manner that the same points in the direction of the spout C, when the valve is open, and by turning the handle to any other position the valve is closed. The valve is faced with india-rubber, or other suitable material which is not affected by the liquid in the bottle; and if the bottle is charged, the pressure of the gases in the same force the valve up against its seat. By these means all springs can be dispensed with, and a valve is obtained which closes tight, and which can be opened easily and gradually, so that the liquid from the bottle will discharge gently, and the danger of spilling is avoided.

My stopper can also be applied with advantage to soda-fountains, or to all vessels containing liquid under pressure.

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

The disk-valve *b*, working against a seat, *a*, in a chamber, *f*, formed in the interior of a head, A, from the side of which extends the discharge-spout C, said seat and valve being provided with holes *g* *h*, respectively, while the valve is provided with a stem carrying a handle, *d*, substantially in the manner and for the purpose herein shown and described.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 8th day of September, 1874.

EMIL RATH. [L. S.]

Witnesses:

W. HAUFF,
E. F. KASTENHUBER.