PSF

Interior Dept.: Harold L. Ickes 1933-36

Box 72

FRANKLIN D. ROOSEVELT
HYDE PARK, DUTCHESS COUNTY
NEW YORK

FR

H.L.I. —

Lackawanna N.Y. Housing Project.

Can it be worked out as
(a) Loan to a Non-dividend corporation.
(b) Grant for Relief labor employed.

Father McGann — —

file personal Ickes

PSF: Ickes

BYRNES BILL - P.W.A. - W.P.A. - ICKES - REORGANIZATION.

(1) This proposes an Executive Order on Monday morning transferring to Ickes, as present Administrator of P.W.A., all functions which the Byrnes Bill proposes transferring to a new administrator and assistant administrators to be newly confirmed by the Senate.

(2) Such action will accomplish the following purposes:

(a) It will immediately take the steam out of the Byrnes Bill; Byrnes himself, I understand, has stated that he would welcome as a substitute for his bill an Executive Order coalescing the spending agencies.

(b) It will leave the direction of the spending agencies, with all their enormous political power in the hands of friends of the President: it will avoid having to share that power with the Congress by having to compromise on new administrators to be appointed with the consent of the Senate.

(c) It will satisfy the public as to a reorganization of W.P.A. because Ickes outstanding administration of P.W.A. has been approved by the public.

(d) It will settle the present Ickes-Wallace forestry situation.

No transfer of parts of forestry to Ickes will make him happy.

Any transfer of P.W.A. away from him will make him even unhappier than now.

In principle the other spending agencies must go with P.W.A., so that either P.W.A. is taken away from Ickes or the others are given to him.

Merriam has been talking to Ickes that being known as the "great builder" is more important than being known as the "great conservationist" and the spending-building program has already shaped itself in Ickes mind as an emotional substitute for conservation.

PSF Ickes folder - 1933

HAROLD L. ICKES
LAWYER

1627 STATE BANK BUILDING
120 SOUTH LA SALLE STREET
TELEPHONE CENTRAL 1065
CHICAGO

February 27, 1933

Honorable Franklin D. Roosevelt,
Hyde Park,
New York, N.Y.

Dear Governor Roosevelt:-

I have just been advised that the Associated Press has received a statement from you in which you name me as your Secretary of the Interior. I shall not try to express to you the pleasure and pride that this announcement stirs in my heart. I do want to say that I shall give cheerfully everything that is in me to justify your faith in me.

With abiding gratitude,

Very sincerely yours,
Harold L. Ickes

HLI/FV

PSF Ickes

File

THE SECRETARY OF THE INTERIOR
WASHINGTON

June 16, 1933.

My dear Mr. President:

I was in Illinois over the week end and had some opportunity to check anew on the Democratic situation there. This situation is a bad one, and I suspect that recommendations for appointments will be made to you which, if made, will be embarrassing to you and harmful to the State organization in the end. I have no candidacies to suggest to you myself, but I have had a rather intimate knowledge of Democratic politics in Illinois for many years. If you think that I can check on any suggestions made to you for appointments in Illinois, I will be only too happy to be of service. I need not assure you how concerned I am that, for the sake of your administration, no mistakes be made in this important State. I may add that while Illinois was an overwhelming Roosevelt State in November, it is by no means a Democratic State. I do not want to see the pendulum swing back.

Sincerely yours,

Harold L. Ickes

The President,
The White House.

PSF Ickes

November 14, 1933.

~~CONFIDENTIAL~~

MEMORANDUM FROM THE PRESIDENT

FOR THE SECRETARY OF THE INTERIOR

This list was handed to me in confidence by a man who has pretty good knowledge and common sense. The names are supposed to form the inside ring of the construction industry. You might glance it over and send it back to me.

FDR

FDR-MD

30 Jan. 1934 PSF Ickes

THE SECRETARY OF THE INTERIOR
WASHINGTON

1934

My dear Mr. President

This is a happy day for the country as well as for you. It was a fortunate thing for all of us that you were born when you were. It will be a still more fortunate thing if we can have your strength and courage and leadership to depend on during the years to come.

Very sincerely yours,
Harold L. Ickes

The President,
The White House.
Jany. 30, 1934.

BF Interior

Paula
file - Ickes

THE SECRETARY OF THE INTERIOR
WASHINGTON

March 21, 1934.

My dear Mr. President:

The Skokie Valley is a marsh in Cook County north of Chicago and west of Winnetka and other villages on the shore of Lake Michigan. It belongs to the forest preserves of Cook County and is, therefore, a county park. Last summer several CCC camps were established there to drain and improve the park. This was done at the request of the Forest Preserve Commissioners through the State authorities. As this was a park, the CCC camps have been under the jurisdiction of the National Park Service of the Interior Department.

On March 22, 1926, I bought 10 acres of unimproved land on the west side of the Skokie and probably within a mile or a mile and a half of it. This property cost $3,000 an acre and I have paid so far $20,800.

On August 17, 1926, I bought 2½ acres a short distance from the 10-acre tract referred to and still farther away from Skokie. This property cost $3,000 an acre and is paid for in full.

On May 26, 1928, I bought 20 acres about a half a mile farther away from Skokie Marsh. This property cost $4,000 an acre and I have paid on it $25,000.

On July 19, 1929, I bought another 20-acre tract adjoining the first tract just referred to. This property cost $3,000 an acre and I have paid on it $18,732.

THE WHITE HOUSE
MAR 21 1934
RECEIVED

All of this land I bought for investment. Then came the crash and I wasn't able to carry all of it. Accordingly, I have deeded back to the original owners the two 20-acre tracts (40 acres in all), taking as my loss not only the money paid on account of principal but money paid for interest and taxes. When I deeded this property back I reserved an option to repurchase within a stated period. This option as to the first 20-acre tract has already expired, and as to the second 20-acre tract is about to expire. I have no intention of exercising the option.

The 10-acre tract I tendered back to the original seller on the same basis. That is, I offered to deed the property and stand the loss of the amount paid, together with taxes and interest. This 10-acre tract really consists of two parcels of 5 acres each. As to one of these 5-acre parcels the seller refused to take the property back on any terms. Accordingly, I am carrying this property and paying off the balance due on it. As to the other 5-acre parcel of this 10-acre tract, the seller has neither accepted nor rejected my offer to reconvey but I am not paying either taxes or interest.

The 2½-acre tract having been paid for in full has been retained. I should say that Mrs. Ickes holds legal title to both the 10-acre tract and the 2½-acre tract.

I understand that Judge Malmin is making the charge that I have been buying up land in the Skokie area and selling it to the city for CWA park improvements. This, of course, is not true. In the foregoing I have set

down in exact detail all the interest any member of the Ickes family has ever had in Skokie property. My excuse for burdening you with this unimportant detail is not only that Judge Malmin is making this unfounded charge but that certain other persons are circulating in Chicago a report that I had an interest in establishing the CCC camps in the Skokie Valley because of the beneficial effect they would have upon the real estate holdings of myself and my family.

Sincerely yours,

Harold L. Ickes

Secretary of the Interior.

The President,
The White House.

file personal

THE SECRETARY OF THE INTERIOR
WASHINGTON

THE WHITE HOUSE SEP 6 1934

September 6, 1934.

BF
Interior
Ickes

My dear Mr. President:

I have just had a letter from Victor Watson. Although it is marked "Confidential", I am sending you a copy because I think you ought to have the information for what it is worth.

Sincerely yours,

Harold L. Ickes

Secretary of the Interior.

The President,
The White House.

Enc.

c o p y

CHICAGO HERALD AND EXAMINER

September 4, 1934

Office of the Editor [redacted]

Hon. Harold L. Ickes,
Secretary of the Interior,
Washington, D. C.

My dear Mr. Ickes:

I just had a very nice letter from the President. Since it is confidential, I of course cannot discuss it.

With relation to Jim Farley, as I told you, our political man, Charlie Wheeler, tells me that Jim is supposed to come up here and give Mayor Kelly the "Washington blessing."

Of course when Jim has all the facts before him he is probably the smartest politician in the country. However, even the smartest man can make a mistake if he doesn't have before him or keep in mind all the facts.

I wonder if Jim has taken into account that if he passes the Presidential blessing on to Mayor Kelly that one of the opposition newspapers up here is very liable to ask Jim since he has become the apologist for Kelly, if perhaps he might be willing to explain where Kelly got the money from on which he failed to pay the government its just or unjust income taxes.

Remember my newspaper was asking for days where and how and for what he got this several hundred thousand dollars which he did not report to the government. While that has been quiescent for some time of course the Republicans will make big use of it in their campaign against Kelly.

Of course I never like to look so far ahead politically, but it is possible this newspaper might be asking Kelly those same questions again if he attempts to run for mayor. Regardless of who asks the question it is certain they will be asked. Everybody will of course probably say that Kelly may be excused for trying to cheat the Federal government out of its income taxes, but nevertheless they would still like to know how this poorly paid official got so much money and what he got it out of. Perhaps Jim has not taken this into account.

I find upon examining the advance copy of the Farley speech recently delivered in Springfield, Illinois, that Jim had intended to refer to the Kelly Horner fight and to speak of Kelly as Chicago's "great Mayor." At the last minute he eliminated this from his speech. My information is that Horner requested that reference to their disagrement be left out.

Very sincerely,
(signed) Victor Watson.

PSF Ickes

"file personal"

THE SECRETARY OF THE INTERIOR
WASHINGTON

November 24, 1934.

My dear Mr. President:

Your suggested draft of a joint statement to be signed by Mr. Moffett and myself was perfect. It came through at a time when diplomatic Steve was having his hands full trying to evolve something that would meet a difficult situation. The pen that wrote that statement was wielded by the hand of a master. It immediately dissolved all our difficulties and cleared the situation so far as it was possible to clear it.

I want to say again how much I have personally regretted this whole episode. You are already carrying enough burdens and responsibilities without their being added to by members of your own administration.

Sincerely yours,

Harold L. Ickes

Secretary of the Interior.

The President,
Warm Springs, Ga.

PSF Ickes

"file personal"

THE SECRETARY OF THE INTERIOR
WASHINGTON

November 27, 1934.

My dear Mr. President:

I am sending you two envelopes bearing blocks of the one-cent and three-cent Yosemite stamps, cut from the large sheets. As you know, these were issued in small sheets of six but these are cut from the sheets on which were printed ten each of these blocks of six.

Sincerely yours,

Harold L. Ickes

Secretary of the Interior.

The President,
Warm Springs, Georgia.

26 Dec. PSF Ickes

THE SECRETARY OF THE INTERIOR 1934

My dear Mr. President:

I am delighted with the cuff links that you so generously sent me for Christmas. I especially appreciate them because they are something that I can hand on to my son as a precious memento of the privilege his father had of serving under a great President.

With affectionate regards and best wishes for the New year,

Harold L. Ickes

The President
The White House
Dec. 26, 1934.

PSF Interior

"file personal"

File Ickes (5) (1)

THE SECRETARY OF THE INTERIOR
WASHINGTON

December 27, 1934.

My dear Mr. President:

Having in mind the concern you have expressed about the undercover rumors that are current about persons connected with your administration, I am calling your attention to the talk that persists about the internal affairs of the Interior Department. I have come to the conclusion that in justice to yourself and in fairness to me, you ought to order an investigation by a friend of the Administration, who could go into matters in a fair and impartial manner. I have in mind some such person as Frank C. Walker, although, of course, I do not presume to suggest to you whom you should choose.

There seem to be three general charges that are being bruited about: first, that Burlew is really running the Department; second, that Glavis is a law unto himself, and, third, that I am too busy with PWA to know what is going on in the Department. A breakdown of the charges against Burlew brings out: first, that he has built up a personal machine; second, that he is not loyal to the Administration, and, third, that he has the personnel of the Department terrorized.

I wish to join issue on all of these allegations. It is admitted that Burlew is both able and industrious. I am frank to say that it would take at least two competent executives to do the work that he now does, and even then they would lack his experience and

background.

As to his building up a personal machine, I have no evidence of it and I have not only looked into the matter carefully myself, but I have had trustworthy men in the Department consider it. Even if he should desire to build up a personal machine, what good would it do him? He would only be placing himself in jeopardy and he is too smart a man to do that. In other words, he has no motive to do anything except to perform here to the best of his ability since his tenure of office is secure only so long as he gives faithful and satisfactory service.

I am willing to vouch personally for his loyalty to the Administration. Burlew is not a demonstrative man, but if he has not entered whole-heartedly into the spirit of the New Deal, then I am no judge of men. He has never been a partisan in politics. He has been in the Civil Service for over twenty years. He has served both Republicans and Democrats, and, so far as I can ascertain, has served both faithfully. I know that he holds you personally in the highest possible regard. I know of my own knowledge that in personnel matters he always sees with Administration eyes.

As to his terrorizing members of the staff, that is hardly consistent with the charge that he is building up a personal machine. The two ideas are mutually exclusive and yet both charges are made. On the matter of terrorization, I need not say that a man who carries out the orders of his superior officer in disciplinary matters is not regarded generally as a jolly good fellow. If I order an employee separated from the service, or suspended, or reprimanded, it is Mr.

Burlew who has to carry out my orders, and, doubtless, in many cases he is held responsible for them. If applicants for positions or for promotions do not have their desires satisfied because of adverse decisions on my part, Burlew again, as personnel officer, is held responsible.

I have heard recently that no one can get in to see me except through Burlew. Nothing could be further from the fact. Burlew's office is some distance from mine and not connected with mine. No appointments are made through him. He does not know who comes to see me. All appointments with me are made either through Mr. Slattery or Mr. Marx, whose offices are directly connected with my own.

As to Mr. Glavis, I need make only a very general denial. You know him too well and too favorably, I am sure, to consider seriously vague charges against him. I do want to say, however, that without the protection that he and his force of investigators have given me, I doubt very much whether as Public Works Administrator I could have carried on as I have so far done without even a single minor scandal. He is after the crooks all the time and the crooks are afraid of him. His very name is a protection. He reports directly to me and works directly under my orders. Every week I have a detailed report from him covering all the cases he has in hand.

My own view is that the attacks on Burlew and, to a lesser extent, those on Glavis are really indirect attacks aimed at me. I have made enemies since I came to Washington -- powerful enemies. Some of them I am proud of and some of them I regret, but I have not been unconscious of the whispering campaign, that at times becomes a

mutter, that has been growing in intensity against me during the last few months. I know some of the persons who are responsible for these insinuations, but some I do not know. I only wish that they would be manly enough to come into the open, face me with their charges, and give me an opportunity to make direct answer.

Whether for good or for ill, I am myself running the Department of the Interior, subject only to your orders. In spite of Public Works and in spite of the Oil Administration, I am giving more time and greater personal attention to the Department, according to old timers here, than any of my predecessors. Every member of the staff knows that he may have direct access to me if need be. Day in and day out I see personally large numbers of my staff. They come to me direct with their problems. It is reported that I am inaccessible to members of my staff; that they are afraid of me. This seems strange since so many members of my staff come to me on matters that they could take up with someone else. While my bureaus are sub-divided under the two Assistant Secretaries, contact does not have to be made with me through those Assistant Secretaries, but may be, and constantly is, being made direct.

The reason for the insinuation that I am not functioning as Secretary of the Interior is easy to understand. Some people do not want to see this Department assume the position in the general administration that it ought to have and which it once had. There are those who would wish to see the Public Works Administration, or the Oil Administration, or both, taken away from me. I am no more unaware of some of the sources of these innuendoes than I am of the varied motives for them.

This situation is not entirely personal to me. I am concerned

about the eventual effect on the Administration if some of us do not take steps to combat the insinuations and innuendoes that are directed against one member of your Administration after another. There is danger in the tendency to personalize differences on administrative questions rather than to discuss them in the open and abide by an authoritative decision. Those responsible for this gossip within contribute to the efforts of the enemies without the Administration. Latent animosities should not be permitted to destroy what you have created and my own feeling is that a decisive effort to fix responsibility for and to prove or refute unfounded and biased allegations would tend to check the treachery which, otherwise, I am afraid may have the effect of rendering nugatory the wisest administration policies.

I appreciate too keenly the opporunity you have given me as a member of your Administration to want to hamper you or to detract in any degree from the splendid job that you are doing. Since only an impartial investigation can discover the true facts, I respectfully suggest that you order such an investigation.

Sincerely yours,

Harold L. Ickes

Secretary of the Interior.

The President,
The White House.

"file personal" PSF Ickes

File Ickes (5)(1)

THE SECRETARY OF THE INTERIOR
WASHINGTON

January 12, 1935.

(PERSONAL)

My dear Mr. President:

I am glad to avail myself of the opportunity given in your memorandum of January 2, addressed to the Secretary of the Treasury and to myself, to discuss the construction of public buildings. There is a fundamental issue involved in the three cases under discussion and I hope that you will bear with me if I go into the matter thoroughly and frankly.

I am not appealing from your decision that Executive Order No. 6166 has the sweeping effect that you say it has. Even if it were not understood by the Treasury Department or the Comptroller-General to have that effect originally, it is obviously within your discretion to enlarge the powers conferred upon the Division of Procurement by amendment or by interpretation. I may say, however, in justification of the interpretation that the PWA put upon the order, that it was not until a very few weeks ago that even Procurement interpreted it as it is now being interpreted. From June 16, 1933, the date of the Executive Order, until very recently, ever department of the Government had, in ordinary course, proceeded with the erection of certain of its own buildings. This was true of War, Navy Agriculture and Interior.

I may cite two instances. This Department rebuilt the Executive wing of the White House and it is now building an additional story to

the Interior Building. No question as to our authority to do this was raised either by Procurement or the Comptroller-General. I could cite other instances where no one thought of invoking the rule now insisted upon by Procurement, that under this order there has been transferred to it certain important functions that formerly were exercised by other departments of the Government without question.

I may say further that if the use of the word "structures" in Section 1 of this order is to be interpreted as giving Procurement jurisdiction over the established building activities of the other departments, it undoubtedly gives that division jurisdiction over the Bureau of Reclamation, the National Park Service, the Forest Service, the Bureau of Roads, and any and every other construction activity of the Government. It would even seem to me to give Procurement jurisdiction over Subsistence Homesteads, Slum Clearance, and a considerable part of the C.C.C. work. To give the word "structures" the interpretation claimed for it by Procurement, and this is the only word in the entire order that even suggests its right to take over all our building activities, can only mean that, without notice to them, and even without their knowledge, many of the permanent and temporary establishments of the Government were put under the jurisdiction of a division of one of those departments.

The Executive Order, by specific language, transferred to the Procurement Division the Office of the Supervising Architect. If by the use of the word "structures," as subsequently claimed by Procurement, it was intended to give it jurisdiction over all building activities of all departments, it would not have been necessary to

transfer the Office of the Supervising Architect by definite and specific language. This particular transfer clearly negatives the idea that it was intended generally to transfer all building activities of all departments by the use of the vague and general term "structures." To permit the Quartermaster's Corps of the Army to build certain buildings and deny to the Department of the Interior the right to build the experimental station for the Bureau of Mines may be interpreted as an indication that Procurement will permit the Army to continue to do its building in the future as in the past while denying that right to this Department.

