Post-War Citation

# THE MOST OUTSTANDING YOUNG ELECTRICAL ENGINEERS of 1942 Through 1947

*and*

IN MEMORIAM

## DR. VLADIMIR KARAPETOFF

January 8, 1876—January 11, 1948

Reprinted from
THE BRIDGE OF ETA KAPPA NU
March, 1948

THE DINNER WAS ATTENDED BY 182 MEMBERS OF ETA KAPPA NU, THEIR WIVES AND GUESTS, AND OTHERS IN THE ELECTRICAL INDUSTRY

*At the rear speakers' table, left to right: A. B. Zerby, executive secretary; R. I. Wilkinson, past national president and past-chairman of Award Committee; Dr. R. W. Porter (1944); J. D. Tebo; N. I. Hall (1943); J. F. Cox; Dr. J. R. Pierce (1942); B. D. Hull, president of AIEE; C. A. Powel, chairman of Jury of Award; N. S. Hibshman, national president; W. J. Lyman, chairman, Pittsburgh committee on arrangements; J. M. Wallace (1945); J. B. MacNeil; Dr. E. M. Williams (1946); Dr. B. R. Teare; R. R. Hough (1947); S. C. Hight; T. W. Williams, national vice-president.*

*At forward speakers' table, left to right: D. W. Pugsley (H.M. 1944); W. E. Ingerson (H.M. 1944); A. G. Kandoian (H.M. 1943); Dr. J. W. McRae (H.M. 1943); Dr. G. D. McCann (H.M. 1942); V. L. Dzwonczyk, chairman of Award Committee; J. A. Morton (H.M. 1945); W. A. Depp (H.M. 1945); E. A. Post (H.M. 1945); B. B. Bauer (H.M. 1946); Dr. D. L. Waidelich (H.M. 1946); Dr. A. C. Hall (H.M. 1946); Marvin Camras (H.M. 1947); J. B. Weisner (H.M. 1947). Dr. E. H. Krause (H.M. 1944) and D. B. Smith (H.M. 1942) were unable to attend the dinner.*

## Post-War Citation

# THE MOST OUTSTANDING YOUNG ELECTRICAL ENGINEERS of 1942 Through 1947

"The most impressive citation affair I have ever attended." "The best citation dinner Eta Kappa Nu has ever held." "A most impressive occasion." These were only three of the many exceptionally favorable comments received after the Citation Dinner, January 26, to honor the six young men selected by the Jury of Award as the Most Outstanding Young Electrical Engineer for the years 1942, 1943, 1944—through 1947 and to present honorable mentions to fifteen others.

The occasion was the first night of the Mid-winter Meeting of AIEE, held this year in Pittsburgh, Pa. The place was the Urban Room of Hotel William Penn, which hotel was headquarters for the AIEE meeting. And the diner-audience: One hundred eighty-two men and women from all over the United States. To list them would be repeating the listing of the leaders of the electrical industry—leaders of AIEE, of HKN and of the teaching profession. To list all of them would bore you—and carry the possibility of offense because the editor may unintentionally omit one or more. So he will stop with listing those at the head tables—see caption under the picture at top of this page. Yes, an affair of this kind would not be complete without adornment by members of the fair sex—a goodly number of the young men cited were accompanied by their

# THE BRIDGE OF ETA KAPPA NU

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THE SIX WINNERS

*Left to right: J. M. Wallace (1945); Dr. J. R. Pierce (1942); R. R. Hough (1947); N. I. Hall (1943); C. A. Powel, chairman, Jury of Award; Dr. R. W. Porter (1944); Dr. E. M. Williams (1946). (C. A. Powel and R. R. Hough are holding one of the replica bowls)*

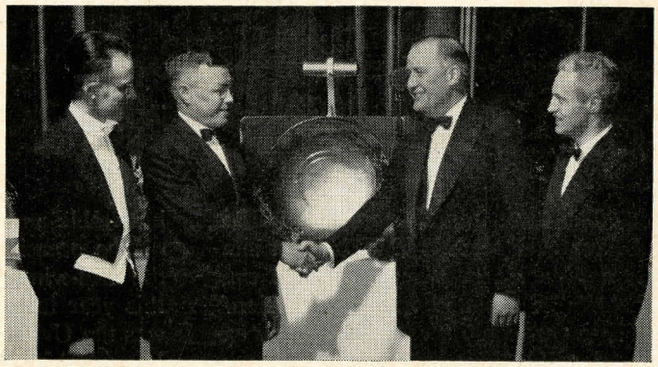
wives—and some proud mothers were in evidence.*

In the January-1948 issue was published the biographies of these 21 young men, also some facts as to how they were selected. Therefore, this information will not be repeated here; in a panel with this article will be found a listing of the 21; and in another panel, a listing of those awarded previously.

Those of us whose memories are not too short will recall the citation dinner of January, 1937: One main award and four honorable mentions were made—and the affair lasted until midnight. Well, the Award Organization Committee learned by that dinner. The dinner functions of 1938 and through to and including 1942 were over by 10:30 P. M. But this year there were six main awards and fifteen honorable mentions. Wow! How can the committee handle all this and have the affair over before midnight? Impossible, you might say. The fact is, the dinner was over at 10:18 P. M.

No, this did not just happen. The committees and officers of the NEC spent many hours as early as mid-December on the problem. Although each one mentioned wanted to give each man cited the customary twenty to thirty minutes for his address of acceptance and each honorable mention at least ten minutes, this was impossible.

