in short the whole story is strongly colored with the profession of its author, who has evidently enjoyed himself immensely in the construction of the work, and may safely expect that many of his brethren will find equal enjoyment in reading it, while their patients, even if inclined to skip the strictly medical portion, follow the exciting chain of incidents and laugh at quaint remarks of woodsman and innkeeper. Altogether the volume is a worthy successor of the two that have gone before.

**Jelliffe.**

**A Compend of the Practice of Medicine.** By Daniel E. Hughes, M.D., Late Chief Resident Physician, Philadelphia Hospital; Late Physician in Chief, Insane Department, Philadelphia Hospital; Formerly Demonstrator of Clinical Medicine in the Jefferson Medical College of Philadelphia, etc., etc. Seventh Revised Edition. Edited, Revised, and in Parts Rewritten by Samuel Horton Brown, M.D., Assistant Dermatologist, Philadelphia Hospital; Assistant Dermatologist, University Hospital Dispensary, etc. P. Blakiston's Son & Co., Philadelphia.

The reviewer needs add but little to the information conveyed by the title page of this volume. Hughes' Practice of Medicine is a very handy volume, and the name of Dr. Brown is sufficient guarantee for the additional features of the new edition, especially the remarkably complete section on Dermatology.

The modern divisions of pathology have dictated the rearrangement of the diseases, and the prescriptions and modes of therapy in general have been thoroughly modernized. In the section on Mental Diseases the rather colloquial style of the previous editions still appears to a considerable extent, but elsewhere up-to-date methods of expression have been adopted and the valuable matter of the book retained in this new dress.

Much new material has been added, as the articles on the classification and general characteristics of fevers, examination of the blood, sputum, urine, and the like. The whole work is exhaustively and carefully indexed, and the book is gotten out in the characteristic style of this publishing house, which imparts to the most severe text-book something of the appearance of an edition de luxe.

**Goodale.**


The contents of this volume bear excellent testimony to the intellectual activity that in the main characterizes the work of the medical officers in the German ophthalmical clinics and that leads to the printing of the results of important investigations, not only in the various journals or archives, but in more or less independent publications. The Preface, written approximately at the same time that Nissl assumed the direction of the Heidelberg Clinic, a position made vacant by Kraepelin's acceptance of the professorship in Munich, seems to indicate the lines along which the work of the investigation is to be prosecuted under this new régime, and the program may be safely adopted by all workers in this field. We are told that the knowledge required to-day of symptoms or structural changes will indicate the line of advance on the day following. There are to be no jumps in the dark, and every effort will be made in attempting to further special lines of investigation to do so in a manner that will render the present technique most effective. An effort will be
made to study accurately and in detail all histopathological changes occurring in the cerebral cortex and to endeavor to interpret their significance. The fact that up to the present moment investigators have only succeeded in demonstrating the existence of lesions of unknown significance in the brain should be an incentive, not a detriment, to the carrying out of further studies. The investigator is reminded that in dealing with these and similar problems in the laboratory, questions of biological importance are to be solved; and enthusiastic but inexperienced and poorly-trained observers are cautioned against attempting to interpret the nature of diffuse lesions in the parenchyma; for example, those occurring in catalepsy, until they become familiar with the alterations that exist in focal lesions, such as areas of softening cysts, etc.

