haps exceed his northward put by the thousandth part of a micron.

If the athlete is determined to utilize the earth's rotation in beating the present record of about 56 feet he should go to a theological seminary and learn how the prophet Joshua in his blitzkrieg against the Amorites made sun and moon stand still by stopping the earth's rotation. Armed with this knowledge, he could, immediately after putting the shot toward the east, stop the earth's rotation, and have the satisfaction of beating the record by several miles.

JOSEPH O. THOMPSON

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STATEMENT

IN my radio address printed in SCIENCE for July 3, 1942, I used a phrase commencing: "Frequently we become conscious of the philosophy of the old darky. . . ." It has come to my attention that the use of the word "darky" is likely to hurt the feelings of members of the Negro race. I need hardly say that anything approaching an unkindly wording was farthest from my intention, and I am deeply grieved that the wording I used may have caused offense. Being unfamiliar with the implications involved in the word "darky," I used that designation as conveying to the mind, for the purposes of my illustration, the lovable characteristics of an individual who might never have had the opportunity of a formal education but had, nevertheless, thought much of his own accord and, endowed with a certain richness of experience in life, had come to philosophize in a really profound manner upon certain situations arising out of that experience. I never liked the word "Negro" as it sounded harsh and discriminatory, and I used the designation "darky" in the same way as I might say: "There was a canny old Scot who remarked. . . ."

Again may I express my very deepest regret at the unfortunate implication contained in my words, which I am sure my many friends in the Negro race, and particularly those in my own profession, will realize were uttered without any thought that they could hurt the feelings of a race for which I have the warmest regard.

W. F. G. SWANN

QUOTATIONS

WAR METALLURGICAL RESEARCH

FRANK B. JEWETT, president of the National Academy of Sciences, announces that the academy's Metals and Minerals Advisory Committee for the past 18 months has furnished OPM and WPB with 113 reports. Fifty-three of these were on metals substitution and conservation, 47 on ferrous minerals and ferroalloys, 4 on tin smelting and reclamation, and 9 on nonmetallic minerals. These reports, prepared by the various subcommittees of the Advisory Committee, dealt principally with problems arising from the necessity for allocation and substitution of materials, not only for general civilian uses, but even more particularly for war production processes and increased production of war materials.

The work of this advisory committee, according to Dr. Jewett, has been greatly enlarged since Pearl Harbor and is to be further increased as it functions with and for the new War Metallurgy Committee. Clyde Williams, director of Battelle Memorial Institute, Columbus, Ohio, and chairman of the advisory committee, is also chairman of the new War Metallurgy Committee which has primarily been set up to appraise and conduct needed research work for the Army, the Navy and other governmental departments as well as industry. This committee is composed of 26 members, the advisory committee of 63 regular members, plus special members, and 20 other specialists frequently are called in for advice on specific problems. Associations and technical societies are also taking an active part in the problems of metallurgical reports and research.

It is the function of the War Metallurgy Committee to collect data and information as requested by either the WPB or the Office of Scientific Research and Development, through its National Defense Research Committee, and to plan, present and supervise definite research projects for either war materials or armaments. The War Metallurgy Committee and its Advisory Committee, according to Dr. Jewett, is set up to function as the nerve center for all metallurgical research organizations and departments in this country. The heads of any business, university or research organization can be counted upon by this committee to make available the experience of their metallurgical scientists and engineers or their laboratory data. There are in excess of 10,000 such individuals in this country, and their combined experience represents well over 125,000 man-years.

One of the basic considerations in the operation of this committee is that of saving time, mistakes and money. When a problem is proposed, through either the WPB or the Office of Scientific Research and Development, immediate action can be obtained by telephone communication with the leading scientists on that particular subject; initial committee meetings are

often held within 24 hours and, if the request is urgent, within the same day a plan of procedure is laid down and submitted.

Every one in this country, and scientists and industrialists are no exception, is naturally anxious to contribute everything he can toward winning the war. New thoughts, new ideas, new short cuts, are constantly coming to the front. While it is not the place of the War Metallurgy Committee, according to Dr. Jewett, to be the repository for such suggestions and ideas, it recognizes as a very definite part of its wartime job the appraisal of such of these problems and possibilities as are referred to it by the WPB or the Office of Scientific Research and Development.

Another important function of the War Metallurgy Committee is to digest and make available to those properly interested through their participation in the war effort the results of both Canadian and English metallurgical research. Obviously both Canada and England have a great many of the same problems which confront us, and the interchange of information makes available to all the best thinking and practice of scientists and industrialists on both sides of the Atlantic.

Typical of the problems referred to this committee is one asking for improvement in welding processes. A subcommittee was immediately appointed, which collected all available known data from universities, engineering foundations and research departments of business organizations. The Project Section of the War Metallurgy Committee worked up the research indicated and research procedure; with the approval of the National Defense Research Committee and the Office of Scientific Research and Development, this research was placed with one of the university laboratories and compensated for on a cost basis from funds made available by OSRD.

Typical of requests for data and projects from the WPB is that of the effect of substitution of lead-silver for tin-lead soldering of tin cans used for food products. Since tin is the one important metal which is not found in the United States, even in low-grade ores, it is obviously important that the conservation of the present use of tin is urgent. Since a great proportion of the total consumption of tin is used in soldering, the substitution of lead-silver for tin-lead soldering is immediately dictated, but the problems involved in certain canning processes are such that definite research is needed before such substitution can be ordered.

This research project was prepared through the Project Section of the War Metallurgy Committee and will be administered through its research section, the work being done in one large university research laboratory, in cooperation with the National Canners Association.—*Chemical and Engineering News.*

SCIENTIFIC BOOKS

ASTRONOMY

Foundations of Astronomy. By W. M. SMART. 268 pp. 119 illustrations. London: Longmans, Green and Company. 1942.

THE preface of this excellent text announces that it "is intended for students taking a first-year course in Astronomy in the Universities and for all those interested in the subject who feel the need for a more solid foundation than the many descriptive books can provide." The book is definitely not descriptive in character; in the entire volume, there is not a single photograph or drawing of a celestial body. Only seven pages are devoted to the description of the sun, moon, planets, comets, minor planets and meteors, while nine pages are devoted to atmospherical refraction, fourteen to parallax and seventeen to aberration, precession and nutation. On the other hand, the volume is generously supplied with diagrams and sketches, clearly lettered, to help in the understanding of the text.

Although the book is essentially mathematical in character, the reader does not need a strong mathematical background to read it; nothing beyond a knowledge of elementary trigonometric functions is required. Only the cosine formula of spherical trigonometry is derived; the sine formula and several others are merely stated. The applications of the spherical trigonometric formulae are rather limited in number.

Five of the early chapters, "The Geometry of the Sphere," "The Celestial Sphere," "Right Ascension," "Mean Time" and "Determination of Position on the Earth," contain information needed as background by the student of navigation. Some of the terms used and the definitions given differ from standard American practise, enough to decrease considerably the value of the book to a person in the armed forces of the United States. For example, "true bearing" as defined by Smart is identical with "azimuth" as defined by the U. S. Navy; each is measured from the north point of the horizon to the east to 360°. "Azimuth" as defined by Smart is measured from the north point of the horizon in the northern hemisphere, from the south point of the horizon in the southern hemisphere; in either case, it is measured to the east or to the west to 180°. For purposes of computation, this definition is very convenient. He naturally pre-