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May 14, 1968

Mr. N. S. Hibshman 1885 shore Drive South, Apt. 525 St. Petersburg, Florida 33707

Dear Nels:

On May 10, I carried out your suggestion and looked through the Minutes of the AIEE Board and Executive Committee from June 23, 1921, to December 14, 1923, (1) to pick up any and all references to the Institute of Radio Engineers or IRE; (2) to detect any inkling of consideration of merger of IRE with AIEE during that period. Both purposes were in furtherance of your present activity, on behalf of IEEE, to present a full account of the merger of January 1, 1963. Purpose (2) was to throw further light on Dr. Alfred N. Goldsmith's reference, on the back inside cover of March 1962 Proceedings of the IRE, Part II, Red Book, to an "attempt (1922) to merge the two societies in which Dr. Alfred N. Goldsmith . . and Professor A. E. Kennelly . . were active."

In the period of the Minutes examined, the first mention of IRE was April 11, 1922, in full as follows:

Institute of Radio Engineers / Executive Committee Minute/

The Secretary informed the committee that a few years ago the Institute agreed to help finance the Institute of Radio Engineers to the extent of paying a portion of their meeting expenses in the Engineering Societies Building, New York, the amount not to exceed \$125 a year, with the understanding that members of the AIEE were invited to attend the meetings of the IRE and would be placed upon the mailing list for the receipt of mailing notices upon request; and further, that \$120 of this amount has already been paid this year, and that the Institute has just received a bill from the United Engineering Societies for \$40 on this account, which is \$35 in excess of the appropriation. Mr. Hutchinson recommended that this cooperation with the Institute of Radio Engineers be discontinued; and it was

Voted that the Secretary be authorized to pay only \$5 of the bill for \$40, and to notify the Institute of Radio Engineers and the United Engineering Societies that the financial arrangement with the IRE is discontinued.

On December 8, 1922 (there being no mention of IRE) the Board of Directors appointed an AIEE representative to a Bureau of Standards conference on radio standardization.

The second mention of IRE was February 15, 1923:

Radio Standardization /Board of Directors Minute/

A report was presented from Mr. L. T. Robinson, Institute delegate at a conference on Radio Standardization held on January 12 under the auspices of the Bureau of Standards in cooperation with the American Engineering Standards Committee. At this conference, Mr. Robinson reported, it was agreed that the Institute of Radio Engineers and the American Institute of Electrical Engineers should be requested to undertake joint sponsorship for all phases of radio standardization.

Voted that this Board approves the undertaking by the Institute of joint sponsorship with the Institute of Radio Engineers for Radio Standardization.

A communication dated February 14, from the Secretary of the Standards Committee, was also presented, recommending that the Board of Directors apply to the American Engineering Standards Committee to be appointed joint sponsor with the Institute of Radio Engineers for radio standardization, and nominating as the Institute's representative on the organizing committee of the Sectional Committee, Messrs. L. T. Robinson and F. L. Rhodes.

Voted that the recommendation of the Standards Committee be accepted.

Except in the two quoted Minutes, mention of IRE does not occur. Except in the first quoted Minute, Dr. Goldsmith's name does not appear. With no exception, Professor Kennelly's name does not appear in the Minutes, either in lists of those attending Board and Executive Committee Minutes, or elsewhere.

Where I have referred to Minutes, it includes all attachments bound with them. The Minute book is in Box #8 at 305 East 46th Street, 12th floor.

In the Red Book referred to, it was said: "In spite of their efforts /Goldsmith's and Kennelly's/, the attempt /towards merger/ failed because of the preoccupation of AIEE in nonradio activities." I think the AIEE Minutes substantiates that statement. Unless I missed it in haste, the word "radio" does not appear in the Minutes except in the quoted paragraphs, despite the broadcasting "boom" of 1921-1923. As noted, the subject was very much on the mind of Bureau of Standards. The AIEE Minutes do reflect Board interest in other societies, especially those which were AIEE's co-members in the Federated American Engineering Societies and its American Engineering Council. IRE was not a co-member.