The first one of the two contributions in this volume is by Alzheimer, and discusses the possibility of the differentiation of the histopathological changes in the cortex in dementia paralytica from those found in other conditions. In a few prefatory remarks the important service rendered to the clinician by the pathologist in the study of paresis is briefly recalled, and the writer proceeds to discuss the relative value of the macro- and microscopic lesions in the establishment of the anatomical diagnosis. Under the first head a number of interesting observations are recorded; as for example, the fact that in 13 cases out of 170 the bones of the cranial vault were normal, or the complete absence of hydrocephalus externus in 19 instances, and the non-existence of cortical atrophy in the brain of one patient who had suffered from marked symptoms of the disease for at least four and one-half years. Among the meningeal lesions those affecting the pia were constant and in a measure characteristic, consisting in an infiltration of plasma and "mast" cells, as well as lymphocytes, accompanied now by progressive and again by regressive tissue alterations in the vascular system of either a proliferative or degenerative nature, and involving the endothelial and connective tissue elements of the pia. The vascular lesions in paresis may be clearly distinguished from those occurring in arterio-sclerotic or hyaline degenerations, and may be said to include the growth of endothelial elements, the tendency to the formation of new vessels by budding, the vascularization of the intima, increase of elastic tissue, dilatation of adventitial lymph spaces, and the occurrence of plasma cells in the infiltrate in every case, even in the most acute forms of the disease. The regressive changes may lead to occlusion of vessels and hyaline degeneration. The so-called rod or sausage cells (Stäbchenzellen) are constantly present. Alzheimer's careful description of these elements in their most characteristic as well as in their transitional forms, and illustrated by a series of figures in the plates, forms by itself an important contribution to the pathology of the central nervous system.

There are no specific alterations in the nerve cells, although many evidences of the great severity of the process affecting them exist, and may be described as a form of necrobiotic degeneration. The early degeneration of the medullated fibres, as well as of the finer neural structures, which are interposed between the ends of the medullary sheaths and the ganglion cells is eminently characteristic. The increase of the glial elements and their structural anomalies are discussed in detail. Although the subject of localization of the parietic process receives careful consideration, the author makes no attempt to explain why certain parenchymal areas are more severely affected than are others, but the opinion is expressed that, after all the facts are carefully weighed, it is impossible to regard the changes as the result merely of a vascular lesion. The more or less complete involvement of the parenchyma of the brain by an inflammation essentially different from other inflammatory conditions
that attack this organ seems to be the cardinal point that distinguishes dementia paralytica from all other organic diseases of the central nervous system. The pages devoted to the description of the distinguishing characteristics of the paretic, alcoholic, syphilitic, and arterio-sclerotic processes contain information of equally great interest to the clinician and pathologist. The illustrations in the text, as well as the plates, add very materially to the value of the monograph, and deserve careful study by all those who are interested not only in the investigation of this particular disease, but equally by those who desire to gain an idea of the advances made within recent years in the study of the histology and pathology of the cerebral cortex.

We believe that there is a reason to justify the affirmation that this contribution of Alzheimer is the most important one made within the last decade to the study of dementia paralytica.

Under the head of the histopathology of the disease process affecting the cortex in paresis Nissl discusses the question of the possibility of establishing the anatomical diagnosis of dementia paralytica in a given case without reference to the facts contained in the clinical record. Klippel's affirmation that paresis is a term used to indicate a clinical syndrome developing as the result of a variety of essentially different lesions in the cerebral cortex is categorically denied.

In regard to the mooted question of the relation of the paretic, arteriosclerotic and syphilitic process Nissl takes issue with Staub, who, as the result of his observations, affirmed that it was possible to demonstrate so-called destructive syphilitic changes, in the sense in which they were defined by Heller and Dochler, in the aorta of individuals who had succumbed to paresis; and also that the aortitis syphilitica could be definitely distinguished from the sclerotic process. The important bearing upon this controversy that such experimental work as that of José and Walter Erb, who produced an atheroma of the aorta in rabbits by repeated injections of adrenalin, has, is referred to. A wider experience has caused the writer to revise his previously expressed views to the effect that cases of paresis occurred in which there were no arteriosclerotic changes in the intima of the aorta or cerebral vesicle. The presence or absence of "rod cells" is a fact of great diagnostic importance, and the probable glial origin of these elements receives further confirmation. In the study of both progressive and regressive changes the distinctive morphological features that serve to distinguish the so-called typical "rod cells" from other cells which are not nerve cells, but are of ectodermal origin, becomes more and more apparent. The diagnostic importance of the presence of lymphocytes and plasma cells in the adventitial coats of the vessels is reaffirmed. The recognition of the fact that the so-called perivascular lymph space of His and Obersteiner's pericellular canal were not true lymph channels marked a decided advance in the knowledge of this disease and made it possible to differentiate more accurately between the various nuclei in the adventitial and extravascular spaces. The origin and pathognomonic significance of the plasma cells are subjects that are discussed at length. At present Nissl affirms that these elements are hematogenous in origin, and represent transformed leucocytes, this change taking place in the vessel walls. These cells exhibit a marked tendency toward regressive changes. If, after careful search, they are not found in the central nervous system, it is safe to infer that the paretic process does not exist; but on the other hand, their presence alone is not sufficient to justify the establishment of the anatomical diagnosis of dementia paralytica.

