



INDEPENDENT OFFICES APPROPRIATION BILL, 1928

HEARING

BEFORE

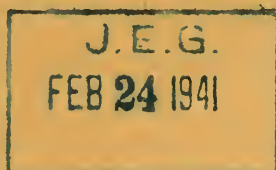
SUBCOMMITTEE OF HOUSE COMMITTEE ON APPROPRIATIONS

CONSISTING OF

MESSES. WILLIAM R. WOOD (CHAIRMAN),
EDWARD H. WASON, JOHN W. SUMMERS, JOHN N. SANDLIN,
AND THOMAS H. CULLEN

IN CHARGE OF THE

INDEPENDENT OFFICES APPROPRIATION BILL FOR 1928





WEDNESDAY, DECEMBER 22, 1926.

SMITHSONIAN INSTITUTION

STATEMENT OF HON. R. WALTON MOORE, A REPRESENTATIVE
IN CONGRESS FROM THE STATE OF VIRGINIA; MEMBER OF
THE BOARD OF REGENTS, SMITHSONIAN INSTITUTION

INCREASE IN SALARIES OF PERSONNEL

Mr. MOORE. Mr. Chairman, I happen to be a member of the Board of Regents and I hold in my hand a letter from Doctor Walcott, the secretary of the Smithsonian Institution, which I think I had best read. It is not lengthy, and it indicates to you his requests. It is under date of December 20:

SMITHSONIAN INSTITUTION,
Washington, December 20, 1926.

DEAR MR. MOORE: In connection with the hearing on the Smithsonian items in the independent offices appropriation bill, which is to be held in that committee room at 2 o'clock on the afternoon of Wednesday, December 22, I beg to call attention to the following matters which are of great importance to our work:

1. In the preliminary estimates submitted to the Bureau of the Budget a provision was included to allow the increase in salary of one step in the grade of those employees who had attained satisfactory efficiency ratings, as contemplated in the reclassification act. A large number of the employees under the institution are still receiving the initial salary of the grade to which they were allotted when reclassification went into effect, notwithstanding the fact that they have held for over two years efficiency ratings entitling them to advances as contemplated by that act. This matter has, for the past two years, been brought to the attention of the Bureau of the Budget in the preliminary estimates, but except in a few instances, no provision has been allowed for increases in salary. Many of our employees are therefore still receiving lower pay than employees in other branches of the Government doing the same grade of work. This condition is a real injustice to our employees and naturally impairs the morale of our staff, who feel that they are discriminated against. Owing to the smallness of the several appropriations, and the limitation of the amount that can be paid for salaries prescribed, it has been impracticable to remedy this condition without special provision therefor. The total amount that would be required to be added to the several appropriations, as shown below, is \$23,340.

To promote employees who have attained satisfactory efficiency ratings, one rate in their respective grades:

International Exchanges, to promote 9 employees 1 rate.....	\$595
American Ethnology, to promote 14 employees 1 rate.....	1, 560
International Catalogue of Scientific Literature, to promote 3 employees 1 rate.....	260
Astrophysical Observatory, to promote 8 employees 1 rate.....	880
United States National Museum, preservation of collections, to promote 253 employees 1 rate.....	19, 070
National Gallery of Art, to promote 13 employees 1 rate.....	975
	<hr/>
	23, 340

(The salary limitation in each appropriation should also be increased by the respective amounts indicated above.)

2. Irrespective of item 1, the salary limitation of the two following appropriations should be increased:

International Catalogue of Scientific Literature, from \$6,775 to \$6,850.

Heating and lighting, National Museum, from \$44,040 to \$45,240.

These slight increases in the salary limitation above the actual salary list were allowed by Congress last year to provide for temporary employees, etc.

3. Printing and binding: This appropriation for the past three years has carried \$90,000, which amount has been barely sufficient to meet the current needs of the institution. There is shown in the estimates as presented only

\$85,000, a loss of \$5,000. Any reduction from the current amount will necessitate delaying publication of the results of the scientific investigations of the members of the staff, and hinder the dissemination of knowledge on the part of the institution. It is felt that the appropriation should be restored to \$90,000.

Should the reduction indicated prevail, the provision in the text of the law, setting aside \$7,000 in this appropriation for printing reports of the American Historical Association, should be reduced to \$6,500 in order that this allotment should bear its proportionate share of the reduction.

Very truly yours,

CHARLES D. WALCOTT, *Secretary.*

HON. R. WALTON MOORE,
*Regent of the Smithsonian Institution,
United States House of Representatives.*

Mr. SANDLIN. Do you wish to supplement your statement with any remarks?

Mr. MOORE. Doctor Walcott is present with several members of his staff, including Doctor Wetmore, and they are prepared to furnish any further information that the committee may desire and to answer any questions.

WEDNESDAY, DECEMBER 22, 1926.

**STATEMENT OF HON. WALTER H. NEWTON, A REPRESENTATIVE
IN CONGRESS FROM THE STATE OF MINNESOTA, MEMBER OF
BOARD OF REGENTS, SMITHSONIAN INSTITUTION**

SALARY ADJUSTMENTS

Mr. WOOD. Is there any statement you wish to make, Mr. Newton?

Mr. NEWTON. I merely wanted to say, Mr. Chairman, that as a member of the Board of Regents, I appear here in support of the general requests that have been made with reference to the adjustment of salaries of the employees of the Smithsonian and allied institutions. They ought not to be discriminated against. As I understand it, because of the limited provision that has been made, they are being denied the necessary salary promotions that would be given them if they happened to be in some of the other branches of the Government service.

Mr. WOOD. The thing I do not understand, and I do not suppose the committee understands it, is why the Budget, after having been informed of the facts with reference to this matter, and knowing of the general advance in salaries under the reclassification act, have not recommended it for this institution.

Mr. NEWTON. I find it very difficult to understand that.

This institution is doing a very fine service and I do not understand why the Budget should take the attitude that it does, except that in the desire to pare and to keep down the expenditures, they have gone about it more or less arbitrarily.

Mr. WOOD. There is nothing in reclassification that discriminates against this institution as compared with other institutions.

Mr. NEWTON. Not that I know of. Of course, I can not speak technically, but that is my understanding. The fault lies in the allotment of moneys to the institution so that there can not be that adjustment that would otherwise come under reclassification, if the allotment of moneys were sufficient.

