

Some liquid gallium deposited by electrolysis on a small plate of platinum was heated to redness, or nearly redness; it adhered, and without doubt alloyed itself with the platinum, and resisted the action of the hydrochloric acid, but it was attacked by dilute nitro-hydrochloric acid, at the same time with a little of the platinum: the solution gave the rays of gallium. A light whitish pellicle, insoluble in nitro-hydrochloric acid, separated from the surface of the platinum: it was probably gallium oxide rendered insoluble by calcination.

At the time of these experiments I had still a quantity of the solid gallium presented to the Academy, and which had been returned me, and I profited by it to assure myself again of its hardness, and of the nature of its spectrum, which I found as formerly to consist principally of brilliant rays of gallium, with feeble rays of zinc and insignificant traces of other metals. We can scarcely attribute the fluidity of gallium, obtained by electrolysis of a potassic solution, to the presence of a small quantity of potassium that one might suppose to have been reduced by the voltaic current, because the alkaline metal would have been oxidized either by the washings or by contact with the moist air. I think, then, that pure gallium is really liquid: if I have first obtained it in the solid state, it was probably because of its being alloyed with small quantities of other metals, of zinc in particular. It is proper to observe that the solid gallium is a little less pure than the liquid. The solidity of gallium appears then to be determined by the relative quantities, though inconsiderable, of foreign metals. We may suppose that, at the time of the electrolysis of the ammoniacal solution, the gallium was not deposited in a pure state, but as a combination or an alloy of that metal with the elements of ammonia.

I hope the time will soon come when, possessing several centigrammes of pure gallium, I may examine at leisure its physical properties which promise to be interesting.

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## THE PHARMACEUTICAL VALUE OF SUGAR OF MILK.\*

BY WALTER E. BIBBY, PH.G.

At the Pharmaceutical Meeting, held in the College hall on the 21st of March, Mr. J. C. Biddle recommended the incorporation of sugar of milk with powdered squill, in order to prevent caking. This led me to believe that this substance could be used to attain the same effect in a large number of the gum resins that are often required in the state of powder, and which cannot be reduced unless

\*Read at a meeting of the Phila. College of Pharmacy, and published in the *Am. Jour. Pharm.* for June.