

209

CORRESPONDENCE Feb. 1955

N. WIENER · MC 22

[ca. Feb, 1955]

Dear Mr Wiener;--

It was upon your kind recommendation that I ventured to see Dr. John Brobeck who is the chief in charge of neuro-physiology at U. of P.'s dept. of Physiology. Well, for the first time in my life, I was inarticulate. All I could manage was to show him some tentative writing along the lines of mathematics as related to neurology.

The world of medicine is so far removed from the world of electronics, as to have left me stumped for words to convey my ideas. Although his gracious manner and hospitable <sup>aces</sup> left nothing to be desired, I must say that insofar as his ability to assay my words dealing with the quantitative analysis of thought, there was an impasse. We parted on cordial terms of course, and thanked him for extending the best in his nature.

However, I came away with the distinct impression that the world of medicine does its thinking in no more than four dimensions, and this is mostly chemical. There seems to be no continuity between the adage that "A chemical change is an electrical change."

He did mention Ward McCoullough in Biophysics, but I feel distinctly that is off the track of my objective.

Look here Mr. Wiener, I will donate any amount you say to the school fund if you will lend your candid opinion to the enclosed article. I sincerely believe it will open the door to a new division of scientific labor. All I ask is that you be reasonable with me.

You are able to think in more dimensions than the average professional man. On this basis I believe you are capable of assigning the proper evaluation to my very hard won hypothesis. Just ask yourself, "How many people are capable of thinking in the terms of the ratios of inverse squares"? Of course you will recognize that Ohm's Law is based upon this conception.

Remember, it is the best in all my lifetime that I have put into this article. So on that note I solicit your kindness and consideration.

Sincerely yours

*Peter Campione*  
Peter Campione

2026 Fairmount Ave.

Phila. 30, Pa.

P.S. If the possibility of this work having a bearing on the computer mentioned that might help our problem of national defense has any significance, waste no time in writing to me.

And yes, let me put you straight on one thing, my success in the electronics field has been a fact for some years now. I run a TV sales and service shop and have one man helping me. There is no desire on my part to get into medicine, just perhaps a contribution or two that I may be able to make to that field, and thereby solve some problems they are having.

2-155

[ca Feb 1955]

Burton House #132-4

Massachusetts Institute Of Technology

Dear Prof N. Wiener

Perhaps we may appear rather presumptuous to ask you to answer our questions, but then curiosity is a peculiar thing. To most people, and to the undergraduates of the instute, the members of the mathematic faculty are fearful personages, dealing in mystic symbols and alchemist-like formulas. It is rather hard on the Course Eighteen majors, to say the least. We are looked upon as zoological curiosities when we give forth with the information that we are mathematics majors. This, I think, stems from the impression that the people have of mathematicians.

In order to show that mathematicians are human beings, two of us Course XVIII students have hatched this dandy little plot to gain some facts about our future profession. Whether anything that we may find out ma will prove to be earth-shakig I very much doubt. But our experiment will prove to be interesting, none the less, and we may be able to give our ego a big boost by showing what mathematicians are people.

If you go along with us I think the results should be highly interesting, especially to yourself. Anyway, whether you fill out the questionairre or leave it mostly blank, or throw it away entirely, I would like to thank you for taking the time and trouble to read this.

Most sincerely,

W. D. Jordan Jr

W. D. Jordan Jr.  
class of '58

[ms 2/28/55]

What is mathematics?

YOUR OPINIONS:

1

Is mathematics only an intellectual subject?

Is mathematics the 'Queen and Servant' of all sciences?

Is mathematics logical?

What kind of logic is mathematics based on?

Does mathematics justify its existence?

What are the modern uses of mathematics?

Is mathematics an end in itself?

Of what use is pure mathematics

Does mathematics offer a wide field of exploration for an original person?

What jobs can a mathematician do?

Who were the most famous mathematicians, in your opinion?

When did mathematics start?  
How?

Why did you become a mathematician?

What do you think of:

Women.

War,

The American people.

The American government.

Controlled minds.

Controlled freedom of thought.

What kind of schooling is best for a budding mathematician?

Are mathematicians hindered by government control?

Should mathematicians be under government control? Why?

What type of person do you think you are?

Do you like your work better than anything else?

Do you live mathematics 24 hours a day?

Are you friendly?

Are you an introvert?

Do you make friends easily?

Are all your friends mathematicians, or do they have other similar interests with them?

Do you have a family?

Wife?

Children?

How do you live?

What kind of atmosphere (i.e. quiet, noise, solitude, etc.) do you require?

Do you write books, essays, articles, etc?

What subjects do they deal with?

Where were you born?

What kind of family life did you have?



February 1, 1955

Dear Professor Wiener:

Please forgive my intrusion by telephone this morning. It is clear that I have not yet learned to act like a bureaucrat. Actually I hope that I never master that art.

My call was a presumption based on my admiration for and my slight acquaintance with you.

In any case I believe that if you were sometimes to come to the Foundation to talk to the people here it would help all of us.

Sincerely yours  
Loren V. Cohen

1520 H. St., N.W.  
Washington, D. C.

[ans 1/28/55]



# COLUMBIA BROADCASTING SYSTEM, INC.

485 Madison Avenue, New York 22, New York · PLaza 1-2345

February 1, 1955

Dr. Norbert Weiner  
Massachusetts Institute of Technology  
Cambridge, Massachusetts

Dear Dr. Weiner:

It would be a great pleasure to have you as my guest on my radio program, "This Is New York". This is a feature program now heard nightly on CBS Radio from 11:30 to 12, fifteen minutes of which consists of an informal chat with a very prominent guest. The brief chat can of course be recorded here at CBS any time convenient for you and of course absolutely no preparation is necessary.

"This Is New York" has been broadcast for the past nine years. Some of the personalities that have visited with me recently include Dr. Arnold Toynbee, Mr. Harry Truman, Emperor Selassie, Dr. Ralph Bunche, Dr. Norman Vincent Peale, Senator Lehman, Secretary Talbott, Secretary Stassen, Walter Reuther, Helen Hayes, Yehudi Menuhin, Herman Wouk, etc..

If you remember Dr. Weiner, I had the honor of chatting with you on my program about a year and a half ago in connection with the book you did for Simon & Schuster. I do hope that I can have the pleasure of talking with you again.

Cordially,

*Bill Leonard*  
Bill Leonard

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February 1, 1955

Professor J. J. Burckhardt  
Bergheimstrassē 4  
Zurich 32, Switzerland

Dear Professor Burckhardt:

I am returning the proof after a second careful reading, and retain most of your suggested corrections. The slight confusion between  $\mathcal{M}$  and  $\mathcal{M}$  should be clear after the present corrections; the same for  $\mathcal{H}$  and  $\mathcal{H}$ . By the notation  $\mathcal{L}^1$  I mean the class of measurable absolutely integrable functions, and by the notation  $\mathcal{L}^2$ , the class of those measurable functions whose second power of the modulus is integrable.

Thank you again for your detailed corrections.

Sincerely yours,

Norbert Wiener

NW:gf

Enclosure

February 1, 1955

Dr. Rolla B. Hill, Assistant Director  
Division of Medicine and Public Health  
The Rockefeller Foundation  
49 West 49th Street  
New York 20, New York

Dear Doctor Hill:

In reference to Dr. Barbosa of the University of  
Recife in Brazil, it has been recommended to the Massachusetts  
Institute of Technology that he be appointed a Visiting  
Fellow for four months, beginning March 1, 1955.

This appointment would give Dr. Barbosa guest privileges  
at the Institute for that period.

Sincerely yours,

Gabrielle Fuchs, Secretary  
to Professor Wiener

gf

THE UNIVERSITY OF CHICAGO

CHICAGO 37 · ILLINOIS

COMMITTEE ON STATISTICS

2 February 1955

Professor Norbert Wiener  
Department of Mathematics  
Massachusetts Institute of Technology  
Cambridge, Massachusetts

Dear Wiener:

I write on behalf of Professor Alexander Kolin, who is currently Associate Professor of Physics in our (subundergraduate) College and in the Division of the Biological Sciences. Kolin is being dismissed from this University and is looking for another position, of which he is, I think, most deserving.

Kolin is an experimental physicist, who in recent years has turned his efforts to a variety of problems in biophysics, in which he seems to have demonstrated great ingenuity and achieved considerable success. His work seems to be well thought of by James Franck and many other competent people here, who could be asked to write in Kolin's behalf. I happen to have heard Fermi strongly commend Kolin's teaching of elementary physics. Incidentally, the textbook Kolin wrote in connection with his course in elementary physics was published a few years ago.

I am not completely apprised of the reasons for Kolin's dismissal here, but I am confident, on the basis of my own judgment and considerable inquiry, that they do not stem from any lack of competence on his part. In fact, as I have already said, he seems to be extraordinarily competent. He seems, however, to have had personality collisions both in the College and in the Division of Biological Sciences. In the College these presumably stem from his disagreement with the philosophical tenets of the higher College faculty. In the Division of the Biological Sciences, they seem to be associated with Kolin's impression that the M.D.'s with whom he had been working until relatively recently, were trying to relegate him to the position of a technician rather than a co-worker.

For about a year now, Kolin has been working exclusively, or almost exclusively, in his own laboratory, with little or no contact with either the College or the Division of the Biological Sciences. His work there is

Professor Norbert Wiener

-2-

2 February 1955

on problems that seem very promising from the point of view of biological research technique, and have already been quite successful. You will find it covered by the more recent of the reprints in the enclosed envelope.

When Kolin asked me whether I knew anyone in physical science in the Cambridge area who might be able to help him find a position, I could not help thinking of you and the fact that you would be likely to know at first hand everyone in that area and in many other places who would be interested in the sort of work Kolin has been doing. I thought, too, that you would be particularly interested in a case in which ingenious and independent work seems to be threatened for rather personal and extra-scientific reasons.

I think that Kolin promises to be a great credit to any large institution working in biophysics, and I continue to hope that some way can be worked out to keep him here. May I, then, ask you to notify him, or me, if any opportunity for his employment at Cambridge or elsewhere occurs to you, and to circulate the enclosed materials to anyone who might be interested.

It comes to me as an afterthought that Kolin speaks Spanish, and indeed many other languages, quite well. Though I have not asked him, it is quite possible that he would consider a suitable position in Mexico, for a few years.

Very sincerely,



L. J. Savage

LJS:lf  
Enclosures

[ama 2/28/55]

G. Sunouchi  
Mathematical Institute  
Tohoku University  
Sendai, Japan  
February 2, 1955

Prof. N. Wiener  
Department of Mathematics  
Massachusetts Institute of Technology  
Cambridge  
Mass.,  
U. S. A.

Dear Prof. N. Wiener :

I am sending you the Tohoku Mathematical Journal, vol.6,  
no.1 with the compliment of our mathematical institute, I will  
send you regularly it in future. I am hoping your acceptance  
of our proposal and asking your assistance for our journal.

Sincerely yours

*G. Sunouchi*  
Gen-ichiro Sunouchi

February 2, 1955

Dr. Antonio M. de S. Barbosa  
Medical School  
University of Recife  
Recife, Brazil

Dear Dr. Barbosa:

I am happy to inform you that the Executive Committee of the Corporation of the Massachusetts Institute of Technology has approved your appointment as Visiting Fellow in the Department of Mathematics for the period March 1, 1955 through June 30, 1955.

Please feel that you are welcome to the privileges available to a staff member in respect to attendance upon lectures or other exercises, to the services of the Medical Department, the use of the Library and similar facilities.

We shall be pleased to greet you at this office upon your arrival at M. I. T.

Sincerely yours,

John W. M. Bunker  
Adviser to the President

JWMB/B

cc--Professor Martin  
Professor Wiener  
President's Office



A. DUCROCQ  
5bis, rue Sainte Sophie  
Versailles  
S & O  
France

february 3d, 1955

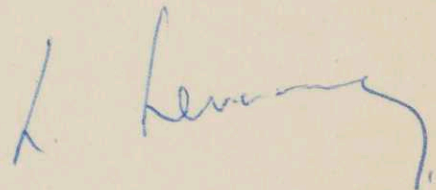
to Professor Norbert WIENER  
Massachusetts Institute of Technology  
Massachusetts  
U.S.A.

Dear Professor Wiener,

I am publishing a new book, "DECOUVERTE DE LA CYBERNETIQUE", offering, so do I believe, the first synthesis of the problem considered under its various philosophical, human and commercial bearings ; at the same time, I have been able to develop a bio-cybernetic theory, which is explained in this book, and of which you will find a summary in the enclosed paper.

Of course, you will forthwith receive a copy of "DECOUVERTE DE LA CYBERNETIQUE", and I hope you will feel interested in its reading.

Yours sincerely



A. DUCROCQ

[ms 2/23/55]

Summarizing the Bio-cybernetic theory expounded  
by A. DUGROCC in "DECOUVERTE DE LA CYBERNETIQUE"

---

In 1953, we built an "electronic fox", the most perfect of artificial animals ; now, this device has proved interesting on account not of what it did, but of what it could not do.

After the advent of "robots", many people under the circumstances feared that man-created machines would, little by little, escape from man's control, meaning that Earth could be rapidly populated with a "free" race of electronic creatures, which could possibly "decide" one day to wipe out mankind.

We show here that such an idea is absurd, simply because a robot needs co-operation with man, who brings it the power without which it would not be able to work, as well as he repair its natural (wear) or accidental (unforeseeable a priori) break-downs.

To be sure, the following problem can be set :  
"Under what conditions can we imagine a population of self-governing machines, fit to outlive themselves, and to work without ever asking for our co-operation ?"  
The answer is a surprise, indeed : if a natural food is claimed to be supplied to these machines, only the Sun-emitted energy can be used; whilst, if wear has to be done away with and a machine obtained which is "able to overhaul itself", metallic structures must be given up, electronic motors, gearings and tubes discarded and a chemical formula assumed, that of a kind of substance able to create by itself the parts of each component, from a small group of fundamental atoms.

Practically, only ~~xxx~~ carbon is apt to be the "soul" of this substance. On the other hand, one has to consider that the density of energy brought along by solar radiation is too weak to give enough power to creatures endowed with kinetic autonomy. Hence, the sole answer is to conceive factories which would "concentrate" solar energy, to supply these creatures with suitable chemical food. A static (vegetable) world is thus claimed, i.e. the only really automatic robots ever to be conceived are nothing else than ... the existing living creatures. Life is, therefore, the great "natural" cybernetic materialization.

Analyzing the History of the living world, this is the bio-cybernetic theory, in order to discover the many periods of this great "struggle against chance", which is, indeed, the very deep meaning of cybernetics. The controlling of a system is, to be sure, sheltering it from the aleatory effects of the outer surroundings, and imparting to it a definite evolution. From this point of view, life must be understood and seen as the gradual building up of a masterly structure, the core of which has

been made from the natural feed-backs, i.e. the retroactions of some effects over their causal bonds; an elementary pattern of these is given by chemical equilibrium, feed-backs having initiated the most stunning of evolutions.

Thus were born more and more complex cells, their action against chance being more and more obvious. With regard to this, we believe having given an answer to the objection raised but lately by LECOMTE du NOUY, when he ~~xxxx~~ told how greatly improbable was a natural evolution of living cells. He said that, if we look at a cell made from 2000 atoms, the number of groups that can be made out of 2000 atoms is so big that, even at a rhythm of 500 000 billion combinations per second, nature would, after 3 billion years, have exhausted only a tiny proportion of possible combinations. Calling forth the classical laws of chance was a mistake, since the characteristics of a cybernetic structure tend to alter~~xxx~~, in a way, probability when in touch with it, promoting what combinations will allow this core to increase its hold over the outer surroundings. Indeed, life has therefore known an "exponential" fate, seeing its triumph with the appearance of man, whose brain controls a psychical area, by means of which he may, over the material world, reach the world of Information. Man, thus, appears as the final outcome of History in our Planet.

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STANFORD UNIVERSITY  
STANFORD, CALIFORNIA

DEPARTMENT OF MATHEMATICS

February 3, 1955

Professor Norbert Wiener  
Massachusetts Institute of Technology  
Cambridge 39, Mass.

Dear Wiener:

Many thanks for your good wishes to my birthday and for the interesting problem you sent me. Although this is a hateful occasion, nice words of good friends and colleagues are always pleasant and welcome.

I hope that you and your family are in the best of health.

With many thanks again for your thoughtfulness, I am,

as ever yours,

*G. Szegö*  
G. Szegö

GS:lv

*refusal*

Department of Physics  
102 Steele Hall  
Syracuse University  
Syracuse 10, New York  
February 4, 1955

Prof. N. Wiener  
Department of Mathematics  
Massachusetts Institute of Technology  
Cambridge, Massachusetts

Dear Professor Wiener:

At the request of the Department of Physics, Syracuse University will sponsor a conference on the theory of irreversible processes and some of its applications to take place from March 31 to April 2 on its campus at Syracuse, New York. The purpose of this letter is to invite you to attend.

The idea for this conference grew out of our concern with the field, in which we have enjoyed the support of the Office of Scientific Research for several years. It appears to us that the points of departure of the groups working in the field are sufficiently diverse that a thorough discussion of the foundations will be helpful. Applications are to be included to the extent that they help to crystallize basic concepts.

We wish to provide for a get-together of a small group of people actively interested in this field. It is to be less formal than a session at a national meeting of the American Physical Society can be, or any of the full-dress conferences that will take place in Europe and the United States in 1956.

By bringing a group together for discussion rather than for the presentation of definitive papers we hope not to compete with these big meetings but rather to help to prepare for them. We are writing to approximately forty people, inviting them to come themselves and to tell friends who are seriously interested in the topics to be discussed.

Our plan is to have each session devoted to one major topic. Each session is to be prefaced by one or two short talks outlining the outstanding problems in the field and suggesting the organization of the subsequent discussion from the floor. A tentative list of the topics we have in mind is indicated in the enclosure. We hope very much you will be able to attend.

Page 2  
February 4, 1955

Could you send us at least a tentative acceptance by March 1, 1955 and give us the additional information requested on the enclosure. If you have any friends who expect to attend, will you either include their requirements in your reply or have them send us this information directly. We need to make hotel and dinner reservations well in advance.

We shall also welcome comments and suggestions concerning the program.

Sincerely yours,

Peter G. Bergmann

Eugene P. Gross

jm

Enclosures

[ans 2/28/55]

## HOTEL SYRACUSE ROOM RESERVATION

Please reserve for me accommodations as indicated. All rooms with bath.

