

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

sixth periods, succeeded by a rise in the next period. In the second experiment the rate of secretion remained practically steady during the fifth, sixth, seventh, and eighth periods. In the third experiment there was a variation, but the average rate of secretion was about the same in the fifth, sixth, and seventh periods as in the preceding experiments. It would seem, therefore, that the diminished secretion of bile following the intravenous injection of alcohol may be due to the influence of that substance.

A study of the effect of alcohol on biliary secretion after injection into the stomach was also begun. It would seem *a priori*, in the light of recent investigations by Bayliss and Starling, Fleig, and Henriot, on the relation of secretin to the secretion of bile, that the author's method of administering alcohol ought to provoke secretion of bile. In the few experiments the author has made thus far, he has observed that when 60% alcohol was introduced into the stomach, there was a slight, transitory increase of biliary secretion. With 30% alcohol there was in some cases an increase, in some a decrease of the secretion of bile as compared with pre-alcoholic periods. At this stage of the work it would be premature to form any conclusion regarding this point. Whether this slight increase is due to increased gastric secretion and consequent formation of secretin, or is reflex in nature, will next be investigated.

**43. "The influence of repeated external hemorrhages on the general composition of the blood": GUSTAVE M. MEYER and WILLIAM J. GIES.**

Various observers have noted the fact that the composition of the blood changes after hemorrhage, but no systematic study has been made of these modifications. The authors have begun such an investigation for the purpose of establishing a more definite basis for comparative blood analysis. They reported the results of their observations on posthemorrhagic changes in the percentage content of water, total solids, organic solids, and ash. Further study is in progress.

Healthy, well-nourished or fasting dogs in light morphin-atropin narcosis were used, and quantities of blood ranging from 0.2% to 1.0% of body-weight were taken. These amounts were drawn from the femoral artery, and approximately the same