A CENTURY OF DARWINISM

LEST preoccupation with discordant matters of our day permit it to pass unnoticed, I venture to say that the month of June marks the one hundredth anniversary of Darwin's writing the first draft of the "Origin of Species." Referring to it in his autobiography he says, "In June 1842 I first allowed myself the satisfaction of writing a very brief abstract of my theory in pencil in 35 pages; and this was enlarged during the summer of 1844 into one of 230 pages, which I had fairly copied out and still possess." Darwin's son, who assumed responsibility for the publication of these two manuscripts, says, "It only came to light after my mother's death in 1896 when the house at Down was vacated. The Ms. was hidden in a cupboard under the stairs which was not used for papers of any value, but rather was an overflow for matters which he did not wish to destroy." These forerunners are indispensable to biologists who are interested in Darwin's views of evolutionary processes about a decade and a half before they were made accessible to his contemporaries through publication of the "Origin of Species by Means of Natural Selection" (1859). These manuscripts were first published in 1909 by his son, Francis Darwin, under the title "The Foundations of the Origin of Species" (Cambridge: University Press).

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QUOTATION

MR. McNUTT AND THE DOCTORS

THIS year's meeting of the American Medical Association is of extraordinary importance, since the time has come to take stock of our medical resources and to consider how they can be most effectively distributed to meet the needs created by the war. Paul V. McNutt appeared twice before the meeting to express the Government's dissatisfaction with what has been done thus far. As yet, neither the Government nor organized medicine has presented an adequate plan to meet our medical emergency. No program has been submitted to satisfy both the Army and the civilian population. Mr. McNutt threatened action by the Government if more aid is not forthcoming. His charge that only one third as many physicians volunteered in the first six months of this war as in the corresponding period of the last war indicates that not even the Army has been supplied with all the doctors it must have.

If we are to have an Army of 9,000,000 men, as Mr. McNutt suggested, the armed forces will need one third of all our physicians, including those who have retired. What is to become of the civilian population, especially where villages of a few hundred have mushroomed in a few months into communities of fifty and seventy thousand? To leave that problem to local practitioners is clearly no solution. "Doctors will have to be assigned on a voluntary or on some other basis," warned Mr. McNutt. We shall have to establish Federal medical facilities and experiment with new forms of medical practice. Lastly, there is the problem of rehabilitating the wounded and crippled veterans of this war—men to whom the nation owes a heavy debt. Here we face the task not only of restoring the handicapped to something like good physical condition but of training them for industrial tasks that they can perform.

Medicine, as Mr. McNutt rightly reminded his audience, is presented with an extraordinary opportunity. It is plain enough that doctors must not only rise to a critical occasion but that they must willingly engage in a social experiment which will clearly indicate what kind of medicine we must have if we are to carry out the implications of the Social Security Act.—*The New York Times.*

MORE ANTISEPTICS FROM MOLDS

THE fact that some microorganisms produce antiseptic substances—acting, of course, only on other unrelated species—has recently advanced from the sphere of purely academic interest towards that of practical application. The best known of these substances, penicillin, has been put on the therapeutic map by the work of Florey and his colleagues to which we referred last year, although difficulties of production still bar the way to extensive clinical trial. For some years past Dubos and others have been studying the antibacterial substances which can be extracted from cultures of *B. brevis:* one of these, now known as "gramicidin," has been shown to exert its action *in vivo*. Another example is actinomycin, isolated by S. A. Waksman and H. B. Woodruff from a streptothrix which they have named *Actinomyces antibioticus*. All these microorganisms have been identified either by chance or by selective breeding out from material containing an unknown and complex flora. As two of them are fungi it might well be worth while to study related species systematically with the object of finding others behaving similarly. This task has in fact been undertaken by H. Raistrick and his colleagues, and the work has been in progress for some years, in the course of which no fewer than