- ....Single Room(s) ..... @ \$5.75 \$6.25 \$6.75 \$ 7.25 \$ 8.75
- ....Double Room(s) ..... @ \$8.25 \$ 8.75 \$ 9.25
- ....Twin Bedded Room(s) ..... @ \$8.75 \$9.75 \$11.25 \$12.25
- ....Parlor Suites—Parlor, Bedroom and Bath ..... from \$17.00 to \$36.00
- ....Additional Bed...\$2.50

Signed.....

Address.....

COIP

I shall arrive: Date..... Time..... Departure Date.....

If a room at requested rate is not available, one at nearest available rate will be reserved.  
Reservations will be held until 6 P.M. only, unless otherwise notified.

FIRST CLASS  
Permit No. 297  
(Sec. 510, PL & R)  
Syracuse, N. Y.

# BUSINESS REPLY CARD

NO POSTAGE NECESSARY IF MAILED IN THE UNITED STATES

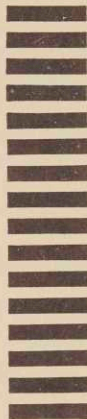
POSTAGE WILL BE PAID BY--

HOTEL SYRACUSE,

SYRACUSE 1,

N. Y.

Att: Mr. James F. Gilday  
*Executive Vice-President*





TENTATIVE PROGRAM

Conference on Irreversible Processes

SYRACUSE UNIVERSITY  
DEPARTMENT OF PHYSICS  
STEELE HALL

- Thursday, March 31, 9:30 Address of Welcome: W. R. Fredrickson
- 9:45 General Theory of Irreversible Processes.  
Phenomenological Theory, Statistical Mechanics.  
Discussion Leaders: L. Onsager, P. G. Bergmann
- 1:00 Lunch
- 2:30 Stochastic Processes, Turbulence Theory.  
Discussion Leader: M. Kac
- 7:30 Dinner at Drumlins (All members of the conference  
are the guests of Syracuse University)
- Friday, April 1, 9:30 Irreversible Processes in Superfluids.  
Discussion Leaders: L. Tisza, I. Prigogine
- 1:00 Lunch
- 2:30 Stationary Transfer Processes  
Discussion Leaders: B. Stromgren, R. Wildt
- Evening: Space for informal discussion and refreshments  
at the Women's Building
- Saturday, April 2, 9:30 Theory of the Boltzmann Equation and General  
Discussion.  
Discussion Leaders: E. Montroll, E. P. Gross
- Afternoon: Opportunity for informal discussion

CONFERENCE ATTENDANCE

Please return this form to us by March 1. A hotel reservation blank for Hotel Syracuse is enclosed and should be returned by the same date. Hotel Hilton, 238 Harrison Street, has rooms starting at \$4.75 for single with bath and has also been recommended.

Number of persons planning to attend the conference \_\_\_\_\_.

(If number of dinner reservations is different, please give us this information \_\_\_\_\_).

\_\_\_\_\_  
Name



February 4, 1955

Dr. Norbert Wiener  
Massachusetts Institute of Technology  
Cambridge 39, Massachusetts

Dear Dr. Wiener:

May I offer to you on behalf of the Club our sincere thanks for your most valuable contribution in speaking before our Club Wednesday night.

It may be of interest to you to know that this program drew the largest crowd of M.I.T. men that any function put on by this Club has drawn during the years I have been a member, there being an audience of over 500 present.

Since the dinner, I have received numerous comments on this meeting, and I can assure you that they were most flattering towards you.

Yours very truly,

A. L. Bruneau, Jr.  
President



February 4, 1955

Dear Professor Wiener:

The remaining chapters <sup>8+9</sup> are on their way to you, and I should like to emphasize before you get to work on them that the main business at hand is for you always to bear in mind the formula that you yourself presented at lunch yesterday, specifically that you relate the various elements of your scientific work to the general pattern of your career as a whole and that in turn you relate your career to your personality. Whatever doesn't meet the demands of this very stringent formula should be canceled. *(The rest follows tomorrow)*

Naturally, it will occasionally be important for you to reveal your personality against certain backgrounds such as M.I.T. and the various countries in which you have traveled, but you should try never to include such background material simply for its own sake. It should always be to the point of reflecting some new or otherwise important development in your own career. I hope that you will try this out in the Chinese chapter, where it is perhaps most important to be on guard against diffuseness, and if you will let me see the results as soon as you are through, I would appreciate it.

Good luck,

Yours,

A handwritten signature in blue ink, appearing to read 'Jason Epstein'.

Jason Epstein

Professor Norbert Wiener  
Department of Mathematics  
Massachusetts Institute of Technology  
Cambridge, Massachusetts

JE:nr

THE ROCKEFELLER FOUNDATION

49 WEST 49th STREET, NEW YORK 20

DIVISION OF MEDICINE AND PUBLIC HEALTH

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JOHN M. WEIR, M.D., ASSISTANT DIRECTOR

CABLE ADDRESS:  
ROCKFOUND, NEW YORK

February 4, 1955

Dear Doctor Wiener:

I was glad to learn from Miss Fuchs' letter of February 1st that Dr. Antonio Barbosa has been recommended for appointment as a visiting fellow during his stay in your Department. This seems to be an ideal solution to the problem.

Yours sincerely,



Rolla B. Hill, M.D.

Dr. Norbert Wiener  
Department of Mathematics  
Massachusetts Institute of Technology  
Cambridge 39, Massachusetts

RBH:MAS



LIBRARY OF

UNIVERSITY



AWA, KANSAS

ary 4, 1955

GIFT OF

THE

AUTHOR

Mr.  
Mas  
Cam

ology

Dear Mr. Wiener:

The copy of EX-PRODIGY: MY CHILDHOOD AND YOUTH which you recently very kindly presented to us has been processed and is now ready for use by our students and faculty. The book has been marked as your gift by the use of a duplicate of the bookplate attached to this letter.

Once again, my thanks for your generous kindness.

Very truly yours,

William L. Hutchinson  
Librarian

WLH:jc

OTTAWA UNIVERSITY

OTTAWA, KANSAS

February 4, 1955

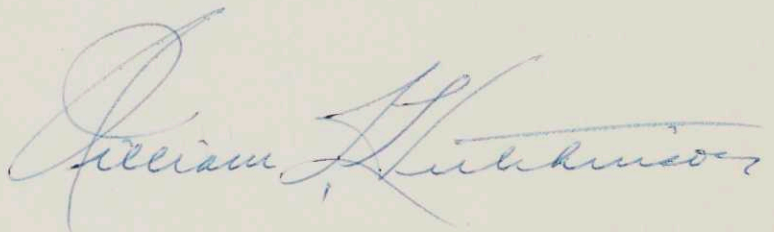
Mr. Norbert Wiener  
Massachusetts Institute of Technology  
Cambridge 39, Massachusetts

Dear Mr. Wiener:

The copy of EX-PRODIGY: MY CHILDHOOD AND YOUTH which you recently very kindly presented to us has been processed and is now ready for use by our students and faculty. The book has been marked as your gift by the use of a duplicate of the bookplate attached to this letter.

Once again, my thanks for your generous kindness.

Very truly yours,



William L. Hutchinson  
Librarian

WLH: jc

February 4, 1955

Dr. Stephen R. Fromm  
House Officers' Association  
New England Medical Center  
Harrison Avenue and Bennet Street  
Boston 11, Massachusetts

Dear Doctor Fromm:

Thank you so much for your friendly invitation to deliver one in your annual series of Posner lectures.

Under ordinary circumstances I should be glad to do so, but the circumstances are not ordinary. In the first place, I have a second volume of my autobiography to finish and another book on scientific method to write before I leave in May for England, Israel, and India.

I am also very tired from accumulation of past work, and under medical orders to avoid every new addition to my schedule that can be avoided at all, no matter how tempting an ~~invitation~~ <sup>it</sup> may be.

Sincerely and regretfully yours,

Norbert Wiener

NW:gf



February 4, 1955

Mr. George A. Graham  
Old South Church in Boston  
Copley Square  
Boston, Massachusetts

Dear Mr. Graham:

Thank you so much for your friendly invitation to speak to the Old South Seminar.

Under ordinary circumstances I should be glad to do so, but the circumstances are not ordinary. In the first place, I have a second volume of my autobiography to finish and another book on scientific method to write before I leave in May for England, Israel, and India.

I am also very tired from accumulation of past work, and under medical orders to avoid every new addition to my schedule that can be avoided at all, no matter how tempting it may be.

Sincerely and regretfully yours,

Norbert Wiener

NW:gf

# BIOLOGICS

MAIL ADDRESS:  
BOX 12, COOPER STATION  
NEW YORK 3, N. Y.

February 8, 1955

Prof. Norbert Wiener,  
Massachusetts Institute of Technology,  
Cambridge, Mass.

Dear Prof. Wiener:

I am sending you, unsolicited, a copy of my brochure, "Biologics: The Initial Perceptions". There is no thought of imposing any obligation. I am trying to find out what kind of people might be interested in the point of view which is Biologics. The supposition is that you might be. If you care to participate in the venture, it is suggested you send back the subscription blank with \$2. If interested, but not to the extent of wanting to follow the fortunes of the venture, perhaps you would send \$1.00, which is approximately the cost of the brochure. If to no degree interested, the thing is to be ignored; but perhaps you might be kind enough to pass it on to someone who might be.

It is probably unnecessary for me to say that (for some 30 adult years) I have been, and shall continue to be, able to read works of intellectual inquiry, such as your Cybernetics, from left to right and right side up. But how about upside down and backwards? Might not that be interesting as an exercise in perceptual flexibility? Of course, nothing is to be accepted and used in the venture which is not a solid element of "modern matter-of-fact". No one could detest escapism or flights of idle fancy more than I do. The kite I am trying to wangle into sustaining winds in our operation of culture bears the device, "Psychological Freedom". The pundits of the moral and rational haven't the slightest notion of what that would be. Rigor mortis is all over and in their once grandiose structures of Natural Law and Scientific Objectivity in "the physical" and "the mental". For all they could help it, some successor to Joe McCarthy might incinerate every intellectual blighting our Loyalty to America, or what not. The psychologists of sensory perception apparently cannot see that human values and meanings are behavior readinesses for interpersonal relations in the same sense, and continuous with, their "discovery" that walls, chairs, etc. are behavior readinesses (preconscious) to palp and have transactions with the tangible "that-theres". And the mechanists! I decline to regard you as one. If I did I would not waste the postage.... But I must let the brochure speak for itself.

Sincerely yours,

*John A. Jones*

[Jan 2/28/55]



מכון ויצמן למדע  
THE WEIZMANN INSTITUTE OF SCIENCE

REHOVOTH • ISRAEL  
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רחובות • ישראל  
ת.ד. 26 • טלפון: 259, 301

8th February, 1955.

Professor Norbert Wiener,  
Department of Mathematics,  
M. I. T.  
Cambridge 39, Mass.

Dear Professor Wiener,

I was glad to receive your letter of January 31st 1955. First, let me point out that we agree to all the four points you mention in your letter. As to point 3, the procedure is to obtain from the Israel Consulate in New York a visa, which is not entered in your passport. We shall make arrangements with the New York office of the American Committee for the Weizmann Institute of Science, 250 West 57th Street, New York, to obtain for you and Mrs. Wiener said visae.

Your suggestion to come to Israel by boat from Naples is a good one, and we shall get the necessary tickets for you and your wife.

There is, however, an unfortunate difficulty with your trip, which is rather serious. It happens that this summer two congresses will be held in Europe, the Congress of Pure and Applied Chemistry in Zurich, and the Congress in Bio-chemistry in Brussels. Most of the staff of the Institute will be attending one or the other of these congresses, so that the Institute is likely to be deserted during your visit at the end of August. This is most unfortunate, since a great many of the chemists and physical chemists who have read your recent books, expressed the desire to listen to your lectures. My personal plans for this period are rather indefinite as yet, but as a rule, I try to be in Europe during the latter part of August, which is the hottest time of the year in Israel.

I wonder, therefore, if you could arrange to visit Israel on your return trip from India. It would be a pity indeed not to have your talks enjoyed by a wide audience in Israel, and the end of August is just not the right time for it.

With best wishes, I am,

Yours very sincerely,

Prof. C. L. Pekeris  
Head of the Dept. of Applied  
Mathematics and Chairman of  
the Scientific Committee.

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\*\*EIGHT YEARS OF CYBERNETICS AND THE  
ELECTRONIC BRAIN

POCKET BOOKS, INC.

By Freeman Lewis

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ATTEST:

Neil Walls

# FACTORY

MANAGEMENT AND MAINTENANCE

330 West 42nd Street, New York 36, N. Y.

February 9, 1955

Dr. Norbert Wiener  
Department of Mathematics  
Massachusetts Institute of Technology  
Cambridge 39, Mass.

Dear Dr. Wiener:

I just want to drop you a note to express not only my personal thanks for the splendid presentation you made at last Wednesday's meeting at the MIT Club, but to re-emphasize my perhaps perfunctory expression of thanks on behalf of our entire club.

Certainly you and Dr. Brown gave us a thoughtful and stimulating evening. All of the comments I have heard from other members of the board and those in attendance that I have talked with, have been uniformly glowing.

Don Sevarance has told me that you raised a question regarding possible re-use of the transcript of the talks delivered by yourself and Dr. Brown. The recording is in the possession of Dave Broudy of 22 East 40th St., New York City, who was our chairman for this session. He assures me that no transcript or other use of the tape will be authorized unless and until you and Dr. Brown have had an opportunity to review it. I'm sure you will be hearing from Mr. Broudy directly, if he does undertake to plan any additional use of the recording.

February 2nd will be long remembered as a high-water mark in the activities of the MIT Club of New York — and we are duly grateful to you for having made the affair such an outstanding success.

Very cordially yours,

  
Carroll W. Boyce  
Associate Editor

CWB/cs

cc: Dave Broudy  
Don Sevarance

[ans 2/28/55]

7 Center Street  
Cambridge, Massachusetts  
February 9, 1955

Professor Norbert Wiener  
Mathematics Department  
Massachusetts Institute of Technology  
Cambridge, Massachusetts

Dear Professor Wiener:

Will you regard this letter as a most cordial invitation to address the faculty and students of the Harvard Graduate School of Education, following an informal buffet luncheon, at what we call our Colloquia on Education?

The luncheon would begin at 12:45, and at approximately 1:20 we would introduce you as our speaker. Following your address there would be a five or ten minute period for questions. The meeting would definitely adjourn at 2:00, when afternoon classes begin.

Recognizing your heavy schedule, and the many demands upon your time, we had thought that such an informal luncheon meeting might be the most acceptable to you. Of course we would arrange to meet you at your office and bring you back to M.I.T. at two o'clock.

It is all too rare to find a pure scientist expressing himself so capably as you have done concerning problems and philosophy of education. Alluding for a moment to your excellent recent article in the Saturday Review of Literature, we are hoping that you might care to amplify various remarks you there made concerning "long-time planning for the future," as contrasted with the current over-emphasis upon the mere ephemeral.

We are hoping that you might be our guest one day during the period from Tuesday, March 1, through Wednesday, March 16. It would indeed be an honor to have you with us.

Very truly yours,

*John C. Osgood*  
John C. Osgood  
Chairman, Colloquium Committee

*Tues. 8.  
Present 4 v  
Scientist*

*[ans 2/28/55]*

February 9, 1955

Professor P. C. Mahalanobis, F.R.S.  
8 King George Avenue  
New Delhi, 2, India

Dear Professor Mahalanobis:

Thank you for your friendly letter of January 31. I shall be in India during the year 1955-56. I intend to stay until April 1 or perhaps longer. I shall certainly visit the Indian Statistical Institute, and I wish to visit several other places as well, including the Ramanujan Institute in Madras, the Tata Institute in Bombay, and the University of Allahabad.

Margaret and I are looking forward to our trip most eagerly.

With best regards.

Sincerely yours,

Norbert Wiener

NW:gf

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February 10, 1955

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Mr. William Withers  
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Dear Mr. Withers:

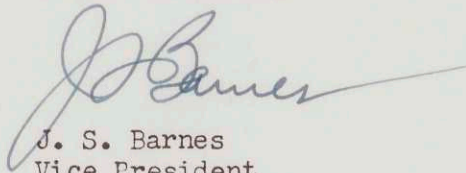
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J. S. Barnes  
Vice President

JSB:BD

Wiener: **CYBERNETICS**  
pp 8-9 " . . insisted that a proper . . . of that understanding."



# Gotham Recording Corporation

2 WEST 46TH STREET, NEW YORK 19 • JUDSON 6-5577

HERBERT M. MOSS  
PRESIDENT

February 10, 1955

Mr. David M. Broudy  
22 East 40th Street  
New York, New York

Dear Mr. Broudy,

Pursuant to our conversation relating to the establishment of an M.I.T. Recorded Lecture Series, commencing with the already-recorded Dr. Brown - Professor Norbert Weiner lecture, we would like to set forth the details of our proposed plan.

It is our belief that there is a large audience of industrial and academic people throughout the country who do not have access to the exciting new material discussed on today's lecture platform and in the open forums that follow. Much of the impact of these lectures and discussions are lost when reduced to print and thus the highly prized spoken words of many outstanding lecturers are irrevocably gone when the lecture is over.

To rectify this condition and provide an educational stimulus to the business and university worlds, we would like to set up a partnership with either the Institute or the Alumni Association for the purpose of producing a series of Long Playing recordings to be known as the M.I.T. Lecture Series Album.

We would provide:

1. Engineering unit to record the lectures.
2. Complete production work in the editing and preparation of the album in cooperation with each lecturer.
3. Delivery of the albums ready for mailing to Alumni Association office.
4. We will undertake to supervise publicity and promotion aids for the dissemination and sale of these albums to areas outside the Alumni Association.
5. We will assume all financial outlay and risk required for the venture.

Mr. David M. Broudy

The institute would be asked to supply:

1. A leading story in its alumni newsletter along with a coupon to be mailed back to the association along with the check or money order for each album.
2. A top-flight series of lecturers and permission to record their lecture for the series. (Editorial control will naturally be given to the various speakers.)

Financial Return

The cost per complete album (art work, cover, individual wrapping and cost of mailing included) will average \$1.50 each. It is our proposal to split the remaining profit of approximately \$2.00 per album on a 50/50 basis.

It is our privilege to refrain from publication should the request for albums fall below the break-even point of 200.

It is understood that profits will be disseminated only after production costs are met.

