

merly of irregular habits. When examined he was much collapsed, with severe cough; pulse 144, feeble; tongue furred. Auscultation revealed the crepitation of the prevailing epidemic. He was cupped between the shoulders, and took ipecacuanha, with compound spirit of ammonia and paregoric. On December 4th, he was slightly better, and for three days continued to improve, but he then became more torpid and feeble. A more stimulating treatment was substituted, together with a blister to the chest. On the 12th he complained of pain in the left side of the chest, pulse 120, intermittent. There were loud sonorous rhonchi; and in the region of the heart a peculiar sound like that of beating eggs with a spoon. This disappeared next day, when he died.

Post-mortem examination. In addition to emphysema of the lungs, the pericardium was found to be distended with sero-purulent fluid, with lymph of soft consistence. At the upper and outer part of the left ventricle, there was a protuberance the size of half a walnut, which was found to be an aneurism of the coronary artery. The cavity of the aneurism was filled with coagulum; the other artery was ossified.—*Edinburgh Monthly Journal*, March, 1849.

MATERIA MEDICA AND CHEMISTRY.

On a new Acid of Sulphur; by MM. FORDOS and GELIS.—M. Plessy has recently announced the discovery of several new sulphur acids, but the uncertainty of the analysis left a doubt upon their existence. These acids were supposed to be formed by the reaction of sulphurous acid in solution upon proto- and perchlorid of sulphur. In the present memoir it is conclusively shown that the product is the same in both cases, and if time for spontaneous decomposition is not allowed, the salts of the new acid (and there is but one) may be obtained in a state of almost perfect purity.

To a given quantity of solution of sulphurous acid, one tenth its weight of perchlorid of sulphur is to be added—the solution, evaporated to one half, is to be saturated with carbonate of lead, to remove sulphuric and hydrochloric acids. The chlorid of lead in solution is thrown down by alcohol. The lead is next precipitated by sulphuric acid and the liquid filtered and saturated by the carbonate of barytes. The filtered barytic solution precipitated by absolute alcohol furnishes the new salt. The salt of this acid are $S_2 O_5 MO$. The same formula was assigned by Wackenroder to a sulphur acid formed by the action of sulphuretted hydrogen upon solution of sulphurous acid, although no analysis was made, it now appears that the formula is correct and that the same acid is formed under these very different circumstances. This acid completes the series containing 5 equivalents of oxygen, for which apart from theoretical considerations, Messrs. F. and G. propose retaining the names proposed by Berzelius. We have then—

Dithionic acid, $S_2 O_5$ hydrosulph. acid of Gay, Lussac & Walter.
Trithionic $S_3 O_5$ sulpho-hyposulphuric of Sanglois.
Tetrathionic $S_4 O_5$ first acid of Fordos and Gelis.
Pentathionic $S_5 O_5$ new acid of “

The pentathionate of baryta is white, and can hardly be distinguished from the tetrathionate, but by analysis—it is however more soluble and more easily decomposed; a solution of it is precipitated yellow by nitrate of suboxyd of mercury. Chlorine and hypochlorites transform it at once into sulphate; permanganate however retains its color and only decomposes in presence of much acid. Iodine is not taken up by it. Heat evolves sulphur and sulphurous acid and sulphate of baryta remains. The dilute free acid is very alterable, acid and bitter, and reddens litmus.

The baryta salt contains 2 equiv. water, which may be wholly or in part replaced by alcohol.

The new acid it is to be remarked, is isomeric with the hyposulphurous ($S_2 O_2$), but its capacity of saturation, &c., is very different.

In conclusion the authors remark that while studying the chlorids of sulphur, they have ascertained that they correspond in composition with the acids of the thionic series—taking Cl for O.—*Chemical Gazette*.

M. Filhol's Method of Testing Arsenical Deposits.—M. Filhol has communicated to the *Journal de Chimie Médicale*, the following simple mode of transforming arsenical stain into arseniate of silver. He takes a porcelain saucer on which arsenical stain has been received, and inverts it over another porcelain saucer, in which is contained a small quantity of hypochlorite (chloride) of soda, mixed with about its volume of sulphuric acid, diluted with thirty or forty times its weight of water. In about one or two minutes, the arsenical deposit will have disappeared; then into the saucer which contained it a strong solution of neutral nitrate of silver is to be poured: immediately a brick-red discoloration is obtained. This is a test of extreme delicacy. It is important to remove the upper saucer immediately on the disappearance of the stain, otherwise the red color of the arseniate may be concealed by the chloride of silver which is simultaneously formed.—*Journal de Chimie Médicale*, Oct. 1848.

If the arsenical deposit were received in a watch-glass, the time at which the stain disappears would be immediately perceptible.—*Lond. Med. Gaz.*

On the Detection of Sulphurets of Arsenic.—M. Filhol, professor of chemistry and pharmacy at Toulouse, in the course of his investigations on the presence of arsenic in feruginous deposits, finding reason to suppose that a sulphuret from a decomposed sulphate is often present, determined to ascertain the degree of the applicability of Marsh's test in the detection of arsenic in the form of sulphuret. As the result of his experiments, M. Filhol arrives at three conclusions. 1st, That the natural sulphurets of arsenic are, contrary to what has been asserted, susceptible of decomposition through Marsh's apparatus; 2ndly, that they are decomposed with extreme slowness—that the quantity of arsenic carried up by the hydrogen is too small to afford metallic stains—and that a very long time is required to obtain its evidence in metallic solutions; 3rdly, nascent hydrogen enters into combinations with the two elements of the sulphuret, producing hydrosulphuric acid and arseniuretted hydrogen.

These conclusions acquire considerable importance from their relation to inquiries as to the existence of arsenic in the earth of cemeteries, as they establish the possibility of its existence where it otherwise would have remained undetected.—*Journal de Chimie Médicale*, Oct. 1848.

On a Solution of Iodine in Oil.—By M. Marchal.—This preparation has superseded the other forms of iodine at the Val-de-Grâce. M. Marchal, believing that cod-liver oil owes its virtues to the small quantity of iodine which it contains, concluded that a more effective preparation of this substance than the iodide of potassium is found to be, might be made by combining it with an organic body; in which state the drug would probably be longer retained in the economy. He selected an oily body, in the hope that the oil by forming an emulsion with the bile, would allow of the substance being digested in the small intestines, and enable the stomach to become relieved of its presence. In this way, large doses of iodine can be administered, if requisite without irritating the latter organ; while the iodine is eliminated by the urine more slowly than is the case with the iodide. At the same time, its absorption is made certain by the fact of its not being detected in the fæces. The iodine is dissolved in fresh almond oil as wanted, in the pro-