Records of the Office of the Director: General Files / Box 57 / Ru-Rz file
From the Shelby White and Leon Levy Archives Center, Institute for Advanced Study, Princeton, NJ, USA.

Rudge's, William E. Sond

WILLIAM E. RUDGE'S SONS 225 VARICK STREET NEW YORK 14, N. Y.

Miss Marie C. Eichelser Secretary to the Director The Institute for Advanced Study Princeton, New Jersey

Dear Miss Eichelser:

We are returning herewith the Princeton Alumni Weekly and the photograph of Fuld Hall you were kind enough to let us have for use in the brochure for August Arace & Sons, copy of which is enclosed.

We greatly appreciate your courtesy in the matter.

Sincerely yours,

Richard Roley

January 6, 1944 RR/ns

TELEPHONE: WALKER 5-5822

WILLIAM E. RUDGE'S SONS 225 VARICK STREET NEW YORK 14, N. Y.

Miss Marie C. Eichelser, Secretary to the Director The Institute for Advanced Study Princeton, New Jersey

Dear Miss Eichelser:

Thank you very kindly for the photograph of Fuld Hall which we received today and for the copy of the Alumni Weekly. We shall take good care of both and return them just as soon as we are finished which should be within the next week or ten days.

Sincerely yours,_

Richard Roley

November 1, 1943 RR/ns

TELEPHONE: WALKER 5-5822

October 29, 1943

Dear Mr. Roley:

I send you herewith the photograph
I had in mind when talking with you over the
telephone, together with a copy of the <u>Princeton</u>
Alumni Weekly, showing how they used this photograph for their cover and how well it came out
in the enlargement. You are welcome to use
this photograph if it suits your needs. May I
ask that you return both the photograph and the
Alumni Weekly when they have served your purpose,
for they are in each case the only copy we have.
Yours sincerely,

Secretary to the Director

Mr. Richard Roley William E. Rudge's Sons 225 Varick Street New York, N. Y.

OCT 22 1943

Referred to Institute for Advanced Study

WILLIAM E. RUDGE'S SONS 225 VARICK STREET · NEW YORK, N. Y.

Mr. Alexander Leitch, Secretary

Dear Mr. Leitch:

Princeton University Princeton, New Jersey

August Arace & Sons, Inc. of Elizabeth, New Jersey, plumbing and heating contract engineers, are preparing an advertising brochure describing some of the jobs on which they have worked within the past few years.

Among the jobs they would like to use a photograph of, with a brief descriptive caption, is Fuld Hall, Princeton University. The photograph would occupy one page of the brochure and the caption would appear simply giving such details as the fact that August Arace & Sons did the plumbing, heating, etc. No other information will be given. We are in need of a photograph of Fuld Hall and we are wondering if you have one available which we could use.

As we are anxious to get the brochure into printing production as soon as possible, we would be grateful for an early reply.

Y I I I I I

Richard Roley

October 20,1943 RR/ns

TELEPHONE: WALKER 5-5822 POSTAL ADDRESS: NEW YORK 14, N. Y.

Ruestow

November 2, 1939

Dear Mr. Colm:

Thank you for your kind note of
October 31 and its enclosed statement regarding
Dr. Ruestow. Probably since you spoke to my
daughter I have retired from the directorship of the
Institute for Advanced Study so that there is nothing
I can personally do, but I shall be glad to hand
your letter and enclosure to President Aydelotte who
succeeds me, when he comes to Princeton ten days or
two weeks hence.

Sincerely yours,

Mr. Gerhard Colm Department of Commerce Office of the Secretary Washington, D. C. ABRAHAM FLEXMEN

AF: ESB

DEPARTMENT OF COMMERCE OFFICE OF THE SECRETARY

OFFICE OF THE SECRETARY I cam construction of feer to washington to

examine interpretation of the present would situation

lersonal October 31, 1939

Mr. Abraham Elenner President, Institute for Advanced Study the logical please for him. Princeton, N.J.

Dear Mr. Elevner:

Your doughter, Hrs. Levinson, encouraged me to write to you when I told her about a very good priend of nine, Dr. Alexander Ruestow. He left Germany in 1933 because as a liberal he hated the Nazi regime. (He is not Jewish and not a left wing men.) He was appointed professor in Istanbal. While he attended a conference (arranged & a Rochefoller histitute) in Geneva he was informed that the University would be closed because all money was needed for armament and that his contract world not be renewed. Thus he is stranded in Geneva.

I know that you retired how the less now told me

Already long before this situation arose, I was of the opinion that Ruestor should not be aborded by a heavy teaching load but should be given an

I am enclosing a few lines about his career. He has a memuscript on a historie, visiological and economic interpretation of the present world situation ready for the pointer. [Gideonse has the German manuscript) I feel that the Firstitute for Advanced Study would be the logical place for fim.

I know that you retired but Its. leavisor told me that you still are interested in the affairs of the natitute and in the problems of German exile wholever. Therefore I dane to bouble you with this question. The real justification lies in the fact that I believe that Ristor is a really extraordinary were whose universal knowledge and intellectual energy should not be list.

Regule all money too marked for arminist and that

whise contract would not be seemed. These to is about it

a leave teaching load but should be given an

Werently living former that as teachers where it was of

Very sincerely grows, Gerhard Colne.

October 31, 1939.

Dr. Alexander Ruestow is a man whose scientific achievements cannot be easily classified. His first book was a contribution to the interpretation of Greek philosophy. He later published several studies on sociological topics (among them one on the sociology of the army), and several studies on economic topics (among them a book on unemployment in the machine industry and a study on protectionism and free trade). He had practical experience in government administration (as a member of the German Ministry of Economics); in business (as a counselor of the Central Organization of Machine Industries); and as a professor teaching economics, sociology and philosophy.

This survey of Ruestow's scholastic and practical career gives the impression of a man working in a great variety of fields, yet this does not mean that he deals in a superficial manner with all kinds of unrelated topics. In reality, his whole scientific and practical work is centered around one theme: What are the presuppositions and the limitations of the individual liberty of man in society. He seeks a new foundation for a philosophy of liberalism based on historic, sociological and economic facts. All his studies in pre-history, in philosophy, in sociology and in economics, are very valuable contributions to these specific sciences, and some of his contributions are regarded by authorities as cutstanding achievements in their respective fields. All who know him are amazed by the fact that one individual can be competent in so many lines of research. Yet, for Ruestow, all these studies are merely elements in the approach to his central theme.

I know few other contemporary scholars who have so much to contribute to the most vital question of our time and who are so stimulating in their discussions. It is difficult to classify him according to rigidly labeled branches of science. This results from the fact that he is dealing with a theme which, of necessity, requires a universal approach.

Gerhard Colm

hut gen Rumanian Visitar

COPY

COPY

THE INSTITUTE FOR ADVANCED STUDY Princeton, N.J.

September 13, 1960

Faculty in Mathematics:

About a month ago Mr. Dan Coyle at the University asked if he could bring some Rumanian visitors over to the Institute for tea on Wednesday, September 14. Mrs. Hobson told him that the Director would not be here and that it was not certain at that time just how many of the Faculty would be back, but that he could come. We have now been notified by Mr. Coyle that the State Department has listed on the Rumanians' agenda a tea "in their honor" at the Institute for Advanced Study tomorrow at 3:30. We are hoping that enough of a representation of the Institute will be here to save the day.

The Rumanians are as follows: The Honorable Ilie Murgulescu, Minister of Education and Culture. He has worked in the fields of physical and analytical chemistry. At one time he was the Rector of Bucharest University.

Athanase Joja, who is President of the Rumanian Academy of Sciences. He has written in Philosophy and logic. He was at one time the Head of the Rumanian delegation to the United Nations.

Grigore Moisil, mathematician. Member of the Academy, President of the Society of Mathematical and Physical Sciences. Is listed as the leading Rumanian mathematician of today. Is an authority on statistical and automatic controls.

Some of their wives and 4 or 5 other Rumanians will come with They speak French and German, not English. Mr. Coyle will probably bring Professors Feller and Spencer, and Mrs. Turkevich.

> Secretary School of Mathematics

CC: A. Beurling

A. Borel

K. Gödel

D. Montgomery

M. Morse

A. Selberg

A. Weil

H. Whitney

Records of the Office of the Director: General Files / Box 57 / Ru-Rz file From the Shelby White and Leon Levy Archives Center, Institute for Advanced Study, Princeton, NJ, USA.

> Dan Coyle called from the University to make preliminary enquiry about a visit to the Inst. of a group of Rumanians who plan to spend the 14th of September in Princeton. They are the Rumanian Minister of Education, the President of the Rumanian Academy of Science, a mathematician, Moisil, the the Rumanian minister to US.

Told Dan RO away; that I would see whether there was somebody here suitable who could see them. He will check with this office when he has more definite information. We agreed that the best would probably be for them to come here for tea maxka at 3:30, and then take train back to Washington. Called Caroline, and she said that Selberg, Morse and Montgomery (who is now pres. of AMS) would probably be here. She will speak with Morse on his return. She does not know Weil's arrival date. The Rumanians all speak French, 1 speaks English, they are accompanied by interpreter.

Chal 9/14/60

March 21, 1936

Dear Ruml:

Many thanks for sending me a copy of your discourse on the subject on Confusion and Compromise in Education. I am delighted that you carry your educational interests into your business responsibilities. I agree with you that it would be very interesting to see an experiment in the development of a college in which the primary emphasis would be on education for intellectual power. We are doing just that at a higher level in the Institute, and I think that everybody connected with the Institute is surprised at the enthusiasm and numbers of those who welcome an institution in which there are no arbitrary rules and in which the standards of intellectual accomplishment and effort are as high as they can humanly be made.

Sincerely yours,
ABRAHAM FLEXNER

Mr. B. Ruml o/o R. H. Macy & Co. 151 West 34th Street New York City

AF/MCE

March 2. 1937

Dear Mr. Rusk:

Returning to town, I find your note

of February 1. I am sorry to say that the Institute

does not at present possess any facilities for the

pursuit of the type of research in which you are

engaged, nor is there any member on the staff of

the Institute who is competent to be of help to

you. I trust that you may be able to find appro
priate opportunities in some other university center.

Sincerely yours.

Mr. George Y. Rusk 197 North 7th Street Newark, New Jersey

ARRAHAM FLEXNER

AF: ESB

THE INSTITUTE FOR ADVANCED STUDY PRINCETON, NEW JERSEY

February 3, 1937

Dear Riefler:

What do you think of the enclosed? I hesitate to say "Yes" to a proposition which involves combining economic and psychological research with the direction of an ethnological survey of New Jersey. Nor do I believe it will be easy to get rid of Rusk once we admit him. I am perfectly willing to write a negative letter unless you wish yourself to do otherwise.

Very sincerely yours,

Professor Winfield W. Riefler 69 Alexander Street Princeton. New Jersey a.t.

AF: ESB

197 N. 7th Street, Newark, New Jersey. Jebruary 1, 1937.

Dr. Abraham Hexner, Director, The Institute for Advanced Study, Brinceton, New Jersey. Dear Dr. Flexner,

I should regard it as a great privilege, if you should find it convenient to permit me to do so, to carry on at the Institute the economic-payche logical research of which I wrote you in my last letter, and to do so on an assignment from you which carried no stipend, while I continued to earn my living by directing from Princeton an Ethnological Durvey of the Dtate of New Jersey. Indeed, I fear that an assignment at the Institute is a condition for the successful prosecution of the research. Its completion would be a great aid to my placement in the sort of institution in which I should be free to do the sort of work which I believe to be of value.

2f you should desire to have me call upon you and present for your judgment twenty-five of my articles in the fields of philosophy, psychology, psychiatry, education, economics and sociology, and recommendations from many of the leading scholars of america, please command me.

Jaithfully yours,

George Yeisley Rusk.

197 n. 7th Street, Newark, New Jersey. January 26, 1937.

The Director of Docial Dtudies, The Institute for advanced Dtudy, Princeton, New Jersey.