Mr. DORSEY. The people came in at such a low rate that they can not get the money that the others are getting.

HEATING AND LIGHTING

Mr. NEWTON. You are not quite ready for it, and I do not want to anticipate anything—but I am interested in the item of heating and lighting and also the item of printing and binding; but I shall be glad to stay until you reach those items in the bill.

Mr. WOOD. I understand from Mr. Wetmore that the item of heating and lighting, so far as salaries are concerned, has been cared for.

Mr. WETMORE. May I explain, sir, that there is an item of adjustment there? You may recall that last year you fixed the salary limitation on that roll at \$1,200 above the actual salary roll. This was to permit us a certain flexibility in shifting our mechanics from one roll to another, in handling special work that might come up.

In making the increase in the salary roll of \$1,360 which I mentioned, the Budget figures for some reason dropped out that \$1,200 leeway in the limitation. In other words, they fixed the salary limitation at exactly the salary roll. What we should like to do would be to see the salary limitation raised \$1,200 to permit this change that I speak of. I can bring that up at the proper time.

PRINTING AND BINDING

Mr. NEWTON. Then there is this item of reduction below the current year of \$5,000 in printing and binding. I do not know why the Budget should curtail that below the figure that we have had for the current year. I do not know of any reason for it. The demand for the documents is there. It can not be satisfied in time. What we have been trying to do is to get an appropriation which would enable the publication of these documents somewhat current. They got quite far behind during the war.

Mr. WOOD. I thought that we did that once or twice in other appropriations.

Mr. NEWTON. That has been our aim, and we have had the assistance of your committee, but this year the Budget has trimmed it down \$5,000.

Mr. WOOD. Did we not make an appropriation last year sufficient to bring the publications up to current?

Mr. NEWTON. We made an increase with that in mind. Just how successful it was, I am not prepared to say.

Mr. DORSEY. The Budget has made a reduction in the amount below the current appropriation of last year and the committee was good enough to put the figure back at \$90,000, which is the existing figure for the year previous.

Mr. NEWTON. Now they have gone back again, just as they did before, but not quite so much. They do not seem to have the idea of cooperating with Congress. We have made it known what the purpose and intent of Congress is with respect to this institution, but for some reason or other the Budget does not seem to be inclined to cooperate.

Mr. WOOD. I suppose they have arbitrarily cut all these institutions without regard to the real necessities. In some of them the cuts are warranted; perhaps we can even cut them some more.

Mr. WASON. As I understand you, if you have \$90,000, you can get along comfortably?

Mr. WETMORE. \$90,000 will give us the same appropriation that we have this year and is sufficient for our needs.

Mr. SANDLIN. How nearly current are you on those publications?

Mr. WETMORE. We are fairly well up to date except in the Bureau of American Ethnology. That bureau has a number of manuscripts behind. But at the present time, for the current year, we have \$90,000 available. At the present time there has been allotted more than \$70,000 of that sum. In other words, with the year half gone, I find less than \$20,000 still available to be used for printing.

Mr. WOOD. If we made an appropriation sufficient to bring your work up current, could a reduction then be made in your annual appropriations after that?

Mr. WETMORE. Mr. Chairman, if we can have the current appropriation as it stands for this year of \$90,000, we can handle the matter on that basis. We can care for the small accumulation of back numbers that remain, and keep things up to date.

Mr. WOOD. Then what would happen, would you need \$90,000 more?

Mr. WETMORE. Yes, sir.

Mr. WOOD. It means then, according to the amount of work you are getting out, an annual appropriation of \$90,000?

Mr. WETMORE. Yes, sir. We estimate that it requires that amount for our current needs.

Mr. WOOD. It seems that you are current now, but in order to keep current you have got to have an appropriation of \$90,000 annually?

Mr. WETMORE. Yes, sir.

Mr. WOOD. Then you are not in arrears?

Mr. WETMORE. We are in arrears in the Bureau of American Ethnology, but in the National Museum, which is the other large publishing agency, aside from the Smithsonian Institution, we are practically up to date.

Mr. NEWTON. That is where we were behind, in the publication of those documents. We were about two years behind. That is where the principal complaint was.

WASHINGTON, DECEMBER 22, 1926.

STATEMENTS OF DR. C. D. WALCOTT, SECRETARY; DR. ALEXANDER WETMORE, ASSISTANT SECRETARY; DR. J. WALTER FEWKES, CHIEF, BUREAU OF AMERICAN ETHNOLOGY; LEONARD C. GUNNELL, ASSISTANT IN CHARGE REGIONAL BUREAU FOR THE UNITED STATES OF THE INTERNATIONAL CATALOGUE OF SCIENTIFIC LITERATURE; L. P. ALDRICH, ASSISTANT, ASTROPHYSICAL OBSERVATORY; AND H. W. DORSEY, CHIEF CLERK

Mr. WOOD. Doctor Walcott, do you wish to make a statement?

Doctor WALCOTT. Mr. Chairman, the various members who are in direct charge of these various lines of work are present, and they can explain the work that they are carrying on far better than I can.

SALARY INCREASES

Doctor WETMORE. Do you wish to hear any statement regarding the proposed increase in salaries before taking up the regular items?

Mr. WOOD. That would be in sequence with what Mr. Moore has already said.

Doctor WETMORE. As Mr. Moore has stated, in the Smithsonian Institution, since the reclassification of employees on July 1, 1924, we have had three surveys of the efficiency of the staff in accordance with law. It has been found that the majority of persons on the staff have attained such an efficiency in their work that they are entitled under the law to promotions at the regular rates assigned.

Mr. WOOD. How is it that they have not been promoted and that reclassification has not applied to them?

Mr. WETMORE. Our balance in the various appropriations above the actual salary roll is so small that we have not been able to put merited salary increases into effect. Last year, for example, Preservation of Collections, which is the largest appropriation of the National Museum, with a total of \$441,082 there was a salary roll of \$428,598 leaving a balance above the salary roll of only \$12,284.