I regard this attitude of Procurement as arbitrary and prejudicial to Interior, and I am sure you will concede me the privilege of discussing what I believe to be the reasons for it.

As you know, there was an active candidate in the Treasury Department for the position of Administrator of Public Works. Your selection of myself was deeply resented and at the outset open efforts were made to obstruct and hinder the PWA. Later fuel was added to the flame when you instructed me to have someone look into the plans of and contracts for post offices. You suggested a committee consisting of Mr. Hoopingarner, Mr. Rabinowitz and a third man who could not accept. At the suggestion of Mr. Hoopingarner, Mr. Dresser was later made the third member of this committee. It was the duty of this committee to make a thorough investigation of plans and procedure with respect to post offices. The Office of the Supervising Architect not only gave this committee no assistance, it obstructed it in every possible way. You had to take a hand in the matter before they could get essential

information. As a result of this investigation a new policy with respect to post offices was adopted that resulted in saving large sums of money to the Government.

The Office of the Supervising Architect has never forgotten this activity, under your orders, on the part of PWA. When Congress at its last session made an additional appropriation for Public Works it denied to PWA any duty or responsibility with respect to post offices. It cannot be doubted that the Office of the Supervising Architect had a deep finger, and perhaps more than one, in this particular pie.

Not only has there been a feeling of resentment engendered in the Office of the Supervising Architect against Interior by reason of the activities that you directed Public Works to carry on with respect to public buildings and other matters, but a new factor has entered into the situation in the person of Max Dunning, who is now on the staff of Procurement. Mr. Dunning was formerly Associate Director of the Housing Division of PWA. He was dismissed under charges of gross inefficiency and of using his position with the Government to try to get contracts and favors from the Office of the Supervising Architect through personal connections there for his Chicago firm and friends of his in Chicago. After dismissing him I withdrew the order and permitted him to resign. Later he showed up as a trusted and prominent employee of Procurement. In hiring him Procurement disregarded your order that before employing a man who had formerly been in the public service an inquiry should be made of the department to which he had been attached to ascertain the reasons for his resig-

nation or separation. To my utter astonishment when I went to the office of the Secretary of the Treasury recently to attend a conference I found there Admiral Peoples closely attended, in apparently a confidential capacity, by a man whose gross inefficiency I was in a position to prove and whose ideals of public service left much to be desired.

Although Order 6166 has been in effect since June 16, 1933, it was not discovered by the Treasury Department that it gave jurisdiction over all Federal buildings until PWA made an allocation for the new Interior Building. This building was handled exactly as every other building theretofore allotted for by PWA had been handled. The allocation was passed by the Board and approved by you. Mr. Delano suggested an architect whom you knew favorably and whose selection you approved. I entered into a written contract with that architect under authority from you. I proceeded to acquire the site under the authority that had been granted me and actually had acquired several parcels. This Department started to demolish some of the old buildings on the site. Everything was proceeding smoothly and expeditiously when Procurement suddenly demanded the right to put up the building, which right was finally reluctantly conceded by me. The record will show that a representative of Procurement was present at the meeting of the Public Works Board which voted to the Interior Department the sum of $10,000,000 for the erection of the new Interior Building. This meeting was held approximately one full year after the promulgation of the Executive Order in question. In other words, Procurement

approved in this instance also a building to be erected by Interior and later repudiated its own act.

Even the architect for the new Interior Building, who has done a fine job in reliance upon a written contract which, in my judgment, is valid in law, has been made to feel the resentment of Procurement. You instructed Admiral Peoples to deal generously with Mr. Waddy Wood. He has in effect told Wood to take what was offered or to take nothing. Admiral Peoples told Mr. Wood, according to the latter, that you had expressed the opinion that his contract was not a valid one. Meanwhile time flies. At the present rate of progress the new Interior Building will not be ready for occupancy short of three years although we cannot find adequate space in Washington to house decently and properly the functions of Government.

I do not so much criticize Admiral Peoples as I do his organization. I think it is fair to say that the Office of the Supervising Architect is just what it was before this Administration came into power. It is in no sense a part of the New Deal Administration. Reform has not touched it nor has any new idea penetrated it for "Lo, these many years." The efficiency and celerity with which it moves are evidenced by the new buildings that were well under way on March 4, 1933. Some of these buildings are now finished and some are still under course of construction. Judging by these building operations, my prophecy that the new Interior Building will be completed in three years is indeed optimistic.

The Department of the Treasury is one of the most important and largest departments of the Government. I do not believe it will be

gainsaid that if at this time the Government were, for the first time, setting up a building organization it would not attach it to the Treasury Department. Logically it does not belong there, as this particular activity is far outside the range of the other activities of the Treasury Department. To enlarge these functions, to add to these responsibilities, is merely to add to the anomaly.

The Interior Department is as well equipped to build as is the Procurement Division. For many years there have been several complete and active construction units within the Department. We have no favored contractors and no particular material finds special favor in our sight. To curtail our natural functions will not make for efficiency or economy. Our building forces will be twiddling their thumbs while Procurement is slowly and laboriously adding to its own duties. We are so organized that we can do a good deal of structural work by force account, at a distinct saving to the Government. My understanding is that the Division of Procurement is not equipped to do anything by force account and does not regard that method of building with favor. I have heard no intimation that the building done by this Department has not been well done, expeditiously done, and done without any suggestion of graft or of favoritism to any particular contractor or material man.

Through the technical staffs of the PWA the Special Board of Public Works studies the recommendations that come in from the various departments. If it approves a project it is then submitted to you. For Procurement to insist that subsequently it must make an independent study and recommendation does not seem to me to be tenable. Admiral Peoples

is a member, by your order, of the Public Works Board. He or his representative has voted for every allocation presented to you, including definite allocations to this Department which he now seeks to repudiate. The Board would willingly withhold final decision on any project in order to give Admiral Peoples an opportunity, if he so desired, to have his technical men make a detailed study. He has never made such a request. The effect of the present arrangement is to give Admiral Peoples a right to pass on these projects as a member of the Board and also a subsequent veto power. Also under the proposed system, instead of passing once on a building project you are required to pass on it twice. There is no efficiency or saving of your time in this procedure, even if it were the fact that Procurement has superior facilities and superior judgment to that of Public Works in passing on these matters. The Public Works Board has on its membership the Attorney General, the Secretary of War, the Secretary of the Interior, the Secretary of Agriculture and the Secretary of Labor. Yet Admiral Peoples, in addition to having a vote equal to that of any other member of the Board, in effect, will now have a veto power over certain actions of the Board.

This Executive Order, if it is given the interpretation insisted upon by Procurement, does three things: (1) It deprives a number of departments that are equipped and qualified to do their own building of important existing administrative functions; (2) it breaks down essential divisions of existing departments; (3) with respect to essential and important matters it places these departments under the jurisdiction of a division chief of one of the departments.

As the result of carrying out your instructions to the best of my ability a situation has been created which precludes the possibility of the Interior Department receiving fair and impartial treatment at the hands of Procurement. I think I have already amply demonstrated the partial and discriminatory attitude of Procurement toward this Department. It is significant that Procurement readily agrees that the War Department should continue to put up its own buildings, and, so far as I know, it has not interfered with any building by any department equipped to do building except only the Interior Department. This may be a mere coincidence but the internal evidence is that it is something more than that.

If I seem to you to be unduly concerned about this threatened curtailment of the powers and responsibilities of this Department, may I recall to you that the Department of the Interior under former administrations has on more than one occasion suffered serious dismemberment. Other departments have not hesitated to aggrandize themselves at the expense of this Department until it was reaching the point where it was in danger of becoming merely a bureau attached to some other department. Treasury is not the only department that is casting covetous eyes upon various activities of Interior. It has been my hope to make this Department something other than the poor relation of larger and more powerful departments. Interior ought to be something more than a departmental attic for the storage of discarded furniture that no one else seems to want. I am too conscious of the honor you did me in naming me the head of this Department not to protest against any new attempted rape.

This Department, I respectfully submit, not only ought to be permitted to function on a parity with War, Navy and Agriculture, it ought to be built up and restored to its former prestige because in many respects it is closer to the people than any other department.

Sincerely yours,

Harold L. Ickes

Secretary of the Interior.

The President,
The White House.

/

PSF File Ickes (1) (5)

THE SECRETARY OF THE INTERIOR
WASHINGTON

February 20, 1935.

My dear Mr. President:

For your information, I attach a copy of a letter I have just written to Henry Morgenthau.

Sincerely yours,

Harold L. Ickes

Secretary of the Interior.

The President,
The White House.

Enc.

PSF Ickes

COPY

THE SECRETARY OF THE INTERIOR
WASHINGTON

February 20, 1935.

My dear Henry:

John T. Lambert's article in the Washington Herald of today distrubed me very much. I at once called in Mr. Glavis to tell him frankly it looked as if someone had been talking out of turn. He investigated carefully any possible source of the story from this department and found nothing. Then he volunteered to talk with Mr. Lambert himself, which he did.

Mr. Glavis reported to me that while Lambert refused to tell him the source of the story, he did say that it had not come from this department either directly or indirectly. Lambert indicated that the story was more or less common talk. Frankly, no head of a department in the government can guarantee against a news leak in his department. All I can say is that I am confident that no one here gave this story to Lambert. So far as I know, Lambert never comes to this department. I think he has been in my office only once during the time I have been here. After all, Lambert did not have to tell Glavis that he didn't get the information here, either directly or indirectly; all that it was needful for him to do was simply to decline to say anything about the source of his information.

I am sorry that this statement appeared in the Herald, but we must remember that it could have emanated from any one of three of the departments.

Sincerely yours,

(Signed) Harold L. Ickes,
Secretary of the Interior.

Hon. Henry Morgenthau, Jr.,
Secretary of the Treasury.

PSF Ickes

THE SECRETARY OF THE INTERIOR
WASHINGTON

May 31, 1935.

THE WHITE HOUSE
1 1935
RECEIVED

2 FDR
in 2

My dear Mr. President:

I know that you will be very much interested in the enclosed.

Sincerely yours,

Harold L. Ickes
Secretary of the Interior.

The President,
The White House.

Enc.

PsF Ickes

TEMPLE UNIVERSITY
PHILADELPHIA

DEPARTMENT OF MEDICINE
BROAD STREET AT ONTARIO
JOHN A. KOLMER, M. D.

INTERIOR DEPT
RECEIVED
MAY 21 1935
OFFICE OF
THE SECRETARY.

May 20, 1935.

Hon. Harold C. Ickes
Secretary of the Interior
Washington
D. C.

My dear Secretary:

It was very kind of Dr. Arthur R. Elliott of Chicago to recently inform you of my work on vaccination against infantile paralysis and I appreciate your interest and his almost beyond adequate expression.

Dr. Elliott kindly sent me your letter to him of May 9th, in which you state that you spoke to President Roosevelt of the matter and desired more information to place before him.

Under separate cover I am forwarding to you reprints of three of our publications describing the vaccine and the results obtained. Also a manuscript descussing the fundamental principles involved which I am to read next month before the American Medical Association.

It is not to be expected that either you or the President will have sufficient time to examine these in detail, but I am happy to be able to write that my vaccine has now been given to almost 500 children with absolutely no ill effects and with a very encouraging degree of immunization which leads me to now believe that the method is absolutely safe and apparently highly effective.

I have prepared a motion picture film showing the technic of preparing and administering the vaccine and would be very glad to send it to you on or about June 2nd for showing to Mr. Roosevelt and yourself at the White House. It would be necessary, however, for me to have the film back again by June 6th as I am scheduled to show it to the American Society of Clinical Pathologists on June 7th, and during the following week to the American Medical Association. I would also appreciate having Dr. McCoy, Director of the National Institute of Health and the Surgeon-Generals of the United States Public Health service, Army and Navy, invited to the White House to see it when run off for you and Mr. Roosevelt. Indeed I would be happy and proud to be present personally to answer any questions that may arise although the film has sufficient legends to make it largely self-explanatory.

In all frankness I must admit that I am now badly in need of additional financial assistance and have been hoping to hear from the National Committee of the President Roosevelt Birthday Fund. It was my hope that this Committee would communicate with me to learn of the additional work I wished to do and grant me sufficient money to pay the expenses incident to the purchase of monkeys. The Philadelphia Committee granted me $250.00 through Temple University which I have used for the

TEMPLE UNIVERSITY
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Hon. Harold C. Ickes

May 20, 1935.

preparation of vaccine given free of charge in the vaccination of the children at the clinic established for this purpose on January 26st and the first clinic of its kind in the history of the world.

It is almost a year since the first children were vaccinated and the time has now arrived when I should again test the blood of each child for antibody or immunity to see if they are still immune. For this purpose I would need about 100 monkeys which cost between $10.00 and $12.00 apiece. I am also hoping to secure sufficient financial assistance to try the vaccine in the treatment of the disease and I would also like to prepare and try new chemical agents for its treatment since at the present time we do not have a single drug possessing the slightest value in the treatment of its victims. All of this work is outlined to the last detail ready for starting as soon as it is financially possible to do so. As previously stated, I have been hoping to hear from the National Committee which must have thousands of dollars available for research from the President's Birthday Fund, but so far have received no communication.

Needless to state if the Warm Springs Foundation can give me this assistance through the interest of the President, I will be eternally grateful and not without hope of materially contributing new information on the prevention and treatment of infantile paralysis.

Awaiting your further advices in the matter, I am

Very sincerely yours,

John A. Kolmer

John A. Kolmer

JAK/EL

Reprinted from The Journal of the American Medical Association
February 9, 1935, Vol. 104, pp. 456-460

A SUCCESSFUL METHOD FOR VACCINATION AGAINST ACUTE ANTERIOR POLIOMYELITIS

FURTHER REPORT

JOHN A. KOLMER, M.D., LL.D., Sc.D.
Professor of Medicine, Temple University School of Medicine, and Director of the Research Institute of Cutaneous Medicine

WITH THE ASSISTANCE OF

GEORGE F. KLUGH JR., M.D.
Resident in Medicine, Temple University Hospital

AND

MISS ANNA M. RULE

PHILADELPHIA

As recently stated by Kolmer and Rule,[1] it is possible to vaccinate Macacus rhesus monkeys safely and successfully against acute anterior poliomyelitis with subcutaneous and intracutaneous injections of vaccines of living but attenuated virus composed of 4 per cent suspensions of poliomyelitic monkey spinal cord in sterile 1 per cent solutions of sodium ricinoleate. All of a series of eighteen monkeys were immunized sufficiently without the slightest evidences of ill effects to protect them completely against infection following the intracerebral injection of about eighteen minimal infective doses of virus given under ether anesthesia about one month after the last dose of vaccine, the disease developing in unvaccinated controls in from five to nine days after inoculation.

Following these observations, two of us received subcutaneous injections of 0.5, 1.5 and 2 cc. of the vaccine at intervals of five days without any ill effects whatever except local reactions at the sites of injection, and two weeks later our serums were found to contain large amounts of antibody in neutralization tests.

From Temple University School of Medicine and the Research Institute of Cutaneous Medicine of Philadelphia.

Aided by grants from the Daniel J. McCarthy Fund for Research in Neurology of Temple University and two anonymous donations.

1. Kolmer, J. A., and Rule, Anna M.: Am. J. M. Sc. **188**: 510 (Oct.) 1934.

During the previous year, Kolmer and Rule [2] succeeded in vaccinating one monkey partially and two additional animals completely, out of a series of six, with subcutaneous and intracutaneous injections of a vaccine of 2 per cent poliomyelitic spinal cord in 10 per cent sodium ricinoleate, so that the latter or stronger vaccine yielded much more satisfactory results with milder local reactions at the sites of injection, owing to the lower concentration of sodium ricinoleate.

Owing to the fact that it appears that living vaccines of attenuated viruses are more vaccinogenic than heat or chemically killed viruses, we employed sodium ricinoleate (William Merrell Company [2a]) as the attenuating agent not only because it is known to be detoxifying,[3] but likewise because McKinley and Larson [4] had successfully immunized three monkeys completely and one partially with intraperitoneal injections of sodium ricinoleate treated emulsions of monkey spinal cord virus. At least it would appear that vaccines of attenuated viruses produce immunity in much smaller amounts than "dead" viruses, with the added advantage that the viruses after injection are probably able to multiply many fold with continued antigenic stimulation as well as requiring the injection of smaller amounts of spinal cord protein and thereby resulting in less strain on the antibody producing tissues and less likelihood of producing allergic sensitization.

Furthermore, marked success in the case of poliomyelitis has followed vaccination of monkeys with subcutaneous and intracutaneous injections of living virus or mixtures of virus and immune serum; [5] but these have been considered too dangerous for the vaccination of human beings.

Susceptibility, attack rate, mortality and incidence of residual paralysis and other factors in acute polio-

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2. Kolmer, J. A., and Rule, Anna M.: J. Immunology **26**: 505 (June) 1934.

2a. We are indebted to the William Merrell Company for a generous supply of this substance (patent 1621118).

3. Larson, W. P., and others: Proc. Soc. Exper. Biol. & Med. **21**: 278, 1924; **22**, 194, 1924. Larson, W. P., ibid. **23**: 497 (March) 1926. Kolmer, J. A.; Rule, Anna M., and Madden, Bernard: J. Lab. & Clin. Med. **19**: 972 (June) 1934.

4. McKinley, J. C., and Larson, W. P.: Proc. Soc. Exper. Biol. & Med. **24**: 297 (Jan.) 1927.

5. Flexner, Simon, and Lewis, P. A.: Experimental Poliomyelitis in Monkeys, J. A. M. A. **54**: 1780 (May 28) 1910. Aycock, W. L., and Kagan, J. R.: J. Immunology **14**: 85 (Aug.) 1927. Stewart, F. W., and Rhoads, C. P.: J. Exper. Med. **48**: 959 (June) 1929. Rhoads, C. P., ibid. **51**: 1 (Jan.) 1930; **53**: 115 (Jan.) 1931.

myelitis in relation to vaccination of human beings have been discussed elsewhere,[6] it being pointed out that susceptibility is so high in children and especially among those under 10 years of age that a safe and effective method of vaccination is highly desirable and especially in epidemics, although the majority of adults appear to possess adequate resistance. Even among the latter, however, vaccination is worthy of serious consideration during epidemics at least, since serum neutralization tests by different investigators with a group of 128 varying in age from 15 years and upward has shown about 24.7 per cent without demonstrable amounts of neutralizing antibody in the blood.

METHOD OF STUDY

During the last four months we have administered the vaccine to a selected group of twenty-five children varying in age from 8 months to 15 years, as summarized in the table, with completely negative histories of clinical attacks of poliomyelitis. All were immunized at the request or with the written consent of the parents, nineteen being in Temple University Hospital in the pediatric service of Dr. Ralph M. Tyson, to whom we are indebted for this cooperation. While all these children were in fairly good health, the majority were convalescing from various medical and surgical ailments.

