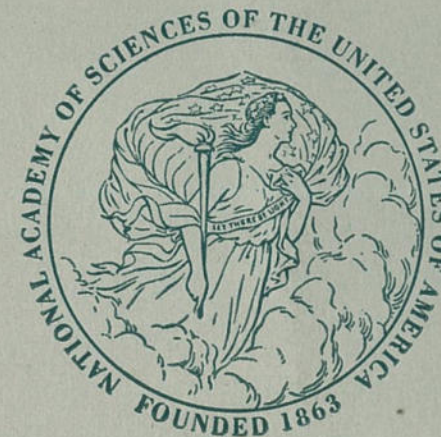


CONTENTS

	Page
ASTRONOMY.—THE MAGELLANIC CLOUDS. XIV. THE BAR OF THE LARGE CLOUD	185
By Harlow Shapley and Virginia McKibben Nail	
BIOCHEMISTRY.—ACETYL-CHYMOTRYPSIN	190
By A. K. Balls and Frank L. Aldrich	
BOTANY.—THE MODE OF GROWTH OF EPIDERMAL CELLS OF THE <i>Avena Coleoptile</i>	197
By Edward S. Castle	
CHEMISTRY.—THE CRYSTAL STRUCTURE AND TWINNING OF Co_2S_3	199
By M. J. Buerger and Dean W. Robinson	
CHEMISTRY.—THE STRUCTURE OF LIQUID HELIUM	204
By Robert M. Mazo and John G. Kirkwood	
GENETICS.—MATERNAL AGING AND SOMATIC CROSSING OVER OF ATTACHED-X CHROMOSOMES	209
By Spencer W. Brown and William Welshons	
GENETICS.—ABERRANT RECOMBINATION OF PYRIDOXINE MUTANTS OF <i>Neurospora</i>	215
By Mary B. Mitchell	
MATHEMATICS.—SPLITTING OF VALUATIONS IN EXTENSIONS OF LOCAL DOMAINS. II.	220
By Shreeram Abhyankar	
MATHEMATICS.—ON THE EXISTENCE OF THE DERIVATIVE OF MARKOFF TRANSITION PROBABILITY FUNCTIONS	224
By Donald G. Austin	
MATHEMATICS.—ON SOME NONLINEAR INTEGRAL EQUATIONS OCCURRING IN THE THEORY OF DYNAMIC PROGRAMMING	227
By Richard Bellman, Irving Glicksberg, and Oliver Gross	
MATHEMATICS.—CONVERGENCE ALMOST EVERYWHERE OF OPERATOR AVERAGES	229
By Nelson Dunford and J. Schwartz	
MATHEMATICS.—UNIFORMLY BOUNDED REPRESENTATIONS OF GROUPS	231
By L. Ehrenpreis and F. I. Mautner	
MATHEMATICS.—ON CANONICAL CONSTRUCTIONS. I.	233
By Murray Gerstenhaber	
MATHEMATICS.—ON THE MODULI OF RIEMANN SURFACES	236
By H. E. Rauch	
MATHEMATICS.—NONANALYTIC FUNCTIONS OF ABSOLUTELY CONVERGENT FOURIER SERIES	238
By Walter Rudin	
MATHEMATICS.—ON THE GENERATING PARAMETRIX OF THE STOCHASTIC PROCESSES.	240
By Kôzaku Yosida	
PHYSICS.—AN APPLICATION OF THE POISSON-BOLTZMANN EQUATION TO NONIDENTICAL, CHARGED PARTICLES	245
By Arthur Bierman	
ERRATA.—ON GENERATING FUNCTIONS FOR RESTRICTED PARTITIONS OF RATIONAL INTEGERS	251
By C. A. Nicol and H. S. Vandiver	

Proceedings of the National Academy of Sciences of the United States of America



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163 Milton Street
Brooklyn 22, N.Y.
November 14, 1955

Dr. Wallace W. Atwood, Jr.
National Academy of Sciences
2101 Constitution Avenue
Washington 25, D.C.

Dear Dr. Atwood:

Both the American Institute of Electrical Engineers and the Institute of Radio Engineers have at last decided definitely to sponsor programs commemorating Tesla's 100th birthday next year.