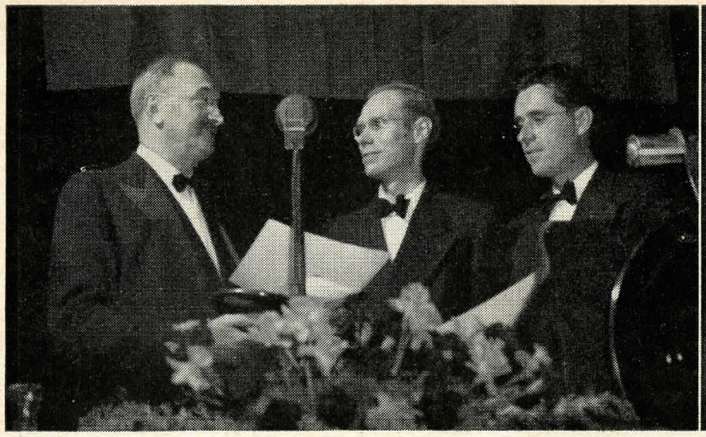
Therefore, as each year came up, the toastmaster called on an older man to introduce the young men. Those to be given honorable mentions arose and, one at a time, as his citation was read, advanced to the front of the rostrum where Charles A. Powel, chairman of the Jury of Award, presented him with his certificate of citation. Then the introducer read a brief biography about the winner of the year, Charles Powel presented this winner with the replica bowl and certificate of citation and then the winner gave a speech of acceptance for himself and his fellow-cited for the year. This was the arrangement made by the committee mentioned—and National President Hibshman proved himself a better railroader than the railroads proved to be



"BROTHERS, YOU DID A GOOD JOB"

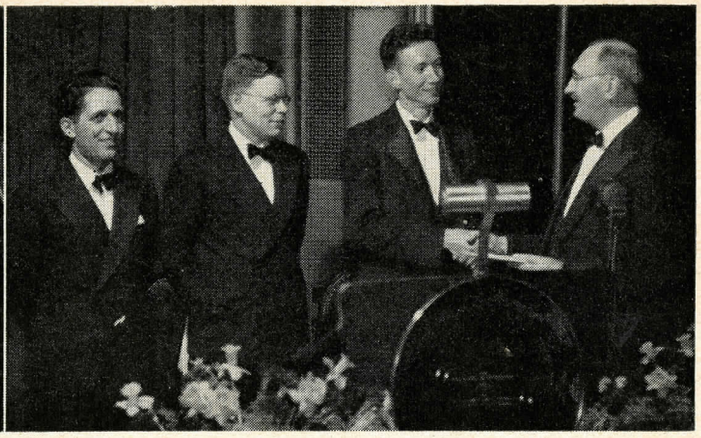
*Left to right: V. Larry Dzwonczyk, chairman of Award Committee; Walter J. Lyman, chairman of Pittsburgh committee on arrangements; Nelson S. Hibshman, national president; Roger I. Wilkinson, past national president and past chairman of Award Committee, who was helpful advisor for the committees.*

* After the dinner the editor offered extra copies of the January issue (in which were published the biographies of each one cited) to those who were cited. Most of the cited were too modest to take them—not so their wives and mothers, bless their proud hearts—and they had the right to be proud. Undoubtedly no small part was played by them in their husband's or son's having qualified for the biggest honor given to a man not more than ten years after receiving his baccalaureate degree and not more than 35 years old.



THE GROUP OF 1942

*Left to right: C. A. Powel, Dr. J. R. Pierce, Dr. G. D. McCann, (D. B. Smith was unable to be present)*



THE GROUP OF 1943

*Left to right: A. G. Kandoian, Dr. J. W. McRae, N. I. Hall, C. A. Powel.*

that week †—everything went on scheduled time.

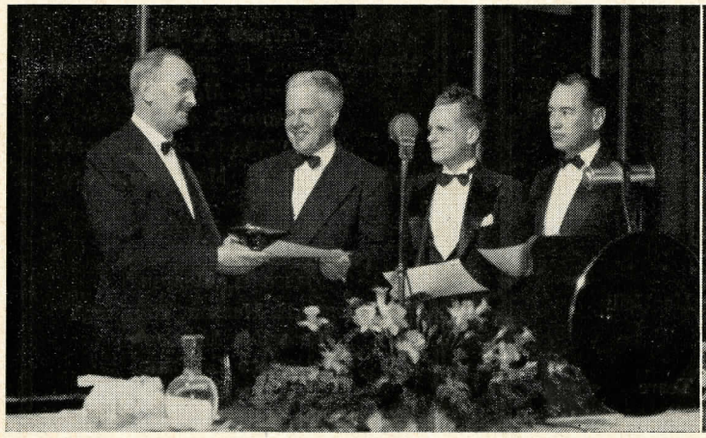
The 20-inch bowl permanently on display in the trophy case of AIEE headquarters, New York, was engraved with the names and years of the six winners awarded this year as well as the former six and was on display at the dinner.

Even then, a program of two hours of speaking could become tedious: Winston E. Kock, 1938 winner and Larned A. Meacham, 1939 winner came to the rescue. Those who read of the 1938 Award may recall that Winston Kock had developed an electronic organ, the tones of which are all produced by oscillations from electronic resonant circuits. This organ recently was placed on the market by the Baldwin Piano Co. and Winston arranged to have one in the Urban Room. First he accompanied Larned who played a violin solo; then Winston demonstrated the organ by showing its variety of tones (by stop control) and by playing several selections—one soft, some mellow, one so loud the electrical fixtures in the room vibrated "in sympathy." Many of those present were heard to remark that the demonstration was most interesting, educational and entertaining.

Now for you calamity howlers. You who have been crying that the young generation doesn't have what it takes! The theme of the acceptance speeches all during the evening was on the sentiment: "We accept this honor not so much as an award for accomplishments of the past but as a challenge to accomplish more in the future." The issues of THE BRIDGE over the past two years have demonstrated what has been accomplished by the first six since they were awarded. The editor predicts that the issues of ten years hence will disclose equal or better accomplishments of the twenty-one cited at this dinner.

