determinations were made in the majority of cases, but owing to the appearance of the recent comprehensive work of Wilbur and Addis,[6] and to our own unsatisfactory results, these determinations were discontinued. These investigators showed conclusively that observations on a single or a twenty-four-hour specimen have no significance, since tremendous variations occur from day to day, and that only where repeated observations are made over a period of at least two weeks and then only when control studies of the urobilin content of the feces have been made to exclude blood destruction as a factor in the production of urobilinogen can findings be accepted.

4. *Fibrinogen.*—There is evidence to show that the liver is active in the formation of fibrinogen, and Whipple[7] has suggested that the determination of the amount present in oxalated plasma may be used as an index of liver function.

5. *Lipase.*—Whipple[8] has also suggested that the estimation of the lipolytic activity of the blood may constitute a test of liver function.

6. *Phenoltetrachlorphthalein.*—This drug was introduced by Rowntree, Hurwitz and Bloomfield[9] as a test for hepatic function, and clinical studies by them and simultaneous experimental studies by Whipple and co-workers[8] showed that a normal excretion could be established and that many liver injuries, particularly of severe grades, were associated with a decided decrease in the phenoltetrachlorphthalein output. Further studies with this test have been carried on.

7. *Fibrinolytic Ferment.*—Dr. Goodpasture of the pathologic staff was already interested in the presence of a fibrinolytic ferment in the blood in liver cirrhosis when this work was undertaken. Samples of blood from all our patients were submitted to him for study, and through his courtesy we present the results of his studies, details of which will appear later. The fer-

6. Wilbur, R. L., and Addis, Thomas: Urobilin: Its Clinical Significance, Arch. Int. Med., February, 1913, p. 235.

7. Whipple and Hurwitz: Jour. Exper. Med., 1911, xiii, 136. Whipple, G. H.: Hemorrhagic Disease—Septicemia, Melena Neonatorum and Hepatic Cirrhosis, Arch. Int. Med., March, 1912, p. 365. Whipple, Mason and Peightal: Bull. Johns Hopkins Hosp., 1913, xxiv, 207.

8. Whipple, Mason and Peightal: Bull. Johns Hopkins Hosp., 1913, xxiv, 207. Whipple, Peightal and Clark: Ibid., 1913, xxiv, 343. Whipple: Am. Jour. Physiol., 1914, xxxiii, 50.

9. Rowntree, Hurwitz and Bloomfield: Bull. Johns Hopkins Hosp., 1913, xxiv, 327.