The AIEE will lead by making Tesla and his work the theme of its national meeting in Chicago, next October. One day of this meeting will probably be devoted to papers on Tesla and his contributions to electrical science. Another program of exhibits and lecture-demonstrations may be arranged between the AIEE and the Chicago Museum of Science and Industry. This Museum, if it can get sufficient backing, hopes also to set up a permanent exhibit which will demonstrate the principle of Tesla's induction motor and polyphase system and show how these form the basis for modern power generation, transmission, and use.

As one project of this AIEE program, a letter has been written to the Postmaster General urging the creation of a Tesla Commemorative stamp---suggesting that it be issued simultaneously at Chicago, Niagara Falls, and New York City, at the time of the meeting.

Later, the AIEE may hold another meeting at Niagara Falls or Buffalo to commemorate both the Centennial and the 60th anniversary of the use of Tesla's polyphase system to transmit power from Niagara to Buffalo---a feat which signalized the birth of the modern electric power industry.

The IRE will sponsor a program commemorating Tesla's contributions to radio. Among other things, it suggests that it will run an article about Tesla's radio work in its Proceedings, at the time of the AIEE meeting, and that it might also undertake the microfilming of all of Tesla's letters and papers, now in the Tesla Museum in Belgrade, so they may be made available to American scientists and historians.

Both of these programs have been completely American-inspired, and are totally independent of any commemorations that may take place in Yugoslavia or elsewhere in Europe. In fact, I still haven't the slightest knowledge of what may be planned for Europe.

I am glad that this turn-about has at last taken place. For far too long, American scientists and engineers have left it to their European confreres to sing the praises of a man who gave everything to this country and was personally as thoroughly American as Westinghouse, Edison, and all the other pioneers who were born right here. It would certainly have been a blot on our reputation for discernment and gratitude if nothing had been started here, or if something had been started at the request of Tesla's countrymen overseas.

The Yugoslavs consider Tesla one of the very greatest men ever born on their soil. Undoubtedly, therefore, a spontaneous recognition of Tesla here will endear Americans to Yugoslavs more than any amount of diplomatic discussion. I am sure, too, that the Tesla Institute and the Tesla Museum in Belgrade would be happy to cooperate with American scientists in some sort of joint celebration. But the important thing to me regarding the Centennial is that Tesla should first of all be recognized by Americans for his own worth to America. If closer ties of friendship between Yugoslavia and America should be brought about by this recognition, why, wonderful! These ties, however, should not be considered as the purpose of the commemoration, but rather as a great and heart-warming bonus.

Have any further ideas concerning the possible role of the NAS and the NBC occurred to you?

Sincerely,

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NATIONAL ACADEMY OF SCIENCES
NATIONAL RESEARCH COUNCIL
OF THE UNITED STATES OF AMERICA

OFFICE OF INTERNATIONAL RELATIONS

July 12, 1955

Mr. Kenneth M. Swezey
163 Milton Street
Brooklyn 22, New York

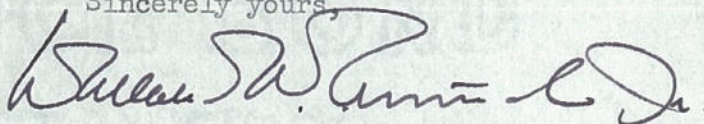
Dear Mr. Swezey:

Thank you for your letter of 6 June with further information concerning your efforts to organize a celebration commemorating the 100th Anniversary of Tesla's birth.

I think that the portion of your letter which calls for a reply is that relating to the possibility of a commemorative stamp. While I have not taken the matter up formally, I have the impression that officers of the Academy--Research Council would not be very enthusiastic in seeking the issuance of a special stamp.

This is, of course, my own view and is not intended to discourage you from pursuing the idea of a stamp if you feel there is reasonable possibility of success.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "Wallace W. Atwood, Jr.", written in a cursive style.

Wallace W. Atwood, Jr.
Director

163 Milton Street
Brooklyn 22, N.Y.
June 6, 1955

Dr. Wallace W. Atwood, Jr.
Director of International Relations
National Research Council
2101 Constitution Ave.
Washington 25, D.C.

Dear Dr. Atwood:

Since I last talked with you and received your letter, I have made formal suggestions to the AIEE that it sponsor a commemoration program for Tesla's 100th birthday. The reaction was fast and, so far, good.

Mr. Hibshman, the secretary, told me that the Board of Directors, early in February, had suggested to the Chairman of the Technical Operations Committee that his committee investigate the possibilities of honoring Tesla, but that no action had yet been taken. My letter and background material apparently stimulated things and now the committee intends to act at its meeting this month. Dr. Julian Tebo, editor of the Bell Laboratories Record and Chairman of this committee, tells me that Tesla was a "boyhood hero." He is therefore personally enthusiastic.