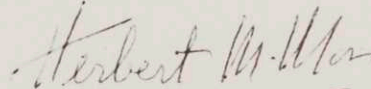
Conclusion

It is our firm conviction that the Brown-Weiner Album can be the start to a unique and invaluable contribution to the industrial and civic leaders of our country among whom are many of the 30,000 M.I.T. alumni

One last thought - It would be a bitter shame if the excitement and interest in the Brown-Weiner lecture were permitted to dissipate before this venture comes into being. A good portion of our success will depend on the dispatch with which we proceed to distribute the album.

I hope the above meets with your approval and the approval of the Board to which you will present it. Should there be any questions remaining please call me at your earliest convenience.

Very truly yours,



Herbert M. Moss

HMM/prs

INDUSTRIAL COLLEGE OF THE ARMED FORCES  
WASHINGTON, D. C.

ICAF 201

11 February 1955

Dear Professor Wiener:

This confirms my telephone call to your secretary earlier today. I regret being unable to talk to you personally and expressing my reasons for our late date in extending this invitation.

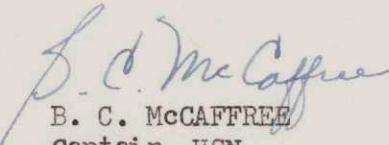
We would be most happy to have you speak to us at either 10:30 a.m. on 11 March or at the same time on 11 April. The scope of the lecture would be the same as that forwarded by Admiral Hague's letter of 8 October but is inclosed for your ready reference. However, we hope that you will feel free to modify the scope if you desire.

For your information Mr. Arthur F. Vinson of the General Electric Company spoke to us recently on "Automation in Industry." He touched on numerous specific instances of its use in the General Electric Company at actual installations and stressed the economics of present and projected trends in this field. I am sure that you will be happy to know he commenced his talk by referring to you as the outstanding authority on cybernetics and praised a recent talk of yours before a distinguished audience in New York.

We hear that you are to leave for a year's visit in Europe and certainly hope that you have a most profitable and enoyable visit there.

Captain Swain of our faculty, whom I am sure you will remember, joins me in warmest personal regards.

Sincerely yours,



B. C. McCAFFREE  
Captain, USN  
Chief, Production Branch

Professor Norbert Wiener  
Massachusetts Institute of Technology  
Cambridge 39, Massachusetts

LECTURE SCOPE

SUBJECT:           AUTOMATIZATION IN PRODUCTION

SCOPE:            A discussion of the nature and importance of automatic control techniques. This should include the development and influence of automatic controls on production and the economics of their use. Emphasis should be placed on the coming application of automatization; a "Look into the Future," as you see it, would be appreciated.

**AUTOMATION CONSULTANTS, INC.**

1450 BROADWAY  
NEW YORK 18, N. Y.

CHICKERING 4-7800

February 11, 1955

Dr. Norbert Wiener  
Professor of Mathematics  
The Massachusetts Institute of Technology  
Cambridge, Mass.

Dear Dr. Wiener:

I have been writing a book on office electronics, concerning the application of computers and common language machines to office procedures, and it is nearly ready for publication. I would like to quote short passages from your books, and am seeking your permission.

You undoubtedly realize that there are many business problems not yet solved by existing general purpose computers, particularly those requiring interrogation from a large rapid access memory (checking and savings accounts, for example). My book advocates automatic accounting (the jet plane), the next step after electronic accounting (the propeller plane) or punched card machine accounting (the automobile). Familiar examples of automatic accounting already in limited operation are the Reservisor of American Airlines, Remington Rand's Speed Tally and MacDonald's Magnafile, commonly called "special purpose computers." My theory is that the idea can be expanded through the scientific approach of Applied Cybernetics to tie in with the new common language equipment and communication networks (IDP).

You may well wonder about my qualifications for attempting a book of this type, as you may have never heard of me. My mathematical and electronic background comes from the Sheffield Scientific School, practical communications experience from a quarter century with IT&T, physiology from home study with my wife who is a Registered Nurse, and accounting from the last two years with Ernst & Ernst. Substantiating background material is enclosed for reference purposes.

One of the chapters in my book deals with Cybernetics, another with ideal business computer design including a proposed solution to the savings account problem, both on the Applied Cybernetics basis.

Your book "Cybernetics" has been my bible for six years in electronic systems engineering design work. In my book I would like to acknowledge and pay tribute to your pioneering work, but would like your prior approval. I have considered for some time trying to meet you through our many mutual friends. I understand that you visit New York frequently, and I would be greatly honored if you would lunch with me at the Yale Club on your next trip to New York. If you do not expect to be here soon, I would appreciate a few lines in the meanwhile.

Automatically yours,

*R. Hunt Brown*  
R. Hunt Brown  
President

[ans. 4/13/55]

P.S. I am working on my book at home so may be reached at 5 East 88th St. New York 28, N.Y.  
Atwater 9-4912

sible to do before on punch card equipment. They will also do general and cost accounting, sales analysis, budgeting, and other accounting functions.

The computers are replacing semi-automatic or electro-mechanical equipment, not only because it is believed that they will be less expensive to operate, but because they produce intangible results as well in the form of better service to customers, and more accurate and up-to-date management reports. Together with the common language machines in the precomputer area, they will lead into instantaneous or automatic electronic accounting.

Naturally, accountants have questions about the new electronic equipment. One of the common ones is "What happens to the records kept in magnetic form if something goes wrong with the computer?" The answer is that the records are not lost, as magnetic recordings are permanent. It is true that some forms of memory used in computers, such as the mercury delay line or the electrostatic tube, do disappear when the current fails; these are internal working memories that can be automatically reprogrammed, and do not contain record storage data. The magnetic core is being adopted for fast internal storage, as it does not lose its memory with voltage drop or failure. Most data storage of records is in the form of magnetic drums, tape, or discs which again are permanent.

Another question is "What happens if an operator erases a reel of tape by mistake?" Obviously the reel was originally constructed either automatically from punched tape or cards, or else manually from some form of written source record, and this process can be repeated. Usually the reel

of tape is red labeled so as to guard against this. The tape can also be stored in duplicate to guard against such contingency, the duplicate being obtained automatically.

There invariably arises the question as to the social consequences of electronic accounting. The only valid answer to this is to look at the record, and see what has happened in the past. Machines have made life easier for man. They have relieved him of routine physical labor, and now they are relieving him of routine mental labor. Machines have created jobs and have raised the standard of living. It is true that some groups have been temporarily displaced by machines, but they have been relocated and society as a whole has benefited. One of the effects is to place a premium on semi-skilled and skilled labor. The day of unskilled labor is gradually vanishing, as we are becoming specialists more and more. Machines have necessitated an increased standard of education, to prepare the individual for such specialization.

While the bookkeeper and the machine accountant may be affected to some extent in a gradual manner, there are many operations of the accountant outside the machine area whereby he will not be affected. He will have to understand computer language, just as he had to learn punch card language, in order to work with the new machines.

The auditor will be able to take a complete audit of accounts, instead of sampling a certain percentage of accounts. He also will have to become familiar with computers.

Electronic accounting will displace drudgery, and should be welcomed by accountants and auditors. The machine is man's slave, and not his master.

Reprinted from the *Illinois Certified Public Accountant*, December, 1954 issue

## AN INTRODUCTION TO ELECTRONIC ACCOUNTING

By R. HUNT BROWN

**M**OST ACCOUNTANTS are wondering about the implications of electronic computers and other new equipment to future accounting and auditing practices. There are many who have investigated the subject in some detail and have a perspective on the subject, but the picture may not be clear in some details. There are others to whom the picture seems somewhat hazy, and there are others who have not yet had time to explore the matter.

To begin with, electronic accounting is not going to displace accountants and auditors, but instead will replace drudgery and routine mental labor. When punch card machinery was introduced half a century ago, there were accountants who had premonitions, but experience shows that there are more accountants now than ever. The hue and cry then was that the familiar hand written or typed records would be replaced by holes in cards, an unbearable thought! Now the idea is to keep records in magnetic spots which cannot even be seen, much less read, which is even more fantastic! Accountants will be affected by this new method of data processing and record keeping, in that they must sooner or later become acquainted with the new electronic gear.

In the production of the new electro-mechanical and electronic machines for accounting, the surface has barely been scratched. The tremendous amount of research and development on electronic computers during and subsequent to World War II, is responsible for the modern electronic accounting machines which are now beginning to appear. These computers were originally designed for the solution of military, scientific, and engineering problems, and as a by-product they are now being adapted for accounting and other office work. Except for this, it might have been many years before such machines became available for business use. Indeed, the original idea of Charles Babbage in England for a computing machine occurred in 1822, and more than a century elapsed before such a machine was actually produced!

Contrary to popular opinion, electronic accounting does not start in the computer area, but at the source of data origination with the "common language" equipment. This is the familiar office machine such as the typewriter, the telegraph printer, the cash register, the bookkeeping, posting, and adding machines, the addressograph, the calculator and others, *which now produce a punched*

R. HUNT BROWN is Automation Supervisor in the Management Services Division of Ernst & Ernst, New York. He graduated from Yale University with a B.S. degree in electrical engineering. He was formerly Assistant Vice President of the International Telephone and Telegraph Corporation.

tape as a by-product. This punched tape is the same as communications tape, in that it has five holes in a row and can be automatically transmitted over standard telegraph networks in world-wide use (example below).

This is why it is called the "common language," in that the 5 hole or channel tape is common to and can be understood by all these machines. In a 5 channel tape there are 2 to the fifth power or 32 possible combinations, depending on whether each of the 5 holes is punched or not punched. These 32 possibilities contain the 26 letters of the alphabet, and with the operation of a shift key, the 32 combinations can represent the ten decimal numbers and the ordinary punctuation marks.

There are some of the new office machines which produce 6 (64 combinations), 7 (128 combinations), 8 (256 combinations) or more channels, or magnetic tape where the channels are indicated by magnetic impressions instead of holes, or even paper with sensitized dots. These are called the native language machines, since they cannot communicate with the others directly without translation.

About a century ago Baudot invented the 5 channel punched paper tape for telegraph use, but only now has this principle been adopted for the ordinary office machines.

There must be a translation from human to machine language at point of origin of data, but the rest of the data processing can be made automatic to a high degree. For example, the sales clerk must operate the cash register, the teller the posting machine, the typist the typewriter, the

bookkeeper the adding or calculating machine, etc. Machines are available to do a limited amount of automatic reading such as serial numbers and denominations of travelers checks, and are being developed to understand spoken telephone numbers and to translate them into machine language, but such applications are severely limited.

When a common language office machine is operated, there are two by-products obtained from the punched tape. The first is statistical data which can be automatically transmitted over the public telegraph network. The entire data or only the part needed for statistics is telegraphed. If punch cards are used for tabulating or as the input to a computer, the tape is run through a tape-to-card converter. (Some of the smaller computers accept punched tape as direct input). Here we have displaced routine mental labor, by dispensing with the key punching of cards, a monotonous job at best; the verifying at this point is also eliminated, as the hard copy produced when punching the tape at point-of-origin has been verified as a part of the typing operation. There could be errors in wire transmission, but in actual installations they are so seldom encountered that they have no practical significance.

The second by-product obtained in the usual operation of the office machine is the punched paper tape which can automatically reproduce all or part of the information for the next step in data processing.

Let us take an actual case to see how this works today in many an office.



1. A handwritten salesman's order or a typed customer's order is received by the order typist.
2. The order typist removes from file the customer's master tape or edge-punched card, containing standard information such as customer's name, address, usual shipping instructions, and places it in an automatic electric typewriter such as the Flexowriter.
3. The machine automatically types at high speed standard customer data in a shaded area of the order form to show that it does not need verification. The machine automatically stops at intervals to permit the operator to type in the variable data, such as amount and description of merchandise ordered, in white spaces which show that verification is required of those parts before the tape is released.
4. The tape is run through a tape transmitter either in the same office or at the local telegraph office, to the statistical data processing center and also to the next step in the data processing such as the factory order, or to billing—the punched tape could be mailed, of course, if time allows.
5. The automatic tape-to-card conversion, or automatic input of the tape to a computer, takes place at the statistical reporting center, to give management reports which are current, rather than historical.
6. At the next step in processing the order, the original verified data is reproduced automatically, avoiding the use of duplicating masters or the repetitive manual typing of the same data

all over again. The new information, such as prices in case of an invoice, is then added and another punched tape is produced.

7. Once again the tape resulting from this subsequent operation is available for *automatically and instantly* communicating statistical data or data to be used in the next step of order processing.

We see from the above that we have avoided repetitive manual labor, by translating from human to machine language only when essential. We have reduced verification. We have also obtained up-to-date statistics for reports which really represent the current situation.

This is all part of electronic accounting in the pre-computer area, or integrated data processing. Now for the computer, or electronic data processing area.

Most accountants are already familiar with the electronic calculators which are already being used in punch card tabulating areas. Instead of moving the cards around from machine to machine, these electronic calculators perform a series of operations. Certain other machines such as sorters are still required, however, so it is a semi-automatic operation. To make such an operation more automatic and faster, the electronic computer appears. The data processing routine must first be programmed, a large but essentially a one-time job. Incoming data is then fed into the computer, and reports result automatically.

Such installations, principally on the Univac of Remington Rand, are already doing payroll computations, and will soon do other accounting such as production and inventory control which were difficult or impos-

## Now's the Time to Explore Electronics Applications

**D**EPARTMENT and specialty stores should immediately take stock of electronic application possibilities, according to R. Hunt Brown, automation supervisor, Management Services Division, Ernst & Ernst.

"Less than 20 per cent of stores now in business seem to be doing anything definite about electronics. Those who are doing something are already six months to a year ahead of their competitors in the race for the automatic office, he warns.

But most are watching, and while they do, they are missing an opportunity to take advantage of the new electronic techniques for handling store paper work, he points out.

According to Mr. Brown, stores should immediately adopt this four-pronged program to act as a master plan in guiding them in this electronic age:

1. Engage someone to investigate the electronics field. This should be a full-time fact finder.
2. Make a complete methods study of their current operations to spotlight present old-fashioned manual methods and procedures.
3. Develop two flow charts to act as master guides, one to show what goes on now in terms of requirements, ordering, warehousing, etc.; the other to show what could be done electronically to speed up and eliminate duplication, bottlenecks, and archaic procedures.
4. Adopt new techniques and equipment that are available now in those areas where they can be installed.

"The key to the success of this program, says Mr. Brown, is management support. He maintains this is essential if the program is to be successful.

In discussing retail electronics,

he states, "Today many stores are holding off buying new equipment because they are afraid of obsolescence making it worthless.

"This is erroneous," he says, "because experience has shown that certain of the new electronic equipment will pay for itself within a short time." Thus, this fear of obsolescence is "not valid," he maintains.

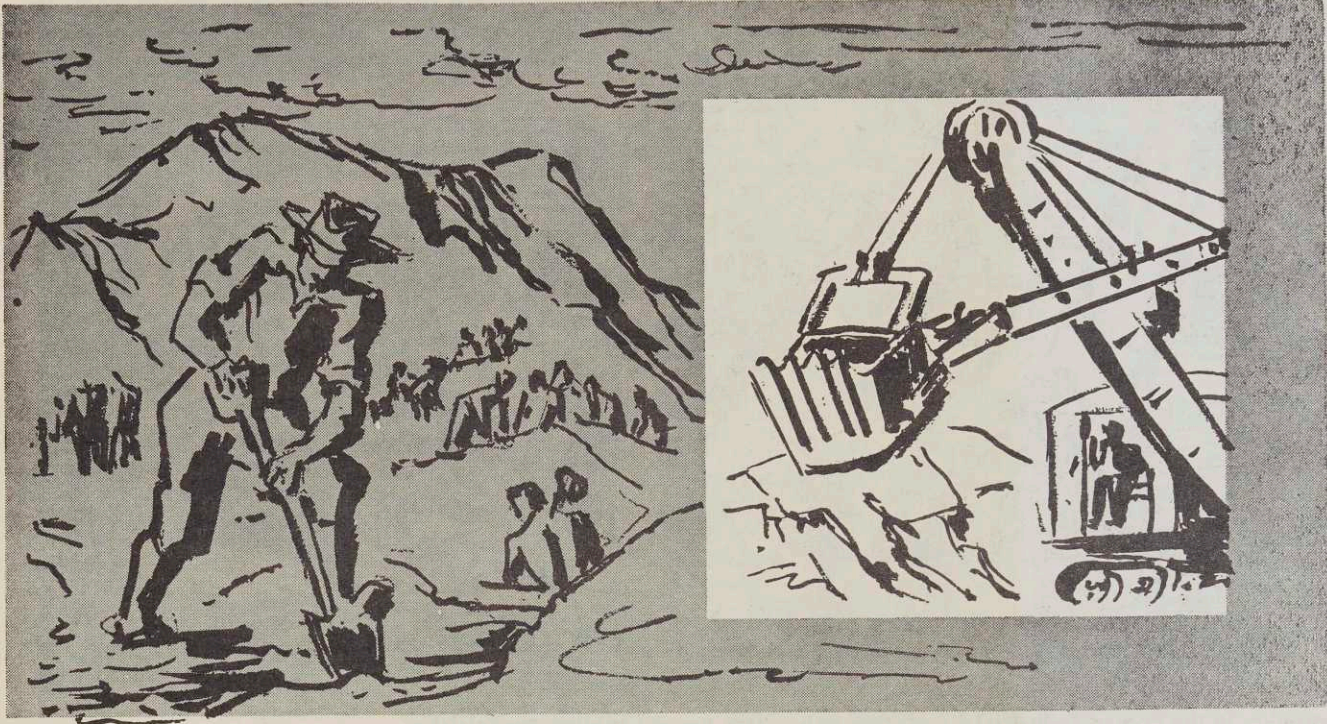
According to Mr. Brown, the link between punched card systems and "giant brain" electronic computers is now being forged by equipment manufacturers throughout the country. This is the electronic calculator, small-sized low cost version of the "giant brain."

There will be new type computers in the near future that can be tailored to individual store needs and requirements. They will be flexible in operation, have multiple units that can be added when needed, have large capacity for handling store data, and be low in cost, well within pocketbook range of the department and specialty store, he explains.

"Sooner or later, electronics will replace all other store record-handling methods and the automatic office will be here," he predicts.

Ernst & Ernst spokesman warns retailers against lagging in the race for the "automatic office," says electronics will eventually replace all other store record-handling methods.





Just as the First Industrial Revolution relieved man of routine physical labor . . .

