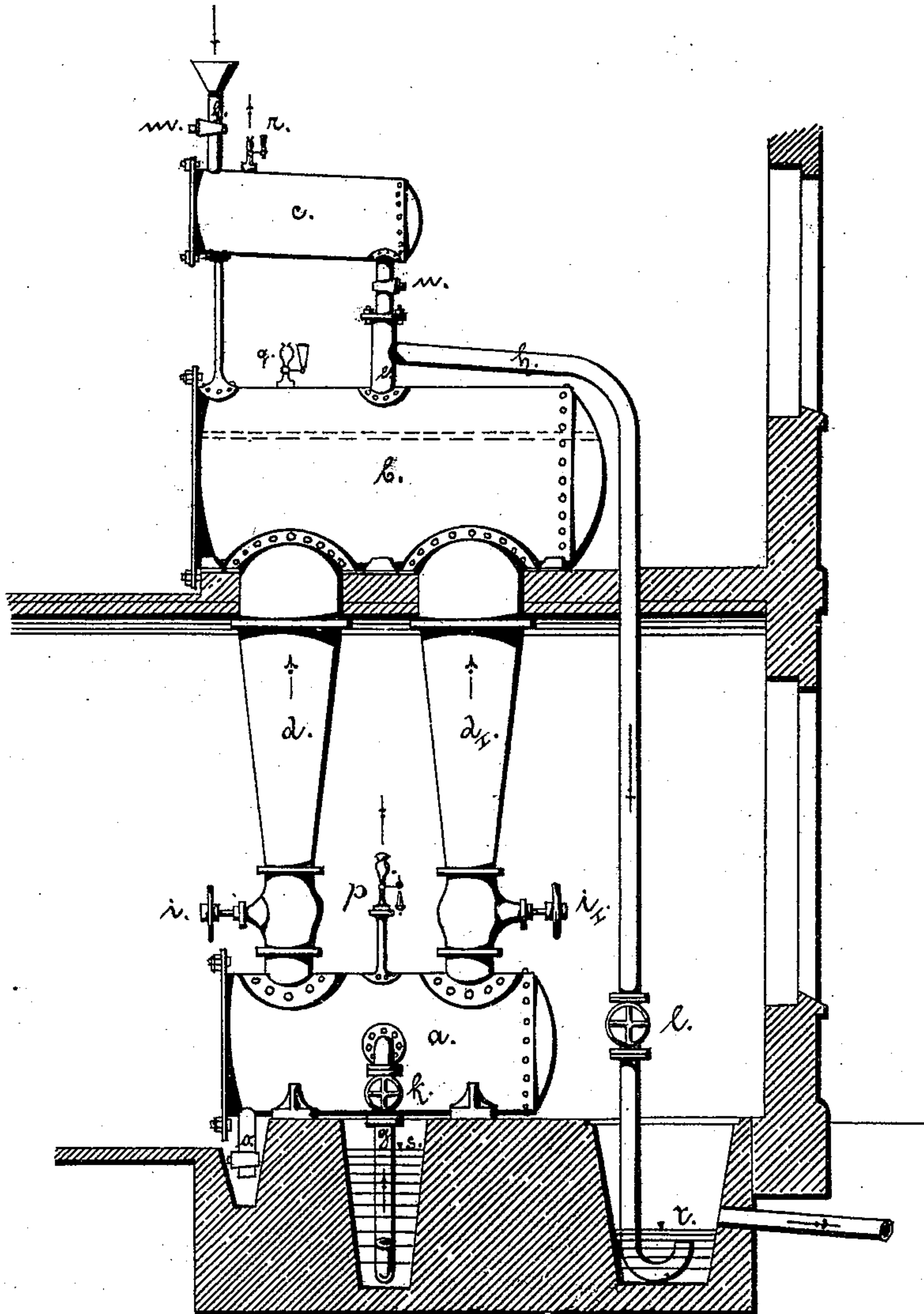


(No Model.)

H. PESCHGES.
CLEARING AND PURIFYING APPARATUS.

No. 541,676.

Patented June 25, 1895.



Witnesses
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UNITED STATES PATENT OFFICE.

HERMANN PESCHGES, OF POTSDAM, GERMANY.

CLEARING AND PURIFYING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 541,676, dated June 25, 1895.

Application filed September 9, 1893. Serial No. 485,201. (No model.)

To all whom it may concern:

Be it known that I, HERMANN PESCHGES, engineer, a subject of the King of Prussia, German Emperor, and a resident of Potsdam, in the Kingdom of Prussia, German Empire, have invented a certain new and useful Improved Clearing and Purifying Apparatus, of which the following is a full, clear, and exact description.

10 The present invention consists of a clearing and purifying apparatus, founded on the principle of the siphon, viz., that if the ends of two communicating tubes are immersed in liquids having differing water levels, the liquid having the higher level will flow to the lower level, the air being excluded from the tubes, through any quantity of intermediate liquid on account of the slight cohesion of its particles.

20 The apparatus is so constructed that it may be employed on a large scale without an air pump and that the scum or impurities deposited in the lower cistern may be removed without the aid of a scum pump, by opening the said cistern.

In order to make the present specification more easily intelligible, reference is had to the accompanying drawings in which similar letters denote similar parts throughout.

30 The apparatus consists of the cistern *a*, the upper cistern *b* having a filter arranged therein and the air chamber *c*, the two cisterns being connected by means of pipes *d d'* and the cistern *b* with the air chamber *c* by the pipe *e*.
35 The air chamber *c* is provided with an inlet *f*. The apparatus has further an inlet pipe *g* and an outlet pipe *h* communicating with the pipe *e*. The inlet pipe *g* has a valve *k*, while the pipes *d d'* are provided with valves *i* and *i'*, the outlet pipe *h* having valve *l*. The inlet to the air chamber *c* has a cock *m* and the connection *e* a cock *n*. The cistern *a* is provided

with an outlet cock *o* and an air cock *p*, the cistern *b* and the air chamber *c* having air cocks *q* and *r*. 45

The operation of the apparatus is as follows: In starting work the valves *k* and *l* and the cock *o* are closed, the other cocks and valves remaining opened. The apparatus may be filled through the funnel above the filter *f*, 50 either direct from the water supply or by means of a hand pump, in the case of the smaller kinds of apparatus. After this has taken place the valves *k* and *l* are opened and all the other valves and cocks, with the exception of *i* and *i'* closed. Thus the water 55 or any other liquid entering the apparatus at *s* will continue to flow out at *t* while the air contained in the same will pass into the air chamber *c* and all other impurities will be deposited in the cistern *a*. As soon as the chamber *c* is filled with air, the valve *n* should be closed and the cocks, *m* and *r* opened, the chamber may then be refilled and the apparatus continue working. 60 65

I claim as my invention—

The combination of the lower cistern *a* having inlet pipe *g* with valve *k* and outlet pipe *o*, the upper cistern *b* with superposed air chamber *c*, pipe connection *e* with cock *n* 70 from said upper cistern to said air chamber, suitable inlet funnel filler and cock *m* to the latter, and outlet pipe *h* to said upper chamber having valve *l* and connecting with the said pipe *e* pipe connections *d* and *d'* between 75 *a* and *b* having valves *i* and *i'* and air cocks *p*, *q* and *r* to the cisterns *a* and *b* and air chamber *c* respectively substantially as described.

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

HERMANN PESCHGES.

Witnesses:

W. BAUTZ,
H. SOHLORF.