The Franklin Institute and Yale University (Yale gave Tesla an honorary M.A. in 1894) have agreed to help the commemoration---either independently or in cooperation with the engineers. I have lately presented suggestions to the IRE, but haven't yet received an answer.

I'm enclosing several reprints of an editorial from the May issue of Power, written by a recent convert to the Tesla cause; also a copy of a letter from the late John B. Whitehead, of Johns Hopkins, which I thought might interest Dr. Bronck. Electrical Engineering is going to run an article about the Power editorial and also suggest that the AIEE take action.

All the men I have discussed it with so far liked the idea of the commemorative stamp, but none has been familiar with the intricacies of getting one. If the AIEE is willing to back such a stamp, do you think your organizations would be willing to lend their approval? I'm sure that the prestige of the NAS and the NRC would add weight. I mention this now because the stamp project must be tackled as soon as possible.

Sincerely,

NATIONAL ACADEMY OF SCIENCES
NATIONAL RESEARCH COUNCIL
OF THE UNITED STATES OF AMERICA

OFFICE OF INTERNATIONAL RELATIONS

May 4, 1955

Mr. Kenneth M. Swezey
163 Milton Street
Brooklyn 22, New York

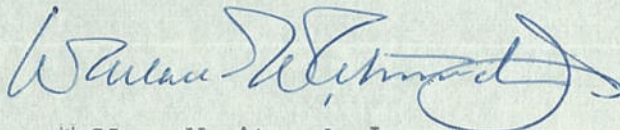
Dear Mr. Swezey:

At last I am able to reply to your recent letters concerning the proposed celebration to be held in 1956 on the occasion of the hundredth anniversary of Tesla's birth.

The suggestion that the National Academy of Sciences participate in this celebration was discussed by members and officers of the Academy during the Annual Meeting of the Academy held in Washington, April 25 - 28. Although considerable interest was expressed in the proposal, it was generally felt that any program to honor Tesla should be planned by the national engineering societies. Therefore, I would suggest that you take up the matter with one or more of these societies and see what they would like to do. When their plans are known, it would be appropriate for the Academy to consider what role, if any, it should play in the program.

I trust that you will write again after you have had an opportunity to discuss the matter with the engineers.

Sincerely yours,

A handwritten signature in blue ink, appearing to read "Wallace W. Atwood, Jr.", with a stylized flourish at the end.

Wallace W. Atwood, Jr.
Director

March 27, 1955

Dr. Wallace Atwood
Director of International Relations
National Research Council
Washington, D.C.

Dear Dr. Atwood:

Here are several items which I thought you could add to your Tesla material for consideration by your officers.

Within the next several months, I understand that the editors of three of our biggest engineering magazines are going to run editorials reminding engineers and scientists of Tesla's achievements and suggesting that something be done to commemorate his centennial.

Since I last wrote you, I have received a cablegram from the director of the Nikola Tesla Museum, in Belgrade, to the effect that if I could get over to go through the Tesla papers and other belongings, I would be the "very welcome guest" of the Museum during my stay in Yugoslavia.

With best regards,

Sincerely,

W. L. Atwood

Enclosures:

Tesla bibliography
Copy of letter from Dr. Austin
Copy of notes from Scott and Lee

February 28, 1955

Dr. Wallace Atwood
Director of International Relations
National Research Council
Washington, D.C.

Dear Dr. Atwood:

Since I talked with you on the phone, I heard from Miss Muzar of the Yugoslav Embassy that Mr. Kusanovic (Tesla's nephew and former Ambassador to the United States) was so ill that two doctors were attending him every day.

In an attempt to cheer him, I sent him a copy of my letter to you. Last week, I received this cable from him: "After weeks of absolute notreading, first thing I read was your letter to Atwood. Had greater effect on my recovery than any medicine. Thanks." Two days later, I received another cable: "Please be the very welcome guest of our Nikola Tesla Museum during your stay in Yugoslavia. Director of Museum, Korac."

Although I had written my letter to you completely on my own initiative, and without asking the Yugoslav viewpoint, apparently these men are pleased and are willing to cooperate cordially.

