Demonstration that the transmission of the sunburn-producing wave-lengths by the epidermis of the albino mouse is greatly decreased by exposure of the animal to such radiation adds further evidence.[7]

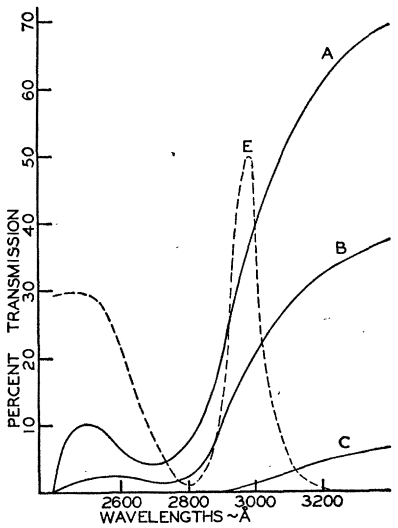

FIG. 1. A: Transmission of normal epidermis of albino mouse ear. B; Transmission of epidermis of ear of albino mouse exposed to ultraviolet radiation for 31 weeks. C; Transmission of well-pigmented epidermis of forearm of man. E; action spectrum of erythema of sunburn of man. This curve is not accurately established for the mouse but has approximately the same long wave-length limit.

These animals do not, of course, form melanin pigment, and hence the decreased transmission of the epidermis must result from some other change. The horny layer is thickened in the exposed animals, and this offers the most probable explanation for the decreased transmission. Fig. 1 illustrates this change in transmission in the region of wave-lengths that cause sunburn, together with curves of transmission by human epidermis.

None of this evidence completely rules out melanin as a factor in protection against sunburn. It shows, however, that it is not the only factor, and probably not the major one in the case of white skin. The melanin must function effectively in preventing penetration of the radiation below the epidermis, which may be of considerable importance in determining the site of cutaneous cancer.[7]

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tion and Diseases Caused by Light,'' New York, Reinhold Publishing Corporation, 1941.

[7] J. S. Kirby-Smith, H. F. Blum and H. G. Grady, *Jour. Nat. Cancer Inst.*, 2: 403, 1942.

THE LISTING OF MEDICAL SCHOOLS

MAY I be permitted, as one long interested in collegiate statistics, to point out what I consider an unfortunate aspect of the article "Research Activity and the Quality of Teaching in Medical Schools," by Dr. Albert E. Casey, of the Louisiana State University, published in SCIENCE for July 31, 1942. I shall not discuss the validity of state board medical examinations as a criterion for the quality of medical teaching. I do wish to comment upon the publication in 1942 of a listing of medical schools based upon articles by faculty members appearing in medical journals from March, 1932, to March, 1934. The use of statistics which date back eight years or more to another decade is by no means justified by the back-handed statement that "Sufficient time has elapsed so that the standing of the schools need not necessarily be that of 1934."

The years since 1932–34 have been a period of notable personnel changes in medical faculties of the schools listed and consequent changes in research activity. For example, at the College of Medicine of the University of Cincinnati, our records show that the publications of research for the calendar years 1940 and 1941 are approximately twice those for the years 1932 and 1933. It is my impression that there have been similar advances at Duke, Vanderbilt, Louisville and other medical schools. To sum up, my fear is that Dr. Casey's listing of medical schools, based on old data, will be popularly quoted as representing their present status in respect to research activity and publication.

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THE SHOT-PUT AND THE EARTH'S ROTATION

IN a most estimable weekly magazine having a circulation of millions is a department designed to enable its readers to keep up with the world. Once the editor of that department assured us that mercury poured into an open dish remained undiminished in weight, as though mercury gave off no vapor. Recently that department assured us that on account of the earth's rotation an athlete can put the 16-pound shot farther toward the east than toward the west. We are skeptical, for although it is quite true that the athlete while hurling the shot toward the east is moving toward the wished-for mark with a velocity of about 17 miles per minute, the mark at which he aims is moving away from him with that same velocity, with the net result that his shot-put is precisely the same as though the earth were standing still; similarly, if he puts the shot toward the west. Since a body moving south gradually grows lighter his put toward the south might per-

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.

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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