

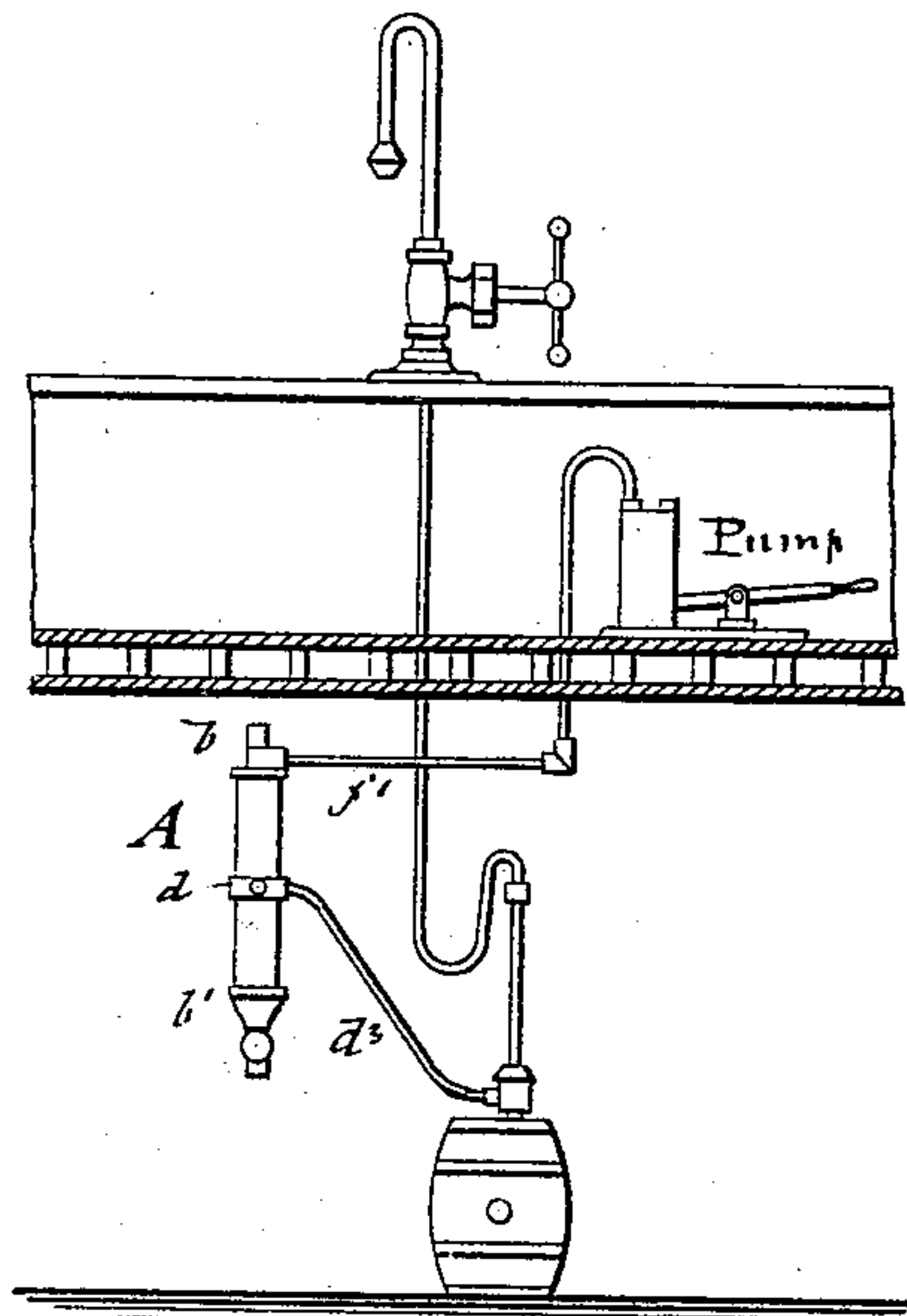
F. MOHN.

ATTACHMENT FOR PNEUMATIC BEER PUMPS.

