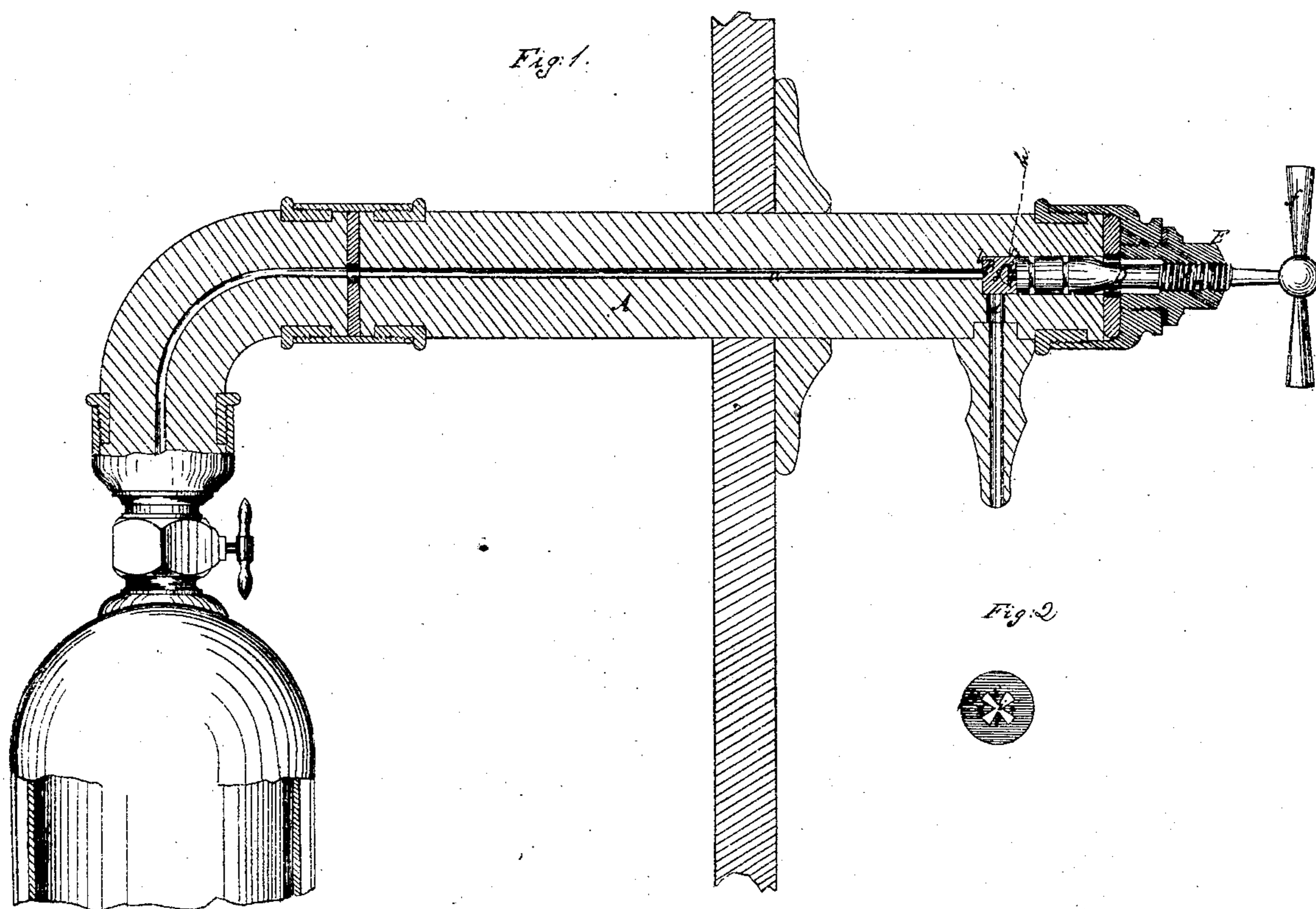


Schultz & Warner

Stop-Cock.

N^o 76106

Patented Mar. 31, 1868.



Witnesses:
Geo. J. Southern
Gustav Berg

Inventors:
L. Schultz
H. Warner
per
von Sartorius & Haupt
Attys

United States Patent Office.