Fifteen of these children were selected on the basis of showing no antibody in the blood by serum neutralization tests and ten with antibody in order to include both types in the study. These tests were conducted by mixing 0.5 cc. of serum with 0.5 cc. of a 10 per cent suspension of virus followed by intracerebral injection of 0.5 cc. of each mixture into monkeys under ether anesthesia after being allowed to stand about two hours in a water bath at 37 C. Control monkeys injected with 0.5 cc. of a mixture of 0.5 cc. of sterile saline solution and 0.5 cc. of virus after standing under identical conditions developed paralysis in from five to nine days.

Temperature observations and blood examinations were made in twenty-two of the children before and after each dose of vaccine.

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6. Kolmer, J. A.: Susceptibility and Immunity in Relation to Vaccination in Acute Anterior Poliomyelitis, Am. J. M. Sc., to be published.

From one to three injections were given subcutaneously at weekly intervals, the amounts of each being shown in the table.

RESULTS OF VACCINATION

There were no ill effects in any of the children, and not the slightest evidences of infection. Local reactions of varying degree occurred at the sites of infection.

Results of Administering Vaccine to Twenty-Five Children with Negative Histories

No.	Age	Name	Preliminary Serum Tests for Antibody	Dosage of Vaccine Once a Week, Cc.	Final Serum Tests for Antibody
1	8 mos.	Raymond B.	0*	0.25, 0.5, 0.5	0
2	9 mos.	Nickolas V.	0	0.5	+
3	10 mos.	Phillip B.	0	0.25, 0.5	+
4	12 mos.	Joseph W.	0	0.25, 0.5, 0.5	0
5	19 mos.	Howard N.	0	0.5	+
6	22 mos.	Francis B.	0	0.25, 0.5, 0.5	+
7	4 yrs.	Carolyn D.	0	0.5, 0.5, 1.0	+
8	4½ yrs.	Margaret Y.	+	0.5, 1.0, 1.0	++
9	5 yrs.	Philip D.	+	0.5, 0.5, 1.0	++
10	5 yrs.	Elizabeth M.	0	0.5, 0.5, 1.0	0
11	5 yrs.	Harry W.	0	0.5, 0.5, 1.0	0
12	6 yrs.	Gloria A.	+	0.5, 1.0, 1.0	++
13	6 yrs.	Joseph R.	+	0.5, 0.5, 1.0	++
14	7 yrs.	Charles D.	+	0.5, 1.0, 1.0	++
15	7 yrs.	Mildred G.	0	0.5, 1.0, 1.0	+
16	7 yrs.	Peter L.	0	0.5, 0.5, 0.5	+
17	7 yrs.	Elva W.	0	0.5, 0.5, 1.0	++
18	8 yrs.	Robert K.	+	0.5, 0.5, 1.0	++
19	8 yrs.	Clinton B.	0	0.5, 1.0, 1.0	+
20	10 yrs.	Kathryn D.	+	0.5, 1.0, 2.0	++
21	10 yrs.	Harold L.	+	0.5, 0.5, 1.0	++
22	11 yrs.	Sidney G.	+	0.5, 1.0, 1.0	++
23	11 yrs.	Daniel K.	0	0.5, 1.0, 1.0	+
24	11 yrs.	George W.	0	0.5, 1.0, 2.0	+
25	15 yrs.	John K.	+	0.5, 1.0, 2.0	++

* 0 indicates no antibody; +, antibody present; ++, antibody increased.

In one of the older children the first dose produced a moderately severe reaction of swelling and erythema corresponding to that sometimes seen following injections of diphtheria toxoid, but in the remainder the local reactions were of mild degree.

During the first twenty-four hours after injection and especially after the first, the temperature of some of the children was elevated to a fraction of a degree but only occasionally going as high as 100.2 F. and falling to the preinjection levels in about forty-eight hours.

The total leukocytes were increased from 500 to 1,200 per cubic millimeter of blood in some of the children during twenty-four hours following injections and especially after the first, as the result of a slight absolute increase of the polymorphonuclear neutrophils. These and the slight temperature changes were ascribed to the effects of the local reactions, as they appeared to vary with the degree of the latter.

Serum neutralization tests for antibody were conducted one week after the last dose of vaccine by mixing 0.5 cc. of serum with 0.5 cc. of a 10 per cent suspension of virus, allowing it to stand at 37 C. for but one to two hours, and injecting 0.5 cc. of each mixture intracerebrally into monkeys under ether anesthesia.

In the fifteen children without antibody before immunization, eleven, or 75 per cent, showed sufficient amounts of antibody to neutralize the virus after immunization, the monkeys showing absolutely no evidences of infection over three to four weeks following intracerebral inoculation of the serum-virus mixtures, while the controls inoculated with but 0.1 cc. of virus alone became paralyzed in from six to nine days and succumbed.

Since Brodie [7] has recently shown that the maximum immunity from two intracutaneous doses of poliomyelitis virus in monkeys is obtained by giving the second while the first is giving its effects, in other words, at intervals of from ten to fourteen days apart, it is quite likely that our injections at weekly intervals were too closely spaced and that even better results might have been produced by giving the injections at longer intervals. Furthermore, while antibody production in some of the children appeared to be quite prompt after injections of the vaccine, as will be discussed shortly in more detail, it is likely that serum neutralization tests for antibody should be delayed for at least two weeks after the last dose instead of but one week as conducted by us.

In addition it should be stated as previously mentioned that the majority of children included in this group were convalescing in the hospital from various medical and surgical conditions with the possibility that

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7. Brodie, Maurice: J. Immunology **27**: 395 (Oct.) 1934.

antibody response may not be as good under the circumstances as occurs in children in excellent general health.

Despite these conditions, however, the production of large amounts of antibody in eleven out of fifteen, or 75 per cent, of susceptible antibody-free children by from one to three doses of vaccine, with absolutely no ill effects other than the slight local reactions at the sites of subcutaneous injection, indicates a satisfactory and successful degree of immunization.

Furthermore, the serums of the ten children containing antiviral antibody in the blood before vaccination showed a sharp increase of antibody after immunization, since 0.5 cc. of serum mixed with as much as 0.5 cc. of 50 per cent suspension of virus followed by the intracerebral injection into monkeys under ether anesthesia of 0.5 cc. of the mixtures, after standing but one to two hours at 37 C., showed complete neutralization. Indeed, it would appear from additional quantitative tests that the vaccine probably produces more antibody in those children carrying natural antibody in the blood than it does in those who do not, suggesting that the body cells in the former are probably sensitized or "tuned up" by previous unrecognized infection with virus, with the result that they produce large additional amounts of antibody on additional stimulation by vaccine. At least twenty-one, or 84 per cent of the group of twenty-five children, showed good antibody response to the vaccine.

DOSAGE OF VACCINE

The matter of dosage is of course one of considerable importance. Monkeys receiving a total of 0.5 cc. per kilogram in divided doses by subcutaneous injection have been successfully vaccinated;[1] but, if it is true that human beings acquire immunity to poliomyelitis by clinically unrecognized infection with virus, it would appear that less vaccine may be required per body weight for effective immunization than in the case of monkeys.

With this possibility in mind and as an additional factor of safety, we have made the first dose 0.25 cc. for children under 3 years of age and 0.5 cc. for older children and adults. Second doses have varied from

0.5 to 1 cc. and third doses 1 or 2 cc., as shown in the table.

From the results observed up to the present time, it would appear that three doses are sufficient in the following amounts:

From 1 to 3 years: first, 0.25 cc.; second, 0.5 cc.; third, 0.5 cc.

From 4 to 10 years: first, 0.5 cc.; second, 0.5 cc.; third, 1 cc.

From 11 to 15 years: first, 0.5 cc.; second, 1 cc.; third, 1 or 2 cc.

Adults: first, 0.5 cc.; second, 1 cc.; third, 2 cc.

For children of standard weight the totals of these amounts of vaccine varied from about 0.06 to 0.1 cc. per kilogram, which were therefore approximately five to ten times less per body weight than given to monkeys. But we have assumed, as stated before, that human beings may require less than monkeys per kilogram of weight, and the results summarized in the table appear to substantiate this assumption. A possible exception was in the case of the two children (1 and 4) of 8 and 12 months respectively, who probably should have received 1 cc. for the third dose instead of 0.5 cc.; but otherwise we believe that the foregoing scale is about right in view of our present information on this subject.

However, it would appear that but one or two doses of vaccine have produced considerable antibody in at least some of the children.

For example, the serums of Nickolas V. (patient 2), aged 9 months, and Howard N. (patient 5), aged 19 months, gave good neutralization tests four days after one dose of 0.5 cc. Joseph W. (patient 4), aged 12 months, gave a good neutralization test one week after the second dose, although this result was not known when the third dose was given, and Clinton B. (patient 19), aged 8 years, also gave a good neutralization test four days after the first dose of 0.5 cc., although the second and third doses were also given before this result was known. These results indicate that with some children at least one or two doses may suffice; but since Raymond B. (patient 1), Phillip B. (patient 3) and Francis B. (patient 6) did not show antibody in the serums one week after the first dose, we believe it is advisable to give two and preferably three doses of the vaccine.

RAPIDITY OF ANTIBODY PRODUCTION AND SPACING OF INJECTIONS

In view, however, of Dr. Brodie's observations previously referred to on the rate of production of antibody in monkeys given subinfective doses of living virus intracutaneously, it would appear advisable to give the injections every ten days instead of every seven days as we gave them.

On the other hand, we have observed rather rapid antibody production in the cases just referred to, namely, Nickolas V. (patient 2), Howard N. (patient 5) and Clinton B. (patient 19), since their serums taken ninety-six hours after the first dose of vaccine gave good neutralization tests. Indeed, in the case of Nikolas V., serum taken forty-eight hours after the first dose of vaccine appeared to contain already a very slight amount of antibody, as this monkey did not develop paralysis until eighteen days after intracerebral inoculation, whereas the control monkey and that tested with serum before vaccine was given developed severe paralysis thirteen or fourteen days after inoculation.

Further evidence of rather rapid antibody production was indicated by the fact that a monkey weighing 4 Kg. injected intracerebrally under ether anesthesia with 0.5 cc. of 5 per cent virus seventy-two hours after a subcutaneous injection of 0.5 cc. of vaccine remained perfectly well and entirely free of infection, whereas a control developed paralysis eight days after inoculation with but 0.1 cc. of the same virus given at the same time. In the case of a second monkey, however, receiving the same dose of vaccine, the antibody response, while present, was not quite as good, as this animal developed paralysis about nineteen days after the intracerebral injection under ether anesthesia of 0.5 cc. of the 5 per cent virus.

In this connection, observations on the rapidity of antibody production with the serums of individuals and monkeys with poliomyelitis are not without interest and some bearing on this question. Flexner and Amoss,[8] for example, have found antibody in the serum as early as the sixth day of the disease; Amoss [9] has found it in monkeys as early as three and one-half days after the onset of paralysis and in human beings as early

8. Flexner, Simon, and Amoss, H. L.: J. Exper. Med. **25**: 499 (April) 1917.
9. Amoss, H. L.: South. M. J. **23**: 18 (Jan.) 1930.

as the fifth day; Leiner and von Wiesner [10] found it after seven, and in one case two days after the development of active disease in monkeys. Brodie [7] also found antibody in the blood of monkeys on the second day after the height of paralysis, while Howitt [11] failed to find it earlier than fifteen days after the onset of the disease in monkeys.

On the whole, therefore, it would appear that antibody may be produced rather rapidly in poliomyelitis and after subcutaneous injections of the vaccine, and for this reason we believe that vaccination may prove particularly helpful in the immunization of individuals during epidemics. Furthermore, as has been discussed elsewhere,[6] it does not appear that the vaccine produces a detectable "negative phase" or period of increased susceptibility in monkeys, at least, which also appears to justify its use in combating epidemics of poliomyelitis.

THE VACCINE

The method of preparing the vaccine has already been described [1] and need not be here given. Suffice it to emphasize that it is prepared of a remote monkey passage strain of the virus with the possibility of having lost at least some of its infectivity for human beings. That the antibody it produces is capable of neutralizing human virus [6] is indicated by the fact that the antibody in the serums of several of the vaccinated children was found to neutralize completely human virus from the 1934 epidemic in California sent us by Dr. Jessel of Los Angeles and a second virus in the third monkey transfer sent by Miss Howitt of San Francisco.

The vaccine, however, cannot be prepared of brain tissue because it contains insufficient virus. The intracerebral inoculation of monkeys with as much as 1 cc. of a 50 per cent suspension of fresh brain has failed to infect because virus was absent or present in insufficient amounts. But the spinal cord of one monkey will furnish about 150 cc. of vaccine, which is sufficient for the immunization of from forty to seventy-five children, depending on age and dosage.

We believe that the virus in the vaccine is attenuated to some extent by the amounts of sodium ricinoleate employed. While the intracerebral injection into monkeys under ether anesthesia of 0.1 cc. of 5 per cent

10. Leiner, C., and von Wiesner, R.: Wien. klin. Wchnschr. **23**: 323, 1910.
11. Howitt, Beatrice F.: J. Infect. Dis. **51**: 565 (Nov.-Dec.) 1932.

fresh virus produced poliomyelitis in about eight days, the intracerebral injection of 0.2 cc. of a vaccine 3 weeks old and carrying 4 per cent of virus produced poliomyelitis in eleven days, while a second vaccine 2 months old produced paralysis in nine days and a third about 5 months old in about twelve days, all being injected in doses of 0.2 cc. under ether anesthesia.

The vaccine is allowed to stand at least two weeks before use and we now believe that a month may be better. After this time attentuation of the vaccine appears to stop when kept in the refrigerator at about 10 C., since vaccine prepared a year ago still possesses about the same infectivity for the monkey and the same vaccinogenic activity. In order to render different vaccines comparable in attenuated virus and immunizing activity, they are now prepared of mixtures of from ten to twenty cords taken only from monkeys that have been severely paralyzed.

In the preparation of the vaccine, due care must be exercised against contamination of the cords in removal and the preparation of finely divided suspensions. But it is our custom to place the cords in 50 per cent chemically pure glycerol in sterile saline solution for at least a month before use and under the circumstances the great majority of vaccines are found to be sterile on careful bacteriologic examination by culture.

The 1 per cent sodium ricinoleate possesses some bacteriostatic activity, but due care must be exercised against contamination of the vaccine when administered.

Since we have never seen the slightest ill effects, aside from mild local reactions at the sites of injection in monkeys or the twenty-seven human beings including two of us (J. A. K. and A. M. R.) who have taken it, we lost all fear of infection from its administration and are sure that it is perfectly safe. Unfortunately the monkey serum neutralization test is the only one available at present for the detection of susceptibility,[12] since skin tests,[13] colloidal gold, complement fixation and precipitation tests [14] have proved inadequate; but the majority of children under 10 years of age are devoid of antiviral antibody and probably susceptible, and since Aycock has shown that there is an important hereditary factor in susceptibility it would appear par-

12. Kolmer, J. A., and Rule, Anna M.: J. Immunology, to be published.
13. Kolmer, J. A.; Klugh, George, Jr., and Rule, Anna M.: J. Immunology, to be published.
14. Kolmer, J. A., and Rule, Anna M.: J. Immunology, to be published.

ticularly important to vaccinate all children in those families in which the disease has appeared.

Not only is it quite likely that the remote passage virus employed has lost some if not all infectivity for human beings, but it is certainly attenuated to some extent by the sodium ricinoleate employed. Furthermore, subcutaneous injections appear to add another very important factor of added safety, as it represents a portal of entry in which virulent virus itself has a very low rate of infectivity for monkeys. In addition the injection of such a small first dose as from 0.25 to 0.5 cc. to children and adults and waiting at least a week before the second dose is given adds another important factor of safety, since it appears that antibody response is quite prompt. For these reasons we do not hesitate recommending the vaccine, especially during epidemics, and among the first children to receive it were the two sons of the senior author, the younger of whom was without any antibody at all in his serum before the first dose of 0.5 cc. was given.

SUMMARY

1. Twenty-five children varying in age from 8 months to 15 years have been given from one to three injections of poliomyelitis vaccine at the request or with the consent of parents.

2. Fifteen of these children were without antibody in serum neutralization tests before immunization and eleven, or 75 per cent, showed large amounts of antibody in the blood one week after the last dose of vaccine.

3. Ten of the children showed the presence of antiviral antibody in the blood before immunization, but all have shown a considerable increase of this antibody after vaccination, so that antibody production occurred in twenty-one, or 84 per cent, of the group of twenty-five children.

4. None of the twenty-five children have shown the slightest ill effects from the vaccine.

5. Mild local reactions were produced at the sites of subcutaneous injection, with occasional slight elevation of temperature and slight leukocytosis subsiding within forty-eight hours.

6. The dosage for children from 1 to 3 years of age has been 0.25, 0.5 and 0.5 cc. at weekly intervals; for children from 4 to 10 years, 0.5, 0.5 and 1 cc.; for chil-

dren from 11 to 15 years, 0.5, 1 and 1 or 2 cc. For adults the dosage recommended is 0.5, 1 and 2 cc.

7. The vaccine is prepared of spinal cord only, as brain contains too small amounts of virus. But the spinal cord of a single monkey will furnish about 150 cc. of vaccine, which is sufficient for the immunization of from forty to seventy-five children, depending on age and dosage.

8. It is likely that the maximum antibody response may be obtained by giving the injection every ten days instead of weekly.

9. Antibody production, however, appears to be fairly rapid, as three susceptible children developed antibody in the blood within four days after the first injection of vaccine and one monkey was found completely and a second partially immune seventy-two hours after the subcutaneous injection of 0.5 cc. of vaccine per animal on intracerebral inoculations of large amounts of virus.

10. The vaccine does not appear to produce a demonstrable "negative phase" of increased susceptibility after injection.

11. The vaccine is a 4 per cent suspension of spinal cords of monkeys developing poliomyelitis after intracerebral inoculation with a remote passage strain of virus, in a 1 per cent sterile solution of sodium ricinoleate prepared as previously described. The virus is attenuated and the vaccine regarded as entirely safe for the immunization of human beings not only because prepared of remote passage virus which probably has lost in infectivity for human beings but likewise because of attenuation by sodium ricinoleate, the route of administration and the injection of a small first dose.

12. The amount of antibody produced by immunizations is comparable to that found in the blood in natural immunity and is believed to be sufficient for affording protection against acute anterior poliomyelitis.

13. The antibody present in the serums of vaccinated children has successfully neutralized human virus from the 1934 California epidemic.

14. The duration of the immunity following vaccination is unknown but has lasted for more than two years in vaccinated monkeys.

15. It is believed that the vaccine is now ready for vaccination of human beings and especially children against poliomyelitis and particularly during epidemics.

Reprinted from THE JOURNAL OF IMMUNOLOGY
Vol. 26, No. 6, June, 1934

CONCERNING VACCINATION OF MONKEYS AGAINST ACUTE ANTERIOR POLIOMYELITIS

WITH SPECIAL REFERENCE TO ORAL IMMUNIZATION

JOHN A. KOLMER AND ANNA M. RULE[1]

From the Research Institute of Cutaneous Medicine of Philadelphia

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Undoubtedly human beings and monkeys acquire immunity to poliomyelitis by an attack of the disease. This is shown by the antiviral properties of the serum in both and by the intracerebral inoculation test with virulent virus in the latter.

