

ROBERT MAYER

ON page 629 of SCIENCE Edward F. Adolph makes the statement that in later life Julius Robert Mayer's "mind gave way before the stupendous and intricate conceptions of the universe to which he was led" and that "he was taken to an insane asylum, but later recovered equilibrium, and spent the rest of his days in the simpler occupation of cultivating the vine." From all that we know, however, it seems safe to say that Mayer was not insane for one minute of his life. It is true that Mayer suffered by his failure to be recognized by his contemporaries and beginning with the day on which Poggendorf refused to print in his "Annalen" Mayer's original paper, most of the competent physicists and physiologists of his time held the opinion that Mayer was a crazy man. How else could he—as an outsider—stick so obstinately to conclusions condemned as insane by the authorities of the profession? From this atmosphere, sufficient reasons presented themselves to put Mayer in an asylum for the insane. One needs but read the correspondence of Mayer to become sufficiently impressed with the tragedy of this unjustified confinement, which rendered Mayer's life perhaps the hardest a great scientist ever had to endure.

WALTER LANDAUER

STORRS AGRICULTURAL EXPERIMENT STATION

QUOTATIONS

THE FUTURE OF AMERICA¹

THESE two small books on a great subject are included in the "To-day and To-morrow" series, designed by the publishers to provide a stimulating survey of the most modern thought in many departments of life. Both are accordingly written in a critical and provocative style, compact with aphorisms. America's place in the world is assured and no resentment will be felt there at attempts to discover chinks in her formidable armour. Of the two books, Mr. Bretherton's is the longer and more careful study. Colonel Fuller's suggests the rapid travel impressions of a writer possessing a mature knowledge of world-history.

What is the basis for the strong and not altogether comfortable feeling that America is destined to exercise a powerful influence on the future of the world? The American, "the new white man," marches round

¹ *Midas: or, The United States and the Future.* By C. H. Bretherton. (To-day and To-morrow Series.) Pp. 96. (London: Kegan Paul and Co., Ltd.; New York: E. P. Dutton and Co., 1926.) 2s. 6d. net.

Atlantis: America and the Future. By Colonel J. F. C. Fuller. (To-day and To-morrow Series.) Pp. 96. (London: Kegan Paul and Co., Ltd.; New York: E. P. Dutton and Co.; n.d.) 2s. 6d. net.

the world with his war drum and the European falls in behind "with many a backward glance at the good old days." Nevertheless, the achievements of the United States in art, literature and science are unimportant in relation to their wealth and population. Jazz music and the skyscraper are "the only two new art forms" which Mr. Bretherton is prepared to concede to America as contributions to civilization. As to their education, the United States, he says, have countless universities but no educated class "outside of their college professors, who rank in the social scale a little higher than the average preacher, and a little lower than the average bootlegger." The matter can be tested by the output of books. "More books on natural history, botany and country life generally are published every year in England than have been published in the United States since the *Mayflower* landed there. The same is true of almost every other branch of literature outside of fiction."

As to forms of government, were we not given to understand that America wished to make the world safe from democracy? Mr. Bretherton produces no evidence of any genuine enthusiasm for democracy. Professional politicians, fanatics with a mania for inhibitions, bosses and spellbinders pullulate. The American reacts by forming the habit of acting, thinking, living and believing "by numbers." Prohibition, it is well known, does not prevent an American from getting a drink. But this necessitates a mental process. "He will in the end decide that it is simpler (and more profitable) to stay dry and reserve his mental processes for money-making." So with fundamentalism. The vast majority of American people, Mr. Bretherton asserts, are reconciled to evolution and have no quarrel with science, which scatters machines and fertilizers with a fatherly hand. Fundamentalism will "win through" because big business will decide that the man-machine who pauses intermittently from wielding his shovel to ask himself unanswerable questions about the macrocosm is a shade less efficient—say by one ten per cent.—than if he accepted "the Bible as written." "The most striking thing about the young Americans of to-day," says Mr. Bretherton, "is that they know nothing and have no ideas of their own." They are forgetting how to think. Like goldfish, they chase feverishly round a glass globe, seeming in some mysterious way to be unaware of one dimension. Their industry is amazing, whether in money-making or in ticking off the sights of Europe in Baedeker.