**Part 1—**

## Office automation: beginning of an era

by **R. Hunt Brown**

Automation Supervisor, Management Services Division, Ernst & Ernst, New York  
*(Based on an address made by Mr. Brown at a conference on automation at the University of Pittsburgh in March)*

IN EXAMINING the history and fundamental technological aspects of automation, we find that automation has deeply affected the factory, especially in the continuous process industries, but has had little effect as yet on the office. The problems of business are becoming more acute, because:

1. Wages and fringe benefits of clerical staff have been on the increase and working hours have been on the decline in recent years, due to the supply and demand factor in labor. People don't like routine tasks, whereas machines don't care what type of work they do. Machines don't tire under peak or seasonal overloads.

2. As business expands, paper work or data processing has grown much more than business itself has expanded, and it is becoming more and more complicated as time marches on. We are being snowed under by paper.

3. Modern scientific inventions are changing living conditions, population centers and buying habits, which in turn are changing merchandising methods. This pace is accelerating.

4. Owing to decentralization caused by increased volume of business, the obtaining of up-to-date statistics for management decisions is becoming more difficult.

5. These tendencies make the businessman wonder how he will cope with them in the future when such conditions will be aggravated.

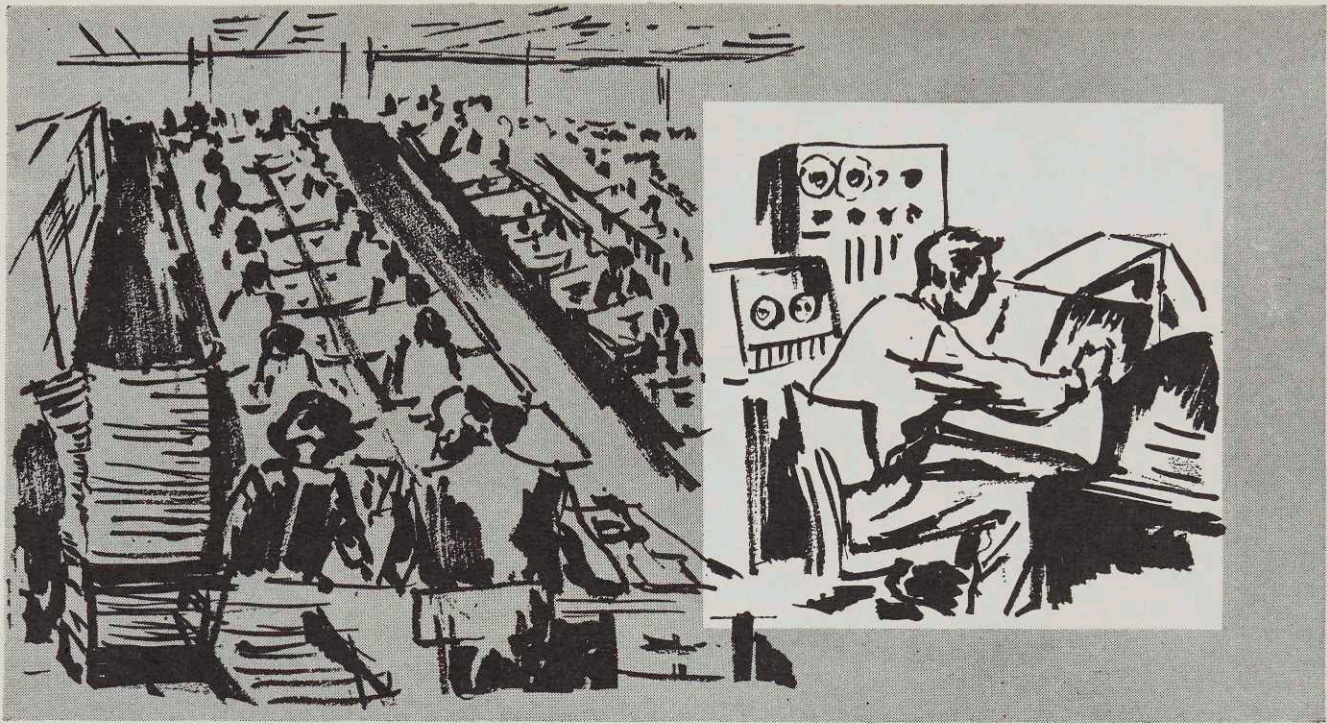
The problem can be stated quite simply, i.e., it is mainly one of data processing. Data processing consists of listing,

sorting, collating, calculating, filing, typing, and other familiar office operations. The large volume of paper which is accumulating in business contains nothing more than facts and figures. The businessman needs records and statistics to carry on his enterprise, and he needs the data as quickly as possible for operations to be effective.

The answer to the problem is also quite simple, and that answer is "electronic data processing." Recent technical advances, resulting from computer and other research in the last decade, have made available the building blocks required to engineer automatic electronic systems which will meet the requirements of business.

We now come to a very complicated question, "why has so little been done to solve the office problem?"

It cannot be said that our national or international communication networks are inadequate: they are the best any country offers. It cannot be said that our engineers and technicians are not capable of building suitable equipment, as the electronic gear they are constructing for defense such as guided missiles and anti-aircraft gun controls is far more complicated than business requires. It cannot be said that electronic apparatus is not reliable enough for business; it has been proven that it is far more accurate than human effort. It cannot be said that it is too slow, as electrons move with the speed of light—electronic computers are capable of doing 16,000 additions or subtractions a second. It cannot be said that electronic systems are not economical, as



electronics, in the Second Industrial Revolution, can relieve man of routine mental labor

they would not be in such wide use outside of the office if this were true.

The first large scale application of automation in the office area of business was the Automatic Message Accounting System installed to time and compute station-to-station long distance charges for the Bell System. The next was an automatic reservation system which International Telephone and Telegraph Corporation built for the Pennsylvania Railroad. The third was another automatic reservation system which The Teleregister Corporation (then a subsidiary of Western Union) put in for American Airlines, Inc. There have been many others.

The telecommunications companies were the first to apply automatic electronic equipment in the office area, and the business equipment companies are following the lead of these pioneers in electronics. Of particular interest is the Speed Tally System installed by Engineering Research Associates (a Remington Rand subsidiary) for the John Plain mail order company, and electronic computers being installed for office work, which will be described later.

We hear a lot about electronic computers, but this is only one of the many new tools of electronic systems.

The principles of data processing in such electronic systems are based on the capturing of data as soon as it is available, retaining information in magnetic memories, doing the required computation or data processing, and making the results readily available on a current basis. If bills could be rendered sooner, for example, it would mean money saving.

In retailing, an electronic system could readily be devised which would largely eliminate clerical and paper work in a department or chain store operation. When a retail sale is made, certain data originate, such as quantity, description, and price of merchandise, when and how sold (cash or credit), also by whom, etc. This data is needed for inventory control, purchasing, billing, etc., all of which processes could be made largely automatic. In a bank, balances and

signature can be obtained for teller information regardless of bank branch location and of the branch in which the account is located. The personnel employed on the floor of a stock exchange could be replaced by electronic machines. Many other systems of this nature could be designed.

Why has business done so little to automate the office? Now we are getting into a much more complex area, because of the human factors involved.

It seems clear that there is a wide gap between the electronics manufacturer and the businessman, for the following reasons:

1. The businessman does not speak the same "trade" language as the electronics engineer, and there are few qualified to speak both languages.
2. Most electronics manufacturers do not thoroughly understand the equipment requirements of business, and most businessmen are not too familiar with the possibilities of electronics.
3. Most of the new electronic systems for office use will have to be custom tailored in the beginning, before standardization can be reached. There are still missing links in the new chains which have to be forged. Where there is a large market for a packaged item; such as a TV set, the electronics manufacturer will absorb the development expenses and then charge them off over a large volume of sales. In the case of a business system where individual requirements vary greatly and special systems have to be engineered, the equipment maker is not anxious to absorb the initial research cost and neither is the businessman; only when both are willing to participate in the initial cost of the first installation will the new systems be evolved.
4. Most businessmen have not yet investigated the possible benefits of automation, or if they have done so, it has only been a cursory examination in most cases.

This gap seems to be closing gradually, and automation of the office will probably be an evolution rather than a revolution.

# Office automation: beginning of an era

by R. Hunt Brown

Automation Supervisor, Management Services Division, Ernst & Ernst, New York  
(Based on an address made by Mr. Brown at a conference on automation at the University of Pittsburgh in March)

WHAT SHOULD the businessman do about automation?

1. He can sit on the sidelines and wait for something to be forcibly brought to his attention which will compel him to act, as for example, a competitor lowering prices because of decreased cost resulting from operation of automatic equipment.

This course does not seem prudent, as it may take a year or two to catch up with the competitor, who by that time will have something else newer and better.

2. He can investigate what is being done and know where he stands vis-a-vis automation, even if he does nothing about it at the time. This is similar to taking out insurance.

3. He can strive for leadership in the automation race, and thus gain an advantage over his competitors, by pioneering a new application and being first in his field.

Most businessmen pride themselves in keeping abreast of the times, and spend much energy and money in figuring out how to forge ahead in the competitive race. Despite the attention that has been given to advertising, new methods of merchandising and the cutting of production costs, only a small proportion of businessmen are investigating the possibilities of automation in the factory office, the chain stores, retailing, banks and other commercial enterprises. They are gradually realizing that recent electronic developments have presented them with a new instrument to cut operating costs and to improve their competitive positions.

Surely no astute businessman would want to adopt the attitude of waiting for something to happen, which would place him always behind in the competitive race.

Any other attitude calls for an investigation into the possibility of automation through electronics applications. A six stage program is suggested, as follows:

## 1. Clarify Objectives

What is it you wish to accomplish?

You probably want to:

- a. Reduce operating costs.
- b. Render improved service to customers.
- c. Make operations more automatic to facilitate internal controls.

You may have a floor space problem that electronics would solve by releasing file areas. You may desire decentralization or the reverse. You certainly have objectives in view which can be analyzed and put on paper.

## 2. Plan Program in Detail

You will undoubtedly want to plan a definite program. If you are the head of the firm or head of the department responsible for methods and procedures, the first thing that you will want to do is to appoint someone to investigate the possibilities of automation.

The important thing here is that the investigator should spend full time on this assignment. It has been learned from past experience that if this work is assigned as a part-time job in addition to other duties, the assignment seldom is completed.

The choice of the investigator is even more important. A knowledge of electronics will be very helpful, as the investigator will be talking to electronics engineers who have their own dialect like all other professions or trades. A knowledge of the methods and procedures in your business is essential, especially on the accounting side. An attitude that confidently expects to find savings in automation will certainly be rewarded. The investigation should be thorough, and not a superficial one that invariably produces an incorrect conclusion.

## 3. Analyze Present Methods and Procedures

Suppose that you now have a full time investigator with the necessary qualifications. The first step is a critical appraisal of routine operations and preparation of a *written* report on present methods and procedures, with flow charts and forms attached.

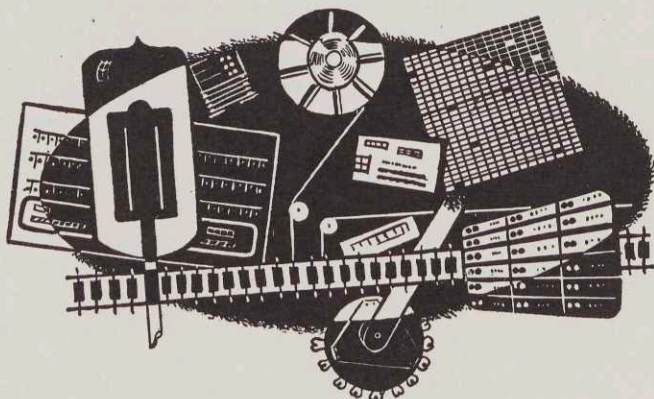
Unless the investigator is thoroughly familiar with every last step, an electronic solution cannot be reached. This is action to take. In any event, a report should culminate the investigation so that some worthwhile end result will be assured.

## 4. Ascertain Equipment Availability

These are a few of the questions which the investigator should be able to answer:

a. What action is being taken by competitors in streamlining their business to take advantage of new electronic systems? Visits should be made to businesses where electronics is used or is about to be employed, if this can be arranged.

b. Which are the business equipment and electronics manufacturers producing computers and other equipment



## Office automation—

for office purposes? Perhaps some of them have already made application studies in your line of enterprise. A lot of reading material has been published on such subjects, and catalogs can be obtained, but this will only advise what is already on the market. It is important also to know what is coming up in the near future, in the model shop, on the drawing board, or even as a gleam in the engineer's eye. Therefore, visits to factories and laboratories engaged in such work would be beneficial.

### *5. Economic Study of New Versus Old Methods*

Perhaps at this point it is decided that there is nothing yet available which will help you, but that something will be ready in a year or two. The result will not be entirely negative. In any event, you know where you stand, and don't have to worry about some competitor "pulling the rug from under you" suddenly through the use of new electronic methods. You will not be in the position of having a "white elephant" or complicated piece of machinery gathering dust in a corner of your office, because it was bought without a thorough investigation and nobody knows how to use it—this has actually happened and more than once! It will probably be confusing at first, but the ideas of the investigator will clarify more and more as he proceeds.

The chances are that you will find some electronic gear that will answer your problems which is already here or will be here soon. In such event an economic study must be made to balance the investment against the savings to be obtained, both tangible and intangible, with which process most businessmen are quite familiar.

### *6. Installation of New Procedures*

In the event that suitable equipment has been located, and the economic study justifies its purchase or rental, a contract is signed. While waiting for delivery, steps must be taken to establish new methods and procedures. Perhaps a prototype or pilot plant has to be produced. In many cases it is advisable to operate the old and new systems in parallel, until the new system is "debugged" and all concerned are familiar with its operation.

As Mr. E. B. Weiss, Director of Merchandising of Grey Advertising Agency, Inc. has very ably shown in his four articles which appeared in "Advertising Age" in 1953, the "Second Industrial Revolution" is upon us, and it will force major changes in production, merchandising and selling. He cites in those articles a great many examples of cases where electronics is already assisting business, and is relieving man of routine mental labor, just as the First Industrial Revolution relieved man and beast of routine physical labor. Aladdin and his magic lamp are really here!

It cannot be expected that the ultimate answer to a businessman's problem will be found at this stage, as many complete systems have yet to be engineered and they will have to be custom-tailored at first. However, an intermediate solution might be useful in the transition from manual to semi-automatic to automatic. As scientific discoveries are made, the completely automatic era will be approached. It may be practical to make a system X per cent automatic if that is the point of diminishing returns. In other words, "half-way" measures may be indicated as an intermediate step towards the ultimate automatic goal.

BIBLIOGRAPHICAL SKETCH OF R. HUNT BROWN

- Born - January 1, 1903, Methuen, Massachusetts
- Educated - Phillips Andover Academy and Yale University  
Now taking correspondence course with International Accountants Society, Inc. leading to C.P.A.
- Degrees Held - B.S. in electrical engineering, Sheffield Scientific School, Yale
- Professional Membership - Licensed Professional Engineer State of New York, Member Yale Engineering Society, American Institute of Electrical Engineers, Association for Computing Machinery, I.T. & T. Quarter Century Club, Life Member Telephone Pioneers of America and Delta Upsilon Fraternity
- Business Experience - 1927 to 1953 with International Telephone & Telegraph Corp. Held position of Assistant Vice President - retired on pension (see attached resumé for details)  
1953 President, Automation Consultants, Inc.  
1953 to 1955 - Automation Supervisor of Ernst & Ernst, New York (see attached resumé for details)
- Military Experience - Attached to U. S. Army, European Theatre, as Technical Adviser with assimilated rank of Colonel, 1945
- Clubs - Yale Club of N. Y. City  
Life member many foreign clubs.
- Personal Status - Wife, one married daughter
- Hobbies - Gardening, golf, bridge, study of scientific books
- Address - 5 East 88th Street, New York 28, N. Y.  
(Cooperative apartment)

*Dr. Wiener - Please note page 3 of attached.*

*R.H.B*

RESUME OF BUSINESS EXPERIENCE OF R. HUNT BROWN WITH I.T.& T.

Upon graduation from Sheffield Scientific School of Yale University in 1927, having majored in electrical communications, I entered the employ of International Telephone and Telegraph Corporation July 1st of the same year.

My first assignment was as a student engineer with the Cuban Telephone Company with a group of twelve recent American college graduates. My work consisted of installation of telephone repeater stations (Ciego de Avila and Camaguey) and automatic central office equipment of the Step-by-Step type, also transmission testing of the Havana-Key West submarine telephone cables.

My next foreign assignment was in China with an IT&T subsidiary, China Electric Co., Ltd. After leaving Cuba in 1928, I received further training from the engineers of our New York office; during this time I compiled questionnaires so that necessary field data could be obtained for the engineering of projects such as radio broadcasting and point-to-point, telephone central office and outside plant, railway telephone train dispatching, telephone and telegraph wire transmission, etc.

The next six years from 1929 to 1935 were spent in China, with headquarters in Shanghai where the IT&T subsidiary, China Electric Co., Ltd., had a factory. During those years I assisted in a large variety of projects, such as the conversion of the Shanghai Telephone Co. from manual to automatic operation, the laying of the Hong-Kong Canton underground and submarine cable, the installation of commercial and military aviation radio equipment, the installation of short and medium wave broadcasters, the installation and maintenance of Rotary automatic telephone central and manual toll exchanges in Canton, Amoy, and Swatow. I also conducted training classes for Chinese electrical engineers, recently graduated from native universities. I compiled a Sales Engineering Manual, which was used as a textbook in those classes to guide sales and project engineers in their work at various branch offices throughout China. Mr. Leon Fritchman, V.P. of IT&T in New York, is familiar with my activities in China. Mr. Wai H. Tan of IT&T, N.Y. can also testify in this respect. Positions held with China Electric were Sales Manager and District Manager for South China.

From China, I continued my round-the-world trip back to New York, via Suez and Europe, where I spent several months visiting IT&T factories and laboratories in Antwerp, London, Paris, and other European centers.

My next assignment was in Italy, where I was in charge of IT&T interests from 1936 to 1939, in factories making electrical communication equipment, and a long distance cable installation company; our principal work was with the concessionaire telephone companies and the government. Outstanding installations during my Italian assignment were a high power short wave broadcaster for Rome, the engineering and laying of underground and submarine telephone cables, and work on the Rotary Telephone System for the Vatican. Positions held were President of Standard Elettrica Italiana, the IT&T holding company in Italy, and as Director of several associated companies.

Owing to the anti-foreign atmosphere of the Mussolini regime just before the last war, my activities were rather curtailed, especially toward the end of my stay in Italy. I was fortunate in leaving Italy before World War II started in 1939, as my successor was interned for the duration.