It is likely that a large percentage of adult human beings have acquired immunity to the disease without clinical manifestations but by a way and means as yet unknown. The presence of this immunity is indicated by the lower percentage of poliomyelitis occurring among adults during epidemics and more especially by the fact that the sera of a large percentage have been found to possess antiviral properties.

Since it is commonly believed, as originally expressed by Flexner, that the virus of poliomyelitis enters and infects human beings through the upper respiratory tract, it is natural to suppose that if immunity is acquired without an actual clinical attack of the disease it is because sub-infective amounts of virus are absorbed through these parts sufficient for gradually engendering an immunity to the virus which, however, may not be "solid" but capable of being broken down by infection with an unusually virulent virus of epidemic distribution or possibly by another strain.

However experiments recently reported by Flexner (1) do not lend support to this theory of natural immunization in so far at least as monkeys are concerned since several animals subjected to

[1] Aided by a grant from the Dr. Daniel J. McCarthy Fund for Research in Neurology of Temple University.

repeated nasal installations of virus with intervals of one or more weeks between the courses gave no indications of acquired immunity by serum neutralization or intracerebral inoculation tests. As stated by Flexner however, "these experiments should be carried further and on a larger scale in order to determine whether the monkey, naturally not affected by epidemic poliomyelitis but experimentally susceptible, is capable of being immunized, as man is supposed to be, by way of the mucous membranes of the upper respiratory tract."

It may be that the natural immunity of human adults is not acquired by subclinical infection with the virus at all but that it is due to some obscure reduction in susceptibility of the tissues resulting from age and commonly designated as "maturation immunity."

But the fact that recovery from a clinical attack of poliomyelitis in both man and monkey is accompanied by an undoubted immunity and that monkeys can be vaccinated by subcutaneous (2) and intracutaneous (3) injections of virus leaves one with the conviction that the immunity of human beings is acquired by immunization with the virus. In this connection it is interesting to note that Flexner (1) has observed that monkeys inoculated with sub-infective doses of virus made intracerebrally or intracisternally leave the animals essentially unchanged so far as response to more potent or larger doses of virus is concerned. This suggests that the skin may be capable of engendering a higher immunity response than the organs of the central nervous system.

The problem is to determine the route of immunization and whether or not it is possible to duplicate this natural immunization in man by vaccination with virus prepared and administered in such way as to be perfectly safe and free of the danger of producing the disease.

In this connection it may be stated that subcutaneous and intracutaneous injections of virus could not be used because monkeys immunized by these methods have occasionally developed the disease. The strain of virus employed and dosage are important variable factors. The same is probably true

of injections of under-neutralized mixtures of virus and antiviral serum injected together and of simultaneous injections of virus and serum separately (4). Vaccination against diphtheria with toxin-antitoxin mixtures is not analogous because the toxin only is used and this is without danger of producing disease or injury providing the mixtures are properly neutralized.

The sum total of attempts to vaccinate monkeys with chemically and heat-killed virus indicates that effective immunity has not been produced. It would appear that only the living virus is capable of engendering immunity.

So far no method has been discovered for modifying the infectivity of living virus to render it entirely safe for the vaccination of human beings analogous to vaccination against smallpox with the living virus of cowpox. Whether or not the virus of repeated monkey passage is infective for human beings has not been determined but the possibility of permanent loss of infectivity of the virus for man as a result of passage through a lower animal analogous to the change of smallpox virus by passage through calves (cowpox virus) remains the most hopeful possibility in active immunization against poliomyelitis. So far no cases of accidental poliomyelitis in human beings from laboratory infection with monkey passage virus have been reported. But the possibility of successful modification of virulence by animal passage is suggested by the observation of Flexner (1) that a female chimpanzee, more nearly related biologically to man, has resisted not only an intracerebral inoculation of a potent Berkefeld filtrate of monkey passage virus (Rockefeller Institute) but likewise a second inoculation with a larger or accelerating dose ten days later.

The infectivity of the virus of poliomyelitis may be altered by heat and chemical agents and effectively used for the vaccination of monkeys but as stated by Flexner (1) the changes are quantitative and not qualitative and the administration of such vaccines are not without the danger of producing the disease by revival of the infectivity of the virus. However this is not entirely a closed chapter in vaccination against poliomyelitis and part of our investigation herein summarized has been the use of vaccines of

poliomyelitic monkey brain treated with heat, chloroform and sodium ricinoleate. In this connection the more recent observations of Rhoads (5) are of great interest since it would appear that the adsorption of the virus by aluminum hydroxide renders it ineffective when injected intracerebrally although still alive and several experiments carried out by Schultz (6) tend to support this claim.

But one of the special purposes of our study was to determine the possibility of vaccinating monkeys by feeding the virus or rather by administering it with a stomach tube in order to be absolutely sure of dosage. Next to the mucous membranes of the upper respiratory tract as a portal of entry of sub-infective amounts of virus responsible for the acquisition of natural immunity of human beings would appear to be the gastrointestinal tract as a result of swallowing the virus as a possible route of immunization. Apparently the *Macacus rhesus* monkey can not be infected by this route although according to Levaditi and his colleagues (7), the *Macacus cynomolgus* has been successfully infected through the digestive tract. Whether or not human beings have been infected by the swallowing of virus in mucus from the upper respiratory tract or in foods and water can not be stated; some investigators (8) believe this is possible largely on the basis of the involvement of the mesenteric and other lymphatic glands in this disease but these changes may be observed in monkeys after intracerebral inoculation with virus and may be indirect and secondary manifestations of the infection in both man and monkey rather than a direct effect of the virus on the glands.

EXPERIMENTAL

The virus employed was kindly furnished by the Rockefeller Institute and was of such virulence that the intracerebral inoculation of 0.2 cc. of a 5 per cent emulsion of cord regularly produced poliomyelitis in our *Macacus rhesus* monkeys in from seven to eleven days.

A *chloroform*-treated vaccine was prepared after the Kelser method of preparing antirabies vaccine by treating a 2 per cent

very finely divided and sieve-passed emulsion of monkey poliomyelitic spinal cord in sterile saline solution with 1 per cent C.P. chloroform. The emulsion was kept in a refrigerator at about 4° to 6°C. for two weeks and shaken three times a day for five minutes. This vaccine was chosen because chloroform does not appear to have been employed by previous investigators.

A *sodium ricinoleated* vaccine was prepared by treating a 2 per cent finely divided emulsion of cord in sterile water with sufficient sodium ricinoleate (Wm. Merrell Company) to give a 10 per cent concentration. This mixture was likewise kept in a refrigerator at 4° to 6°C. for two weeks, being shaken for five minutes three times a day. This vaccine was selected because McKinley and Larsen (9) have reported that of 4 monkeys receiving 4 cc. of the virus-soap mixture intraperitoneally, 3 remained well when later inoculated intracerebrally with virus.

A *heated and tricresolized* vaccine was prepared by heating a 2 per cent finely divided emulsion of cord in a water bath at 55°C. for thirty minutes. Tricresol was then added to 0.5 per cent concentration and the emulsion kept at 4° to 6°C. This vaccine was chosen because Abramson and Gerber (10) had reported some encouraging results with heat inactivated virus vaccine although exposure to 55°C. did not prove as effective as vaccines heated at 50°C.

Finally an *untreated* vaccine was prepared by emulsifying 2 grams of spinal cord in 100 cc. of sterile saline and keeping in a refrigerator at 4° to 6°C.

With one exception all vaccines were administered daily for 10 doses to *Macacus rhesus* monkeys, the doses per kilogram of weight and routes of administration being shown in table 1. As compared with the amounts of various vaccines employed by other investigators, the doses employed by us were much smaller as we purposely wished to ascertain the immunizing capacity of the vaccines in amounts comparable to the usual doses per body weight of various vaccines employed in the vaccination of human beings against rabies and other diseases.

Two to four weeks after the last dose of vaccine the monkeys, along with 2 normal controls, were inoculated intracerebrally

TABLE 1

Immunization and results of intracerebral inoculation

MONKEY	VACCINE	ROUTE OF ADMINISTRATION	DOSE PER KILOGRAM	NUMBER OF DOSES	TOTAL VIRUS INOCULATED (2 PER CENT SUSPENSION)	INTRACEREBRAL TEST	
						Amount (5 per cent suspension)	Result
			cc.		*cc.*	*cc.*	
1	Chloroform	Subcutaneous	0.1	10	1	0.2	Typical poliomyelitis; 9 days
2	Chloroform	Intracutaneous	0.1	10	1	0.2	Typical poliomyelitis; 7 days
3	Sodium ricinoleate	Subcutaneous	0.02	10	0.2	0.2	Typical poliomyelitis; 11 days
4	Sodium ricinoleate	Subcutaneous	0.1	5	0.5	0.2	Slight symptoms 17 days; recovered
5	Sodium ricinoleate	Intracutaneous	0.1	10	1	0.2	No symptoms
6	Sodium ricinoleate	Intracutaneous	0.1	10	1	0.2	Slight symptoms
7	Sodium ricinoleate	Intracutaneous	0.01	10	0.1	0.2	Typical poliomyelitis; 10 days
8	Sodium ricinoleate	By stomach tube	2	10	20	0.2	Died of tuberculosis*
9	Untreated	Intracutaneous	0.1	10	1	0.2	No symptoms
10	Untreated	By stomach tube	2	10	20	0.2	Typical poliomyelitis; 8 days
11	Untreated	By stomach tube	2	10	20	0.2	Typical poliomyelitis; 11 days
12	Heated	Subcutaneous	1	10	20	0.2	Died of tuberculosis*
13	Heated	Subcutaneous	1	10	20	0.2	Typical poliomyelitis; 8 days
14	Heated	Intracutaneous	0.1	10	1	0.2	Typical poliomyelitis; 7 days
15	Heated	Intracutaneous	0.1	10	1	0.2	Typical poliomyelitis; 8 days
16	Heated	By stomach tube	2	10	20	0.2	Typical poliomyelitis; 9 days
17	Control					0.2	Typical poliomyelitis; 6 days
18	Control					0.2	Typical poliomyelitis; 7 days

* During immunization.

with 0.2 cc. of a 5 per cent suspension of spinal cord. This amount was sufficient to produce typical poliomyelitis in from six to seven days in the controls and constituted a rather severe test for acquired immunity among the immunized animals. Serum neutralization tests were not conducted.

None of the animals developed any clinical signs or symptoms of poliomyelitis during the period of immunization of the interval of two to four weeks elapsing after the last dose before the test intracerebral inoculations with virus were made.

RESULTS

1. The *chloroform* vaccine failed to immunize 2 monkeys (Nos. 1 and 2) injected subcutaneously and intracutaneously with 10 daily doses of 0.1 cc. each totalling 1 cc. of a 2 per cent suspension of cord per kilogram of weight. Both animals developed typical poliomyelitis in seven to nine days when inoculated intracerebrally four weeks after the last injection.

2. Six monkeys were given the *sodium ricinoleate* vaccine. One (No. 3) received 0.02 cc. subcutaneously daily for 10 doses totalling 0.2 cc. per kilogram and developed typical poliomyelitis in eleven days when inoculated intracerebrally four weeks after the last injection.

A second monkey (No. 4) given 5 daily doses of 0.1 cc. each per kilogram by subcutaneous injection appeared to have acquired a slight degree of resistance as it did not develop poliomyelitis until seventeen days after intracerebral inoculation given one month after the last dose.

Two monkeys given 10 daily doses of 0.1 cc. each per kilogram by intracutaneous injection presented definite evidences of acquired immunity. One of these (No. 5) inoculated intracerebrally four weeks after the last dose remained perfectly well and free of all signs and symptoms of poliomyelitis over a period of six months following intracerebral inoculation with virus. The second (No. 6) was inoculated intracerebrally two weeks after the last injection of vaccine and developed some tremor and ataxia of the right leg but survived.

Number 7 was given 10 daily doses of 0.01 cc. each per kilo-

gram by intracutaneous injection but developed typical poliomyelitis in ten days when inoculated intracerebrally with virus about four weeks after the last dose.

Number 8 was given 10 daily doses of 2 cc. each per kilogram by stomach tube but unfortunately died of tuberculosis about two weeks after the last injection and before the intracerebral test inoculation with virus.

3. The *untreated* vaccine was given monkey No. 9 in dose of 0.1 cc. per kilogram by intracutaneous injection daily for ten injections. When inoculated intracerebrally four weeks later this animal survived and showed no clinical evidences of poliomyelitis even though the total amount of vaccine administered was only 1 cc. and thereby much smaller than used by other investigators.

Two additional animals (Nos. 10 and 11) were given 2 cc. daily per kilogram by stomach tube for 10 doses or 20 cc. per kilogram for each animal. Both remained perfectly well during this period as likewise during the four weeks following the last dose when both were inoculated intracerebrally with virus. One developed typical poliomyelitis eight days and the other eleven days later.

4. The *heated* vaccine was given to 2 animals (Nos. 12 and 13) in dose of 1 cc. per kilogram by subcutaneous injection daily for 10 doses, totalling 20 cc. per kilogram for each animal. One (No. 12) died of tuberculosis about a week after the last dose but the remaining animal (No. 13) developed typical poliomyelitis in eight days after the test intracerebral inoculation of virus given four weeks after the last dose of vaccine.

Two animals (Nos. 14 and 15) were given 10 daily intracutaneous injections of this vaccine in dose of 0.1 cc. totalling 1 cc. per kilogram for each animal. When inoculated intracerebrally four weeks after the last dose both animals developed typical poliomyelitis in seven to eight days.

One animal (No. 16) was given 2 cc. of this vaccine per kilogram daily by stomach tube for ten days in succession totalling 20 cc. per kilogram of weight. When inoculated intracerebrally one month later it developed typical poliomyelitis in nine days.

DISCUSSION

The failure of a chloroform-treated vaccine of monkey poliomyelitic cord to produce any evidences of immunization adds one more chemically treated vaccine to the list known to fail in the vaccination of monkeys against poliomyelitis although it is true that the dosage was small and the test for acquired immunity very severe.

However the results observed with the sodium ricinoleated vaccine have been encouraging and have given some confirmation to the results observed by McKinley and Larson. Whether or not this soap actually killed the virus cannot be stated and especially since its bactericidal activity *in vitro* is very low (11). When we inoculated 1 cc. of the vaccine intracerebrally into a monkey as a test for surviving virus it died within twenty-four hours evidently as a result of the sodium ricinoleate since the amount injected carried approximately 0.01 gram of this substance. Subsequent experiments with rabbits have shown that the maximum tolerated dose by direct intracerebral inoculation is from 0.001 to 0.002 gram per animal while 0.003 gram killed in twenty-four hours and 0.005 gram almost immediately. Certainly it would appear that sodium ricinoleate vaccine is worthy of further study and especially if shown that it is capable of definitely destroying or inactivating the virus.

Our heated vaccine failed to engender demonstrable evidences of immunization in so far as test intracerebral inoculation with virus was concerned. Possibly the temperature employed was too high since Levaditi and Landsteiner (12) and Abramson and Gerber (10) have found vaccines heated at 50°C. with longer exposures more effective.

In confirmation of the observations of Flexner and Lewis, Aycock and Kagan, Stewart and Rhoads and Rhoads, previously referred to, multiple intracutaneous injections of untreated virus developed an effective immunity but of course this method is not adapted for the vaccination of human beings on account of the danger involved in producing the disease.

Unfortunately and greatly to our disappointment, the adminis-

tration of a living or untreated 2 per cent suspension of the virus of poliomyelitic cord by stomach tube in amount of 2 cc. for 10 daily consecutive doses, failed to engender any demonstrable evidences of immunity and similar results were observed with the heated vaccine administered in the same manner.

It is possible that some evidences of immunization were masked by the severe test intracerebral inoculation with virus employed and that serum neutralization tests might have shown the production of antibody in at least some of the animals but we preferred the former in order to leave no doubt about the results.

SUMMARY

1. A chloroform-treated vaccine of monkey poliomyelitic spinal cord in a total dosage of 1 cc. by subcutaneous and intracutaneous injection failed to immunize 2 monkeys against intracerebral inoculations of virus.

2. A sodium ricinoleated vaccine appeared to produce slight immunity in 1 monkey by subcutaneous injection while intracutaneous injections immunized 2 additional animals in a more convincing manner.

3. An untreated vaccine by intracutaneous injection successfully immunized 1 animal but failed to protect 2 animals when administered by stomach tube.

4. A heated vaccine failed to immunize 5 monkeys when administered subcutaneously, intracutaneously and by stomach tube.

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SUSCEPTIBILITY AND IMMUNITY IN RELATION TO VACCINATION IN ACUTE ANTERIOR POLIOMYELITIS*

BY

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Is it worth while to attempt vaccination against acute anterior poliomyelitis in view of the low attack rate of the disease? If so what are the prospects of success attending such efforts since the disease is evidently a virus infection? Is it likely that antibody produced in human beings by vaccine of spinal cords of monkeys infected with passage virus will protect against the disease? If this appears possible and probable how should the vaccine be prepared? And if it is found possible to safely and effectively vaccinate human beings against poliomyelitis with such vaccine how should the method be applied as a practical procedure? These and additional problems of related interest are briefly discussed herewith as the basis of my efforts to evolve a safe and effective method of active immunization against the disease.

IMMUNITY IN VIRUS DISEASES IN RELATION TO VACCINATION AGAINST POLIOMYELITIS:- In the first place the fact that an attack of acute anterior poliomyelitis almost invariably results in a lasting immunity against the disease constitutes the main reason for believing and hoping that it may be possible to safely and effectively vaccinate against it. Quigley (1) has recently collected but 14 cases of second attacks from the literature of which he believes 11 appear reasonably definite and added one case of his own. This indicates that the virus is capable of engendering an active and lasting immunity in human beings which has been substantiated by the finding of specific antiviral antibody in the blood of the majority of recovered individuals as well as by the demonstration of acquired immunity in monkeys recovering from the disease produced by intranasal or intracerebral inoculations of virus.

Indeed it would appear that the majority of diseases caused by viruses are followed by lasting immunity as, for example, in small-pox, chicken-pox, rabies, measles, mumps and yellow fever among human beings,

and cattle plague, swine fever and dog distemper among the lower animals. Furthermore it would appear that the majority of viruses are peculiarly capable immunizing agents not only during an attack of disease but likewise when administered as vaccines as indicated by the success attending vaccination against small-pox and rabies as well as against dog distemper, cattle plague, African horse sickness, fowl-pox, yellow fever and psittacosis. Since acute anterior poliomyelitis is regarded as a virus disease all of this lends great encouragement to efforts for evolving a safe and efficient method for vaccination against it.

