

brain, but in still less proportion than even in the blood.—*Gazette des Hôpitaux*, February 19, 1853.
T. R. B.

79. *Poisoning by Aconite*.—An inquest was held at Bristol, January 15, 1853, to inquire into the death of Emma Forty, an inmate of the Roman Catholic Convent of the Good Shepherd, situated at Arnos Vale, near that city. Deceased had, it appeared, on Monday the 10th administered to her by mistake, by the sister attendant, a deadly poison instead of the medicine prescribed for her, which resulted in her death five hours afterwards. It appeared from the evidence that the deceased was labouring under tape-worm, for which she was ordered, by the medical adviser of the convent, decoction of pomegranate bark and quinia. On going to the dispensary, she took the wrong bottle, and gave, instead of the decoction, a drachm of Fleming's tincture of aconite. Verdict accordingly.—*Medical Times and Gazette*, January 22, 1853. T. R. B.

80. *Hydrosulphocyanic Acid*.—(The history and presence of the acid become interesting, from the fact that some tests of it produce identical results when applied to meconic acid.) This acid does not occur in a free state, but only as sulphocyanide of sodium or potassium. It was discovered by Treviranus in the saliva, and has as yet been discovered in no other fluids. Treviranus named it hæmatic acid; and because he found that it formed blood-red solutions with the persalts of iron, he attributed the colour of the blood to sulphocyanide of iron.

For a very long time it has been disputed whether the ingredients in the saliva, which give rise to this red colour with the persalts of iron, is actually sulphocyanogen. There is scarcely any subject in the whole domain of zoochemistry in which so many experiments have been made with such contradictory results. We believe, however, that no one who repeats the experiments of Pettenkofer can entertain a doubt regarding the presence of sulphocyanogen in the saliva. Pettenkofer especially directs attention to two tests which he discovered for hydrosulphocyanic acid. Solutions of the acetate and formate of peroxide of iron are perfectly decolorized on boiling with alkaline chlorides, while this treatment has no apparent effect on sulphocyanide of iron; farther, it is known that the persalts of iron do not decompose ferridecyanide of potassium; but if we heat a solution of sulphocyanide of iron, hydrocyanic acid is developed, and there is a precipitate of Prussian blue. Pettenkofer applied this treatment to the alcoholic extract of the saliva, and thus ascertained the presence of sulphocyanogen. Other chemists had previously made use of a test that had been discovered for the sulphocyanides, viz. a mixture of two solutions of sulphate of protoxide of iron and sulphate of oxide of copper (when subsulphocyanide of copper is precipitated), with the view of detecting this substance in the saliva. The alcoholic extract of saliva is free from sulphuric acid (for the sulphates are insoluble in alcohol); hence, Pettenkofer thought that he might make a quantitative demonstration of the sulphocyanogen in the saliva, by oxidizing the alcoholic extract with chlorate of potash and hydrochloric acid, and precipitating the sulphuric acid that was formed by chloride of barium.

Sulphocyanogen is almost always in human saliva; it is, however, occasionally absent without any apparent physiological or pathological reason. It appears to be wanting in the secretion during salivation from any cause; at least, I could never detect it during the ptyalism following the use of mercury or iodine, or occurring in the course of typhus or other diseases.

Sulphocyanogen occurs also in the saliva of the dog and the sheep. I have examined the saliva of four horses without detecting any traces of it. Wright, however, asserts that it occurs in the saliva of that animal.

Considering the extremely small quantity in which it occurs, and that it is often absent without any apparent bad consequence, it seems hardly probable that the alkaline sulphocyanides take any definite part in the process of digestion.

I have noticed several healthy, vigorous young men, whose saliva contained no sulphocyanogen, and yet who enjoyed the best digestion.