

in the case of the mother. The stomach, we learn, presented a general condition of pink congestion, with three spots of the characteristic "plum-coloured" extravasation, each about the size of a sixpenny piece, near the lesser curvature, at its posterior aspect. After distilling over the contents, which were only about an ounce and a half of a syrupy fluid, of treacly colour, the affirmative tests for hydrocyanic acid, with silver, sulphide of ammonium and the "iron test," were applied, and the characteristic reactions obtained. Hence it may be accepted as true that the woman was poisoned with prussic acid. With a view to ascertain whether it was really administered in beer, the presence of alcohol in the stomach will also be quantitatively determined. It has been suggested that the mixing of prussic acid with beer might be a work of some difficulty, inasmuch as the prussic acid, being of much less specific gravity, would float on the surface; but this would not be the case with the mixed acid probably used under such circumstances. It was considered possible that a solution of cyanide of potassium had been employed, as this poison has similar reactions and properties; but Dr. Matthiessen has applied a test with the view of ascertaining that fact, and we believe the conclusion on that score at which he has arrived is negative. The analysis of the contents of the stomach of the children is yet incomplete. In addition to the parts of the mother and children, some pewter pots, a cork, and three cakes and figs found in the possession of the children will be examined. And in the first instance the "physiological test" will be employed of feeding some small animals with parts of these cakes and figs. Little, however, can be expected from the examination of pewters, as the man is stated to have emptied the pot after handing the beer to those sitting in the cab, and some of them, at least, were used, in the course of trade, during the evening. When all has been done there will still remain in connexion with this case several features of a remarkable kind, and difficult to explain; for if it be assumed that the three persons were poisoned by the hydrocyanic acid conveyed in beer, it is difficult to see why some one of the three did not take alarm at perceiving the sudden effect which must have immediately followed the drinking of the beer in the others. The further examination of the contents of the stomach of the children will be awaited with interest. The entire absence of any alarm given to the driver, or any appearance of a struggle, is a fact of importance in juridical science.

#### THE TREATMENT OF GLANDULAR SWELLINGS BY THE OINTMENT OF BINIODIDE OF MERCURY.

To the Editor of THE LANCET.

SIR,—The presence of a patient at this moment before me, reminds me of a letter on the above subject in THE LANCET of October 10th. I quite agree with the writer that the biniodide inunction does what the ordinary ointment of the Pharmacopœia cannot effect; though I never yet have seen even small goitres quite "cured by one application," neither have I been so fortunate as to see larger ones dispersed by two or three rubbings. On the contrary, of fifteen or sixteen cases lately under this treatment, it has been necessary to continue it assiduously for two or three months. The case referred to in less than this time has diminished four inches, and is continuing, I trust, to waste still further. In another case also seen to day at my house, the once tense neck of enormous size, about eighteen inches, is now flaccid, and a lump, the size of an ordinary apple, can be moved freely in any direction. The relief to the dyspnoea, caused by pressure on the larynx and trachea, is most marked, and the deformity considerably abated. In the Norfolk and Norwich Hospital the same success has been observed repeatedly.

I am, Sir, yours obediently,

W. H. RANKING, M.D. Cantab., F.R.C.P. Lond.

Norwich, Oct. 1863.

## THE ANALYTICAL SANITARY COMMISSION.

### MEDICINES, THEIR IMPURITIES AND ADULTERATIONS.

#### SPIRITUS ÆTHERIS NITRICI.

SPIRITUS ÆTHERIS NITRICI of the Pharmacopœia, commonly known as *sweet spirit of nitre*, consists of a mixture in definite proportions of hyponitrous ether and alcohol.

In some cases, as in the Edinburgh and Dublin processes, the hyponitrous ether is prepared separately, and subsequently diluted to the requisite extent with rectified spirit. In others, as in that of the London College, the sweet spirit of nitre is formed at one operation.

In the processes of the three Colleges, the product, whether hypernitrous ether or spirit of nitric ether, is obtained by the action of nitric acid on rectified spirits. The acid is deoxidized by the carbon and hydrogen of the ethyle of part of the alcohol, and a variety of organic substances obtained, varying according to the strength of the acid and the temperature employed in the distillation.

When either the acid is dilute, or if strong its action is moderated by cold, it is chiefly the hydrogen of the ethyle which is oxidized, and aldehyde, water, and hyponitrous ether are obtained; but under the contrary conditions the carbon is also oxidized by the oxygen of the acid, and then, in addition, carbonic, oxalic, acetic, and formic acids, as also "acetate and formiate of ethyle," are generated.

Lastly, by the deoxidation of the nitric acid, hyponitrous acid, nitrous acid, binoxide of nitrogen, protoxide of nitrogen, and even nitrogen itself, are liberated.

Liebig's process for the manufacture of hyponitrous ether is far preferable, to that of any of the British Colleges: it is more economical, alcohol being saved; and it also furnishes a purer compound, since there is less decomposition, and fewer complex organic compounds formed. Liebig deoxidized the nitric acid by means of starch, instead of at the expense of the alcohol.

Sweet spirit of nitre, or, more correctly, spirit of nitric ether, prepared according to the London Pharmacopœia, should have a specific gravity not exceeding 0.834. That of the shops generally effervesces more or less on the addition of a carbonated alkali; with protosulphate of iron it usually strikes a deep olive colour, showing the presence of binoxide, or an acid of nitrogen; and with tincture of guaiacum it produces, for the same reason, a blue tint, passing through various shades of green.

Mixed with equal parts of an alcoholic solution of potash, and allowed to stand for some hours, various shades of colour, from pale straw to deep molasses brown are produced, according to the amount of aldehyde present. If the hydrated alkali be added direct to the spirit of nitric ether, or if the alcoholic solution be boiled with it, the browning takes places almost immediately, and to a much greater extent.

According to Phillips, the hyponitrous ether may be separated from the water, alcohol, and uncombined acid, by digesting lime reduced to powder in it, and subjecting the mixture to distillation. According to the Edinburgh Pharmacopœia, when agitated with twice its volume of muriate of lime, twelve per cent. of ether slowly separates; but both Pereira and Rodgers have failed to separate the hyponitrous ether by the method