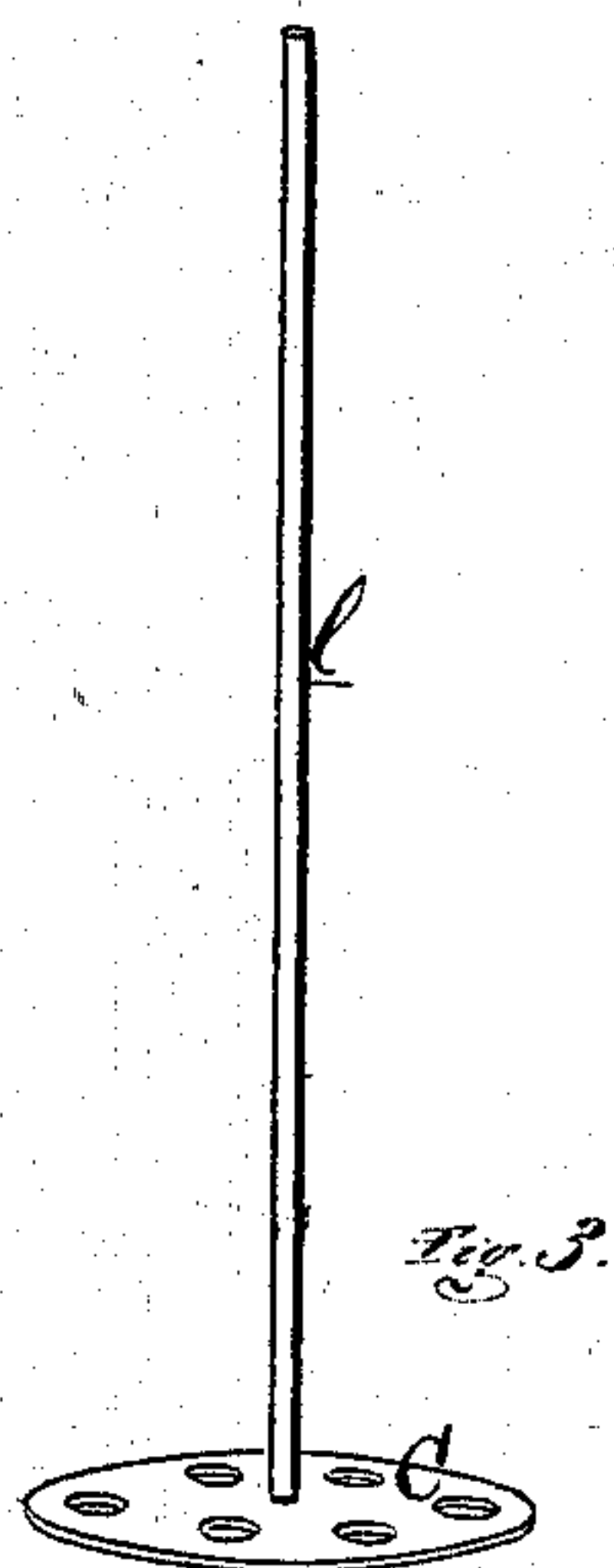
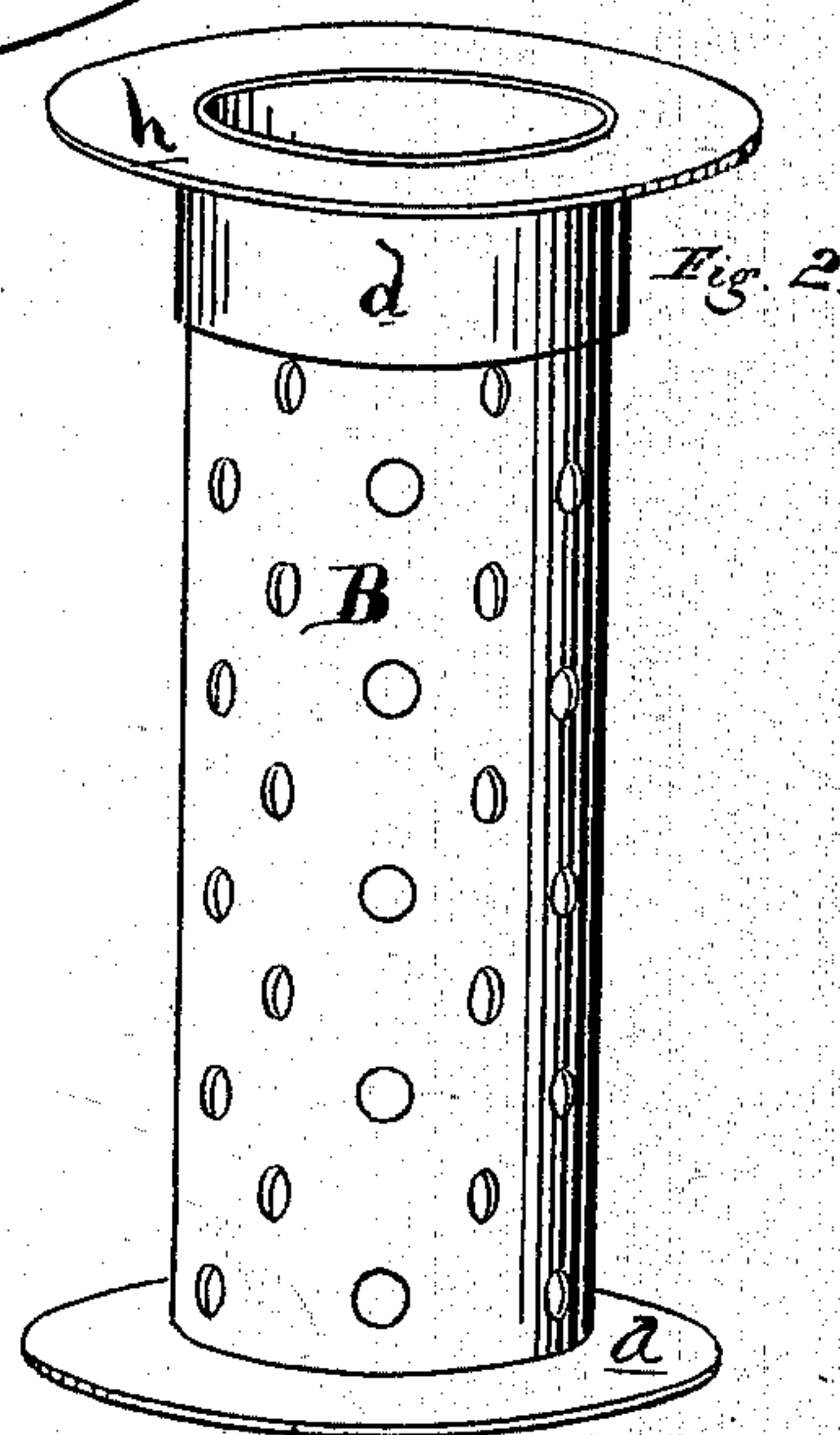
