



LETTERS

to the EDITOR

Thanks Again

Sir:

It has been called to my attention that the role of the Netherlands Physical Society in organizing the Amsterdam Conference on the Physics of Metals last summer appeared to have been slighted in the article on The Physics of Metals in the January number of Physics Today. The conference was held, as the article stated, in connection with the General Assembly of the International Union of Pure and Applied Physics; but it was organized by the Netherlands Physical Society, which issued the invitations, and was responsible, as the article indicated, for its conspicuous success. No one who was present had anything but the highest praise for the initiative and skill shown by the officers and members of the Netherlands Physical Society in the organization of this outstanding conference and in their hospitality, and it is regrettable that this was not sufficiently stressed in the article.

JOHN C. SLATER

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Cambridge, Massachusetts

Physics Tomorrow

Sir:

Dr. Gamow suggests in his article, "Any Physics Tomorrow?" in the January issue, that theoretical physicists hope that "in nature there are incidental numerical constants, i.e. pure numbers which cannot be derived from purely mathematical reasoning." But reasoning from what premises? Those of pure mathematics have no reference to the physical world; if he means, by arguments called by Eddington "epistemological," we must consider Eddington's unique contribution to this field.

The idea that Eddington's theory was specially constructed to derive "from purely mathematical reasoning" such constants as the fine-structure constant, contains two common errors. Firstly, it forgets that Eddington's theory is an attempt at a very general systematization of thought and the derivation of the fine-structure constant is but one of its consequences. Secondly, that Eddington repeatedly emphasized that it was based on examination of physical procedure. Anyone who commits these errors is certain to find the theory incomprehensible.

But there is much difference between finding a theory incomprehensible, and stating that no one can understand it; and when the theory stands alone in its field the need is, not to brush it aside as too difficult, but to make the necessary effort to follow it. In fact, "Funda-

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