

means form a fairly accurate picture of the condition of the kidneys and lower urinary tract. We can separate readily, lesions below the secreting parenchyma of the kidney from those involving its substance, and further, we can separate out the several forms of chronic nephritis and differentiate such from the serum leakage, which occurs in general venous engorgement, and can separate as well the serum exudate of many febrile diseases from a true nephritis (into which, such febrile albuminurias often pass, however). With the microscope a careful examination of the lower layers of urine (in a urine glass) or better, after use of the centrifuge, will clear up the diagnosis of many a case of interstitial nephritis before ill-defined or unsuspected.

In tuberculosis of the genito-urinary tract we will find tubercle bacilli in the urine, and their presence may be taken as an absolutely diagnostic sign of tuberculosis of that tract. As a rule they are present in fairly large numbers. The use of the centrifuge is here of great benefit in detecting them when present in small numbers.

Next, perhaps, to the urine as a material which lends itself to diagnosis, is the sputum. This particularly applies to tuberculosis, but it is also of diagnostic import in pneumonia, influenza, and in true asthma. In the case of the first three diseases mentioned we have their respective bacteria, and in the last we have the presence of Curschmann's spirals and often of the Charcot-Leyden crystals.

In the case of tuberculosis anywhere the *sine qua non* of the disease is the tubercle bacillus. Every one is acquainted with the methods of detecting this bacterium in sputum, but in my experience it is the exception for the physician to make sputum examination an early diagnostic feature. For tubercle bacilli can be found in the sputum in all forms of active phthisis, and is found very early even in the acute miliary form. There will be no necessity here to point out how important an early correct diagnosis is in phthisis, in enabling one to form a prognosis and adopt a suitable treatment, climatic or otherwise. Besides the tubercle bacillus, in cases of phthisis in which we have any loss of lung substance, we will find elastic tissue in the sputum, and the amount of this is a fair measure of the activity of the "soft-