INCIDENCE AND SUSCEPTIBILITY IN RELATION TO VACCINATION AGAINST POLIOMYELITIS:- And further impetus to such efforts is given not only because the disease is known to be world wide in distribution but likewise because the mortality has varied from 7.5 to as much as 43% in different epidemics with as high as 25 to 45% of residual of permanent paralysis among those fortunate enough to survive. Indeed there are but few diseases capable of creating as much fear among physicians and laity alike as an epidemic of acute anterior poliomyelitis not only because of the death rate but likewise because of the terrible crippling that may follow an attack of the disease.

Fortunately, however, the attack rate of poliomyelitis is low. From 1911 to 1924 it varied from 1.8 (rural) to 2.1 (urban) per 100,000 estimated population in the registration area of the United States with about 8 for measles and 10 for whooping cough but it would appear that the disease is of increasing frequency both as isolated cases and in epidemics. For example, in the 1916 epidemic in New York City, 9,005 cases were reported with an attack rate of 18 per 1000 under 10 years of age and 0.23 among those over 10 or about 1.59 per 1000 of the total population (Amoss). Indeed, because of diagnostic difficulties the true incidence of

poliomyelitis cannot be expressed if abortive cases and those with temporary paresis are included but it is certain that the great majority occur in children before natural immunity has been acquired as over 90% of reported cases have occurred in children under 16 years of age.

Unfortunately our information on how the virus is spread and epidemics produced is still inadequate but it would appear that it is largely distributed by carriers and that the portal of entry is the upper respiratory tract. Toomey (2) has recently renewed interest in the possibility of the gastrointestinal tract being a portal of entry and in Sicard's thought that the virus may be absorbed by the gray fibers of the intestine and conducted by way of the sympathetic nerves to the spinal cord. For my own part, however, I have not yet succeeded in producing the disease in Macacus rhesus monkeys by feeding the virus nor have Miss Rule and I been able to vaccinate monkeys by this route of administration (3).

The majority of newborn infants appear to possess a natural and temporary immunity to the virus, as indicated not only by the low attack rate in infants under 1 year of age (3.5% in the 1916 New York City epidemic) but likewise because Aycock and Kramer (4) found that the sera of 83% of umbilical cord specimens of blood contained neutralizing antibody for the virus presumably passively transferred from the mothers. However, as shown in table 1, this passive immunity appears to be of short duration as the results of neutralization tests with the sera of 29 children under 4 years of age have shown that from 58.3 to 100% with an average of 79.2% did not contain appreciable amounts of antibody in the blood and on the basis of these serum-neutralization tests were to be regarded as susceptible to infection. In our own tests with the sera of 9 children under 4 years, 77.7% failed to neutralize passage virus and thereby proved susceptible.

Table 1 here.

Among 159 children from 5 to 14 years the percentage of sera failing to neutralize virus has varied according to different investigators from 17% to 100% (average 45.5%). As Aycock and Kramer have shown the percentage is always higher among children reared in urban than in rural districts. In our own series of 20 children included in this age group, all being reared in Philadelphia, the sera of 40% gave negative monkey neutralization tests and were presumably susceptible.

Among 128 individuals over 15 years of age the percentage of sera failing to neutralize virus and thereby presumably indicating susceptibility has varied from 11.1% to 60% according to different investigators with a general average of 24.7%. As in the case of children Aycock and Kramer have found the highest percentage of susceptibles in the rural districts but in general terms it would appear that from 60% to 70% of adults have antiviral antibody in the blood presumably sufficient for conferring resistance to infection.

Under the circumstances it must be admitted that excluding newborn infants a large percentage of children are susceptible to poliomyelitis, especially those under 10 years of age, and that the low attack rate among them under "normal" conditions is not due as much to the presence of immunity as to factors influencing the virulence and dissemination of the virus over which we have at present little control and concerning which our information is even less satisfactory. Certainly no community, in the United States at least, can feel a sense of security against the disease and since the percentage of susceptible children is always high the attack rate, mortality and army of cripples can always be expected to sharply increase in the presence of factors increasing the virulence of virus or whatever it is that produces epidemics of the disease. Under these circumstances and because our information on the epidemiology of the disease is still incomplete, coupled with the knowledge that it is known to strikethe lowly and well-to-do

alike under most unusual conditions despite even rigid precautions against infection, I believe that there is a place of real value for the vaccination of children if a safe and practical method is available for producing sufficient immunity to tide them over to maturity even though we omit adults on the basis that 60 to 70% may have lived long enough to acquire resistance to the disease. Incidentally it is to be noted that since 12% to 60% of adults do not have appreciable amounts of antiviral antibody in the blood, it is evidently a mistake as emphasized by several investigators to use the blood or serum of normal adults for passive immunization of children against the disease during epidemics unless each individual donor is first tested by the monkey neutralization test and known to contain antibody; otherwise pooled sera should be used as such are likely to contain antibody.

And such is especially desirable for combatting epidemics if the vaccine is capable of producing protective amounts of antibody in a matter of a week or two because it is impossible at present to provide sufficient amounts of immune serum for the passive immunization of large numbers of persons. Indeed the immunity conferred by a single large dose of convalescent serum like 20 c.c. for a child of 10 years does not appear to last more than a few weeks so that in the presence of an epidemic of one to two months or longer at least two injections of serum should be given.

Furthermore the desirability for vaccination against the disease is greatly increased by the belief that once the virus has become intracellular, as is always likely in virus infections, it is beyond neutralization by immune serum. For this reason serum has been found to possess but doubtful value when paresis and especially paralysis have developed. I have long thought that available amounts of convalescent immune serum were better used for prophylaxis than for treatment unless it is possible to administer it very early in the disease. Unfortunately also, this is the

the very period of greatest diagnostic difficulty. Certainly there is as yet no known chemical agent or drug of proven or even hopeful curative activity and in a situation of this kind, where treatment and cure in the sense of destruction of the virus is as yet impossible, the matter of prevention by vaccination becomes increasingly important.

THE NATURE OF IMMUNITY IN POLIOMYELITIS IN RELATION TO VACCINATION:- As first shown by Netter and Levaditi (14) in 1910, the sera of individuals recovering from poliomyelitis contain the antibody capable of neutralizing *in vitro* monkey passage virus and since that time has become the best known antibody identified with the disease.

But it is a mistake to assume that this humoral antiviral antibody occurs in all recovered persons insofar at least as the neutralization of monkey passage virus is concerned. I have summarized the results reported by various investigators in Table 2, in which it will be noted that from 12.1 to as high as 63.6% (average 34.9%) of the sera of 126 individuals recovering from poliomyelitis failed to neutralize the virus *in vitro*, presumably because the antibody was absent or present in insufficient amounts. It is for this reason that several investigators have cautioned against the assumption that the sera of all convalescents and recovered cases are fit for the serum prophylaxis or treatment of the disease.

Table 2 here

And yet, as previously stated, the immunity following an attack is quite solid since second attacks are so rare. Under the circumstances it is reasonable to assume that there is probably an important cellular or tissue immunity in many recovered cases which do not show demonstrable amounts of antibody in their sera.

Therefore, since it is possible for the sera of recovered cases

to give negative monkey neutralization tests, despite the evidence for the existence of immunity, I was well prepared to observe that the sera of some children vaccinated by my method failed to develop this type of antibody and indeed this happened in four children (19). On the other hand the presence of the antibody is widely accepted as indicative of immunity and I do not know of any individual carrying antibody in the blood who has contracted poliomyelitis. However this tissue immunity is so low even though such a large percentage of the sera of children are without antiviral antibody. Its nature is unknown but it has occurred to me that the body cells may be "tuned up" for the rapid production of antibody when virus gains access to them and that in this manner they may escape infection. But since the attack rate is so sharply increased during epidemics presumably because of greatly enhanced virulence of the virus it seems to me highly desirable to vaccinate children under 12 years of age.

many parts of Plain only the attack rate

As further evidence of this tissue immunity I may state that during the past year Miss Rule and I have found that the sera of normal guinea pigs and rabbits do not contain antiviral antibody for our monkey passage virus and yet it is well known that these animals possess an absolute immunity to the virus. At least we have never been able to infect these animals by intracerebral inoculation (20) and Harmon, Shaughnessy and Gordon (21) have had a similar experience with them as well as with young dogs, cats, mice, young hogs, lambs and calves. In this connection mention may be also made that in certain other virus diseases (dog distemper, fowl plague, fowl-pox, African horse sickness, foot and mouth disease and horse encephalitis) various investigators have found antiviral antibodies either absent or but irregularly present in the blood of recovered natural hosts, even though these infections generally engender a high state of immunity.

Since, however, it appears certain that the presence of large amounts of antiviral antibody in the blood is indicative of immunity even though its absence is not inconsistent with this state one can only guess at its origin. Aycock and Kramer have long maintained that it develops because of a widespread distribution of the virus with a process of natural immunization as the result of single or repeated subclinical or unrecognized attacks. This has always impressed me as a very reasonable assumption and likewise gave encouragement to my effort to evolve a safe and efficient method for vaccinating human beings against the disease, because if it is possible for immunity to be engendered by so light an infection it ought to be possible to duplicate the results by vaccination.

Since tissue immunity apparently exerts an important role in resistance to and recovery from poliomyelitis, it is to be expected that various other theories of immunity to this disease would be entertained. In this connection Draper (22) has thought that a certain constitutional make up of young children characterized by the broad brow and round face with wide space between the eyes, plumpness, separation of central incisor teeth with difficult dentition, etc., indicated unusual susceptibility. Aycock also has observed that unusually well developed children, who are however of a more delicate make up physically and temperamentally than normal children may be more susceptible than usual. Indeed Aycock (23) believes that some variation in the physiological activity of the body may produce an increased resistance to poliomyelitis without outside assistance by way of unrecognized infection with virus for which he has proposed the name "antarcesis"; Jungeblut and Engle (24) offer the suggestion that the mass protection enjoyed by the adult human population may rest primarily on the normal functions of the endocrine balance characteristic of mature age.

It is stated that old monkeys carefully guarded against chance

exposure to the virus are more resistant than young animals and it would appear that there is much that we do not understand about this subject so commonly discussed as "maturation immunity", but the fact remains that large numbers of young children and adults as well contract poliomyelitis every year and either die of the disease or recover with varying degrees of permanent crippling which impresses me with the desirability of evolving a safe and efficient method for vaccinating them against the disease and particularly over the period of childhood until the natural agencies of resistance, whatever they may be, have been developed.

Certainly I cannot agree with those who believe that we can depend upon the processes of natural immunization or maturation alone in view of the low attack rate of acute poliomyelitis, because I believe it is possible safely and efficiently to protect children by vaccination over the period of their greatest susceptibility.

THE ANTIBODY FOR MONKEY PASSAGE VIRUS IN RELATION TO VACCINATION:- But since the only practical source of vaccine for immunization against poliomyelitis is the spinal cords of monkeys infected with passage virus, there is at once the important question whether or not the antibody produced by such virus will protect human beings against the disease. In other words does the species of animal furnishing the vaccine alter it in such a way that the antibody produced may fail to protect human beings against poliomyelitis?

Of course it is irrefutably established that vaccine of the cow-pox virus, which is the small-pox virus passed through the skin of calves, will protect human beings against small-pox. Furthermore it is definitely established that vaccines of rabies virus passed through the spinal cords of rabbits will immunize both human beings and dogs. It also appears that vaccines prepared of the brains of mice infected with the yellow fever virus immunize human beings against that disease as shown by Hindle (25) and others. In

addition the successful vaccination of human beings by Rivers and Schwentker (27) with vaccines of the living virus of psittacosis or parrot disease prepared of the livers and spleens of infected mice, indicate that the passage of viruses through lower animals leave their vaccines capable of engendering immunity in human beings. From these one may infer that vaccines of monkey passage poliomyelitis virus will immunize not only monkeys but human beings as well.

However as shown by Paul and Trask (28) the experimental disease produced in monkeys by two human strains of virus did not leave these animals upon recovery immune to passage virus and in a few instances recovery from infection with passage virus left the animals susceptible to human virus. Furthermore the antibody in some human convalescent sera for human virus appeared to differ qualitatively for passage virus. Weyer (29) has also found that the sera of horses immunized with monkey passage virus was highly neutralizing for passage virus (1:500) but much less so for human virus (1:20). However Howitt (30) and others have found that sera from horses, goats and sheep immunized over a long period of time with monkey passage virus have given some evidence of therapeutic value in a small group of human cases in the preparalytic stage of poliomyelitis indicating that the antibody produced by passage virus is capable of neutralizing human virus. Furthermore, as shown by Flexner (31), human convalescent serum not only neutralizes recent but also remote passage virus, thereby indicating that frequent passage of the virus through monkeys does not produce material alteration but also that monkeys vaccinated by remote passage virus develop immunity in part at least to recent human virus.

It would appear, therefore, that the weight of evidence available at present indicates that the antibody produced in human beings by a vaccine of spinal cord of monkey passage virus will protect against the human disease, as they undoubtedly protect monkeys themselves; but the final answer to this

question of fundamental importance must await the results of vaccination of human beings and especially those exposed to epidemics of the disease. The vaccine should be highly successful as Miss Rule and I have found that the sera of children immunized in Philadelphia by my attenuated vaccine of monkey passage virus (Rockefeller strain) have completely neutralized human spinal cord virus (Cuneo) sent me by Dr. J. F. Kessel from the 1934 epidemic in southern California as well as the virus in the third monkey passage from another fatal human case in the same epidemic kindly furnished by Miss Beatrice Howitt of San Francisco. No one knows at present whether or not immunologically specific strains of poliomyelitis virus exist. If they did the problem of vaccination would be greatly complicated in proportion to the number of strains, just as vaccination against the pneumococcus has been complicated by the known existance of so many different types, but the above mentioned observations indicate that antibody produced by vaccine of remote monkey passage virus may neutralize the virus from different parts of the country.

THE METHOD OF PREPARATION OF VACCINE IN RELATION TO IMMUNIZATION:- If, therefore, we have ample encouragement for the successful immunization of human beings against poliomyelitis with vaccine of monkey passage virus, the question arises as to the best manner for preparing it of monkey spinal cord for the safe and effective vaccination of human beings.

As stated by Andrews (32) it would appear definitely established that vaccines of dead viruses are enormously weaker than living and attenuated viruses because the former contain but small amounts of antigenic virus protein while the virus in the latter after injection can multiply perhaps a million fold in the body and thereby have a far better chance of producing resistance.

While vaccines of various viruses apparently inactivated or killed by formalin, phenol, chloroform, ether, heat and other agents have been used with some success in vaccination against rabies, distemper, cattle plague and fowl-pox, yet, as stated by Andrewes, it is still an open question with at least

some of these vaccines whether or not the viruses are really killed or only attenuated. In poliomyelitis of monkeys, at least, best results have been obtained with subcutaneous or intracutaneous injections of the living virus by Flexner and Lewis (33), Aycock and Kagan (34), Stewart and Rhoads (35), Rhoads (36) and others or by mixtures of virus and immune serum given together or separately. Miss Rule and I were unable successfully to vaccinate monkeys with chloroform treated and heated dead vaccines (37) and for these reasons I have thought that best results in the immunization of human beings could probably be obtained, as they have in monkeys, with vaccines of living virus, providing a way were found for attenuating the virus in the interests of safety.

Of the several agents employed for the killing of virus in the preparation of poliomyelitis vaccine it would appear that formalin is of most interest since it has been used with so much success in the preparation of diphtheria and tetanus toxoids and other vaccines but as with toxin it would appear that one has to work within a fairly narrow range of formalin concentration as too much appears to destroy all antigenic power and too little will not completely inactivate. As stated by Andrewes this is one of the facts which leads some to suspect that an effective vaccine may be not entirely "dead". However, it may be the case that a large dose of dead virus will immunize as effectively as a small dose of living but attenuated virus. The problem would be to work out a method of concentration in order to reduce the amount of monkey spinal cord tissue injected with each dose, not only to reduce the degree of local irritation following injection but also to lessen the burden on the antibody producing tissues since the body must protect itself against the monkey tissue protein as well as the virus. In this connection I may state that filtrates of my vaccine are antigenic but I have preferred to use suspensions of cord tissue in order to be sure to obtain the full immunizing value of intracellular virus and because the amount of tissue

is small and without producing severe local reactions. Furthermore it does not appear that three doses of vaccine produce sensitization to monkey protein as we have determined by skin tests.

In the course of some chemotherapeutic investigations (38) with sodium ricinoleate, which possesses some detoxifying activity, I became interested in the possibility of this agent so attenuating poliomyelitis virus as to make it safe for subcutaneous injection without completely killing the virus and especially since McKinley and Larson (39) had already found that monkeys could be sometimes immunized by intraperitoneal injections of this type of vaccine.

Miss Rule and I (40) prepared a vaccine of a 1% emulsion of monkey spinal cord in sterile water with sufficient sodium ricinoleate (William Merrell Co.) to give a 10% concentration and in a series of 6 monkeys succeeded in vaccinating 2 and 1 partially. Believing that better results could be obtained with vaccines carrying more tissue-virus and less sodium ricinoleate we then prepared vaccines carrying 4% of virus with 1% sodium ricinoleate and successfully vaccinated 18 monkeys with subcutaneous and intracutaneous injections (41), since all animals inoculated intracerebrally about one month later with 0.2 cc. of 5% suspension of fresh virus (about 18 minimal infective doses) remained perfectly well whereas the controls developed poliomyelitis in from 5 to 9 days.

The virus in the vaccines however, was not killed since the injection of 0.3 cc. amounts into the brains of monkeys always produced mild paralysis, but after a longer incubation period and indicating that the sodium ricinoleate had produced some attenuation.

However and very importantly the subcutaneous injection into monkeys of 10 doses of 0.05 to 1 cc. per kg. and amounting to a total of 0.5 to 10 cc. for a child of about 25 pounds in weight (approximately 10 kgs.) were without any ill effects whatsoever aside from local irritation at the

sites of injection as likewise after the intracutaneous injection of five doses of 0.1 cc. each per kg.

Under these circumstances Miss Rule and I felt justified and safe in taking the vaccine ourselves even though we were without antiviral antibody in the blood. We both took 0.5, 1.5 and 2 cc. at 5 day intervals with no ill effects aside from local irritation at the sites of injection in the arms. Two weeks after the third dose we found our blood containing antibody as determined by the serum neutralization tests with monkeys in which 0.2 cc. of serum mixed with 0.2 cc. of 5% virus were injected intracerebrally after standing 2 hours.

To the best of my knowledge we were the first to submit to subcutaneous injections of living but attenuated poliomyelitis virus (August, 1934) and the first week we felt somewhat apprehensive in spite of the monkeys having withstood so much larger doses per body weight without ill effects. Furthermore I was impressed with three additional possible factors of safety: namely, that remote passage virus such as we were using may have lost greatly in infectivity for human beings; secondly, that subcutaneous injections of virus were comparatively safe since the usual portal of entry in human beings was the upper respiratory tract and thirdly, that by starting with a small dose and waiting at least a week to ten days before the second was given there would then be sufficient antibody production for protection. And indeed we have observed in some highly susceptible children that demonstrable amounts of antibody have been produced as early as 96 hours after the first dose.