From that sum we had to purchase all the miscellaneous stationery and other supplies, scientific and otherwise, for the upkeep of the National Museum. Our leeway, so to speak, in all these appropriations is similar. The amounts are so small that it has not been possible to assign any definite part of it to the salary roll for promotions. Nor have there been salaried positions that could be abolished and the money distributed elsewhere, as our staff is now at an absolute minimum for efficiency.

The matter has been discussed with the Bureau of the Budget at all of our hearings. We have been able to get the necessary funds for increase on one of the smaller rolls, that of Building Repairs under the National Museum. There was concerned there a matter of a thousand dollars.

Mr. WOOD. If they granted the increase on one, why did they not grant the increase on the rest?

Mr. WETMORE. That, sir, I can not explain.

Mr. WOOD. Did you present the facts with reference to all these other rolls?

Mr. WETMORE. Yes, sir; the facts have been presented at each of the hearings.

In the present estimates, the Budget has taken cognizance of our argument in relation to the employees under "Heating and lighting." There was involved there the sum of \$1,360 for the promotion of eligible employees. That is included in the estimates as you see them before you, but in no other case has such provision been made for the year 1928 which is now under discussion.

At the present time we have a total of 349 employees under the Smithsonian Institution who still receive the initial salary of their grades. There are 67 whose salaries range between the initial rate and the average for their grades, and there are 25 above the average.

You will see, sir, that there are a very large number who are still receiving the initial salary which reclassification put into effect. A great majority of these people are receiving a low rate of pay. We have 68 watchmen, including those for the National Museum and the Freer Gallery, who get only \$1,020 a year.

AVERAGE PAY OF WATCHMEN

Mr. WOOD. What are other employees in other departments who are doing this same kind of work getting?

Mr. WETMORE. Our rate for watchmen and underclerks is below that of other departments. If we compare, for example, with Agriculture, our next door neighbor, we find that they are paying their clerical force more than we are.

Mr. WOOD. Are they paying their watchmen more than you are?

Mr. WETMORE. I am not informed on that point. If you wish that information, I will put it in the record.

Mr. WOOD. Yes, sir.

NOTE.—From the current volume of the Budget it appears that at present the following salaries are paid to watchmen in the departments indicated, under custodial service, grade 3, \$1,020 to \$1,260; average, \$1,080:

	Average
War Department.....	\$1,080
Naval Observatory.....	1,080
Department of Agriculture.....	1,054
Treasury Department.....	1,037
Post Office Department.....	1,024

The Smithsonian Institution has 68 watchmen in this grade who receive \$1,020 per year and 1 who receives \$1,080. The average is \$1,021.

Mr. WETMORE. The War and Navy, I understand, are paying more for their watchmen. As I have said, our men are getting \$1,020 a year. That means \$85 a month. In addition to that, they are subject to the discount of 3½ per cent for the retirement fund. Of course, that is to their ultimate advantage, but at the same time it means approximately \$3 per month taken away from them at the present on a very small salary.

The amount deducted for retirement means a great deal to people in the lower grades.

AVERAGE PAY OF ALL EMPLOYEES

Mr. WOOD. I do not understand why this reclassification increase has not applied to your department as it has applied to everybody else.

Mr. WETMORE. The reclassification act specified that employees should be taken over at no reduction in salary, but at the next amount above what they were then receiving. When reclassification was put into effect, our employees were at a low rate already and were, therefore, not as much favored as some of the other departments where the salary before reclassification was higher.

At the present time, our average salary for the entire institution is \$1,494.

According to the figures published by the Budget, the average salary for the entire Government service is \$1,819.

According to the figures in the present Budget, the Smithsonian Institution stands third in the series from the bottom. In the estimates for 1928 the District of Columbia stands at \$1,490 and Public Buildings and Grounds at \$1,121. Their low rate, of course, is due to the fact that they have a large number of laborers on the

roll. All other departments range higher, considerably higher, than we do.

Mr. SANDLIN. According to these figures, your average salary is \$1,307.

Mr. WETMORE. That, I think, is an error, sir. I do not understand that figure. Our own figures show \$1,494. For 1927, I might say, our own figures show \$1,485.

AMOUNT REQUIRED TO EFFECT PROMOTIONS

Mr. WOOD. According to the Budget tabulation, your average is \$1,307, and that of the Public Buildings and Grounds \$1,167. In order to bring your salary roll up to within the grades allowed by reclassification, how much would have to be added to the appropriation?

Mr. WETMORE. \$23,340 would give us the amount that we estimate for the promotion of those employees who have attained proper efficiency ratings, one step in their various grades. This will still leave the majority below the average for their grades.

Mr. WOOD. Did you report these facts to the Budget at the time that you submitted your estimates?

Mr. WETMORE. Yes, sir; in the preliminary estimates those were included.

Mr. WOOD. Do you know of any reason why they should not grant it?

Mr. WETMORE. No, sir.

Mr. WOOD. Mr. Wason has suggested asking you whether they called on you for any explanation for this increase.

Mr. WETMORE. The matter has been discussed before them fully. At the last hearing cognizance was taken of the situation under one roll under the National Museum, that for heating and lighting. There is included in the estimates \$1,360 to cover the promotions in that particular roll.

Mr. WOOD. When did you have the matter up with the Budget?

Mr. WETMORE. About the middle of the month of September; I do not remember the exact date. There was a hearing at the time our estimates for 1928 were up for consideration before the Budget.

Mr. WOOD. Are there any other of your departments that are affected that do not have their employees in the same grade that reclassification has placed the others? Have you included all of them in your estimate of \$23,340?

Mr. WETMORE. That is all included in that amount of \$23,340. The various amounts concerned and their relations to the different appropriations are indicated in the memorandum that Mr. Moore has submitted to you. If you wish, I can bring them to your attention as the various appropriations are discussed.

Mr. WOOD. I wish you would.

Mr. WETMORE. I shall do so.

Mr. WOOD. Is that all you have to say with reference to this item?

QUALIFICATIONS OF WATCHMEN

Mr. WETMORE. I may make one statement here in regard to the watchmen. We require a somewhat different grade of men than found in the ordinary doorkeeper job. Our guards must be intelligent, so that they have some knowledge of the collections and the exhibits in order that they may direct visitors, and furthermore we must demand absolute integrity and honesty, as these men are guarding objects worth many thousands of dollars.

Mr. WOOD. Are they under bond?

Mr. WETMORE. No, sir.

