

## QUOTATIONS

## THE MEDICAL MAN AND RESEARCH

IN a recent address on "Research Foundations in their Relation to Medicine"<sup>1</sup> the well-known neurologist of the Wistar Institute, Professor H. H. Donaldson, has expressed certain views which deserve to be heralded in medical circles beyond the immediate audience of graduates in medicine to which they were originally addressed. He has emphasized the fact that the programs of the large research foundations imply the hope that by such endowments new facts and new points of view fundamentally important to medicine may be discovered. Many of these establishments serve in a way to mediate between the problems of practice and the findings of science. The popular mind is constantly alert for some new application of science to the work of the world or the needs of the arts. Accordingly there is an ever-present tendency to place undue importance on the purely practical aspects of all research.

The worker who is engaged in the actual pursuit of scientific investigation realizes well enough that there is no essential distinction between so-called practical and theoretical knowledge. He would, indeed, be rash who would foretell where one type of contribution merges into the other. But with the laity the search for the unknown finds little encouragement except when it is attended by some palpable result of immediate application. Hence the pressure which many of our institutions feel to present something that will satisfy this unfortunate and mistaken public demand.

Precisely here the medical man of to-day has an opportunity and a duty. Trained in the school of modern science, he should have acquired an appreciation of the unhampered search for new knowledge which is so rarely intelligible to the community at large. He is more or less familiar with the aims of the research worker and has some understanding

<sup>1</sup> Donaldson, H. H., "Research Foundations in their Relation to Medicine," address at the graduation exercises of the Yale Medical School, SCIENCE, July 19, 1912.

of what these endeavors have contributed to the world. He should defend the effort and help to spread the propaganda. We believe that the attitude of the practitioner toward certain features of medical research is, in general, wholesome and helpful in so far as these features involve relations to the problems of clinical medicine. There is, however, another class of problems which demand solution no less than some of the more obvious questions. These more subtle problems involve the "why" and "how." They are harder to answer; they appeal to fewer investigators, and not many men are adequately equipped to attack them. As Donaldson has said, because the men who can do this latter kind of work are relatively rare, even among investigators, because such work can have rational appreciation from a limited group only, and because knowledge of this sort is sure to become the basis for many applications in the future, it behooves us all to see to it that we foster such investigators—the most valuable of our natural resources. When a mistaken popular notion arises as an obstacle to progress we must help to remove it.

It has often been said that research is an attitude of mind. This is something different from the mysterious features which are sometimes attributed to it. The spirit of research is attainable, even if at times it seems remote. Quoting Donaldson: "A man may have little leisure and trifling resources, and may never have published; but if he examines the world in a questioning spirit, if he carries with him not only conclusions, but the observations on which they rest, if he refuses to pound square facts into the round holes that he happens to have in hand, he has attained illumination."—*Journal of the American Medical Association*.

## SCIENTIFIC BOOKS

*The Principles of Human Nutrition.* By WHITMAN H. JORDAN, director of the New York Agricultural Experiment Station. The Macmillan Company. 1912. Pp. 450. \$1.75 net.

The object in view, as stated in the preface,