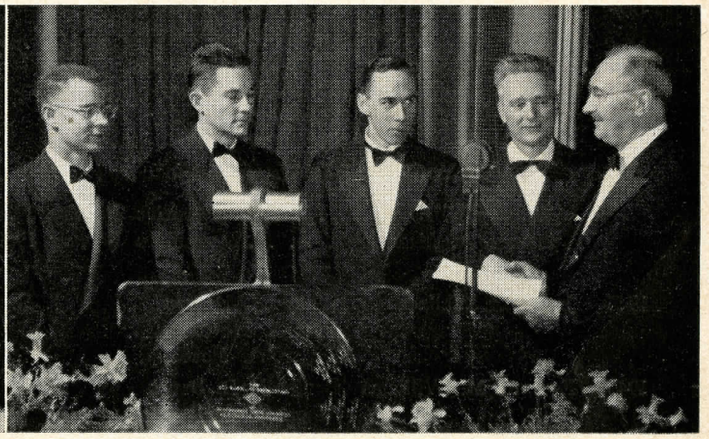
Further, the editor has been visiting our college chapters this year; he has met and chatted with the lads who

† All during the week trains into Pittsburgh were from three to seven hours late. For instance, a man from Schenectady was scheduled to read a paper in a Monday afternoon session—he arrived that evening, seven hours after he was due.



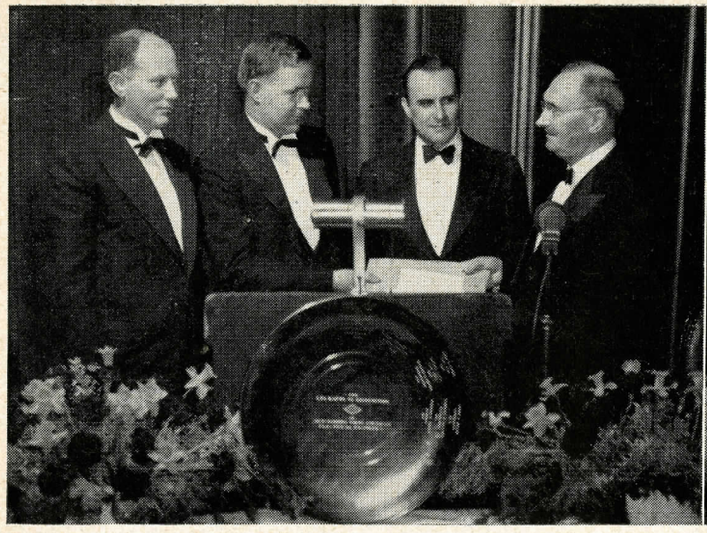
THE GROUP OF 1944

*Left to right: C. A. Powel, Dr. R. W. Porter, D. W. Pugsley, W. E. Ingerson. (Dr. E. H. Krause was unable to be present)*



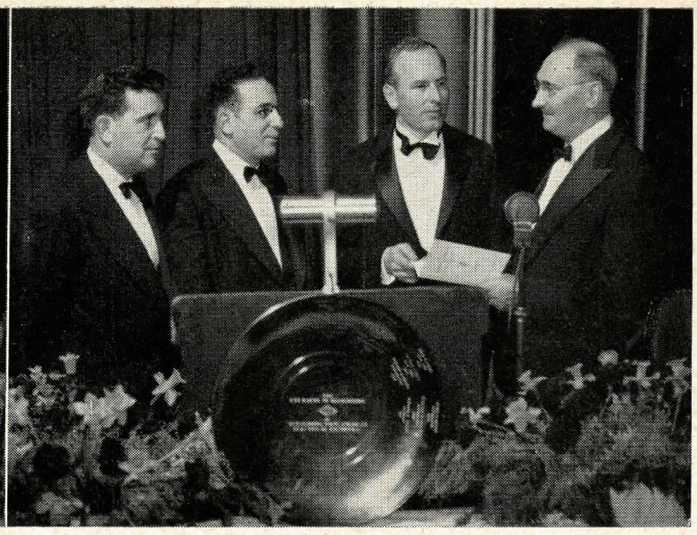
THE GROUP OF 1945

*Left to right: J. A. Morton, J. M. Wallace, E. A. Post, W. A. Depp, C. A. Powel*



THE GROUP OF 1946

*Left to right: Dr. A. C. Hall, Dr. E. M. Williams, Dr. D. L. Waidelich, C. A. Powel. (B. B. Bauer had left the room)*



THE GROUP OF 1947

*Left to right: J. B. Weisner, Marvin Camras, R. R. Hough, C. A. Powel.*

The large bowl, regularly on display at AIEE headquarters, is prominent on these two cuts; it is standing in front of the rostrum.

## . . . Program . . .

Welcome ..... W. J. LYMAN

Toastmaster ..... N. S. HIBSHMAN

"For Tomorrow May Be Too Late" ..... C. A. POWEL

*ETA KAPPA NU AWARDS*

| *Year* | *Recognition* | *Honorable Mention* | *Introduced by* |
|---|---|---|---|
| 1942 | John R. Pierce | Gilbert D. McCann<br>David B. Smith | J. F. Cox |
| 1943 | Nathan I. Hall | Armig G. Kandoian<br>James W. McRae | J. D. Tebo |
| 1944 | Richard W. Porter | William E. Ingerson<br>Ernst H. Krause<br>Donald G. Pugsley | R. I. Wilkinson |

*MUSICAL INTERLUDE—Violin and Organ*

Winston E. Koch . . . . . *Recognition Winner* 1938
Larned A. Meacham . . . . . *Recognition Winner* 1939

| | | | |
|---|---|---|---|
| 1945 | James M. Wallace | Wallace A. Depp<br>Jack A. Morton<br>Edgar A. Post | J. B. MacNeill |
| 1946 | Everard M. Williams | Benjamin B. Bauer<br>Albert C. Hall<br>Donald L. Waidelich | B. R. Teare |
| 1947 | Richard R. Hough | Marvin Camras<br>Jerome B. Wiesner | S. C. Hight |