Mr. WOOD. Do you pay your watchmen more than other departments are paying?

Mr. WETMORE. No, sir.

Mr. WOOD. You do not pay them more?

Mr. WETMORE. We do not pay them as much as they get in some places. Various police and other guards get far more.

INTERNATIONAL EXCHANGES

Mr. WOOD. We will take up the first item, international exchanges: For the system of international exchanges between the United States and foreign countries, etc.

Mr. WETMORE. Mr. Dorsey, will you answer for that item?

Mr. DORSEY. Mr. Chairman, the appropriation asked is the same amount that we have for the current year.

The amount of business that is being conducted by the exchange service for the first five months of the current year shows an increase of about 20 per cent. Also, the ocean freight rates have increased recently on some of the lines from 10 to 20 per cent. So that we will need the whole of the amount requested as submitted by the Bureau of the Budget in the estimates, to carry on the work during this year.

We have had to put on in the last few days a temporary clerk, an extra temporary clerk, that we have been trying to do without for the past year or so, but that will only be temporary, and I think that we can get through on the present basis, sir; but we will have to work very carefully.

There has been quite a large increase recently in the number of packages which we are handling for the Department of Agriculture. They had been sending a good deal of their material by mail, but in order to take advantage of the lower rate at which the exchange service can transmit them, they are sending them to us. It makes quite an increase in our work, but we can get through with the present appropriation, I think, sir, all right.

NUMBER OF PACKAGES HANDLED

Mr. WOOD. Have you a statement of the number of packages you have handled?

Mr. DORSEY. Yes, sir. During the past year there has been a total of 480,000 packages handled. That is an increase of 12,000 over the preceding year, 1925. The weight of these packages was 558,493 pounds, a gain of 52,329 pounds over the preceding year.

Mr. WOOD. What do they consist of?

Mr. DORSEY. They consist of the documents printed by order of Congress, which are distributed to various foreign governments in accordance with international exchange treaty stipulations, and the publications of the departments going to their recipients abroad; the publications of learned societies in this country which go to similar institutions in foreign lands, and publications of individuals, scientific men, who are sending reports of their researches abroad to their exchanges.

Mr. WOOD. Do you send everything that is published or do you send just such articles as are requested?

Mr. DORSEY. Just the publications that are sent to us by the departments to supply the demands of their foreign exchanges, and their foreign correspondents. We have no discretion about where they should go. They come to us and we forward them.

Mr. WOOD. Do you send the quantities they request, or do you send a certain amount regardless of whether it is requested or not?

Mr. DORSEY. No, sir; they come to us with the addresses indicated. We simply act as a forwarding agency.

VALUE OF DOCUMENTS SENT AND RECEIVED

Mr. WOOD. You are not sending a lot of stuff over there to be thrown in the wastebasket after they get it, are you?

Mr. DORSEY. We hope not. I have some letters from foreign establishments saying how much they appreciate the service and what benefit it is to them to get these publications.

Mr. WOOD. How much of the stuff that they send to you in exchange is of real, practical value?

Mr. DORSEY. I should judge, from the correspondence that goes over my desk, that they must be of great value, because if there is any delay in the transmission of these things, there is a prompt complaint.

Mr. WOOD. I should think the best evidence would be whether you get an accumulation of this stuff more than there is demand for.

Every Member of Congress gets a lot of stuff every week that he simply throws in the wastebasket. I suppose that thousands and even millions of dollars are simply thrown away by the Government in sending stuff indiscriminately, whether there is any request for it or not. It is an utter waste. I do not know whether that applies to your institution as it does to some of the other branches of the Government or not.

Mr. DORSEY. I think they serve a useful purpose, because there is a demand for them. As I say, there is always a complaint if there is any delay in the transmission of these things, showing that the scientific institutions and the Government departments are anxious to get them, sir.

Mr. WOOD. If Congressmen were to try to keep all the stuff that comes into their offices, they would be crowded out of the room before the end of the year.

Mr. DORSEY. I know that, sir.

Mr. WETMORE. The matter transmitted by the International Exchange, Mr. Chairman, is largely scientific in its nature and, as such, is very highly prized by its recipients. We have many in-

quiries from persons who write to us that they are informed that certain things have been sent to them through the International Exchange, and if they do not arrive promptly they want to know where they are. They try to trace them to see if they have been lost in any way.

Mr. WOOD. So that you think that you will have need for all of this amount of \$46,260 for this purpose?

Mr. DORSEY. Yes, sir.

FOR SALARY INCREASES

Mr. WOOD. Is anybody under this item affected by the increased salary proposition that we have been talking about?

Mr. WETMORE. We have estimated \$595 to permit the promotion of nine employees, one rate in their respective grades. That is the first item mentioned in the letter Mr. Moore submitted to the committee. There is asked here for funds for the promotion of nine out of fourteen on the roll.

AMERICAN ETHNOLOGY

Mr. WOOD. We will take up the item, American Ethnology. Doctor Fewkes, will you tell us about that?

Doctor FEWKES. I presume that we have accomplished more this year than in any preceding year since I have been connected with the Bureau of American Ethnology; I mean, real discoveries through field work and later, through publications.

I have had several members of the staff in different fields, two in Alaska, one in Florida, one in southern Mississippi, Louisiana, and Florida—altogether nine people without mentioning my own work, which has been in Arizona.

WORK IN ARIZONA

Starting with the last mentioned, I would say that as in previous years, I have been trying to meet a want which is very strong, especially among the traveling public tourists and scientific men.

We have come to be, through the influence of the automobile and the idea of seeing American first, a traveling nation. It has come to this, that the chambers of commerce and inhabitants of different places in the Southwest are trying to increase their attractions as much as possible through their scenic beauties and through their anthropological and historical monuments.

That is, we have told them there is a whole lot to see in our country and not to go abroad to see things.

Now, it is up to us to develop our antiquities so they will have something to see. If you see a pile of stones, that is not much; but take this pile of stones and dig it out and publish a good report on it and you have much to see and to set people thinking. The people in the different regions regard that as an asset to their city; that is exactly the work which I did in Arizona this summer.

Flagstaff, Ariz., is right in the focus, so to speak, of the most wonderful scenic beauties in this country. No American who has traveled ought to neglect going to the Grand Canyon, and there you

have the great bridges and you have four or five different things which are among the most remarkable attractions in the Southwest.

