investigated, about 40 per cent. of the cases proved positive in the first week of the disease. In 24 of the 60, 21 showed typhoid organisms, and three paratyphoid bacilli. The author believes that he is justified in saying from the material to hand that the bile cultures of slightly coagulated blood are capable of affording a diagnosis in the early weeks of typhoid in at least 50 per cent. of cases. If larger quantities of blood are used than those usually supplied by the Widal test, it is fair to infer that a higher percentage of success would be recorded.—*Charlotte Medical Journal.*

The Coronary Arteries.

The literature relating to the anatomy and physiology of the coronary arteries represents an unusually extensive field of investigation, but the results have so far been more or less unsatisfactory in that they have been full of contradictions. The ordinarily accepted view that the coronary arteries are end arteries—if not in the strict sense of Cohnheim, at least from a functional standpoint—has been contested by numerous observers, and in a recent contribution by Hirsch and Spalteholz in the *Deutsche medizinische Wochenschrift*, 1907, appears to be definitely disproven. Spalteholz, who studied the problem from the anatomical standpoint, by means of a specially devised injection method combined with a process for rendering the tissues translucent, comes to the conclusion that the coronary arteries, far from being end arteries, possess numerous anastomoses both on the surface of the organ and in the substance of the myocardium. Each papillary muscle is supplied by several afferent vessels communicating with each other by numerous branches. These studies for the most part were made on the hearts of dogs and monkeys, but comparisons showed that the results could legitimately be transferred to the human organ as well. The fact having been established that the heart is not deficient in arterial anastomoses, but, on the contrary, is remarkably rich in these, the clinical application of this observation had to be determined by experiments on the living organ. Bier has already shown that the different organs behave very differently in regard to the consequences of ligation of their arterial trunks and that the anatomical picture alone does not suffice to explain the results of the occlusion of the afferent vessel. This part of the investigation was conducted by Hirsch, who found by work on dogs that in the heart muscle the conditions attending coronary obstruction or occlusion depend largely on the anatomical or functional state of the vessels, and to a still greater degree on the *vis a tergo* or