## PAST WINNERS of The Eta Kappa Nu Recognition

1936—FRANK M. STARR, Schenectady
*Honorable Mention*
PETER L. BELLASCHI
EUGENE W. BOEHNE
ANATOLI C. SELETZKY
CYRIL G. VEINOTT

1937—CHAUNCEY GUY SUITS, Schnenectady
*Honorable Mention*
LEONARD L. CARTER
PHILO T. FARNSWORTH
CLIFFORD A. FAUST

1938—WINSTON E. KOCH, Cincinnati
*Honorable Mention*
HAROLD E. GOVE
GEORGE M. L. SOMMERMAN

1939—LARNED A. MEACHAM, New York
*Honorable Mention*
CARL K. GIERINGER
JESSE E. HOBSON

1940—JESSE E. HOBSON, Pittsburgh
*Honorable Mention*
DONALD G. FINK
STUART C. HIGHT

1941—CLEDO BRUNETTI, Washington
*Honorable Mention*
GEORGE F. LEYDORF
SIMON RAMO

**AWARD ORGANIZATION COMMITTEE**

V. L. Dzwonczyk, K'35, Chairman
Robin Beach, B-B Associate
L. L. Carter, B'27
O. W. Eshbach, Chi Associate
D. G. Fink, B-Th'41P
R. W. Fouse, E'25
H. H. Henline, A'14
E. S. Lee, A'13
B. F. Lewis, K'21
M. S. Mason, A'11
R. I. Wilkinson, N'24

**DINNER ARRANGEMENTS BY PITTSBURGH ALUMNI CHAPTER**

W. J. Lyman, S'24, Chairman
H. W. Bryan, S'Associate
L. R. Huggler, E'23
H. L. Rawlins, G'26
P. E. Rush, G'24
R. S. Smithley, S'32
D. E. Winslow, E'15
Dale Wright, S'49
J. E. Zollinger, A'15

will graduate in 1948 and 1949. It is to be hoped that these lads will not have the incentive of war to prod them on as did almost all of those cited at this dinner. However, even without this incentive, be assured that the Recognitions of 1956, 1957 and 1958 will report comparable accomplishments.

The editor recalls the Spring of the year he graduated (1911). One afternoon a group of us got "spring fever" and, cutting class, sunned ourselves on the campus. "Oh, gee!" was heard to come from one of us. "What's wrong, Ned" one of us asked, "are you sick?" "No," said Ned, "I was only thinking. Gee, how I wish I had been born twenty years ago." "Why," asked another. "Oh," said Ned, "just think what was invented, what was accomplished in those twenty years. Now, everything that can be invented has been accomplished. There is nothing for us to do but to apply these inventions."

Young brothers, think of all that has been invented and done since that day in 1911. Then be assured that even bigger things and better things will be invented in the next ten years. By "inventions" here reference is not confined to material inventions—there are crying needs for inventions other than material: better systems of distribution, better methods, among others.

Be assured that at each of the HKN Recognition Dinners of 1956, 1957 and 1958, some young EE will be cited for grand accomplishments. Whether you are one of those young men depends upon *you*. Go to it! We oldsters are looking forward to the day when *you* will be sitting at the head table of the HKN Recognition Dinner and *your* name will be engraved on the 20-inch bowl. We are sure you will not disappoint us!

# FOR TOMORROW MAY BE TOO LATE


## By CHARLES A. POWEL, Chairman, Jury of Award

*Past-President, AIEE*

**Assistant to Vice-President (Engineering) Westinghouse Electric Corp.**


*The Address at the HKN Dinner to Recognize the Most Outstanding Young Electrical Engineers—January 26, 1948*

Prizes and awards are as old as history itself. Prizes have been given to boys completing various phases of their education from time immemorial, and more recently scholarships have been given them to complete their education. Awards have been made to men for meritorious achievements in all walks of life, but it does not appear that in the past an age limit has ever been attached to such awards, and consequently, more of the awards have gone to elderly men of ripe experience.

The HKN award is quite different in this respect. By limiting the age of the recipient to 35 years or ten years out of college, whichever comes first, the jury is compelled to seek out young men who are at the threshold of their career, but who are already stepping out ahead of their competitors and give promise of going far in their profession.

And here, perhaps, is the principal merit of this award. History is replete with examples of public recognition coming to old men, scientists and artists, eking out a miserable existence in a garret—or even after they have died of semi-starvation. To us in Pittsburgh the outstanding example is that of Stephen Foster, the man who created a typical American music and to whom 70 years after his death we erected one of the most beautiful memorials in the country. Or again, to remain near home, Joseph Priestley, the discoverer of oxygen, who in complete discouragement came to the States and died in the little town of Northumberland, Pennsylvania. I could give you many such examples. It would be nice to think that a few HKN awards in their respective fields might have been the means of early recognition of talent in these people and could have brought to them a happier old age.

We have with us tonight 21 young men so selected—young men starting the serious business of life, but who have already made their mark, not only in their technical work, but as citizens. Note that well. The award is made not alone for technical ability, but for well-rounded interest in work, in arts, in civic advancement.

And as we look over the world situation today, we cannot help but feel that there is more need for constructive leadership in human relations than in technical developments. Man has done a wonderful job of improving his environment. Never has he been blessed with so many comforts. His work is done for him by machinery; he can travel from one corner of the earth to another in a matter of hours; he can speak from one country to another without even raising his voice; he can reproduce the wonders of nature chemically and even improve on them.

