

NEW JERSEY SECTION IEEE FELLOW NIGHT

Tuesday March 12, 1963, Hotel Suburban, East Orange, NJ.

President Weber~~x~~ and General Manager Fink have both asked me to express their regret for the conflict of dates that made it impossible for them to be here to-night and take part in this historic meeting, symbolizing, as it does, the coming together of the two Institutes in this area which has produced so many great~~/~~leaders of the profession identified with IRE and AIEE.

Our President and General Manager want me to extend their personal ~~xx~~ congratulations to those who will be honored here for the achievements that have resulted in their elevation to the grade of Fellow in the IEEE. Among the many ways in which distinction may be recognized, I think that none can quite compare with that which comes from one's peers. Only they are competent to evaluate the work that the candidate has done, and in the two Institutes the ~~work~~ ~~of~~ making these evaluations is taken most seriously. It is ~~most~~ fitting too that these presentations ~~x~~ should be made here in the presence of the friends and intimate associates of the recipients.

I have spoken for the President and the head of our^{IEEE} staff, the General Manager. I think most of you know both of them. They have^a certain similarity of physical appearance, but the classical method of distinguishing between the President of any organization and the chief of staff is to note that the President is the one that goes around with a worried look on the face of the ~~staff~~ ~~xxxx~~ staff man. George Bailey and I too are very fortunate. As Executive Consultants we are privileged to continue² our active service to the Institute while leaving the worrying to Don Fink.

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"Worrying", however, is by no means the right word for characterizing the mental activity that is going on in the Board, the Committees, and the staff of IEEE. There is an atmosphere of ex^ahilaration growing out of the size of the challenges presented by the merger and the opportunities for bold and constructive responses. The merger ^{is} ~~was~~ so obviously the right thing to do, ~~xx~~ everybody is confident that the mechanical details involved in its completion must fall into place. And indeed they ^{are} ~~have been~~. The staffs of the two organizations have been integrated (perhaps that is not the best word to use in the presence of our friends from Englewood). All of the editorial ^{brought together in the space formerly occupied by ASEE} and technical staffs have been ~~concentrated~~ in the United Engineering Center ~~xx United Engineering~~ close to the Engineering Societies Library and similar interests of the other major societies housed there. This accounts for 100 out of the total present staff of three hundred. All financial, and membership services are concentrated in the three buildings formerly occupied by IRE at 79th. Street and Fifth Avenue. A third group ^{of about 50} ~~^~~ closely associated with the activities of the IEEE has its headquarters on ^{west} 45th Street. Fortunately, although scattered somewhat, the staff is well tied together by phone, ^{messenger, and} ~~and~~ a common mail address. Those of us from the AIEE background were just getting used to the ^{ultramodern} ~~^~~ 20th century glass and steel environment on United Nations Plaza when we inherited a magnificent 18th. century French Chateau in Central Park. The merger of the century is further characterized by ~~xx~~ a merger of the centuries which is rendered complete by the location of the computer in the chateau.

All this sophistication and eligece brings to mind the two girl poodles from Third Avenue who went for a walk on a spring evening. They decided to explore the western world and were much exceited with the sights and smells of Fifth Avenue. In the doorwa y of one of the mansions there they spied a handsome boy poodle. They pranced up to him with this greeting. The first said, ~~X~~ " My name is Fifi, spelled F-i-f-i-i" The second said, "My name is Mimi, spelled M-i-m-i-x, what's your name?" ~~X~~ The boy poodle drew himself up to his full heighth and said, "My name is Fido, spelled ~~P-h-y-d-e-a-u-x~~ P-h-y-d-e-a-u-x." cut

I said that the merger was obviously right, and inevitable. The electromagnet spectrum in which we work demands it. The gaps in its application have disappeared from dc ~~to~~ right through to X-rays. It is necessary that the profession responsible for from it producing the goods and services for the defense and enjoyment of better livingx should be unified. We were fortunate indeed that in 1961 and 1962 we had ^{at the same time in both Institutes} ~~the~~ leadership in the two ~~institutes~~ ^{and the} deft executive touch ~~institutes~~ ~~in~~ with the vision, ~~and the~~ boldness to bring it about. Only 15 month elapsed from the time the two Boards resolved to explore the prospects to the conclusion of the legal formalities on January 1, 1963. But it was not all that sudden. It had been ^{steadily} evolving for ^{more than} at least a decade through joint branches, joint sponsorship of conferences, joint committees, common membership requirements, ~~and~~ reciprocal admission privileges, a single standards committee, ^{increasing} ~~much~~ cooperation in the Sections.