Dear Sir:

Dam writing to inquire if there is any possibility of my receiving an invitation to come to the Institute for advanced Study to do the economic-psychological research necessary to determine what are the laws of the economic gestalt of america. I have thought that the research could be done most efficiently at the Institute because gestalts are structured time-space continuums and therefore probably conform to laws analogous to those of mother motical physics.

Ishould need in this work frequently to confer with statisticians, economists and mathematical philosophers (such as Frofeseor Eugene Dmith) who can express themselves in terms not too technical to permit of applicat

ion to various fields of experience.

Denclose an introductory paper in the return field of the proposed research, which will suggest the problems which I should like to bring to statistical expression and solution.

With great appreciation for any attention which you can give this matter,

Yours very truly,

George Yeisley Rusk.

January 28, 1937

Dear Mr. Rusk:

I have your very kind note of January 26.

I do not think it probable that in the near future there will be any expansion in the School of Economies and Politics of the Institute for Advanced Study, but I shall keep your address on file and you will receive any announcement that is made on the subject.

With all good wishes and much appreciation,

Sincerely yours,

ARRAHAM FLEXNER

Mr. George Y. Rusk 197 North 7th Street Newark, New Jersey

AF/MCE

Russell, J. C.

March 17, 1945

Dear Dr. Russell:

I have your letter of March thirteenth and must say at once that I had gotten a mistaken impression. I had thought that you wished to become a temporary member of the Institute on leave of absence for the purpose of pursuing your researches. I am sorry to say that there is no opening at present for a permanent position in our faculty.

Yours sincerely,

Frank Aydelotte

Dr. J. C. Russell 246 Glandon Drive Chapel Hill, North Carolina

FA:KK

Mg. Aydhare Re Russill

Dam a little die apprometed almos Pressell. It has a food idea, and one that loned he pressed here, mus note term help.

Thom his list, he hast her or fan dome little in population— four items, mosely extremely generalized lorning dong puint, and matter of lorning dong puint, and matter of lorning the idea, I believe it mus has her work his which to append took years as the close was a view to becoming a more accomplished medievelies.

THE INSTITUTE FOR ADVANCED STUDY

Founded by Mr. Louis Bamberger and Mrs. Felix Fuld PRINCETON, NEW JERSEY

March 16, 1945

Dear Bob:

I have Russell's bibliography and enclose it herewith together with the correspondence which you have seen. Inasmuch as Russell would be content only with a professorship at the Institute, there is, so far as I can see, nothing to do except to send him regrets that we have no opening.

Yours sincerely,

Frank Aydelotte

Professor Robert Warren Institute for Advanced Study

FA:KK

Enclosures

THE UNIVERSITY OF NORTH CAROLINA

CHAPEL HILL, NORTH CAROLINA

DEPARTMENT OF HISTORY

246 Glandon Drive, Chapel Hill, N.C., March 13, 1945

Frank Aydelotte, Director, The Institute for Advanced Study, Princeton, N.J.

Dear Dr Aydelotte:

On a separate sheet I am enclosing a list of my publications. It does not include book reviews, notes, or Social Science abstracts. I have completed but not published a volume on the population of medieval England.

I fear that I gave the impression that I was applying as a student whereas I wish to be considered for your faculty. I feel that the history of population at present is not really considered a subject for either history or sociology and so falls between the two. The subject requires a strong statistical and mathematical base as well as a knowledge of history. Such marginal subjects can, I believe, be pursued more satisfactorily in the Institute than in the institutions organized in the usual pattern, particularly since Princeton has such eminent men in both medieval history and population study.

My research has been handicapped here by the heavy teaching load which I have carried. Some years ago in a student survey of teachers I was rated well up in the list. That has been used as an excuse to keep me on a full load of heavy classes instead of permitting a substitution of other and lighter work for part of the load. While I enjoy teaching very much I do feel that with so much to learn about a topic as unknown and as important as the history of population I could use a part of my time to better advantage in research.

Yours sincerely

J.C.Russell



The Shorter Latin Poems of Master Henry of Avrannhes relating to England (Cambridge, Mass., Mediaeval Academy of America) With J.P. Heironimus, 1935.

Dictionary of Writers of Thirteenth Century England (London, 1936, Institute of Historical Research). This is continued by supplements in even humbered years in the Bulletin of the Institute of Historical Research : XVI,48-50;XVIII,40-42; XX.99-100.

Articles

'Three Short Studies in Mediaeval Intellectual History, 'Colorado College Publication. (December. 1927). 47-59.

'Master Henry of Avranches as an International Poet,' Speculum, III (1928), 34-63.

'The Grammatical Works of Master Henry of Avranches, 'Philological Quarterly, VIII(1929).21-38. With J.P.Heironimus.

'Two Types of Thirteenth Century Grammatical Poems,' Colorado College

Publication (February, 1929). With J.P. Heironimus.

'The Canonization of Opposition to the King in Angevin England,' Haskins Anniversary Essays (1929), 279-290.

'The Significance of Charter Witness Lists in Thirteenth Century England,'

New Mexico Normal University Bulletin (August, 1930), 1-18.
'The Many-Sided Career of Master Elias of Dereham,' Speculum, V (1930), 378-387. 'Some Thirteenth Century Anglo-Norman Writers,' Modern Philology, XXVIII (1931). 257-269.

*London and Thirteenth Century Anti-Royal Methods, *The Southwestern Social Science Quarterly, XII (1931),156-168.

'Alexander Neckam in England,' English Historical Review, XLVII (1932), 260-268. 'Hereford and Arabic Science in England about 1175-1200, Isis, XVIII(1932),14-25.

'The Preferments and "Adiutores" of Robert Grosseteste, 'Harvard Theological Review, XXVI (1933),161-172.

'Medical Writers of Thirteenth Century England,' Annals of Medical History, New Series, VII (1935),327-340.

/ 'Medieval Population,' Social Forces, XV(1937),503-511.

*Social Status at the Court of King John, * Speculum, XII (1937), 319-329.

'Early Parliamentary Organization,' American Historical Review, XLIII(1937), 1-21.

'Length of Life in England,' Human Biology, IX (1937), 529-541.

Decline of Population , 200-700 A.D. and its Intellectual and Social Consequences, Communications Presentées, VIIIe Congrés International des Scinnces Historiques, 1938, 48-50

'Chroniclers of Medieval Spain, 'Hispanic Review, VI (1938), 218-235.

'Attestation of Charters in the Reign of John,' Speculum, XIV (1940).480-498. The Ecclesiastical Age: a demographic Interpretation of the period, 200-900

A.D. Review of Religion, V (1941), 137-147.

'The Early Schools of Oxford and Cambridge.' The Historian, V(1943).61-76.

'An Introduction to the Study of Medieval Biography, 'Modern Language

Quarterly, IV (1943), 437-453.

'Richard of Bardney's Account of Robert Grosseteste's Early and Middle Life,' Medievalia et Humanistica. II (1944). 45-54.

'The Clerical Population of Medieval England,' Traditio, II (1946),177-212.

Dear Mr. Russell:

Please pardon my delay in answering your letter of February minth which came while I was away from Princeton. I am not at all certain that it will be possible for us to give you here the opportunity you are seeking, but I should be interested in having a list of your publications and any further information which would supplement your list.

Yours sincerely,

Frank Aydelotte

J. C. Russell, Esq. 246 Glandon Drive Chapel Hill W.C.

FA:KK

March 1, 1945

Memorandum:

To: Dr. Aydelotte

From: R. B. Warren

Subject: Letter from J. C. Russell

My own economic theory is so heavily dominated by Malthus that I am pre-disposed toward anyone who evinces interest in any phase of population. While medieval population is outside Dr. Notestein's immediate interest, it is absolutely basic to any serious economic history, in spite of the fact that economic historians have ignored it.

Dr. Russell's familiarity with medieval sources is essential to a pioneer work of this sort; on the other hand, medieval writers were not statistically minded; and population is an extremely treacherous subject. I should have a more positive idea if I could see some of Russell's work in this field. It might be that he would group with Miss Sylvia Thrupp, whose Guggenheim application is for a study of medieval economic theory as stated by St. Thomas, Duns Scotus and Albertus Magnus.

In short, I am enthusiastic about the field, for it would supplement my own hobby of "demographic determinism;" but I just don't know Russell.

Records of the Office of the Director: General Files / Box 57 / Ru-Rz file
From the Shelby White and Leon Levy Archives Center, Institute for Advanced Study, Princeton, NJ, USA.

PRINCETON UNIVERSITY PRINCETON NEW JERSEY

SCHOOL OF PUBLIC AND INTERNATIONAL AFFAIRS

Office of Population Research 20 Nassau Street February 28, 1945.

Profite Continent

Dear Aydelotte:

Thank you for letting me see Russell's letter. Personally, I hope that he continues in the population field but so far as this Office is concerned, with the many pressing modern problems awaiting to be worked on I fear we cannot afford the luxury of a mediaevalist. It is not that I believe the field to be unimportant. On the contrary it seems to me that Russell has shown it to be a fruitful and neglected field and I wish him well.

He is quite an able person of a somewhat pedestrian sort. He works hard in a field that requires a great deal of hard work. I think he is definitely a person whom all of us should keep in mind and be on the lookout for chances to encourage.

Incidentally, I think Bob Warren would be interested in having him called to his attention.

I am returning the letter.

Cordially,

Trank W. Notestein

Frank Aydelotte, Director The Institute for Advanced Study Princeton, New Jersey

FWN:dpw Encl. February 27, 1945

Dear Notestein:

Would you be at all interested in the writer of the enclosed letter? we would of course have nothing for Russell at the Institute, but it occurred to me that if you were recruiting people, you might care to consider him for your group.

Yours sincerely,

Frank Aydelotte

Professor Frank Notestein Princeton University Princeton, N. J.

FA:KK Enclosure

Re J.C. RUSSELL

MEMORANDUM FOR DR. AYDELOTTE

None of us here is interested in population, either as a branch of economics or history or medieval studies. Although I am not optimistic that you will get any sort of favorable response, may I suggest that you try Frank Notestein at the Office of Population Research. He has just gotten \$20,000 a year for ten years from the Rockefeller Foundation, although he is not likely to go into the history of population. He might have further suggestions, however.

February 12, 1945

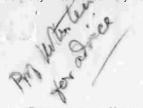
Mr. J. C. Russell 246 Glandon Drive Chapel Hill, North Carolina

Dear Mr. Russell:

Thank you for your letter of February 9, 1945
applying for membership in the Institute, which has
arrived during Dr. Aydelotte's absence from Princeton.
In accordance with our regular procedure your application will be presented to the Faculty for consideration at a meeting to be held shortly after
Dr. Aydelotte's return at the end of the month. You
may expect to hear from Dr. Aydelotte at that time.

Sincerely yours,

Jane S. Richardson Secretary to Dr. Aydelotte Records of the Office of the Director: General Files / Box 57 / Ru-Rz file From the Shelby White and Leon Levy Archives Center, Institute for Advanced Study, Princeton, NJ, USA.



THE UNIVERSITY OF NORTH CAROLINA

CHAPEL HILL, NORTH CAROLINA

246 Glandon Drive, Chapel Hill, N.C., February 9, 1945

Frank Aydelotte, Director, The Institute for Advanced Study, Princeton, N.J.

Dear Dr Aydelotte:

Many years ago (1925-6) Professor Haskins of Harvard said that you had inquired about me as a possibility for Quaker History at Swarthmore. My father is Elbert Russell of Duke University who was once at the Woelman School in Swarthmore. My uncle George Hamilton, was an early Rhodes Scholar from Indiana. This is by way of identification. I am writing about the possibility of an opening in the Institute for a student of the history of population.