All this has been done by leaders who either have themselves been great inventors or who have inspired others to produce the marvels of our civilization. But it is a sad commentary on our race that while there is apparently no scientific secret that, given time, man cannot solve, he is incapable of finding a solution to the problem of governing human relations.

The world in its advance from the cave-man stage has tried out many forms of government—true communism, various forms of dictatorship and various forms of representative government. These have come and gone in cycles almost always involving physical violence. When a form of government proves no longer workable, those responsible seem to find it incumbent on themselves to start a war. Herein lies a great danger that we must learn to overcome.

Furthermore, in common with the peoples of other countries, we are drifting to a form of collectivism in which we are losing our personal freedom and enterprise for something vaguely referred to as "cradle to grave security." The responsibility for production and for maintaining purchasing power and prices is being taken over more and more by government agencies, and the costs are being shifted from the consumer to the taxpayer. The inevitable redistribution of wealth resulting from this form of economy makes the reward for enterprise and risk hardly worth the effort, and aggravates the need of government control.

If, therefore, the western civilization, which brought us to such a high pinnacle of achievement is to be saved from complete collapse, we need to apply some of the ability, effort and enterprise we have been putting into our scientific and engineering work to this infinitely more important problem of how to live together and govern ourselves. And we need to do it today, for tomorrow may be too late.

The founders of the HKN award must have had some such idea in mind in laying down the scope of the award. and we can anticipate with confidence that the young men we are honoring tonight, all selected because of their broad outlook on life, will make their influence felt and help rectify some of these fallacies.

And so, gentlemen, I congratulate you on the recognition that has come to you. I congratulate you also on the great opportunities that lie ahead of you. You will learn the pleasure of living, for out of the difficulties and inconsistencies I have touched on come the encounters and the achievements that make life worthwhile, and provide that pursuit of happiness which the Declaration of Independence includes as one of our inalienable rights.

# NUCLEAR NUGGETS

There has been a persistent policy, for which American leadership must bear considerable responsibility, which prevents the voice of prayer from being heard at deliberations of the UN. This is in spite of the fact that, with only a few exceptions, the nations convening are so-called Christian nations. Even a Mohammedan will bow his head at the mention of God—Jehovah, Yawhe or Allah—by whatever name he is called.

Peace will come as men finally realize that they cannot build peace and leave God out.—*Between the Lines.*

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A friend of mine got tired of hearing a certain man say, "Isn't that just like a Jew?" The next time he raised the question my friend replied with another: "Which Jew do you mean, Shylock or Christ?" Try it sometime yourself and see how it sharpens the focus. The next time somebody says to you, "Isn't that just like a Negro?" you ask, "Which Negro do you mean, Old Black Joe or George Washington Carver? Little Black Sambo or Marian Anderson?"—Robert W. Moore, "Moral Myopia," *Church Management.*

There is a current philosophy that you can have whatever you want in this world—if you *plan* for it.

Elihu Burritt, the learned blacksmith, planned to become the country's greatest linguist—before he was 30 years old he had mastered 18 languages, despite 11 hours a day at his forge.

By planning—Samuel Rea went from rodman to president of the Pennsylvania Railway.

Charles Schwab was once a stakedriver; planning made him head of Bethlehem Steel in 15 years.

Henry Ford was a planning mechanic for 25 years.

Woolworth planned his chain of stores 5 and 10 years ahead.—*Advertiser's Digest.*

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Surely a lot of Americans are not getting enough sleep. Look at the vast variety of ingenious schemes by which they chisel, gouge, and gyp one another. It is simply impossible to believe that all these could have been planned during 16 waking hours. —*Arcadia (Wis.) News Leader.*

The statesman throws his shoulders back and straightens out his tie, and says, "My friends, unless it rains, the weather will sure be dry."

And when this thought into our brains has percolated through, we common people nod our heads—and loudly cry, "How true!"

The statesman blows his massive nose and clears his august throat, and says, "The ship will never sink so long as it's afloat."

Whereat we roll our solemn eyes—applaud with main and might, and slap each other on the back, while we say, "He's right."

The statesman waxes stern and warm, his drone becomes a roar. He yells, "I say to you, my friends, that 2 and 2 make 4."

And thereupon our doubts dissolve, and fears are put to rout, and we agree that here's a man who knows what he's about.—*Sunshine Magazine.*

---

Dr. Isaiah Bowman, President of Johns Hopkins University, declaring himself in favor of U. M. T.: "It is no good for a town without a fire department to send in a mail order for a fire engine when it hears that a house is burning."

# IN MEMORIAM

# DR. VLADIMIR KARAPETOFF

## January 8, 1876 - January 11, 1948

Countless numbers of students have ventured from the shelter of the class rooms and laboratories in Franklin Hall, the home of the School of Electrical Engineering of Cornell University, Ithaca, New York. Those who were fortunate enough to be included in classes from 1904 to 1939 had come to know Professor Vladimir Karapetoff as an inspiring teacher, a friendly adviser, a distinguished electrical engineer, inventor and musician, but at the same time always approachable as "Kary." Kary was known to many but perhaps best by members of Eta Kappa Nu, be they in Southern California or Maine. Active brothers of the New York alumni chapter were probably most fortunate in having developed a closer friendship with Kary by reason of his generous and active participation in local Eta Kappa Nu functions. Kary's Luncheons and Dinners were events looked forward to with anticipated enthusiasm. These meetings became an adjunct to the AIEE week of winter meetings usually held in New York, scheduled thusly so that friends from all over the U. S. could attend. This year the meetings were conducted in Pittsburgh, Pa., as if by Divine Providence, for Kary could not have been there in person although in spirit he was a part of the Eta Kappa Nu Recognition Dinner.

Dr. Vladimir Karapetoff, professor emeritus of electrical engineering at Cornell University, passed away of a coronary occlusion Sunday, January 11, 1948, at the Park West Hospital. In March 1947, Kary had previously suffered a heart attack from which he recovered sufficiently to continue his work as consulting engineer and author, as well as other activities.