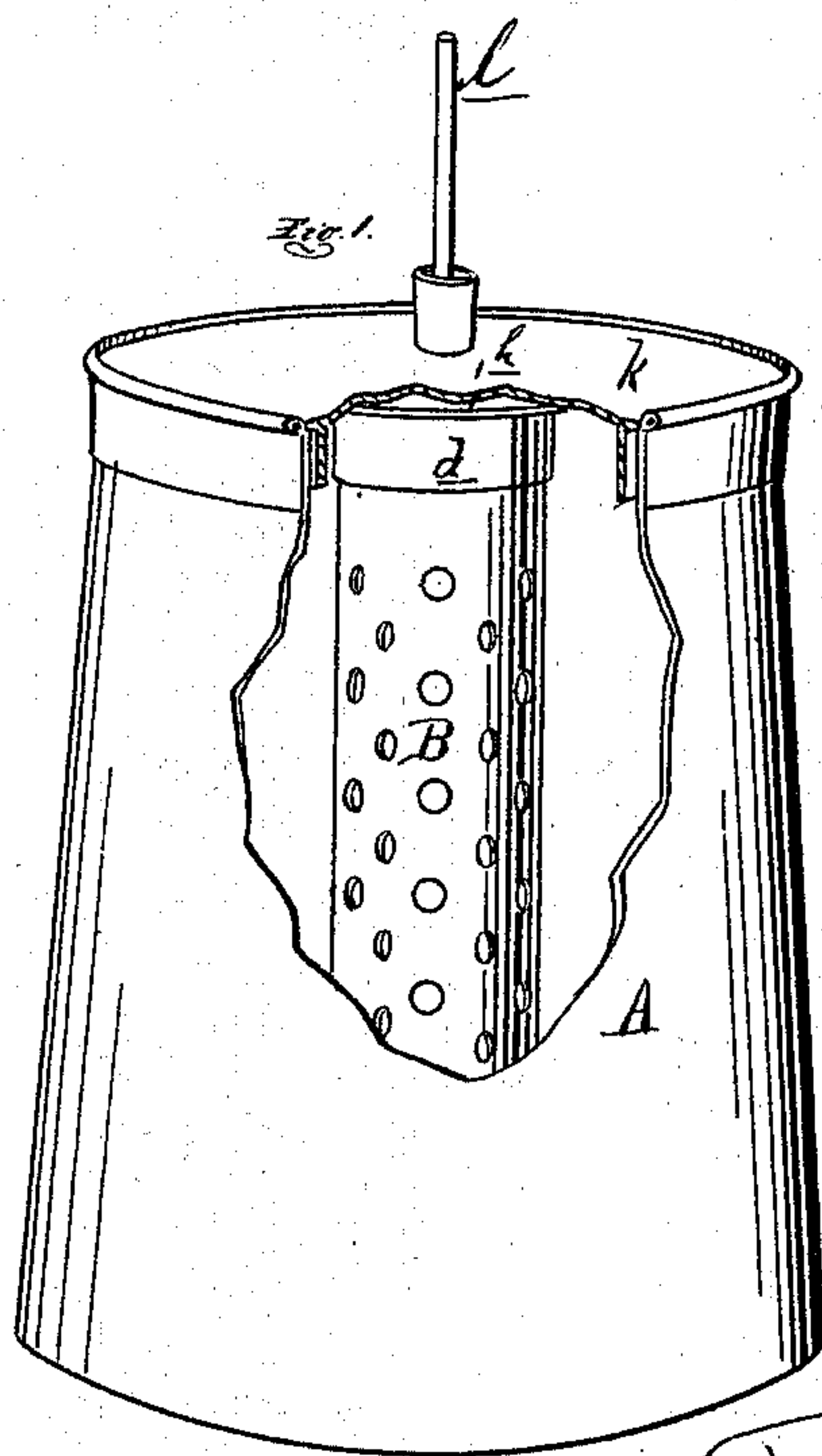