The next few years were spent in the northern part of Latin America, acting as Sales-Engineering Representative of IT&T's International Standard Electric Corp. (formerly International Western Electric Co., Inc.), in the following countries:

1. Panama

With residence in Balboa, Canal Zone, I was closely associated with the Department of Telegraphs of the Republic of Panama, both in Panama City and the interior. Col. Prescott of the U.S. Army was head of that group, and also liaison officer for the Republic with the Canal Zone authorities on matters pertaining to joint communications problems. I also had dealings with the United Fruit Company at Puerto Armuelles, on railway telephone and other communications studies.

Mr. John Korner, then Resident Manager of All American Cables & Radio Corp. at Balboa, and now stationed at the N.Y. office, is familiar with those activities.

2. Costa Rica

I spent several months in San José, advising the government on communications problems, working with the National Telegraphs. United Fruit Company had problems in railway communications, as did the National Railways.

3. Mexico

From 1941 to 1944, most of my time was spent in Mexico, with headquarters in Mexico City at IT&T's Mexican Telephone Co. Trips were made throughout Mexico, with extended stays in the Yucatan and lower California peninsulas.

With the National Telegraphs at Mexico City, considerable time was spent with Eng. Olmedo on printing telegraph and long distance transmission problems.

The Railways employed Western Electric train dispatching, and had private communication circuits.

Much time was spent with the various broadcasting stations, and public utilities.

Visits were made to many hydroelectric power plants on project work.

Mr. Geoffrey Ogilvie, Vice President and Secretary of IT&T, is familiar with my work in Mexico.

4. Haiti

A very interesting visit was made to Haiti in 1944, where I did a survey of the telecommunications network of the Haitian Government. A report was made giving recommendations for modernization.

5. Dominican Republic

Visits were made to the government telecommunication agencies, and to the Military in connection with aviation radio problems at Ciudad Trujillo.

6. Cuba

Work was done there on private and government communications problems, in conjunction with the Cuban Telephone Co.

In my tasks in these countries, I was closely associated with IT&T's All American Cables and Radio Corp., which had offices and cable stations in most of the principal cities.

The early part of 1945 found me in charge of IT&T's Washington office at which Federal Telephone & Radio Corporation and International Standard Electric Corporation were represented.

Soon after V Day, I left for Europe, where I was attached to the U.S. Army because of work being done by IT&T's Mackay Radio Co. After spending a few weeks in France, Italy, and Germany, I flew to Prague where I was placed in charge of IT&T's interests in Czechoslovakia, Austria, and Poland as Assistant Vice President of IT&T and ISE Corp. My principal interest was in locating dispersed factories and protecting American property rights. I was closely associated with U.S. Ambassador Laurence Steinhart, and with Jon Masaryk, then Foreign Minister of Czechoslovakia, both now deceased. ISE Corp. had a Long Distance Cable Co. in Czechoslovakia in partnership with the Department of Posts, in which we were very active from an engineering standpoint, but which the Communists later viewed with a great amount of suspicion. Later in 1945, I handed over our Austrian problems to Robert Vogeler. He also assumed IT&T duties in Czechoslovakia and Hungary in 1946.

Attached is a translation from a Prague newspaper, reporting the trial of Czech employees of ISE Corp., and also of Government employees who had engineering contact with ISE Corp. In this trial I was named the leader of the "spy ring". I was advised that subsequently I was tried by the Czech authorities and condemned to death in absentia, on the charges that I was "a spy of the American imperialists of the rudest calibre, hiding behind the uniform of a Colonel of the U.S. Army".

Early in 1946 I accompanied a group of a dozen Czech engineers to New York, to negotiate a management advisory contract between the nationalized telecommunications industry and ISE Corp. We visited ISE Corp. factories in Paris, Antwerp and London on the way to the U.S.A. Although the contract was signed, it was not ratified by the Czechoslovak Government after the Communists took control in the May 1946 elections. I was scheduled to return again to Prague, but fortunately for me I did not do so.

From 1946 to 1948 I was Contract Manager of ISE Corp., being responsible for the control of a complicity of agreements, most of them licensees in the technical field such as the manufacture of coaxial cables, etc.

From 1948 to 1953 I was with International Standard Trading Corporation (subsidiary of ISEC) at New York as Sales Manager, introducing in this country new automatic electronic systems developed by IT&T foreign factories. Among these was the Automatic Reservations System installed at Penn. Station in New York City and at the 30th Street Station of PRR Co. in Philadelphia, and Automatic Pneumatic Tube Systems, a Ticket Tube System, and an Automatic Grid Winding Machine. I also did a lot of work on a new Totalisator System for race tracks, and brought a prototype from England to the U.S.A. for trial purposes.

The Vice President with whom I worked on Systems Engineering was Mr. Jammer, who passed away in 1952 at the early age of 54. This was a very unfortunate occurrence and a great personal loss, as we had done so much delving into the field of Cybernetics (reference "Cybernetics" and "The Human Use of Human Beings" by Dr. Norbert Wiener of MIT). Mr. Jammer was both a medical student and electrical engineering graduate at John Hopkins University, and a Licensed Professional Engineer of the State of New York. From our study of the control and communications of the animal as compared to the machine, we made many interesting plans for the furtherance of the automatic electronic equipment design.

*Dr. Wiener, pls note*



## AGAIN THE TIME IS RIPE FOR A BIG TRIAL

According to "People's Democracy", June 2, 1951

On May 30 and June 1, 1951, the State Court in Prague dealt with the case of Ing. Plocek and six co-workers accused by the State Attorney of punishable deeds of treason, sabotage and spying. The accused after the year 1945 entered into branches of the National Front and, so camouflaged, endeavoured to strengthen and acquire -- under the protective hand of Zenkel, Ripka, Lausman and Hala -- significant positions in our state and economic structure. They tried in all their efforts, under the cloak of technical experts and apparent ardent workers -- to continue in their treacherous anti-state activities. Purposely they have aided the American Trust ISEC (International Standard Electric Company) to control our weak-current industry (telecommunications), and to make it dependent upon deliveries so that the Wall Street monopolists would have the Czechoslovak Republic under its economic and political influence. They have therefore promulgated various so-called business dealings for deliveries of American equipment presumably for the restoration of the telecommunication equipment destroyed in the last war. The realization of such plans of the ISEC concern would however signify -- like all similar aid-actions according to the Marshall Plan -- the penetration of American capital into our nationalized industries and its ultimate ruin. The efforts for control of our weak-current enterprises and its techniques by the organs of ISEC were in reality an effort to build up a vast net of spying and sabotage activities in our industry. Its purpose was to give facilities to the American espionage agents in their criminal activities. The American Espionage Service cooperated very closely with the activities of ISEC trust, whose representative in Czechoslovakia was the accused Ing. A. Plocek, a manager of a branch factory, Standard Electric Doms. Under the pretence of representatives of this concern, various imperialist agents and spies have come to us. The proof of this is that ISEC's representatives as for instance Col. Brown and spy Vogeler -- sentenced last year by a Hungarian court -- were at the same time agents of the American Military Espionage Service.

The State Attorney stressed in his accusation that the activity of this damaging group characterizes the efforts of the pre-February reaction, represented by the treacherous leadership of the national-socialistic parties, liberal and rightist social democrats and the Slovak democratic party, to divide Czechoslovakia from the mighty alliance with the Soviet Union and to prepare ground for the restoration of a capitalistic regime.

After the final speech of the State Attorney, defending attorneys and the accused, the State Court declared, after deliberation, the following just verdict:

Ing. Plocek, Franc and Peske - death  
Ing. Hradecny - life imprisonment  
Ing. Pribik - 23 years  
Ing. Koppel and Ing. Hancl - 18 years.

All the accused were further sentenced to a total confiscation of their property, monetary fines, and loss of honorary rights of citizens.

19417 Denby  
Detroit 19, Michigan  
February 15, 1955

Dr. Norbert Weiner  
Professor of Mathematics  
Massachusetts Institute of Technology  
Cambridge, Massachusetts

Dear Dr. Weiner,

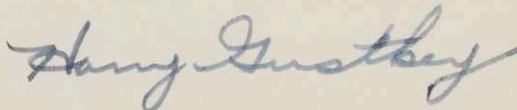
I am enclosing an item from my collection of historical covers  
which I would like to have you autograph for me.

As one of the world's greatest mathematicians, I would be honored  
to include your name among those represented in the collection.

Would you kindly inscribe your signature across the face of the  
cover and return it to me?

Thank you, Sir, and best wishes.

Sincerely,

A handwritten signature in blue ink that reads "Harry Gustkey". The signature is written in a cursive style with a large, sweeping "H" and a long, horizontal flourish at the end.

Harry Gustkey

HG:h

Magoroh Maruyama  
München 19, Lansdhuter Allee 25  
bei Felbinger  
Germany, February 16, 1955

Prof. Norbert Wiener  
Department of Mathematics  
Massachusetts Institute of Technology  
Cambridge, Mass., U.S.A.

Dear Prof. Wiener,

I am writing this letter because I am afraid that you may get in an embarrassing situation if you are not aware of certain facts which I explain below.

Today I met Prof. Metzger. He was extremely angry and excited, and told me that I had advised you not to come to Germany because of the German nationalism and the ontological confusion in Germany. Then he went off angrily without giving me a chance to talk.

Prof. Metzger has peculiarities. He is a professor of philosophy. His emotional excitement overwhelms his reasoning power. In his seminar he talks very much about mathematical logic, set theory etc. without knowing what they are. He is proud of employing mathematical and logical words in his own way, which contradicts the most elementary concepts of mathematics and logic. He has not the slightest idea about the formal deduction, recursiveness, independence of axioms, completeness and consistency of theories etc. He has no distinction between "transfinite" and "(denumerably) infinite", and is proud of giving a lecture on Hilbert's mathematical foundation next semester.

He seems to be, in my personal opinion, incompetent in pure philosophy. When he started a seminar, about ten students came. The two best students (philosophy major) quitted the seminar after a few discussions with Prof. Metzger, not because of theoretical disagreement, but they were disgusted by his emotional, untheoretical way of reasoning. When I quitted the seminar several weeks later, there were only two students remaining. In my personal opinion, he suffers from a complex of inferiority. It seems to me that a great incentive of his inviting you is to show off by doing so. It is entirely up to you to utilize his offer. But a great diplomacy will be needed if one tries to maintain a good relation with him.

I do not mean to discourage your visit to Germany. There are scholars who will benefit by your visit. Besides scientists, I know the following philosophers in Germany with whom you may enjoy associating.

Prof. Aloys Wenzl, München. He came from mathematics and develops a philosophy of organism.

Prof. Hans Grimm. He came from physics and chemistry, and writes a philosophy of different cultures. München

Prof. Wilhelm Britzelmayr. He came from mathematics, and leads research in mathematical logic. München.

Profs. Plessner and Wein, Göttingen, relativistic anthropology based on scientific methods.

If this letter lacks in organization and stylistical refinement, please excuse me. I am writing it between two lectures. This week some professors from Paris are giving lectures here. I am

attending as many lectures as I can. Today I heard Prof.  
Georges Davy (sociology) and Prof. Destouches (Institut  
Henri Poincaré).

Sincerely yours,

*Magoroh Maruyama*  
Magoroh Maruyama

[ans 2/23/55]

Revision Feb.22,1955

The idealism in philosophy, which could have been developed to a subjective relativism, turned out to be a dogmatism claiming objectivity divorced from reality. The speculative philosophy, which could have explored the dimensions independent from but consistent with the material reality, has become, in the process of rejecting the inductive and scientific methods, an arbitrary fantasy of ~~mania~~ spoiled and uneducated children. The existentialisms, which could have grown to be vigorous protectors of dynamic individuality and freedom equipped with scientific knowledge and practical application thereof against standardization and totalitarianism, have identified themselves as ignorant anarchists more destructive than constructive. But our scientism and psychologism are not without difficulty.

*M. Marmgama*

possible to construct different systems being without contradiction within itself, though it may be undecidable, yet the different systems contradicting one another. There is no way to determine logically which axiom system is absolutely correct. For if an axiom were logically proved to be correct, it would be a theorem and not an axiom. When only one of the existing and possible psychological systems monopolizes over a society, it seems absolutely correct, and eliminates the people's ability to think in some other ways. This tendency can be observed in many parts of the world including the U.S.A. Because of these dangers of the existing methods of psychological study, and because of the insufficiency of the scientific and statistical methods in social study (partly because of the complexity and non-causality of the object, partly due to the fact that the presence of observation affects the actions of the observed), we need to develop a new synthetical way of study, and probably have to open a new field. It is impossible, for example, to understand with the American pragmatism what the European culture means to the Europeans. It is very difficult for some German people to conceive a society in which one has to (so they say) practise self-discipline and self-determination, or for some other German people to extend a spontaneous cooperation beyond the limit of personal friends or to participate in public affairs, for such deeds mean to them a lack of self-respect and discretion.

The scale of the work of Prof.N.Wiener and others, to which a name "cybernetics" has been given, is very comprehensive. Such synthetical approach is urgently needed in all domains of our intellectual activities, including a new direction of research to establish more universally valid educational principles (not intended to hinder the development of the regional characteristics) in order to eliminate unnecessary but inveterate frictions among individuals or groups of individuals in the world.

Much study has been done on the psychology of individuals in a society. But as far as I understand with my meagre knowledge, very little systematic and practical study has been made on the communion of individuals belonging to different cultures, among whom less informed ones are handicapped by ignorance, and more informed ones are obstructed by prejudice and rationalization which are not universally valid. I do not mean here a so-called "psychological" study which, if employed alone, seems to present a three-fold danger: first, a "psychological" theory in one cultural environment is not applicable in another cultural environment; secondly, its tendency to restrict the viewpoints of the observation on the activities of the human mind, thus dealing with what may be geometrically called a projection of the human mind into a space of a fewer dimensions; and thirdly, its subjectivity. In the study of psychology, a cascade of axioms can be set up rather arbitrarily. Logically (logistically) it is possible to construct different theory systems by deduction from different sets of axioms, each of the systems being without contradiction within itself, though it may be undecidable, yet the different systems contradicting one another. There is no way to determine logically which axiom system is absolutely correct. For if an axiom were logically proved to be correct, it would be a theorem and not an axiom. When only one of the existing and possible psychological systems monopolizes over a society, it seems absolutely correct, and eliminates the people's ability to think in some other ways. This tendency can be observed in many parts of the world including the U.S.A. Because of these dangers of the existing methods of psychological study, and because of the insufficiency of the scientific and statistical methods in social study (partly because of the complexity and non-causality of the object, partly due to the fact that the presence of observation affects the actions of the observed), we need to develop a new synthetical way of study, and probably have to open a new field. It is impossible, for example, to understand with the American pragmatism what the European culture means to the Europeans. It is very difficult for some German people to conceive a society in which one has to (so they say) practise self-discipline and self-determination, or for some other German people to extend a spontaneous cooperation beyond the limit of personal friends or to participate in public affairs, for such deeds mean to them a lack of self-respect and discretion.

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February 16, 1955

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Prof. Norbert Wiener  
2-155

Dear Prof. Wiener:

It is my privilege and honor to send you this annual communication and to try and convey the thoughts and wishes you would have received from our beloved deceased member of the T.C.A. Advisory Board, Ivan J. Geiger, if he were here to write this letter to you in person.

We, the members of the Advisory Board, are again requesting your assistance and good will for one of the greatest, most outstanding and enduring organizations at M.I.T. that is noted for service to the University Family, to community and college coordination, and for that unequalled college opportunity for our students to receive assistance "in developing the whole man" by service to their fellowman.

The T.C.A. year after year, for the past four decades, has never charged any money for its services rendered to the many thousands of members of the M.I.T. Family by the nineteen different departments in its organization.

Its income must depend upon its annual drive among the student body, annual solicitation among the Faculty, M.I.T. Corporation, members of the Tech Family and friends and relatives of the M.I.T. Community.

You will always find a considerate and ready willingness to help you whenever you call on the T.C.A. for service in theatre tickets, the exchange of text books, the Freshman Handbook, the special desk blotter, the blood bank, the Tech House at Round Hill, the boys' work in Community settlement houses, the Religious Action Division, special rooming facilities off campus, or in any of the other departments in its nineteen divisions.

We will greatly appreciate your help and we want you to know that your assistance will enable the T.C.A. to continue to carry on its great work in the M.I.T. Community and for you as a member of the Tech Family.

The Advisory Board of the T.C.A. has also for many years solicited support for the World University Service. An enclosed pamphlet describes this great work for students and staffs the world over.

The enclosed card provides spaces for contributions to both organizations.

Most sincerely yours,

*William H. Carlisle, Jr.*

William H. Carlisle, Jr. '28, Advisory Board

WHC:aw

P.S. You recall a year ago you forwarded for T.C.A. \$5.00 and for WUS \$5.00 .

האוניברסיטה העברית

THE HEBREW UNIVERSITY

JERUSALEM

ירושלים

EDWARD I. J. POZNAŃSKI

ACADEMIC SECRETARY

THE HEBREW UNIVERSITY, JERUSALEM

AMERICAN FRIENDS OF THE HEBREW UNIVERSITY

9 EAST 89TH STREET

NEW YORK 28, N. Y.

TEL. ATWATER 9-5200

LO 6-3026

Riverway Manor, 210 Riverway, Boston

February 16, 1955

Dear Dr. Wiener,

As the Academic Secretary of the Hebrew University in Jerusalem and a member of its Depart. of Philosophy I am on leave here and I hope that I shall not intrude upon your time and your kindness, if acting on the suggestion of Dr. Harry Wolfson I shall ask you to be kind enough to give me the opportunity to meet you some time during the next two weeks.

We expected you eagerly in 1953 on your way to India and were very disappointed when your visit had to be cancelled. I presume therefore that you might be interested in Israel and in what is going on at the Hebrew University, especially since there are so many people interested in your recent work.

May I ask you to drop me a line indicating when I might contact you or your secretary in order to arrange a meeting.

Sincerely yours,

*E. Poznanski*

Edward Poznanski

Dr. Norbert Wiener  
Massachusetts Institute of Technology  
Cambridge.



February 16, 1955

Captain B. C. McCaffree, USN  
Industrial College of the Armed Forces  
Washington, D. C.

Dear Captain McCaffree:

In reference to your telephone call and your letter of February 11, Professor Wiener has asked me to accept your invitation to him for the 11th of March at 10:30 a.m.

Professor Wiener will lecture on the topic you have assigned him; however, he would also like to talk on "Automation and the Clock."