KARY AT THE PIANO
*A picture as many of his friends will remember him.*

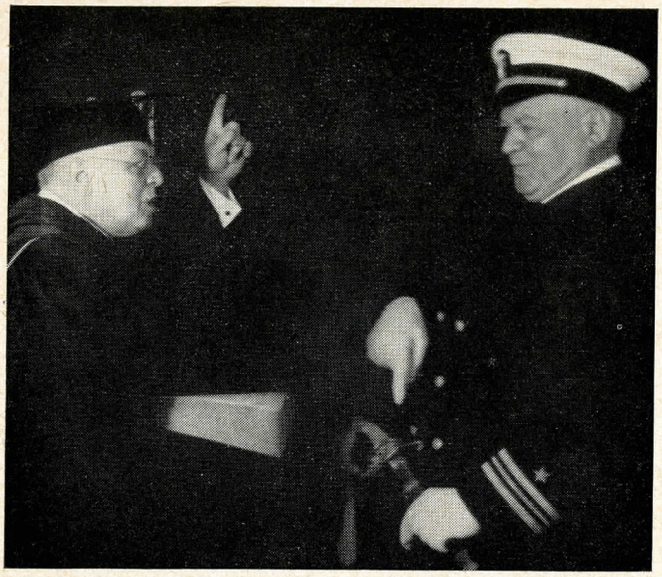
This courage and will to carry on in spite of hardships was even more astounding when one realizes that our good friend had been blind since 1943, a result of patriotic adherence to a job as technical censor for the Board of Economic Warfare during the recent shooting war.

It is a great loss to Eta Kappa Nu and the electrical engineering and teaching professions that this accomplished gentleman can no longer be with us, except in the memory of his spirit and deeds, which remain as guiding stars on the roads of learning and of understanding fellow men.

Dr. Karapetoff was born in St. Petersburg, Russia, January 8, 1876. He was the son of an engineer, Nikita Ivanovitch Karapetoff, and of Anna Joakimovna Ivanova, one of the few Russian women to attend military medical school, primarily the result of the shortage of doctors caused by the Crimean War. Kary's childhood was spent in Tiflis. He was graduated from the Imperial Institute of Ways of Communication, St. Petersburg, Russia, in 1897 with a degree of CE and received his MME in 1902. From 1899-1900 he studied electrical engineering at the Polytechnic Institute, Darmstadt, Germany. (It is ironic that this great electrical engineer has no degree directly in electrical engineering.)

It is without doubt from his mother and father that Kary obtained his keen mind and enormous activity, with a will to continue learning. Nikita, his father, became lame while still only a young boy, the result of an accident. He worked and studied his way

By V. LARRY DZWONCZYK, Kappa '35
*New York Alumni Chapter*
American Gas & Electric Service Corp., New York, N. Y.



A Dual Nature of Kary

*A picture he himself took, some years ago. It was intended to depict his collegiate self disputing with his naval self over "right vs. might."*

through the schools of St. Petersburg after having migrated alone at high-school age from near the Turkish border. Anna, his mother, was an orphan of the Crimean War and she too worked her way through the schools and achieved the proud distinction of admittance to the military medical school. Thus, we find two typical examples of people acquiring their prized educations through their own sheer effort and desire and because of educational opportunities in their own country. It would almost appear as though the occurrence was in the United States of America. Nikita died at 84 in 1934, having distinguished himself as an engineer and being credited with the introduction of the oil burning locomotive to Russia. He had been spared by the Bolsheviks because he had always been kind to his workmen. Kary's mother died in 1885, thus depriving Kary of the tender love and affection only a mother could bestow on her son.

Before coming to the United States of America in 1902, Kary worked as a junior engineer in the department of interior waterways with headquarters in St. Petersburg. He also was an instructor of electrical engineering, hydraulics, mechanics and physics in three technical schools and a night school, all during the period 1897-1902, chugging between them on a "prehistoric" motorcycle. The Czarist Government then sent him to this country as an engineering apprentice with the Westinghouse Electric Corporation, East Pittsburgh, Pa., where he worked during 1902-1904. It soon became apparent to him that, whereas in Russia people *talked* about what they were going to do, here in these United States they *did* it. This appealed to him so much that he never did return to Russia. He was naturalized March 22, 1909, before the Supreme Court of Tompkins County, N. Y. An interesting sidelight concerning these proceedings came when the U. S. Government representative, sent especially because of Kary's affiliation with the socialist party, asked, "Just *what* do you believe that Republicans and Democrats do not believe?" After thinking a while, Kary said, "I believe in woman's suffrage, and the election of senators by popular vote instead of by the legislatures." He was granted citizenship without further ado.

In politics, Kary had become an active socialist after he observed the utter disregard for the lives of workmen in industrial plants at that time. As the liberals became radicals, he tried to prevent the leftward change. Finally, in 1935 he resigned from the Socialist party, but before this became generally known a Socialist radical group in New York mistakenly invited him to address a large gathering. This was probably the only "liberal" leftist group ever to listen to a conservative speaker tell them how wrong it was for people of foreign origin to plan a change in the government of the United States! Needless to say: *They didn't like it.*

At one of the many "Kary Dinners" which many of us enjoyed and attended with exceptional pleasure, our brother spoke on "The Dynamics of National Conflicts." His introduction was something like this: "To my younger brothers in Eta Kappa Nu I am a 'biological parallelist,' having spoken and written more than once from this point of view. That is, I believe in a set of ideals in a plane above us, ideals which inspire the best among men, while the masses of human beings move in lower planes parallel to this ideal one, never reaching it. To my older brothers I may still be the parlor socialist and lest they listen to what I am about to say still thinking of me in that light, I should like to explain that I am no longer a Socialist. I have become an independent conservative voter, trying to judge current political events and opinions on the basis of first-hand historical facts, advantages to this country in particular, and unbiased natural science."

