It was determined to find out if experiment could throw any light upon this subject. Two poisons which produce nephritis were used: potassium chromate and uranium acetate. It soon developed that the damaged kidney could be fatigued in different ways. The condition of the kidney as determined by the form of poison injected, the number of doses of the diuretics as well as their strength, were all important factors in developing kidney fatigue. Using salt and caffeine as diuretics two distinct types of fatigue were developed, the one brought about by salt and broken through by caffeine, the other in which the reverse held true. It was always possible to predict that the rabbits poisoned with uranium held true to the former type, those with chromium to the latter.

Exhibiting such an extreme variation in function it is rather surprising that the histological picture of these two forms of nephritis is very much the same. Transferring these observations to human nephritis it is obvious that except in the instances of the "Widal" or "Strauss" cases referred to above we do not know which diuretics will be of value in producing a flow of urine. If the drugs are employed in too high dosage or too frequently, more harm may be done than good, the urinary secretion may be diminished or even completely suppressed. It is therefore necessary for the intelligent treatment of these cases to use the various diuretics in small doses and by comparing the twenty-four hourly output of fluid with the intake to note the exact effect that is being achieved and accordingly increase, diminish or change the medication used. It is the nearest approach we have towards furnishing a rational drug therapy at the present time.

Dr. Henry A. Christian (Boston): I should like to emphasize further the damage that can be done to patients with nephritis by using diuretic drugs. All forms of diuretic drugs are capable of injuring patients with nephritis. That is a matter that we observed in our patients in the wards. It is a matter that we can demonstrate experimentally on animals.

Caffeine, diuretin, theocin, potassium acetate, etc., administered to animals which have severe nephritis, will materially shorten the lives of the animals. In other words, the injudicious use of any diuretic, far from being a benefit, may be distinctly injurious to the patient. Naturally, that is more definitely the case in patients with acute nephritis or chronic nephritis with acute exacerbations,