

Cyanuret of zinc.....	6 grains
Calcined magnesia	4 „
Cannella powder	3 „

To be taken in one dose every four hours. Sometimes the cyanuret is mixed with sugar, and its action assisted by the periodical administration of a warm aromatic infusion. The same remedy has been used against cases of dyspepsia and colic, supervening on difficult menstruation. On the whole, Dr. Henning thinks the cyanuret of zinc preferable to the hydrocyanic acid itself.

[Dr. Copland, whose practical dicta may always be relied upon, tells me that he has found the cyanuret of zinc of the first benefit in the treatment of whooping-cough.—*Tr.*]

CYANURET OF IODINE.

This new compound of iodine, azote, and carbon, was discovered by M. Serullas, (*Annales de Chimie et de Physique*, 1824,) when repeating the experiments of Davy and Faraday, on the liquefaction of gases. He soon ascertained, however, that iodine and cyanogen united readily, without the aid of extraneous pressure.

Chemical and Physical Properties.

Purified cyanuret of iodine is very white, and presents itself in the form of very long and exceedingly minute needles. It has a pungent odour, irritates the eyes, inducing lachrymation, and has a strongly bitter caustic taste. It has a greater specific gravity than sulphuric acid, to the bottom of which it falls rapidly. It volatilizes without decomposition, at a heat much greater than that of boiling water. Thrown on burning charcoal, it gives off abundant violet-coloured vapours. It is more soluble in alcohol than water, and the colourless solutions have the odour and smell of

the cyanuret itself: they do not redden turnsol nor turmeric tincture, nor by itself does it decompose water. With nitrate of silver it produces no precipitate.

A concentrated solution of potass decomposes the cyanuret of iodine, and iodate and cyanuret of potassium are formed. Nitric acid does not appear to exert any action on this cyanuret, nor does sulphuric acid attack it until after some time. Hydrochloric acid decomposes it; but the liquid sulphurous acid does so with remarkable rapidity, the acid being set at liberty. Dry sulphurous acid gas has no action whatever on the cyanuret of iodine, neither has chlorine.

Mode of obtaining the Cyanuret of Iodine.

In order to effect the combination of the acid and cyanogen, M. Serullas triturates accurately and rapidly in a glass mortar two parts of well-dried cyanuret of mercury and one part of equally dried iodine. The mixture is introduced into a phial, having a rather wide neck, and gradually heated until the cyanuret of mercury begins to be decomposed, of which the crepitation, the disappearance of some violet-coloured vapours, and the commencing condensation of a white substance at the mouth of the phial, are the indications. It is then to be carried between bent tongs near to a large glass bell; this being placed on a sheet of paper, or a glass plate, one side of it is to be raised, in order to allow the introduction of the neck of the phial under it—the neck inclining downwards as if to be emptied. At this moment white vapours proceed rapidly from the phial, and condense on the glass plate in light cottony flakes. When no more are formed, heat must be applied for their further expulsion.

The same operation may be very well effected, by heating the mixture in a small glass retort leading to a receiver; but in this process there is great difficulty in withdrawing the product, and we are longer exposed to the deleterious emanations of the compound.

When iodine and cyanuret of mercury, in the proportions stated, are employed in the preparation of the cyanuret of iodine, the inconvenience of an excess of iodine is avoided; but it is not less necessary that the whole should be sublimed for the purpose of separating a quantity of ioduret of mercury that is mixed with it. The heat in this case should be carefully regulated. Serullas prefers the heat of a water-bath, notwithstanding the extent to which the process is thereby drawn out.

With this view impure cyanuret of iodine is introduced into the bottom of a somewhat large tube, in such a manner that none of it adheres to the sides. It is to be retained in the bath, which is kept at a boiling heat, until nothing but the red ioduret of mercury, which is not volatile at this temperature, remains at the bottom of the tube. This last should be inclined a little out of the bath, in order that the volatilized cyanuret of iodine may condense in this the coldest portion of the tube.

Composition of Cyanuret of Iodine.

To determine the proportions of the constituent principles of this substance, various quantities of it have been decomposed by red-hot iron. The ioduret of iron thus formed, being treated with pure potass, produces the ioduret of potassium, which, according to its known composition, taking the mean of five experiments, gives for each gramme of cyanuret, 0.8066 of iodine; whence a gramme of cyanuret of iodine ought to contain, of

Iodine	0.828 = 1 atom
Cyanogen	0.172 = 1 ,,

It is to be remarked, however, says M. Serullas, that in each experiment the quantity of iodine was somewhat less than it should have been, upon the supposition that there was an atom of iodine, and one of cyanogen in the cyanuret. The difference, however,

is not so great as to show that it is composed of one atom of iodine and two of cyanogen, for in that case the proportions would be,

Iodine	0.7062	= 1 atom
Cyanogen	0.2938	= 2 atoms.

Action of the Cyanuret of Iodine on Man.

From its composition M. Serullas is of opinion that this cyanuret should have a most energetic action on the animal system, and would be found applicable in medicine. It does not, however, appear to be so deleterious as the nature of its elements might have led us to suppose. M. Serullas, and several individuals attached to his laboratory, both tasted this compound and were exposed to the inhalation of its vapours, during the preparation and securing of it in vessels; but they for the most part only experienced a general depression, and in all the instances a violent irritation of the eyes, which was, however, shortly dissipated.

M. Thenard sent me a good quantity of the cyanuret of iodine, but I have not yet made a sufficient number of observations to ascertain its *modus operandi*; and I have introduced it in this place only to point out the preparation, and stimulate to further experiments.

HYDROCYANIC ETHER.

This preparation, which with the qualities does not possess the frightful activity of the prussic acid, has lately been discovered by M. Pelouse.

Chemical Properties.

It is a colourless fluid, having a penetrating alliaceous odour, of the density of 0.78, boiling at about 82°, very slightly soluble in water but soluble to any extent in alcohol and sulphuric ether. When pure it