With best regards,

Sincerely,

July 10, 1931

My dear Mr. Tesla:

It is a rare privilege for me to send you a letter congratulating you on the attainment of your seventy-fifth birthday. I find it difficult to realize that within that period of time the electrical industry has come into being and has transformed civilization, largely by means of the ideas and inventions which were conceived in your own brain. It is even more difficult to imagine the changes which the future will bring when other concepts of yours, now imperfectly comprehended, shall have reached their fruition.

It is not too much to claim that the beautiful idea of the rotating magnetic field, produced by polyphase currents, and the associated mode of transmission of power, has done more toward the achievement of true freedom for the human race than any other discovery.

Your early mastery of high frequency oscillations and your perception of their fundamental importance marks a penetration into the secrets of Nature which we have scarcely begun to grasp.

You have made the whole world your debtor, but there is no suggestion of a burden in the debt which is owed to you. Two countries---those of your birth and of your adoption---take especial pride in the relationship, and we of the United States feel honored that you have chosen to make your home with us.

The occasion of this letter is unique. It cannot occur again. But you and your work will be remembered on innumerable future birthdays, for yours is a life that can never be forgotten.

I am, Sir,

Yours very sincerely,

William Pratt Graham

New York City
July 10, 1931

Dear Mr. Tesla:

One of the most startling contributions to progress that have ever occurred, occurred in the year 1887, when you invented your system of multi-phase electric currents, which rendered possible the economical transmission of power over long distances, of which the first use was made in transmitting power derived from Niagara Falls.

This was an invention of the first order of merit in brilliancy and originality of conception, excellence of constructiveness and usefulness of result. Its value has been only dimly appreciated by most men, because the invention does not stand continually before our eyes, like the telephone and electric light; for it cannot be seen at all. It is not a machine or instrument (in the common use of those words) but a system, actually invisible of itself, that governs the method of design, construction and operation of the visible dynamos, motors, and conductors. Like the germ of life, we see not it, but only its manifestations.

On this, your seventy-fifth birthday, I am glad to contribute this personal appreciation of an inventive work which today has achieved universal significance.

Very sincerely yours,

Bradley A. Fiske

Rear Admiral, U.S.N. (Retired)

(Mr. Dunn was President of the A.I.E.E. 1911-1912)

Gano Dunn

43 Exchange Place

New York

To Nikola Tesla

Greeting to my great friend and teacher, who, before radio telegraphy was known, proposed to distribute time signals to ships at sea by Hertzian waves from a discharge, whose demonstrations of cold light turned attention to increased illuminating efficiency, and who established many other fundamental conceptions in the high tension, high frequency field.

Prolific inventor, who solved the greatest problem in electrical engineering of his time, and gave to the world the polyphase motor and system of distribution, revolutionizing the power art and founding its phenomenal development.

My contact as your assistant at the historic Columbia University high frequency lecture and afterward, has left an indelible impression and an inspiration which has influenced my life.

Gano Dunn

(Rear Admiral Hobson was in his youth the famous Lt. Hobson who sank the Merrimac in Santiago Harbor, during the Spanish-American war, and thus bottled up the Spanish fleet)

Dear Mr. Sweeney:

I am just back from Europe and have your letter of May 29th. Thank you very much for allowing me to join in the testimonial to Nikola Tesla on the occasion of his seventy-fifth birthday. I have known Mr. Tesla intimately for a third of a century and consider him the most remarkable man of my acquaintance, one of the most remarkable men of our age or any other age.

He has a cosmic mind that sweeps the universe and his intimate connections in thought with the phenomena of nature seem to have produced a kind of cosmic intuition. He can penetrate as far with sustained research and mathematical processes as anyone and then he can go far beyond with an intuition that seems almost infallible. To me, he seems like Nature's favored son and the world will some day appreciate how many of Nature's deepest secrets have been found and revealed by him.

I wish to pay my tribute also to that royal quality of Tesla's that Nature breeds only in her best, namely: unfaltering loyalty. Whether it is loyalty to truth or loyalty to the laws of his country, or loyalty to a friend, Tesla stands always steadfast regardless of consequences.

I wish also to pay my tribute to that gentle and thoughtful tenderness of Tesla which so often goes hand in hand with strength, which the world probably has not noticed in my friend.

Nikola Tesla is a great man, one of the greatest men of all time and is one of the very greatest benefactors of his race. He is also a good man and a dear and true friend. May he live to see many happy returns of the day that has been consecrated by his birth.