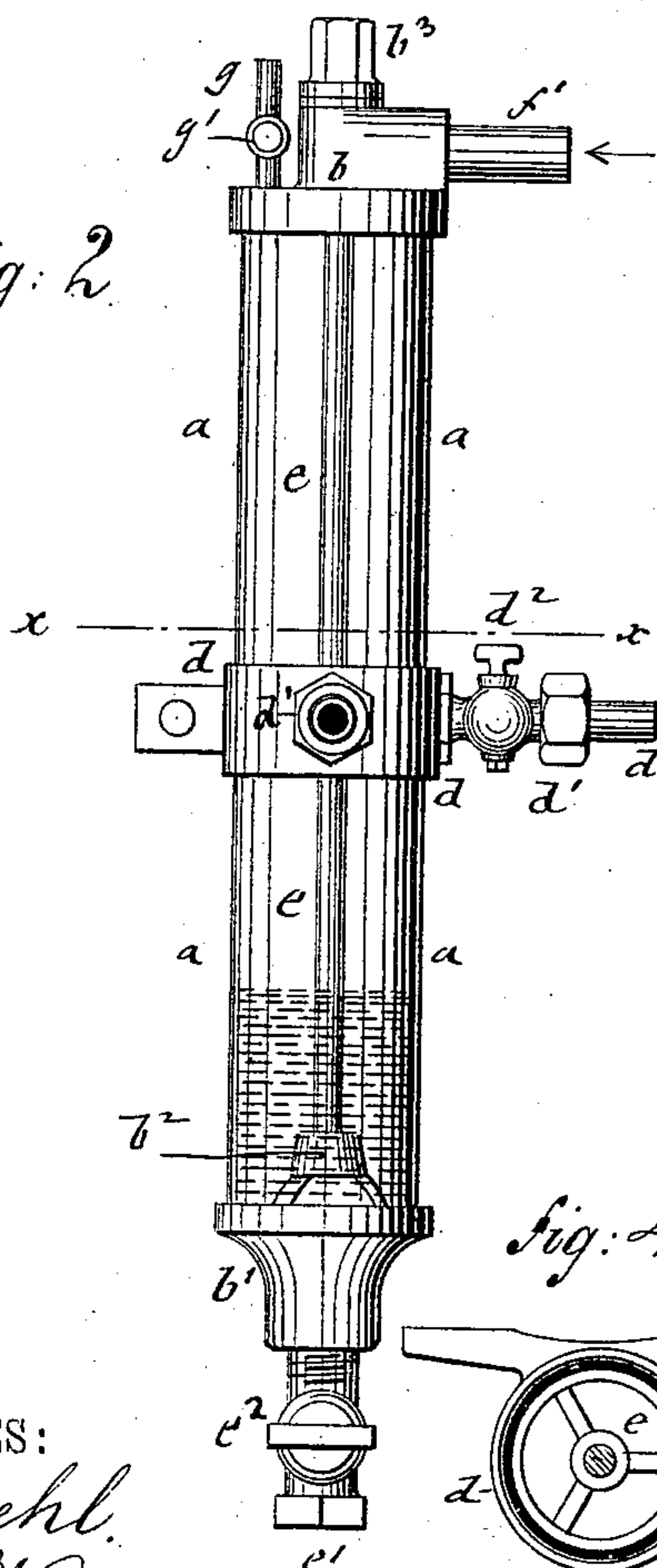
No. 316,163.

Patented Apr. 21, 1885.

