## NOTES

**Intensive Drying.**—One or two papers published in America record failures to obtain results which their authors expected from the drying of liquids.[1]

The explanation appears to be that while expending a great deal of trouble in obtaining the liquids in the pure state, the glass of the apparatus was not sufficiently dried.

As far as can be made out from the published papers, the phosphorus pentoxide was entirely submerged in the liquid. The glass therefore obtained very little drying effect after the apparatus was sealed up. In my original experiments as described[2] a side tube or bulb containing phosphorus pentoxide was always introduced for the sole purpose of drying the glass while the separate drying of the liquid by phosphorus pentoxide was taking place. I have recently pointed out[3] that the deep-seated moisture in glass is very difficult to remove and, in my experience, this removal to the degree necessary for these experiments is only possible by very long exposure to an atmosphere dried by phosphorus pentoxide. It is obvious that the dryness of a system is only the dryness of its wettest part.

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**Note on the Reaction between Hydrogen Sulfide and Mercury.**—In a recent communication [THIS JOURNAL, **52**, 885 (1930)], Lilienfeld and White reported the results of a study of the reaction between hydrogen sulfide and silver, and showed that the metal is attacked by hydrogen sulfide at room temperature only in the presence of oxygen and moisture; the reaction commonly supposed to occur with the production of hydrogen, *viz.*

$$2Ag + H_2S = Ag_2S + H_2$$

was found to be endothermal and not to take place at ordinary temperatures. The following observations, which show qualitatively that the reaction between hydrogen sulfide and mercury is analogous to that of the gas and silver, were noted during the preparation and purification of hydrogen sulfide in an apparatus containing several $H_2S/Hg$ interfaces. Work to be carried out involved the measurement of pressure with a manometer, the mercury of which would be in continuous contact with pure hydrogen sulfide, hence it was necessary to determine whether any reaction took place.

[1] Lenher and Daniels, *Proc. Nat. Acad. Sci.*, **14**, 606 (1928); E. Juanita Greer, THIS JOURNAL, **52**, 4191 (1930).

[2] Baker, *J. Chem. Soc.*, **123**, 1223 (1923).

[3] Baker, *ibid.*, 1663 (1929).