

ing-pipe D, provided with two branches, *a* and *b*, all combined and operating substantially in the manner and for the purpose described.

2. The combination, in a diving apparatus,
5 of a reservoir, E, (one or more,) containing oxygen, diaphragm-chamber H, containing a diaphragm for regulating the outflow of oxygen, tube *j* for leading the oxygen to the mixing-bellows B, bellows-chamber containing mixing-
10 bellows B, pressure-bellows J for regulating the pressure in the mixing-bellows, purifier C, and breathing-pipe D, provided with two branches, all combined and operating substantially in the manner and for the purpose set
15 forth.

3. The combination, in a diving apparatus, of reservoirs E, (one or more,) containing oxygen, diaphragm-chamber H, containing a diaphragm for regulating the outflow of oxygen,
20 tube *j* for leading the oxygen to a mixing-bellows, B, bellows-chamber containing mixing-bellows B, pressure-bellows J, set-screw K for modifying the efficiency of the pressure-bellows, purifier C, and breathing-pipe D, pro-
25 vided with two branches, all combined and operating substantially as described.

4. The combination of a diving apparatus constructed, substantially as described, with
30 a secondary chamber, L, for receiving and supplying oxygen to a lamp, substantially as set forth.

5. The combination, in a diving apparatus, of reservoirs E, (one or more,) containing oxygen, diaphragm-chamber H, containing a diaphragm for regulating the outflow of oxygen,
35 set-screw I for modifying the efficiency of said diaphragm, tube for leading the oxygen into mixing-bellows B, bellows-chamber containing mixing-bellows B, pressure-bellows J, purifier C, and breathing-pipe D, provided with two
40 branches, all combined and operating substantially in the manner and for the purpose set forth.

6. The method, substantially as herein described, for supplying air fit for breathing,
45 which consists in injecting into a suitable mixing and purifying chamber, into which the breathed air is received, a given quantity of oxygen, and freeing said mixture from its carbonic acid by suitable decarbonizing-salts,
50 whereby the mixture is rendered again fit for breathing, as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 26th day of May, 1879.

ACHILLES KHOTINSKY. [L. S.]

Witnesses:

W. HAUFF,

E. F. KASTENHUBER.