G. P. COAN.
Reciprocating Churns.

No. 139,658.

Patented June 10, 1873.



ATTEST:
H. S. Sprague
H. F. Everts.

INVENTOR.
George P. Coan
By Atty-
Thos S. Sprague

UNITED STATES PATENT OFFICE.

GEORGE P. COAN, OF WYANDOTTE, MICHIGAN.

IMPROVEMENT IN RECIPROCATING CHURNS.

Specification forming part of Letters Patent No. **139,658**, dated June 10, 1873; application filed March 8, 1873.

To all whom it may concern:

Be it known that I, GEORGE P. COAN, of Wyandotte, in the county of Wayne and State of Michigan, have invented a new and useful Improvement in Churns; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon, and being a part of this specification, in which—

Figure 1 is a perspective of my improvement attached to a churn-body, with a portion of the wall broken out. Fig. 2 is a perspective of the attachment detached. Fig. 3 is a perspective of the dasher and rod.

It is an undisputed fact that the fatty matter from which butter is made is secreted in small sacks or globules. It is the office of the churn, by agitation, to break up these globules and release such fatty matter, which is then gathered and termed butter.

The nature of this invention is to construct a churn that will more quickly release the fatty matter from the sacks than is done by those in ordinary use, thereby greatly facilitating and reducing the labor of churning. The invention consists in an adjustable perforated cylinder inside the churn-body, as more fully hereinafter described.

In the accompanying drawings, A represents an ordinary cylindrical churn-body, and B a smaller cylinder, provided with a foot-flange, *a*, upon which the cylinder B rests; also, it is provided with a cap, which is secured upon said cylinder B by an ordinary stove-pipe joint, the cylindrical part *d* of the cap being elongated, to allow the extension or shortening up of said cylinder B, to coincide with

varying lengths of churn-bodies. This cap is provided with a flange, *h*, which, when the cylinder B is in place and operation, will rest against the under side of the churn-cover *k*. The cylinder B is thickly perforated, as shown. C is the dasher, secured to the lower end of the rod *l*, and is of such a diameter as to allow a free reciprocating motion within the cylinder B. This dasher is provided, also, with perforations, as shown.

When wooden churn-bodies are employed this cylinder B may be rigidly secured to the center of the bottom of said churn-body, and the cap may be in like manner secured to the under side of the cover, so that when the cover is fitted onto the body the cap will at the same time fit onto the inner cylinder. This, however, is not necessary, as the flanges *a* *h* will hold it in place, the former resting on the bottom of the churn-body, while the latter, by means of the adjustability hereinbefore described, will rest against the churn-cover.

In the operation of this device, by the reciprocation of the dasher, the cream is very violently agitated through the perforations in the inner cylinder and dasher, and the fatty matter very quickly released from the sacks or globules.

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

In churns, the perforated and adjustable cylinder B, provided with flange *a* and cap *d*, the latter being also provided with flange *h*, as described, and for the purposes set forth.

GEORGE P. COAN.

Witnesses:

H. S. SPRAGUE,
THEO. S. DAY.