With Professor Haskins I studied the history of Italy and wrote a thesis upon a Latin poet, Henry of Avranches, who wandered about over much of Europe. Later (1935) Professor Heironimus of Wisconsin and I edited his shorter poems relating to England for the Mediaeval Academy of America. I continued with the biographies of thirteenth century English writers with the help of a Guggenheim Fellowship in 1930-1 (I believe that you were a member of the committee of selection then). This book was published by the Institute of Historical Research in London in 1936. It was among the 40 books by Americans in S.H.Thomson's list of 400 books chosen by a group of scholars as indispensible for scholars of the Middle Ages and Renaissance which was published in Thomson's bulletin last summer.

My object as a scholar was to master first a well recognized field of study, such as English intellectual history in order to be certain of my own standards of research and publication and then to try a less known field in which pioneer work was possible, such as the history of population. The Social Science Research Council and the American Philosophical Society gave me grants to study English medieval population in 1938-9: the results are ready for publication. I wish to continue in the field of medieval and early modern European population partly because it it is not well known and partly because I believe that population was one of the most influential factors of the period.

Since I received my degree at Harvard in 1926 I have taught at Colorado College, New Mexico Normal, and at the University of North Carolina. It is difficult to work effectively here because the library resources for European history are poor. Princeton has eminent medievalists in Professors Hitti and Strayer and is a very notable center of population study. The history of population tends to fall between history and sociology largely because neither realizes its importance. I have thought that the Institute might be interested in creating interest for a subject of this kind. If it is at all interested I should be glad to send a, list of my publications and such other information as might be desired. Professor Lews of the Institute and Professors Hitti and Strayer are acquainted with my work.

Yours sincerely

9 C. Russell

SESQUICENTENNIAL OF THE FOUNDING OF THE UNIVERSITY Provided for in the Constitution 1776; Chartered 1789; Cornerstone Laid 1793; Opened 1795

Russell Katherine

TELEGRAM

September 5, 1947

Mrs. Katherine Russell Institute for Advanced Study Princeton, New Jersey

Returning Tuesday. Please hold mail after today.

FRANK AYDELOTTE

Charge to Institute for Advanced Study

DAY LETTER

July 25, 1947

Mrs. William L. Russell Care of Mrs. M. Russell 1625 North Shore Avenue Chicago, Illinois

Oppenheimer arriving Princeton to stay, August 3rd. I leave early morning August 1st. Can you be in office July 30th and 31st?

Jane S. Richardson

Charge to Institute for Advanced Study

Waterford, Conn. 11 August 1947

Dear Katherine:

I enclose some clippings from Romeike and had several envelopes of them which I cannot now find. My impression is that I took them with me to Princeton and either left them in my deak or gave them to Gil. If you will consult Gil I hope he will be able to find them. I should be most grateful if you would separate them between the Institute, the Rhodes Scholarships and my personal affairs, keeping the first group and giving the second and third to Gil.

I gave Jane a certain number of programs which ought to be considered by departmental meetings in September or early in October. I should be grateful if you would get them out, show them to Qr. Oppenheimer, and have them ready for me when I return.

Yours sincerely,

FRANK AYDELOTTE

Mrs. William Mussell Institute for Advanced Study Princeton, New Jersey

RFD #1, Waterford, Connecticut August 20, 1947

Mrs. Katherine M. Russell, Institute for Advenced Study Princeton, New Jersey

Dear Katherine:

I answer several letters at once, as follows:

- (1) Corson If Dr. Oppenheimer is not back when Corson comes, will you or Miss Blake ask him whether he would like to be elected to membership for the academic year 1947-1948 or whether he wants to be in Princeton for only one term. Please explain to him in any case that formal action cannot be taken until the School meets in September.
- (2) Mandelker I think von Neumann's letter to him is admirable and suggest that you type it out and let von Neumann sign it. You might keep the correspondence meanwhile but I do not believe myself that he is a man for the Institute.
- (3) Peare If you can find Miss Peare's manuscript, please return it to her. It probably got taken over to Gil's office and it may be that Gil can find it. Jane says it was on my deak when she left and she has not seen it since. In any case, Miss Peare has two carbons so I don't think it is a matter of life and death.
- (4) Bond You will find the correspondence about Bond in the little two drawer file by your desk, filed under the School of Economics. I think it would be suitable if you or one of the Economics secretaries wrote to him to say that the Faculty of the School of Economics has considered his application and does not believe that the Institute is the best place for him to work. You might express the pious wish that he will find elsewhere the opportunity which he is seeking. This is a crank case.
- (5) Young I return the letter from L. C. Young. Is the figure which he mentions, \$1,000, correct? Please ask Miss Blake to notify the members of the School of Young's acceptance.

Yours sincerely,

Waterford, Conn. 4 August 1947

Dear Katherine:

I enclose a statement which I should be grateful if you would mimeograph and forward to members of the faculty at their summer addresses. I think you have them, but if by any chance you do not, please telephone me and I will see that the list is sent to you. I am sending a copy of this also to Dr. Oppenheimer, and I hope you will tell him that of course I expect him to attend the faculty meeting.

Yours sincerely,

Mrs. William Aussell
Institute for Advanced Study
Princeton, New Jersey

Waterford, Conn. 31 July 1947

Dear Katherine:

After Jane leaves tomorrow I should be grateful if you would handle my mail in the same may that she has been doing as follows:

- 1. Open all mail except personal latters, bank statements, and latters from England.
- 2. Answer what you can, sending me copies of the letters with carbons of your replies.
- 3. Refer Rhodes Scholarship latters to Gil unless they raise questions which he wants me to enswer. Gil can use his judgment about forwarding the letters with his carbons or holding them for me to see when I return.
- 4. Refer to Mr. Oppenheimer any Institute letters he would like to enswer, for example, letters from his students in California who are coming to Princeton.
- 5. Forward all the remainder to me. I am having a rubber stamp prepared for your convenience in forwarding letters which have not been opened.
- 6. Send me reports by mail from day to day on developments which I ought to know about and telephone whenever necessary. Our number is New London 7123. Please feel free to make as much use of the telephone as you think advisable.

I ought to go down to Princeton to bring up some documents and supplies which I left behind. I can't tell just when it will work best for me to go down, but I shall certainly be there by about the middle of August, and perhaps before.

Yours sincerely,

Mrs. William Russell Institute for Advanced Study Princeton, N.J.

February 14, 1941

Dear Mr. Russell:

I have recently returned from the South and find your letter of January 18th, together with the various papers which you sent describing your discovery. I have talked this over with one or two of the members of our staff and they expressed the opinion, which I expected, namely, that the only effective way in which you can bring a new theory to the attention of the scientific world is by publishing a suitable article in one of the scientific journals. In your case, I should think this should be one of the journals dealing with physics. I return your papers herewith and strongly suggest that you prepare and publish such an article.

Yours sincerely,

FRANK AYDELOTTE

Walter Russell, Esq. 403 East 62nd Street New York, N. Y.

FA/mr



WALTER RUSSELL 403 EAST 62nd STREET NEW YORK

REgent 7-0940

Feb 13th 1941

Dr. Frank Aydelotte, Institute for Advanced Study Princeton, N. J.

Dear Dr. Aydelotte;

In my letter to you of Jan 18th I find an unintentional technical error which I must correct. I am attaching it to this letter for affixing to top of page six. Will you kindly make the substitution?

I find a few gramatical errors also but they don not worry me so much as the technical one. Thanking you for making the change I am

Very truly yours,

Walter Russell

Hatter Russel



WALTER RUSSELL 403 EAST 62nd STREET NEW YORK

REgent 7-0940

Jan 28th 1941

Miss Marie C Michaelsen, Institute for Advanced Study Princeton, New Jersey.

Dear Miss Michaelsen;

Many thanks for your letter. Since Dr. Aydelotte is not yet returned will you kindly add the enclosures to that folio which contains photographs of my wave pictures?

Very truly yours,

other Russ

NOTE --- REGARDING PHOTOGRAPHS OF WAVE AND SPACE PICTURES.

These paintings, in full color, were made to illustrate the birth of matter as it emerges from "space", and its "death" as it is swallowed up by space, for space is its womb, and also its tomb.

Its appearance from space is merely its coming within the reach of our senses, likewise its disappearance is the reverse, for its cycle continues beyond our range of sensing, as the cycles of all things do.

Practically nothing is today known about matter. That is why or chemical and metallurgical sciences are so in their infancy that our civilization is still primitive because of it, and also why we are still in an experimental stage.

Millions of daollars are wasted in trying to "release the energy within the atom, and numerous Nobel and other prizes are given for the wildest of fairy stories regarding matter which have not the slightest evidence of relation to Natural Law.

One very wild statement appears in every text book which states that "the earth is a huge magnet." No mass of matter is a magnet. The enclosed pictures show how, and where, all matter is born. A magnet has two equal and opposite poles extended from an inert equator. Matter has two equal and opposite poles extended from a dynamic equator. The earth has a center of gravity. It is part of a centered system. Matter is born between the two poles of TWO wave gaps, not between the two poles of one light division.

All matter is but a wheel rising from an equilibrium (inert) to a dynamic amplitude by a series of efforts which set the "wheel" to spinning ever acceleratively until the very force of its motion has caused its four pairs of "arms" or "spokes" to find a one plane position as an equator—like a spiral nebula in one plane with two white and two black arms extending to keep it spinning by their opposed forces.

The dynamic universe thus "rises" from the inert one at 90 degrees from each other. The octave (or four pairs of wheels) constitute the elements. These elements are transient expressions which owe their existance to motion alone. They are divisions of light. There is but one element, carbon. The others are stages of the growth of light into carbon. These stages are named by many names but they are but progressions of carbon, just as an embryo, a child, a boy, and a youth are other names for a maturing man. The elements "grow" through their cycles as all things in Nature grow. An apple is a bud, a blossom, and other stages which merge into the mature apple. Likewise carbon is lithium, beryilim etc ect will the four pairs of gyroscope "wheels" of the wave accelerate fast enough to come together at amplitude in pressures which will sustain balanced motion.

Nature is engeged in the process of creating/sphere of solid matter surrounded by cubes of "space" wave fields. Incandescent spheres appear only at amplitudes and when they cool they take on the cube shape of their fields. All ther parts of the wave field crystalize in the shapes of the sections of the cube which their

positions in their fields demand of them.

Carbon is the matured expression of light division, just as the full grown man is the expression of growth of the man idea. "Growth" is merely the unfoldment of light patterns from the seed. The seed of the oak contains the whole of the oak. The seed of the elements contains the whole of the elements.

Carbon is the "Whole" of the elements. The seed of carbon is the inert gas of each octave. Each octave of the elements leaves its whole pattern of light interweavings within the inert gas from which it springs.

Waves "grow" as all things else grow. The elements are conditions of light which affect the pattern of growth at each plane of motion. There is no "energy" in those elements which can be released atomically. That idea is fundamentally unsound.

By graphically portraying the birth process and the cycle of the elements one will soon understand that such an idea is not in conformity with Natural law.

Radioactive elements are releasing their "energy" because they are beyond carbon which is the disintegrating end of their cycles They compare with a man, or apple, or any other thing which has passed maturity. On the other hand the genero-active elements which are this side of carbon are youthful expressions which have not yet reached maturity.

Any genero-active lement, like lithium, for example, can become radio-active and "release its energy by electrocuting it with an abnormal charge. Naturally it will then disintegrate, but that is not releasing energy.

A knowledge of what light and electricity really are, and how they interweave the patterns caused by light conditions, will save physicists mush useless endeavor.



WALTER RUSSELL 403 EAST 62nd STREET NEW YORK

REgent 7-0940

January 18th, 1941.

Dr. Frank Aydelotte, Director; Institute for Advanced Study; Princeton, New Jersey.

Dear Dr. Aydelotte;

Inspired by the recent article in the Sunday Times describing the work of the Institute which you head, I wrote you a rather lengthy letter to find out if it would be possible for me to complete the work I am giving for the furtherance of scientific knowledge in the Institute.

It was an amazing letter, for it went right to the root of what is radically wrong in the fundamentals of present scientific thinking and practice, and outlined the remedial principle which would mark a new day in physics.

