the reticulo-endothelial apparatus, leading to a new formation of macrophago-tissue in various organs. The blood histiocytes are mainly derived from the specific endothelium. The intravascular macrophagic phagocytes are clasmato-cytes, in the sense of Sabin and others. The capillary endothelial cells do not become phagocytic while they retain their anatomical position in the vessel wall. In the nervous system the macrophagic response has been greatest in the leptomeninges. In the arachnoid the malaria-stimulated histiocyte stands out distinctly from the less active arachnoid lining cell. Around middle-sized and large cortical vessels a small increase in the number of macrophages has been found. In the perivascular spaces of the large vessels in the white matter, in the striatum, and in the pons, stimulated histiocytes are more numerous. The small mesodermal elements along the cortical capillaries have not been seen to be activated. The microglia as a whole does not take part in the general reaction of the reticulo-endothelial system.

M. HAMBLIN SMITH.

The Question of Silver Cells as Proof of the Spirochætal Origin of Disseminated Sclerosis. (*Journ. of Neur. and Psychopath., vol. xiii, July,* 1932.) *Rogers, H. J.*

Eleven cases of disseminated sclerosis were examined by Steiner's silver method, the author having previously spent a long time examining general paralytic brains to familiarize herself with the appearance of the silver cells and *Spirochæta pallida.*

In one case out of the eleven she found an organism similar to the Steiner organism, but she found the silver cells in every case, and also in many cases a histological picture resembling spirochætal fragments. The brain from cases of cerebral softening, myotonia congenita, bulbar paralysis and diffuse brain sclerosis gave uniformly negative results. The silver cells, as in general paralysis, are perivascular in position.

G. W. T. H. FLEMING.

The Brain in Acute Rheumatic Fever. (*Arch. of Neur. and Psychiat., vol. xxviii, October,* 1932.) *Winkelman, N. W., and Eckel, J. L.*

The authors describe five cases of acute rheumatic fever with autopsy findings, particular attention being directed to the brain. They point out that Neyman describes the normal person's reaction when fever is artificially produced as follows: At 102° F. there is a feeling of impending danger; at 102·5° F. the sensation of a desire to run away; at 103° F. the patients become quiet; from 103°–103·5° F. they become somnolent, but they feel well again at 105° F.; and at 106°–107° F. they become comatose.

The most uniform finding in the brain in the five cases, apart from the cloudy swelling common to all toxic conditions, was a productive endarteritis of the small cortical vessels. The size of the pericellular spaces and of the peri-vascular spaces of His was in direct relation to the amount of œdema present.

The large vessels remained relatively unaffected. The changes in the small vessels were of two kinds: (1) An acute and recent change with swelling and proliferation of the lining cells and at times with new vessel formation. This is the same type of change as is seen in the acute stage of syphilis.

(2) Thickening and hyalinization of the vessel walls. This is a later change, and appears to result from a colloid disorganization of the connective tissue,

which begins with a separation of the intimal vessel layers outside the endothelium.

The endarteritis of the small vessels found in every case probably has two causations: (1) Purely mechanical as the result of œdema of the brain; (2) toxic irritation through the blood-stream.

Acellular areas (Verödungsherde) are frequently found in the brain, and may produce a permanent clinical picture if sufficiently numerous.

G. W. T. H. FLEMING.

Calcium Content of the Brain and its Distribution in Various Regions during Diallylbarbituric Acid Narcosis. (*Arch. of Neur. and Psychiat., vol. xxviii, August*, 1932.) *Katzenelbogen, S.*

The author estimated the calcium content of the whole brain in normal and narcotized cats and found no difference between the two.

He then examined various areas and found that the hypothalamic region from the optic chiasma to the root of the third nerve showed a higher calcium content than any other brain area in both the narcotized and control animals.

This finding suggests that calcium may play a certain *rôle* in the function of the hypothalamic region. G. W. T. H. FLEMING.

Blood-Cholesterol Studies in Mental Disease. (*Amer. Journ. Psychiat., vol. xii, September*, 1932.) *Schube, P. G.*

There are presented the total blood-cholesterol estimations, as measured in 100 c.c. of whole blood, in 54 "normal" individuals, and in 200 individuals "not normal" from a neuro-psychiatric point of view. The mean value of the "normal" group was higher than that of the "not normal" group, but the range of cholesterol estimations in the latter group covered a far greater area than that of the normal group. Of the "not normal" group there were 52% below normal range, 36% within normal range, and 12% above normal range.

M. HAMBLIN SMITH.

Cholesterol Content of Blood in Epilepsy and in Feeble-mindedness. (*Arch. of Neur. and Psychiat., vol. xxviii, August*, 1932.) *Gray, H., and McGee, L. C.*

The authors, using Bloor's method for estimating cholesterol, found an average value for whole blood in normal men of 194 mgrm. per 100 c.c. In epileptics they found an average of 165 mgrm. and in feeble-minded persons of 154 mgrm.

Convulsions were followed in about one hour by a drop in cholesterol, and thereafter there was a gradual rise extending over perhaps a month. Near an attack the ratio of the whole-blood cholesterol to the plasma cholesterol was raised owing probably to there being more cholesterol in the corpuscles and less in the plasma. G. W. T. H. FLEMING.

Basal Metabolic Rate in Epilepsy. (*Arch. of Neur. and Psychiat., vol. xxviii, July*, 1932.) *Damon, Le G. A.*

From a study of 300 epileptic patients, 50% showed abnormal metabolic rates, usually towards a low figure. More women than men showed low rates;