value of outdoor exercises. These things he has written on fully, clearly and entertainingly.

But as a contributor to medicine we are chiefly indebted to Franklin for his clear recognition of the value of fresh air, the contagiousness of colds, and the value of water. These together constitute an advance and forward movement in the history of the healing art; and it may be doubted whether any physician of his time has made contributions of equal value. Please do not allow any one in the future to call Ben Franklin archaic!

THEODORE DILLER, M.D., Pittsburgh.

Medical Supervision of Young Persons Engaged in Athletics

To the Editor:—For months, in *THE JOURNAL* and other magazines, there have occasionally appeared articles dealing with the untoward and serious effects of strenuous physical exercise, especially in regard to the heart of the adolescent boy who indulges in such games as basketball, football, etc. Cases have been cited to prove these statements, and thus naturally lead the uninitiated to regard those engaged in the supervision of such games as not using ordinary care and intelligence in safeguarding our young men and boys from overtaking their peculiar cardiovascular systems.

The Public Athletic League of Baltimore examines as a routine the young men and women who partake of its activities, noting especially the heart condition of those who follow the most active sports. In 8,656 young men (with duplications) examined during the last twenty months, eighty-six, or 0.97 per cent., showed an organic cardiac defect sufficient to exclude them from the more vigorous games. Their parents were notified of their condition, and referred to the family physician or dispensary for further advice and treatment. From time to time an occasional individual is found who has signs of anemia, hemic heart, or transient dilatation with tachycardia. Such as these are barred temporarily from active work. What appears to be of paramount importance is the fact that 93.02 per cent. of the defective hearts were discovered in youths at their first examination. Young men who have been active in from one to ten indoor seasons of basketball showed the other 6.98 per cent. defective. Of the four cases found, one had a history of recent gonorrheal infection, another of recent rheumatic fever, and the other two were individuals who had come to us from local preparatory schools where there are no physicians to examine the boys who play on their football, basketball, baseball, crew or track teams. Can we say that an earlier examination of the last two would not have shown a cardiac lesion?

The cases cited in the papers which have come to my attention seem to be sporadic and occur in those individuals who are not under the ordinary supervision of physicians specializing in this phase of their profession.

In consideration of the facts noted above, I believe that the hard, fighting games of youth do not inflict organic conditions on those who are in ordinary physical condition; that the cases noted appear in youths who are not under proper medical supervision, and that it is a serious blunder to allow young persons to indulge in physical exercise without proper assurance from a physician that they are organically fit to follow their athletic inclinations.

ALFRED W. BROWN, M.D., Baltimore.

Medical Supervisor, Public Athletic League.

Our Former Great Men

To the Editor:—I had occasion some days since to call attention to the use of the word which served to perpetuate the name of Captain Shaddock for our commonly called grapefruit. Now your reporter, noting the recent meeting here of the Massachusetts Medical Society, calls the lecture delivered annually in honor of Prof. George Cheyne Shattuck "the Shaddock Lecture" (*THE JOURNAL*, June 26, 1915, p. 2146).

The other day I also called to mind the advice of Professor Bowditch to open the abdomen of one suspected of "typho-enteritis." He who did thoracentesis without *asepsis*. This generation should be reminded of our former great men!

EDMUND D. SPEAR, M.D., Boston.

Value of the Luetin Test

To the Editor:—I was glad to read your editorial on this subject in *THE JOURNAL*, June 19, 1915, p. 2068. It is very timely. Mention, however, was not made of the fact that the sensitiveness of this test is materially enhanced by first subjecting the patient to a week or ten days of mixed treatment. When this is done it is more valuable in late tertiary and hereditary cases than the most sensitive Wassermann.

HENRY FARNUM STOLL, M.D., Hartford, Conn.

Queries and Minor Notes

ANONYMOUS COMMUNICATIONS and queries on postal cards will not be noticed. Every letter must contain the writer's name and address, but these will be omitted, on request.

TYPHOID VACCINES AND SERUMS FOR TREATMENT

To the Editor:—Is the use of typhoid serums as advertised by our commercial biologic laboratories in the treatment of acute typhoid fever justified by experience? I know that typhoid immunization is an established fact and I accept that.

W. W. JARRELL, M.D., Thomasville, Ga.

ANSWER.—The Council on Pharmacy and Chemistry holds that experience has failed to show the value of serums in the therapy of typhoid (Reports of the Council on Pharmacy and Chemistry, 1914, p. 135), and no longer includes these in New and Nonofficial Remedies.

New and Nonofficial Remedies states that, while typhoid vaccine is of recognized utility in the prevention of typhoid fever and is also of service in the treatment of typhoid carriers, "the use of vaccine in the treatment [curative as distinguished from prophylactic] of typhoid fever has given very inconclusive results. No positive evidence of harm resulting from its use has been recorded. Many clinicians, however, believe that the giving of an additional amount of the toxin of the disease may turn the balance against recovery in states characterized by marked toxemia."

A recent review of the subject in *THE JOURNAL* (June 26, 1915, p. 2139) discussed the clinical trials with various typhoid vaccines. This indicated that typhoid vaccines often favorably influence the course of the disease, and that, used with discretion, they do no harm.

HEART BLOCK

To the Editor:—What are the cardinal symptoms of heart block? What is the etiology and what treatment is most generally recommended?
C. A. L.

ANSWER.—Complete heart block is due to pathologic changes affecting the system of fibers whose function it is to convey from the auricles the stimulus which causes normal ventricular contraction. Gummas, calcified plaques, or tumors may press on or invade that part of the auriculo-ventricular conducting system known as the bundle of His. Fibrosis, fatty degeneration, infarcts and inflammatory changes occurring in the bundle of His and perhaps other portions of the conducting system may also produce heart block. Incomplete heart block, in which the relation of auricular to ventricular rhythm is partially retained, may be due to less extensive changes in the auriculoventricular system, resulting from acute infections such as pneumonia, diphtheria, rheumatism, typhoid fever or sepsis; from lesions of the medulla oblongata or vagus, and from overdosage with digitalis. It is probable that many deaths in acute infections are due to some form of heart block, and are caused by inflammatory swelling of the fibers of the auriculoventricular system.

Patients with heart block may present no symptoms except slow pulse and independent rhythm of auricles and ventricles. This difference in rhythm is determined by comparing the number of pulsations of the jugular veins per minute, as