Like the staffs, the Branches and the Sections are fitting together smoothly. There is good evidence that by the middle of summer 1963 practically all of the Sections will be ^{fully} merged. Most of the schools where both Institutes had Branches will be formally organized as single Branches by the end of this academic year. A few weeks ago, I had ^{was privileged to} ~~the great pleasure of presenting~~ the first IEEE Branch chartered to the first AIEE student Branch organized in 1902. There are great opportunities for the bigger unified Sections to serve the profession through close cooperation with their neighboring Branches. There is an intolerable amount of attrition of badly needed engineering talent in our engineering colleges. On the average about fifty percent of the entering freshmen fail to graduate. Many of the dropouts could be saved by earlier identification with the profession which they want to serve, and were apparently/capable of serving ^{intellectually} x But the motivation that brought them to engineering college fades in ^{essential} the early years of/concentration on mathematics, ~~and~~ science, and general studies. The Branches with the intelligent help of the Sections should be able to do something about this. ~~IEEE is an educational organization~~ *IEEE is an*

The merger is going smoothly in those areas where the members of the two partners have background organizational experience that is similar; in Sections, Branches, and Regional work. The direct management of the technology and the publication policies present more difficult problems which are being worked on now intensively. The objective and the end results achieved in the two Institute were similar, but the methods of approach were quite different. However, given ^{these} common objectives, the methods will ~~doubtless~~ be found and successfully applied.

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One of the great opportunities of the merger is that to examine the experience of three quarters of a century and in the light of that experience to make a fresh start in the adaptation of our methods and procedures to ~~the~~ the present. Methods suitable for a time when the art was new and science was meager and information was slow to be made available must be revised to handle, evaluate, and codify and disseminate and retrieve and make useful what is needed from the overwhelming flood of new information with which we are faced to-day.

Our purpose has not changed; we are a scientific and educational organization functioning in the public interest and therefore enjoying certain valuable privileges and exemptions along with other such institutions, particularly the colleges and universities. Our basic business is education the search for new knowledge, its evaluation, classification, dissemination, and preservation. Evaluation and dissemination has been a feature of our public forum from the beginning. Now the problems of classification and preservation for ready retrieval becomes the big problem. The engineering societies are struggling with this and focusing more and more attention on abstracting, excerpting, indexing, and codifying for machine retrieval.

By concentrating on our basic purpose which is technical, scientific, and educational, we do not lose the social and economic values of the Institute to its membership, we merely recognize them to be, like so many of our most ^{valuable} ~~valuable~~ human benefits; the byproducts of ^{the achievement} ~~our~~ basic objectives.

Dissemination of knowledge at the rate and to the extent needed now will also have to find new media. Educational ^{TV} ~~TV~~ with which we are experimenting promises to bring the Section meeting into the homes of our members and solve the problems of the commuter who finds it so inconvenient to stay in town for an evening meeting. The same medium may ^{also} ~~also~~ serve as an important contribution to the problem of the continuing education of the engineer which is so essential to the solution of the problem of

technological obsolescence.

Another area in which the merger has created challenging problems is inter-society and inter-national relations. AIEE, as a founder society, brings to the merger a number of unifying connections with ~~xxx~~ other American Societies through UET, EJC, ECPD, and other councils and affiliations. The very fact of our merger brings a new trend ~~xxx~~ and a fresh meaning to the much abused and misunderstood word "unity". Already it has inspired the exploration of similar mergers within the engineering fraternity. Its complete success will doubtless go far to stop and reverse the trend toward further fragmentation of the profession. IRE on the other hand brings to the merger international relations that have naturally developed out of ~~xxx~~ world-wide communications to which it has contributed so much. We are now a fully organized international body with not only scattered members and Sections but with world-wide Regional organization. This too is a bold venture, but one that could have tremendous possibilities for expanding the technology with many by-products of value to industry and the public good.

So, what's there to worry about? Well, somebody says very simply, "money". Yes, we have a budget of \$6,000,000 ~~dollars~~, two thirds of which must come from other ~~than~~ member dues. But, remember, money is also a byproduct. You can't make money; that's a federal offence, ~~Sometimes~~ called counterfiting. Money is a byproduct of the service we render. And like all of the rest of the things that we do, or plan to do, in the IEEE, the financial problem will be solved by the degree to which the individual Section members participate in making the fundamental services of the Institute effective. Advertisers, exhibitors, purchasers of publications, and even charitable foundations will support success and help pay for recognized services.

NORTH JERSEY SECTION 3/12/63

President Weber and General Manager Fink have both asked me to express their regrets for the conflict of dates that makes it impossible for them to be here tonight for this historic meeting, bringing together formally for the first time all of the members of IEEE in this area which has produced so many great leaders of our profession.