We will purchase the tickets for Professor Wiener's transportation here, and will forward the bills to you.

Sincerely yours,

Gabrielle Fuchs, Secretary  
to Professor Wiener

gf

UNIVERSITY OF CALIFORNIA

DEPARTMENT OF MATHEMATICS  
STATISTICAL LABORATORY  
BERKELEY 4, CALIFORNIA

February 17, 1955

Dr. Norbert Wiener  
Department of Mathematics  
Massachusetts Institute of Technology  
Cambridge 38, Massachusetts

Dear Wiener:

I am returning the carbon copy of your manuscript which has been read here. I shall appreciate it if you will go over it and check the minor editorial suggestions, made solely in the interest of smoothness.

On page 7, the 3d sentence in the 2nd paragraph, beginning "The determination . . ." is incomplete. Will you please complete it?

I shall appreciate it very much if you will get the carbon and any revisions back to me as soon as possible. In accordance with UC Press regulations, any changes you make in copy subsequent to the return of this manuscript, will be considered as author's corrections and will be charged to you. Won't you please bear this in mind in reviewing your paper now?

Cordially yours,

*J. Neyman*

J. Neyman

JN:CF

[ans 3/9/55]

# Congress of Industrial Organizations



718 Jackson Place, N. W. Washington 6, D. C.

Office of  
STANLEY H. RUTTENBERG, Director  
Department of Education and Research

Cable Address "CIOLABOR"

EXecutive 3-5581

February 17, 1955



Dr. Norbert Wiener  
Massachusetts Institute of Technology  
Cambridge, Massachusetts

Dear Dr. Wiener:

This will confirm our telephone conversation in which I extended to you an invitation to participate in an Automation Conference, sponsored by the Committee on Economic Policy of the Congress of Industrial Organizations, April 14, in Washington, D. C.

The conference will deal with the industrial, social, and economic implications of the new technology. It will be a one-day session, the morning devoted to a quantitative analysis and discussion of the industrial implications and the afternoon devoted to a qualitative analysis and discussion of the social and economic implications of automation.

In the morning, I hope that you will discuss a subject that might be phrased, "The Meaning and Implications of the New Technology." I am hopeful that John Diebold will discuss "The Application and Uses of Automation."

In the afternoon, we hope to have a businessman discuss "Business Adjustment to Automation" and a public figure address himself to the subject, "The Implications of Automation for Public Policy." Between the morning and afternoon sessions, we will have a luncheon when Walter P. Reuther, President of the CIO and the UAW-CIO, will address the conference.

The conference will be limited to about 150 key people selected from our international unions, representatives of government agencies, as well as members of Congress and their staffs.

[ans 2/28/55]

Dr. Norbert Wiener

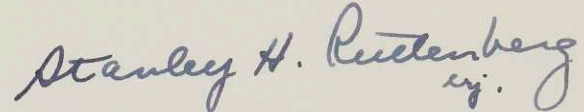
-2-

February 17, 1955

If you are willing to participate, I should be happy to discuss the proposed conference with you in greater detail.

I sincerely hope that you will be able to accept the invitation.

Sincerely,

A handwritten signature in cursive script that reads "Stanley H. Ruttenger" with a small "ej." written below the name.

Stanley H. Ruttenger  
Director  
CIO Committee on Economic Policy

liu 1695 cio

# The New York Times

TIMES SQUARE NEW YORK 36 NY

LACKAWANNA 4-1000

February 17, 1955

Dr. Norbert Wiener  
Massachusetts Institute of Technology  
Dept. of Mathematics  
Cambridge 39, Massachusetts

Dear Dr. Wiener:

We regret to report that we shall not be publishing the scientific symposium as planned. So few of those asked were able or willing to contribute that the project has been dropped.

We want to thank you, however, for your own cooperation, and express our gratitude for the interest you have shown.

Sincerely,



John M. Willig  
Magazine

JMW:clr

February 17, 1955

Dear Epstein:

Today I am sending you Chapter 13 of my book, in what I hope is the last form which I shall have to revise myself. As to those chapters which concern my travels, while I agree that they have been diffusely written in the original version and contained too much in the nature of a travelogue, I do not feel that they can be cut to advantage as heavily as you seem to wish. I am trying to integrate my travels more closely with my scientific career, but not all my personal experiences are or have been those of science. The criterion I am using for my cuts is whether the experiences which I relate really are things that I have seen with my own eyes and that have made a serious impression on me in a way that is not available to the average tourist without my special sort of background. Thus it would be entirely foolish of me to say anything about a Chinese theatrical production, a Mexican bull fight, or the architecture of an Indian temple; but it is not improper for me to say a good deal concerning the students at a Chinese University, the Instituto Nacional de Cardiología, or the present attitude toward science in India.

All of these travel chapters have been cut heavily, as much as possible in accordance with your own suggestions; but I sincerely believe that they would lose by being cut further to any great extent.

If you wish to cut them further, I think it should be directly under your own responsibility and under my protest.

Sincerely yours,

Norbert Wiener

Mr. Jason Epstein  
Doubleday and Company  
575 Madison Avenue  
New York 22, New York

NW:gf

Enclosure

February 17, 1955

Dr. Georg Unger  
Haus Siebeneck  
Dornach, Switzerland

Dear Dr. Unger:

I am happy to inform you that the Executive Committee of the Corporation of the Massachusetts Institute of Technology has approved your appointment as Visiting Fellow in the Department of Mathematics for the period April 15, 1955 through October 15, 1955.

Please feel that you are welcome to the privileges available to a staff member in respect to attendance upon lectures or other exercises, to the services of the Medical Department, the use of the Library and similar facilities.

We shall be pleased to greet you at this office upon your arrival at M. I. T.

Sincerely yours,

John W. M. Bunker  
Adviser to the President

JWMB/B

cc--Professor Martin  
✓ Professor Wiener  
President's Office

INDUSTRIAL COLLEGE OF THE ARMED FORCES  
WASHINGTON, D. C.

ICAF 201

18 February 1955

Dear Professor Wiener:

Your acceptance of our invitation to speak before the student body of the Industrial College of the Armed Forces at 10:30 a.m., on 11 March was received with pleasure. I am sure that we will hear much of interest by your inclusion of comments on "Automation and The Clock."

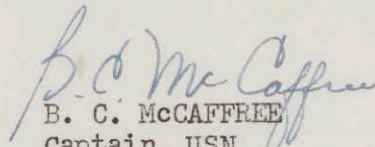
If you will advise me as to when and how you are arriving we will have an escort meet you and provide official transportation while you are in the city.

We will have all of the papers in connection with your government claim prepared and ready for your signature when you arrive.

I assume that you will be our guest at luncheon at the Fort McNair Officers' Club following your talk.

If I can be of any further assistance in making your visit this year to the Industrial College a pleasurable one, I hope you will feel free to call on me.

Sincerely yours,

  
B. C. McCAFFREE

Captain, USN  
Chief, Production Branch

Professor Norbert Wiener  
Massachusetts Institute of Technology  
Cambridge, Massachusetts



ICAF 201

18 February 1955

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Sincerely yours,

B. C. McCAFFREE  
Captain, USN  
Chief, Production Branch

Professor Norbert Wiener  
Massachusetts Institute of Technology  
Cambridge, Massachusetts

18 Februar 1955

Prof. Dr. Arnold Metzger  
München 15  
St. Paulsplatz 9

Lieber Kollege Metzger:

Ich empfang mit Freude Ihren offenen Brief von 7 Februar. Herr Wenzels Brief ist auch soeben angekommen. Ich komme sicher nach München, und spreche, wie Sie schreiben, in einem kleinen eingeladenen Kreise.

Meine Pläne haben sich aber entzwischen geändert. Die Universität Southampton in England hat mich eingeladen Ende Mai einen besonderen Vortrag (Fawley Foundation Lecture) zu halten, so dass meine Frau und ich den ganzen Sommer in Europa sein werden. Natürlich, möchte ich einige Wochen in England verbringen, um mit meinen dortlichen Fachgenossen in Berührung zu kommen. Wir fahren über Paris nach Deutschland. Meine Frau hat Verwandte in Heydenheim, so dass wir einige Tagen dort verbringen werden. Nachdem, fahren wir mit Ihnen nach eine Sommerfrische in Tirol. Weil die Abstände so gering sind, ist es uns gleichgültig genau wann wir München besuchen, ob in Juni oder in Juli, und wir lassen dass völlig Ihrer Entscheidung zu. Nachher werden meine Frau unch ich eine kleine Italien Reise machene.

Mitte September sind wir schon in Indien und zwar in Kaschmir. Wir baeiben in Indien bis April, zu welcher Zeit wir nach Japan fahren. Dort hat mein alter Schüler, Ikehara, uns <sup>eine</sup> Einladung vorbereitet. Danach, wieder nach Amerika zurück, vielleicht über Hawaii. Möglicherweise werde ich eine Einladung haben Sommer Unterricht in Berkeley zu halten. Dann kehren wir wieder nach Boston zurück.

Mit besten Grüsse von Haus zu Haus.

Ihr ergebener,

Norbert Wiener

NW:gf

18 Februar 1955

Professor Aloys Wenzel  
Philosophisches SeminarII  
Universität München  
Geschw.-Schollplatz 1  
München, Deutschland

Lieber Herr Professor Wenzel:

Mit grosser Freude empfang ich Ihren Brief von 27  
Januar. Ich habe Herrn Kollegen Metzger schon geschrieben,  
und irgendwann im Juni oder Juli würde ich mich sehr erfreuen  
einen Vortrag vor Ihren Seminar zu halten.

Ich beschäftige mich jetzt mit einem Buch über die  
Grammatik der halbexakten Wissenschaften. Vielleicht wäre  
eine Idee aus diese Kreise angebracht als Thema meines  
Vortrages zu dienen.

Mit vorzüglicher Hochachtung.

Ihr ergebener,

Norbert Wiener

NW:gf

BULLETIN DE SOUSCRIPTION

Je soussigné  
désire participer à la souscription en versant la somme de  
francs

Les souscripteurs résidant en France pourront verser leur souscription à M. André Rey, Institut Henri Poincaré, II, rue Pierre-Curie, Paris (5<sup>e</sup>), C. C. P. 1213-21, Paris.  
Aux souscripteurs résidant à l'étranger, qui ne pourraient verser à ce compte, nous suggérons de transmettre les fonds par l'intermédiaire de l'Attaché culturel de l'Ambassade de France.

Comité d'organisation du Jubilé de M. Arnaud Denjoy,  
Institut Henri Poincaré, II, rue Pierre-Curie, Paris (5<sup>e</sup>).

# JUBILÉ SCIENTIFIQUE de Monsieur le Professeur Arnaud DENJOY

SOUS LA PRÉSIDENCE

DE MONSIEUR LE MINISTRE  
DE L'ÉDUCATION NATIONALE

Paris, le 20 février 1955.

MONSIEUR,

*Les amis et élèves de M. le Professeur Arnaud Denjoy se proposent de célébrer au mois de juin prochain son Jubilé scientifique.*

*Le Comité d'Honneur qui s'est constitué désire donner à cette manifestation d'amitié et de respect tout l'éclat possible.*

*Le prochain volume du Journal de Mathématiques Pures et Appliquées sera consacré à la publication de travaux dédiés à M. le Professeur Denjoy.*

*On envisage aussi la frappe d'une médaille commémorative à l'effigie de M. Arnaud Denjoy.*

*Nous serions très honorés si nous pouvions compter sur une souscription de votre part pour nous aider à réaliser ces projets.*

*Nous vous en remercions à l'avance et vous prions de croire à nos sentiments très cordiaux.*

LE COMITÉ D'ORGANISATION.

COMITÉ D'HONNEUR

Monsieur le Ministre de l'Éducation Nationale.  
Monsieur le Secrétaire d'État à la Recherche Scientifique.  
M. LOUIS FAGE, Président de l'Académie des Sciences.  
MM. LOUIS DE BROGLIE et ROBERT COURRIER, Secrétaires perpétuels de l'Académie des Sciences.  
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M. l'Ambassadeur des Pays-Bas.  
MM. les Présidents de l'Académie Royale des Sciences d'Amsterdam, de l'Académie des Arts et Sciences de Boston, de l'Académie des Sciences de Lima.  
M. le Président de la Société des Sciences et Lettres de Varsovie.  
MM. les Présidents des Sociétés mathématiques de Belgique, de Moscou, de la Société des Sciences d'Utrecht.  
M. MARSTON MORSE, Docteur *honoris causa* de l'Université de Paris.  
MM. les Recteurs des Universités de Varsovie, Utrecht, Bucarest.  
M. H. HOPF, Président de l'Union Mathématique Internationale.  
M. E. BOMPIANI, Secrétaire Général de l'Union Mathématique Internationale.  
M. MARSHALL STONE, ancien Président de l'Union Mathématique Internationale.  
  
M. HYPPOLITE, Directeur de l'École Normale Supérieure.  
M. KIRRMANN, Directeur-adjoint de l'École Normale Supérieure.  
M. le Président du Conseil Général du Gers.  
M. le Maire d'Auch.  
M. le Maire de Montpellier.

JUBILÉ SCIENTIFIQUE de Monsieur le Professeur Arnaud DENJOY

BULLETIN DE SOUSCRIPTION

Je soussigné \_\_\_\_\_  
demeurant \_\_\_\_\_ à \_\_\_\_\_  
désire participer à la souscription en vue du Jubilé, pour la somme de \_\_\_\_\_  
Signature :

Les souscripteurs résidant en France pourront verser leur souscription à M. André Revuz, Institut Henri Poincaré, 11, rue Pierre-Curie, Paris (5<sup>e</sup>), C. C. P. 12133-21, Paris.

Aux souscripteurs résidant à l'étranger, qui ne pourraient verser à ce compte, nous suggérons de transmettre les fonds par l'intermédiaire de l'Attaché culturel de l'Ambassade de France.

Adresser toute correspondance à :

Comité d'Organisation du Jubilé de M. Arnaud Denjoy,  
Institut Henri Poincaré, 11, rue Pierre-Curie, Paris (5<sup>e</sup>).

130 So. Angelno Avenue  
Azusa, California  
February 21, 1955

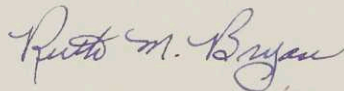
Professor Norbert Wiener  
Massachusetts Institute of Technology  
Cambridge, Massachusetts

Dear Professor Wiener,

I am writing to inquire concerning the "Sidis method" of education. Can you tell me anything about the end results of his amazing prodigies? Were they normal, happily adjusted adults? Do you consider his method practical or adaptable? Is it being followed anywhere today? Or are the reports I have read (Pathways to Power by Edward L. Kramer) highly exaggerated? Do you know anything of Sidis' son Billy, whom Kramer claims he (Sidis) instructed so that he comprehended knowledge beyond his years without formal education? Any information along this line I would deeply appreciate.

Thanking you in advance for your courtesy, I am,

Very sincerely yours,



Ruth M. Bryan (Mrs. John J.)

[ans 2/28/55]



February 21, 1955

Dear Professor Wiener:

Thanks for your note and for the Mexican Chapter. I agree with you in spirit, certainly, and I hope that when the work is in I will agree with you in detail. I have every reason to think that I will. The work is coming splendidly, and as I said before, the next step is the printer.

I would prefer, incidentally, that the book come out in the fall rather than in the spring or summer, for obvious reasons. Please let me know if you have any feelings about this.

Yours,

Jason Epstein

Professor Norbert Wiener  
Department of Mathematics  
Massachusetts Institute of Technology  
Cambridge, Massachusetts

JE:nr

21 February 1955.

Dear Professor Wiener,

I thank you for your letter of February 9.

Reading together your letter of January 20 addressed to me and your letter of January 31 addressed to Mr. Sundaram at Washington, I believe it is necessary to consider the following arrangements in connexion with your proposed visit to India.

- (1) Air (or sea) travel expenses from Europe to India and then to Japan and San Francisco for you and Mrs. Wiener, subject to
  - (a) you are trying to ascertain whether Israel will meet your travel expenses from Europe to Israel in which case you will require travel expenses from Cairo via India and Japan to San Francisco; or
  - (b) you may be able to secure a part of the transportation cost either from India to Japan or from Japan to San Francisco, in which case you would require travel expenses for the portion of the journey not otherwise covered.
- (2) Living and travel expenses within India for you and Mrs. Wiener.

I shall consult with the different institutions mentioned in your letter and see what can be done to arrange a visit by you to India roughly from September 1955 till the end of March or April 1956. I shall write to you again as soon as possible.

With best wishes from Rani and myself for Mrs. Wiener and you,

Yours sincerely,

*P. C. Mahalanobis*

Professor Norbert Wiener,  
Department of Mathematics,  
Massachusetts Institute of Technology,  
Cambridge 39,  
Mass.



February 22, 1955

Dear Jason:

I am sending you the last chapters of my manuscript as it stands at present. I have made a conscientious effort to follow all your suggestions except in the very few cases when I have disagreed with you on minor points. There is one major point, however, which bothers me a bit. You suggest that I give the conversation and direct discourse in my India chapter. I am not good at writing conversation, nor am I inclined to commit my friends who have talked freely with me to what is likely to be a colored and inaccurate report of their words. After consulting with my friends, I have decided to stick to my last and to do only those sorts of things to which I feel I have a personal competence.

The book remains too long. I have done a very substantial amount of pruning, and I feel that further detailed pruning should be left to your discretion. I am very much afraid that if I undertake it, we shall not see eye to eye, and I shall prune what are in your opinion the wrong things. I have not any partipris which forbids me to throw away more material, but I have no confidence left that close as I am to my own book, I shall throw away the right material.

I don't want to do any extensive rewriting, and I don't believe that I am sure enough of myself now to make such an extensive rewriting an improvement. If there are specific and limited things which you think I should remodel, I am ready to do so to a reasonable extent. If with all I have done up to date, the book seems essentially unsatisfactory, I am quite ready to drop the entire undertaking. Please remember, however, that I have made a conscientious attempt to live up to your criticisms, that if I am unwilling to do much more it is because I simply don't know what to do.

Sincerely and gratefully yours,

Norbert Wiener

Mr. Jason Epstein  
Doubleday and Comapny  
575 Madison Avenue  
New York 22, New York

Enclosure

NW:gf

# AUFBAU RECONSTRUCTION

An American Weekly

Published in New York City by the New World Club, Inc.

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February 23, 1955

Dr. Norbert Wiener  
Massachusetts Institute of Technology  
Cambridge 39, Mass.

