suggestion of syphilis"; and Cheadle remarks, "syphilis modifies rickets, it does not create it."

The sixteenth lecture is devoted to the question of treatment, whilst the two last lectures, the eighteenth and nineteenth, deal fully from the clinical, though not from the technological point of view, with cytodiagnostic methods, to which during the last three years the author has given considerable personal attention. He considers the demonstration of a high degree of lymphocytosis of the cerebro-spinal fluid a most valuable addition to our means of diagnosis in early and doubtful cases of tabes and paralytic dementia.

In concluding this brief review of Nonne's exhaustive and interesting work on *Syphilis and the Nervous System*, I venture to express a hope that it will before long be translated into English.

M. EDEN PAUL.

Contributions to the Pathology of the Metabolism in the Psychoses; Second Part—Epilepsy [Beiträge zur Pathologie des Stoffwechsels bei Psychosen; Zweiter Teil—Die Epilepsie]. By Dr. MAX KAUFF-MANN. Jena, 1908. Pp. 199, 8vo.

It is indeed difficult to group under one nosological term a symptom which has so many causes and so many endings, and is complicated with so many diseased conditions.

The author gives us in detail his studies in this disease, which are very thorough, entering into the whole pathology of epilepsy, and describing a number of cases.

He has made many careful examinations of the temperature and pulse, and the state of the urine and other excretions in epilepsy. He has found much increase of indican in the urine of epileptics, sometimes as much as one gramme daily. He does not think that this is produced through fermentation in the intestinal canal and favours the idea that the indican is increased under nervous influences.

Kauffman considers experiments on animals of little use towards explanation of the pathology of epilepsy, as the human brain is much readier to react to stimuli.

He has observed cases of genuine epilepsy where no lesions have been found after death, and thinks that the changes in the nerve-cells and fibres described by some pathologists follow long-continued attacks without having been causes. Like some previous neurologists he is disposed to assign to epileptics a primary constitutional weakness or convulsibility.

Most interesting are his observations on the states of the blood in the disease toxæmia and the production of autotoxins. His researches are mainly carried on by chemical examinations.

He finds no abnormalities by the microscopic examinations of the blood. Many of his observations and tables can scarcely be followed by the reader, but will be useful for those who make original researches in the same field.

Coming to therapeutics, Kauffmann considers that curative effects of bromine are only realised when a slight narcotic effect is produced.

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The best results are obtained against epileptic attacks at an early age. Albertoni and Rosenbach have shown that bromine in large doses dulls the irritability of the brain, as shown by experiments with electricity. I have observed that in cases of epileptic idiocy, the bromides have sometimes a dulling effect upon the intelligence, and injure the walking power. Scattered doses have no visible effect. Binswanger prescribes at first medium doses of from 5 to 6 grms. He considers the suspension of the reflex of the trifacial nerve to be a sign that a real narcosis has been reached.

Dr. Kauffmann has some hopes from the action of catalyptic forces, as in platinum and palladium. Krainski has recommended carbonate of lithium, which seems still on its trial.

WILLIAM W. IRELAND.

Das Gedächtnis [Memory]. By von TH. ZIEHEN. Berlin, 1908. Pp. 50, 8vo. Price I mk.

At the opening of the Kaiser Wilhelm's Academy for the training of military surgeons Dr. Th. Ziehen delivered an address upon memory, a subject which has attracted the attention of thoughtful men from the earliest times. With characteristic thoroughness the German professor goes over the history of speculation from Empedocles to Munk; his learned notes, which fill sixteen pages, form an interesting part of the pamphlet. Indications of memory have been discerned in insects, such as bees. In vertebrate animals memory plainly appears in fishes, in which there is a rudimentary pallium with nerve-cells. When the ventricles of the brain were discovered the Greek and Arabian physicians fancied that these cavities might serve for storing mnemonic images. Hume thought that reminiscences were faint revivals of objective impressions, and we do not see how Dr. Ziehen refutes this by comparing the vividness of the remembrance of the impressions of different kinds, such as dull or very bright colours. He observes that in ordinary conditions unpleasant impressions pass away from the memory more quickly than agreeable ones, though in melancholia the power of reproduction of pleasant memories is cut off.

Dr. Ziehen rejects what has been called "unconscious cerebration" and sometimes "sublimal consciousness." It is only, he says, "a play with words—wooden iron—for if we take from psychical operations their only criterion, their conscious character, nothing remains but a contradiction." He claims that physiological research has now shown that mnemonic images are localised in a different part of the brain from perceptions. In a somewhat critical spirit he goes over mind-blindness and word-deafness. It is only when he comes to sensory aphasia that he feels firm ground. As he expresses it : "Word-blindness or alexia is nothing else than a special kind of mind-blindness, and word-deafness."

Dr. Ziehen gives many interesting speculations, for which we must send the reader to the pamphlet itself. In conclusion it may be said that although he brings to this interesting subject all that physiology and pathology teach us, the author is constrained to acknowledge that