same methods have been applied to the 56 octogenarians of the present group with the results shown in Table 3.

The figures are in substantial agreement with those published earlier. The number of scientific publications in the 70's is closely related to productivity in the 60's. The data show also appreciable relationships between the 70's and decades prior to the 60's, the correlations becoming smaller as the decades are farther removed from the final decade.

Readers who are familiar with the various works of Lehman, recently assembled in a single volume (*2*), will note that my findings are at variance with the general tenor of Lehman's results. However, my findings do not necessarily contradict Lehman's. I have dealt with the total output of scientific articles, whereas most of Lehman's attention has been given to "significant" works. In the instances in which Lehman has analyzed the total output of scientists, each of whom lived to a specified age, he, too, finds that productivity persists in the later decades of life.

Finally, it should be noted that the data here presented on eminent 19th-century scientists are in agreement with those that I have previously presented for members of the National Academy of Sciences and for unselected American psychologists (*1*).

WAYNE DENNIS
Brooklyn College, Brooklyn, New York, on leave to American University of Beirut, Beirut, Lebanon

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1. W. Dennis, *J. Gerontol.* **9**, 465 (1954).
2. H. C. Lehman, *Age and Achievement* (Princeton Univ. Press, Princeton, N.J., 1953).

18 November 1955

High-School Students as Laboratory Assistants

In a recent letter [Science **123**, 185 (3 Feb. 1956)] James G. Busse pointed out the advantages of giving summer jobs in laboratories to promising high-school students. A program of this kind was carried out successfully in the summer of 1955 at the University of California, Berkeley, in the departments of biochemistry and physiological chemistry. Results were very encouraging in that students and employers were well satisfied. The students were enthusiastic, hard-working, and intelligent laboratory assistants—well worth the time and cost of training. I hope that scientists in other parts of the country will give a trial to hiring high-school students for the summer.

Currently there is a stress on training more scientists (and engineers). The problem actually is to attract able people and not simply to produce more scientists. I believe the latter aim is wrong, because scientists cannot be mass-produced any more than can competent musicians or athletes. There is danger that if we strive simply for quantity of scientists, the level at which science must be taught will be lowered to a point where the education of the truly promising students will suffer. Effective progress in science must be based on good training; and an opportunity for laboratory experience (to demonstrate the actual nature of science) early in the young scientist's career seems to me one of the best ways of commencing his education and of attracting him into science.

ARTHUR B. PARDEE
Virus Laboratory, University of California, Berkeley

9 March 1956

Verifying Useless Knowledge

As a collector of useless knowledge, I was entranced by the title of the editorial in *Science* for 2 Mar. but was distressed to see Ben Franklin's devastating remark to the Practical Man attributed to Faraday. Lest noncollectors of useless information be misled by Stanley's lapse, let us check our sources and references. Perhaps Faraday *did* say: "Of what use is a newborn baby?" If so, he stole it from Ben without giving him credit, a very un-Faraday-like act.

James Parton in *The Life and Times of Benjamin Franklin* (vol. 2, pp. 514–515) quotes a brief exchange between a practical-minded spectator and Ben. The time was 21 Nov. 1783. Two Frenchmen, Pilatre de Rozier and the Marquis d'Arlandes, had just taken off from the Tuileries in the first free-balloon flight in history. Says the practical defender of "contract" and "project" research: "What is the use of this new invention?" Answers Ben: "What is the use of a newborn child?"

In the *Harvard Classics,* Emerson writes: (*English Traits, Aristocracy,* page 425) "Loyalty is in the English a sub-religion. They wear the laws as ornaments. . . . The economist of 1855 who asks, of what use are the lords? may learn of Franklin to ask, of what use is a baby?"

Of what use is useless knowledge? has ever been the province of semantics, epistemology—and basic inquiry in anything for the Shopes, the Flemings, the Roentgens, and the fathers and mothers of all newborn babes.

NICHOLAS G. DEMY
R.D. #4, Foothill Road, Somerville, New Jersey

9 March 1956

Committee on Mathematical Biology

We are disturbed by the drastic reductions that have been imposed on the Committee on Mathematical Biology, headed by N. Rashevsky at the University of Chicago. We wish to point out that the work of this department, the only one of its kind in the world, is of great interest and importance in our diverse fields of research, that is, in biology, clinical medicine, mathematics, psychology, philosophy, and sociology. We feel that it would be a loss if that work were seriously reduced.

WARREN S. MCCULLOCH
Research Laboratory of Electronics, Massachusetts Institute of Technology, Cambridge
RUDOLPH CARNAP
Department of Philosophy, University of Chicago, Chicago, Illinois
EGON BRUNSWIK
Department of Psychology, University of California, Berkeley
GEORGE H. BISHOP
Department of Neurophysiology, Washington University Medical School, St. Louis, Missouri
RUSSELL MEYERS
Department of Surgery, University of Iowa, Iowa City
GERHARDT VON BONIN
Department of Anatomy, University of Illinois College of Medicine, Chicago
KARL MENGER
Department of Mathematics, Illinois Institute of Technology, Chicago
ALBERT SZENT-GYORGYI
Institute for Muscle Research, Marine Biological Laboratory, Woods Hole, Massachusetts

5 July 1955

To write well, even to write clearly, is a woundy business, long to learn, hard to learn, and no gift of the angels.—JOHN GALSWORTHY, Foreword to Hudson's *Green Mansions.*