would expect that this increased transportation of fats with a cachexia would result in a corresponding loss of body protein, but such is by no means the case, nor is every cachexia associated with a lipemia. Surface tension tests show that for each individual of a species there exists a fairly constant normal lipase value for the blood serum. This falls rapidly after the production of anemia, and seems to return to normal in a manner inversely proportionally to the grade of lipemia induced. It is the same way in cases made anemic by poison, but in animals poisoned by phloridzin practically no fall in the lipase content occurs. It would, therefore, appear that the lipemia in these experiments, at least, was due to an inability to rid the blood of fats by reason of a blood serum deficient in lipase.

The Clotting of Blood as Seen with the Ultramicroscope.—Using the slit ultramicroscope of Seidentopf, the oxalated plasma of various animals and suitable amounts of an aqueous solution of thrombin, HOWELL (*Jour. of Physiol.*, 1914, xxv, 143) has studied the process of coagulation, which in accord with the results of Stuebel, proceeds after the manner of crystal formation. The process is most beautifully seen when solutions of thrombin and fibrinogen are used. Aqueous solutions of thrombin exhibit a few particles showing Browman movement, but the field is practically dark; fibrinogen solutions, however, show numerous active particles and a strongly luminous light-cone in which individual particles can not be seen. Howell inclines toward the view that under the influence of thrombin there occurs an aggregation of the invisible particles (amicrons) of this light-cone with further consolidation into the needle-like crystals of fibrin, beautifully shown in the article by photomicrographs. Howell finds no evidence of the fibrin network so often described, except when the conditions are such as give rise to incomplete clotting.

On the Effect of Extirpation of the Spleen on the Course of Pernicious Anemia.—A. v. DECASTELLO (*Deutsch. med. Woch.*, 1914, xl, 639, 692) reports in detail observations in 5 cases of pernicious anemia subjected to splenectomy. Frequent examinations were made over a period of months. From his small series of cases Decastello feels that improvement in the blood-picture and in the general condition of the patient can be anticipated with considerable confidence; indeed, the patient may return practically to normal. This improvement, however, in the light of our present knowledge, is more probably to be interpreted as a remission than a cure. Therefore, it is not yet justifiable to assume that removal of the spleen eradicates the cause of the disease, or that the disease is due to a previously increased hemolytic activity on the part of the spleen. Decastello thinks that it is much more likely that the operation produces nutritive stimuli to the bone marrow through some change in metabolism as a result of the loss of the spleen.

Studies of the Uric Acid of the Blood.—E. STEINITZ (*Deutsch. med. Woch.*, 1914, xl, 953) has made a study of the uric acid of the blood quantitatively by the method of Folin and Denis. He finds that the normal blood of a patient on a purin-free diet always contains uric acid in amounts sufficient for quantitative determination. The value of this endogenous

uric acid of the blood amounts to 0.002 to 0.004 per cent., the average being 0.003 per cent. In true gout this is increased to 0.004 to 0.008 per cent., the average being 0.0055 per cent. In atypical gout the amount of uric acid is less, as a rule. It varies between 0.004 and 0.006 per cent., the average being 0.0045 per cent.; rarely it is normal. It was found that purin-free diet had relatively little effect within a short period of time; any continuation of the diet, however, often caused a marked reduction in the endogenous uric acid of the blood. Atophan produces a marked decrease of the uric acid of the blood. This diminution begins soon after the absorption of the drug. The well-known increase in excretion of uric acid in the urine is, therefore, probably due to action on the kidneys. The diminution of uric acid in the blood is more rapid after large doses given over a short period of time. Repetition of such atophan cures appears to be most effective as the uric acid rises quickly after discontinuing the drug. On the other hand, small doses of atophan are capable of neutralizing the effect of a diet rich in purins. The therapeutic inference is that short atophan cures with large doses should alternate with small doses and a more liberal diet. The diagnostic value of a quantitative determination of uric acid is great, Steinitz believes. From an increase of endogenous blood uric acid alone, however, it would be unwise to diagnose gout or gouty diathesis.

The Functions of the Interrenal Portions of the Suprarenal Glands.—CROWE and WISLOCKI (*Johns Hopkins Hosp. Bull.*, Balt., 1914, xxv, 287) have made a study of the following points: (1) the effects of complete removal of both suprarenal bodies; (2) the effects of removal of either the right or left gland alone; (3) the relative importance of the cortex and medulla of the adrenal; (4) the relation of the adrenal to carbohydrate metabolism; (5) the results of adrenal transplantation; and finally what relation may exist between the adrenals, the thymus, and the lymphatic system. On the basis of many operative and histological observations the following conclusions were drawn, subject to further confirmation. The experiments were performed on dogs. The suprarenal glands are vital organs in which the cortex is more essential to life than are the medullary portions. Their removal is followed by convulsive seizures, a subnormal temperature, and other signs of acute adrenal insufficiency; when recovery occurs normal growth and sexual functions ensue, with no marked change in disposition, increase in weight, or polyuria. Following partial removal of the gland the remaining portion undergoes hypertrophy, chiefly in the fascicular zone of the cortex, while the medullary portion remains unchanged. Though a transient glycosuria follows the operative procedure, there is no permanent alteration of the carbohydrate tolerance resulting from adrenal insufficiency. Autoplastic transplants may "take" but do not function; in such "takes" the cells of the cortex may survive while those of the medulla are absorbed. That there is a definite relationship between the adrenals and lymphatic system seems certain; for after long standing adrenal insufficiency the animals at autopsy show enlarged mesenteric and retroperitoneal lymph glands, enlarged intestinal lymph follicles, and not infrequently thymus hyperplasia.