Dr. Karapetoff's professional attainments are well known and so numerous that only a few outstanding examples will easily describe his greatness. Early in his career he served in the engineering departments of Allis-Chalmers Company; Niagara, Lockporte and Ontario Power Company; General Electric Company; Commonwealth Edison Company; Gibbs and Hill; J. G. White Company. He also assisted the U. S. Government in the solution of engineering problems during World War I. Dr. Karapetoff was consulting engineer for Roebling Sons Company, Klaxon Company, General Electric Company and the Detroit Edison Company. He also served as expert witness before courts and commissions and has testified, among others, for N. Y. Telephone company, General Motors and Ohio Public Service Company.

Kary was a licensed professional engineer in New York state and served as chairman and member on general and technical committees of the American Institute of Electrical Engineers, National Electric Light Association and American Association of University Professors. He was chairman of the sub-committee on Physics of the Electrical Insulation Conference of the National Research Council from 1928 to 1935 and chairman of the sub-committee on Monographs from 1935 to 1938.

Kary was an inventor and patentee of a maximum-demand indicator, time

relay, kinematic devices of electrical machinery, parallel double tongs, electric meters, airplane compass, improvements on synchronous machines, high-voltage cables, an electric music shifter, the latter of which was described in THE BRIDGE. Most patents have been assigned to General Electric Company in this country and abroad. Since 1931, he had been experimenting with electric methods of reproducing speech and music, developing apparatus for playing them under conditions of exact control, when used as accompaniments and for ensemble playing with actual musical instruments or voice. On one of his records one woman sings all three parts of a trio score by herself, and with exquisite harmony.

In research Dr. Karapetoff's main line of endeavor was applications of mathematics, mechanics, and physics to electrical engineering. Specific contributions which he made include improvements in the theory of and computations pertaining to electric and magnetic circuits, high-voltage insulation, transmission lines, and electrical machinery as well as studies in the structure of matter applied to gaseous conduction of electricity and dielectric behavior. The results of these theoretical investigations took the form of kinematic computing devices, scales and mechanical models, illustrating the derived principles for practical applications. Experimental researches on machinery, measuring instruments, and properties of electrical materials were carried out for clients. Studies were conducted in the theory of photographic exposure. Kary maintained active membership in the Maywood Camera Club and Hypo Club even after his blindness. Considerable research was conducted on Einstein's restricted theory of relativity which is now dormant in the form of an unpublished manuscript, publication of which Kary was negotiating when he died; he considered it his greatest work.

Many of us also knew Kary as a fine musician. He had played many times before HKN groups and had toured the country giving recitals and lectures on Wagner, Liszt, Chopin, MacDowell, Schumann, Brahms, Debussy and Russian composers. He had broadcast from WJZ, WGY, KDKA, WEAF and several local stations. In 1922, after some years of study, Kary combined his scientific skill and musical knowledge in developing a cello with five strings on which violin music could be played. Thus, where Bach had failed, Kary succeeded. This is the only such five-stringed cello in existence and has been willed to the Franklin Institute.

Kary has composed several songs and fitted English words to a number of classical instrumental compositions for solo and for choruses. One such composition is "The Lamp", a poem by Sarah Teasdale and set to music adapted from Chopin's Prelude Op. 28 No. 7. He also wrote a song for Eta Kappa Nu which uses the tune of "Lord Jeffrey Amherst." His contributions include an English translation to six Bach chorals which was published by Theodore Presser Co. of Philadelphia, Pa.

Avocations, besides music, include photography, writing of stories and poetry, some of which have appeared in THE BRIDGE from time to time. A collection of poems entitled "Rhythmical Tales of Stormy Years" was privately printed in 1937.

In 1933 Dr. Karapetoff was commissioned Lieutenant Commander in the United States Navy, assigned to special engineering duties. In 1942, he suddenly lost the sight of one eye, and gave the sight of the remaining one to his adopted country while serving as Technical Censor. The week this censor's work was ended, (1943) and the day after his book on Relativity was finished the second retina detached. Despite three operations, he became blind. The story of how he adapted himself to an active, sightless life will be published elsewhere shortly.

Professor Karapetoff was probably best known for his long teaching career and his many contributions towards this important profession often led to his being called the greatest teacher of Engineering. His experience in this country began as assistant professorship of electrical engineering at Cornell University between 1904 and 1908. He was appointed full professor in the latter year and continued as such until 1939 when he became Professor Emeritus. Between 1912 and 1915 he was acting head of the electrical engineering department. A picture of Kary's stay at Cornell will be associated by some of you with the professor's campus and classroom companion, Minnie, who it will be recalled, sat before anyone who would obligingly scratch her back, and often looked more intelligent and wide awake than the majority of the students. Minnie passed on in 1936 and was replaced, as Kary was known to jokingly say, by "Cobby*" who survives.

Professor Karapetoff also served as non-resident lecturer on electrical machinery at the U. S. Army post-graduate school for engineer officers, Washington Barracks D. C. He was visiting

* Mrs. Karapetoff, best known as "Miss Cobb."—The Editor.

## HELP FOR A BLIND MEMBER

Do you know of a brother who is blind or nearly so? If you do, there is a possible help for him.

## Kary's Talking-Book Machine

"Talking Books" are perhaps the greatest comfort to the blind. These are full-length books put out on phonograph records which play nearly 20 minutes to a side. The Government mails them free to and from possessors of Talking Book Machines, on a month's loan.

On his 70th birthday New York Alumni Chapter of Eta Kappa Nu presented Brother Karapetoff with a Talking Book Machine* at the annual Kary dinner January 21, 1946. Kary took great pleasure in it, and Cobby says it played an important part in his recovery from his coronary attack last March.

