

that of the sugar. The results of their observations in a general way corroborate the statements made by other writers. In acute parenchymatous Bright's disease, sugar fails to appear in the urine after the administration of phloridzin. In chronic forms of the disease, when only a trace of albumin can be detected in the urine, and when the permeability of the kidney for methylene-blue is normal, there is frequently a diminished sugar elimination — diminished as compared with that in health under the influence of phloridzin. In no case was there observed an impaired permeability for methylene-blue with a normal sugar elimination, but the contrary was often the case.

Levene's modification of Allihn's method was used for the sugar determinations. Further work in this direction is in progress.

41. "**Effect of blood serum in pneumonia upon the heart,**" with demonstration of tracings (preliminary report): **ISAAC ADLER** and **RICHARD WEIL**.

The object of these experiments was to determine whether blood serum in pneumonia has a specific effect upon the heart, and also, whether there is any difference in action between the serum taken *before* crisis and the serum obtained *after* it. The experiments were made upon the heart of the turtle, use of the mammalian heart being impracticable, in this connection, for many reasons. The fluids to be tested entered the heart through a glass cannula introduced through the right aorta into the corresponding ventricle, passed through the septum into the left ventricle and flowed out through a cannula in the left aorta. Care was taken to keep the temperature, concentration and hydrostatic pressure uniformly constant. The veins were all carefully ligated. The small diaphragmatic vein at the apex was tied and cut, the ligature connected with a writing lever and the contractions of the heart thus recorded upon a drum.

Normal human serum acts upon the heart of the turtle as a violent inhibitor, but it was found that in a dilution of 1 to 20, or, better still, 1 to 15, it does not differ greatly in effect from "normal saline." All sera were thereupon tested in dilution of 1 to 20 or 1 to 15, and the routine of each experiment as ultimately adopted was as follows: Infusion into the heart: (a) "normal sa-

line," (*b*) normal blood serum, (*c*) "normal saline," (*d*) serum *before* crisis, (*e*) "normal saline," (*f*) serum *after* crisis. In this manner, after considerable preliminary experimentation, very characteristic tracings were obtained.

Two cases of lobar pneumonia and one case of bronchopneumonia have thus far been studied. The tracings obtained were demonstrated, and it appeared from them that the serum in pneumonia *before* the crisis, at least in the cases tested, acted upon the heart of the turtle as a most violent poison. The contractions at once became extremely weak and slow, and the pauses very long. The serum taken *after* the crisis gave tracings not very materially different from those obtained with *normal* serum.

42. "The influence of alcohol on biliary secretion": WILLIAM SALANT.

In the author's experiments, fasting or well-fed dogs were the subjects. Operation and collection were conducted in the usual manner. Ether narcosis was employed in every instance without previous injection of morphin. The rate of secretion was studied by comparing the amounts collected during periods of 15 minutes. The rate of secretion during the first four or five periods was used as a control, at the end of which time alcohol was injected by means of a burette into the femoral vein. Varying strengths of alcohol were used — 4½%, 30%, and 60%. The quantities administered were usually about 4 c.c. per kilo of body-weight.

After the injection of alcohol, it was found in all cases that the secretion of bile continued to diminish, the diminution in the rate of secretion being, however, somewhat greater than in the two or three control periods immediately preceding the administration of alcohol. Since the much larger quantity of bile of the first and second periods probably represents bile that has been held back during the operation, it could not be considered as a control. The author, therefore, regarded as a control the rate of secretion during the following two or three periods. Whether this slightly diminished secretion is to be ascribed to the influence of alcohol can only be decided by further comparisons of the rate of secretion in alcoholized and normal animals. Thus, in three dogs without alcohol the rate of secretion corresponding to the alcohol periods was as follows: In the first, a decline during the fourth, fifth, and