

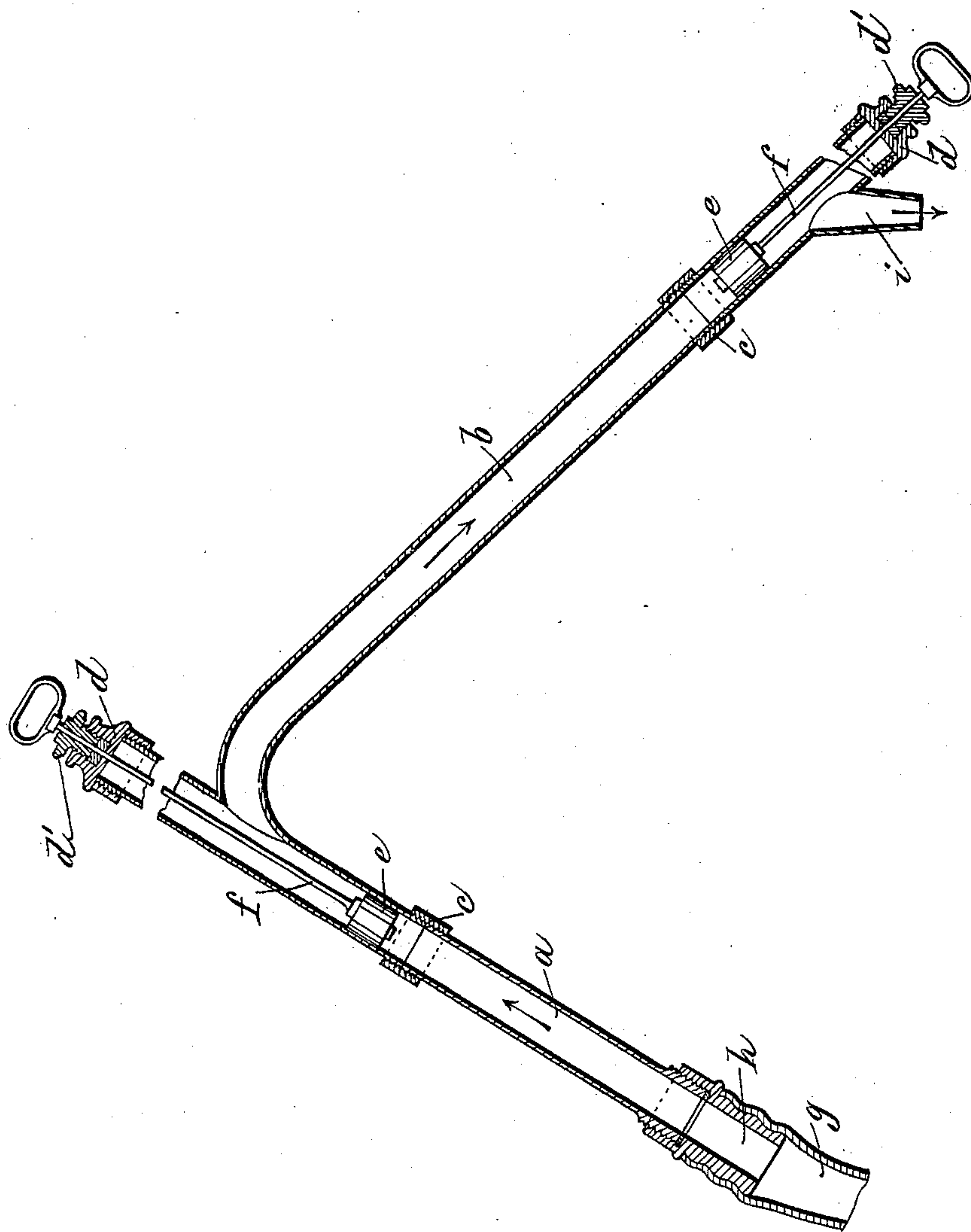
No. 616,731.