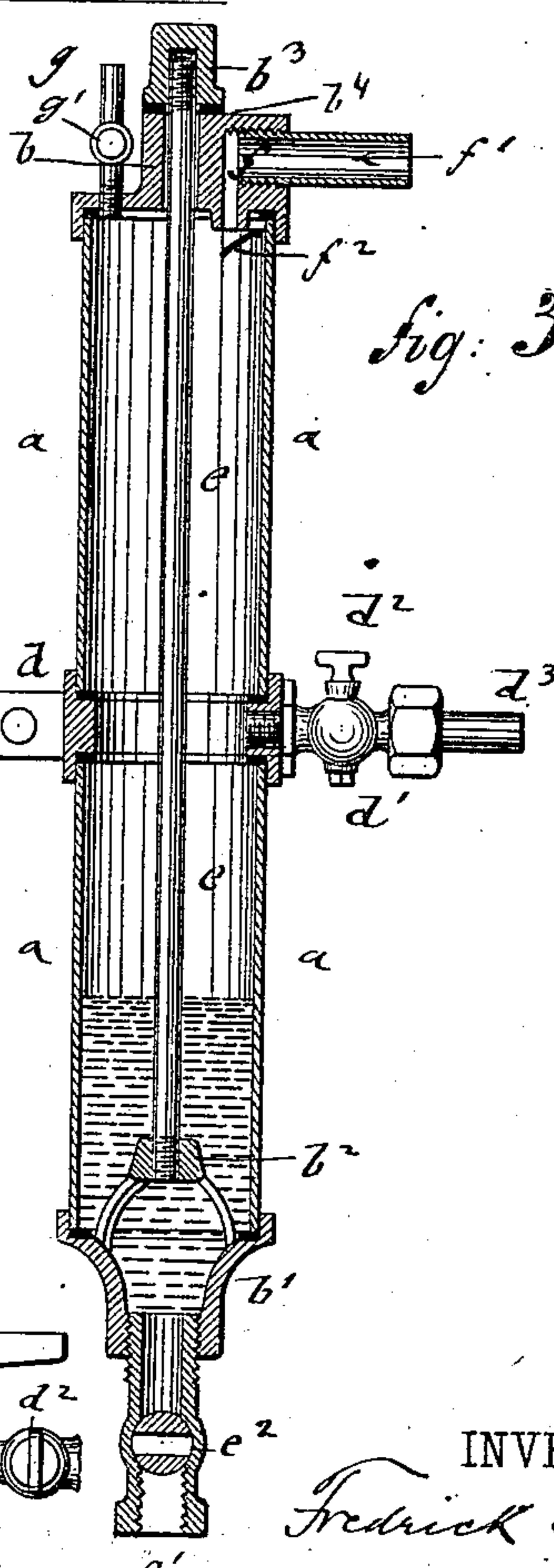
*Fig. 1.*



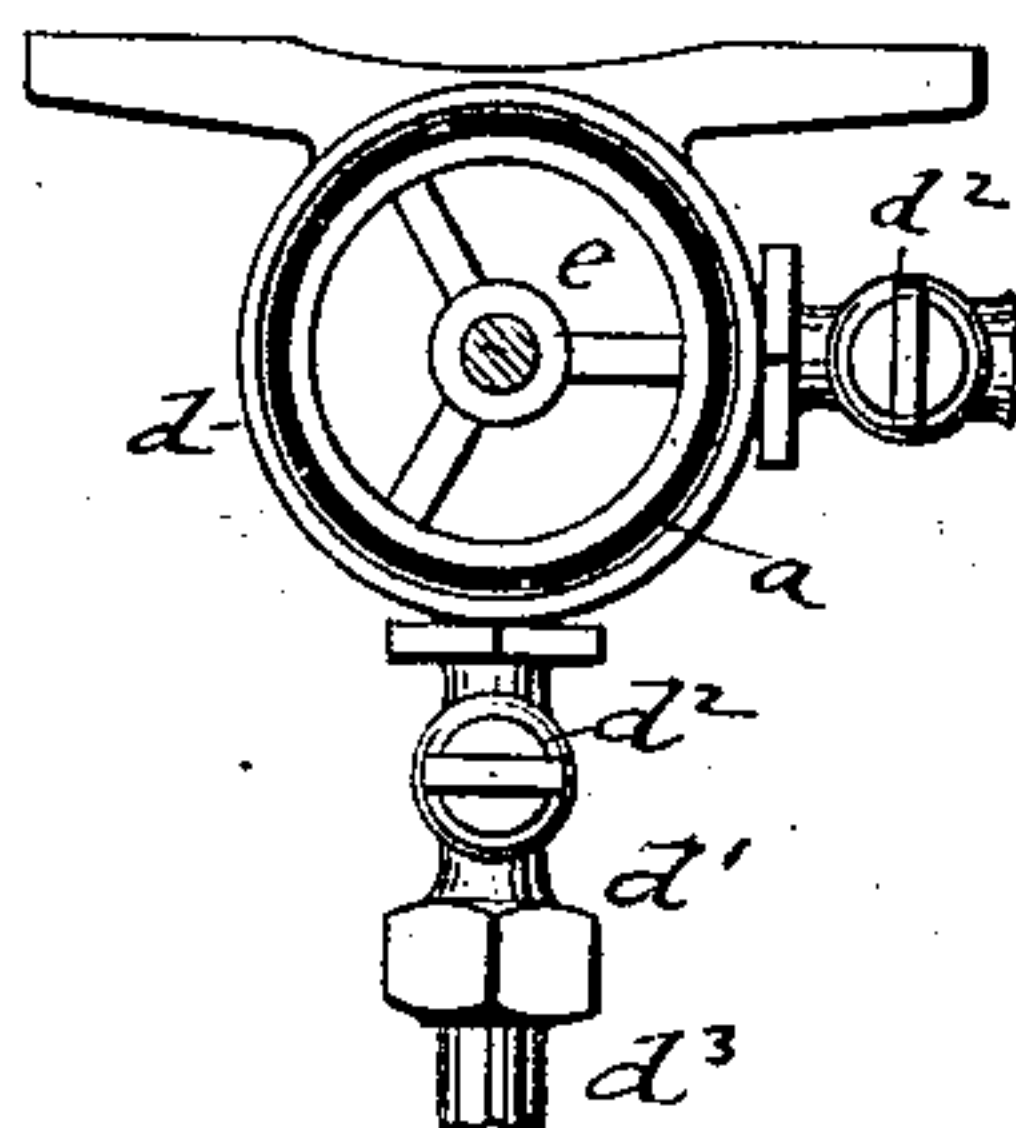
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



