so safe nor so feasible as they seem to be and are apt to be followed by wrinkling of the capsule cell proliferation or more or less obliteration of the pupil. Besides, the breaking up of the capsule sets free particles of lenticular cortex which are not easily seen at the time of extraction and which although comparatively harmless when retained within the capsule become a formidable source of irritation if set free in the anterior chamber or when brought into contact with recently cut surfaces. It is best, therefore, I think, as a rule, to follow Professor Knapp's advice and to incise the capsule in its periphery only on a level with the upper border of the lens, to get rid of as much cortex as possible, and to take the chance of a second operation should that become necessary. If it does become necessary then we must above all be careful to avoid any manipulation that will involve drag on the ciliary processes.

The late Sir W. Bowman endeavoured to avoid this risk by tearing up the capsule with two needles, one in either hand. With these he penetrated the cornea at an angle of 60° or thereabouts, pierced the capsule, and then, by overriding the points of the needles round each other and separating the handles, tore the opaque film without any drag on the tissues with which the capsule is connected. The needles, however, are apt to dig into the vitreous humour and thus render the operation difficult and the operation is not always successful; hence Professor Noyes of New York has suggested that we should transplant the eyeball with a Graefe's knife, and then with two blunt hooks passed through each of the external wounds and pulling one hook against the other, establish a sufficient aperture without drag on the ciliary region. The hooks, however, can only be withdrawn with their concavities upwards, and the double manipulation of the eyeball on the stretch and with an abortive result is to be deprecated to an embarrassing degree. I have, therefore, substituted sharp hooks so curved that they may be entered and withdrawn in any position. These operations, however, do not always attain the end in view, and we are at present practically limited to a choice of three methods when operating for secondary cataract: (1) simple discission through the cornea to the double manipulation of the eyeball on the stretch and with an abortive result is to be deprecated to an embarrassing degree. I have, therefore, substituted sharp hooks so curved that they may be entered and withdrawn in any position. These operations, however, do not always attain the end in view, and we are at present practically limited to a choice of three methods when operating for secondary cataract: (1) simple discission through the cornea as practised by Professor Knapp and myself within a fortnight of extraction; (2) simple discission behind the iris and with the sclera punctured previously. Its character also had altered. It was slightly adherent to the posterior parietes, but had formed somewhat firmer adhesions with the lower part of the anterior abdominal wall. On removal it was found to be almost solid throughout. Death took place on the morning of Dec. 9th.

At the necropsy, which was held within 24 hours after death, a large tumour was revealed arising from the pelvis. The kidneys were quite free. Some coils of intestine were free in the upper part of the abdominal cavity, but the remainder were adherent to the tumour which to all appearances had infiltrated the mesentery. The tumour was in the middle line and was about the diameter of a large common walnut. It was slightly adherent to the posterior parietes, but had formed somewhat firmer adhesions with the lower part of the anterior abdominal wall. On removal it was found to be a length of the right ligament. The ovary on that side could not be found, but the other ligament remained intact. The tumour therefore in all probability grew from the right ovary. In doing so it pushed the uterus backwards and tilted it to the left side. It appeared to have infiltrated the sacral glands, making a firm union with the rectum and also the lumbar glands and the mesentery above. On its anterior surface were two coils of intestine which corresponded with the resonant areas found clinically. On the left it was adherent to the left ovary, which was also the seat of malignant disease and had become enlarged to the size of a small fist.

On section the central part of the tumour was white and had the appearance of loosely packed fibrous tissue. The kidneys were quite free. Some coils of intestine were free in the upper part of the abdominal cavity, but the remainder were adherent to the tumour which to all appearances had infiltrated the mesentery. The tumour was in the middle line and was about the diameter of a large common walnut. It was slightly adherent to the posterior parietes, but had formed somewhat firmer adhesions with the lower part of the anterior abdominal wall. On removal it was found to be a length of the right ligament. The ovary on that side could not be found, but the other ligament remained intact. The tumour therefore in all probability grew from the right ovary. In doing so it pushed the uterus backwards and tilted it to the left side. It appeared to have infiltrated the sacral glands, making a firm union with the rectum and also the lumbar glands and the mesentery above. On its anterior surface were two coils of intestine which corresponded with the resonant areas found clinically. On the left it was adherent to the left ovary, which was also the seat of malignant disease and had become enlarged to the size of a small fist.