This city is also in the midst of a very interesting archæological locality. So, of course, in order to fulfill one of the provisions of the appropriation, the excavation and repair of ruins, I went out to Flagstaff in May this summer and continued out there about four months.

ELDEN PUEBLO

Looking around I found, 6 miles from Flagstaff, a clearing in the great pine forests, which have already been denuded of the larger trees. Now, we want to save the trees. As I say, I found in one of those clearings evidences of a great ruin. I began the excavation of a place which I later called the Elden pueblo, from the fact that it is right under most beautiful volcanic cones of Flagstaff. I had not been working there more than three or four days before over a hundred visitors a day stopped at the ruin, because it is right on that great National Trails Highway which goes from the Pacific coast into the Santa Fe region.

That road is traversed by hundreds of automobiles and every one stopped and people alighted and came up to see what I was doing. I did not hesitate to tell them. In fact, I could not help telling them. A good many of the questions they asked I could not answer, but that was not the point. I was able to diffuse a knowledge of the people who once lived in that neighborhood.

Mr. Wood. What did you find there?

Doctor FEWKES. It is going to take a large report to tell all the things, but I found, in the first place, a village which had never been described before. This is a good picture [indicating photograph], which shows how the site looked when I started. It is the most unpromising looking place and many a man in Flagstaff told me that he had punched cattle and herded sheep over it and never dreamed that there was anything under the surface.

Mr. Wood. How did you discover that there was anything under the surface?

Doctor FEWKES. The tops of the walls, which I am going to show you in a short while, were in a way aligned. You could see the rocks in lines, and many of them were more or less dressed, that is, prepared for masonry. Following down one of these lines to their base, I found many rooms of a village.

That is the pueblo as it looked when I got through with it [indicating photograph]. It was a pueblo 150 feet long by 125 feet wide. I not only dug that out, by removing all the dirt from around it, but likewise added cement in pointing it and cemented the top to prevent the rain, snow, and frost from getting into the masonry and tearing it to pieces.

Mr. Wood. How much of this work as it appears there was supplanted by you after you dug it out?

Doctor FEWKES. None. The sky line is exactly the same as the top surface when I started. I did not add a stone to it except where it was necessary to prevent the wall from falling. That was repair.

Mr. Wood. How thick are those walls?

Doctor FEWKES. Two and a half feet to 3 feet.

Mr. Wood. What kind of stone is that?

Doctor FEWKES. Lava, mostly lava; that is a lava country and black rock, which is not very readily worked.

You understand, I removed the earth from the outside. I have not built up the walls at all; but removed the surrounding earth so it will stand up, rise out of the ground, so to speak. I put in the cement there in order to keep the water from getting into the wall and then freezing, and throwing it down.

DISCOVERY OF CEMETERIES

Here is a view that shows some visitors that we had when we were at work [indicating photograph]. I discovered two cemeteries, one on the east side and one on the north side.

Mr. WOOD. Near this place?

Doctor FEWKES. Right within 200 feet; in fact, the nearest one is about halfway between the road and the ruin—about 200 feet from the ruin and about 200 yards from the road.

Mr. WOOD. What did you find there?

Doctor FEWKES. We found there the burials of the past. I think that there were about 150 different burials.

Mr. WOOD. Did you find the skeletons?

Doctor FEWKES. Yes; I brought back some of them for those who study human anatomy and made pictures of them. That print shows how the skeletons looked [referring to photographs].

Mr. WOOD. You did not find these skeletons in as perfect form as these pictures indicate, did you? Did you articulate them?

Doctor FEWKES. No; oftentimes badgers had gotten in and carried off some of the finger bones, etc., but we have very many good specimens that can be shown on exhibition in the Museum.

Mr. WOOD. Can the scientific gentlemen tell anything about the character of these people that inhabited those regions from these studies?

Doctor FEWKES. Yes. Here is another one [indicating photograph]. I have not brought my best photographs for the reason that I sent in a long report to the editor for publication.

Mr. WOOD. I see that you found some pottery.

Doctor FEWKES. Every skeleton is accompanied by mortuary pottery, sometimes as many as seven and eight specimens. Every skeleton wore ornaments—turquoise beads, turquoise earrings, and little stones put in the nose as ornaments; armlets, bracelets, finger rings. There was no evidence, however, of any clothing. Their relatives left the dead there, buried on their backs, as a general thing, with their heads toward the east. That was necessary because in their religious ideas they believed in immortality, that after a few days they thought the dead would arise and follow the sun into the other world, where they lived, according to their belief.

This pottery contained food which the dead were supposed to consume while they were waiting there. As I have pointed out, probably the coyotes ate the food, but the Indians who were there said no, their spirits ate the spirit food and their breath bodies ate the breath bodies of the food. I had visitors during my work there from the Hopi Indian villages, something like 120 miles away. I sat down on those walls and talked over the ancient people of this place. I said: "Do you know who lived here?"

They said: "Yes, our ancestors lived here. The objects you are finding here are the same kind of things, many of them, that we use now. We use them now in our burial ceremonies, our religious rites, etc." They did not have a name for the pueblo, but they knew it belonged to the Hopi Indians.

SIGNIFICANCE OF DESIGNS ON POTTERY

We found in these burials something like 500 complete jars, bowls, dippers, cups, mugs, etc.

Mr. WOOD. What were they made of; clay?

Doctor FEWKES. They were made of burnt clay. They are of different colors—bright reds, black and white, etc., with decorations on them. For instance, I have here an example of one of their black and white ladles [exhibiting an illustration].

Now, to an ethnologist or an archæologist these designs mean something. They mean kinship. They are practically all we have of the alphabet of these people. If the ancient indians at Flagstaff made a design which is reduplicated up near Santa Fe, we have strong evidence that the people who made those designs were kin, because they are so intricate and so characteristic; and naturally this is the only way we have of telling anything about the kinship.

These designs also are symbolic. They mean something. They were not put on haphazard, with a desire solely to beautify the inside of the pottery, but they had a symbolism. There were friendship signs; there were swastikas; every design which the old Greeks had except one was pictured by our ancients in the Southwest.

