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,