

UNITED STATES PATENT OFFICE.

CHARLES PETERS, OF BROOKLYN, NEW YORK, ASSIGNOR OF ONE-HALF TO
ARTHUR W. STIEGLITZ, OF SAME PLACE.

DEVICE FOR PURIFYING AIR.

SPECIFICATION forming part of Letters Patent No. 534,243, dated February 12, 1895.

Application filed September 11, 1894. Serial No. 522,701. (No model.)

To all whom it may concern:

Be it known that I, CHARLES PETERS, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Air-Purifier, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved air purifier, which is comparatively simple and durable in construction and more especially designed for use in beer and ale compressors, for supplying the beer or ale in the keg with pure air.

The invention consists of an air reservoir connected with an air pump and carrying a purifying receptacle provided with an air inlet valve to control the air passing from the reservoir into the said receptacle, and a vessel held in the said receptacle and containing purifying substances, the said vessel being also provided with an air outlet for drawing off the purified air.

The invention also consists of certain parts and details and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters indicate corresponding parts in all the figures.

Figure 1 is a side elevation of the improvement with parts in section. Fig. 2 is an enlarged sectional plan view of the same on the line 2—2 of Fig. 1; and Fig. 3 is a sectional side elevation of the same on the line 3—3 of Fig. 2.

The improved air purifier is provided with an air reservoir A, preferably mounted on legs B and having its bottom A' made in the shape of an inverted cone with a valve C in the apex, as is plainly illustrated in Fig. 1, so that any water accumulating in the said reservoir can be readily drawn off at any time through the said valve. The top A² of the reservoir A is provided with a valved air inlet D connected by a hose E with an air pump or other suitable source of air supply, to fill the said reservoir with compressed air.

In the top A² of the reservoir A is secured a receptacle G which extends partly into the said reservoir, while its outer end is adapted

to be closed by a cap G' fastened in place by a suitable clamp H, as indicated in the drawings. In this cap or top-plate G' is secured an outlet valve I, connected by a hose with the keg or barrel to be supplied with pure air under pressure. The inner, closed end of the receptacle G is provided with air tight walls through which extend an air outlet pipe having a valve J and affording communication between the body of the receptacle G and the interior of the reservoir A, so that when the said valve J is opened compressed air from the reservoir A can pass through the valve into the lower end of the receptacle G. The valve stem J' of this valve J extends through a stuffing box A³ held in the top A², so that the outer end of the stem is under the control of the operator for opening and closing the valve J.

In the receptacle G is arranged a vessel or holder K, having a lip or flange projecting around its mouth and adapted to be clamped between the flanged upper edge of the receptacle and the cover or top-plate G' thereof, as seen in Fig. 3, so as to support the holder K with its perforated bottom K' a short distance above the bottom of the receptacle G, to permit air passing through the valve J to readily pass through all the perforations in the bottom K'. In this vessel K is held charcoal L, resting on the bottom K' and extending up to an annular flange K², on which rests a perforated plate N, between which and the cap G' is placed cotton O saturated with salicylic acid or any other suitable purifying substance. Now, it will be seen that the compressed air from the reservoir A has to pass through the charcoal L and the saturated cotton O before it passes through the outlet valve I, and hence the air becomes purified and is delivered in this purified and compressed state into the keg or barrel.

It will be seen that the operator can conveniently clean this purifier at any time by closing the valve J from the outside and then removing the cap G' by loosening the clamp H, and then pulling the vessel K out of the receptacle G to renew the contents of the said vessel. The latter is again inserted, the cap G' placed in position and the valve J again

opened, so as to again cause the air to be purified and delivered in a compressed state to the keg or barrel.

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

1. In an air-purifier the combination of an air-reservoir having an air-inlet and an air-outlet, a receptacle arranged in the reservoir and adapted to contain purifying material, said receptacle being provided with an air-outlet and having air-tight walls separating it from the interior of the reservoir, the air-outlet of the reservoir being adapted for communication with the interior of the receptacle, a valve in the air-outlet of the reservoir adapted to control the flow of air to said receptacle, and means for operating said valve from the exterior of the air-reservoir, substantially as set forth.

2. In an air-purifier, the combination of an air-reservoir having an air-inlet and an air-outlet, a receptacle for purifying material having an air-outlet, and having its side-walls and bottom air-tight and its top open, an air-

tight cover for the open top of the receptacle, the outlet of the reservoir being adapted for communication with the interior of said receptacle, a valve controlling the air-outlet from the reservoir, and means for actuating said valve, from the outside of the reservoir, substantially as set forth.

3. In an air-purifier, the combination of an air-reservoir having an air-inlet and an air-outlet, an air-tight receptacle having at its upper portion an air-outlet and having its interior adapted at its lower portion for communication with the air-outlet of the reservoir, a valve located in the air-outlet of the reservoir and adapted to control the passage of air into the receptacle, means for actuating said valve from the outside of the air-reservoir, and a holder for filtering material supported in the receptacle above the point where the air from the air-reservoir enters the same, substantially as set forth.

CHARLES PETERS.

Witnesses:

THEO. G. HOSTER,
C. SEDGWICK.