Mr. WOOD. You have discovered these ruins in many different parts of the country?

Doctor FEWKES. Yes, sir.

Mr. WOOD. Are they all similar, showing that it was the same class of people that built them?

Doctor FEWKES. No, sir. An expert can tell at a glance a piece of pottery that comes from near Santa Fe from one that comes from near the Grand Canyon.

Mr. WOOD. Would that indicate that it was a different age in which they lived?

Doctor FEWKES. It may eventually. Just now it does not. But it indicates what we call a different culture; that is, a people who had many differences in their modes of living, in their art products, etc. One part of our problem is to gather together from these different places the characteristic symbols and then compare them to see whether they were related.

Mr. WOOD. What you have discovered there would indicate that there was more culture existing at the time that these buildings of which you have found the ruins were built than existed at the time Columbus discovered this country?

Doctor FEWKES. In many cases it does.

Mr. WOOD. What is the theory? Did those people become extinct, or had they degenerated?

Doctor FEWKES. They deteriorated, as all human beings and races do.

Mr. WOOD. Is that to be our lot, too?

Doctor FEWKES. I will console you by telling you that we have taken from a ruin near Hopi pottery which is vastly superior to any that they make now. In fact, the potters there acknowledge it themselves, and when I was working there one of the potters came around to see the pottery which I had dug, in order to get the idea, just as we go to Greece or Rome or any of those places; because they themselves acknowledge and claim that this ancient pottery in many cases is superior to what they make now.

AGE AND STATE OF PRESERVATION OF RELICS

Now, of course, everybody wants to know the age of these things. It is a stock question: How old are these? We know that they were pre-Columbian. There was not a thing of white man's manufacture found there. There was no iron; no metal of any kind except copper, which was a sacred metal or a decorative metal with them. There was no glass; no glazing of pottery; no evidence of domesticated animals; and all the evidence which we found, through scientific methods, showed that they were unacquainted with the white people. So we have put them down as being pre-Columbian.

Now, how much older? That is a question that no one can answer at present, and the only way we can tell is by continued study of the details of the ornamentation and by comparison with those that we do know.

Mr. WOOD. Were those skeletons that you found there in a pretty good state of preservation?

Doctor FEWKES. Yes, sir; some of them were in a good state of preservation. Some of them were not. I brought home quite a number that were.

I brought these specimens to show you the condition that the pottery was in. There is my choice piece [exhibiting a specimen]. I said that I had 500, and this is the choice one. That was found in a man's hand; a priest's hand. Now, if you can tell me what that represents, you can do more than all the archæologists I have consulted. Some of our people thought it was an antelope; some of them said it was a pig. It has a cloven foot, and some of them said it was the Indian devil himself.

Mr. WOOD. It is a sort of cross between a rhinoceros and a duck.

Doctor FEWKES. Thank you. I will put that down with the other identifications that I have. That is a new one.

But, of course, we did not find 500 of those. That was the only one of its kind. My own opinion is that it was a sacred vessel in which the priest—for it was buried with a priest—carried the sacred water in order to perform his ceremonies; because you will notice that under your forefinger there are two little holes into which a string was tied, and by which he carried it.

If I had my manuscript I could show you how that was found. The man had it in his hand, right on his abdomen, and that same man had on top of his head an object which I will show you [exhibiting another specimen]. That is made of a thigh bone or tibia of a deer, ornamented, and that photograph shows how much ornamentation. It was put through the hair on top of the head, with feathers tied to it; it was an ornament which was only worn by the priest-hood.

Mr. WOOD. They must have had steel or something of the sort to have made this ornamentation on this bone. How do you suppose they made it? Did you find an evidence of steel?

Doctor FEWKES. If they had any steel, I never found a piece of it; and I do not think they used this metal.

Mr. WOOD. How did they do that?

Doctor FEWKES. Probably with an obsidian rock. Obsidian is very common, and you can cut almost anything with it. We found several knives of volcanic glass.

Of course they all smoked, as the rest of the people do, and that is the kind of pipe they had [exhibiting a specimen].

Mr. SANDLIN. Was the hair still there?

Doctor FEWKES. Yes, sir; fragments of it, but not very well preserved or in quantity.

ALASKAN RELICS

That carving does not amount to much compared to some carving which we have. This [indicating] does not come from there; this comes from Alaska; and that specimen stirred me up to have somebody visit Alaska to find out all he could about carved ivory. That was given to me by a missionary who brought it down from Nome.

Mr. WOOD. That looks like some of the carvings that you see on those totem poles.

Doctor FEWKES. Yes. It has a relation to them. But that is superior to any carving which any Eskimo can make. You will notice the inside.

Here is another specimen [indicating]. One of the skeletons we found had six of these on the forearm.

Mr. WOOD. The ladies in their day had the same notions with reference to bracelets that seem to prevail now.

Doctor FEWKES. Yes. I will say, in passing, that Doctor Hrdlicka, who was sent out by the bureau to study the Seward Peninsula, brought down quite a collection of Eskimo ivory carvings.

Mr. WOOD. Is this from Alaska?

Doctor FEWKES. No, sir.

Mr. WOOD. What is it made of; is it stone?

Doctor FEWKES. No; that is made of the common clamshell of the west coast—called "pectunculus" by these gentlemen who give long scientific names to shells. That has been carved out. You see that little imitation of a shell is carved. That is part of the umbo, and is quite a common ornamentation. It illustrates two things; that they traded with the prehistoric Pacific coast people and carved these west coast shells. They had finger rings made of the same material. We found some of those. They had little shell objects with a mosaic of turquoise on the top for a breast ornament. They used turquoise and other stones for ornaments. They had turquoise eardrops and turquoise necklaces. We found one necklace 14 feet long. That was made of turquoise and shell.

Mr. WOOD. How were the different pieces in that necklace joined together?

Doctor FEWKES. They used sinews taken from deer. They would take the deer leg and strip it down. As a matter of fact, they were all strewn around in the soil, and we sifted out the soil and picked them up. Some of the holes in those beads were as small as a cambric

needle. I do not know how they bored such small holes, but they did.

These illustrations [indicating] show the insides of bowls, and the character of some of the decorations. We have a great many similar objects, made of a white ware with a black decoration. They used geometrical figures, but they never succeeded in making the human figure or the figures of animals in that particular way.