My dear Dr. Wiener:


This is to thank you -- even if a little belatedly -- for your kind letter of January 13, 1955.

The statement which you were good enough to give us will be one of the highlights of our Anniversary Issue.

It will appear on March 25, and we shall be happy to send you a copy at that time.

Again, please accept our warmest thanks.

Sincerely,

  
Manfred George  
Editor

p

MASSACHUSETTS INSTITUTE OF TECHNOLOGY  
LINCOLN LABORATORY  
P. O. Box 73  
LEXINGTON 73, MASSACHUSETTS

OPERATING PROJECT LINCOLN

February 23, 1955

TELEPHONE  
LEXINGTON 9-3370

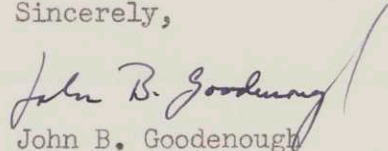
Professor Norbert Wiener  
Room 2-155  
Massachusetts Institute of Technology  
Cambridge, Mass.

Dear Professor Wiener,

Upon my return from the west coast I have been delighted to hear such enthusiastic reports of the Friday evening you spent with us on the East Campus. I was terribly disappointed not to have the opportunity to meet you and to share with the others your enthusiasm for and diversity of acquaintance with man's quest for truth.

With many thanks for giving so generously of yourself and of your time --

Sincerely,

  
John B. Goodenough

JBG/md

February 23, 1955

Mr. A. Ducrocq  
5bis, rue Sainte Sophie  
Versailles  
S and O  
France

Dear Mr. Ducrocq:

I have just received your book and it looks interesting and well above the mass of scientific journalism that is now appearing concerning cybernetics.

However, I have just this day sent off the manuscript of a new book and after a few days of earned repose, I am beginning another. Thus you will have to excuse me for a certain delay in my attention to your book.

I shall be passing through Paris some time this summer, and hope that we shall have an opportunity to meet personally and to discuss scientific matters.

Sincerely yours,

Norbert Wiener

NW:gf

February 23, 1955

Mr. Magorch Maruyama  
Biedersteinerstrasse 49  
Munich 23, Germany

Dear Mr. Maruyama:

I did not at any time tell Professor Metzger that you advised me not to come to Germany, but I did tell him that the general tone of your letter suggested to me that it might not be desirable, I have now decided to appear personally in Munich, but to speak only privately at the philosophical seminar and to avoid all newspaper publicity or appearance of propaganda. As to the recommendation which you have requested of me, I think the whole matter must wait at any rate till I have seen you personally and know more of you. I am impressed by certain aspects of your work, but I have also some doubts of your wisdom in handling yourself. You have been a bit pushful in your relations with me, and I want to be sure before recommending you that this pushfulness will not be a serious handicap in your performance of the duties of an academic job.

I do not expect subservience on the part of young men coming up in their professions, but I do expect a somewhat better understanding than you have shown of the problems besetting an older man who is asked by every young scholar to give him a substantial portion of his time, and attention, and who has a mass of obligations tending to interfere with his carrying out of his own writing and research.

I don't say that you have damned yourself irrevocably with me, but I certainly want to know more about you before I go out on the limb on your behalf.

Sincerely yours,

Norbert Wiener

NW:gf

February 23, 1955

Professor Jerzy Neymann  
Department of Mathematics  
University of California  
Statistical Laboratory  
Berkeley 4, California

Dear Neymann:

My trip to India and I believe to Israel, is now definite. I have also an invitation to Southampton in England for May of this year. Whether I return from India in the spring of 1956 via Europe or via Japan and California is still open. All I request is that you let me know at the earliest possible moment if there is any chance of my giving lectures at California in the summer of 1956.

The idea of three hours a week of lecturing or seminar is a bit heavy although I might work it out with Barankin as a colleague. Long before I arrive in California I shall be substantially finished with my book on the Grammar of the Semi-exact Sciences. This will contain a lot of new material about matrix factorization and prediction and will go into great detail on non-linear prediction and on the prediction theory which associates itself with relativistic time and even multiple relativistic time. Siegel and I are working assiduously on the application of our ideas to quantum theory, and I have hopes that even before I have left America, we shall have come across in a big way.

The work that the Massachusetts General Hospital people and our own group are doing on brain waves is about to develop into something really important. The main outlines of our plans will be clear by the time I leave for Europe, but arrangements have already been made to keep me in touch with all later progress during my trip. If it even comes off half as well as we have clear reason to expect, I think it will be a major subject for my possible talks in California.

I like the half-time arrangement for a seminar better than anything else you suggest. If I am to do any work with the OOR, the study of stochastic processes is right down my alley. However, I should expect that whether my work should be with OOR or ONR, I should keep off classified material and give primarily those things I am most qualified to give. Just let me know how things are coming on so that I can make as early as possible a final decision whether to return from India to America by the Eastern or the Western route.

With best wishes to my California colleagues, and with thanks to you and the entire group for your courtesies, I remain

Sincerely yours,

[Date 2/25/55]

February 23, 1955

Professor M. S. Sundaram  
Educational and Cultural Counsellor  
Embassy of India  
2107 Massachusetts Avenue, N. W.  
Washington 8, D. C.

Dear Professor Sundaram:

I have just been trying to make the plans for my year abroad more definite. I originally expected to make my Israeli trip in late August, just before my Indian one. This has proved to be impracticable, because the Israeli Universities will be almost deserted in August. Thus my new plans, which are not yet definite but which I will be able to close within a month, read about as follows:

I shall leave with my wife for Europe the middle of May, and on May 26, I shall give the Fawley Foundation Lecture at Southampton. Then I shall spend a few weeks in England, and leave around the 7th of June for Israel. About the 10th of July, I shall return to Europe, where I shall give a talk in Munich and possibly some talks elsewhere. I plan to leave Europe by Air India for India with my wife some time early or in the middle of September. At present it is nearly indifferent to me from what European airport I commence my journey, and I should think that Geneva will suit me as well as it will probably suit you people. It is only with my embarking by air for India that I expect that my travel expenses and those of my wife will come on your hands.

As to my return to the United States, my plans are still quite fluid although I expect to leave India some time about the 1st of April 1956. We can leave the detail of these matters until both parties, yourselves and ourselves, have more information on the matter. I need not tell you how much Margaret and myself are looking forward to the trip, nor how much we appreciate the consideration and help which we are receiving from you and our other Indian friends.

Sincerely yours,

Norbert Wiener

NW:gf

News Flash!

Should the enemy strike with the atomic weapons, then thousands of "Space Men and Ships" will appear who have advanced methods of checking "Radio-activity," and numerous poisonous gases, and fires, resulting from such actions!

Man should welcome them and be thankful for "Divine Intervention," for without them the world could be blown apart.

(Please share this with your friends.)  
(It will help to eliminate much fear.)



MRS. HERBERT F. FINCK  
"Fieldcrest", Brevard, North Carolina



Prof. Norbert Wiener  
M I T.  
Cambridge  
Mass.

Personal

SELF SEAL ENVELOPE MADE BY UNITED STATES ENVELOPE COMPANY 5454

UNIVERSIDAD CATOLICA DE CHILE

Santiago, 24 February, 1955

Dr. J. H. Means  
60 Mount Vernon Street  
Boston 8, Mass

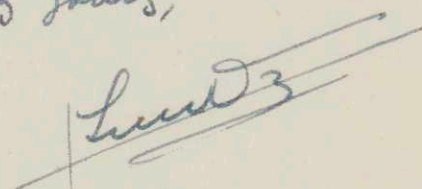
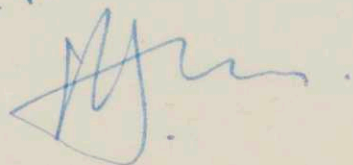
Dear Dr. Means:

A few days ago I received the beautiful book "Ex-prodigy" of our common friend Dr. Wiener. I thought to read it before to thank you, but my wife took it and for some time she did not cook for me because she was so busy with his friend Dr. Wiener. Now, as the life started to be normal at home again and I am not under fast stress, I will read the book.

With our cordial thanks we are sending you our best wishes.

Friendly yours,

Dear Professor Wiener  
this letter may  
entertain you.



J. V. LUCO  
UNIVERSIDAD CATÓLICA  
Casilla 114-D - Santiago de Chile

DAVID M. BROUDY  
COUNSELLOR AT LAW

MURRAY HILL 3-0998  
CABLE ADDRESS "DAMBY NEW YORK"

*22 East 40th Street*  
*New York 16, N. Y.*  
February 25, 1955

Dr. James R. Killian, Jr.  
President Massachusetts Institute of Technology  
111 Memorial Drive  
Cambridge, Mass.

Dear Dr. Killian -

I send you herewith an original letter dated February 10, 1955 directed to me, wherein Gotham Recording Corporation makes a proposal for producing a phonographic record of the recent talks in New York by Doctors Wiener and Brown. As you know, Doctors Wiener and Brown spoke in New York on February 2, 1955 at a dinner meeting of the M. I. T. Club of New York, Inc. I acted as Chairman of the meeting.

I have discussed the subject matter of the enclosed letter with Lou Bruneau, President, and other members of the New York Club, and it is the concensus that the project is within the province of Doctors Wiener and Brown and the Institute, rather than the New York Club, and that sponsorship would more properly be in the Institute itself or in the Alumni Association. I therefore am forwarding the enclosure to you for consideration by the appropriate agency of the Institute. You or such agency, of course, may communicate directly with Gotham Recording Corporation.

I am advised that the Institute has under consideration an educational program directed to Alumni so that Alumni and others would be enabled to keep abreast with respect to developments in particular areas in which they may be interested; one of the objectives being to keep in contact with Alumni so as to continue their interest in the Institute. I can visualize that such a program might well yield long-term benefits to the Institute as well as to the scientific, industrial and business community. It occurred to me that perhaps the proposed recording could be made a part of such program.

In giving consideration to the enclosed proposal, I might point out that the same is merely a basis for discussion and necessary modifications can, of course, be made. For example, I do not think it necessary or advisable to commit the Institute to a series of records

C  
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Dr. James R. Killian, Jr.

February 25, 1955

- 2 -

until such time as the Institute has had a favorable experience with the first recording. One further thought - it goes without saying that any part of the recording, which is now on tape, would of course be subject to change in accordance with the wishes of Doctors Wiener and Brown.

If I can be of any further assistance in this matter, please let me know.

Sincerely yours

DMB:ES  
ENC.

DAVID M. BROUDY

c.c.

Dr. Norbert Wiener  
Department of Mathematics  
Mass. Institute of Technology  
Cambridge 39, Mass.

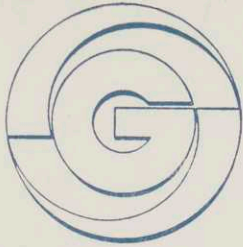
Professor Gordon Brown  
Head of Dept. of Electrical Engineering  
Mass. Institute of Technology  
Cambridge 39, Mass.

Mr. Harold E. Lobdell  
Executive Vice-President  
Alumni Assoc. of Mass. Institute  
of Technology  
100 Memorial Drive  
Cambridge 39, Mass.

Mr. Armand L. Bruneau, Jr.  
von Minden & Bruneau  
150 Broadway  
New York City

Mr. Carroll W. Boyce  
McGraw-Hill Publishing Co.  
330 West 42nd Street  
New York City

[enc 2/28/55]



*Established 1895*

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Feb. 25, 1955

*yes*

Professor Norbert Wiener  
Massachusetts Institute of Technology  
Cambridge, Massachusetts

Dear Dr. Wiener:

I have just had the pleasure of reading a reprint of your article titled "Automatization", published by the St. Louis Post-Dispatch.

This firm will shortly exhibit its products at the Institute of Radio Engineers Convention. We manufacture "Industrial Slides", mechanisms whose prime purpose is to minimize servicing and maintenance problems related to Industrial Equipment.

There appeared in the aforementioned article one paragraph we deem to be of great personal interest and it is with respect to that paragraph (to follow) that I address you.

We would very much like to reproduce these words verbatim on a portion of our display...to stand by themselves and be unadorned with advertising and promotional material. Our thought, though selfish in that your words and our aims seem interrelated, is that there be no question of anything in the minds of the readers of this paragraph other than that a message of importance stands to be read.

The paragraph we would like to use is:

"We make no claim that the machine is wiser than the man. We leave such science-fiction stuff to the cult of gadget-worshippers, to which we do not belong. We say simply that where time is of the essence, the machine

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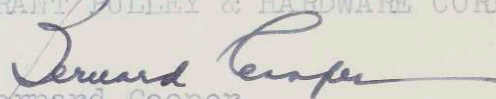
II cont.

may be faster than the man, and that policies should be formed in advance, rather than in the heat of action. The operational procedures which devolve should be relegated to machines that have a naturally fast reaction, and should not depend on the instantaneous overloading of the human nervous system."

May we hear from you regarding this matter?

Thank you.

Sincerely yours,  
GRANT GULLEY & HARDWARE CORP.

  
Bernard Cooper  
Advertising Manager

BC:sa

[ans 2/28/55]

UNIVERSITY OF CALIFORNIA

DEPARTMENT OF MATHEMATICS  
STATISTICAL LABORATORY  
BERKELEY 4, CALIFORNIA

February 25, 1955

Professor Norbert Wiener  
Department of Mathematics  
Massachusetts Institute of Technology  
Cambridge 39, Massachusetts

My dear Wiener:

It is nice to hear that your trip abroad crystallizes nicely, and also that many of your research projects develop as they should. As I mentioned before, the plans for the summer of 1956 will begin to take shape in the fall of 1955, probably about Christmas. If you keep me informed about your addresses I will let you know about our situation. In the meantime, will you tell me whether we could count on publishing any of your new books in our Series. You may remember that sometime in December I asked you this question but you never replied.

With best regards,

Yours sincerely,

*J. Neyman*

J. Neyman

JN:dmo



**American  
Management  
Association**

330 West Forty-Second Street • New York 36 • Judson 6-8100

February 25, 1955

Professor Norbert Wiener  
Massachusetts Institute of Technology  
Cambridge, Mass.

Dear Prof. Wiener:

The Top Management Conference of the General Management Division of AMA will meet in New York, May 23-25. The first day of this Conference will be devoted to a survey of late developments and progress in various technological fields which are engaging the attention of top management across the country. We shall be dealing with automation, computers, technical transformations in manufacturing and materials in power sources, etc. As a feature of the first day of this conference we are planning a luncheon at which we should like to have you speak.

This talk would be approximately 30 to 40 minutes in length and we would picture you pulling together and treating in more general terms the over-all scientific and philosophic implications of the technical revolution that is now impending. We should like to have you follow your own thinking in the content of this talk. Perhaps it could be entitled "Developing Our Technical Potential", or some such phrase.

Our subsequent papers will deal with the ways of organizing management effort to take full advantage of the technical changes that are already upon us. Your thoughts on this subject would set a keynote for the subsequent papers.

We would, of course, pay your expenses and an Honorarium of \$300.00.

I hope you will find it possible to be our speaker. We are to go to press with our detailed program on March 15. I hope you can let me know before that time whether your calendar will permit you to speak for us.

I might add that Alex Rathe is working with me in some aspects of this program and he adds his urging to this invitation.

Cordially yours,

*Frederic E. Pamp, Jr.*

Frederic E. Pamp, Jr.  
Division Manager

FEP:ie



THE *Management Center*

[ans 3/2/55]

SWARTHMORE COLLEGE  
SWARTHMORE, PENNSYLVANIA

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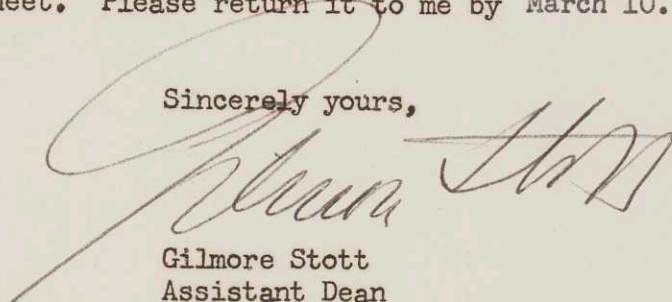
February 25, 1955

Dear Mr. Wiener:

Arthur Freeman has given your name as a reference in support of his application for an Open Scholarship at Swarthmore College. We shall greatly appreciate a frank and discriminating statement about his intellectual attainments, his personality, his achievement and promise in activities, and his qualities as a member of a community. These scholarship awards are highly competitive and we are always grateful for information about a boy which is not ordinarily contained in the school record.

It will be entirely satisfactory if you make your comments at the bottom of this sheet. Please return it to me by March 10.

Sincerely yours,



Gilmore Stott  
Assistant Dean

Professor Norbert Weiner  
53 Cedar Road  
Belmont 78, Massachusetts

[ans 3/1/55]

München 19, Landshuter Allee 25  
bei Felbinger  
Germany, February 28, 1955

Prof. Norbert Wiener  
Department of Mathematics  
Massachusetts Institute of Technology  
Cambridge 39, Mass., U.S.A.

Dear Prof. Wiener,

I have never requested a recommendation of you. You must have taken somebody else's (perhaps another Maruyama's) request for mine. Please make sure that the right person gets your recommendation.

As I understood fully the valuableness of your time, I did not expect your personal answer when I wrote to you. I considered myself lucky if I would hear from your secretary or assistant.

I agree with your opinion that it will be better if you personally judge the situation in Germany. I may study in Heidelberg during the summer semester, but hope to have an opportunity to greet you.

With my cordial gratitude for the time you have spent in writing to me.

Respectfully yours,

*Magoroh Maruyama*  
Magoroh Maruyama

[ems 3/15/55]

Herrn  
Prof. Norbert Wiener  
M.I.T.  
Cambridge 39, Mass.

Dear Professor Wiener:

I received your letter of February 18th (written in excellent German). Mrs. Wiener and you will be heartily welcome by all of us in Munich. I would suggest the second half of June for your speech. Please let us know at latest at the end of April (the beginning of the summer term) which date would be convenient to you. The best thing would be that you write directly to Professor Aloys Wenzl (Munich 23, Bonnerstrasse 24) because he will arrange in his seminar your lecture.

Perhaps you will decide against all hesitations to give a second public lecture. In this case let us know now your decision, because the Faculty or rather the State Department of Education have to invite and recompensate you.

Meine Frau und ich freuen uns sehr Sie beide hier zu sehen. Mit den herzlichsten Grüßen von Haus zu Haus.

