when "slow readers" can complete such information before the speaker is well started.

Audiences suffer, also, from speakers who discredit themselves by their slovenly pronunciation of basic scientific terms; *e.g.*, expuriment for experiment, chimistry for chemistry, bacterawlgy for bacteriology and vaurus for virus.

JEAN BROADHURST

TEACHERS COLLEGE,
COLUMBIA UNIVERSITY

QUOTATIONS

"TO DO SOMETHING FOR THE WELFARE OF MANKIND"[1]

IN these dark days when the world is at war, when democracy is at bay, when no great acumen is required to perceive that a world revolution is in progress—a deep-seated battle between many varying ideologies with no clearly discernible final result—the place, the purposes, the value of the philanthropic foundation may easily come in question. Governments are expending astronomical sums and gigantic efforts for purposes of destruction; of what importance under such circumstances is the welfare of mankind? What values can the few millions of any foundation directed toward such an objective conserve for a future social fabric the pattern of which can be dimly seen, if at all, by the wisest of men?

Is it mere futility to expend money to increase knowledge; to improve the practice of medicine through education and research; to carry out experimental efforts for the improvement of methods for the advance of public health, in days when human life and health are necessarily subject to the needs of war; to devote funds to the improvement of hospital facilities and management; to grant fellowships to brilliant young men that they may be trained for the advance of scientific knowledge; even to attempt to relieve in some slight degree the starvation and misery brought about by the present world upheaval?

The Commonwealth Fund does not believe that such effort is futile. On the contrary, it is the belief of the fund that these undertakings are more important today than ever before. Knowledge and brains still have no substitute. No matter what the future may have in store, knowledge must be conserved and developed, brains must be trained and given opportunity. Not forever will force reign, not always will the organization of society—or its disorganization—preclude the benefits to mankind of scientific discovery, of knowledge, intelligence and understanding. Whatever philanthropic foundations can contribute to the forging of implements for a better day will not be lost. In many conversations during the past two years with able and intelligent leaders in various fields, the outstanding thought has in no instance been one of despair or futility, but rather courage and determination in the belief that now more than ever it is of first importance that the development of potentials for a better and happier world be continued. A few mad men may have seized upon the advances of science for their own destructive ends. But they will pass from the scene. Human living will be reorganized—progress may have been halted; it has not ceased.

Thus it is the duty and the privilege of foundations to "carry on" and to "carry through" to a brighter day. The thought can scarcely be better expressed than in the words of Mr. George W. Gray in the concluding sentences of his tribute to the work of Wickliffe Rose, "Education on an International Scale":

> . . . eclipse is not obliteration. The sun is blackly obscured but it will shine again. Hope feeds on the integrity of law both cosmic and moral. . . . No star is ever lost.

BARRY C. SMITH

[1] Introduction to the twenty-third annual report of the Commonwealth Fund.

SCIENTIFIC BOOKS

RADIATION THERAPY

The Biologic Fundamentals of Radiation Therapy. By FRIEDRICH ELLINGER. Preface by MAURICE LENZ. English translation by REUBEN GROSS. New York: Elsevier Publishing Company, Inc. $5.00.

THE biological action of radiation from x-ray and radium varies according to the conditions of application. With x-ray the primary effect is wholly due to the light of short wave-lengths emitted from the anticathode under the impact of the electron beam. These light rays then set free electrons when they are absorbed. With radium, while the alpha rays are usually removed by screening, beta rays are left unless the filter is heavy. Roentgen rays and gamma rays from radiation do not differ except in wave-length. Hence if the action of radiation is due to electrons no differences in biological effect should be expected from x-ray of different voltages or from radium, provided that the conditions of measurement are strictly comparable. This fact has almost never been considered by students of the problem, and the omission has led to the contradictory statements which still exist in the literature, many of which are quoted by the author. For example, as a proof of the different effects of