notes an acid reaction in solutions of phenolsulphonaphthalein. The cytoplasm of the bacteria within the vacuole retains its acid reaction unchanged throughout the initial alkalinity of the ingested fluid. As the vacuoles continue their course, the acid yellow of the phenolsulphonaphthalein becomes more and more intense until as the anal spot is approached the reaction may again change and the vacuolar content once more take on the alkaline color. When this stage is reached the chromogen solution in the vacuole is highly concentrated and the food or fecal mass is permeated with the dye and shows also the alkaline reaction of the vacuolar fluid.

In short, a preliminary digestive period characterized by decided alkalinity of the fluid which forms the food vacuole can be recognized in paramecia if sufficiently sensitive indicators are introduced into the fluid which the animalcule ingests. The significance of this initial alkalinity and the part it plays in the metabolic activities of the organism is at present obscure.

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THE AMERICAN TYPE-CULTURE COLLECTION

THE curator of the American Type-culture Collection is preparing a tentative catalogue of the collection, which will be available for free distribution in a short time. This catalogue will be made the basis of a more complete and detailed catalogue which will be published after the collection is made more comprehensive, and corrections can be made in the nomenclature of the present lists.

The collection now includes over 400 cultures of bacteria. About 50 molds and 100 yeasts are also available.

Requests for the catalogue should be addressed to Dr. George H. Weaver, curator, John McCormick Institute for Infectious Diseases, 637 South Wood Street, Chicago, Illinois.

L. A. ROGERS,
Chairman

QUOTATIONS

SCIENCE AT SOUTHAMPTON

THE first object of the British Association is to direct attention to the greater recent achievements of science. Through the addresses of its leaders at each annual meeting it attains a wider publicity than its local audience and, at the same time, acts as a missionary to stimulate local interest and local effort. At the Southampton meeting, which ended recently, the president, Professor Horace Lamb, maintained the highest traditions of his predecessors. In simple but vivid language he reminded all whom it concerns—and it concerns us all—that science must not be pursued or encouraged merely or chiefly for the immediate dividends of material advantage which it often pays. It must be pursued for its own sake, as part of the human effort to comprehend the world of phenomena. Then, turning to geodesy, a subject so remote that even its name was unfamiliar to many, he explained recent additions to knowledge of the structure of the earth which have been won by a combination of mathematical discipline and physical observation. There is no need to attempt to summarize in phrases the addresses of the thirteen sectional presidents; they have been described day by day in our columns. Some, such as the address delivered by Dr. Simpson, government meteorologist, described an unexpected complexity of structure and function in parts of our environment hitherto regarded as homogeneous and simple. Others, like that of Professor Desch in chemistry or of Dr. Orr in agriculture, showed that knowledge advances not only by the fashionable and newest avenues. Others brought familiar theories to the test of new sets of facts. Others, again, appeared to have been written because it is the duty of a president to give an address. It was generally admitted that the individual papers presented to the sections described modest progress rather than dramatic developments. In short, the Southampton meeting was dull. But it does not follow that science is stagnating or that its annual meeting was unproductive. Before and behind every startling discovery there lie great fields of solid work, consolidation of what has been gained and preparation of what is to come, requiring a devotion of labor and knowledge out of all proportion to its immediate reward.

But the dullness of the Southampton meeting had other and less inevitable causes which did something to diminish local interest and to lessen the intrinsic benefits of the annual parliament of science. The organization has been allowed to become too complex. There were thirteen separate sections holding their meetings concurrently, as well as the additional subsection of forestry, a more or less permanent detachment from economy and engineering sitting on transport questions, and the conference of societies in correspondence with the British Association. By no fault of Southampton, which provided the accommodation accepted as sufficient by the officials of the association, these separate parts were placed at distances of which the extreme was nearly three miles. In most cities the visit of the British Association can not escape attention from the inhabitants. The pla-