*Arnold Metzger.*

[and 3/15/55]



VETERANS ADMINISTRATION  
333 East Huron Street  
Chicago 11, Illinois

February 28, 1955

YOUR FILE REFERENCE:

IN REPLY REFER TO: 5225 10ERA

Professor Norbert Wiener  
Mathematics Department  
Mass. Institute of Technology  
Cambridge, Massachusetts

Dear Professor Wiener:

In the near future, two physicists, Dr. R. K. Clark, and myself, intend to begin a study of transfer functions in animal and human organisms, here at the Veterans Administration Research Hospital in Chicago. We are writing with respect to several problems which will confront us at the beginning of this study.

First, neither of us has the necessary extensive mathematical training to carry out a rigorous theoretical treatment of this study, so we will perforce have to satisfy ourselves with a more naive, empirical approach. We plan to introduce an electro-mechanical positive feedback into such physiological control systems as the hand-eye coordination system, controlling the amount of proportional, integral, and first-derivative (and perhaps second and third derivative) feedback electronically. The numbers that we obtain in this way might serve as a practical diagnostic tool, as well as helping to introduce cybernetic concepts to the medical staff here in the hospital. First question: do you think that we have a reasonable chance of obtaining useful information about human control-systems by this approximate method, at least on the black-box level?

Second (logically first, perhaps), we do not want to embark on this program without adequate knowledge of what is being done in the field of cybernetics, and it has been suggested that perhaps the most direct way of learning where information of the most useful kind is to be found would be to write to you. We would be grateful if you would "point us in the right direction" by telling us what books, periodicals, or papers might be applicable to our program.

Sincerely yours,

*William T. Powers*

WILLIAM T. POWERS  
Physicist

*[enc 9/28/55]*

# PANELLIT, INC.

7401 NORTH HAMLIN AVENUE • SKOKIE, ILLINOIS • ORCHARD 5-2500

February 28, 1955

ALBERT F. SPERRY  
PRESIDENT

Dr. Norbert Weiner  
Massachusetts Institute of Technology  
Cambridge, Massachusetts

Subject: ISA Instrumentation Conference

Dear Doctor Weiner:

It has been sometime since I have had the pleasure of meeting with you when both of us participated in the American Society of Mechanical Engineers Symposium in 1952 on the "Automatic Factory."

This occasion made such an impression on the Instrument Society they have asked me to invite you to participate in another Symposium in September 1955. The Instrument Society of America is holding its national conference in Los Angeles September 12-16, and on Tuesday of that week, they are planning to have a special panel session on the subject "The Automatic Plant" or "Automatism." They have invited the following speakers:

General Doriot -- Management Viewpoint

D. S. Harder -- Viewpoint of the Production Executive  
Ford Motor Company

Walter Reuther -- Viewpoint of Labor  
C.I.O.

Dr. Norbert Weiner -- The Philosophy of Cybernetics

They feel that a conference of this type, taking place in California, will have great significance, since this area has brought great new impetus to the development of automatic instrumentation.

The men who would be on the program with you have all made significant contributions and should come up with a stimulating discussion. We feel that no top-level discussion of this sort would be complete without the Father of Cybernetics, and the occasion is important enough to warrant your participation, if it fits in with your plans.

It would be a great pleasure to meet and renew my acquaintance with you.

Sincerely,



Albert F. Sperry

AFS:ECO

PANELLIT

[ FILED 3/15/55 ]

February 28, 1955

Department of Physics  
102 Steele Hall  
Syracuse University  
Syracuse 10, New York

Gentlemen:

Thank you for your invitation to attend the conference on the theory of irreversible processes and some of its applications to take place from March 31 to April 2.

However, About a month from that time, I shall start a trip of more than a year to Europe, India, Israel, and probably Japan. I need all the time between now and then to get my talks organized and written up and to finish up my work on two books I am writing.

Unless I spare myself in every way possible, I will not be able to fulfill my obligations. I hope you understand my position.

Sincerely yours,

Norbert Wiener

NW:gf

February 28, 1955

Mr. K. P. Bhatnagar  
Graduate Institute of Mathematics and Mechanics  
Indiana University  
Bloomington, Indiana

Dear Mr. Bhatnagar:

I shall be glad to see you before I leave for Europe around the middle of May, or after I return from India in the autumn of '56.

Can you tell me whether you are related to the Dr. Bhatnagar who died recently in India. He was most kind to me and was doing very valuable work for his country.

Sincerely yours,

Norbert Wiener

NW:gf



February 28, 1955

Mr. Carroll W. Boyce, Associate Editor  
Factory Management and Maintenance  
330 West 42nd Street  
New York 36, New York

Dear Mr. Boyce:

Many thanks for your cordial letter of February 9. It was a great privilege to speak before as interesting a group as the New York M.I.T. group, and I appreciate greatly your interest in the talk as editor of a leading journal on automatization.

Sincerely yours,

Norbert Wiener

NW:gf

February 28<sup>th</sup> 1955

Mr. David M. Broudy, Counsellor at Law  
22 East 40th Street  
New York 16, New York

Dear Mr. Broudy:

In reference to your letter of February 25 to President Killian and the enclosure from the Gotham Recording Corporation, I should like to cooperate with you in spirit. However, I would like to know more about the matter before I give full assent to the recording of our talks.

Sincerely yours,

Norbert Wiener

NW:gf

# COPY

February 28, 1955

Mrs. Ruth M. Bryan  
130 So. Angelino Avenue  
Azusa, California

Dear Mrs. Bryan:

I think you will be able to judge the Sibus situation by reading my book, Ex-Prodigy, published by Simon and Schuster about two years ago. I think it is clear what I have to say, there that Sibus' education was disastrous.

Sincerely yours,

Norbert Wiener

NW:gf

# COPY

February 28, 1955

Mr. Richard W. Carlisle, P. E.  
One Hunters' Lane  
Elmsford, New York

Dear Mr. Carlisle:

I think we met already at the M.I.T. club dinner. I am much too busy at present to make propaganda, even for my own ideas so I have no notion as to the technical difficulties of securing an acceptance for my ideas.

Sincerely yours,

Norbert Wiener

NW:gf

# COPY

February 28, 1955

Mr. Frederic F. Clair  
9642 4th Street., E.O.V.  
Norfolk, Virginia

Dear Mr. Clair:

I am afraid that the contraction of matter in the direction of motion is too established a result of relativity to need further discussion.

Sincerely yours,

Norbert Wiener

NW:gf

[ans 3/3/55]

February 28, 1955

Dear Mr. Cohen:

Thank you for your letter of February 1. I am afraid I was in a bad mood when I spoke to you on the telephone. I shall be glad at some future time to talk at the National Science Foundation. The fact of the matter is that I have less than three months before leaving for a year abroad, and I have several lectures to write up for my trip.

Thus the matter better stand off for another year. By then I hope I will have some real material to give you.

Sincerely yours,

Norbert Wiener

NW:gf

Mr. Leon W. Cohen  
1520 H. Street., N. W.  
Washington, D. C.

February 28, 1955

Mr. Bernard Cooper, Advertising Manager  
Grant Pulley and Hardware Corporation  
31-85 Whitestone Parkway  
Flushing 54, New York

Dear Mr. Cooper:

Thank you for your letter of February 25. You certainly may quote the paragraph you mentioned from my article on automatization in the St. Louis Post-Dispatch.

Sincerely yours,

Norbert Wiener

NW:gf

February 28, 1955

Mr. John D. Graves  
Box 12, Cooper Station  
New York 3, New York

Dear Mr. Graves:

Your letter of February 8 finds me just at the end of my writing one book and about to commence another. Besides I have a series of lectures to write for an around the world trip beginning in May.

Therefore I just cannot take on any further responsibilities in writing and reading.

Sincerely yours,

Norbert Wiener

NW:gf



COPY

February 28, 1955

Mr. W. D. Jordan, Jr.  
Burton House 132-4

My dear Mr. Jordan:

I simply don't like questionnaires, and I am not in the habit of answering them. However, if you want to discuss some of your questions for a few minutes, you will be welcome. I have far too much to do now to bother with answering questionnaires.

Sincerely yours,

Norbert Wiener

NW:gf

February 28, 1955

Captain B. C. McCaffree  
Chief, Production Board  
Industrial College of the Armed Forces  
Washington, D. C.

Dear Captain McCaffree:

This is to confirm my acceptance to the invitation to speak at the Industrial College of the Armed Forces on March 11 at 10:30.

My secretary will obtain my transportation by train to and from Washington and will let you know my plans.

I am looking forward with great pleasure to meeting my friends of the college of the armed forces again.

Sincerely yours,

Norbert Wiener

NW:gf

# COPY

February 28, 1955

Mr. Tremaine McDowell  
College of Science, Literature and the Arts  
University of Minnesota  
Minneapolis 14, Minnesota

Dear Mr. McDowell:

While the last t hasn't been crossed and the last i hasn't been dotted about my trip to India for next year, the overwhelming probability is that this matter will be closed over a week or two.

I make this suggestion to you. Two of my colleagues, Karl Deutsch of the Department of Humanities and William D. Stahlman of the same department are also interested in the significance of science and technology on American civilization. Deutsch is an established sociologist, and Stahlman is a very able and promising young historian of science. Both of them have absorbed very much of my point of view.

Another name that I can suggest is J. Bronowski of the Coal Board in England. He is also an excellent man for the field for which he has a world reputation.

Sincerely yours,

Norbert Wiener

NW:gf

February 28, 1955

The Macmillan Company  
60 Fifth Avenue  
New York 11, New York

Gentlemen:

I am very busy at the moment with books of my own and a proposed trip around the world. I shall try to find time to read the manuscript of Information within the next few weeks. But if I am not able to do this, I shall be forced to return it without a complete reading.

Sincerely yours,

Norbert Wiener

NW:gf

February 28, 1955

Professor P. C. Mahalanobis  
Indian Statistical Institute  
Calcutta 35, India

Dear Professor Mahalanobis:

I am enclosing a copy of a letter that I am sending at once to Professor Sundaram. In the meanwhile I am trying to get a telephone conversation through with him. This is the right time of the year for us to let our houses and the question of a day's delay is significant. I should appreciate a settlement to the main issue as early as possible, if necessary, by cable. You will understand that a trip of this sort involves a considerable amount of financial and other foresight on our part, and the question of the renting of our houses is fundamental. I am sorry that I had to put you in the amount of trouble which I am doing, but I don't see any other way out.

I repeat the sum total of our request to Indian sources is the following:

(1) Air transportation for my wife and myself from a European airport to India. Cairo does not come into considerations, as we shall only spend the early part of the summer in the Near East.

(2) As agreed, all expenses for living in India and transportation within India.

(3) Transportation back home by such route as you shall fix with the hope that if the Japanese trip comes off, you will be able to commute this transportation for its financial equivalent in a trip back by way of Japan.

Hoping that everything will come out right, and that we shall see one another soon, I remain,

Sincerely yours,

Norbert Wiener

NW:gf

Enclosure

February 28, 1955

Mr. Philip Mayer  
Perry Universalist Church  
36 South Center St.  
Perry, New York

My dear Mr. Mayer:

I shall actually be both in Israel and in India in a few months lecturing, so that you can see that I am sympathetic to the purposes of your letter sent to me on January 24.

Nevertheless I am hesitant to put my name on any mass appeal. This is not for reasons of fear, but because I do not consider that such appeals are likely to be effective and partly because I have available what I believe to be a more effective way of showing my good will in the matter.

Sincerely yours,

Norbert Wiener

NW:gf

# COPY

February 28, 1955

Professor Donald H. Menzel  
Harvard College Observatory  
Cambridge 38, Massachusetts

Dear Wenzel:

I appreciate very much your requesting my help in the matter of directions to authors of scientific papers. While I very thoroughly understand the value of this work, I would like to beg off the need to search the literature for very good or very bad examples.

The point is that since my cataract operations, my direct reading of scientific papers has been cut heavily because of the easy fatigueability of my eyes, so that I gain most of my contact with recent articles in the discussion of them with younger colleagues. Thus it would be a real chore for me to search the literature for examples of extraordinarily well-written papers or abominably badly written papers.

Sincerely yours,

Norbert Wiener

NW:gf

February 28, 1955

Mr. John C. Osgood  
Chairman, Colloquium Committee  
Harvard Graduate School of Education  
7 Center Street  
Cambridge, Massachusetts

Dear Mr. Osgood:

I should be glad to give a talk to the faculty and students of the Harvard Graduate School of Education at your Colloquium on Education.

If Tuesday, March 8 is a suitable date for you, I should like to speak on the present position of the scientist at that time.

Sincerely yours,

Norbert Wiener

NW:gf

[ans 3/1/55]



February 28, 1955

Mr. John C. Osgood  
Chairman, Colloquium Committee  
Harvard Graduate School of Education  
7 Center Street  
Cambridge, Massachusetts

Dear Mr. Osgood:

I should be glad to give a talk to the faculty and students of the Harvard Graduate School of Education at your Colloquium on Education.

I should like to speak on Tuesday, March 8, if that is suitable for you, on the present position of the scientist.

Sincerely yours,

Norbert Wiener

NW:gf

February 28, 1955

Professor Mauro Picone  
Istitute Nazionale Per le Applicazioni del Calcolo  
Piazzale delle Scienze 7  
Roma, Italia

Dear Professor Picone:

I have been receiving regularly the articles that you have sent, and I wish that they would continue to complete my files.

I have engaged in some protracted literary work which has interfered with the regularity of my correspondence. I promise that from now on I will be more business like in acknowledging receipt of your articles.

Sincerely yours,

Norbert Wiener

NW:gf

February 28, 1955

Andrew G. Pikler  
Code 2920/f  
U. S. Navy Electronics Lab.  
San Diego 52, California

Dear Pikler:

I should be most surprised to find that the psycho-physical clock in different individuals is tied together. I imagine that it is something set up separately in the nervous system of each man.

Sincerely yours,

Norbert Wiener

NW:gf

COPY

February 28, 1955

Mr. Enders A. Robinson  
20-E-222

Dear Mr. Robinson:

In reference to your note of September 22, 1954, in which you have a question on an equation in my book, Extrapolation, Interpolation, and Smoothing of Stationary Time Series, I suggest that you drop in at my office, and we will try to correct the error.

Sincerely yours,

Norbert Wiener

NW:gf

[ans 4/15/55]

February 28, 1955

Mr. Stanley H. Ruttenger, Director  
Department of Education and Research  
Congress of Industrial Organizations  
718 Jackson Place N.W.  
Washington 6, D. C.

Dear Mr. Ruttenger:

I appreciate greatly the invitation to participate in the automation conference sponsored by the Committee on Economic Policy of the CIO on April 14 in Washington, but I just don't see how I can do it. About a month from that date I shall start a trip of more than a year to Europe, India, Israel, and probably Japan. I need all the time between now and then to get my talks organized and written up, and I have two books under way, one just going into proof, and one which I shall be writing during my year abroad.

Unless I spare myself in every way possible, I will not be able to fulfill my obligations. I hope you understand my positions.

Sincerely yours,

Norbert Wiener

NW:gf

February 28, 1955

Professor L. J. Savage  
Committee on Statistics  
The University of Chicago  
Chicago 37, Illinois

Dear Savage:

I am passing your docket on Kolin over to some colleagues at M.I.T. who may be able to do something in the matter.

I am too tied up with work at present, and have too little influence in matters of appointment to take the thing up personally.

Sincerely yours,

Norbert Wiener

NW:gf

[ans 3/7/55]

February 28, 1955

Professor M. S. Sundaram  
Educational and Cultural Counsellor  
Embassy of India  
2107 Massachusetts Avenue, N. W.  
Washington 8, D. C.

Dear Professor Sundaram:

I have received the enclosed letter from Professor Mahalanobis. I have understood from previous correspondence that the main issue of my invitation to India was settled. In view of this, my wife and I have made plans to let my city house for one year and my summer house for two summers. These plans have not yet been brought to a conclusion, but must be very soon if I am to take the Indian trip at all. I, therefore, would like to know both officially and on the basis of your personal advice, whether I can consider the status of my proposed Indian trip firm enough to go ahead with my plans.

Let me tell you of the entire trip as I plan it from Boston to Boston:

(1) On the 18th of May, I am sailing to Southampton with my wife, to give the Fawley Foundation Lecture at the University of Southampton. All our expenses from Boston to Southampton including our stay there are taken care of by our English hosts.

(2) It has been necessary for me to move my trip to Israel to the month of June. While the trip is not certain, if I go at all, all expenses from Europe to Europe will be paid for from Israeli sources.

(3) We shall spend the rest of the summer in Europe. All expenses will be paid for out of our own pocket.

(4) Some time early in September we propose to leave by Air India from whatever European airport is convenient both to you and us, for Bombay. We propose that our Indian hosts meet our expenses aboard Air India.

(5) We propose to stay in India until late March or early April. Here it also falls to our Indian hosts to meet all our normal living expenses and traveling expenses within India.

(6) We shall then leave for the United States. Our plans are uncertain. We shall either leave by way of Air India in Europe, in which case we shall request that all our expenses will be paid until we land in the United States, with only such stopovers in Europe as are necessary to get from one plane to another; or we shall leave by way of Japan, in which case we request the payment of part of our air or boat transportation expense home, equal to the cost of our expenses home by way of Europe. If this is impossible, we still wish to make our Indian trip on the basis of the first of the two plans suggested. We are trying to make up our final plans as early as possible, but the matter of the precise way in which we return to the United States can hang over for some months. If you can give us substantial assurance that this proposal is accepted by

Indian friends--and it does not differ very much from the proposal which you made to us in your letters of December 27 and January 17, and Professor Mahalanobis' letter of June 10, 1954--then we too accept and are prepared to go ahead with plans which seem very attractive to us. If there is a substantial measure of doubt whether these conditions can be fulfilled, then we are <sup>not</sup> in a position to let our houses and must regretfully plan for our next year here at M.I.T.

I think you will see that there is no really important point at issue between us, but that a trip of this extensiveness needs a firm basis well in advance. Please let me know at the earliest possible date what we ought to do. Meanwhile, my wife and I thank you for the favors and consideration you have already shown to us as well as for those for which I am asking in this letter.

Sincerely yours,

Norbert Wiener

NW:gf

Enclosure

cc Professor Mahalanobis



# COPY

February 28, 1955

Mr. David Trumper  
155 Summit Lane  
Bala-Cynwyd, Pennsylvania

My dear Mr. Trumper:

Many thanks for your letter. I shall try to look at the paper you have sent me as soon as I will complete an enormous amount of back work which I had pushed aside while completing a book.

Sincerely yours,

Norbert Wiener

NW:gf