Mr. WOOD. In some of these pueblos that you have discovered you have found the carvings of animals, have you not?

Doctor FEWKES. Oh, yes. We have found hundreds of them.

Up near Hopi we found many carvings of animals and human beings; human beings engaged in different occupations. I have one bowl that shows the original poker game—three Indians playing some game with bone dices for cards, showing arrows that they wagered, etc., exactly like a game of chance.

NUMBER OF PUEBLOS DISCOVERED

Mr. WOOD. How many of these pueblos have you discovered in the last year?

Doctor FEWKES. Only one. I saw many clearings where there were pueblos and what I want to do next year is this: I want the same amount of money that I had this year, and I want to go west from there. You know, it is a great problem among our people where these pueblos came from. Some say they came from Mexico, some say they came from California, and some from one place and some another. This particular ruin is a type of a number of ruins among the cedars and pine forests which extend for many miles. There is any quantity of them; some with one room, some with two rooms, etc.; and what I want to do is to pick out another one, fifty, sixty or a hundred miles away from there, and get out of it all the objects of culture, and then eventually I want to get across the Colorado River into California, because I have learned that there is something similar to this over in California; and if I do that, I can trace these Pueblo people across the Colorado River and perhaps add something to our knowledge of prehistoric migration.

Mr. WOOD. How far east have you found them?

Doctor FEWKES. There are some in Kansas, which are very doubtful; and in Texas is one of the largest of them all, at Pecos.

RESEARCHES IN THE SOUTHEAST

Mr. WOOD. Have you not discovered some down around Muscle Shoals?

Doctor FEWKES. Oh, no.

Mr. WOOD. Or down in that region?

Doctor FEWKES. No, sir.

Mr. WETMORE. Those are the mound builders; the southeastern ones.

Doctor FEWKES. Yes; the mound builders. That is another aspect of the important researches—this great southeastern culture; the Muskogees, Creeks, Choctaws, Chickasaws, etc. They were also a cultured people, and one of our theoretical question is whether they are related to these Pueblos. So I have had a man down there

digging up some shell heaps on the coast of Mississippi, and in Florida. That result is one of the works of this last summer, and it has been very interesting. Of course, the people around Muscle Shoals were a northern branch of those, but they did not build any houses of stone. They built houses of sticks, mud, bark, etc.

ALASKAN RESEARCHES

(See p. 348)

One of the most remarkable works which we did last summer was a trip to Alaska. One of the problems we have is how Indians got into America in the first place. The evidence seems to be that they did not come very early in the life of man, and that when they came here they were rather primitive; but no one up to the present summer has gone up there and found these sites where they lived—around the Diomed Islands, Cape Seward, and across in Siberia—in order to dig down into these places and see what kind of things were used by the people that came over.

Now, there is, not far from Nome, a place which is reputed to have been a battle field between the Siberians and the Eskimos in the old days; and so when I formed my plan for work this summer I had the good fortune to get the man who knows most about all these theories of migration, namely, Doctor Hrdlicka, who was loaned to the bureau by the National Museum. He went up there, and although his work has not been published yet, he has made a substantial addition to our knowledge from observation of old sites by scientific methods.

This question of where the Indians came from has, of course, been discussed in books, etc., but up to the present time no one has taken the trouble to go up there and dig for the objects left behind by the original emigrants.

Mr WOOD. Do you know whether or not they have found the same ruins or the same evidences of civilization across the straits?

Doctor FEWKES. Over in Siberia?

Mr. WOOD. Yes.

Doctor FEWKES. Yes; but of course that is a doubtful point. We can not say definitely until we dig more there. We have got to get the specimens in our hands and then compare them; and we have not done enough digging in Siberia to answer that question definitely. I want to continue with that work, and I want, when I get through, to have scientific evidence.

REPORTS OF INVESTIGATIONS

Mr. WOOD. Is there a record being made of all of these discoveries?

Doctor FEWKES. Oh, yes; that is the main thing that we do.

Mr. WOOD. Yes; but I mean, is there going to be some volume printed showing the progress of this work?

Doctor FEWKES. We make reports. We make a preliminary report in the exploration volume, which contains the different ideas which we bring out, and then we write a final report and need all the money we can get for publication. We do not have enough, of course, but we do what we can.

Mr. WETMORE. Mr. Chairman, definite reports are prepared upon all of these explorations. That is one of the regular forms of our publications.

Mr. WOOD. But some day it ought to be a finished volume. What I mean is that from all of this material that is being gathered a very interesting volume could be written, I imagine, about the progress of these discoveries.

Mr. WETMORE. That is true. There are some highly interesting things.

ALASKAN RESEARCHES

(See p. 347)

This matter of the Alaskan exploration is one of considerable importance at the present time. Doctor Hrdlicka last summer found one site at which there was a face of a kitchen midden. There was a refuse heap from an old village exposed and being cut away by the sea and by the elements, and ivory implements of various kinds were exposed on the face of that midden. Now, that ivory, cut into many strange shapes, such as the one you have in your hand, and of the highest importance to the archaeologist and in the evidence that it gives of the history of man and his coming to this country, is being taken by traders and others and cut into beads and curios of various kinds to sell to tourists. In other words, they are simply looting it and destroying it so far as our purpose is concerned.

It is of high importance to continue work in that locality this coming year.

PUBLICATION OF REPORTS

Doctor FEWKES. Mr. Chairman, I would feel very sad if I had to go up to the golden gate and had not published the reports to circulate this knowledge I have discovered, because I regard that as the most important part of our work. But unfortunately we have now many manuscripts, and to publish all of them would cost about \$40,000. Somebody says, "Can't you republish the Handbook of American Ethnology?" But you can see that we are congested with material to publish, and we have not the money to do it. I have \$25,000 a year, and it is not enough for me to bring out all these things.

But I want to emphasize the fact that publication is what I am practically living for—to get these things published.

Mr. WOOD. Have you ever stressed this matter before the Bureau of the Budget; the necessity for it?

Doctor FEWKES. No. I think perhaps I should have done it. I have always found the Budget Bureau very good in this matter of recommending money for our work.