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of them altered in shape. The blood-vessels were for the most part not clearly defined, or were defined by rows of spindle-cells. A correct description of the cell elements of ovarian tumours is of extreme value from many considerations which cannot be entered into here. The normal structure contains many cells of a very elementary type, which makes it conceivable almost for any kind of tumour to be developed, and also renders it possible for great metaplasia to occur in any one growth. Some parts one could classify as being fibro-sarcomatous, others as small round-celled sarcoma, and others as lympho-sarcoma. Oval cells did occur, but were isolated and few in number.

The following were some of the commoner cell elements: (1) extremely small, darkly-stained, round cells, about two-thirds the size of a red blood corpuscle, which may have been nucleated and un-nucleated, in which the latter is larger, a red blood corpuscle, staining poorly with a small nucleus or nucleolus; (2) still larger cells staining deeply and containing many granules; (3) cells similar to No. 3 but oval; (4) cells like large leucocytes with two or three nuclei present; (5) large flat cells, oval or irregular, sometimes containing a nucleus; (6) small branching cells; and (8) red blood corpuscles, some showing a degree of polikilocytosis (1).

Remarks.—Pathologically, malignant ovarian tumours are of interest because of the obscurity which surrounds the actual tissue from which they develop, particularly when they occur after the climacteric period. In the normal ovary the cell elements are mainly of two kinds: (a) epithelial cells forming a Graafian follicle, and (b) connective tissue elements, condensed in the cortex but everywhere of an elementary type. The rapid growth and extensive infiltration in this case point to sarcoma. The age, however, is somewhat over the time at which the connective tissue elements, condensed in the cortex but everywhere of an elementary type. The growth was rapid, a little over two months being taken to produce a tumour of great size. A noticeable clinical feature was the absence of ascites, the presence of which is so usual in ovarian growths.

PRUSSIC ACID IN SWEET CASSAVA.

By Professor Carmody, F.I.C., F.C.S.

Francis, one of my predecessors in the Trinidad Government Laboratory, was the first to point out that prussic acid was present in sweet cassava to a considerable extent. Francis's results have not received the attention which they deserved, probably because they were a direct but unconfirmed denial of statements repeatedly made by recognised authorities. There are very few recent editions of toxicological handbooks that make any reference to the results published by Francis. The statement is repeated as if it were original in Dr. Thorpe's (2) "Dictionary of Applied Chemistry." It is stated that "the milky juice in the sweet variety is innocuous, whilst that in the bitter is highly poisonous."

The question is of importance from a toxicological point of view in those places in the tropics where cassava is used extensively as a food. For poisonous symptoms are not infrequently reported after a meal of sweet cassava; and as the two kinds of cassava—the sweet and the bitter—are so much alike as to be almost indistinguishable, the conclusion usually arrived at is that the bitter variety has been cooked in error.

No results fully confirm those of Francis as to the presence of hydrocyanic acid, although his average figures are somewhat higher than mine. This year has been an unusually dry one for Trinidad and a diminished supply of rain does affect the character of plant juices. The method of analysis adopted by me differs somewhat from that of Francis. He grated 500 grammes of cassava into 200 cubic centimetres of water—an amount which took perhaps half an hour in a well-closed vessel. It was next strained through a linen cloth into a flask, which was then corked and allowed to stand until the starch subsided. 200 cubic centimetres of water-an assumption which is not far from the truth—were obtained by multiplying for the total in 500 grammes. This calculation was based on the assumption that the original 500 grammes contributed 200 cubic centimetres of water which on analysis were not from the water of the cassava but was quite fresh. Francis also remarks that a slight fermentation took place, and that the yellow juice in the sweet variety is innocuous, whilst that in the bitter is highly poisonous.