I asked my wife to read the letter. Her comment was, "Don't send it, or if you do, tone it down 90% or it will be regarded as a "crank letter. She was undoubtedly right, so I tore it up. I can imagine nothing more humiliating than to be relegated to the ranks of the crank legion who promise the heavens and deliver nothing.

Perhaps I was wrong. At any rate I have rewritten it toned down as advised. Even at that the letter is so incredible that I am going to ask you to test my mentality against your judgement by examining the enclosed material which gives you a cross section of my life history and achievements, before you read this letter. By so doing I am hoping that you will conclude that a man who had that background of achievement could not write a "crank letter."

It may be that I am the only man who has ever seen the universe as a whole, thereby discovering the underlying principle of Creation. That is what I wrote you about, perhaps too nakedly, and am now repeating with soft pedal. That is the simplest story in the world but the hardest to tell.

I have reduced that story to one paragraph and one simple diagram but it has taken twenty years to equip welf with the power to tell that story in a manner which cannot be refuted by anyone.

The story is as simple as that, as a unitary principle, but the repetition of that principle into the complexities of Creation will consume four generous volumes in order to cover those complexities. One of these volumes is nearly finished and the others would take two years if I could devote myself entirely to that one thing, but it might take another ten years if I have also to earn my living at my increasingly difficult profession.

That is what I am worried about, for I am seventy years old and have one physical ailment which gives me some concern in regard to finishing my "Cosmic Plan" before I die. If such a thing happened to cut the work short it might be thousands of years before that secret riddle of the universe is whispered into the imagination of any other person, thus postponing indefinately that necessary solution of space which Dr Einstein hoped would be the next great discovery of science. Dr. Einstein's hoped for mathematical equasion, which will apply to all effects of motion, would be but child's play to him if he but comprehended the import of space and its complex workings.

An editor was once told that if the greatest story in the world were put on his desk he would not recognize it, for it would not fit his traditions. The greatest story to the physicist is the discovery of what Sir Oliver Lodge calls THE ONE THING. That discovery is mine. It is too very strange that it should have been revealed to an artist, but Lodge said, (in his Ether of Space, p29) that the scientific mind would never solve it, for, if the centuries ever gave up that secret which has been "sought from far, "ait" would be "perhaps, blindly apprehended by painter and poet, by philosopher and saint."

Threffor, to me, known internationally as a very successful painter, (for I never touched sculpture until I was 56) came that great vision which has condemned me to twenty years of suffering the usual humiliations and agonies which usually attend discoverers of ideas which are far ahead of their times.

I made a great effort to give the secret to the world, but could not, for its cosmogony was so utterly untrue to Natural Law that the great truth revealed to me was utterly unrecognizable.

Yet the responsibility was mine. Some urge within me forced me to accept it I began to equip myself with a knowledge of the language, terminology and beliefs of present day physics by buying text books. It shocked me to find so primitive a picture of our universe of light, also that practically nothing was known of light.

I found that the two-way inter-relation between space and matter had no meaning whatsoever to physicists, in fact there was mo mention of it whatsoever. Very much later I was encouraged to find that one great thinker, Dr. Albert Einstein, recognized that such an inter-relation was necessary to a balanced universe, by stating that it may be found that space was swallowing up matter. His great vision at least gave me hope that my balanced eternal two-way universe of equal action and reaction between space and matter could eventually replace the one-way dying universe which Eddington and Jeans are so insistant upon.

The more I read physics the more I foresaw the resistance I must meet in the effort of giving my knowledge of Nature's principle of motivation in continuous repetative cycles to a world which impressed me as being as archaic as that of King Arthur. I could see no advance over the middle age belief in a flat world, upheld at its four corners by huge beasts, ind the modern one which had been created long ago by some giant cataclysm, unaccounted for at that, and was now going to pieces by a slow heat-death. The serious differences of opinion of "the age of the universe" between the great physicists and astro-physicists made me wonder if I could ever bring the thinking of such a world up to a sufficient greatness of vision to enable it to see the great truth of a timeless, ageless, eternal universe which winds up its motivating clock springs simultaneously with their unwinding, by a process so simple that a child should understand it.

Every fundamental conclusion and basic law which I read about, was either incomplete, like those of Newton and Kepler, or up-side-down like the two thermodynamic and Coulomb laws. Added to that were the wild guess work theories which had not the slightest resemblance to Natural Law, such as the theory of atomic structure, the theory of the birth of our planets, which had even less virtue than the La Place nebular hypothesis theory, the theories of gravitation, magnetism, chemical affinities and others too numerous to mention.

If Newton knew the 50/50 nature of space and matter he would not have written his law of gravitation after seeing the apple fall. He would have sat there for three weeks and wached what happened to the rest of its cycle. He would then have written a complete law. Likewise Kepler would have given equal consideration to the other focus which has as much import in relation to an elliptical orbit as the one within the sun. Magnetism measures the potential of every mass in the universe in relation to each other and sets two focal controls for each one in relation to each other one. Around these foci every particle in the universe revolves around every other particle, under the control of these magnetic measurers-or balancers.

Neither would Newton have told us that the moon is falling upon the earth, or would except for its motion, if he knew the nature of wave-fields in space which sets every particle of matter h the universe afloat in an equi-potential curved plane, (which is its orbit,) as a buoy to mark the potential of the point in space which it occupies without weight in relation to any other mass in the universe. Every change in the potential of a mass causes an expansion or contraction of its orbit, according to whether the change is "up-hill" in potential, (like a condensing cloud which drops lower,) or "down-hill" like an expanding cloud which rises to seek a proper potential orbit appropriate to its new volume. Both our moon and its orbit are slowly expanding.

Such discoveries of present day thinking awakened me to the fact that I was not attempting to just superimpose new stones upon old foundations, but that I was actually attempting to destroy the foundations of a cosmogony which had the sincere backing of the foremost thinkers in the world. Do you wonder then that I felt as though my chances of changing the accepted one-way cosmogony into my two-way reciprocating cosmogony was hopeless? For years I felt that I had about as much chance of succeeding as Edison would have in selling Henry the VIII the idea of substituting electricity in place of candles.

And that is still my difficulty with you, except for the fact that I am fully prepared to show up the fallacies in present day thinking to any one, even as I thoroughly converted Thomas Edison to my electric law by making him see the absurdity of the Coulomb law.

But still I need to find a body of liberal minded thinkers in such an Institution as that which you head, which is undoubtedly sincere and consistant in its avowed purpose of searching for Truth wherever it may be found, in order that such radical ideas as mine can be studied, weighed and endorsed, and then printed for the world, in order to make it possible for this generation to have that knowledge.

Without such help I feel that my manuscript, even though I am able to finish it, would lie for centuries in oblivion, for it might take centuries for the truths within them to be recognized.

After six years of preparation I published my first book at my own expense, but found that I was still very inadequately prepared. I therefore went back into the silences for another ten years of more intensive preparation.

That rehearsal, however, did something by gaining me many friends among the greater thinkers in physics, such as Millikan, Michaelson, Shapley, Sheldon and many others who thought I had "something" but were not quite sure. Rentschler, of Westinghouse Co, was impressed with my improved "Mendeleef table of the elements" and I was called in for consultation regarding their chromium experiments and their interest in carbon. For my assistance they offered me the free use of a laboratory, as New York University also did for similar services. I have little use for laboratories, however, for my physics is not experimental, it is exact, and every problem in it can be worked out on a drawing board for turning over to technical workmen with the certainity that it will work.

The New York Times published many letters for, and against, my work. One research chemist roundly condemned me and said I hasphemed Newton and Kepler. I answered his letter in the same columns with the result that we met and I solved a problem for him at the lunch table which he was about to abandon. He apologized publicly in the Times and said I might be right. I enclose his letters with some others printed in the Times.

In 1927 I accepted the Presidency of The Society of Arts and Sciences for the purpose of better equipping myself with means to combat present day thinking. I held that office for seven years and bestowed medals upon many physicists. At one of these functions where a medal was being given to a great chemist, (Gilbert N Lewis)

I told them that hydrogen was not the first, and simplest, of the elements, but the twenty fifth one, and complex. I foretold what has since been found to a small extent.

Dr. H. H. Sheldon wondered why, and how, "empty space" could teach me my chemistry, and suggested that I paint some pictures which would clarify that idea for him. I did so. I painted pictures of the wave to show its three dimensional quality, and I painted sectional diagrams to give him an idea of the gyroscopic principle by means of which the elements are created and sorted out, like for like, and by means of which they find their ways back into their destined positions among their like kind, when any compound disintegrates.

Dr. Sheldon has pronounced these pictures priceless and asked me to donate them to such a fireproof building as The Planetarium for safe keeping. I will gladly donate them to your Institute if I finish my work there. Enclosed are two wave pictures of the many I did for New York University, and extracts from a letter from Dr. Sheldon.

It might be well to interpolate right here that my exact, dynamic knowledge of space and its complex forms, aroused in some minds the idea that I must be clairvoyant, or mystic, in order to be "able to see the unseen" as they aften said. Even Dr. Sheldon wondered regarding the source of my authority for stating that all crystal shapes in matter were derived from space. I wish most stoutly to assert that no such qualities enter into the matter. I have an exceptional vision but am otherwise normal.

Perhaps the kaleidoscope might offer a fairly good analogy as to how one may KNOW what one cannot see, or otherwise sense. If you look through one of them you see an infinite variety of design and pattern repeated endlessly into an infinity of space, but you do not see the three mirrors which form, and repeat, these illusions from a few bits of broken glass.

Nor do you see the light which these mirrors make use of / and extend the boundary walls to infinity, and to weave those patterns and repeat those forms. You know, however, that they are there, and that they are the key to the infinity which you do see. If one knows that there are three mirrors within the kaleidoscope he can then comprehend the "space" which is extended from those mirrors.

Likewise I have the invisible key by means of which those nine and a half octaves of broken glass, which we call "matter" become to me what I know they are, and not what they seem to be. I know the mirrors which extend our "space" into its shapeless infinity, and I know the pressure lenses which do strange things to light which passes through them TWO WAYS to compress matter around one rest point which we call "gravity" and evacuate it around its opposed pole in space, which should be designated "radiativity."

In my reading of physics I was, therefore, more and more distressed to find how the radiative foci of each equal pair was ignored. Those spatial foci were as important as the materially centered ones were to me, but they were never mentioned as the destination of what science calls "radiant energy."

I read of "radiant energy" as the menace to this world's very existance. It could perform work on the way from high potential to low, but there was no indication of any knowledge of that fascinating process by means of which radiation is regenerated for repetition.

I read the law which asserts that heat is energy, and the other one which says that heat energy flows only down hill. There is not the slightest shred of truth in either of those statements, nor is there any truth in the claim that railroad tracks meet on the horizon. Both are obvious but both are untrue. Our whole series of beliefs seem to be built upon obvious untruths. With an exposure of the deceptive illustions of motion the expanding miverse will disappear.

Consider the elements of matter, for example. It is presumed that each is a different substance, instead of being but different conditions of their one source, which is LIGHT. Light is all there is in this universe, but it is too long a story to tell here how light appears to divide itself into octaves of equal pairs of opposites, and how those pairs of balanced opposites co-operate to weave the patterns of creation in their respective wave fields and repeat those patterns into their neighboring fields at a speed which is constant.

When we know this fact of matter we will have a new day in chemistry and metallurgy. A plentiful, very cheap, supply of free hydrogen will be our next fuel, and a finer steel that we have ever known will be the outcome of the true nature of carbon, which is the salt of two metals. The hydrogen will not be reconditioned from water, but from air. True there is no hydrogen in air, but neither is there is water, nor in the sun's atmosphere until the condition of light which makes hydrogen possible, transpires. At that precise second when hydrogen comes into the appearance of existance, it explodes. Knowing the solar process of producing hydrogen, and having the same light for equipment, we can also produce it in vast quantities and burn it as transformed withoutnecessity of storage.