Sincerely yours,

Richmond P. Hobson

(Dr. Behrend devised the "circle diagram" for the analysis of induction motor characteristics, was a pioneer designer of polyphase machinery, Fellow and Vice President of the A.I.E.E., and member of the Edison Medal Committee at the time Tesla was presented with that medal for his polyphase contributions.)

Dear Mr. Tesla:

Among those who are happy to express to you their good wishes on your impending birthday, I am one of the humblest, but perhaps the last living engineer whose good fortune it has been to design literally millions of horse-power of motors and generators of the "Tesla System".

And though one should think that such monuments to your great inventive genius might be sufficient to fill the world with the fame of the name you bear, it must be recorded that such would be the case had it not been for the world's usual ingratitude towards its benefactors.

To those of us who have lived through the anxious and fascinating period of the development of alternating current power transmission there is not a scintilla of doubt that the name of Tesla is as great here as the name of Faraday is in the discovery of the phenomena underlying all electrical work.

Comparisons are odious and at the moment, while we are grateful that you have lived to see your great ideas realized far beyond your own dreams, it is perhaps bad taste to point out that the popular inventor of the incandescent lamp has had to look to your discoveries and inventions, and to our generating equipment designed with your ideas, for the generation of the electric energy without which his inventions would have remained lifeless.

As there is so much popular misunderstanding on this subject I think these lines may help to adjudicate where fame should be and where praise should fall.

Yours sincerely,

B. A. Behrend

Dr. of Engineering hon. causa.

December 15, 1954

Dr. Wallace Atwood
Director of International Relations
National Research Council
Washington, D.C.

Dear Dr. Atwood:

In Washington, several weeks ago, I had a long talk with Mr. George Perazich, of the National Planning Association, and Miss Charlotte Muzar, of the Yugoslav Embassy, concerning plans now getting under way for a centennial celebration for the late Nikola Tesla---whose hundredth birthday, as you know, will be in July, 1956. I had heard that Mr. Perazich had discussed this matter with you some time ago, and I was anxious to find out if any ideas that had come up then might not be tied in with plans that are developing now.

According to Mr. Perazich, your original plan tentatively called for a joint celebration sponsored by scientific groups of the United States and similar groups of Yugoslavia, but that because he had still received no definite response from Yugoslavia, the plan was still hanging fire. Considering my personal contacts with both Americans and Yugoslavs who are interested in honoring Tesla, Mr. Perazich suggested that I might be able to continue discussions with you where he left off.

My own interest in Tesla is that of a long-time personal friend and staunch admirer. At fourteen, I had read about Tesla and was already trying to duplicate some of his experiments. At twenty, after becoming a writer, I struck up a close personal friendship with Tesla which lasted the remaining nineteen years of his life.

When Tesla was turning seventy-five, seeing that nobody else intended to recognize his birthday, I took it on myself to solicit letters of greeting from most of the important pioneers in physics, radio, and electrical engineering who were still living. Some seventy-odd replies were mounted, bound in leather, and presented to Tesla. Among them were letters from fourteen past presidents of the A.I.E.E., at least half a dozen from men of your National Research Council,

ENCLOSED COPIES OF TESLA STAMPS (JUGOSLAV), COPIES OF
75TH ANNIVERSARY LETTERS FROM BEHREND, HOBSON, DUNN, FISKE,
GRAHAM

others from individual inventors and scientists, such as DeForest, Millikan, Arthur Compton, Alexanderson, Einstein, Andre Blondel, Sir William Bragg. Besides giving tribute to Tesla as an inventor, a number cited him as a personal hero and an inspiration to their own lives.

Although this was a small and rather personal celebration (I'm sure that Tesla would have opposed anything more ostentatious during his lifetime), news of it was sent around the country by the Associated Press; Time magazine put Tesla's picture on its cover; and a special issue of a Yugoslav technical magazine, Nasa Posta, which reprinted some of the letters, was sent to 2,000 university libraries all over the world. The book also stimulated an eightieth anniversary celebration in Europe, at which time Tesla's picture was put on Yugoslav postage stamps, and plans for a Tesla Institute in Belgrade.

On reviewing copies of these letters (the original volume is now in the Tesla Museum in Belgrade), I find they contain a mine of evidence corroborating Tesla's achievements---evidence that is especially valuable, coming as it does from contemporaries who knew the background of radio and electrical engineering from first-hand experience. As the letters have never been published here, and nowhere in their entirety, they might provide supplementary source material for the coming celebration. I'm enclosing copies of several, as examples.

