Albuminuric Retinitis and Azotemia.—The importance of albuminuric retinitis and its serious nature have been long recognized, but the pathology of the lesion has remained obscure. Among the substances which may be retained in the organism during the course of nephritis, two have been the subject of special study in recent years—chloride of sodium and urea. WIDAL, MORAX, and WEILL (*Ann. d'ocul.*, May, 1910, 354) have observed 71 cases of nephritis of different types, of which 17 were affected with retinitis. There was no relation whatever between the retinal lesion and the retention of chlorides in any of these cases, while all of them showed more or less pronounced retention of urea.

PATHOLOGY AND BACTERIOLOGY.

UNDER THE CHARGE OF

WARFIELD T. LONGCOPE, M.D.,

DIRECTOR OF THE AYER CLINICAL LABORATORY, PENNSYLVANIA HOSPITAL,

ASSISTED BY

G. CANBY ROBINSON, M.D.,

CLINICAL PATHOLOGIST TO THE PRESBYTERIAN HOSPITAL, PHILADELPHIA.

The Glycyl-Tryptophan Test for Carcinoma of the Stomach. The application to the diagnosis of cancer of the stomach of the fact that malignant tumors contain a peptid-splitting ferment, by NEUBAUER and FISCHER (*Deut. Arch. f. klin. Med.*, 1909, xcvi, 499) was reported in this Journal (1910, cxxxix, 284). They made use of a polypeptid, glycyltryptophan, the split product of which, tryptophan, is easily recognized by a color reaction with bromine. Trypsin regurgitated from the duodenum and blood will both accomplish this splitting and must be ruled out—by the tests for bile and for occult blood. The presence of tryptophan itself in the stomach must be excluded. The development of peptid-splitting bacteria is prevented by toluid.

LYLE and KOBER (*New York Med. Jour.*, 1910, xci, 1151) have applied the test in 21 cases of suspected carcinoma of the stomach. The test was positive in 10 cases, 6 of which have been proved carcinoma of the stomach by operation. Of the 11 negative cases, 5 have been confirmed by autopsy or subsequent course. The authors found the regurgitation of trypsin the greatest source of error. They do not believe the test for bile sufficiently sensitive for this determination. They have proved the presence of trypsin when the tests for bile were negative. So they advise giving the test meal in the afternoon after a purge the night before. They believe that no deductions should be drawn from less than three tests.

The Rapid Diagnosis of Diphtheria by Fixation of the Complement.—The present knowledge of the occasional unfortunate accidents accredited to anaphylaxis has made the indiscriminate employment of antidiph-

theric serum a dangerous ooe. A useless injection will develop this hypersensitiveness in a patient and expose him to the possibility of later accidents, as well as diminish the duration of the curative action of later serum therapy. The bacteriological diagnosis which has come to be relied upon necessitates a delay of eighteen hours. With this in mind, WEILLE-HALLE and BLOCK-MICHEL (*Bull. et mem. de la Soc. méd. hôp. de Par.*, 1910, xxvii, 707) have made use of the method of Bordet and Gengou, of fixation of the complement, for a rapid, early, sure diagnosis. As antigen they employed an emulsion in salt solution of the mucus obtained from the tonsils and pharynx on a cotton tampon. Antidiphtheric serum from the Pasteur Institute contained the amboceptor, and fresh rabbit serum the complement. A sheep hemolytic system was employed. Twenty-five cases of diphtheria resulted in fixation; 10 cases of non-diphtheritic angina, 9 of measles, and 3 of scarlatina showed hemolysis and were negative.

The Bactericidal Substances Extracted from Normal Leukocytes. ZINSSER (*Jour. Med. Research*, 1910, xxii, 397) has investigated the properties of the bactericidal substances contained in normal leukocytes, especially in regard to their effect on *Staphylococcus pyogenes aureus* and *Bacillus typhosus*. The substances were obtained from leukocytes of rabbits by aqueous extraction and extraction in salt solution after freezing the leukocytes. The two methods gave extracts with practically the same bactericidal properties, which were tested by adding the extract to an equal part of a fairly constant bacterial emulsion. A fixed amount of this mixture was removed and plated in agar at various intervals. There was found a considerable uniformity in the action of the various lots of such extracts upon the same strains of the same organism, nor did various strains of the same organism show any marked variations in their susceptibility to the bactericidal substances contained in the extract. These substances are apparently distinct from and differently constituted to the bactericidal substances of their serum, not being destroyed by temperatures below 75° and after heating to 80° activation does not take place by the addition of fresh extract. There was no evidence that the leukocytic extracts contained complement, either for the activation of bactericidal antibodies in serum or for hemolytic amboceptors. Quantitatively these bactericidal substances are insignificant compared with the bactericidal powers of normal serum, and it is unlikely that they are responsible, except in a purely secondary way, for the curative results obtained in infections in animals and man. Leukocytes from immunized animals yield an extract with no stronger bactericidal properties than do those from normal animals, and it would seem that these substances, as contained in the leukocytes, may be at all times simply sufficient for the destruction of the limited numbers of bacteria which can be ingested by the cell, and have no quantitative relationship for the specific immunity acquired by animals or human beings during their reactions against spontaneous or experimental infection.

Autolysis of Pneumococci.—ROSENOW (*Jour. Amer. Med. Assoc.*, 1910, liv, 1943), makes a preliminary report of some very interesting and important results which have been obtained from his work on the