

Wassermann reaction or by the character of the spinal fluid. In some cases of tabes there was improvement of the lancinating pains and gastric crises, but never an improvement of the objective nervous phenomena. Generally there was slight change in the character of the cerebrospinal fluid lymphocytosis (Noures reaction), but in 2 cases this improvement was very marked. The Wassermann reaction in the blood and spinal fluid was not influenced. In lues of the cerebrospinal system not only the clinical symptoms but also the cerebrospinal fluid was much improved in all its characters.

**The Nitrogen and Chloride Excretion by the Skin.**—**LOOFS** (*Deut. Arch. f. klin. Med.*, 1911, ciii, 563). The amount of nitrogen and chloride excreted by the skin is interesting, for in cases of renal insufficiency all authorities from von Ziemsen have advocated improving elimination by vigorous stimulation of the skin and bowels. Loofs studied the amount of nitrogen and chloride excreted into clean absorbent towels by patients in various stages of nephritis. Three cases of tuberculosis were used as controls. In no case was there any increase in the amount of nitrogen or chloride excreted by the skin of nephritic patients, even in 2 cases where well-defined uræmic symptoms were present. About 0.25 gram nitrogen and 0.2 gram sodium chloride were excreted in twenty-four hours. In 1 case of acute hemorrhagic nephritis the sodium chloride output was about doubled, but this patient was just recovering from edema.

**Spectroscopy in Fecal Examination.**—**CSEPM** (*Deut. Arch. f. klin. Med.*, 1911, ciii, 459) compares the relative accuracy of investigation of feces and gastric contents for blood. He finds that the most sensitive test is the benzidin, which depends on the catalytic action of benzidin and hydrogen peroxide. The old crystallization of hematin tests have been abandoned because of their lack of sensitiveness. The catalysis tests are not as good as one could wish, because they react to plant chlorophyll and other bodies and because the reagent readily spoils. He recommends a spectroscopic test. The instrument used may be of the cheapest variety; 5 c.c. each of concentrated acetic acid, alcohol, and ether are rubbed up for a few minutes into about 5 grams of feces, then filtered through a dry paper. To this extract in a test-tube 1 to 2 c.c. of pyridin and 1 to 3 drops of ammonium sulphide are added. The resulting mixture in the presence of blood shows the spectrum of hemochromogen. The patient should, of course, be on a hemoglobin and chlorophyll free diet for about three days before the test, i. e., he should have no meat or green vegetables. The test must be done immediately after the addition of the ammonium sulphide, for delay causes weakening of the absorption spectrum.

**The Action of the Vagus on the Human Heart.**—**ROBINSON** and **DRAPER** (*Jour. Exper. Med.*, 1911, xiv, 217). While it has been possible to show the accurate effects of mechanical vagus stimulation upon the heart of lower animals, it is only recently with the aid of the electrocardiograph that it has been possible to do this in man. In a normal man, Robinson and Draper produced slowing of both auricles

and ventricles and delay in the A-C time, and probably the left ventricle was diminished in force of contraction. Stimulation of the right vagus has more effect on the heart rate and force of ventricular contraction than the left, but the left has more influence on the conductivity from auricle to ventricle. Right-sided stimulation increased the action current of the ventricles, i. e., there was a bigger "R" wave, while the left vagus produced an opposite effect. There was no difference in the current of auricular contraction, nor were any changes in excitability of auricle or ventricle produced. In cases of auricular fibrillation, stimulation of the right vagus caused slowing or stopping of the ventricular rhythm with no effect upon the electrocardiographic register of the auricular fibrillation. While the effect of vagus stimulation on fibrillating auricles in animals is still unsettled, it is probable that it is an apparent arrest and is in reality due to the powerful depression of the force of auricular contraction. No one would venture to so powerfully stimulate the vagus in man in the light of Quincke's advice. In all probability these pauses might be due to blocking of the auricular stimuli. After vagus stimulation the force of ventricular systole is much weakened for several beats. The excitability of the ventricles may be lowered, although there is no change in the auricles.

**Animal Experiments in Goitre.**—GOUGET (*Presse Médicale*, 1911, 709). The idea that the endemic development of goitre is due to the water drunk is not new, and always has been favorably received. Goitre is seen in the endemic districts in most domestic animals, of which the dog and rat are the most sensitive. Of 8 rats, 6 had pronounced goitre after drinking water when put in a Swiss goitrous district. The other 2 were young and escaped, for generally the malady attacks only adults. In the control animals who drank other waters but were housed and fed the same, there were no cases. In the test animals 50 per cent. of the young were stillborn and many others died early in life. Simple Berkefeld filtration does not protect the animal. Hence the exciting cause may be an ultramicroscopic organism or a soluble toxin. The filter was kept in milk and the milk given for over a year off the filter. There was no case of goitre among the animals, but a definite cretinoid state. Gouget finished by producing less marked goitres by the filtrates. All the goitrous animals had big hearts, not, he thought, due to the goitre, but both from one cause. Heating water apparently destroyed the causative agent. This agent was apparently derived from rocks over which the water ran, not only because of the richness of the water in lime salts, magnesium, and iodine contents, but also because of other properties. Gouget accordingly left ineffective water in contact with rocks from the streams of the goitrous areas. None of the animals using this water developed goitre except after long periods. Contrarily, he put struma-producing water in contact with jurassic rocks, and no goitre was produced in the animals taking it. It thus appeared that the goitrous toxin was fixed by some rocks, i. e., the rocks lose their efficacy just like the filter. The presence of colloid in goitre led him to try dialysis. The dialyzed portion gave no goitre to animals. The water remaining in the dialyzer produced it readily. By the stalagmometer he found differences in surface ten-