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(No Model.)

2 Sheets—Sheet 2.

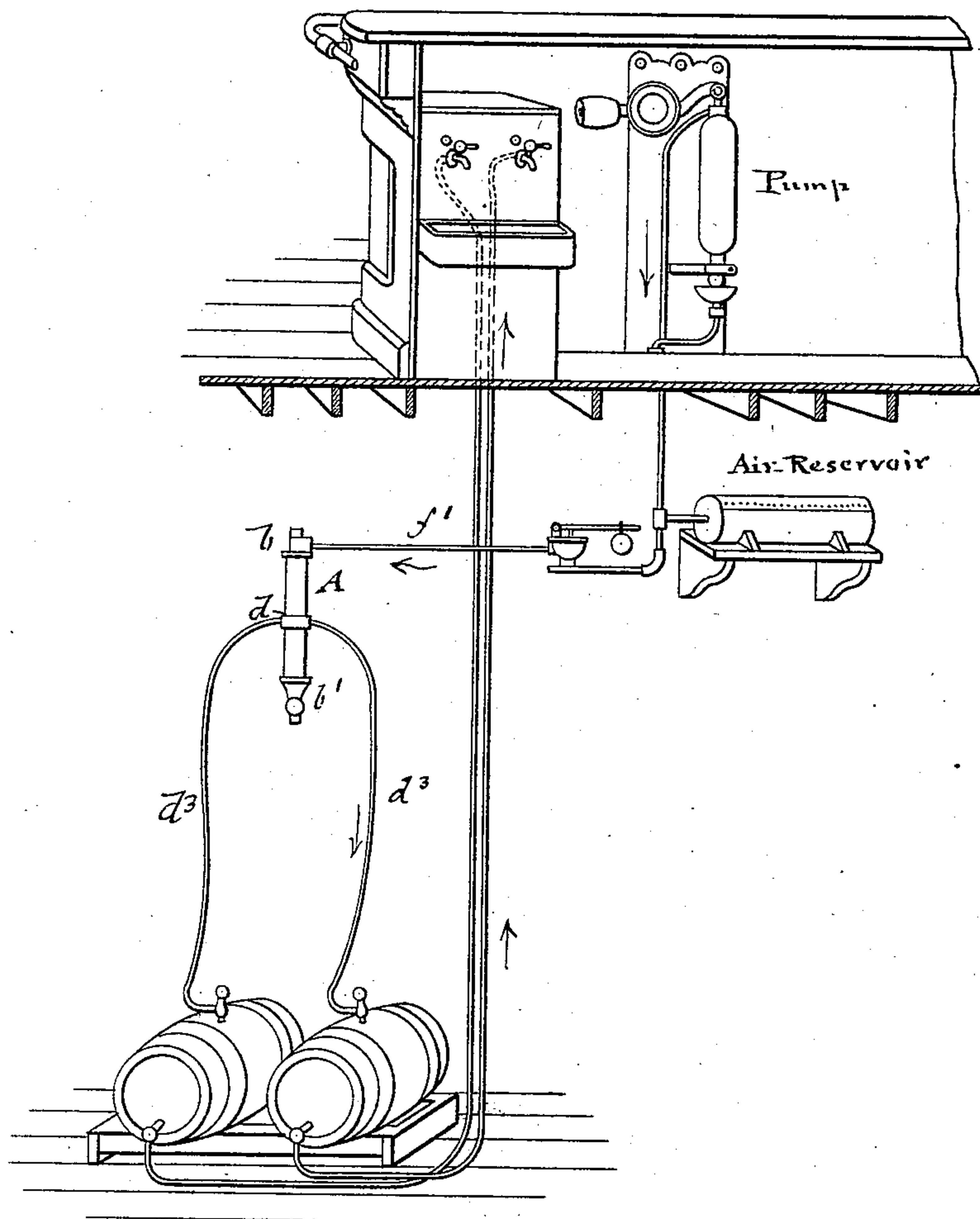
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*Fig. 5.*