However, we were mindful of the fact that in the case of monkeys several investigators have found that subcutaneous and intracutaneous injections of virus have produced poliomyelitis, although during the previous year we observed that 10 daily intracutaneous injections of 0.1 cc. each of our unchanged virus failed to infect a monkey.

Under the circumstances I considered the vaccine so safe that I

administered it to my two sons, aged 11 and 15 years respectively, the former being without antiviral antibody in his blood. Since then Dr. Klugh, Miss Rule and I have given one to three doses of the vaccine at weekly intervals by subcutaneous injection to a group of 23 additional children varying in age from 8 months to 11 years at the request or with the consent of their parents, with absolutely no ill effects aside from local reactions at the sites of injection corresponding to those produced by diphtheria toxoid. All children were selected on the basis of preliminary monkey serum neutralization tests and the results, which are given elsewhere (19), have shown antibody production in 85%.

I believe, therefore, that vaccines carrying 4% of spinal cord tissue from monkeys infected by remote passage virus such as we used in 10% solution of chemically pure sodium ricinoleate are perfectly safe for the vaccination of human beings, including children under 4 years of age where susceptibility is greatest. It is likely that weak concentrations of formalin, phenol and other chemical disinfectants may attenuate the virus just as effectively as sodium ricinoleate. The latter happens to be the only one with which we have worked up to the present time, but I am now reasonably sure that it attenuates the virus sufficiently to make subcutaneous injections of small doses entirely safe with the production of sufficient antibody to indicate effective immunization. Just how long the immunity lasts is impossible to state at present, although monkeys vaccinated about 3 years ago are still immune; since even a mild attack of the disease appears to confer a lasting immunity, it is reasonable to expect that the immunity produced by the vaccine will likewise prove durable.

THE PRACTICAL APPLICATION OF VACCINATION AGAINST POLIOMYELITIS:- But it may be argued that vaccination of young children may deprive them of the opportunity of natural immunization through acquiring subclinical or abortive attacks of the disease which Aycock and others believe are largely responsible

for the immunity that is apparent in a large percentage of adults. This is probably based upon the assumption that antibody produced by vaccine will prevent infection with virus and thereby prevent the latter from producing immunity. This may be true but I personally do not care how children and adults as well acquire immunity as long as they safely do so in sufficient degree to protect them against the disease. Rather I have in mind those who die of the disease each year or recover badly crippled before natural immunization can occur and especially in times of epidemics.

As previously stated, antibody production appears to be sufficiently prompt even after the first dose of vaccine to indicate that it can be safely used in epidemics. The first dose is so small that it should not temporarily reduce resistance by the so-called "negative phase" and thereby increase the chances of infection. Certainly we have not seen any evidence of this in monkeys receiving at least ten times larger doses per kilogram of weight by subcutaneous injection followed by intracerebral inoculation with virus 4 to 7 days later. They have always required much larger doses of virus to produce infection than required in controls and none have shown increased susceptibility to smaller doses of virus.

I believe therefore that the vaccine is indicated for vaccination during epidemics and especially in the case of children, since it is likely that immunity develops in some at least as promptly as immunity to small-pox after cow-pox vaccination and probably much faster than immunity to diphtheria following injections of toxoid.

But since the attack rate is so low in the absence of epidemics should all children be vaccinated? Unfortunately we do not have at present a cheap and quick method for picking out susceptibles, the monkey serum neutralization test for antibody being the only one available. The colloidal gold test of Eberson as well as complement fixation, precipitin and skin tests

conducted by Dr. Klugh, ~~Will~~ miss Rule and myself have proven disappointing as elsewhere reported (13). It would appear that the monkey is the only animal known at present to be susceptible for antibody tests and it is too expensive for use on a large scale. Furthermore the tests require from 2 to 3 weeks but it ought to be possible to conduct them for an expenditure of about $25.00 as the spinal cords of those developing poliomyelitis could be used in the preparation of vaccine.

Physicians and parents must decide for themselves about using the monkey test. Certainly such tests are not required in the case of children 4 years or younger as enough have been done to show that about 80 per cent are susceptible and even more in the rural districts. And since Aycock has shown that there is probably an important hereditary factor in susceptibility to poliomyelitis it would appear particularly advisable to immunize all children in families where the disease has occurred.

SUMMARY:- 1. Since acute anterior poliomyelitis is regarded as a virus disease and results in lasting immunity, second attacks being very rare, and since the majority of the viruses appear to be highly capable immunizing agents, great encouragement is given to efforts for producing a safe and effective method for the vaccination of human beings against the disease.

2. Further impetus to such efforts is given by reason of the fact that the mortality has varied from 7.3% to as much as 43% in different epidemics, with as high as 25% to 45% residual paralysis.

3. While the attack rate is low, except in epidemics, yet it would appear that the disease is of increasing frequency both as isolated cases and in epidemics.

4. While about 83% of newborn infants have antibody in the blood temporarily, serum neutralization tests with the sera of 29 children under 4 years of age including 9 of our own series failed to neutralize the virus in about 79.2%

and were apparently susceptible.

5. Among 159 children from 5 to 14 years of age, including 20 of our own series, an average of about 45.5% were without antiviral antibody.

6. Of 128 individuals over 15 years of age and largely composed of adults, the sera of about 24.7% failed to neutralize the virus.

7. Under these conditions it would appear highly probable that a large percentage of susceptibles are present in all communities and particularly in the case of children under 10 years of age, thus rendering a safe and effective method of vaccination highly desirable and especially in the presence of epidemics.

8. This need is also emphasized by reason of the fact that the passive immunity conferred by the injection of normal or convalescent serum is of very short duration.

9. From 12.1 to as high as 63.6% (average ~~80%~~ 34.9) of the sera of 126 individuals recovering from poliomyelitis have failed to neutralize passage virus, presumably because antiviral antibody was absent or present in insufficient amounts. Therefore not all convalescent sera are fit for prophylactic or therapeutic immunization.

10. While humoral and tissue immunity may be due to unrecognized and subclinical attacks of poliomyelitis, it has also been suggested that there may be a type of "maturation immunity", due to constitutional make up or undetermined physiological factors.

11. Even if the antiviral antibody is due to subclinical or unrecognized attacks of the disease, the ease with which it is apparently produced suggests that vaccine may likewise produce it readily and in a large percentage of susceptible individuals.

12. Certainly I cannot agree with those who believe that the processes of natural immunization, whatever they may be, are sufficient since so many and especially children contract the disease before such can

develop and either succumb or recover badly crippled and handicapped for the balance of life.

13. Since vaccines of other viruses prepared from the tissues of lower animals successfully immunize human beings, and since horses, goats and sheep immunized over long periods of time with monkey passage virus, it would appear probable that vaccines of monkey passage poliomyelitis spinal cord would successfully vaccinate human beings.

virus produce at least small amounts of antibody capable of neutralizing human

14. The sera of children immunized in Philadelphia with my vaccine of monkey passage virus have neutralized human spinal cord virus from the 1934 epidemic in California, indicating that antibody produced by vaccine of passage virus is capable of neutralizing human virus.

15. It appears definitely established that vaccines of viruses killed by heat or disinfectants are generally much weaker immunizing agents than living or attenuated viruses.

16. It is possible however that large doses of "dead" virus may be vaccinogenic providing a method is found for concentrating the virus in order to reduce reactions from injections of spinal cord tissue and diminish the added burden placed on the antibody producing tissues for protecting themselves against the tissue proteins.

17. Filtrates of my vaccine of living but attenuated virus are antigenic but I prefer finely divided suspensions of cord tissue in order to secure the maximum of intracellular virus for immunization. The local reactions are slight and skin tests have shown that human beings have not acquired allergic sensitization to the small amounts of spinal cord protein contained in three doses.

18. Monkeys have been successfully vaccinated by subcutaneous and intracutaneous injections of virus or by mixtures of virus and immune serum but these methods are considered too dangerous for the immunization of human beings.

19. We have succeeded in immunizing all of 18 monkeys with a living but attenuated vaccine carrying 4% emulsions of spinal cord in 10% solutions of sodium ricinoleate with no evidences of ill effects aside from local reactions at the sites of injection. Three doses of the vaccine were then taken by Miss Rule and myself without ill effects and with good antibody response.

20. Since then three doses of the vaccine at weekly intervals have been given with the consent of parents, to 25 children varying in age from 8 months to 11 years (the majority of whom gave preliminary negative serum neutralization tests for antibody) with absolutely no ill effects and with good antibody response in the majority.

21. It would appear that attenuation of the virus in the vaccine along with the fact that the first dose is quite small per body weight with an interval of at least a week for antibody production before the second and third doses are given are important factors in safety.

22. Furthermore it may be that passage virus is of greatly reduced infectivity for human beings and that subcutaneous injections represent a portal of entry unsuited to infection since so much more is required by this route for the infection of monkeys.

23. In some instances antibody sufficient for the neutralization of virus has been found in the blood of susceptible children as early as 96 hours after the first dose, so that it would appear that the vaccine may produce antibody early enough to render it of value in combatting epidemics. We have found in monkeys that even large doses per body weight do not temporarily lower resistance by the production of a negative phase.

24. It is not yet possible to state the duration of immunity following vaccination, although monkeys vaccinated about 3 years ago are still immune to intracerebral injections of virus.

25. However if the immunity lasts only a sufficient number of years to protect children past their age of greatest susceptibility until maturation immunity has developed, it would appear very much worth while.

26. No one with sufficient antiviral antibody in the blood has, as far as I know, contracted poliomyelitis. At the present time the monkey serum neutralization test is the only reliable one for the detection of this humoral immunity. While it is too expensive for routine use on a large scale, it is available for those who can afford it and appears to be sufficiently reliable as a test for immunity as only susceptible individuals require vaccination.

27. The test is hardly necessary, however, in the case of children under 4 years of age as about 80% are susceptible. Without the test in older children and adults physicians and parents must decide arbitrarily about vaccination, but I believe that a vaccine is now available for safe and effective immunization and especially for use in epidemics. Since there appears to be an important hereditary factor in susceptibility to poliomyelitis it would also appear highly advisable to immunize all children in families where the disease has occurred.

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PSF Interior Ickes

THE SECRETARY OF THE INTERIOR
WASHINGTON

June 18, 1935.

My dear Mr. President:

I have your comment on Mr. Glavis' memorandum with reference to certain alleged irregularities in the construction of the San Jose, California, Post Office.

Mr. Glavis did not make an investigation of this Post Office, nor did any member of his staff. The information contained in the memorandum was given to him voluntarily, but in confidence. Since he told me that it was in confidence, I have not pressed him for the name of his informant.

I suspect that there would be few instances where we would be advised of such violations as this if the informant's name were made known and it has always seemed to me in the interest of the government to respect anonymity in such cases. Usually allegations of violations are verifiable and if they can be verified, the facts speak for themselves, and, as it seems to me, justify following up information from whatever source it may come.

There is another consideration that appeals to me strongly and that is that it is much better for the Government to discover and take appropriate action in cases of violations, than to have their discovery come from the outside or even from some political enemy. For this reason, I am persuaded that information from any source

should be welcomed. There is no harm done if an attempted verification discloses the fact that there has been no violation, but much good can result if investigation does result in verification. The reason I did not ask Mr. Glavis to give me the name of his informant was because I realized that to do so would be to close that possible source of valuable information.

Mr. Glavis passes such information as this on to me alone and I pass it on to you alone. I have no jurisdiction and cannot properly do anything about it, except to pass it on to you.

Sincerely yours,

Harold L. Ickes

Secretary of the Interior.

The President,
The White House.

PSF Ickes

THE WHITE HOUSE
JUL 12 1935
RECEIVED

THE SECRETARY OF THE INTERIOR
WASHINGTON

"file personal"

July 12, 1935.

My dear Mr. President:

The enclosed is interesting in connection with the insistence of Senator Tydings that it is contrary to precedent for a Senate investigating committee to permit cross-examination. Other cases in point could be cited, notably the Ballinger investigation in which Mr. Justice Brandeis by his clever and persistent cross-examination broke through the defense of Ballinger and President Taft.

Sincerely yours,

Harold L. Ickes

Secretary of the Interior.

The President,
The White House.

Enc.

PSF Ickes

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE COMMISSIONER OF INDIAN AFFAIRS
WASHINGTON, D. C.

Commr J C

July 11, 1935

MEMORANDUM FOR SECRETARY ICKES

With respect to the practice of Senate investigating committees in the matter of permitting cross-examination or questioning and interjected testimony by the head of a department, or his representative, at hearings where the work of the department was being criticised:

The Senate investigating body which has continued its work over the longest period of time is the investigating committee created under S. Res. 79, 70th Congress, to investigate the conduct of Indian Affairs. That committee has operated since February 23, 1927. Its printed testimony consists of 33 parts, totaling 17,422 pages. The committee still goes forward.

The committee has had a Republican chairman, succeeded by two Democratic chairmen.

The printed testimony shows that from the first day, down to the present (across eight years), this investigating committee has invited the Secretary of the Interior, the Commissioner of Indian Affairs, or their representatives, and has permitted and welcomed questioning by them of witnesses; In addition, it has permitted interruption of witnesses through explanatory or contradictory remarks by the department's representatives. Likewise, the committee has allowed unofficial witnesses to question the departmental representatives or witnesses and to interrupt the departmental testimony with explanation or contradiction.

The above practice has been followed not only where conditions in general were being examined into, but has been followed where charges have been brought against the official conduct of representatives of the department. As an instance, at the hearings in January and February, 1931, which led to a report by the Senate committee recommending the removal of H. J. Hagerman from the position of Commissioner to negotiate with the Indians, it happened that I was the chief prosecuting witness against Mr. Hagerman. See page 4692, Part 11, and forward, of the printed hearings:

"John Collier, having been previously sworn, testified further as follows:"

Thenceforward, through 28 pages, there proceeds cross-questioning, contradiction and explanation by Commissioner Hagerman and Commissioner of Indian Affairs Charles J. Rhoads and the Chairman of the Pueblo Lands Board Jennings. At last the witness states: "I am testifying, and the group sitting down there are consuming all of my time."

The above example relates to phase of the committee's work wherein the committee was definitely hostile toward the individual whose record was under examination; none the less, the fullest right to question and to contradict was unfailingly extended to the accused official (Mr. Hagerman) and to the sundry departmental representatives who were assisting him.

Merely to support the statement that the above case was representative, I refer to the printed hearings of the above mentioned committee, Part 3, page 1389 and forward. In these hearings, Louis Marshall, representing the Pueblo Indian tribes, was attacking a certain contract and certain departmental actions under the contract, affecting these tribes. He was examined and contradicted by the Assistant Commissioner of Indian Affairs, Mr. Meritt, and the Assistant Secretary of the Interior, Mr. Edwards. Reciprocally, he was allowed to question and to contradict them.

Identical procedures can be found through the hundreds of hearings of this committee. The question of the right to cross-question and to contradict was never passed upon by the committee because the question was never raised. The committee was seeking facts and was endeavoring to reach sound conclusions and as a matter of course it permitted such questioning and contradiction.

The work of this particular Senate committee has been revolutionary in its results; the record which it has compiled is the authoritative record on Indian Affairs; the committee's recommendations in all cases, without exception, have been adopted by the Senate, in so far as they came within the Senate's scope of action. Such has been the result because the committee was unfailingly judicial in its procedures.

John Collier

Commissioner

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PSF Ickes

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THE SECRETARY OF THE INTERIOR
WASHINGTON

July 12, 1935.

for President's personal file

My dear Mr. President:

At a recent interview I remarked that some Executive Orders in which I was interested on account of their relationship to my Department had been drafted without their being referred to me. You asked me to give you an instance.

Your order of June 26, establishing the National Youth Administration, I did not know about until I read it in the newspapers. I had attended a conference at which this program was discussed and a committee appointed with Commissioner of Education Studebaker as Chairman. But the order itself I had no opportunity to comment upon before it was issued nor had I any idea that Miss Roche was to be appointed Chairman of the Executive Committee until I saw that fact published.

The order of May 28, establishing the Puerto Rico Reconstruction Administration and appointing Dr. Gruening as Administrator, I have never seen.

Although an Executive Order was not involved, as I told you yesterday, a bill has passed Congress and apparently has been signed by you appropriating $6,000,000 out of our PWA funds for the purchase of wild life sanctuaries.

I also find that no one in PWA, nor I myself, was consulted in connection with Regulation No. 2, which prescribes rules and regulations relating to procedure for employment. None of us knew of the contents of this order until it was published.

Sincerely yours,

Harold L. Ickes

Secretary of the Interior.

The President,
The White House.

PSF
Ickes

Ickes (S) (1)

THE SECRETARY OF THE INTERIOR
WASHINGTON

August 29, 1935

My dear Mr. President:

May I explain in a few words the occasion of my calling this morning with the group representing various housing agencies.

This meeting was not suggested by me nor did I take any initiative in the matter except to make the appointment. Considerable pressure has been brought on me for the last two or three weeks by certain other housing agencies to join with a group to discuss the matter of coordination with you. I was asked if I would make an appointment for the group that called on you this morning. I have not personally attended any of the meetings that have been working on coordination and I imagine the only reason I was asked to make the appointment was because I was the only member of the Cabinet directly interested. I did agree to make the appointment and I did present to you as a basis for discussion the considered opinion of the members of the group.

As a matter of fact, I haven't any particular personal interest in this matter, as I have always regarded slum clearance as a problem in itself and more or less unrelated to other Federal agencies having to do with housing in its fiscal phase. I did not this morning relish the position that I seemed to be placed in by reason of my seniority.

You spoke this morning of an adjourned meeting to be held at 4:30 this afternoon. To come at that time would interfere seriously

with previously made appointments, although, of course, I stand ready at all times to postpone anything else when you have need of me. Since I have arranged for the meeting, and since the issue is now before you, I really see no occasion for my attending this further meeting unless you particularly wish it.

Sincerely yours,

Harold L. Ickes

Secretary of the Interior.

The President,
The White House.

PSF
Ickes

7 Sept. 1935

"Full personal" 9/7/35

THE SECRETARY OF THE INTERIOR

My dear Mr. President:

Now that I am back at my desk I want to thank you from my heart for your consideration and kindness during the hard time through which I have just passed. It was heartening to hear your friendly voice over the telephone last Saturday night and to receive the understanding note that came shortly after. Especially do I thank you and Mrs. Roosevelt for myself and family for the very beautiful wreath that you sent to the funeral.

I hope you are having the rest that you so badly

need but the newspapers indicate that you are not living in a total intellectual vacuum.

Gratefully and with deep regards,

Harold L. Ickes

Sept. 7, 1935.

file PSF Ickes

71 (1)

71

THE SECRETARY OF THE INTERIOR
WASHINGTON

September 7, 1935.

THE WHITE HOUSE
SEP 8 1935
RECEIVED

My dear Mr. President:

To my way of thinking the most important problem confronting the country today is that of your reelection next year. There is no other man in the United States who can hope to win who has the combination that you possess of qualities of leadership and sympathy with, and understanding of, the legitimate social aspirations of the people. You will either succeed yourself as President of the United States or you will be followed by a man in sympathy with and responsive to the reactionary forces of the country because he will have been elected by those forces.