Our President and General Manager also asked me to add to mine their ~~congratulations to those who are to be honored by elevation to Fellow of~~ *the medalists and newly elected Fellows* IEEE.

I assume most of you know President Ernst Weber and our staff chief, General Manager Don Fink. They have much in common in their professional backgrounds and in past service to both IRE and AIEE. They have certain similar features, too. In case you should not know them, I can tell you how we usually distinguish between the President and the Secretary of one of these organizations. The President is the one who goes about with a worried look on the Secretary's face. George Bailey and I, both now enjoying the title of Executive Consultant, have agreed that, while continuing to work hard for the Institute, we, too, will leave the worrying to the General Manager.

"Worry" is not the right word for what is going on in the Board of Directors, the Committees, nor even in the staff of IEEE. There is rather an atmosphere of exhilaration born of the challenges presented by the merger and the opportunities for bold and constructive responses to those challenges. Merger is so obviously right, that the details of implementation must fall into place, and indeed they are.

The Headquarters staffs have been integrated. (I use the word here in the neighborhood of Englewood with some trepidation.) The combined AIEE and IRE editorial and technical service staffs, numbering 100, have been brought together in the space formerly occupied by AIEE in the United Engineering Center. Here they are close to the Engineering Societies Library and similar staffs of the other major societies. Financial and membership services combined staffs of 200 are located in the former IRE Headquarters at 79th Street and Fifth Avenue. A third group of 50, not directly in the employ of IEEE, but largely engaged in its advertising and exposition activities, is located on West 45th Street. Telephones, messengers, and a common mail address tie these somewhat scattered centers together efficiently.

The history of engineering organizations may some day refer to ours as the "merger of the century". So far as our real estate is concerned, it could be called "the merger of the centuries". Those of us, from the AIEE background, were just getting used to our ultramodern 20th-century glass and stainless steel environment when we inherited a center of gracious living in the form of an 18th century French Chateau in Central Park. This merger of the centuries is made complete by the presence of the computer in the chateau.

The merger was inevitable. The exploitation of the electromagnetic spectrum is now complete from D C to X-Rays. The profession responsible for producing from that spectrum the goods and services essential to the defense and enjoyment of better living had to be unified. We were fortunate in 1961 and 1962 to have, at the same time in both Institutes, leadership with the vision, boldness, and deft administrative touch to bring it about.

It came about swiftly. Less than 15 months after the two Boards resolved actively to explore the prospects, the legal formalities were completed on January 1, 1963. But, of course, you know, it was not all that sudden. It has been evolving steadily for more than a decade. We had joint branches, joint conferences, joint committees, common membership requirements, reciprocal membership privileges, a single standards committee, and increasing cooperation in the Sections.

By mid-1963, the Sections and Branches should practically all be formally merged. A number are already merged. A few weeks ago, I presented an IEEE Branch Charter to the AIEE-IRE Joint Branch whose history goes back to 1902. It has the distinction of having been the first established and the first merged. To its credit may also be added that it survived a period, about 40 years ago, when I was its Counselor. One of the big opportunities in the merger is the intelligent and effective mutual support that IEEE Sections and IEEE Branches can render each other in achieving their common educational objectives.

The biggest challenges of the merger are to effect an optimum program for the management of the technology and the resulting publications. Our objectives are clear. As a scientific and educational institution chartered in the public interest, our purpose is the search for knowledge, its evaluation, classification, dissemination, and preservation. We have over three quarters of a century of experience in doing this. ^{30/400/10,000 - 70/250/7000} But, in the light of modern requirements, new and better methods of accomplishing all phases of the job are urgently needed and are being intensively explored under pressure of a close deadline.

We are already experimenting with educational TV, expanded methods of abstracting, indexing, and codifying for machine retrieval for more effective dissemination, classification and useful preservation of knowledge. ^{Etc} A project

for classification of meetings and sessions as to subject and level of sophistication is also being carried out with intersociety cooperation.

Other challenges created by merger lie in the fields of intersociety and international relations. AIEE, as a Founder Society, brings to the merger firm connections with UET, EJC, ECPD, and others. Our merger itself brings fresh meaning to the overworked word "unity". It has already inspired exploratory contacts among other societies. It should, in any event, go far in reversing the trend toward fragmentation of the engineering profession.

Likewise, IRE brings to the merger extensive international activities and relations. We are now fully organized on a world-wide basis. This, too, is a bold venture with great possibilities for the profession and for the public good.

So, what's to worry about? "Money", somebody says. Here again, IEEE has asserted leadership. Where do you suppose Kennedy gets his sophisticated economies? We were the first to accompany a budgeted deficit with a reduction in taxes (dues, that is).