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# UNITED STATES PATENT OFFICE.

FREDRICK MOHN, OF DETROIT, MICHIGAN.

## ATTACHMENT FOR PNEUMATIC BEER-PUMPS.

SPECIFICATION forming part of Letters Patent No. 316,163, dated April 21, 1885.

Application filed October 25, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, FREDRICK MOHN, of Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Attachments to Pneumatic Beer-Pumps, of which the following is a specification.

This invention has reference to an improved attachment for the air pipes and reservoirs of pneumatic beer and ale pumps, in which all the beer and ale that is generally forced up into the air pipes and reservoirs is collected, so that the pipes and connections are kept clean and sweet; and the invention consists of an attachment for pneumatic beer and ale pumps made of two or more glass cylinders, a top and bottom cap, and an intermediate ring or rings, said caps being tightly connected to the glass cylinders by packing, and a central screw-rod connection. The bottom cap is provided with a stop-cock for discharging the contents of the attachment, the intermediate ring with couplings having stop-cocks for the air-pipes, and the top cap with a supply-channel for the air having an interior valve, and a water-supply pipe having a stop-cock for cleaning the interior of the attachment.

In the accompanying drawings, Figure 1 represents an end elevation showing the connection of my improved attachment with a pneumatic beer and ale lifting apparatus. Fig. 2 is a side elevation of the attachment on a larger scale; Fig. 3, a vertical central section; Fig. 4, a horizontal section of the same on line *x x*, Fig. 2; and Fig. 5, a perspective view of a pneumatic beer and ale lifting apparatus with my attachment.

Similar letters of reference indicate corresponding parts.

A in the drawings represents my improved attachment for pneumatic beer and ale pumps, which attachment is made of two or more cylinders, *a a*, which are preferably made of glass, so that the quantity of beer or ale collected therein may be readily observed. The glass cylinders *a a* are supported by top and bottom caps, *b b'*, and an intermediate ring, *d*. The top and bottom caps *b b'* and the intermediate piece, *d*, are provided with seats for the cylinders *a a*, the latter being tightly retained thereon by intermediate packing-rings.

The cylinders *a a* and the top and bottom caps *b b'* are firmly connected by a central screw rod or spindle, *e*, the lower end of which is screwed into a threaded socket, *b<sup>2</sup>*, supported in arms of the bottom cap, *b'*, while the upper end is passed through an opening in the top cap, *b*, and is tightly held in position by a screw-cap, *b<sup>3</sup>*, and intermediate packing, *b<sup>4</sup>*. The bottom cap, *b'*, is provided with a discharge-spout, *e'*, at the lower end, and provided with a stop-cock, *e<sup>2</sup>*, which, when opened, admits the discharge of the beer or ale collected in the cylindrical vessel formed by the cylinders and caps. The intermediate ring, *d*, is provided with two or more couplings, *d'*, having stop-cocks *d<sup>2</sup>*, the couplings being connected to pipes *d<sup>3</sup>*, leading to the bungs of the beer or ale kegs. The top cap, *b*, is provided by an air-channel, *f*, with an air-supply pipe, *f'*, through which the air is passed into the cylindrical vessel, whence it is distributed by the pipes *d<sup>3</sup>* to the different kegs connected with the lifting apparatus. The air-supply channel *f* of the top cap, *b*, has at its inner end a flap-valve, *f<sup>2</sup>*, which valve is closed by the beer or ale when the same rises high enough therein to fill the vessel entirely with beer or ale. In this case the operation of the beer-lifting apparatus is interrupted until the contents of the collecting-vessel A have been drawn off through the bottom spout, *e'*, by the attendant.