But important as it is for the Nation that you be reelected, you will not misunderstand me if I say that there is a still greater issue confronting us, although that issue is not distinct and separate from the personality of the next President of the United States. The immediate future of the Progressive movement is at stake. If you should fail of reelection, the Progressive movement as we have understood it, the aim of which has been to bring about a reasonable economic and social reconstruction of the country in the interest of the average man without a violent swing to the left, will, in my judgment, have gone down into a tragic grave. Following you and your liberal administration there will be a return of rugged individualism having

free play for its ruthless qualities under an administration whose concern will be the material prosperity of a small and selfish class. There will be no place in that setup for reasonable Progressivism; only extreme radicalism will be able to grow in that un-American soil.

My object in writing you this letter is to tell you of my deep anxiety lest present Administration policies, if carried out along indicated lines, may result in political repercussions of a serious, if not a disastrous, nature. I refer, of course, to the Works-Relief program which I have discussed with you on several occasions recently. So concerned am I about it that I am running the risk of being misunderstood by you in indicating again that, in my opinion, we are sailing in dangerous waters.

We encouraged municipalities, counties and States to file applications for worth-while public works. In the late Fall of 1934 there went out over your signature to the Governor of every State a letter offering help in the drafting of legislation to smooth the ways for a future public works program. States have passed many of these laws. Municipal ordinances have been amended, referenda have been held, bond issues have been voted and applications have been filed. Communities are begging for an opportunity to build public works on a loan and grant basis and their applications are being turned down by a group of employees whose qualifications to pass upon these applications, in many instances, I seriously doubt. There are dissatisfaction and discontent in all parts of the country -- dissatisfaction and discontent that will have the power to express itself politically and will know how to express itself.

On the other hand, communities that are refused an opportunity to participate on a substantial financial basis in the public works that they desire are having Federal money expended on work of a more transitory and less desirable sort, toward which the community makes little or no contribution. Nor is the doing of this work supervised or the expenditure of this money safeguarded with that care that has been one of the outstanding characteristics of PWA.

It has been urged in support of the policy of turning down PWA projects that PWA is too slow. Of course we are slow when we can't get our projects passed upon or if, when passed upon favorably, they are not cleared with reasonable speed. Waiving the question whether PWA was unjustifiably slow in carrying out its original program, we have had no opportunity to demonstrate our ability to speed up our program under our now decentralized administration because we have been given little to work with. The organization that would do away with PWA altogether has assumed a veto power over it, which, in my judgment, is not even fairly used. On the other hand, WPA, the organization that claimed ability to have three and a half million men at work by July 1, last, which is voted great sums of money on request on blanket allocations, and over which even the Advisory Committee on Allotments has no actual jurisdiction or control, is admittedly way behind in its schedule.

In discussing the Atlanta sewage case with you I said that I did not see how anyone could go onto a political platform in Chicago

next year and explain to the citizens of that city why they had to pay seventy cents on the dollar on their sewage project, while Atlanta, under the WPA proposal, was asked to expend only twenty-one and a fraction cents, although Chicago was in desperate financial straits while Atlanta had ample credit. And what would be true in Chicago would be true equally in New York and Buffalo and other communities of the United States.

Neither do I see how Democratic speakers next year can defend the wholesale turning down of worth while and desirable public works projects proposed on a loan and grant basis while insisting on spending Federal money for less worth while works toward the building of which practically no local contribution has been made. The difficulty in persuading the American voters, who, after all, are frugal when it comes to the expenditure of public funds, of the validity of such a program will be great even if there is no suspicion of graft or waste or inefficiency in carrying out the WPA program. But, based upon my own experience in municipal and public affairs I have reason to doubt whether this program, if conducted along present lines, can be carried on in freedom from graft and corruption and inefficiency. I say this without even intimating that those who are chiefly responsible for the program are otherwise than sincere, upright and patriotic public officials.

There is still another consideration that ought to be taken into account. Assuming that we can win the next election, what of the program for your next four years? In the best of circumstances

it seems to me that perhaps the principal issue in the Fall of 1936 will be the justification of the Works-Relief program and the manner in which it was carried out. Even if we win on that issue, Works-Relief and the manner and form in which it was undertaken and administered will be a battered political simulacrum by election day. I gravely doubt whether the country will be in any mood to go forward with a continuation of such a program. And the theory of substantial and worth while public works will be more or less discredited because it was part and parcel of the Works-Relief program.

This would be a great pity. It is my opinion that even if we are on the verge of a substantial economic recovery that will not mean a recovery in employment. There will be more technological unemployment in the United States during the next so-called prosperous era than there was prior to the crash of 1929. As I see it, the only way in which to take care of this technological unemployment is by means of a carefully planned program of desirable public works in all parts of the country. But if the state of mind of the country is such, as the result of the present Works-Relief program, that Congress will not dare to vote substantial sums for such a program of public works, then once again will we find ourselves in a social and economic stalemate, with millions of men and women anxious and willing to work but finding no work to which they can put their hands.

And the real tragedy of it will be that it will be impossible to give effect to the wonderful and statesman-like dream that you alone, of all the Presidents of the United States, have dreamed. The brilliant

findings of your National Resources Committee will gather dust in the Archives Building, while we plod along in the same old way with periods of prosperity followed by periods of depression; with new machinery continuing to take away from eager hands the opportunity to work; with great riches accumulated by a small group of persons, while the bread lines grow ever longer and longer. All this, of course, until Communism in some form rears its ugly head to challenge an America that will not have elected to save its cherished civilization by a reasonable adaptation of its institutions to meet changing conditions.

You, my dear Mr. President, are the only man who can prevent such a tragic end to our great American venture. And you can do this only by being reelected under conditions that will permit you to continue the great social program on which you have already made such a wonderful start.

Sincerely yours,

Harold L. Ickes

Secretary of the Interior.

The President,
The White House.

Memo. for Mr. Foster:

Here is a copy of the letter that I talked to you about over the telephone. Will you please see that the date on the original is changed to read September 7 instead of August 7. ~~Please return.~~

T. Mack, Room 6135,
Interior Department.

From
To:

PSF: Ickes

THE SECRETARY OF THE INTERIOR
WASHINGTON

September 7, 1935.

My dear Mr. President:

To my way of thinking the most important problem confronting the country today is that of your reelection next year. There is no other man in the United States who can hope to win who has the combination that you possess of qualities of leadership and sympathy with, and understanding of, the legitimate social aspirations of the people. You will either succeed yourself as President of the United States or you will be followed by a man in sympathy with and responsive to the reactionary forces of the country because he will have been elected by those forces.

But important as it is for the Nation that you be reelected, you will not misunderstand me if I say that there is a still greater issue confronting us, although that issue is not distinct and separate from the personality of the next President of the United States. The immediate future of the Progressive movement is at stake. If you should fail of reelection, the Progressive movement as we have understood it, the aim of which has been to bring about a reasonable economic and social reconstruction of the country in the interest of the average man without a violent swing to the left, will, in my judgment, have gone down into a tragic grave. Following you and your liberal administration there will be a return of rugged individualism having

free play for its ruthless qualities under an administration whose concern will be the material prosperity of a small and selfish class. There will be no place in that setup for reasonable Progressivism; only extreme radicalism will be able to grow in that un-American soil.

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It has been urged in support of the policy of turning down PWA projects that PWA is too slow. Of course we are slow when we can't get our projects passed upon or if, when passed upon favorably, they are not cleared with reasonable speed. Waiving the question whether PWA was unjustifiably slow in carrying out its original program, we have had no opportunity to demonstrate our ability to speed up our program under our now decentralized administration because we have been given little to work with. The organization that would do away with PWA altogether has assumed a veto power over it, which, in my judgment, is not even fairly used. On the other hand, WPA, the organization that claimed ability to have three and a half million men at work by July 1, last, which is voted great sums of money on request on blanket allocations, and over which even the Advisory Committee on Allotments has no actual jurisdiction or control, is admittedly way behind in its schedule.

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next year and explain to the citizens of that city why they had to pay seventy cents on the dollar on their sewage project, while Atlanta, under the WPA proposal, was asked to expend only twenty-one and a fraction cents, although Chicago was in desperate financial straits while Atlanta had ample credit. And what would be true in Chicago would be true equally in New York and Buffalo and other communities of the United States.

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There is still another consideration that ought to be taken into account. Assuming that we can win the next election, what of the program for your next four years? In the best of circumstances

it seems to me that perhaps the principal issue in the Fall of 1936 will be the justification of the Works-Relief program and the manner in which it was carried out. Even if we win on that issue, Works-Relief and the manner and form in which it was undertaken and administered will be a battered political simulacrum by election day. I gravely doubt whether the country will be in any mood to go forward with a continuation of such a program. And the theory of substantial and worth while public works will be more or less discredited because it was part and parcel of the Works-Relief program.

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You, my dear Mr. President, are the only man who can prevent such a tragic end to our great American venture. And you can do this only by being reelected under conditions that will permit you to continue the great social program on which you have already made such a wonderful start.

Sincerely yours,

(Sgd.) Harold L. Ickes

Secretary of the Interior.

The President,
The White House.

PSF Ickes

personal file

THE SECRETARY OF THE INTERIOR
WASHINGTON

THE WHITE HOUSE
OCT 25 1935
RECEIVED

October 24, 1935.

My dear Mr. President:

I can't begin to thank you for taking me on that HOUSTON trip with you. It not only did me a world of good physically but the very friendly associations that I had did me a lot of spiritual good. It was the happiest occasion that I have had for many, many years and I shall not soon forget your great kindness and consideration in giving me the opportunity to share it with you and with as fine and congenial a group of men as I have ever met.

With renewed thanks and appreciation,

Sincerely yours,

Harold L. Ickes

Secretary of the Interior.

The President,
The White House.

1

PSF Ickes

FEDERAL EMERGENCY ADMINISTRATOR
OF PUBLIC WORKS
WASHINGTON

FEB 19 1936

Memorandum for Miss G. G. Tully, Assistant to Miss LeHand:

Re: Statement concerning PWA allotments for educational institutions.

Reference is made to your memorandum of February 18 containing the following statements:

> "The Government, through the Public Works Administration, is helping educational institutions to add new buildings costing more than $300,000,000 to their present equipment. Since 1933 the Government has made, through the Public Works Administration, allotments to local communities for school, college and library buildings, amounting to almost $500,000,000."

Upon checking these figures, I find that they have become transposed, the first figure referring to the cost of the new buildings being nearly $500,000,000 and the PWA allotments for these buildings being not quite $300,000,000. The exact amounts are as follows: The cost of new buildings is $466,258,000 and the total amount of allotments is $296,434,000 covering 3094 separate projects under both the NIRA and the ERA programs.

Sincerely yours,

Harold L. Ickes

Administrator.

PSF Ickes

WHAT P.W.A. HAS DONE

To April 1, 1936

NIRA AND ERA '35 PROGRAMS

4-1-36

P.W.A. HAS ALLOTTED FUNDS FOR PUBLIC WORKS IN 3,067 OF THE NATION'S 3,073 COUNTIES FOR:

15,573	Federal Projects costing	$ 1,567,036,751
3,946	Non-Federal Projects under NIRA costing	1,346,465,261
4,064	Non-Federal Projects under ERA costing	773,094,192
50	Federal Low-Cost Housing Projects	129,725,100
23,633	Projects Costing	$ 3,816,321,304

STATUS OF THESE PROJECTS:

16,818	Projects completed costing	$ 1,157,956,411
4,915	Projects under construction costing	2,254,366,603

EMPLOYMENT PROVIDED BY EXPENDITURES:

	Avg. No. Men Employed		Total Man-Months
	1934	1935	USED TO DATE
At Site of Construction	496,483	284,297	10,927,947
Production of Raw Materials, Transportation and Final Fabrication	1,489,449	852,891	32,783,841
Supplying Demands for Consumers' Goods and Services	992,966	568,594	21,855,894
TOTAL	2,978,898	1,705,782	65,567,682

PSF: Ickes

file Ickes personal

LUIS MUNOZ-MARIN
SENATOR AT LARGE
PUERTO RICO

THE DUPONT CIRCLE
WASHINGTON, D. C.

February 24,1936.

MEMORANDUM for Secretary Ickes:

It becomes increasingly more evident that the people of Puerto Rico are entitled to a change in the Governorship. The New Deal will not be complete, nor will it appear to many Puerto Ricans to be sincere, while a man remains at the head of the executive who is completely out of sympathy with the policies of your Department and the Federal Government in Puerto Rico.

Besides all the evidence already presented, the attitude shown in Governor Winship's recent Message to the Legislature would appear to be sufficient motivation for a rapid change.

It is well known to what great extent the Legislature can hinder reconstruction. It is quite obvious that only a clear and adroit appeal to Puerto Rican public opinion over the heads of the Legislature can accomplish any results in obtaining adequate legislation, particularly in relation to the 500-acre policy which you have clearly and repeatedly urged. Winship's message has approximately 10,000 words dealing with various minor problems of administration. In the whole message, only the following 22 words can be construed as applying to the 500-acre policy:

> "I wish to call attention to the recommendations of my last year's message concerning present conditions of land tenure in Puerto Rico."

Scanning the equally lengthy message of last year to which he refers, these are the only words found which in any way relate to the subject:

> "Our most fertile lands are held in too few hands and a redistribution should be effected."

So that this year's vague reference points to an equally vague reference last year which, as a matter of record, is known to have been totally ineffective. It seems to me that this expresses very palpably an attitude which must be as unpalatable to the Administration as it is to the general public in Puerto Rico.

If this were not enough, however, the last paragraph of this year's message, far

from appealing to Island public opinion in an effort to obtain action, actually encourages the Legislative majority to disregard public opinion and, pointedly, to disregard your own straightforward statements. The last paragraph says:

> "Let public welfare be the only consideration in the discussion of the proposed measures; and having this in mind do not fear criticism coming either FROM THE ISLAND or FROM OUTSIDE THE ISLAND."

It is also pertinent to remember that during last year's session of the Legislature, the President himself sent a cable to Governor Winship relative to the 500-acre policy saying (if my memory is correct) that "only the exercise of the greatest intelligence and determination on the part of the Governor can solve this very difficult situation." I happen to know of this cable because the President was kind enough to submit it to my consideration through you and Dr. Gruening.

I quote this cable not only to point out at what great variance the Governor is with you, with the President, and with public opinion on the Island, but also because it seems to demonstrate that mere orders, advice, counsel, strictures are unavailing with Governor Winship.

The solution of this situation involves two steps: removal of the Governor; appointment of a substitute. As to the first, although the situation is such as to justify any honorable device, it is suggested that the Governor may be called to stand by in Washington after resigning, with a view to serving in the work that no doubt is being carried on now in preparation for the forthcoming inter-American conference. (He is a lawyer and has had experience in Cuba and Mexico, and I believe is well liked by Mr. Sumner Welles, who will no doubt have much to do with the conference.)

As to the substitute, I suggest that the Commissioner of Education, Dr. Jose Padin, who has many times been acting Governor and who is a very fine man belonging to no political party in Puerto Rico, be left as Acting Governor, advising him that he can proceed on his own initiative. After Congress and the Puerto Rican Legislature close, or after the elections in November, the Administration may decide on a definite appointment. This definite appointment might very well be extended to Dr. Padin himself if his conduct of the office in the meantime should be deemed to warrant it.

LUIS MUNOZ MARIN

1

Sikes

Mullen says the Tri-County suits are settled last week or next, going ahead.

Is willing to submit fee to arbitration or award.

?

FOR

PSF Ickes

FEDERAL EMERGENCY ADMINISTRATOR
OF PUBLIC WORKS
WASHINGTON

file personal
lev

February 27, 1936.

MEMORANDUM for Administrator Ickes:

I saw Senator Norris as you requested me to do regarding the Nebraska matter. He does not wish to have anything to do with that decision because he states that he thinks it is a matter which must be decided in the PWA and they should not be influenced by any views that he has. He states firmly that he can make no recommendation because he has not all the facts before him and should not in any event make any statement or recommendation because it might tie his hands upon later action in the Senate if he thought that was necessary.

Harry Slattery.

PSF Ickes

P File

THE SECRETARY OF THE INTERIOR
WASHINGTON

May 21, 1936.

My dear Mr. President:

If I may, I would like to set down the situation with respect to the bill to change the name of this Department to that of Department of Conservation, as I see it.

Over a year ago, with your knowledge and consent, a bill was introduced in both the House of Representatives and the Senate changing the name of the Department to that of Department of Conservation and Public Works. The bill also gave you the power, subject to subsequent disaffirmance by Congress, to shift bureaus and agencies either into or out of the new Department.

On two or three different occasions you told Secretary Wallace not to oppose this bill, notwithstanding which not only he but other members of his Department appeared at hearings before both the House and the Senate Committee actively opposing it. In addition, they undertook to stir up sentiment among various farm organizations and other bodies throughout the country.

The bill, as drawn, would have passed the last session if it had not been for this active opposition, which continued despite your orders that it cease.

At a Cabinet meeting about the time this session of Congress convened you instructed all members of the Cabinet not to oppose legislation

in which another Department was interested.

At the beginning of this session I again asked you whether I might continue my efforts to have this bill passed and you gave your consent. I also asked you whether you would call off the Department of Agriculture as to its lobbying against the bill and you said you would.

For tactical reasons, we changed the bill at this session so that it provided merely for the change of the name of the Department without giving the President power to realign bureaus and agencies.

In this form the bill was reported with a favorable vote by the Committee on Public Lands of the House, and week before last it passed the Senate.

After the bill had passed the Senate, Mr. Kneipp and other members of the Department of Agriculture made every effort to have the bill reconsidered, but without success. This was an open violation of the instructions you had issued that one Department was not to oppose a bill of another Department. I may say, parenthetically, that this order had previously been violated when the Forest Service lobbied actively against the bill to establish Mt. Olympus National Park, as well as against our bill to make a survey of park and recreational areas.

Failing to bring about a reconsideration in the Senate, the lobby moved over to the House of Representatives, and in moving over they carried with them their allies, the Grange and the Farm Bureau. They have been making every effort to prevent the passage of this bill in the House.

I advised you several days ago that this bill would pass easily if we could have a rule and I asked you also if you would send word to the House leaders to bring in a rule. To this you kindly assented and I understand that word to that effect went to Speaker Byrnes, although I also understand that Congressman O'Connor has never received any direct communication on the subject.

Now it appears that leaders of the House are reluctant to bring in a rule because of their belief that the White House does not favor the passage of this bill.

Accordingly, we find ourselves in this situation: Here is a bill which I never would have introduced except with your consent. In flagrant violation of your orders, the Department of Agriculture has opposed it by hook and by crook from the beginning. The Forest Service particularly stirs up opposition and then Henry Wallace tells you that there exists the opposition which he and his assistants have stirred up. It is represented that a great political issue has been raised.