With the enclosed papers is a copy of the incomplete Mendeleef table, as taught in the schools, and my complete one which will serve for the future. It is too long a story to tell here how I know that hydrogen is not the first element, but the evidence of it is very clear in the spectrum lines of each element when one reads them with other eyes and comprehension. Carbon is the pivotal point of the cycle, where radio-activity begins its supremacy over genero-activity.

Having, therefore, such divergent views, it was difficult for me to maintain my silence in a world which viewed matter as energy and as all the universe. Matter is in reality but the marionette of space, which surrounds and controls its every movement

and condition, by those flux strings of light which electrically motivates it, and magnetically measures it, to insure its retention of balance with every other mass in the universe.

When matter is considered as an entity, independent of space through which it supposedly moves instead of both spatiall and material counterparts moving together, of what use are conclusions drawn from laboratory experiment. All premises being wrong so must all conclusions be wrong whether they are those of theory or of mathematics. Such conclusions force scientific practice to abide by its results even though contrary to such conclusions, which is not consistant to a science which should be exact.

For example; in my Westinghouse experience I found them constantly at sea as to any consistant explanation of the large absorption of hydrogen by cooling metals, and the return of occluded gases when no such occluded gases, nor hydrogen, were available for absorption from the surrounding air itself. That easily explainable problem was a needless mystery to them.

I found no suspicion of the conspicuous fact of Natural Law that every effect of motion gives birth to its opposite effect. That which leaves the cathode is not that same thing when it has bassed the equilibrium plane of pressures which divide cathode and anode. From there to the anode it is the very opposite of what it was, both as to charge, density and thermal measure.

The sun's radiation is a good example. As it leaves the sun it acts as discharge of potential in respect to the sun. It is a degenerative force when it leaves the cathode of the sun. It expands and cools on its way toward the vacuity of space. Its very density and weight lessens as its corpuscular records increase their volumes within their waves, (for light is both wave and material) and their incandescence gives way to blackness.

As soon, however, as they have passed beyond that plane of zero curvature which marks an equilibrium position between sun and earth, and the curvature reverses to convexity instead of concavity because of the reversing pressures of the earth's field, then the exact reverse takes place. The rays converge radially instead of diverging. The contraction of the direction of gravity condenses the matter which is set in motion. Density and weight increases. Acceleration replaces deceleration (for there is a pulsation to the constant speed of light) and the rays charge the anode of the earth upon which they impact. "Light cometh out of the darkness."

Every mass, therefore, is both cathode and anode.
Every mass is doubly charged. There is no such thing in Nature as a negatively, or positively charged mass. Every drop of rain which discharges space charges the planet, but, conversely, not one drop of rain may add to the earth's potential without an equal subtraction from it to repay to its counterpart its borrowed discharge. In every field the dual counterparts of space and its centering matter are equal. It is the office of electricity to make them opposite halves and the office of magnetism to keep their balance as equal halves.

Without this knowledge of electric duality and opposition the wild guesses regarding these needless mysteries are far afield from the simple explanations of all of them. Solar regeneration, for example, is so simply explained—after building up the new concept of the universal power—that it will strike one as incredible that it should not have long ago been known.

No truthful explanation can, however, be made of anything so long as the cosmos is presumed to be so unbalanced a one that its chances of survivivng that dread disease of heat-death, with which it has been inoculated by man, are hopeless.

Cosmic mathematics never exceed the universal Zero of the equilibrium from which all of its physical effects are borrowed. The cosmos is a bank which lends credits chargeable to equal debits. Each are on opposite pages of the cosmic ledger, and that line down the middle is an equilibrium which cancels out equal parts as repayments are made. Those credits and debits are positive and negative poles of rest betwen which the actions of the borrowings, payings and reborrowings take place in endless simultaneously recorded borrowings and payings, but SEQUENTIALLY repeated borrowings and repayings. Zero, plus a credit of 1, equals a debit of zero, minus 1. Matter and space are just that.

Duration, or time, or eternity, is not ahead into a future any more than it is behind into a past. It is neither. Time flows two ways and voids itself in its passing. Our senses record but one way so we think of time as something at the forward end of a sequences of events which register but one half of their cycles (or les) upon our senses.

In the new cosmogony there is but NOW. Eternity is at both ends of the pendulum swing. Infinity is within ones hand as well as out there beyond here. That which happens anywhere happens everywhere. The center of the universe is everywhere. From that universal center light extends equally to a mirrored infinity of patterned forms, all of which are within the cosmic kaleidoscope which forever turns to amuse and deceive us with its illusions.

All of which gives rise to necessary new laws, the most amazing, and incredible one of which is this one. "Every action is voided as it occurs, is repeated as it is voided, and is recorded as it is repeated."

Incredible as it seems to be, for it wipes duration off the slate entirely, it is nevertheless true and consistant with the underlying principle of Natural Law which I have recited in one paragraph, as heretofore referred to. Likewise all of my five hundred finished pages are consistant with that key. And if I wrote a million pages in hundreds of volumes there still would not be one inconsistancy, for there could not be. Constant checking against that key would prevent that. Can as much be said for books on the present cosmogony?

But I might go on indefinately in this vast field which is the cosmos given to us as our prize puzzle. With but a slight

-9

reference to electricity, and a lesser one upon astro-physics, I will send this letter to its unprophesiable fate with a feeling that I am omitting the chemical field shamefully because of the length of this letter, and because of constantly bearing in mind my advice to "tone it down 90%.

I am afraid/if I entered either of these fascinating fields of so little present day awareness, I would not be able to keep the lettery toned down at all.

Now as to electricity. The most discouraging thing that I read in the books of the savants of physics was the statement* that no one knows what electricity IS. We know what it DOES but not what it IS. I most certainly know what electricity IS, and what light IS. I also know the WHY of the speed of light.

*(Sir William Bragg said the same thing about light.)

But worse, and more discouraging than that, were statements by Bertrand Russell-(page 23, ABC of the Atom) that there are two kinds of electricity, positive and negative, but those names have no meaning whatsoever for they might just as well be called A and B.

On the same page he said that the electric movement within the atom had no relation to gravitation. I corrected that in my book "The Universal One" (1926) and Dr. Einstein did likewise in 1929.

To face that condition seemed more hopeless than ever, for I knew electricity to be the one force of the universe, but that its expressions were dual and opposed. I knew that the positive expression accounted for the compression principle and that the negative expression accounted for the expansion principle which made waves possible.

I knew also that the electric wave fields of light, as registered in matter and space, bore within themselves, each and every one of them, the entire principle of creation. In the wave therefore, lies the secret of creation, and with thetpresent concept of electricity I knew that the secret would be forever unfathomable. Also I felt that the wall of resistance to anything I might say to the contrary would be practically unsurmountable. That did discourage me almost to the point of abandoning the idea.

Electricity is the worker of the universe. Its pulsations are the motivating force and its wave amplitudes are the pistons of the universal engine which every wave is. In its cosmic oscillations is the life principle which it imparts to every unit in this created universe, both organic and inorganic.

I read of biologists searching for that life principle in some elusive germ. They might as well cast nets into the sea to find oxygen. No matter "lives". The eternal cosmos lives and every material thing expresses that life in its pulsations between its two potentials of matter and space in order that it can express that cosmic life principle. This is as true of the sun and silicon atom as it is of man or tree.

Electricity divides light into its two opposed expressions, which are incandescence and darkness, or density and vacuity, in order that there may be two-potential pairs of creating things to express growth and change in an objective universe which sequentially appears and disappears into and out of its equilibrium source of rest from which all things spring for sequential intervals.

In other words, the two electric workers, supervised by the magnetic measurer of balanced halves, create material solids surrounded by their spatial counterparts, and give to each the opposed qualities which each must have for interchange, in order that each pair of opposites may play the game of segsaw which every wave oscillation is.

Positive electricity exerts itself solely in the/direction of gravitation. It pulls inward radially, from within. Negative electricity exerts its pressures in the opposite direction. It thrusts outward from within. Thus are curved pressure gradiants created and sustained for intervals by opposed pressure gradiants of opposed curvature. Equilibrium planes divide these opposed curved planes. These equilibrium planes of zero curvature divide wave fields and insulate one from the other.

Wave field curvatures reverse with every oscillation. Interchange and reversal result. It is imperative that they do for each are out of balance with the fulcrum upon which they are playing see-saw even though they are balanced in themselves.

Such unbalance is necessary to cause motion. Children in balance lean backward and forward simultaneously to throw themselves out of balance with their fulcrum. One rises and the other falls. When they reach their poles of rest they reverse their balances in relation to their fulcrum. The fulcrum shifts on equilibrium axis at 90% to the dynamic direction of amplitudes.

The fulcrum is, therefore, made to appear to ascillate in order that the balance between the two moving unbalanced units may be preserved, just as a man must lose his balance in order to move, find it again in order to make the next move and then lose it for that repetition.

In the cosmic see-saw the difference in volume for volume between matter and space counterparts is equivalent to the forward and backward leanings of the children. Also the shifting of the fulcrum is the principle which gives two foci for every moving pair in the universe.

These two foci never move out of the equilibrium plane which is the wave axis. That is why all waves follows equi-potential planes of pressure gradiants, and why all amplitudes are radial. In every wave, therefore, gravity is shifted out of balance, like a man walking, and must be restored.

Sea level, for instance, illustrates this fact. Crests are minus sea level pressure and troughs are plus, or greater than sea level pressure. Between these two points gravity undulates. Its pressures curve. Naturally this unbalance cannot be maintained for every particle of matter in motion is forever seeking the state of rest from which it sprang.

Our universe is like that calm sea upon which no one point is discernable from any other point until the electric workers divide its equilibrium into opposed curvatures which are full of the opposed strains which those two opposite workers set up.

When this happens dimension and numbers take the place of the one-ness. Motion follows and work is produced because of the strains set up by electric opposition. But the strains are not all Q"down-hill" or "up-hill". Each balances the other. Nor is the energy thus expressed in the motion thus set up, but in the fulcrum from which such motion is extended by the see-saw wave from which it springs.

All effects of motion start from a point of rest, seek a point of rest and return to a point of rest from which they may again spring. Motion is impossible, therefore, without a fulcrum for the levers which but express the energy borrowed as a credit and debit from the fulcrum which never changes, nor moves out of its own state of rest. Every fulcrum is but an extension of the center of gravity of its field. A man who throws a ball in the air must borrow his "energy" from the center of the earth, from which he is but a radial extension. Whatever "energy" he imparts to the ball to cause it to discharge the planet and charge space, is compensated for by the reactive impact of his weight pressed toward gravity. The ball repays that borrowing at every level as it decelerates toward its rest point. It also reborrows it as it passes acceleratively through each level at the same speed which it had at each point of the upward climb. The impact in the man's hand, or upon the earth, is a repayment in full of the original borrowings from gravity by the thrower.

We must not, therefore, think of energy as being any of the dimensions, or effects, or the two directions of motion which give us compression and expansion sequences. Energy is not that. Energy is in the universal equilibrium from which the two electric workers extend it as expressions of energy through motion.

But just a passing word upon the heavens. The marvellous forms seen there are not just accidental forms which are classified as such and such. All are a part of the process of interchange which are the same in big mass as in small mass. All are stages of that eternal process. I am explaining hundreds of them in the Cosmic Plan, from star clusters to spiral nebulae, and to the black lanes which are not "obscuring clouds of black matter" as stated.

I could write volumes upon such interesting stages of interchange as the Dumb-bell and Owl Nebulae. An exceedingly interesting stage of degeneration in one part and regeneration in another can be seen in those ring nebulae such as M 57, Lyra, HV 13 Cygni, H IV Andromedae, H IV 27, Hydrae, H I 163, Sextantis and H LL 207 Pegasi.

Let us say "enough for now, "with the hope that the letter will serve the purpose intended and its author not penalized for being ahead of his time. It lies in your hands. The decision as tom its disposition and the fate of the message which its author must contribute to the world's culture is yours alone.