Professor Kennelly was most active in AIEE in the period 1890-1902; he served two years as President AIEE, 1898-1900. By 1922, then, it may be assumed that his influence in the Board would have had to be exerted through others. Dr. Goldsmith was not an AIEE member, but was a preeminent leader (a founder) of IRE. Dr. Kennelly had been President IRE in 1916, that is, rather recently in terms of 1922.

I talked to Dr. Goldsmith, briefly, after the banquet at IEEE Convention, New York, March 20, 1968, as I mentioned to you orally. He gave me substantially the same account as the Red Book about the 1922 overtures, and said, in addition, that IRE kept the subject of merger alive, and that for the next 30 or 35 years, every 10 years or so, in one way or another, put out feelers to AIEE people to see how they felt, with no results. There was gradually increasing cooperation evident, though, in the colleges, standards work, and joint conferences, some of which involved Board action in both Institutes.

Unfortunately, to my way of thinking, Dr. Goldsmith could not recall his talking, about the two Institutes' getting together, before an IRE banquet audience. I told him it was my distinct recollection, as one present, that he did, and that he went so far as to suggest a suitable name. If the incident could be pinned down, it is certainly as significant as the 1922 episode has proved to be. Since I talked with Dr. Goldsmith, I have scratched around in the archives, and to my own satisfaction have fixed the date as March 24, 1954; the place as Waldorf-Astoria; the occasion the annual IRE banquet, and the one at which Dr. Goldsmith made the principal address in acknowledging the honor of having been made Editor-Emeritus; the subject: "IRE-Past and Present." IEEE headquarters, Gannett-Patricia Penick, has a copy, and there isn't a word in it about merging with AIEE or forming a greater society or anything like I remember. Yet, the whole paper rings a bell. Our banquet attendance after 1954 was desultory, and Goldsmith didn't speak. Dec. 31, 1953, was the last day of my two years as Director following presidency, and it would have been natural for me to have attended the following March. I think I ought to make one more attempt to jog the Doctor's memory and get him to admit he interpolated, if indeed he did. But unless he remembers what he proposed for a name, it isn't worth too much.

I also feel, at this stage, that it's useless to try to get him to particularize on 1922 and the following decades. The chronology cited in your letter of April 22, 1968, to me suggests that the contacts made were not on merger but on working together. For example, March 1930 Minute showing AIEE turned down request from Dr. de Forest to join IRE in opposition to "commercials:" de Forest was President of IRE in 1930, so this was a communication at Board level and an IRE overture to work closer. It might very well have engendered thoughts of eventual merger, perhaps even reports-back of presidential chit-chat on the subject, who knows? de Forest's opposite in March 1930 was H. B. Smith, God bless him. "I had him" in E.E. design at Worcester Tech in 1917—his interests were trolley rail bonding and power insulators. I can imagine the impression these two stalwarts made on each other!

All good wishes,

I. S. Goggeshall

I have been remiss in reporting on IRE emblem. Haven't caught up with a pix of TWI or SWTE yet, but here's a quote from Proc. IRE May 1952 (40th anniversary), pp. 518-519, article "The Genesis of IRE," not signed but introduced by editor (Goldsmith) and apparently of his authorship:

"In considering the design of a suitable symbol for IRE, the founders first examined the emblems of SWTE and TWI. The SWTE symbol was diamond shaped and showed a Hertz dumbbell oscillator. The TWI emblem was circular and depicted a circular Hertz receiving loop. A Hertz oscillator was later added in the center. It was evident to the IRE founders that the Hertz loop and oscillator, or for that matter any current day device, would eventually become obsolete as new techniques and equipment were developed. The one thing that seemed permanent in the art was the familiar electrical and magnetic forces and their relationship. Accordingly the electrical force was represented by a vertical arrow, and the magnetic force by a circular arrow surrounding the electric force and in the conventional relationship to it. The shape of the resulting drawing obviously lent itself to a triangular placement of the letters I. R. E. This in turn led to the selection of an attractive triangular emblem."

I assume you are cognizant of AIEE's wonderful(!) original 1893-97 Franklin-kite, Wheatstone-bridge, Ohm's Law, amber-disk-galvanometer job, found "not entirely satisfactory" and withdrawn at the instance of 20 petitioners—described and depicted in the Golden Book, p. 838.