Havet's attempt to prove the relative unimportance of the plasma cell as a pathognomonic sign is said to have failed; while Mahaon's affirmation to the effect that it is impossible to distinguish clearly between dif-
fuse cerebral syphilis and this disease is also discredited. The fact that
the progressive and regressive parenchymal changes are attended by an
involvement of the blood-vessels of an exudative nature, including plasma
cells as well as those resembling lymphocytes, definitely establishes the view
which regards the disease as of an inflammatory character.

Stewart Paton.

Studien über motorische Apraxie und ihr nahestehende Er-
scheinungen: Ihre Bedeutung in der Symptomatologie psychopa-
thisher Symptomenkomplexe. Von Dr. Arnold Pick. Ver-

This monograph is divided into four sections, which deal respectively
with (1) motor apraxia as a symptom in post-epileptic disturbances of
consciousness; (2) motor apraxia in the course of progressive multiple
lesions; (3) motor apraxia as an accompanying symptom of localized
central disease; (4) the significance of the attention in the etiologie of
motor apraxia and the relation of instrumental amnesia to it.

As the above outline of contents indicates, this monograph is an elab-
orate discussion of those forms of apraxia with which symptoms trace-
able to motor derangement are associated. The general scheme of
Wernicke for aphasia is followed and a plan made for subcortical localiza-
tion. A large number of cases are cited and their symptoms discussed at
considerable length. The controversial and theoretical character of the
monograph is such that its abstraction is quite impossible in a short space.

White.

Zur Physiologie der Spinalganglienz und der trophischen Nerven
sowie zur Pathogenese der Tabes dorsalis. Von Dr. Georg
Köster, A.O., Professor an der Universität Leipzig. Wilhelm
Engelmann, Leipzig.

Professor Köster presents a short monograph embodying the results of
experimental studies on the cells of the spinal ganglia, the connections
with the spinal cord, the results of cutting of the peripheral nerves, of the
posterior roots, etc. He then takes up the trophic disturbances that result
from these various experimental lesions, studies in great detail the patho-
logical changes produced in the spinal ganglion cells as a result of the
cutting of the peripheral nerves and of the posterior roots, and then shows
the similarities that exist between the lesions thus experimentally induced
and the pathological findings of locomotor ataxia.

As is well known this hypothetical standpoint relative to the under-
lying pathology of tabes is not new, but it is worked out in this paper
with much zeal and patient effort, for twenty-six sections were practised,
on cats, dogs and guinea pigs.

As a result of his section studies he finds that after section of the
peripheral nerves there results a degeneration in the posterior roots in
from sixty to seventy days. This shows itself in a partial breaking down
of the medullary sheaths and an atrophy of all the posterior root fibers.
The central stump of the peripheral nerve degenerates with atrophy of its
fibers, and on the average a distinct breaking down of the medullary
sheaths, which latter degeneration is apparent after several months. The
distal end of the cut peripheral nerve degenerates completely in two weeks,
but complete regeneration of the peripheral nerve is possible. After
separation of the posterior roots there takes place—beginning about the
third month, a distinct breaking down of the medullary sheath in the
peripheral nerves, beginning at the finer end branches. The sensory fibers
of the peripheral nerve stem, excepting here and there distinct swellings,
were simply atrophied, and near the ganglia few fibers with degenerating