

lation that they are based on stray light is not tenable. A more promising lead is a recent finding of Gruber, King, and Link to the effect that an illusion indoors depends on the observer's first gaining some impression of the distances involved in the room prior to the darkening of the room—on a kind of memory effect which may itself be a function of (remembered) apparent distance.

We agree with Boring that there is a tendency toward imprecision in our use of certain terms. We believe this is largely due to the fact that we sought to derive the moon illusion from certain already known facts and principles in the area of size perception. Unfortunately, that area is itself still beset with theoretical difficulties.

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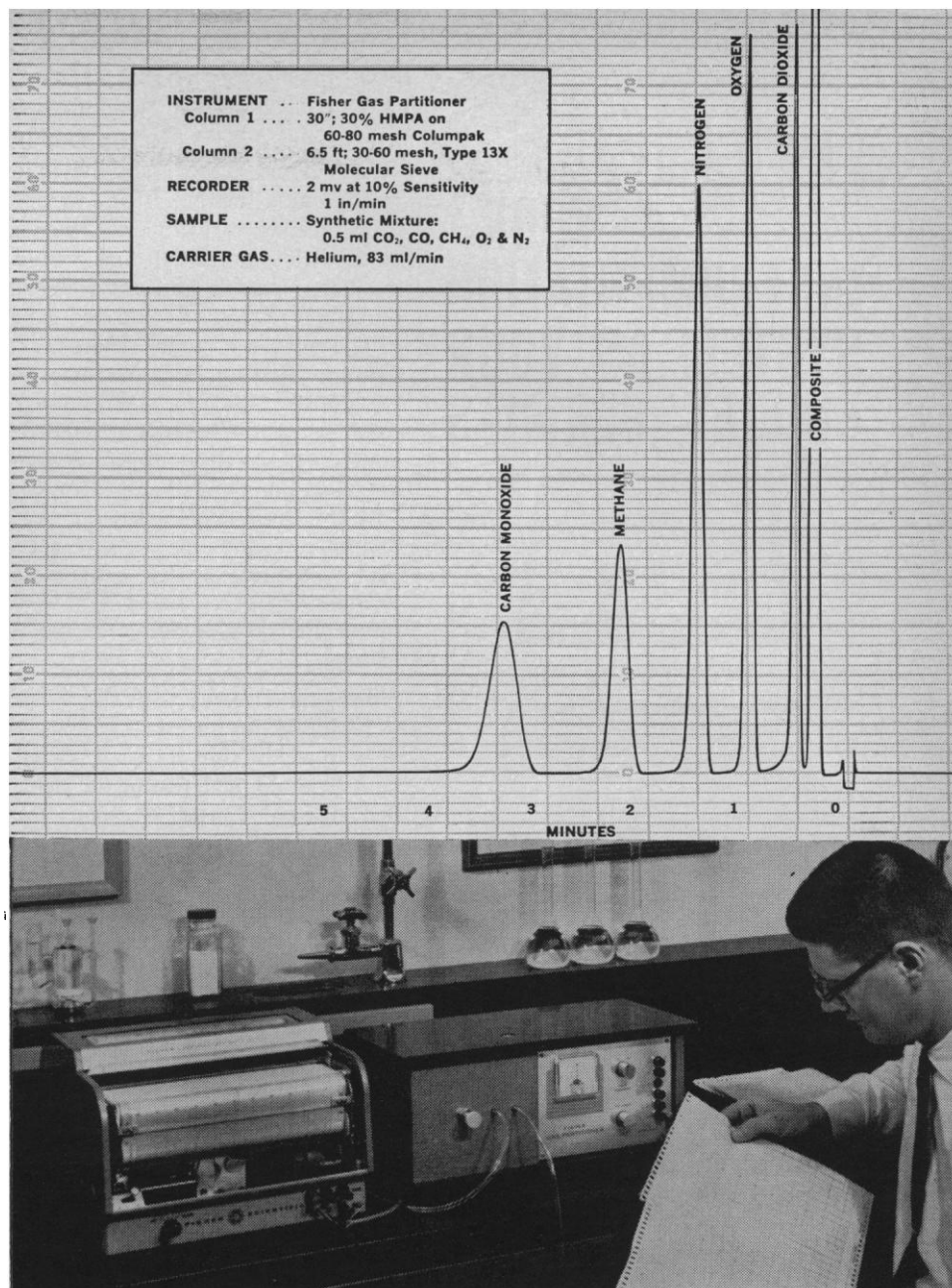
*Sperry Gyroscope Company,  
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## Battle Not Won

The item entitled, "Congress shrugs at proposals on laboratory animal welfare" [*Science* 126, 863 (1962)], could easily give the impression that all is well and that those interested in animal research have little cause for concern.

