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ALAN SOBEL
LICENSED PROFESSIONAL ENGINEER
223 WARREN STREET
BROOKLYN 1, NEW YORK

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Mr. W.H. Chase, President
American Institute of Electrical Engineers
345 East 47 Street
New York 17, New York

Dear Mr. Chase:

The question of publications of the IEEE has certainly been the subject of considerable thought by members of the boards of AIEE and IRE. In this letter I should like to suggest that one of the publications of the new Institute be a magazine primarily devoted to general coverage, not only of the technical matters of immediate concern to IEEE members, but to other related scientific and technical subjects. This might logically be a new Electrical Engineering. Such a magazine would not supplant Transactions or Proceedings but would rather supplement the specialized publications with a magazine which would contain papers which could profitably be read by non-specialists. The principal change from Electrical Engineering would be a much-broadened range of subject matter.

First, as to range of coverage: I suggest that this embrace all the areas of science or technology which may be of interest to members of the IEEE or in which electrical techniques are usefully employed. This covers an enormous range, of course: from electronic instrumentation in astronomy and the differences between man-made and stellar plasmas to the BCS theory of superconductivity, to pick examples at random. Papers would be solicited from outstanding workers in the particular fields. Controversial opinions would be welcomed but would be labeled as such to distinguish them from statements generally accepted as correct by workers in a field.

Since the anticipated coverage is so large, it is evident that these papers would either be review papers or tutorial papers; to interest many members of the IEEE, they should be on a level such that they can be read with pleasure and profit without exhaustive study or familiarity with the fields being discussed. To assist in this I propose that all papers be carefully edited with these ends in view, that language be altered and emphasis changed where necessary (with the consent and cooperation of the contributors), and that figures and pictures be provided by the editorial staff, the author supplying the necessary information but being relieved of the responsibility for supplying his own artwork.

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The range of this proposed coverage naturally invites comparison with (at least) three existing magazines: Scientific American, American Scientist, and Physics Today. The scope and the extensive editing I propose are indeed very similar to Scientific American. There is a major difference. Scientific American is aimed at the intelligent layman, totally abstains from mathematics, and therefore tends to be limited to the qualitative. The magazine I propose will be edited for practicing engineers and scientists; as such, it need adhere to no taboos about quantitative papers and the use of mathematics, but will rather be immensely strengthened by their judicious employment. In fact, the emphasis on the quantitative (tempered by the realization that the contents should be accessible to readers only periphally interested in the subject matter, although interested enough to read a paper) and the use of the working researcher's tools of numbers and literature references should make the proposed magazine much more valuable and interesting to its readers than Scientific American.

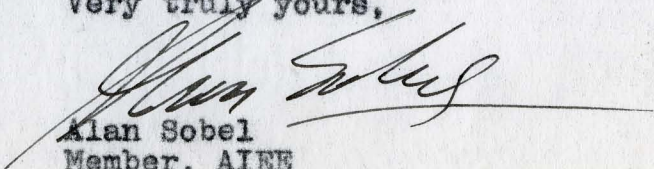
American Scientist is also somewhat similar to what I propose, but it has its own weaknesses, which the new magazine could avoid. Papers in American Scientist tend to be written as if they were to be read by specialists in the disciplines involved; they are too long and detailed for the casual reader and are certainly not edited for brevity and ease of comprehension by the periphally-interested reader. Since contributors supply their own artwork, it lacks the illuminating drawings which are such an excellent feature of Scientific American and which I propose that the new magazine emulate.

Physics Today comes closest to what I have in mind. It has published excellent quantitative review papers and pleasantly discursive reminiscences. Its reports of conferences, presented by one or two of the conferees, are excellent when the subject matter of the conference is restricted enough to be summarized briefly. (The technique tends to be useless for more general meetings.) Its major limitation is that it is restricted to physics per se, while I propose a more interdisciplinary journal which might well reach a wider audience than the members of the IEEE.

The new magazine might well also publish extended abstracts of important papers in Transactions and Proceedings, and should certainly contain information of interest to all members, such as announcements of honors and awards. It should also contain articles of a more general nature, for example, on the effects of disarmament on technology and technical workers. Because of its general appeal it should attract substantial advertising support and its wide range might well commend it to members of other technical societies.

I do not propose to outline a complete plan in this letter, but rather to sketch an outline of a venture that I believe would be useful both to the new Institute and to the community at large. As such a proposal I hope that it arouses interest, and I request that you forward it to the committee working on the problems of Institute publications.

Very truly yours,



Alan Sobel
Member, AIEE
Senior Member, IRE