Patented Dec. 27, 1898.

F. L. A. RIEMANN.  
SIPHON DELIVERY DEVICE FOR LIQUIDS.

(Application filed June 17, 1897.)

(No Model.)



WITNESSES.

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# UNITED STATES PATENT OFFICE.

FRIEDRICH LUDWIG ALBERT RIEMANN, OF ALTONA, GERMANY.

## SIPHON DELIVERY DEVICE FOR LIQUIDS.

SPECIFICATION forming part of Letters Patent No. 616,731, dated December 27, 1898.

Application filed June 17, 1897. Serial No. 641,182. (No model.)

*To all whom it may concern:*

Be it known that I, FRIEDRICH LUDWIG ALBERT RIEMANN, coppersmith, of No. 8 Lohmühlenstrasse, Altona - on - the - Elbe, in the German Empire, have invented a Siphon Delivery Device for Liquids, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to apparatus for the drawing off and delivery of liquids.

Hitherto it has been the practice to effect the drawing off and delivery of liquids by siphonage started by suction through the mouth. This method is cumbersome, and for corrosive and other unpalatable liquids a special pump or suction tube is required, the operation being thus rendered difficult and inconvenient.

This invention consists of a device for drawing off and delivering liquids mechanically.

In order that this invention may be the better understood, I now proceed to describe the same, reference being had to the accompanying drawing, showing a vertical longitudinal section of the device, and to the letters marked thereon.

The device consists, essentially, of a suction-pipe *a*, from which branches off an exit-pipe *b*. Both pipes can be lengthened or shortened by the insertion of tubes attached by means of socket-nuts *c*.

Each of the tubes *a* and *b* is provided at the end with a hand suction apparatus consisting principally of a stuffing-box *d'*, screwed into a cap *d*, and of a rod *f*, provided with a piston *e*. A flexible tube *g* is attached to the lower end of the suction-pipe *a* by means of a screw-coupling *h* in order to draw the liquid any desired way. The lower end of the exit-pipe *b* is provided with a short pipe *i*, through which the liquid is delivered.

When it is required to draw off any liquid by this device, the suction-tube *a* is placed into the liquid, the piston *e* is drawn beyond the connection with the pipe *b*, and the liquid to be drawn off follows the piston and flows into the exit-pipe *b*. The piston *e* of the exit-pipe is now drawn back beyond the short tube *i*. The liquid to be delivered flows through the

latter and may be collected in a suitable vessel placed under it.

By this apparatus any liquid may be drawn off, and if it is to be used for corrosive liquids, such as acids, &c., it is preferably made of glass, while for other liquids it may be conveniently made of metal.

What I claim, and desire to secure by Letters Patent of the United States, is—

1. Apparatus for the drawing off and delivery of liquids, consisting of a suction-pipe provided at its upper end with a hand suction device for the suction of liquid, and an exit-pipe branching off from the suction-pipe below the suction device, the lower end of such exit-pipe being provided with a delivering-pipe, below which is also arranged a hand suction device for delivering the liquids, substantially as described.

2. A siphon having an outlet-leg, an intake-leg rigid with the outlet-leg and extending beyond the connecting-point, and a suction device held to move in the intake-leg beyond said connecting-point, substantially as described.

3. A siphon having an outlet-leg, an intake-leg connected thereto and extending beyond the connecting-point, a suction device held to move in the intake-leg beyond said connecting-point and another suction device arranged to move in the outlet-leg beyond the outlet-opening thereof, substantially as described.

4. A siphon consisting of a rigid tube having two converging members, one member forming the intake-leg and being extended beyond the connecting-point, a suction device held to move in the intake-leg beyond said connecting-point, and another suction device held to move in the other member or outlet-leg beyond the outlet-opening thereof, substantially as described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

FRIEDRICH LUDWIG ALBERT RIEMANN.

Witnesses:

JOHANN HENCKE,  
GUSTAV WEBER.