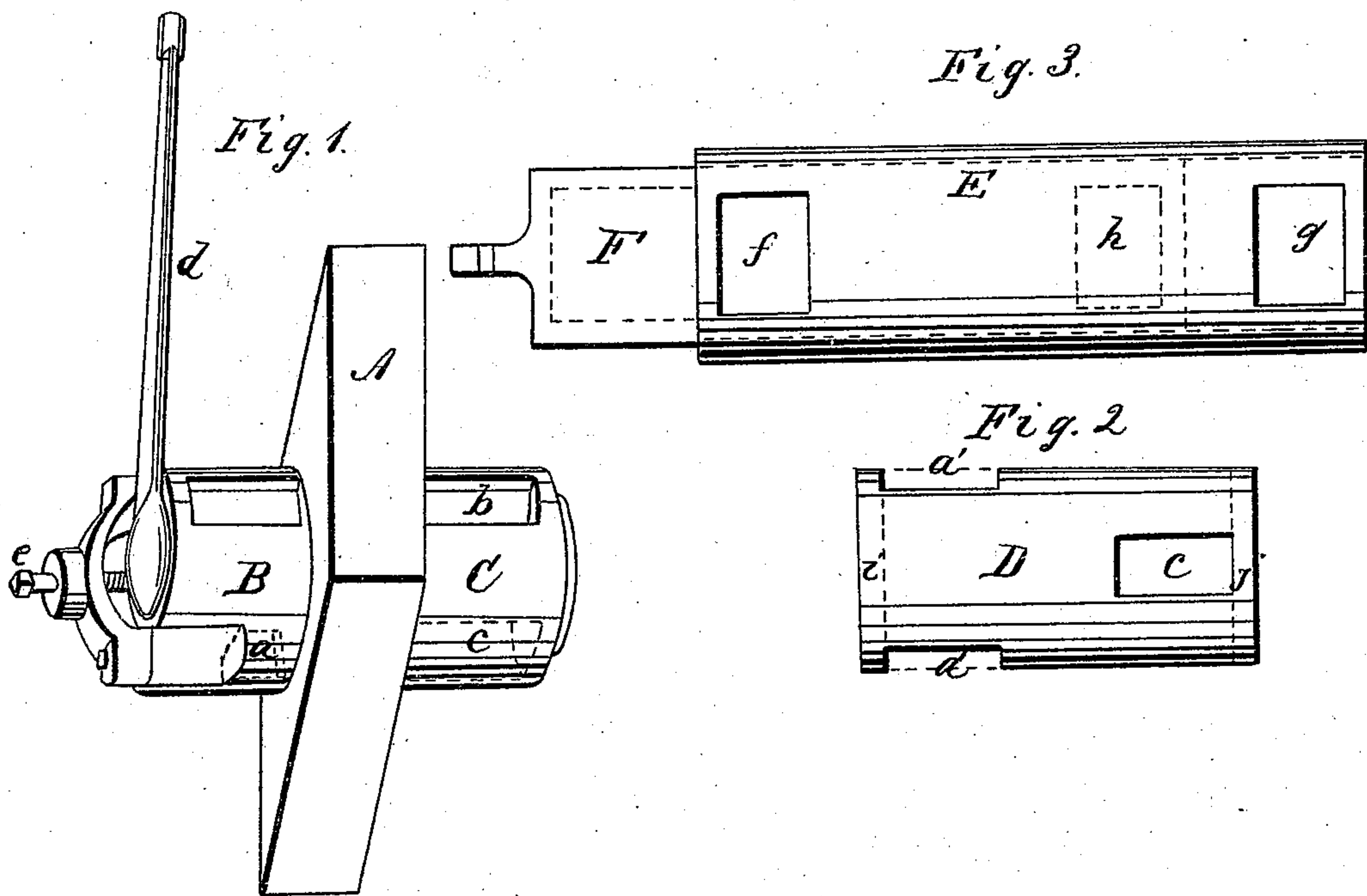


E. Quinn,
Steam-Boiler Water-Feeder,
No. 52,376, Patented Jan. 30, 1866.



Witnesses;
J. W. Jayne
A. D. Thayer

Inventor;
Emmett Quinn

UNITED STATES PATENT OFFICE.

EMMETT QUINN, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVEMENT IN AUTOMATIC BOILER-FEEDERS.

Specification forming part of Letters Patent No. 52,376, dated January 30, 1866.

To all whom it may concern:

Be it known that I, EMMETT QUINN, of the city of Washington, District of Columbia, have invented a new and Improved Device for Feeding Water into Steam-Boilers, and for other analagous uses; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

This device is intended to be applied to the boiler, or to a tube connecting therewith, in such a manner that the water is conveyed to the inside thereof and maintained while working at the level desired; and it consists of an outer and inner tube, which may be cylindrical or otherwise, and both supplied at each end with ports or openings so arranged that when applied to a boiler the induction-ports on the outside thereof shall be closed when in operation, before the eduction-ports on the end inside the boiler or connecting therewith shall be opened for the discharge of the water therein.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A, Figure 1, shows a section of the outer shell of a steam-boiler, through which is inserted the inner end, C, of the outer tube or case, B, the outer ports, *a*, of which are shown open, or corresponding in position with the ports *a'* in the inner tube, D, Fig. 2.

The inner port, *b*, in the case or tube B is represented in the drawings as closed, the dotted outline *c*, Fig. 1, showing the location of the port in the inner tube, and in a plane at right angles radially to the ports *a'*, as shown in Fig. 2.

The interior of the outer tube or case and the outside of the inner one are slightly tapering, so that when by use they become loose they can be tightened by means of the set-screw *e*, Fig. 1.

The inner tube, D, is closed at both ends, as seen at *i* and *j*, and is operated by means of the lever *d*.

The water is supplied to the outer ports, *a*, by any convenient method, by which the tube D is filled and then turned by the lever *d* one-fourth a revolution, by which the ports *c* of the inner tube are brought to correspond in position with that of *b* in the case inside of the boiler and the water discharged therein.

An air-chamber may be placed over and connecting with the upper outside port, *a*, to receive any air that may escape from the boiler when being filled while cold.

It is evident that the ports could be so arranged as to accomplish the same result by a longitudinal instead of a rotary movement, as shown in Fig. 3, E of which is the outer shell or case, and *f g* the ports therein, and F the inner case or tube, one port of which corresponds with *f*, the other shown in dotted line at *h*. This arrangement is believed, however, to be inferior to the first one described, and is not claimed at present, but may constitute the subject of another application.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

A hollow interior tube, cylindrical or otherwise, inclosed and fitting neatly within a suitable case, both tube and case provided at or near each end with openings or ports so arranged that when applied to a boiler the induction-ports on the outside of said boiler shall be closed when in operation before the eduction-ports in the end inside the boiler shall be opened for the discharge of the water, substantially as described.

EMMETT QUINN.

Witnesses:

R. B. DONALDSON,
E. BENSON.