I do not know whether I know any more politics than my colleague in the Cabinet, but I take issue with that statement. I do not believe that the farmers of the country care one tinker's damn whether this Department is called the Department of the Interior or the Department of Conservation. The newspapers of the country do not indicate that the prairies are on fire about it. Even if the farmers have a mild interest in the matter, that interest would not carry beyond the accomplishment of the act. What they want from the Administration is benefits for agriculture and those benefits they are receiving in generous measure. However, professional Agricultural lobbyists who are at the beck and

call of the Department of Agriculture have whatever interest that department wants them to have. They are megaphones availed of by the Department. Parenthetically, I may say to you, although I am not giving you any news, that the lobby of the Department of Agriculture is the best organized and the most vocal of any lobby interested in Federal legislation.

I feel this whole matter very keenly. I am willing to take my licking in a fair fight, but this has not been a fair fight. Is the Department of Agriculture to have its way in all matters? Isn't it time that we really did something real about conservation, the subject that we have been talking about for a couple of generations? It seems to me that the politics of the situation is in favor of creating a Department of Conservation. Here would be something concrete; something to which this Administration would have a right to point with justifiable pride. It is bound to come sooner or later and I can think of no more appropriate time. But while it is bound to come sooner or later, it is my judgment that unless this bill goes through now it will not go through the next session of Congress; probably it will not come to pass for years to come.

I have had the situation in the House carefully canvassed. Chairman O'Connor is perfectly willing to support a rule, just as he is willing to support this bill. The Speaker will follow what he believes to be your wishes. If it were possible to get the bill up and pass it by a majority vote I would not ask for a rule, because I believe that we could muster a majority vote. Of course, as always, the opponents are the most vociferous. They talk about a bitter fight on the floor of

the House, but what is there to fight about when merely a change of name of a Department is involved? And who would fight? My people who are in intimate touch with the situation tell me that the opposition would amount to very little and that there would be no hard feelings after the bill was passed.

It is my honest opinion that the passage of this bill at this session would not lose the Democratic ticket a single farmer vote next November. On the other hand, I can see the possibility of its attracting to the support of the Administration many votes from sincere conservationists. I need not tell you that the active sentiment for conservation is not among the farmers, whose lobbyists, without even consulting them, presume to speak their minds. Conservationists are people in the east and in the crowded areas who know what exploitation of natural resources mean; they are the sportsmen and lovers of the outdoors. Here is a great mass of unorganized, inarticulate citizens of the United States who maintain no lobby in Washington and who have no personal ax to grind. These are the people for whom something should be done and for whom very little has so far been done.

I cannot deny that this matter is of intense personal interest to me. As I have told you on more than one occasion, I would rather head a Department of Conservation than anything else I can think of. The thing is within our grasp and the Department of Agriculture is trying to make useless the hard, careful work that we have done by thrusting before our faces a bogey man of its own imagination. Are disobedience of orders and unfair tactics again to be rewarded and this Department

denied the right to choose a name that properly describes its activities?

Sincerely yours,

Harold L. Ickes

Secretary of the Interior.

The President,
The White House.

PSF Ickes

file
Private

THE SECRETARY OF THE INTERIOR
WASHINGTON

May 22, 1936.

My dear Mr. President:

Congressman Dempsey, of New Mexico, has been in to see me. He tells me that he has just talked to Chairman O'Connor of the Rules Committee, who told him that he had not heard from you with reference to a rule on the bill providing for change of name of this Department. He told Dempsey that on word from you personally, such a rule as Dempsey wanted would be reported in promptly.

Congressman Dempsey corroborates what others have told me, namely, that if we get a rule there will be no difficulty about passing the legislation. He also thinks that the opposition is wholly the result of the activities of the Department of Agriculture and that it is localized right here in Washington. He doesn't believe that the farmers of the country are interested one way or the other in the name of this Department.

Sincerely yours,

Harold L. Ickes

Secretary of the Interior.

The President,
The White House.

PSF Ickes

THE SECRETARY OF THE INTERIOR
WASHINGTON

File "personal"

May 24, 1936

My dear Mr. President:

I have brought myself up to date on the editorial clippings which I get from all parts of the country. Most of the newspapers have paid little attention to the proposal to change the name of the Department of the Interior to that of Department of Conservation. Of those that have made comments the majority are neutral. In this connection, I have particularly in mind one chain editorial that appeared in a number of small papers in various parts of the country. Other and more individual editorials have been favorable to the idea, and I have not yet seen a single adverse one.

Sincerely yours,

Harold L. Ickes

Secretary of the Interior.

The President,
The White House.

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE PSF Ickes

1220-S

CLASS OF SERVICE

This is a full-rate Telegram or Cablegram unless its deferred character is indicated by a suitable sign above or preceding the address.

WESTERN UNION

(20)

R. B. WHITE, PRESIDENT — NEWCOMB CARLTON, CHAIRMAN OF THE BOARD — J. C. WILLEVER, FIRST VICE-PRESIDENT

SIGNS

DL = Day Letter
NM = Night Message
NL = Night Letter
LC = Deferred Cable
NLT = Cable Night Letter
Ship Radiogram

The filing time as shown in the date line on full-rate telegrams and day letters, and the time of receipt at destination as shown on all messages, is STANDARD TIME.

Received at 284 Main St, Poughkeepsie, N.Y.

1936 MAY 25 PM 1 28

MINUTES IN TRANSIT

FULL-RATE	DAY LETTER

RXNS120 159 GOVT=F WASHINGTON DC 25 1254P

THE PRESIDENT=

HYDEPARK NY=

file Hassel

REVISIONOF COMMITTEE PRINT DATED MAY EIGHTEEN OF AMENDMENT INTENDED TO BE PROPOSED BY SENATOR HAYDEN TO FIRST DEFICIENCY APPROPRIATION BILL FISCAL YEAR NINETEEN HUNDRED AND THIRTY SIX HR ONE TWO SIX TWO FOUR NOW BEFORE SENATE COMMITTEE ON APPROPRIATIONS SUGGESTED BY JESSE JONES TO COLONEL HACKETT AND SENATOR HAYDEN YESTERDAY JUST READ TO ME THIS REVISION IS WHOLLY UNSATISFACTORY AND IN MY OPINION ILL ADVISED FROM POINT OF VIEW OF ADMINISTRATION IN EFFECT IT CURTAILS DRASTICALLY EXISTING POWERS OF PWA DOES NOT GIVE PWA ADDITIONAL FUNDS AND VESTS NEW POWERS IN RFC TO MAKE LOANS DIRECTLY TO MUNICIPALITIES WITHOUT LIMITATIONS UNDERSTAND JONES STATED TO HAYDEN REVISION HAD YOUR APPROVAL IN VIEW OF OUR CONVERSATIONS THIS SEEMS INCONCEIVABLE UNLESS YOU HAVE BEEN INCORRECTLY INFORMED AS TO EFFECT AND PURPOSE OF JONES REVISION UNLESS HAYDEN COMMITTEE PRINT OF MAY EIGHTEEN CAN BE ENACTED SUBSTANTIALLY IN PRESENT FORM ANY THOUGHT OF USING REVOLVING FUND FOR FURTHER PWA PROGRAM SHOULD BE ABANDONED=

HAROLD L ICKES ADMINISTRATOR OF PUBLIC WORKS.

THE QUICKEST, SUREST AND SAFEST WAY TO SEND MONEY IS BY TELEGRAPH OR CABLE

/

PSF Ickes

P.F.

FEDERAL EMERGENCY ADMINISTRATOR
OF PUBLIC WORKS
WASHINGTON

July 24, 1936.

My dear Mr. President:

I am truly disturbed about the situation with respect to the new Public Works program. You have required that we get figures from the Works Progress Administration with reference to the situation as to men on relief in any community before we approve an application for a Public Works project. We have been conscientiously trying to do this but have run into a number of apparently insurmountable difficulties.

The first figures given to us by WPA were as of January 15, last. Obviously these were of no possible use. When we asked for later figures based upon a recheck we found some delay. Apparently there were no such figures in the Washington office. Some of the figures furnished by WPA as rechecked through the State PWA Director have disclosed discrepancies. For instance, WPA has reported as to various communities a lack of labor on relief rolls, whereas figures from other sources have been at variance with WPA reports. I annex hereto one or two examples for your information.

Autumn will soon be here. Unless we can go forward at once with our projects, particularly in the northern States, winter will again intervene, as it did last year, when we went through the same experience

of being retarded in our program through no fault of our own. Then, if history repeats itself, PWA will be charged with having failed because it is too slow. In the meantime, we are being hard beset by Congressmen and Senators and interested communities to go forward with our program.

Even if we cannot take 100% of the workers on PWA projects from relief rolls, it can hardly be doubted that the starting of these projects promptly and the building of them during the autumn and winter months would have a tonic effect on the unemployment situation. It would mean men at work. The money available for PWA projects cannot be used for direct relief or for WPA in any event. If we don't use it, it won't be used at all. Our program would mean employment to thousands of men and it would mean that a great deal of additional money would be made available for construction purposes. I refer, of course, to the 55% that the municipality would have to invest in order to get a grant of 45%.

We have tried faithfully to carry out your instructions. The delays have not been due to any act of commission or omission on our part. I respectfully suggest that it would be better to give up the whole program than to continue to stimulate hopes that projects will be approved when apparently there is little prospect of that result.

Sincerely yours,

Harold L. Ickes

Administrator.

The President,
The White House.

Enc.

FEDERAL EMERGENCY ADMINISTRATION
OF PUBLIC WORKS

INTERIOR DEPT
RECEIVED
JUL 24 1936
OFFICE OF
THE SECRETARY

July 24, 1936 WASHINGTON, D. C.

DEP'T OF THE INTERIOR
RECEIVED
JUL 24 1936
ADM. ASSISTANT
OFFICE OF THE SECRETARY

IN REPLY PLEASE REFER TO
ASST.ADM. HBH:lm

MEMORANDUM for the Administrator:

I am forwarding for your information a few examples of discrepancies in the information received from the Works Progress Administration on the availability of labor on relief rolls for PWA projects, which affected the list sent to the President on July 21, 1936.

It appears that the central office of the Works Progress Administration had some difficulty in obtaining the necessary data from WPA's various state offices. Apparently accurate records were not available in these offices for a prompt report.

In cases where the WPA has reported no labor available, or labor available only in part, I am having a check made by our State Directors to verify or correct such report.

OREGON:

The WPA reported that no labor was available for the following 8 PWA projects:

Docket No.	1008	1113
	1064	1152
	1104	1153
	1107	1157

Because of this report these projects were not included in the list sent to the President, although a check made by State Director Hockley indicates that labor was available on WPA rolls as of July 15 as follows:

Docket No.	1008	100% available
	1064	"
	1113	"
	1153	"
	1157	"

OREGON (cont'd)

Docket No. 1104	90%	available
1152	25%	"
1107	18%	"

CALIFORNIA:

The WPA reported that no labor was available on projects

Docket No. 1194 and 1442

In response to a request by State Director Wilder it was shown that this was in error and that all unskilled labor, 90% intermediate, and over 80% skilled labor was available. These projects were omitted from the list sent to the President but should have been included.

ARIZONA:

The WPA reported that no labor was available for project

Docket No. 1033

A report made by Acting State Director Reed indicates that the Arizona WPA office was unable to furnish accurate data on labor available; that 220 WPA workers had been laid off last Thursday and were available for this project.

A telegram from Mayor Wheelock of Safford, Arizona, states that an average of 250 men is necessary to construct this project and that there is available on WPA rolls in the district approximately 1500.

This project was included in the list sent to the President.

TEXAS:

The WPA reported that no skilled, unskilled or intermediate labor was available on project

Docket No. 1555

A telegram from State Director Montgomery reports that the National Reemployment Service in San Patricio County advises that 105 men are now working on WPA projects and that 86 are awaiting an assignment, making a total of 191 eligible workers. This project was omitted from the list forwarded to the President.

VIRGINIA:

The WPA reported that no labor was available on project

Docket Nos. 1066 and 1067

Upon request of State Director Anderson a check was made on this information and it was determined that 90% of the labor for both projects was available.

These two projects were omitted from the list sent to the President.

This list covers projects selected at random from reports received from all of the states. Apparently the records of the Works Progress Administration on the amount of relief labor available is not as complete and accurate as WPA's monthly reports indicate.

Horatio B Hackett

HORATIO B. HACKETT
Assistant Administrator

PSF
Interior
Ickes

File
Personal

THE SECRETARY OF THE INTERIOR
WASHINGTON

THE WHITE HOUSE
SEP. 6 1936
RECEIVED

September 4, 1936.

My dear Mr. President:

I appreciate your telegraphing me as you did under date of August 31 from Sidney, Nebraska. Wilmarth's death was a terrible blow to Betty and his children. I don't know anyone who had a lovelier family than he and it is incomprehensible to me that he should have done what he did.

I have followed your trip with keen interest through the newspapers and I hope that everything has worked out to your satisfaction.

Thanking you again, and with personal regards, I am,

Sincerely yours,

Harold L. Ickes

The President,
The White House.

1936 PSF P. J. Ickes

Hall says not to send this Ickes
but to give FDR with whom he
has talked. Hall made 2
suggestions to FDR which would help.

THE WHITE HOUSE
WASHINGTON

December 15, 1936

PSF
Ickes

My dear Mr. Secretary:

Thank you very much for your letter on the slum clearance program in Detroit. Does not it seem to you, however, that it has taken a long time to find this out? Could not some other way to lower costs be devised?

Very sincerely yours,

THE WHITE HOUSE
WASHINGTON

Hon. Harold L. Ickes
Public Works Administrator
Washington
D.C.

Hon. Harold L. Ickes
Public Works Administrator
Washington

December 15, 19.

My dear Mr. Secretary:

Thank you very much for your letter on the slum clearance program in Detroit. Does not it seem to you, however, that it has taken a long time to find this out? Could not some other way to lower costs be devised?

Very sincerely yours,

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Ickes

FEDERAL EMERGENCY ADMINISTRATOR
OF PUBLIC WORKS
WASHINGTON

DELIVER AT ONCE
BY
SPECIAL MESSENGER

PENALTY FOR PRIVATE USE TO AVOID
PAYMENT OF POSTAGE $300

Mrs. Franklin D. Roosevelt,
The White House,
Washington, D. C.

ack 12-15

PSF Ickes

FEDERAL EMERGENCY ADMINISTRATOR
OF PUBLIC WORKS
WASHINGTON

December 9, 1936.

DEC 11 1936

Mrs. Franklin D. Roosevelt,
The White House,
Washington, D. C.

My dear Mrs. Roosevelt:

Your letter of December 1 has been received. I have secured a report on the delay in going ahead with the slum clearance program in Detroit.

The difficulty is in connection with the bids received for the construction of the projects. Just in advance of the time for receipt of bids on construction projects, the Housing Division prepares an estimate of the cost of the work. This estimate is based on the latest available material quotations and full union rates or the prevailing wage scale in the locality, depending upon which is applicable. The estimate includes, in addition to labor and materials, adequate provisions for overhead and profit. The correctness of such an estimate is indicated by the fact that awards are not recommended unless the figures received are in line with it. On this basis awards have been recommended on approximately $100,000,000 worth of work to date.

The following tabulation gives a comparison on the two Detroit projects:

Item	Brewster H-1201	Parkside H-1205
Date of Bids	Sept. 23, 1936	Oct. 20, 1936
Low Bid	$3,774,900	$4,013,000
Housing Division Estimate	2,907,000	3,425,000
Excess of Estimate	867,900	588,000

The excess represents, in rent, 98 cents per room per month on Brewster and 52 cents per room per month on Parkside or a total of $2,725,000 over the 60-year amortization period. The high figures received and the increase in rent as a result of the high figures are such that the Director of Housing recommended rejection of all bids.

At the present time, the Housing Division is redesigning both projects with a view to decreasing capital cost materially and, as a result, lowering the rents. It is expected that preliminary plans covering this redesign will be completed in from 30 to 45 days. On the completion of working drawings, the Director of Housing proposes to advertise again, but if bids received at that time are not in line with Housing Division estimates, he again would recommend their rejection.

Sincerely yours,

Harold L. Ickes

Administrator.

December 1, 1936

70

My dear Mr. Secretary:

I wonder if you would give me some information about the Slum Clearance program in Detroit. The matter was presented to me when I was in that city about ten days ago and I should like to know why the program is not moving more rapidly. The story is that cost of labor and materials is higher but people in Detroit feel that is not the real reason.

Very sincerely yours,

Honorable Harold L. Ickes
The Secretary of the Interior

DD

PSF Ickes

file personal

THE SECRETARY OF THE INTERIOR
WASHINGTON

December 28, 1936.

My dear Mr. President:

I am especially happy to have the bound copy of your Chautauqua address that you sent me as a Christmas gift. I think this address is one of the most important ones that you have ever made, and its importance is likely to increase in the future, especially if present war-like trends in Europe develop to their indicated fruition. Your inscription makes this book all the more valued.

If you will let me have back the album of Park stamps that I sent you, I will have added blocks of the large ungummed issue of imperforates. It needs these stamps in order to be complete, and I did not have the time to put these in before Christmas.

Thanking you again for all you have done for me and for your great consideration of me, I am,

Sincerely yours,

Harold L. Ickes

The President,
The White House.

Tully - 14

PSF Ickes

December 28, 1936.

Dear Harold:-

I am delighted to have the beautifully made up Album and the Park series stamps and they go in the glass bookcase where I keep my treasures. Ever so many thanks.

Also those two Haitis fill a very definite blank in the Haiti book and they are, as a matter of fact, much scarcer than their catalogue value indicates. In buying several small collections of Haitis I have never found one.

While I am on the subject of stamps, I wish you would give consideration to improving our stamps, especially the memorials. We try to put too many things on them, and, frankly, I do not think they compare favorably with many similar stamps issued by other nations. I do not know whether we should go to the lithographic process or not. Perhaps you would run over your collection and give me an idea of what types you think we could consider. This is something I want to take up with the Post Office Department and the Bureau of Engraving and Printing as soon as possible.

As ever yours,

The Honorable
The Secretary of the Interior,
Department of the Interior,
Washington, D. C.

See Ickes
PSF Ickes

PERSONAL & ~~CONFIDENTIAL~~

December 28, 1936.

MEMORANDUM FOR

THE SECRETARY OF THE INTERIOR

I have spoken with one or two people of good judgment in regard to the idea of calling the Virgin Islands Company Rum "Government Rum." The reaction is one hundred per cent against it. All of these people are greatly disturbed at the thought because they feel there would be criticism in every part of the country if any liquor were put out as Government Rum. The fact is, of course, that while the Government put up the necessary loan to get the company started, it is a corporation.

I have continued to ask for suggestions and here are two:

1. Call the Rum "St. Croix Rum" as I have always wanted from the beginning. I realize that this cannot be trade-marked as an exclusive name, but the illustration on the label can be trade-marked and in the advertising, etc., the words "Look for the Trade-Mark" can be emphasized. I am told that a small amount of rum is now being sold as St. Croix Rum but that if we put out our supply with the trade-mark illustration on the label the problem would be solved.

2. The other suggestion is to call it "Governor's Rum" with the picture of a mythological uniformed Governor of the Seventeenth Century era.

Let me know what you think.

F. D. R.