in my own practice, one of which was contracted in Canada, and the other an importation from Florida; and in both of which the hæmorrhage was controlled only by the most heroic administration of antiperiodics. It is said that the ordinary astringents without the aid of quinine or its succedanea, are quite useless. The extreme jaundice found in such instances does not appear to be the product of a defective liver, but rather one of the results of rapid cell disintegration,

As there is almost invariably more or less renal congestion present when hæmatinuria occurs, no matter what other causes may be contributory, it is common to find tube casts in the urine.

In both hæmaturia and hæmatinuria the urine will respond to the ordinary spectroscropic and chemical tests, and to the naked eye there may be no appreciable difference; only it may be said that in cases of hæmatinuria the urine is ordinarily more orless darkened, never a bright red, as often occurs in true hæmorrhage, the depth of the smoky shade varying according to the intensity of the disease; and, therefore, the only reliable distinction, apart from the symptoms and history, must be elicited by means of the microscope. It is ordinarily quite easy, by the gross appearances alone, to detect the presence of blood in the urine, in which it may appear either normal in color or having any of the aforementioned shadings; the former, if rapidly poured out, especially when of vesical origin, in which case it is apt also to be in part coagulated. Alkalinity preserves the brightness of the blood, while a prolonged retention in acid urine produces the darkened tints.

It should be borne in mind that the ingestion of various substances will discolor the urine sufficiently to deceive the eye—for example, senna, rhubarb and beetroot, will turn it red, and carbolic and salicylic acid will give it a brownish tinge.

For this reason, also because diagnosis is often urgent, even when the quantity of blood is very small, other tests than the gross appearances are required, amongst which are the following:

1st. Albumen is always present and responds to the usual reagents, but it must be remembered that true albuminuria is often a marked characteristic of the disease which causes the hæmorrhage, for example in Bright's disease; and, therefore, the proportion of albumen is not always a criterion of the actual extent of hæmaturia.

2nd. Teichmann's test—glacial acetic acid and sodium chloride evolving brownish rhombic crystals of hæmin.

3rd. With the spectroscope two dark absorbent bands are seen, one between the yellow and green and one in the green.

4th, and most important, the microscopic appearances, which include not only the corpuscles but also other organic, granular or crystalline substances, varying in character according to the diseased state and the location of the hæmorrhage, for example, in a case of renal calculus of uric acid the characteristic crystals will probably be found, together with red corpuscles, cylindrical epithelium, and perhaps granular or coagulated tube casts. On the other hand, hæmorrhagic cystitis will give, not only corpuscles, but also squamous cells, and, in many instances, phosphatic crystals.

Seeing that each part of the urinary apparatus is prone to its own peculiar forms of disease, the presence of blood being once assured, the first step towards providing a remedy is location of the lesion, and reference to the plan of procedure may be prefaced by enumeration of the diseased conditions in the order of their occurrence. I have come across a table compiled by Reginald Harrison, in which he arranges them numerically in the following order: Renal calculus, hypertrophied prostate, stone in the bladder, cystic and prostatic tumors, mostly malignant, tuberculosis, urethral stricture, cystitis, passage of oxalate or uric acid crystals from the kidney, traumatism and the irritation produced by the presence of Filaria Sanguinis. To this list might be added the parasites Bilharzia Hæmatobia and Strongylus Gigas, the latter of which is much less common in man than in some of the lower animals.

As has been said, each portion of the urinary tract, from the malpighian corpuscles down to the meatus urinarius, having its own individual histology and functions, is subject to own peculiar diseases, and therefore, as hæmaturia may accompany almost any urinary ailment, the first and most important step from this starting point towards

(To be continued.)

Dr. Peifer, son-in-law of Prof. Koch is said to have discovered the bacillus of influenza.