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After having measured the mixture in a graduated tube, I take a rod of glass a little longer than the measuring tube, and having smeared one end of it with flour paste and rolled the smeared part in pulverized oxide of manganese, which adheres to the paste, I insert it into the tube of gas, with the powdered end uppermost. Immediately the volume of gas rapidly diminishes, and in a few minutes the absorption of sulphurous acid or sulphuretted hydrogen is complete. If either of these two gases prevail in the mixture, or if there be too large a volume to be operated on, it may be advisable to withdraw the rod, wipe it clean, renew the paste and the manganese and repeat the operation. This however is but rarely necessary,—yet it is the less objectionable as the oxide is seldom detached from the glass rod and does not soil the inside of the tube. A band of wet paper may be wrapped round the rod instead of the paste, but it takes up less manganese.

The same mode of separation may be applied to the deutoxide of azote.

Ann. de Chimie.

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*Observation on the Assay of Silver in the moist way.* By GAY LUSSAC.

In the course of the assays which I am daily making at the Warrant Office (bureau de garantie) Paris, I have had occasion to observe a new circumstance which may lead some into error who are employed in determining the value of plated materials in the moist way, if they are not aware of it. It arises from the fact, that sulphuret of silver is not very easily attacked by nitric acid; so that if the silver to be tried contains a few thousandths of sulphuret of silver, it may happen that this will not be dissolved and consequently too low an estimate will be given to the assay. This will take place, however, because the nitric acid is not strong enough or is not employed in sufficient quantity. Be it as it may, when the silver contains sulphurets, and a portion of it remains undissolved in the nitric solution, which will be known by the appearance of a very fine powder, heavy, of a dark colour, and different from the gold which silver sometimes contains in being less flocculent, the addition of a fresh quantity of concentrated nitric acid, will effect the solution of the sulphuret; but I have found it preferable to add to the solution of silver, when the presence of sulphuret is suspected, the amount of 5 or 6 cubic centimetres of concentrated sulphuric acid. This immediately dissolves the sulphuret; but to be more sure of it the nitric solution should be exposed for a few moments to the heat of boiling water.

The sulphuric acid must be free from muriatic acid. If it be not, it may be boiled for a short time, which will expel the muriatic acid; but I may say that I have never met with a sensible quantity of muriatic acid in the concentrated sulphuric acid of commerce.

Ibid.

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*Thermometer Watch.* By M. JURGENSEN.

This is not larger than a common watch. The double arches of the balance wheel are externally of platina and internally of brass; the variation of its rate of going is about 32 seconds in 24 hours for every degree of the centigrade thermometer.

This instrument, placed in the open air like a common thermometer, will have its rate of going accelerated or retarded according to the atmospheric temperature. If then it be known to what degree of temperature the watch