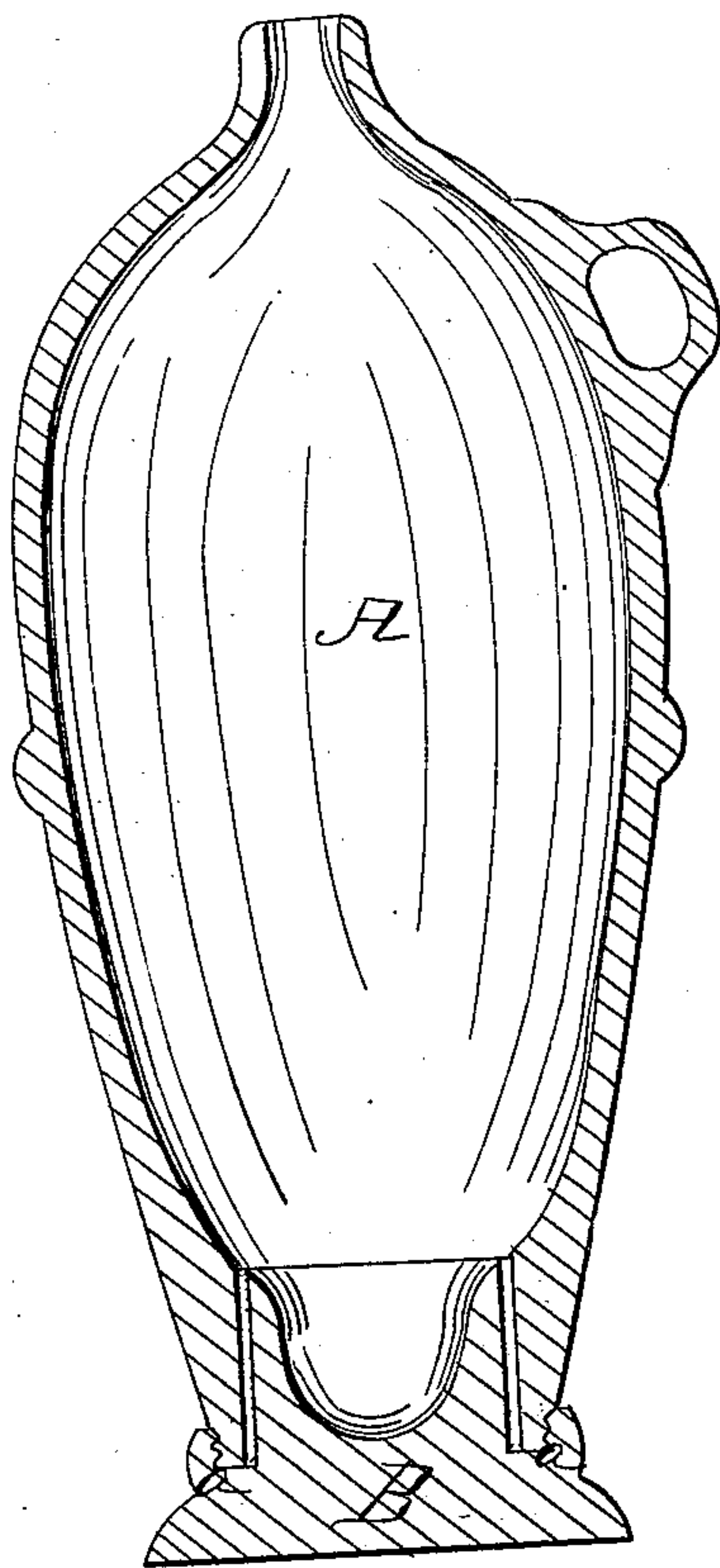


*Sheldrake & Bready,*

*Soda Fountain.*

*N<sup>o</sup> 53,494.*

*Patented Mar. 27, 1866.*



*Witnesses,  
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# UNITED STATES PATENT OFFICE.

CHARLES C. SHELDRAKE AND JOSEPH BREADY, OF PHILADELPHIA, PA.

## IMPROVED SODA-WATER APPARATUS.

Specification forming part of Letters Patent No. 53,494, dated March 27, 1866.