Very truly yours, Halter Russell

transmitted as a full-rate

WESTERN UNION

ACCT'G INFMN.

R. B. WHITE

NEWCOMB CARLTON CHAIRMAN OF THE BOARS J. C. WILLEVER
FIRST VICE-PRESIDENT

Send the following message, subject to the terms on back hereof, which are hereby agreed to

October 20, 1937

Lady Rutherford Cambridge, England

Alle Freunde der Wahrheit und Menschlichkeit fühlen in dieser Stunde mit Ihnen Ihr Mann bedeutet Vorbild und Trost für unsere und spätere Generationen

A. Einstein

Charge Institute for Advanced Study

3.48 Jut

THE INSTITUTE FOR ADVANCED STUDY PRINCETON, NEW JERSEY

May 4, 1949

Dear Mr. Ryberg:

This will acknowledge receipt of your letter of April 30th. Thank you for your interest in writing.

Yours sincerely,

Katherine Russell, Director's Office

Mr. Richard D. Ryberg P. O. Box 263 Claremont, California

Righery, Richard D.

P.O. Box # 263 Claremont, California April 30, 1949

The Institute for Advanced Study Princeton, New Jersey

Gentlemen,

You probably receive hundreds of letters daily from people who are convinced that they have discovered the one and only panacea for the problems which vex mankind. Perhaps this letter should be classified with the rest of the ones originating from lame brain sources. But the "idea" am trying to explain herein has kept nagging at me until I have decided that the only way I can achieve "peace of mind," is to try and explain it to someone who might understand.

I am only a college student, and I am not at all sure that this idea has not been presented in a manner far more precise than I could ever hope to achieve. If it has, please forgive my innocent efforts to try and save the world. If it hasn't, well, maybe this "idea" will help you to develop some of your own for the profit of the human race.

The "idea" developed as follows:

I began with the belief that --- in so far as we can observe --- organic matter all seems to have one similar "purpose," namely, to "continue" its existence through the reproduction of new organic matter. I also assumed that in so far as our knowledge --- based upon fossil evidence --- has developed, we can say that there probably has never been a moment since organic matter came into existence, when some form of organic matter has not been present on the earth. Thus, Once this thing we call "life" got started, it has been able to continue ever since. (However, if these assumptions are in error, then my entire hypothesis breaks down.)

My next conclusion came from a special interpretation of the so called "Theory of Evolution." I assumed that evolution has "progressed" by trial and error: those organic forms which were able to adjust to their environment have survived, and all others have eventually become extinct. I next made the assumption that perhaps there was some reason or "Law" why this should be the case.

I asked myself: "Why should "evolution" seem to be only interested in those forms of organic matter which were

able to adjust to their environment?" (My assumption here is that evolution must have some purpose, and apparently that purpose is to develop forms which will be able to maintain their existence, or in other words, "survive.")

After assuming that the process we call "evolution" had for its purpose the continuation of "life," I asked myself why this should be so? To answer this question, I decided that perhaps there is some "universal law" which dictates that once a "process" is placed in motion, it will thereafter strive to continue itself. What this implies, it seems to me, is that all universal "phenomena" are governed by the "desire" to continue themselves. I can offer no mathematical proofs for this concept. The thing that interests me is the ramifications that such a hypothesis, if proven to be correct, would have on man's interpretation of his life.

This is what I mean. If there was a "Law of Continuation," then every "particle" in the universe must be "governed"---- that is, "influenced"----by it. Now I am assuming that both organic and inorganic matter is composed of these "particles;" the primary difference between organic and inorganic matter being that of the arrangement of these "particles." I am also assuming that man possesses no special "ingredients" which make him anything more than just "plain" organic matter.

Now then, I am assuming that this "Law of Continuation" functions in the following manner. (I will limit myself to a consideration of only organic matter.) Not all forms of organic matter have been able to "obey" the Law of Continuation----that is, by their "failure to obey," I mean that they were not organized in a manner which enabled them to survive in the face of changing environmental conditions. In other words, those forms of organic matter which do not possess the ability to survive, are extinguished, although the "particles" of which they are composed may remain. The idea here, is that the Law of Continuation, by its inherent nature, demands that those forms which are not able to "continue their existence" be eliminated. Now I am assuming that in as much as man is a form of organic matter, he is subject to the Law of Continuation.

Here I turn for a moment to see what aspects of man reflect the "process of evolution." I am assuming that man has been able to adjust himself to his environment primarily through the aid of his brain, and it is in this region of his anatomy where his chief development has taken place. I am also assuming that the brain is the chief coordinating center for all of man's actions: emotional or rational. Finally, I assume that any success man has had in his efforts

to survive has been the result of the action of the brain.

Now I am going to assume that because man is part of the universe----which contains the Law of Continuation----then he is influenced by the "Law" and can experience it both "consciously" and "subconsciously." I am also assuming that the human "instinct for survival" is really a small manifestation of the Law of Continuation. Now it is my further belief that up until the most modern times, man has experienced the Law of Continuation only "subconsciously," that is, he has not been "actively" aware of it. I also assume that the Law of Continuation has been the primary force behind all of man's actions. In other words, whether he has been aware of the fact or not, man's entire efforts on the earth have been an attempt to maintain his existence----that is, to "obey" the Law of Continuation.

I pause here to ask myself: "Why do I think man has been primarily governed by a Law of Continuation?" To this I must truthfully answer: "I do not know;" unless it be that once I came to the conclusion that a Law of Continuation exists, and influences "everything" in the universe, then man too must be influenced by this "Law," since he is in the universe. What effect does this have on the meaning of "history," or other examples I shall try to indicate?

If the Law of Continuation exists, then perhaps we can say that the course of history has been governed by man's effort to survive. He has adapted those institutions----such as the family----because they have enhanced his survival. He has organized those systems of government which have enabled him to obtain food, clothing, and shelter. His efforts at survival have been like the process of "evolution": by trial and error. Man has gone to war, and revolted against existing institutions if he felt (consciously or subconsciously) these institutions were antagonistic to his desire for survival. He has continually sought to adapt those ideals which seem to satisfy his desire for survival. In all cases he is urged on by the Law of Continuation.

Here again I am going to make another assumption. In those systems which man has devised for his survival, and which have proven to meet his needs for existence, he has been in harmony with the Law of Continuation. And in those organizations which man has devised which have proven to be opposed to his needs for existence, he has violated the Law of Continuation. This idea becomes even more interesting if we assume that the "ideas" for these organizations originated in the brain----which is the possible center of man's evolution (and we have already assumed that the purpose of evolution is to fullfill the Law of Continuation). What I am saying is that the institutions and "ideals" which man possesses

today, may be a product of the "process of evolution" and thus the Law of Continuation --- in so far as these institutions attempt to meet man's needs for survival.

I am assuming still further that in as much as man "obeys" the Law of Continuation, he is satisfying his true nature, which is the desire to survive. And in as much as he does not "obey" the Law of Continuation, he is creating a conflict within himself. Now this might seem to indicate that man is capable of violating his true nature, or being something other than man-struggling-to-adhere-to-the-Law-of Continuation. But this is not what I mean. What I am assuming is that man is capable of erring in his attempt to obey the Law of Continuation, and it is this erring which creates a conflict with his true nature. Thus, every time man acts in a fashion counter to the Law of Continuation, he creates a conflict within himself. I next assume that in so far as man does not desire a conflict within himself, he will seek that type of action which seems to satisfy the Law of Continuation.

I pause here to suggest that perhaps the reason the teachings of Jesus of Nazareth----divorced from their clerical dogma----have persisted down to the present day, is because they have indicated types of human action which are in harmony with the Law of Continuation. I could also assume at this point, that this is the primary reason why they are still in existence, and why other concepts such as "freedom" have persisted. Going a step further, I could assume that these "ideals" are a product of the "process of evolution" and thus a manifestation of the Law of Continuation. However, I must repeat that these thoughts are only assumptions, but they do seem to indicate, I think, some of the ramifications of a possible Law of Continuation.

There are one or two other aspects of this "Law which have suggested themselves to me. One is, that if every man decided that his basic purpose in life was to satisfy his own personal desire for survival, thus hoping to "obey" the Law of Continuation, he might well make his actions more selfish than they too often are already. In other words, the Law of Continuation has more meaning than merely being a device whereby man can rationalize his efforts to satisfy his selfish cravings. To my way of thinking, this Law of Continuation dominates greater regions of the universe than the small area wherein human life exists. Also, we might assume that the Law of Continuation demands that man interpret his actions in terms of the world about him, if he is to obey the "Law." Perhaps the value of the famous commandment: "Do unto others as you would have others do unto you," lies in the fact that the emphasis is upon others, not on you. In other words, to survive yourself, you must think of the other person too. What

I am suggesting is that if man hopes to survive, he must adhere to those doctrines which seem to promote his survival. And in so far as he fails to base his actions on the Law of continuation, he is opposing his true nature----which is to obey the Law of Continuation.

Finally, I am not suggesting that if man dogmatically adheres to only one set of beliefs, his survival on this earth will be guaranteed. I assume that standards of conduct change as do the various forms which organic matter assumes. A major characteristic of the Law of Continuation is that it is not static. I have assumed already that the "process of evolution" is not static, but is continually developing new forms. Whether or not man will eventually suffer the fate of the Dinosaurs is a question I do not assume to be able to answer. I do believe that man is too insignificant a creature to justify any assumptions he makes that the process of evolution has been directed toward his perfection and survival at the expense of all other forms of organic matter. The fact that man has the ability to exterminate himself does not mean that the Law of Continuation has been violated or even invalidated. Even if man did destroy himself, the Law of Continuation would continue to exist. What I have been trying to point out is that man might do well to take conscious cognizance of the fact that his actions may be subject to a universal Law of Continuation. Thus, the more man strives to govern his actions so that they will harmonize with the Law of Continuation. the better chance he will have of eliminating conflicts within himself and of living in harmony with the entire universe.

Perhaps I have waded into water well, over my head, in concocting these beliefs. I may be guilty of trying to wrap up the meaning of the world in a neat little package labeled: The Law of Continuation. Be that as it may, I do take comfort in the belief that such an idea indicates that the various sciences of today are really working together rather than at swords! points. I know not whether these ideas will satisfy the needs of others----although I would like to think they might ---but in any event I humbly submit them to you who are better able to judge.

Sincerely yours,

Richard D. Ryberg

Dr. Abreham Flexner, The Institute for Advanced Study, Princeton University, Princeton, N.J. F. W. Ryan

Dear Sir:

I am very much interested in the work at Princeton which is under your direction. I have some research projects which I would like to carry on if I could have the ideal surroundings.

As to my academic training, after a year of graduate work at the University of Chicago, I entered the Harvard Graduate School of Business Administration, and gradated in 1921, ranking sixth in my class and winning first prize for the best graduation thesis.

Oct. 1, 1933.

I was then awarded the Jesse Isidor Straus Prize Scholarship for further research.

I remained on the faculty for three years as instructor in banking assisting Dr. O.M.W. Sprague in giving his courses. Dr. Sprague was later economic adviser to the Bank of England and is now adviser to President Roosevelt.

My Ph.D. thesis was awarded the first prize of \$1000 in the Hart, Schaffner & Marx economic prize competition of 1923. SUBJECT: "Usury and Usury Laws."

After receiving the Harvard Ph.B. degree in 1925, I went to Washington as assistant chief of the finance dvision of the U.S. Department of Commerce and carried on the annual study of the balance of international payments.

Here are three economic research projects which I am greatly interested in carrying on because of their great importance to our national welfare.

- I. A STUDY OF THE PROBLEM OF LOAN SHARKS AND OPPRESSION OF POOR BORROWERS. In my Ph.D. thesis I worked on this problem only to a partial extent. Recent developments have changed the problem and make it very important.
- II. THE IMPORTANCE OF BANK DEPOSITS IN THE MONEY SUPPLY OF THE NATION.