4.8.C. 3/14/68

NSH

Found this table useful in matching AIEE Presidents (serving August 1 to July 31) with their staggered calendar-year opposites in IRE.

ISC May 14, 1968

1911-12 Gano Dunn	ire
1912-13 Ralph D. Mershon	1912 R. H. Marriott
1913-14 C. O. Mailloux	1913 G. W. Pickard
	1914 L. W. Austin
1914-15 Paul M. Lincoln	1915 John Stone Stone
1915-16 John J. Carty	1916 Arthur E. Kennelly
1916-17 H. W. Buck	1917 M. I. Pupin
1917-18 E. W. Rice, Jr.	
1918-19 Comfort A. Adams	1918 G. W. Pierce
1919-20 Calvert Townley	1919 G. W. Pierce
1920-21 A. W. Berresford	1920 J. V. L. Hogan
1921-22 Wm. McClellan	1921 E. F. W. Alexanderson
	1922 R. Fulton Cutting
1922-23 Frank B. Jewett	1923 Irving Langmuir
1923-25 Harris J. Ryan	1924 J. H. Morecroft
1924-25 Farley Osgood	1925 J. H. Dellinger
1925-26 M. I. Pupin	1926 Donald McNicol
1926-27 C. C. Chesney	
1927-28 Bancroft Gherardi	1927 Ralph Bown
1928-29 R. F. Schuchardt	1928 A. N. Goldsmith
1929-30 Harold B. Smith	1929 A. H. Taylor
1930-31 Wm. S. Lee	1930 Lee de Forest
1931-32 C. E. Skinner	1931 R. H. Manson
	1932 W. G. Cady
1932-33 H. P. Charlesworth	1933 L. M. Hull
1933-34 J. B. Whitehead	1934 C. M. Jansky, Jr.
1934-35 J. Allen Johnson	1935 Stuart Ballantine
1935-36 E. B. Meyer	
1936-37 A. M. MacCutcheon	1936 Alan Hazeltine
1937-38 W. H. Harrison	1937 H. H. Beverage
	1070 Mounday Death

1938 Haraden Pratt

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1938-39 John C. Parker 1939-40 F. Malcolm Farmer 1940-41 R. W. Sorensen 1941-42 David C. Prince 1942-45 Harold S. Osborne 1943-44 Nevin E. Funk 1944-45 C. A. Powel 1945-46 W. E. Wickenden 1946-47 J. Elmer Housley 1947-48 B. D. Hull 1948-49 Everett S. Loe 1949-50 James F. Fairman 1950-51 Titus G. LeClair 1951-52 F. O. McMillan 1952453 Domald A. Quarles 1953-54 Elgin B. Robertson 1954-55 A. C Monteith 1955-56 M. D. Hooven 1956-57 M. S. Coover 1957-58 W. J. Barrett 1958-59 L. F. Hickernell 1959-60 J. H. Foote 1960-61 C. H. Linder 1961-62 W. H. Chase

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1938 Haraden Pratt

1939 R. A. Heising

1940 L. C. F. Horle

1941 F. E. Terman

1942 A. F. Van Dyck

1945 L. P. Wheeler

1944 H. M. Turner

1945 W. L. Everitt

1946 F. B. Llewellyn

1947 W. R. G. Baker

1948 B. E. Shackelford

1949 Stuart L. Bailey

1950 Raymond F. Guy

1951 I. S. Coggeshall

1952 Donald B. Sinclair

1953 J. W. McRae

1954 W. R. Hewlett

1955 J. D. Ryder

1956 A. V. Laughren

1997 J. T. Henderson

1958 Donald G. Fink

1959 Ernst Weber

1960 R. L. McFarlan

1961 L. V. Berkmer

1962 P. E. Haggerty 1962 (Aug.-Dec.) B. R. Teare, Jr.

IEEE from Jen. 1, 1965:

'63 Weber, '64 Liner, '65 Oliver '66 Shepherd, '67 MacAdam

'68 Herwald, '69 Willenbrock (?)