It is true that Congress will not have time in the few remaining weeks of this session to consider proposals to regulate research and teaching involving the use of animals. It probably is true also that most members of Congress do not at this time favor such legislation. Further, it is true that there are only about 6 million antivivisectionists in the United States—a small minority of the population.

But this is where the good news ends. Members of Congress report that mail on the Moulder, Griffiths, and Clark bills is running approximately 20 to 1 in favor of regulation. Experience in legislative bodies around the nation shows that politicians will, in the end, do what they believe the voters want, regardless of their own convictions. Experience further shows that a tiny minority of antivivisectionists can, by writing letters day in and day out, create an illusion of public sentiment that is very difficult to ignore. Thus, the antivivisectionists won in the states of Illi-



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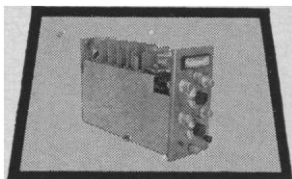


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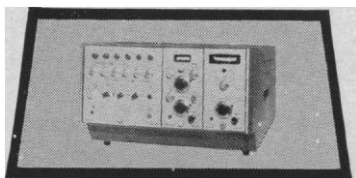
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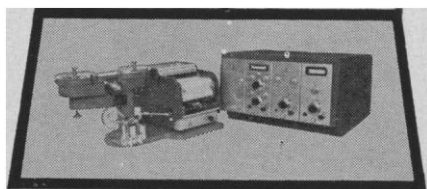
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nois and Connecticut and the cities of Kalamazoo, Palo Alto, and Duluth last year. Thus, the antivivisectionists might, with the largest flood of mail ever received by Congress, get favorable action on a bill that would encumber research on animals with a tangle of restrictions and red tape.

The author of your report was correct in assessing our present strength. He simply failed to mention that our Achilles' heel is apathy. Congress ultimately will act on the basis of apparent public opinion.

HIRAM E. ESSEX

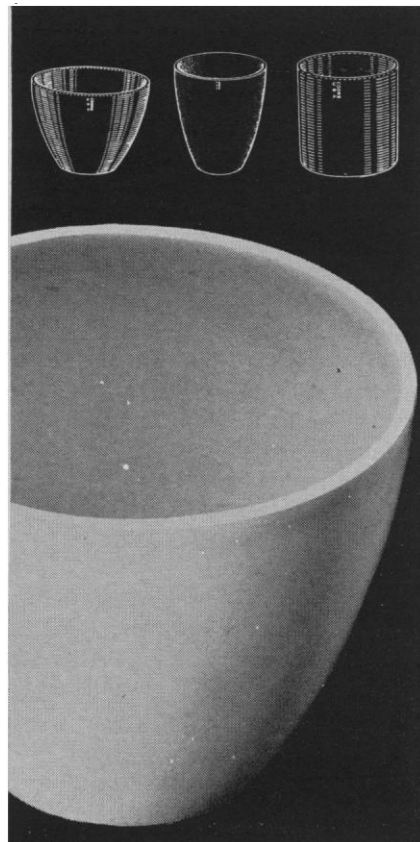
*National Society for Medical Research,  
Rochester, Minnesota*

## Adjusting Data

It appears to me, a casual reader with no special competence in the field, that the manipulation of the data in reference 11 of Astin's article "'Productivity' of undergraduate institutions" [*Science* 136, 129 (1962)] requires considerable justification.

As I understand the situation, data were available on the I.Q. distribution of recipients of bachelor's and doctor's degrees from which the variation with I.Q. of the probability that a recipient of a bachelor's degree would attain the doctorate could be computed. The original data gave the anomalous result that the probability for students with I.Q.'s in excess of 160 was less than that for students with I.Q.'s between 150 and 160. Astin therefore considered various adjustments of the I.Q. distribution of baccalaureate recipients. Changing the standard deviation of the distribution shifted the anomaly to a different I.Q. range, but lowering the estimate of the average I.Q. resulted in a monotone increase with I.Q. of the probability of obtaining the doctorate.

Now, while it is plausible that the probability should be a monotone increasing function of the I.Q. it is far from being such a self-evident requirement as to warrant the altering of measurements, however crude. It could, for example, be argued that a monotone probability is a characteristic of a rational educational system, and that an anomaly thus indicates an organizational defect. (Of course, one cannot conclude the converse—that if the distribution is monotone the system is rational, or that changes which would make the distribution monotone are necessarily improvements.) From this



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