Reviews and Notices of Books.

Les Processus de Désintégration Nerveuse. By IVAN BERTRAND.
Pp. 209. With 100 illustrations. 1923. Paris : Masson et Cie. Price
20 francs net.

A BOOK summarising the results of recent work on the processes of disintegration of the nervous substance is sure of a welcome. The trend of neuropathology at the present time is to pass from the obvious degenerations following gross lesions of the brain and cord to a study of the finer changes resulting from slighter degrees of neuronie degeneration. For this study special technical methods are necessary, the defects as well as the advantages of which are evident in Chapter I. of the present volume. Here we are told how to demonstrate fuchsinophil, azurophil, metachromatic, basophil and other granules, but of their nature we learn little or nothing. Nor does the author give us any indication as to how far these granules are normal products of neuronie metabolism or when they become of pathological significance. In the same way the distinction by special staining methods between neutral fats, fatty acids and cholesterin is well described, but we are left in the dark as to the conditions under which these substances appear. As the author confesses in his introduction, "the processes of nervous disintegration are subject to extremely complex laws, the details of which escape us."

The most valuable part of the book is Chapter II., which deals in fifty pages with 'les cellules vectrices.' This constitutes an excellent summary of recent work on the neuroglia and mesoglia, and the various types of cell which are derived from them in pathological conditions. The views of Alzheimer, Jakob and Rio Hortega are accepted almost without criticism, but this dogmatic method of presentation has the advantage of greatly simplifying the exposition of this somewhat intricate subject ; and the result is a clear and concise description which can easily be grasped by those unfamiliar with the subject.

In Chapter III. the paths of elimination are described, but the picture given of the various processes taking place in the adventitial and 'perivascular' spaces is somewhat confusing. We do not consider that the perivascular space as illustrated in this book is other than an artefact, and, indeed, several of the drawings show tears across the neuroglial fibres. Such artefacts are inseparable from many of the special staining methods used, and the picture obtained by them should be compared carefully with those seen after the employment of methods in which shrinkage of the tissues is reduced to a minimum. For the author there is no definite barrier between the adventitial

and the perivascular spaces ; the same cells are found in each and appear to pass freely from one to the other. In this he differs from Alzheimer, who taught that cells of neuroglial origin did not pass into the Virchow-Robin space, but broke down and deposited their inclusions in the perivascular space of His.

Somewhat confusing also is his insistence on the teaching of Dominici that the mesodermal cells of the vessel wall can by metaplasia give rise to such forms of mononuclear wandering cell as the lymphocyte, mast-cell and plasma-cell. From this he deduces that whatever be the nature of the process which stimulates the mesodermal cells the result is the same with but slight variations. He considers that it is impossible to tell from the appearance of a perivascular infiltration whether it is due to microbial invasion of the brain substance or to toxic or even Wallerian degeneration of the nerve cells or fibres. In support of this he mentions three cases of hemiplegia due to cortical softening in which he found in the degenerated pyramidal tract in the cord "a perivascular lymphocytic infiltration as intense as those of epidemic encephalitis." The theory that the cells filling the perivascular lymphatics arise *in situ* by metaplasia of the cells lining these spaces, conflicts somewhat with the well-known doctrine that the Virchow-Robin space acts as a sewage system which carries the scavenging cells towards the meninges. But he finds no difficulty in reconciling these views ; for, as he says, in acute processes, whether inflammatory or destructive, the formative or metaplastic activity of the adventitial cells is predominant, whereas in more chronic processes it is in abeyance. It seems to us that the contrast presented by subacute combined degeneration, in which the adventitial spaces are filled with scavenger cells, and the much more chronic syphilitic diseases, with their widespread perivascular mononuclear infiltration, is altogether hostile to this conception.

For him, too, there is no distinction between poliomyelitis, rabies and Landry's paralysis. In all "the affection of the anterior cornual cells is primary. These cells degenerate and become surrounded by various neuroglial and mesoglia cells." The subject is dismissed shortly, and we are left with the idea that the intense infiltration of the anterior horns in poliomyelitis derives none of its cells from the blood.

Altogether the book is just a little disappointing. It is too diffuse to be a monograph, and too incomplete to be a text-book or work of reference. There are many misprints, some of which, such as 'aurophil' for 'azurophil' in the first chapter, are misleading. The bibliography occupies ten pages, but contains only four references to English and American writers. The index is short but fairly complete.

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Encefalite epidemica, con speciale riguardo alle sue manifestazioni tardive. By Dr. M. LA TORRE. Pp. 384 + xx. 1923. Sassari : Stamperia della L.I.S. Price not stated.

THIS excellent monograph comes from the Clinic for Nervous Diseases and Institute of Pathology of the Royal University of Sassari. It is illustrated