CARL SCHULTZ AND THOMAS WARKER, OF NEW YORK, N. Y.

Letters Patent No. 76,106, dated March 31, 1868; antedated March 18, 1868.

IMPROVEMENT IN STOP-COCKS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that we, CARL SCHULTZ and THOMAS WARKER, of the city, county, and State of New York, have invented a new and useful Improvement in Stop-Cocks; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which drawing—

Figure 1 represents a longitudinal central section of this invention.

Figure 2 is a detached plane of the valve in a larger scale than the previous figure.

Similar letters indicate corresponding parts.

This invention relates to a stop-cock, the body of which is made of glass or other vitreous material, and provided with a flat or conical seat, against which the valve is pressed by means of a screw-handle lever or other suitable device, in such a manner that a stop-cock is obtained which is easily kept tight, even against liquid or fluid under a high pressure, and which is so constructed that the liquid or fluid in discharging will pass entirely through glass, and will not be permitted to come in contact with any metal or other material liable to impart to the same an impure taste or deleterious properties.

The valve is composed of a disk of leather, India rubber, or other suitable soft material, which is secured to the end of a metal stem by means of a button, formed at the end of said stem, and dropped into a circular recess in the disk, said recess being provided with lips, which catch over the edge of the button and retain the same firmly in position, without, however, preventing it from turning on the button in such a manner that the valve can always be firmly pressed up against the seat, and a close fit is obtained without danger of splitting the vitreous body of the stop-cock.

A represents the body of our stop-cock, which is made of glass, or some other vitreous material. This body is provided with a channel, *a*, the outer end of which is enlarged so as to form a recess, *c*, and seat, *b*, for the valve B. From the recess *c*, and close to the seat *b*, extends a lateral channel, *d*, which communicates with the discharge-spout C, and in practice this lateral channel will be made somewhat larger than the channel *a* in the body A, so that the liquid will discharge freely and without causing a back pressure on the valve. The spout C is also made of glass or other vitreous material, and it is either made solid with the body A, or connected to the same by a suitable cement. The recess *c* is made cylindrical, just large enough to receive the valve B, which is composed of a disk of leather, or other suitable material, that is secured to the end of the metallic stem D.

In the drawing a stem is shown, which is provided with a screw-thread, *l*, and handle, *f*; the screw-thread being tapped into a metal cap, E, which is attached to the end of the body A, so that by turning the handle the valve is moved toward and from the seat *b*. It must be remarked, however, that, instead of the screw-handle, other means, such as knuckles or lever-handles, might be connected with the valve without changing the result.

The valve B is secured to the stem E by means of a button, *g*, which is formed at the end of said stem, and which drops into a circular recess, *h*, (see fig. 2,) in the valve B. This recess is provided with lips *i*, and if the button has been inserted, these lips catch over the inner edge thereof, and prevent the valve from coming off spontaneously. At the same time the valve is free to revolve on the end of the stem, and it can be firmly forced up against its seat without being liable to be cut or injured. It will be seen that the lateral passage *d* is beyond the valve-seat *b* of the supply-channel; thus both passage and channel will be closed by the valve, and any fluid which may escape at the valve-seat will be checked when it reaches the discharge-passage *d*.

The inner end of the body A of our stop-cock will be connected with a fountain containing carbonic acid, water, or other liquid or fluid under pressure, and the connection will be effected by an elbow, also made of glass or other vitreous material, so that the liquid or fluid is not permitted to come in contact with any other material but glass, and the deleterious effect of stop-cocks made of brass or other metallic material is avoided.

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

The stop-cock herein described, the same having its body constructed of glass or other vitreous material, with a valve, B, provided with recess *h* and lips *i*, for connection to the operating-stem, and with a lateral

passage, *d*, beyond the valve-seat of the supply-channel *a*, the same valve thus having two faces and two seats, and closing the passage *a* by its direct thrust, and the channel *d* by its lateral expansion, when all parts are constructed and operating substantially as described.

CARL SCHULTZ,
THOMAS WARKER.

Witnesses:

W. HAUFF,

GEO. F. SOUTHERN.