For facilitating the cleaning of the collecting-vessel the top cap, *b*, is provided with a water-supply pipe, *g*, having a stop-cock, *g'*. To the supply-pipe *g* a rubber tube is applied and then the stop-cock *g'*, so that the water is allowed to pass through the collecting-vessel A until the same is thoroughly cleaned.

The collecting-vessel A serves as a receptacle for all the beer or ale that is forced up into the air-conducting pipes and air-reservoir, so as to prevent them from getting slimy and covered with impurities. The contents of the vessel A are drawn off from time to time through the bottom spout. Should the attendant fail to draw off the contents of the collecting-vessel A, so that the beer or ale rises therein to such a height that the valve *f<sup>2</sup>* of the top cap, *b*, is closed, then the connection with the compressed-air reservoir is inter-



rupted, and no beer or ale can be lifted from the kegs until the collecting-vessel is emptied again by the attendant.

The reason the beer, with the usual construction of pneumatic beer-pumps and tapping apparatus, forces its way back into the air passage, pipes, and reservoir is, that when the beer comes fresh from the brewery it contains gases, giving it more inert pressure than the force of the pneumatic lifting-machine. This pressure will be exhausted as soon as some of the beer is drawn off, and the gases are thus allowed to escape; but before this is done it will drive the beer back in the air-pipe until the compressed force of the pneumatic pump checks it. With my apparatus this cannot occur, since the beer, being driven back, fills the air-chamber, and when it rises to the top thereof closes the valve  $f^2$ . The apparatus is constructed of glass with metal mountings, in order that the attendant may observe this backward flow of the fresh beer and empty the air-chamber when filled therewith. This is done by opening the cock  $e^2$ , which permits the beer to escape. If, however, the gaseous pressure of the beer is too great, and repeatedly fills the chamber, the cock  $d^2$  can be closed, when the beer will be confined until a sufficient quantity is drawn off to relieve the undue pressure, and when this pressure is reduced, so that the force of the pneumatic beer-pump will overcome it, this cock is again opened.

In case the apparatus cannot be connected with a water-supply pipe the collecting-vessel A can also be readily taken apart and cleaned. The air-conducting pipes are then disconnected from the couplings and cleaned by forcing a brush through the same, so that they become perfectly clean and sweet.

The advantages of my improved collecting attachment to beer and ale pumps are, that the sediments which were heretofore deposited in the air-pipes and air-reservoirs of such lifting apparatus are entirely prevented, and that consequently the disagreeable smell which in-

duces the beer dispensed by such apparatus is done away with. The beer-lifting apparatus can be kept clean with great facility, as the source of uncleanness is brought within full control, and its injurious effect on the beverages neutralized.

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

1. A collecting attachment for a pneumatic beer and ale raising apparatus, consisting of a cylindrical vessel provided with a bottom discharge-spout, intermediate couplings for the air-conducting pipes, and with a valved air-supply pipe at the top, substantially as set forth.

2. A collecting attachment for a pneumatic beer and ale raising apparatus, composed of glass cylinders, top and bottom caps, an intermediate ring or rings, and a central screw-rod connecting the top and bottom caps, the bottom cap having a discharge-spout, the intermediate ring-couplings for the air-conducting pipes, and the top cap having a valved air-supply pipe, substantially as described.

3. The combination, in a pneumatic beer-raising apparatus, of a collecting-vessel with the air-conducting pipes leading from the pump or air-reservoir to the keg or kegs, substantially as set forth.

4. The combination, in a pneumatic beer and ale raising apparatus, of air-conducting pipes leading from the pump and air-reservoir to the kegs or barrels, and a collecting-vessel connected at the valved upper end to the air-pipe leading to the pump or air-reservoir, and at its middle part with an air pipe or pipes leading to the kegs, the vessel being provided with a bottom discharge-spout and stop-cock, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

FREDRICK MOHN.

Witnesses:

GUS. H. WILLMER,  
EMIL SUDGINSKI.