 Today there is agitation to inflate the currency supply, but most of our money (\$40,000,000,000) is in bank deposits. The velocity of money is related to this problem.
- III. THE FAMILY AS AN ECONOMIC UNIT. In recent months, much has been done to help our business by attempts to "release buying power." But after all, the household is the basic problem. We must get our households on a sound basis first, regardless of business problems. Classical economics has broken down because it ignored this fact. It was mostly a plaything of logic.

Here is an opportunity for me to do for economics what Einstein has done for Physics. The whole scope must be re-oriented in order to make it useful to solve our economic problems of today.

I should like to come to Princeton and tell you of these projects because I believe you will agree with me that they are of basic importance.

Although I have been a vice president of a \$20,000,000 corporation and have held important positions, and am doing very well in business, I regard our national welfare of such prime importance that I am willing to devote my life to these problems.

Yours sincerely franklin W. Byan

October 2, 1933

Dear Dr. Ryan:

I regret very much to say that the
Institute for Advanced Study is this year restricting its work to the field of higher mathematics.
When we shall take up another field has not yet
been decided.

Sincerely yours,

ABRAHAM FLEXNER

Dr. Franklin W. Ryan 105 Garth Road Scarsdale, N. Y. Records of the Office of the Director: General Files / Box 57 / Ru-Rz file This study was prepared at the request of President From the Shelby White and Leon Levy Archives Center, Institute for Advanced Study, Princeton, NJ, USA.

It is brought up to date in two chapters which I wrote for a book entitled "Internal Debts of the United States"

recently published by the Twentieth Century Fund, Inc

FRANKLIN PLAN INSTITUTE

FRANKLIN FLAN ECONOMIC BULLETIN

January, 1932

FAMILY FINANCE IN THE UNITED STATES DURING 1930 and 1931

BY

FRANKLIN W. RYAN, PH. D.

Vice-President and Economist 105 Garth Road, Scarsdale, N.Y.

PRANKLINGEKAN KEORPORATION

Reprinted from The Franklin Plan Review, January, 1932.

FAMILY FINANCE IN THE UNITED STATES DURING 1930 AND 1931

By FRANKLIN W. RYAN

N AN article entitled Family Finance in the United States published in The Journal of Business of the University of Chicago for October, 1930, I prepared tables of estimates of the various forms of current family financing and family indebtedness, as of the middle of 1930. Table V of that article which estimated the total of current family financing in the middle of 1930, to be about \$10,700,000,000 was widely quoted in many newspapers and magazines.

In the accompanying Table I, com-

In the accompanying Table I, comparable estimates are now given for the two years 1930 and 1931. The estimates for 1930, for the various types of short term cash loans, are given in Table II, while Table III gives the estimates for short term cash loans for 1931.

In working out these estimates, I have had the generous cooperation of leading experts in the various fields of individual and family credit research, namely, Leon Henderson and Rolf Nugent of the Russell Sage Foundation, Dr. Wilbur C. Plummer, Economist of the U. S. Department of Commerce, and Major Milan V. Ayres, Analyst of the National Association of Finance Companies.

National Income for 1931 About \$23,000,000,000

In making estimates of this type, we must have in view the total national income for a given year. On the basis of previous estimates made independently of each other, by Dr. Morris A. Copeland and Dr. Willford I. King, as a result of careful and laborious calculations, I estimate that the national income was about \$80,000,000,000 in 1930 and \$23,000,000,000 in 1931.

The estimates of total retail sales for the two years 1927 and 1928 as set forth in The National Income and its Purchasing Power, by Dr. Willford I. King of the National Bureau of Economic Research, have been found to be slightly too high, in the light of recent tabulations of actual sales by Robert J. McFall and John Guernsey of the U. S. Bureau of the Census. The Census figures for 1929 show total sales by retail stores for that year to be \$50,033,850,792 and \$3,172,934,842 of other direct sales to individuals and families by manufacturers and others. But during this period there were fully \$2,000,000,000 or more of direct sales to individuals and families by jobbers and wholesalers which would bring the total up to around \$55,000,000,000 as opposed to the original estimate of \$59,000,000,000 by the National Bureau of Economic Research. It will be remembered that Milan V. Ayres estimated two

years ago that the total sales for 1929 were \$55,000,000,000. I am now taking the following adjusted figures for total sales to individuals and families during the last four years:

	Annual Sales to
Year 1	individuals and Families
1928	\$52,000,000,000
1929	55,000,000,000
1930	48,000,000,000
1931	41,000,000,000

Mr. Guy H. Hulse, secretary of the National Retail Credit Association and Hon. R. Preston Shealey of the Washington, D. C. Bar, are both authority for the belief that sales on credit are equal to or slightly less than half of the total volume of sales during a given period. Several other leading credit men also believe that credit sales range around 50 per cent or slightly less. Dr. Wilbur C. Plummer, Economist of the U. S. Department of Commerce, found the figure of 47 per cent, as a result of his studies for one year. On this basis, my estimate of \$20,000,000,000 of total credit sales during 1931 is found to be reasonable and certainly in accord with other estimates and figures. Of this 1931 total, I estimate that \$5,000,000,000 were sold on the instalment plan and \$15,000,000,000,000 on open account.

000,000,000 on open account.

Dr. Wilbur C. Plummer found in his Retail Credit Survey which he completed for the U. S. Government, that two years ago, open accounts ran, on the average, about 72 days or one-fifth of a year. He says that today this period is about 76 days. On this basis, with total open account sales of \$15,000,000,000, the total amount of open account debts now outstanding is probably about \$3,000,000,000.

On the average, about one-fourth of the price of the typical instalment purchase is paid for in cash, leaving three-fourths to be paid on deferred payments. On this basis the annual figure of \$5,-000,000,000 for 1931 would leave about \$2,000,000,000 outstanding as of December 31, 1931. I have checked

these two estimates with both Dr. Plummer and Major Ayres, the two outstanding authorities, and both of them accept these estimates as reasonable.

According to Thomas J. V. Cullen, Editor of The Spectator, the total actual volume of life insurance policy loans on December 31, 1930 was \$2,-706.213.747. This total is now roughly \$3,100,000,000 but a considerable part of this sum is made up of large business loans on policies aggregating millions of dollars, so that it is better to take \$3,-000,000,000 as the amount of strictly personal and family loans of this type now outstanding, on which the annual loan charges are around \$180,000,000. Personal loans on life insurance policies differ fundamentally from all the forms of short term cash loans tabulated in Tables II and III, in that policy loans are of much longer duration than the short term varieties. It is often said that life insurance policy loans do not have to be paid at all. In addition to the \$3,000,-000,000 of regular life insurance policy loans, there are also now outstanding an additional amount of about \$1,000,-000,000 of Soldiers Bonus loans making the present total of life insurance policy loans approximately \$4,000,000,000.

Turning to the individual forms of cash loans in Tables II and III, it now appears that the former estimates of the volume of chattel loans for 1930 were too high and that the annual volume for that year was about \$475,000,000 with about \$260,000,000 in total investment in outstanding loans and available credit funds at the end of the year, and with probably about \$85,000,000 in annual loan charges. For the succeeding year 1931, these items were \$525,000,000 for the annual volume and \$300,000,000 outstanding on Dec. 31, 1931, with annual loan charges of \$90,000,000. These estimates for annual volume and loans outstanding are the revised figures of Leon Henderson, Director of the Division of Remedial Loans of the Russell Sage Foundation.

The annual volume of the pawnbrok-

TABLE I

CURRENT FAMILY FINANCING IN THE UNITED STATES DURING 1930 AND 1931

Class of Financing	At End of 1930	ats Outstanding ————————————————————————————————————
Open Account Debts Instalment Debts Life Insurance Policy Loans Short Term Cash Loans	\$ 3,500,000,000 2,500,000,000 2,500,000,000 2,590,000,000	\$ 3,000,000,000 2,000,000,000 4,000,000,000 2,620,000,000
Total Current Family Financing	\$11,090,000,000	\$11,620,000,000

The TRANKLIN TLAN TEVIEW

ECONOMIC BULLETIN

January, 1932

ing business in 1931 was about \$550,000,000 according to Mr. Henderson but the loans now outstanding at the beginning of 1932 are about \$400,000,000. The gross annual charges on this business in 1931 were \$140,000,000.

According to H. F. Cellarius of the United States Building and Loan League, the total volume of share loans by building and loan associations was \$225,000,000 in 1931 while the amount outstanding December 31, 1931 was \$270,000,000. On this basis and on the basis of my previous figures, the annual loan charge was about \$18,-000,000.

There does not appear to be any need for revision of my original 1930 figures for pawnbrokers loans, industrial banks, share loans by building and loan associations, credit unions and axias, but of course, these figures showed changes in 1931 as is given in Table III.

During the last half of 1930, the business of personal loan departments of commercial banks was growing very rapidly so that even if the estimates appearing in my original article, were the best available for the middle of 1930, Mr. Nugent of the Sage Foundation now estimates that by the end of 1930, the total annual volume of personal loans of this type was about \$270,000,000 and that loans outstanding at the end of that year were about \$150,000,000. The annual gross loan charges on this total were about \$20,000,000 or more.

In order to estimate the figures for non-departmentized personal loans by commercial banks, we have to allocate a part of the total commercial bank loan to this field. Generally speaking, commercial banks have never attempted to make this kind of allocation. The total aggregate loan by Federal Reserve member banks today is about \$21,000,000,000 while the total loan by nonmember banks is about \$13,000,000,000,000 making a total of some \$34,000,000,000. Of this total Mr. Nugent has figured that \$1,000,000,000 is a reasonable figure for both 1930 and 1931 for personal loans not already counted in personal loan departments. Mr. Nugent also figures that the annual volume and total amount outstanding are approximately the same for any twelve-month period.

According to an exclusive interview with Leon Henderson, syndicated to the Scripps-Howard chain of newspapers November 7th, 1931, the annual volume of loans by illegal high rate lenders was \$1,000,000,000 during 1931 as contrasted with the figure of \$750,000,000 which was his estimate for the year 1930 in Table I. Mr. Henderson estimates that this increased business was done on about the same amount of loan capital as was used in 1930, namely \$125,000,000 with gross annual charges of \$340,000,000 in 1930 and \$350,000,000 in 1931.

Interpretations

One of the striking features of the 1931 figures, is the decline in both the annual volume and total outstanding co-

TABLE II

ESTIMATED VOLUME OF SHORT TIME PERSONAL LOANS IN THE UNITED STATES FOR THE YEAR 1930, AND ANNUAL LOAN CHARGES (NOT INCLUDING LIFE INSURANCE POLICY LOANS)

Personal Loan Businesses	Annual Volume of Loans Made	Total Investment in Loans Outstanding and in Available Credit Funds as of Dec. 31, 1930	Annual Loan Charges
Personal Finance companies			
(Chattel loan companies)	\$ 475,000,000	\$ 265,000,000	\$ 85,000,000
Pawnbrokers	600,000,000	400,000,000	150,000,000
Industrial Banks (Morris		471124124	212700000000000000000000000000000000000
Plan and others)	360,000,000	240,000,000	25,000,000
Share Loans by building			
and loan associations	250,000,000	300,000,000	20,000,000
Industrial credit unions	60,000,000	40,000,000	3,000,000
Axias	50,000,000	30,000,000	3,500,000
Personal loan departments			
of commercial banks	270,000,000	150,000,000	20,000,000
Non-departmentized person- al loans by commercial			
banks	1,000,000,000	1,000,000,000	90,000,000
Unlawful lenders of all		V. I	
kinds	750,000,000	125,000,000	340,000,000
Remedial loan societies	60,000,000	32,000,000	4,000,000
Employees loan associations	20,000,000	10,000,000	500,000
Total	\$3,895,000,000	\$2,592,000,000	\$741,000,000

maker loans by industrial banks. This is partly accounted for by the rapid increase in personal loan departments of commercial banks from \$150,000,000 to \$180,000,000 during the year but is also partly accounted for by the fact that many Morris Plan banks and companies operated at a loss during the last two years.

