which was very necessary. After the pipe cooled a piece of brass gauze about 6 by 10 inches was rolled up loosely and put in the generator as recommended by Hempel for removing traces of chlorine. It also acted as a sort of porous plug to prevent the mixture from falling out when the generator was being charged. The apparatus, after charging, was connected with the gage and tank and was heated in an open field by means of a fire of kindling wood. The fire should be lighted at the end of the generator next the tank; if the reverse, the oxygen in being disengaged tends to blow the powder up the pipe and so clog the needle valve.

After about twenty minutes the fire burned out and the needle valve on the tank was closed. The gage showed 21 lbs. pressure. The hard compact mass of potassium chloride and manganese dioxide were dislodged by a chisel bar [1], and the generator was then filled again with 800 grams of the mixture, and heated as before. The process was repeated till a pressure of 200 pounds was obtained. To secure this pressure of 200 lbs. it required 2 kilos of potassium chlorate (commercial), worth about $1.00 and 2 kilos of manganese peroxide worth about 40 cents. The material for fittings and labor costs about $1.50, but the generator is good for hundreds of charging operations. Leaky joints can be tightened with a paste of zinc oxide and zinc chloride.

I find this method of charging oxygen tanks safe and economical. I have never used more than 800 grams of the mixture for generating oxygen, not because I did not consider it safe but on account of the size of the generator.

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A Strange Case of Poisoning.—In the investigations of certain quinazolines by Dr. H. A. Seil and the writer last spring we attempted to brominate 2-methyl-5-nitro-4-ketodihydroquinazoline by various methods, and found that in the presence of acetic anhydride the reaction proceeded most vigorously. The quinazoline was dissolved in acetic anhydride and a solution of bromine in acetic anhydride added at ordinary temperature. The reaction began immediately, with evolution of sufficient heat to raise the temperature rapidly to the boiling-point of the anhydride; hydrogen bromide was evolved in large amount, and unless the reaction was carried out with care the contents of the beaker were apt to foam over. As the result of the reaction both quinazoline and anhydride were brominated. Solutions of bromine

[1] Water will not dissolve this mass in its position in the pipe.

in glacial acetic acid and in acetic anhydride were slowly heated to boiling, but there was no such vigorous reaction as that observed when the quinazoline was present, while bromination of the quinazoline in absence of acetic anhydride proceeded but slowly.

After brominating the quinazoline in acetic anhydride solution, as above described, the bromine compound which precipitated was filtered out and the mother liquor distilled. Considerable gas (hydrogen bromide, &c.) was evolved and a fuming liquid collected in the receiver, while towards the close of the distillation a white soapy solid gathered in the condenser. This latter proved to be monobromacetic acid. To the liquid in the receiver alcohol was added, when there arose such a fiery, peppery, irritating vapor, that we had to vacate that part of the laboratory temporarily and further work with it was abandoned. The evidence all pointed to the formation of bromacetic compounds, probably bromacetylbromides, in the bromination.

Dr. Seil in carrying out the bromination used an open beaker, which he held as usual between the thumb and forefinger just along under the lip. He is positive that no liquid came in contact with his fingers at any time during the operation and that it could only have been the vapor that caused the trouble. At the time he had no intimation whatever that he had been poisoned, but three days afterwards sharp pains commenced to shoot through the ends of the thumb and forefinger and not only these fingers, but the whole hand as far as the wrist, became terribly swollen. Two deep white blisters developed on the upper side of the first joint of the forefinger and one on the end of the thumb. On cutting away the skin and baring the deeper tissues it was found that the flesh had been completely killed nearly to the bone, and after all this dead matter had sloughed away the wounds slowly healed; but even today he complains of more or less numbness where these wounds were. The case seems the more remarkable in that there was no external evidence of any injury at the time, the thick callous skin on the forefinger and thumb appeared just the same as usual, and yet the destructive action of the poison, whatever it was, had penetrated almost to the bone.

The writer has heard of somewhat similar cases, where deep destruction of tissue has resulted from contact with chloracetic acid, but nothing quite like the case reported above.

MARSTON T. BOGERT.

ORGANIC LABORATORY, Columbia University, Dec. 5, 1906.

Correction: *Solubility of Potassium Permanganate.*—In a recent paper upon the solubility of potassium permanganate,[1] work upon this subject

[1] Baxter, Boylston and Hubbard, This Journal, 28, 1336 (1906).