De Langen, C. D. THE CONSTITUTION OF THE TROPICS. [Mededeel v. d. Burg. Geneesk. Dienst. Neth. Indies. 1920, 2. J. A. M. A.]

De Langen here brings down to date his theoretical considerations on the biochemical aspect of life in the tropics, and especially his assumption of the hypersensitivity of the sympathetic nervous system. He found that the cholesterin, other fats and calcium in the blood were below the normal level in European blood, but the sugar content was abnormally high. He ascribes the frequency of convulsions and spasmophilia to this deficiency in calcium. Experience has shown, in one hospital at least, that 3 gm. of calcium given daily to all the patients indiscriminately, seemed to hasten recovery and render it more complete. The uric acid content of the blood was found within normal range, identical with American values and perhaps a little higher than the European. He emphasizes that hypersensitivity of the sympathetic system does not necessarily imply a weakening of the antagonist system. The tonus of the latter may be normal, even although some of its effects may be normal, even although some of its effects may be dwarfed by the stronger sympathetic system. Klinkert's recent publications on eosinophilia are compared with these experiences in the tropics. There is some discordance between his views and the assumption of a tropical sympathicotonia which de Langen has found the rule.

Grant, S. B., and Goldman, A. STUDY OF FORCED RESPIRATION. PRODUCTION OF TETANY. [Am. Jl. of Physiology, June, 1910.]

Forced respiration causes symptoms of tetany to occur in the human subject; these include carpopedal spasm. Chvostek's sign, Trousseau's sign, Erb's sign, and in one instance observed by Grant and Goldman a tetanic convulsion. As a result of the fall of alveolar carbon dioxide tension produced by overventilation, there is a reduction of the carbon dioxide capacity of plasma, a change in the reaction of the urine to the alkaline side, a decreased excretion of ammonia, and a slight increase in the calcium content of the serum. The authors believe that the underlying factor in the tetany of forced respiration is the alkalosis. [J. A. M. A.]

Heinekamp, W. J. R. MODIFICATION OF THE ACTION OF ADRENALIN BY CHLOROFORM. [Jl. of Pharmacology and Experimental Therapeutics, November, 1920.]

Experiments proving the fact that chloroform is toxic for heart muscle producing or tending to produce weakening of the organ, are here set forth under chloroform anesthesia, inhibition after administration of adrenalin, is due chiefly to the toxic or paralytic dilatation of the heart, ventricular fibrillation supervening. Adrenalin is contraindicated because of the action of chloroform on the heart wherever chloroform

is used and chloroform wherever adrenalin is used. The blood pressure has no definite reflex relation to the production of the paralytic dilatation. It has, however, a most important direct action by preventing the ventricle from emptying itself. The adrenalin action is peripheral, since it occurs after section of the vagi.

Fischer, A. W. FATAL SINGLE DOSE OF EPINEPHRIN. [Münch. Med. Woch., July 23, 1920.]

Fischer was called on to give a medicolegal opinion in a case in which, by mistake of a nurse, in place of the usual 1 per cent. procainepinephrin solution, 10 c.c. of 1:1,000 solution of epinephrin were injected into the skin and muscle of the leg of a man of 35 in connection with an operation for bone fistula from a gunshot wound. The aim was to block the peroneal nerve at the head of the fibula and the tibial nerve above the ankle. Anguish followed the injection, with severe pain in the neck and back of the head, and palpitation of the heart. The pupils dilated and contracted, and in about six minutes death ensued, with manifestations of heart failure. During this six-minute interval the pulse was not perceptible to the finger. Necropsy several days later revealed status thymolymphaticus but no valvular lesions. There was no evidence that the epinephrin had been injected directly into the blood stream. Fischer was personally convinced that it was a case of epinephrin poisoning, but in view of the pathologic condition of the thymus he felt compelled in his decision to take a noncommittal attitude. The dilatation of the pupils, together with the pain in the head and the imperceptible pulse pointed to epinephrin poisoning, a general spasm of the vessels with consequent anemia of the brain. He therefore recommends caution as to the size of the single dose, but adds that, owing to the transient effect of epinephrin, the total daily dose need not be so carefully controlled. [J. A. M. A.]

Arnstein, A., and Schlesinger, H. UNUSUAL EFFECTS OF THE ADRENALINE IN THE OLDER AGE. [Wiener klin. Wochenschrift, 1919, Nr. 49.]

After subcutaneous injection of adrenaline (0.3 to 0.8 milligr.) in old people one sometimes observes hypotension after or without increasing of pressure or equal remaining pressure without any change of the pulse or with longer (also for hours) lasting tachycardia; the hypotension begins soon after injection and often persists for hours. The tachycardia and the settling of the pressure do not often go together. In several cases this event corresponds to a weakness of the heart; then there is tachycardia. In other cases—if there is a settling of pressure—we think of the effect of an irritation of the vasodilators by the adrena-