There was an increase of fully \$35,-000,000 in the chattel loan business of the Personal Finance companies. Some of these loans were doubtless made to pay off co-maker loans. On the other hand, the credit unions increased in outstanding volume from \$40,000,000 to \$42,-000,000. It is very likely that this increase will continue but it must be remembered that it takes courage to invest money in a credit union in these times. Share loans by building and loan associations declined some \$30,000,000 while the so-called "axias" increased from \$30,000,000 to \$35,000,000.

The 25 per cent increase in the annual volume of business by the high rate lenders was very significant in view of the lack of increase in invested capital. Yet the total charges increased only \$10,000,000\$, indicating perhaps that competition is beginning to be slightly felt in this field. It must be remembered that the high rate lenders can operate freely only in states where they are not curbed by the recent provisions of the Uniform Small Loan Law. Some of these states where they flourish are Texas, Minnesota, Kansas, Arkansas and New York.

The United States government, by entering the personal loan business in 1931, with \$1,000,000,000 loaned to War Veterans, became the largest single small loan agency in the field.

The decline in Open Account Debts of \$500,000,000 and a similar half-billion decline in instalment debts reflect not only a lower money value for commodities sold on credit, but also the ability of selected credit risks to pay off debts in an orderly way. But of this \$1,000,000,000 decline in commodity debts, probably a third of it was paid off by incurring debts to the lending businesses listed in Tables II and III. Statistics show that more than 60 per cent of the loans of Personal Finance companies are advanced to pay off previously incurred debts.

The total of \$11,600,000,000 or more of current family financing now outstanding, while seemingly a large amount, does not occasion any great alarm on the part of those who extend this total aggregate of credit. Compared to the \$63,000,000,000 annual income, it appears to be only about one-sixth of the total amount available to pay it off in a twelve-month period. Certainly, if American families have gone in debt only to the extent of two months' income, it is not a serious matter. It might be more serious if they had not gone in debt at all.

But this estimated total of \$11,600,-000,000 of Current Family Financing is not the final total of all current family indebtedness. In addition to this there are today outstanding probably \$1,000,-000,000 of overdue rents, taxes and insurance premiums and another \$500,-000,000 or more of personal loans between friends and relatives, bringing the final total of all kinds of current individual and family indebtedness to about \$13,000,000,000,000, as a minimum estimate.

January, 1932

TABLE III

Estimated Volume of Short Time Personal Loans in the United States for the Year 1931, and Annual Loan Charges* (Not Including Life Insurance Policy Loans)

Personal Loan Businesses	Annual Volume of Loans Made	Total Investment in Loans Outstanding and in Available Credit Funds as of Dec. 31, 1931	Annual Loan Charges	
Personal finance companies (chattel loan com-		4-14-14-1		
panies)	\$ 525,000,000	\$ 300,000,000	\$ 90,000,000	
Pawnbrokers	550,000,000	400,000,000	140,000,000	
Industrial Banks, (Morris Plan and others)	320,000,000	230,000,000	24,000,000	
Share loans by building and loan associations	225,000,000	270,000,000	18,000,000	
Credit unions	60,000,000	42,000,000	3,000,000	
Axias	60,000,000	35,000,000	3,800,000	
Personal loan departments of commercial banks.	320,000,000	180,000,000	25,000,000	
Non-departmentized personal loans by commer-		Principal Service		
cial banks	1,000,000,000	1,000,000,000	90,000,000	
Unlawful lenders of all kinds	1,000,000,000	125,000,000	350,000,000	
Remedial loan societies	60,000,000	32,000,000	4,000,000	
Employees loan associations	25,000,000	12,000,000	600,000	
Total	\$4,145,000,000	\$2,626,000,000	\$748,400,000	

^{*} These estimates and figures bring up to date the figures of a previous table prepared by Dr. Franklin W. Ryan which appeared in his article Family Finance in the United States published in the October, 1930 number of the Journal of Business of the University of Chicago. In preparing the original table and in making this revision, the author received the generous assistance of Mr. Leon Henderson and Mr. Rolf Nugent of the Russell Sage Foundation. The estimates of the annual volume and total outstanding of share loans by building and loan associations were furnished by Mr. H. F. Cellarius, secretary of the United States Building and Loan League. The first authentic table of estimates of personal loans ever published was originally prepared by Mr. Henderson and was issued in an interview with him entitled Business Rescues the Small Borrower which appeared in The Business Week, January 22, 1930. The first table of estimated loan charges ever published was prepared by Mr. Rolf Nugent of the Sage Foundation and was published in the Magazine of Wall Street Dec. 3, 1927.

September 24, 1938

Dear Mr. Ryan:

I have yours of the 23rd regarding

Mr. Nemenyi. I shall be very happy to see him when
he comes to Princeton in the course of the coming
week and I shall do snything I can for him.

With all good wishes,

Sincerely yours,

ABRAHAM FLEXNER

Mr. W. Carson Ryan
The Carnegie Foundation
for the Advancement of Teaching
522 Fifth Avenue
New York City

AF/MCE

THE CARNEGIE FOUNDATION FOR THE ADVANCEMENT OF TEACHING 522 FIFTH AVENUE NEW YORK

September 23, 1938

Dear Dr. Flexner:

Mr. Nemenyi, a Hungarian research man, is coming to Princeton early next week with letters of introduction to Dr. Einstein and others at Princeton. In view of the fact that Mr. Nemenyi is interested not only in scientific research but also in general education, I hope that, if it is at all possible, he will have a chance to see you.

Sincerely yours,

W. Carson Ryan

Dr. Abraham Flexner
The Institute for Advanced Study
20 Nassau Street
Princeton, New Jersey

R:F

November 2, 1936

Dr. W. Carson Byan, Jr. The Carnegie Foundation 522 Fifth Avenue New York Dity

My dear Dr. Ryan:

Dr. Flamer has asked me to send you a statement showing from what American and European universities the students or members of the Institute for 1936-1937 come. If you are interested in similar data regarding the permanent professors and their assistants. I shall be glad to furnish them.

School of Humanistic Studies - Members for 1936-1937

Dr. R. E. G. Downey, Procter Fellow in Classical Archaeology,
Princeton University, 1935-1936

Dr. Wilhelm S. Heckscher, Ph.D., 1936, University of Hamburg Dr. Edward J. Jurji, B.A., American University of Beirut, 1938,

Ph.D., Princeton University, 1936

Mr. Richard F. S. Starr, in charge of archaeological expeditions to Serabit and Van, held a position in Fogg Museum, Harvard University

Prof. Richard Stillwell, Assistant Professor, 1935-1936, Princeton University, Department of Art and Archaeology

Dr. Hanns Swarzenski, best man in field of High and Late Mediaeval Book Illumination and Iconography. Berlin

Dr. Kurt Weitzmann, Dr. Phil., University of Berlin, 1929, doing research work on manuscripts, etc., in monasteries at Mount Athos, Greece, also working on Index of Christian Art at Princeton University

Mr. Donald N. Wilber, M.F.A. in Architecture, Princeton University, 1933, architect of Antioch expedition, etc.

School of Mathematics - Members for 1936-1937

Dr. Reinhold Baer, University of Göttingen, 1925

Prof. James H. Bartlett, Jr., associate professor, University of Illinois, Urbana, Ill.

School of Mathematics (continued) - Members for 1936-1937

Dr. Peter G. Bergmann, German University at Prague, Ph.D.

Dr. Louis P. Bouckaert, Dr. Math. and Physics, Louvain University, 1934 - CRB Educational Foundation Fellow

Dr. Herbert Busemann, assistant at University of Göttingen, 1931-33, since then working with Harald Bohs

Prof. Stewart S. Cairns, professor in Lehigh University, Bethlehem

Dr. John F. Carlson, Ph.D., University of California, 1932

Prof. Pei-Yuan Chou, professor in National Tsing Hua University, Peking

Dr. George Comenetz, Columbia University, 1934

Dr. Daniel M. Dribin, University of Chicago - National Research Council Fellow

Prof. William L. Duren, Jr., Tulane University, New Opleans

Dr. Eugene Feenberg, assistant professor, University of Wisconsin, Madison

Dr. Aaron Fialkow, Columbia University - National Research Council Fellow

Dr. Antonio I. Flores, University of Madrid - Spanish Fellowship

Prof. Nathaniel H. Frank, professor of physics, Massachusetts Institute of Technology, Cambridge

Dr. Marshall Hall, instructor, Yale University, New Haven

Dr. Ingomar M. Hostetter, instructor, University of Washington, Seattle

Dr. Witold Hurewicz, privatdozent, University of Amsterdam, Holland

Dr. Leopold Infeld, University of Warsaw, Poland

Dr. Pierce W. Ketchum, instructor, University of Illinois, Urbana

Prof. Taai-Han Kiang, professor, China

Dr. Morman Levinson, Massachusetts Institute of Technology, 1935 National Research Council Fellow

Prof. Elton J. Moulton, professor in Northwestern University, Evanston

Prof. Francis D. Murnaghan, professor in Johns Hopkins University, Baltimore

Dr. Walter Prenowitz, instructor, Brooklyn College, Brooklyn

Mr. Maurice H. L. Pryce, Trinity College, Cambridge, England, 1933 Commonwealth Fund Fellow

Dr. Melba N. Phillips, University of California - American Association of University Women Fellowship

Dr. John F. Randolph, Cornell University, Ithaca

Dr. William T. Reid, University of Chicago, Chicago

Dr. Moses Richardson, teacher in Brooklyn and New York City High Schools

Dr. Otto F. G. Schilling, University of Marburg, 1934

Prof. John C. Slater, professor of physics, Massachusetts Institute of Technology, Cambridge

Mr. Frank Smithies, M.A., Edinburgh, 1931; B.A., Cambridge, 1933; Senior Wrangler, Cambridge

Dr. Gunnar Steensholt, research assistant at Geophysical Institute and Chr. Michelsens Institute, Bergen, Norway - Fellowship from University of Oslo

Dr. Martin H. Stobbe, University of Göttingen, 1930

Prof. Marshall H. Stone, professor, Harvard University, Cambridge

November 2, 1936

Dr. Ryan

School of Mathematics (continued) - Members for 1936-1937
Mr. E. Donovan Tagg, Clare College, Cambridge, England, 1933
Commonwealth Fund Fellow

Dr. Harold M. Terrill, Columbia University, New York City, 1924 Prof. Joseph M. Thomas, professor, Duke University, Durham

Dr. Charles B. Tompkins II. University of Maryland, College Park

Prof. Andre Weil, University of Strasbourg Dr. Rupert Wildt, University of Göttingen

Dr. Yue K. Wong, University of Chicago, 1931 - Fellowship from Nanking, four years

Very truly yours,

BATHER S. BALLEY

3

Secretary

October 17, 1936

Dear Dr. Ryans

I have your kind note of October 16
and I shall be delighted to see you when you come
to Frinceton on October 30 and 31. We have very
little to show except persons, since with the
exception of one frame house and my own very
uncetentatious office here at 20 Nassau Street
we are occupying Frinceton space. However, I shall
be happy to show you what there is to be seen and
to talk with you on the subject of the Institute.

With all good wishes,

Sincerely yours,

ABRAHAM FLEXNER

Dr. W. Carson Ryan, Jr. The Carnegie Foundation 522 Fifth Avenue New York City AF/MCE

THE CARNEGIE FOUNDATION FOR THE ADVANCEMENT OF TEACHING 522 FIFTH AVENUE NEW YORK

October 16, 1936

Dear Dr. Flexner,

Do you permit visitors? I am planning to attend the meetings of the Population Association at Princeton, October 30-31, and Mr. Howard Savage seemed to think you might be willing to have me see the work you folks are doing. Mr. Savage is, as you doubtless know, most enthusiastic about the work, I have myself long admired it at a distance.

Sincerely yours,

W. Carson Ryan, Jr.

Dr. Abraham Flexner Institute for Advanced Study 20 Nassau Street Princeton, New Jersey