

Another aspect of the problem of honors and awards is their relation to the present campaign throughout the country for increased research activity. It seems probable that research output can be fostered more by early recognition and advancement of exceptional individuals than by attempts to raise the general average. While honors are a fitting recognition of a life spent in original and constructive contributions to knowledge, such recognition fails of its greatest value if delayed until the recipient has already reached an age or position in which such recognition no longer tends to enhance his opportunities for greater employment of his talents. Recognition of any kind from the outside, including especially calls from other institutions, is likely to be of direct advantage to a younger man by securing for him increased time and facilities for research. It may have the same effect indirectly through an increase in salary which lessens the financial pressure that may have necessitated his engaging in scientifically non-productive work during vacations or spare moments. The discovery of exceptional talent and the devising of methods for shortening the reaction time between its discovery and increased opportunities for its exercise seem worthy problems for institutions of higher learning.

It would be out of place in the present article to enter into a full discussion of these problems. It will suffice to offer only one specific suggestion regarding a single phase which to some may perhaps rightly appear of but minor importance. We refer to the desirability of less infrequently conferring honorary degrees upon men of recognized scientific standing who have not taken their doctorate in course. No lowering of standards would need be involved if the precept were followed: "By their fruits ye shall know them." On the contrary, proper safeguards should guarantee a distinct raising of standards. Were it not for the difficulties of administration, one might feel inclined to advocate raising the master's degree to greater dignity and conferring the doctorate only for work carried on after graduation from professional guidance. To withhold the advantages of a doctorate from one who, instead of following the conventional educational system, has devised a successful "case system" of his own seems unduly conservative.

The different divisions of the National Research Council afford specialists in the various groups of science capable of advising universities regarding qualifications of possible candidates. It is not our desire to suggest whether universities through the departments involved, the National Research Council or individuals should take the initiative regarding the honorary degrees in question. Our purpose will

have been served if, in calling attention to a possible opportunity, we have raised a problem for discussion.

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HIGH TEMPERATURE DEATHS AMONG EXPERIMENTAL RATS

IN the light of the report in *SCIENCE* for December 7, regarding thyroid feeding and high room temperature, an experience of the author may be of interest. In this laboratory, young albino rats are being kept on Sherman's A-free diet, in a study of some of the underlying factors in the incidence of respiratory and middle ear infections in this deficiency. Controls are kept on the same diet plus vitamin A in the form of cod-liver oil. Room temperature for these rats, as for the breeding rats, is kept between 70 and 80 degrees F. Before temperature control was established, the room temperature rose one night to a maximum of 96 degrees F., with the death of three animals. Of these, two were on the A-free diet, although not yet depleted, while the third was on a diet normal in every respect. Autopsy revealed no gross pathology except congestion of the lungs.

A few weeks later, the same thing happened in another room, with the loss of two male and two female rats from the breeding stock, kept on Sherman's whole wheat-whole milk diet. Since there have been no other deaths either before or since this incident, among the experimental or breeding animals, the rise in temperature to 96 degrees F. seems to be entirely responsible for these deaths, and one must assume that this temperature is sufficiently high to cause death in normal animals as well as in those suffering from vitamin A deficiency.

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NATURALISTS OF THE FRONTIER

DR. SAMUEL WOOD GEISER, of the Southern Methodist University at Dallas, Texas, has begun the publication of a series of papers entitled "Naturalists of the Frontier." No. 1, recently published, gives the story of Jacob Boll. Another number will soon be issued, and this will relate to the well-known collector of insects and other natural history material, G. W. Belfrage, a man whose name is well known to the older generation of entomologists and other naturalists. These papers are appearing in the *Southwest Review*. Dr. Geiser will be glad to send separate to those especially interested, but it will be necessary for persons who wish the Belfrage paper to write him in advance so that he may order the necessary number of reprints.

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