

of syphilis, but that it may often be combined with salvarsan with good effects. The Wassermann reaction is an important factor in the treatment of those patients with either indefinite luetic symptoms or no symptoms at all. It is also the only absolute indication to determine the length of time of the treatment in individual cases. Citron insists that the treatment should be continued until there is a persistent negative reaction. He believes that the Wassermann test is also of value to indicate the therapeutic effect of various antisyphilitic remedies.

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**The Treatment of Hay Fever by Hypodermic Inoculations of Pollen Vaccine.**—FREEMAN (*The Lancet*, 1911, clxxxi, 814) reports 20 cases of hay fever treated by inoculations of pollen vaccine, with very beneficial effects in 16 cases. The best results were obtained with the use of the vaccine derived from the pollen of timothy grass. Freeman says that it is well known that individual patients are very susceptible to the pollen of certain definite plants, and the question naturally arises whether one kind of pollen vaccine may be more active in one case and another in another case. Although this point cannot be regarded as settled, it apparently is not so. He found that the pollen of *Alopecurus pratensis* gave good results, but only possessed one-quarter the strength of *Phleum pratense* (timothy grass). This ratio between the strength of a phleum extract and an alopecurus extract remained constant with different patients. Consequently, Freeman does not believe that it is necessary to select different types of pollen for the treatment of different patients. In considering the cases treated, Freeman says that there seems little doubt that there has been a distinct amelioration of symptoms. This improvement took several forms—a greater freedom from attack, the attack not so severe as in former years, and the attack sooner over, the constitutional disturbance not so great, and less asthma. The original article should be consulted for details of the dosage and the application of the treatment.

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**The Action of Atophan on the Purin Metabolism.**—STARKENSTEIN (*Arch. f. Exper. Path. und Pharm.*, 1911, lxy, 177) relates his experiments on the action of atophan upon the purin metabolism of various animals. He also tested its action in his own case. His experiments showed that the increased excretion of uric acid in dogs was coincident with a diminished output of allantoin, and that these two factors balanced one another. He explains this by a fault in oxidation of the uric acid to allantoin that normally occurs in dogs. Atophan caused a diminution of the uric acid excretion in hens which he attributes to a defective synthesis from urea. The experiments upon himself resulted in an increased output of uric acid that was transient and was followed by a period of diminished excretion. Starkenstein suggests the hypothesis that atophan hastens the breaking down of the nucleoproteids that are predestined to be the source of the endogenous uric acid. This increases the output of endogenous uric acid temporarily, and following this there is a diminished output of uric acid. This effect of atophan in hastening the excretion of the endogenous uric acid tends to prevent the deposition of uric acid in joints and cartilages. The good results obtained by different observers in the treatment of

gout may be explained in this way, although more evidence is necessary, both experimental and clinical, to support this view. Starkenstein does not believe in the theory that atophan increases the permeability of the renal epithelium to uric acid by a direct stimulating action upon the renal cells. The hypothesis of Starkenstein is not based upon sufficient experimental evidence, but if true, atophan will be a distinct addition to the therapy of gout.

**The Treatment of Gonorrheal Arthritis with Injections of Tincture of Iodine.**—HILDEBRAND (*Berlin. klin. Woch.*, 1911, xlviii, 1410) has used 5 per cent. tincture of iodine injected directly into the affected joints, and speaks very favorably of this method of treatment. During the first few days after the injection a considerable increase of the swelling of the joint occurs. This increase, however, subsides rapidly after a few days. Pain in the affected joint diminishes and the joint soon becomes more movable. Hildebrand says that there is no danger of adhesions forming as a result of the injections, and cites a case where the condition of the joint was absolutely normal as seen at autopsy six months after a series of iodine injections. Hildebrand warns against giving the iodine in too large amounts or in too concentrated a form, although he does not specify any definite amount.

**The Activity of the Pancreatic Function Under the Influence of Copious and Moderate Water Drinking with Meals.**—HAWK (*Arch. Int. Med.*, 1911, viii, 382) studied the problem of the influence of water drinking at meal times on the activity of the pancreatic function. The amylolytic activity of the feces, denoting, according to Wohlgemuth, the content of pancreatic amylase present in the feces, was taken as the index of the activity of the pancreatic function. The amylolytic values for the stools increased markedly during the periods of moderate and copious water drinking as compared to the control periods. Hawk draws the general conclusion that the ingestion of quantities of water at meal time, ranging in volume from  $\frac{1}{2}$  to  $1\frac{1}{2}$  liters, stimulates the pancreatic function in two ways: (1) A direct stimulation of the nervous mechanism of the pancreas brought about while the water is still in the stomach; and (2) an indirect stimulation brought about on the entrance of the increased volume of acid chyme into the duodenum. The drinking of water with meals ought, therefore, to bring about a more rapid and complete digestion and absorption of the fat and carbohydrate constituents of the diet, two observations verified by experimentation in the laboratory.

**The Treatment of Sea Sickness.**—CRUON (*Berlin. klin. Woch.*, 1911, xlviii, 1646) says that veronal is superior to any other drug that has thus far been advocated for the treatment of sea sickness. The fact that it is often impossible to administer any drug by mouth for this affection led him to try the more soluble sodium veronal by rectum. He administered tablets of sodium veronal by the rectum, and says that a marked improvement in the symptoms occurred within one hour after its administration in this way. He also suggests that it may be given by rectum in the form of suppositories. It is probable that equally good results will be obtained with this remedy in ear sickness.