Kary's machine is offered for presentation first to any member of Eta Kappa Nu whose sight no longer permits him to read. If you know of such a Brother, drop a line with essential details, name and address to Brother Alton B. Zerby. In case there are two or more applications Mrs. Karapetoff (Cobby) will award the machine to the one she thinks the more deserving.

* The machine is a portable phonograph with an especially light arm approved by the Government for light wear on the "books." It plays 33 R.P.M.

## AN APPRECIATION

*Excerpt from remarks of National President, N. S. Hibshman, on the occasion of the presentation of Recognition Awards 1942-1947, in Pittsburgh, January 26, 1948.*

In this company of talented young men, who have displayed accomplishment in mathematics, music, engineering and broad culture, one naturally thinks of that great and good friend of all Eta Kappa Nu men who passed away two weeks ago yesterday. For years the Cornell men gathered with the New York Alumni and Karapetoff's friends from all parts of the country for the Kary dinners and luncheons that were a feature of the mid-winter convention in New York.

Vladimir Karapetoff will continue to live in the esteem of electrical engineers although his talented mind and hands and his great heart are still. On the night he died Kary was scheduled to address Beta-Zeta chapter; a younger member of Eta Kappa Nu filled that engagement. Karapetoff's generation, many of them European trained, is passing from the engineering scene. The engagements they made with an advancing civilization will be kept by this new generation of American trained outstanding young electrical engineers.

If Kary were here tonight he would probably entertain us at the piano or his cello. I think it particularly appropriate that we should dedicate the musical numbers that we are about to hear to the memory of Kary.— N. S. HIBSHMAN

professor in the Gradute School of Brooklyn Polytechnic Institute from 1930 to 1932 and in Stevens Institute of Technology from 1940 to 1941.

Kary wrote profusely, as many know. His two volumes on Experimental Electrical Engineering, now in the fourth edition, are accepted widely as standard texts. These also have been translated into Spanish. The texts: Electrical Circuit, Magnetic Circuit and Elementary Electrical Testing are also well known. He has written five volumes on Engineering Applications of Higher Mathematics. He translated Gevant's "Liquid Dielectric" from German. The book on the Restricted Theory of Relativity is now, as mentioned before, in Manuscript form. Another of his published books is entitled "Resistance to Propulsion of Ships" which was written in Russian. Polyphase Electric System with Unbalanced Load was written in German and Russian.

Besides these books, Kary has published over two hundred papers and articles on scientific, engineering, ethical and educational topics. He also was research editor of Electrical World from 1917-1927.

Dr. Karapetoff was a life member of the American Institute of Electrical Engineers, The Franklin Institute, American Association for the Advancement of Science, American Mathematical Society, Mathematical Association of America and American Association of University Professors. He also was a member of American Physical Society, the U. S. Naval Institute and the U. S. Naval Reserve Officers' Association.

Kary kept a scrap book of all his activities from September 1908 to January 10, 1948. It is a treasure trove of electrical and Cornell life.

Naturally one who had accomplished so much should have also received numerous honors. Yes, Dr. Karapetoff received his share which included honorary membership of Tau Beta Pi, Eta Kappa Nu, Sigma Nu and Phi Mu Alpha. He was awarded the coveted International Montefiore Prize in 1922 and the Elliot Cresson Gold Medal of the Franklin Institute in 1927. New York College of Music in 1934 bestowed an honorary Musical Doctors degree on Prof. Karapetoff and in 1937 the Polytechnic Institute of Brooklyn bestowed the honorary degree of Doctor of Science upon this distinguished gentleman. His portrait has been painted by Rembski and by Helen Phelps.

In July 1932, Prof. Karapetoff was official representative of Cornell University at the International Electrical Congress in Paris. Ithaca College made Kary a trustee from 1932 to 1939 and Chairman of the Board from 1932 to 1936. Honorary listings may be found in Who's Who in America, Who's Who in New York State, Who's Who in Engineering, American Men of Science, Who's Who in American Education, Who's Who in Western Hemisphere. A detailed biography is also available in the National Cyclopedia of American Biography, volume D. One of the best articles on Kary, "The Million Volt Mind" by Hammond, appeared in the August 1929 issue of *Youth's Companion.*

Kary's physical body was cremated at Ferncliff, and the ashes are stored there while it is being decided where final interment will be made.

And so a great man honored by many institutions, respected by all who had the good fortune of meeting with him and revered by Cornellians and his brothers in Eta Kappa Nu, Dr. Vladimir Karapetoff has passed to the unknown into which he has delved throughout his lifetime. What more fitting manner could we find to express our loss of a friend than to record one of Kary's poems which closed the beautiful but simple services conducted at his home by Dr. Norris Tibbetts of the Riverside Church and attended by many of his brothers in Eta Kappa Nu:

I shall come back to you in the fragrance of the wind, as it blows over the fields laden with freshly mown hay.

In the song of the birds in the spring shall I return to you, in a baby's smile, and in the questioning look of a lamb.

I shall come back to you in the stillness of a late afternoon, as you sit by the brook, amidst stones and moss.

As you walk in the woods, I shall look at you with affection from the tree trunks and whisper to you tenderly through the twigs.

Wait, O beloved, for my call, for the call of my true self; wait till the deceitful heat of my flesh shall have burned itself to ashes.

Then the life-giving warmth of my soul, released from its fiery prison walls, will return to you, like a fragrant summer breeze that blows over the fields laden with freshly mown hay—KARY

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The name of Ty Cobb is still synonomous with great batting and wonderful baserunning. As we look back upon his records, we forget he had his "no hit" streaks. In one such streak he went to bat 24 times without getting a single base hit. Yet Cobb ended that year with one of his greatest league averages. He kept going to bat.— *Fraternal Monitor.*