Significantly, neither author attempts a chapter on American humor, perhaps because it would have resembled the famous chapter on snakes in Ireland. The discussion of the American woman seems inadequate to the importance of the subject. Mr. Bretherton regrets her limited output of poetry, fiction and

ephemeral literature. Colonel Fuller is captivated by her charms, contrasting her favorably with her brothers, who appeared to him "gross, ill-mannered, and in their straw hats and trouser belts more or less offensive to the eye."

The question obtrudes—How will it all end? It would be unfair to the authors to reveal their conclusions. Both recognize that something will happen some day when America is disillusioned about the power of money and the booster's curve approaches horizontally, its tangent vanishing like the Cheshire cat. The fate of Rome is not reserved for America, for the simple reason that there are no barbarians to rush in and submerge the American counting house and lobster palace "in one red burial blent." Authors who attempt to foretell the future of America in a hundred years are on safer ground than men of science who predict the position of an unknown planet or the properties of an undiscovered element. Their work should be encouraged, for the national tendencies which they explore have their bearing on our daily life. Possibly the jazz music wafted across the Atlantic sounds a clarion bugle-call if we would listen and interpret.—Review in *Nature* signed T. Ll. H.

SCIENTIFIC BOOKS

A Pioneer in Public Health—William Thompson Sedgwick. Yale University Press, 1924. \$2.00.

FROM his temple, the laboratory, Sedgwick the lover of mankind looked upon communities with the clinical sense of a physician, studied their factors of disability with the precision of the biologist, planned like an engineer for the specific remedies required, and with statesmanship undertook to influence a nation by the education of wise and courageous leaders in the science and art of safe and happy congregated existence.

If the authors of this tribute to a master have not all in equal degree repeated and extended the accomplishments of their teacher, colleague and friend, it would be difficult to find three men in this country in whose lives and work the ambitions, the services, the ideals of Professor Sedgwick have been more nearly duplicated. The names of Whipple, Jordan and Winslow are, as it were, parts of the great educational and inspirational entity which it symbolized for students of public health in the name of Sedgwick.

Rarely is there revealed in the story of men who play large rôles in public affairs that precious, intelligent, loyal and wholly sympathetic sharing in work and plans by the wife which was so beautiful and essential in the Sedgwick home. Mrs. Sedg-

wick shared abundantly in that "larger perception of what a fundamental scientific philosophy of life may mean to the individual and to the community of which he forms a part."

The authors lead us quickly into the threshold of the story, with no delay for juvenalia. We follow the eager and exulting progress through Yale and Johns Hopkins. How adequate and fortunate is the epitome of the first twenty-eight years of this Sir Galahad of sanitation.

Sedgwick found his career as a biologist and a teacher in 1880. He won his wife in 1881. A call to the Massachusetts Institute of Technology, the institution to which he and Mrs. Sedgwick devoted their lives with rare ardor, came in 1883. The stage was set and the actors were prepared, for the development of a new and beneficent influence of science upon the life of men.

We see among scientists and perhaps most strikingly among the biologists and with particular distinction in those who undertook to lead in the unknown world of bacteriology, the earliest break from the formal self-satisfaction of the Victorian era.

To accept all disease and premature death as a natural fate due to quite impersonal environmental causes, predetermined and unquestioned, became an inconceivable philosophy to those who shared in the discovery of the biological relations of man to his fellow men *via* the ubiquitous bacterium. Persons not premises, beings not things, functions not forms became the obvious answer of science to the do-nothingism of the sixties and seventies in public health.

Sedgwick through critical studies, by education to an ever-widening audience, through book, lecture, article, personal conference, by public leadership and action, persistent and resistless, carried a great body of opinion through the sterile era of sanitation by enforcement, by law, by authority, to the period of general popular understanding of the biological basis of human relationships and on into the application of conscious individual and community hygiene.

No important or stirring episode of Sedgwick's progress from laboratory to locality, from local power to national influence, from national authority to international recognition is omitted, and the reader closes the chapters with a feeling of content that there was such a life history, completed and successful, honorable and honored, to confuse the cynics and embarrass the pessimists. His publications in themselves as listed through the forty-three years of enthusiastic and joyful labor will for a long time serve as a safe record for future health historians, who must condense the accomplishments of a generation into a brief chapter of some yet unpublished history of our times.