*To all whom it may concern:*

Be it known that we, CHARLES C. SHELDRAKE and JOSEPH BREADY, of the city and county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Soda-Water Cisterns; and we do hereby declare the following description and accompanying drawing are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use our said invention or improvements without further invention or experiment.

The nature of our invention and improvements has reference to the manner of securing the bottoms of soda-water fountains or cisterns, by which they can be removed from and attached to the same with greater facility and more convenience than heretofore, the connection being made by a simple screw thread or threads, and the lower portion of the fountain and the bottom being so constructed in relation to each other that a chamber is formed, whereby suitable packing can be so applied as to effectually prevent the possibility of any escape of the fluid contents that may be placed therein. Also, another important feature, which we believe, from experience in the matter, has been overlooked. It is an object of the first importance, in the preparation of soda-water and other drinks in the concoction of which river-water is used, to prevent the agitation of the sediment which is always precipitated upon the bottom of such vessels which contain it, and which sediment is increased daily in soda-cisterns. When the fluid is withdrawn for use the agitation of the sedimentary particles is proportionate to the surface of the bottom of the cisterns over which they are spread; and whereas a square bottom of said cisterns contains on all its parts alike an equal amount of sediment, which is precipitated thereon, to remedy which we construct a concave-shaped bottom or cup, which tends to concentrate to a common center all of the sedimentary particles, the advantage of which will be obvious when it is stated that the agitation of the fluid in the cistern consequent upon the discharge or emission of the same for use causes an agitation of said particles, which agitation is not only proportionate to the base or inner diameter of the cistern, but depends upon the mutual attraction of the particles for each other,

and therefore the particles in the concave or cup bottom of the cistern being concentrated, whereas in a square or flat bottom, such as are in use, they are dispersed and spread over a large space, the mutual attraction, as represented in the cup or concave shaped bottom, acts as a prevention of the ascension of said particles, and hence the fluid is much purer and freer in the cup than in the square or flat shaped bottoms of cisterns.

To enable any one skilled in the art to make and use our invention, we will proceed to describe its construction and operation.

The figure in the drawing, A, represents a vertical section of a soda-water fountain or cistern. It is constructed of the size and shape and of such material known in the manufacture of such vessels. The inner diameter of the lower portion of the fountain is enlarged inwardly. The entire circumference from the terminus of the enlargement to the bottom end is made perfectly straight. The height or distance between the two points is not very material, depending in a measure upon the relative position of the cup B to the same. The cup or concave shaped bottom B is made with a sufficient base to support the fountain when standing up, and is cast in one piece, having a screw thread or threads, *a*, fitting into corresponding ones on the outer diameter of the fountain, at the bottom end of it. We will here remark that it is obvious that the manner of connecting the bottom plate or cup to the fountain, is much more convenient and practicable than the method now in use of securing the same by bolts, which require more labor in tightening and removing them than in the simple connection made by the screw-threads, which bottom so secured can be removed and tightened with facility. A sufficient portion of the bottom plate, B, projects up in the fountain so as to form a cup or a hollow of a concave shape to receive the sediment, which by the shape thus given is concentrated in the center of it, and is not susceptible of being diffused through or thrown up to the surface of the liquid contents placed therein when withdrawn, as hereinbefore described. The diameter of the cup is made smaller than the inner diameter of the fountain, as will be observed, whereby a space or chamber is formed to receive suitable packing for the purpose of



making the fountain at this point effectually fluid-tight.

If deemed necessary or more desirable, the diameter of the cup may be made to fit tight around the inner diameter of the fountain and the packing thus be dispensed with.

We do not propose to limit ourselves to the exact size of the cup or concave shaped bottom, as it may be made small or larger in height, as the circumstances of the case may require.

Having thus fully described our invention, what we claim therein as new, and desire to secure by Letters Patent, is—

1. The cup or concave shaped bottom B, as constructed and applied in combination with the fountain A, substantially in the manner and for the purpose as herein set forth.

2. The application of the cup or bottom plate, B, in its connection with the fountain by means of the screw-threads *a*, substantially in the manner and for the purpose as herein set forth.

CHARLES C. SHELDRAKE.  
JOSEPH BREADY.

Witnesses:

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