So far, plans for a 1956 celebration are just in an exploratory stage. Officers and members of the Tesla Society, a group of interested engineer, teacher, and lay admirers of Tesla founded in Minneapolis a year or so ago (and of which I have recently been appointed Director), is collecting an exhaustive Tesla bibliography to provide readily accessible background material. Special lectures and exhibitions will be proposed for Chicago's Museum of Science and Industry (which is on the site of the Chicago World's Fair of 1893, where Tesla's greatest invention, the polyphase system for the generation and distribution of electric current was first demonstrated as a complete system), and at Niagara Falls, where, in 1895, the Tesla system was introduced to the world on a large scale.

Cooperation---in the form of lectures, demonstrations, exhibits, editorials, and articles---is expected from the Franklin Institute, the A.I.E.E., the I.R.E., and the editors of electrical, radio, and power journals.

It would certainly be a great honor, and one which might tie together the whole celebration, if a United States commemorative stamp could be issued (I'm enclosing two issues of Tesla stamps issued by Yugoslavia---one on his eightieth birthday and one last year). I had thought of this for years but, until now, an ideal occasion had not come up. Mr. Perazich said that you and he had also discussed this possibility. A Centennial might indeed be the auspicious time.

One objective of a Tesla celebration should be to round up and publicize a roster of the really great things Tesla has done. Toward the end of his life, Tesla was baited by sensation-seeking reporters into making fantastic speculations about the world-of-tomorrow. Misled by these, engineers and scientists of today often overlook the fact that Tesla created the foundations for the entire polyphase system for the generation, distribution, and utilization of electric current---the system on which the whole modern world of electric power is based, and in which Edison's incandescent light is merely a gadget---as well as the tuning and aerial and ground system for radio transmission and reception, which antedated Marconi by at least several years and is still used today.

When, recently, I mentioned to the editor of one of our biggest electrical engineering magazines that Tesla invented the polyphase system, the editor was astounded. I could stop right there, he said: that one achievement was enough to justify a centennial of any magnitude! After Dr. W.H. Eccles, electrical pioneer and past president of the British Institution of Electrical Engineers, had heard a review of Tesla's achievements at a memorial lecture before the I.E.E., in 1943, he commented: ". I am driven to the conclusion that Nikola Tesla was the greatest electrical inventor we ever had on the membership roll of the Institution; indeed, I might go so far as to say that Tesla was the greatest inventor who had worked in electrical engineering!"

The question of who will coordinate and sponsor the Tesla Centennial is still open. My personal goal, as well as that of the editors and engineers I have thus far talked with, is merely that Tesla be adequately honored---both for the sake of his own name and for the sake of historical justice. Perhaps your National Research Council, the National Academy of Sciences, or the A.I.E.E., might care to be sponsor. Or these and other scientific and engineering societies might jointly sponsor a celebration through a special Tesla Centennial Committee made up of representatives appointed by the societies. Have you any suggestions in this matter?

A Tesla Centennial would, of course, be an ideal opportunity to promote friendly relations between the people of the United States and Yugoslavia. I believe Mr. Perazich mentioned the possibility of holding some international engineering congress in Belgrade in 1956, in honor of the occasion. Whatever good relations are arranged with Yugoslavia, however, I feel very strongly that it is really the American scientists and engineers who should take the initiative. The Yugoslavs are indeed the proud parents of an illustrious son, but that son early became an American citizen and devoted the remaining years of his life to developing inventions which have helped---perhaps more than the inventions of any other one man---to make America the greatest nation in the world today. Under these circumstances, I, as an American, should be ashamed to have to be prodded into action by the country who gave Tesla to us but who got little back except the honor of his birth.

At the time of Tesla's death, in 1943, I first met his nephew, Mr. Sava Kosanovich---then Minister of State of the King's government, and later Ambassador to the United States from the present Yugoslav government---and we since have become good friends. Mr. Kosanovich, as Tesla's heir, finally received some sixty or more trunks of Tesla's papers, apparatus, and other belongings, from storage and, because funds were not forthcoming to establish a permanent repository for them here, took them to Belgrade, where they are now being set up in a Tesla Museum.

Although, fortunately, Tesla's papers have been saved and kept together, it is too bad they are so remote. It's my hope that next year I'll somehow be able to get to Belgrade, spend several months going through this material, and bring back facsimiles of some of the most important of it. If the papers seem as valuable on

