sult from this poison, since its action is so transient that no time exists for their generation. With regard to the state of the heart, I think it may warrantably be asserted that, when death is rapid, its left cavities will be empty, as in apnœa, or death commencing at the lungs, and that when death is slow, all its cavities will be full, as in asthenia, or death commencing at the head. Another important fact, especially to the practitioner, is that the irritability of the heart is rapidly exhausted. Hyperæmia of the gastric mucous membrane, is always to be expected, either universal or partial—continuous or intercepted, and possibly interspersed with white patches or red dots. The colour of the gall-bladder above alluded to, was, not improbably, due to the deposition of prussian blue. If so, it tends to prove that the latter is formed in the blood, and that the liver aids in depurating the latter of the former. The odour may be detected from several sources, and it is not impossible that it may be found in the chest, when absent every where else. Its presence in the blood and internal cavities, shews that it has been absorbed into the vessels, and transmitted through the invisible pores of their parietes and neighbouring tissues.

Tests for the detection of Prussic Acid.—It has been said that they are useless if the body have been above ground for three, or have been coffined for seven days. That this is not invariably the case, will shortly appear.

The Odour.—1. As several observations have already been made concerning it, I will now merely allude to three or four points connected with it.

When the acid is diluted, the odour resembles that of peach blossoms, and leaves a peculiarly acrid sensation on the fauces. It is very similar to that of nitro benzine, and to a smell that is said occasionally to arise from the viscera of those who had never taken Prussic acid. The testimony it affords is most conclusive, if it be derived from the blood, or parts to which there is no access, except by the circulation. It may not be appreciable if the body have been long exposed before it is examined, especially to the open air, or a shower of rain, or other circumstances favourable to evaporation; if the dose be small; if it be much diluted, decomposed, or predominated over by other odours, and if the person have lived long enough to exhale it freely from the lungs. The following will serve to illustrate the period it may be persistent: In a case reported by Mr. Norbland, he said it was absent eighteen hours after death, when the body was examined, while two of five witnesses declared they detected it. According to Dr. Letheby, it was evident for twelve hours; and according to Mr. Davies, for seventeen ro eighteen hours after death, about the mouths of C. W. Duckett, and E. Williams, whose cases have already been mentioned. Mr. Taylor (Elements Medical Jurisprudence, 1844,) believes seven days, after the taking of the acid, to be the longest time that its odour has been found. But this must only be considered as the mean duration; for Dr. Lonsdale, during his experiments on dogs, experienced it for eight or nine days, post mortem, and four or five days after the failure of chemical tests in the detection of the poison. Hence, as Orfila contended, the odour may detect prussic acid when chemical tests fail to do so, twenty-three days after death, is, I believe, the longest time that tests have proved the presence of the poison. This is on the authority of Mr. West, in the *Provincial Medical and Surgical Journal*, July 1845, who says, "I have distilled a portion of the contents of the stomach at this time, twenty-three days after the poison had been taken, and find the smell, the precipitate with nitrate of silver, and the prussian blue precipitate; all these are produced, apparently, in the same degree as at first."

The reagents employed in the chemical analysis of a liquid supposed to contain prussic acid, are the nitrate of silver, protoxid of iron, sulphate of copper, either alone or with tincture of guaiacum, and the sulpho-cyanid of ammonium. To each of these, a few remarks will now be appended.

1. *Nitrate of Silver.*—Induces a white precipitate, the cyanid of silver, the properties of which are.—First, its solubility, if bulky in boiling, and if scanty in cold as well as hot nitric acid. Second, its solubility in the volatile and fixed alkalis. Third, by heating it, the cyanogen entering into its composition will be evolved, which, when inflamed, burns with a rose-red coloured flame; and when imbibed by bibulous paper, wetted with a strong solution of the mixed oxides of iron and subsequently dipped in dilute sulphuric acid, causes a stain of prussian blue. Its nature may also be illustrated by the following procedure of Mr. Austin's (*London Lancet*, July 1846):—Mix the precipitate with a small quantity of oxid of iron and carbonate of potash; fuse them; dissolve the mass in ℥ss. of distilled water, filter and acidulate by a few drops of hydrochloric acid. Divide the solution into two parts, to one of these add a few drops of a solution of sulphate of copper—to the other a like amount of tincture of iron; in the first a chocolate brown, and in the last a blue precipitate will subside—prussiates of the respective bases. When operating on complex mixtures it is to be remembered that organic matters, heated in contact with an alkaline base or metal, will produce cyanogen. Nitrate of silver, if added to a solution of the acid, detects pt. 1 of it in pts. 7680 of liquid; but if a watch glass be moistened with it and held over the solution, pt. 1 of the latter in pts. 15360 of its menstruum will be detected. The least amount of cyanid of silver, from which a flame can be obtained, is 1-10 gr., = 1.50 gr. anhydrous acid = gtt. ij. of pharmacop. œial, or less than gtt. j. of Scheele's. When less than this the other modes of proving cyanogen may be successfully instituted.

2. *Protoxid of Iron.*—Add a protosalt of iron and then an excess of liquor potassæ, remove the grayish green precipitate thus induced by sulphuric or muriatic acid, and after exposure to the air prussian blue will be produced, visibly tinting the liquid by the intensity of its hue. Mr. Taylor says, "This test is peculiar to prussic acid and free from all objections." When added to a solution of the acid it detected pt., of it in pts., 920 of fluid; and when a watch glass was moistened with the test and held over the solution of prussic acid, pt. 1 in pts. 3840. These statements prove that it is ¼th less delicate than the former test.

3. *Sulphate of Copper.*—Supersaturate the liquid with potassa, then add sulphate of copper when a greenish