FOR SALARY INCREASES

Mr. WETMORE. Mr. Chairman, there is included here under the appropriation for the Bureau of American Ethnology an indication of \$1,560 for the promotion of 14 employees one rate in their respective grades. That is the matter that Mr. Moore mentioned at the beginning of the hearing.

Mr. WOOD. It would take that in addition to this appropriation?

Mr. WETMORE. Yes, sir. That is part of the \$23,340.

INTERNATIONAL CATALOGUE OF SCIENTIFIC LITERATURE

Mr. WOOD. Tell us about this International Catalogue of Scientific Literature.

Mr. GUNNELL. Mr. Chairman, we asked the same appropriation this year that we had in previous years, but it has been cut by the Budget to \$7,000. I do not make any protest about that, because we are unfortunately simply marking time in publication now. There is no publication being done, on account of the chaotic conditions in Europe, and until publication is actually begun again we will not need any more money. I have promised each year to turn back to the Treasury as much as possible, and the last fiscal year we turned back \$1,634.92 out of an appropriation of \$8,000. So, if we can get the \$7,000, it is all we will need for the present.

FOR SALARY INCREASES

Mr. WOOD. Are any of the employees under this division interested in this salary roll?

Mr. GUNNELL. Yes, sir; three.

Mr. WETMORE. There are three employees to be promoted one rate. The amount will be \$260.

Mr. WOOD. That is the total?

Mr. WETMORE. Yes, sir.

Mr. MOORE. What are your salaries?

Mr. GUNNELL. I get \$3,000; my classifier gets \$2,000, and my clerk gets \$1,620. The messenger boy was cut off on account of not being necessary until the work of actual publication is begun again.

Mr. WOOD. You say you turned back last year about \$700?

Mr. GUNNELL. In 1926 we turned back \$1,634.92 out of \$8,000.

Mr. WOOD. How much will you turn back this year?

Mr. GUNNELL. I can not tell yet, sir. Our expenditures will not be any greater this year.

Mr. WETMORE. The amount to be turned back this year will be proportionately the same as that last year, from present indications.

Mr. GUNNELL. I promised you, and the Budget also, in order not to have our appropriations cut, to turn back this money; because in the event of the work beginning—and it may begin any moment—we will need that money ahead of any possibility of aid from Congress.

ASTROPHYSICAL OBSERVATORY

Mr. WOOD. Now, who will tell us about this Astrophysical Observatory?

Mr. WETMORE. The appropriation for 1927, Mr. Chairman, is \$31,180. The same amount is estimated for the year 1928. The only change contemplated would be an addition to the amount of \$880 to promote eight employees one rate, as indicated by Mr. Moore.

Mr. WOOD. What are they doing under this appropriation? Are they still running that institution down in South America?

Mr. WETMORE. Yes, sir. The work of the Astrophysical Observatory, as you will recall, is concerned with the measurement of the heat from the sun; with solar radiation, in other words.

Mr. WOOD. What has become of our astrophysical man who was here?

Mr. WETMORE. Doctor Abbot is unable to be here to-day. He was called by a business matter to New York, and has asked me to answer in this hearing for him.

USE OF OBSERVATIONS IN FORECASTING WEATHER CONDITIONS

Mr. WOOD. He told this committee last year, as I remember, that by this time they could give us a pretty good idea with reference to the value of these observations in forecasting weather conditions.

Mr. WETMORE. I may say, sir, that the work has been progressing very successfully indeed. For some years past, as Doctor Abbot told you on the occasion of his last appearance here, the Argentine Government has been using the results obtained in the South American observatory at Montezuma, Chile, in forecasting the weather for the Argentine. Now, it so happens that a short time ago I was resident for a year in Argentina, and I found there that the work was meeting with great approbation. Ranchers and others were actually paying the Government small sums for the privilege of access to these forecasts of the weather in advance.

Mr. WOOD. It would seem that those observations might be valuable in that territory for forecasting; but are they of any value to us here?

Mr. WETMORE. Yes, sir. The radiation of the sun is the same in all parts of the world. Its actual effect on any local region is influenced by clouds or by local weather conditions; but the actual amount of heat that comes from the sun is the same.

Mr. WOOD. It may have some difference so far as effect is concerned, with reference to the position of the earth to the sun, may it not? That country down there is hot as blazes when we are freezing up here, and vice versa.

Mr. WETMORE. That would not affect the actual amount of heat given off daily by the sun. It is the angle with which the sun's rays strike the earth that produces the difference.

Mr. WOOD. What makes winter here as compared with summer?

Mr. WETMORE. The inclination of the earth's axis with reference to the sun's rays.

Mr. WOOD. That is what I thought. Then the observations that are made down there to-day, in that country, by reason of the difference in their climate and temperature, on account of the relation of the earth to the sun, would not be of very much value here, would they?

Mr. WETMORE. Yes, sir. The amount of radiation is the same to any part of the earth's surface; those who are familiar with weather conditions can estimate the effect of the inclination of the earth upon the heat coming to it.

LOCATION OF THREE OBSERVATORIES

At the present time there are maintained, by governmental appropriation, the observatory at Table Mountain in California and the observatory at Montezuma, Chile. In addition, the National Geographic Society became interested in this matter last year and made

a grant of a sum sufficient to equip another observatory in the Old World and to maintain it for a number of years. Now, with three observatories—one in the Northern Hemisphere and one in the Southern Hemisphere in the New World, and the new one that has been established this last year in Southwest Africa—it should be possible to obtain an actual reading of the radiation of the sun's heat every day in the year. It may be sufficiently cloudy in California to interfere with the observation there, but there is a good chance that at the other two points a definite reading may be made. We anticipate greatly improved results with three stations operating.

I may say that the stations are established in regions of aridity, so that there may be as little interference by storm and cloud as possible. Doctor Abbot finds that the promise of the new station in South Africa established under the National Geographic Society is very high. The rainy months in that section are February and March. The total average rainfall is $3\frac{1}{2}$ inches per year. One-third of that is supposed to fall in February and one-third in March, and the rest scattering through the year. He was there in March for 12 days, and found excellent conditions for observing on practically all of those days.

Doctor Aldrich, Doctor Abbot's assistant, is prepared to give you a statement regarding the current status of the work.

Mr. Wood. I wish you would give it to us. We are interested in seeing whether or not this appropriation for continuing these observations at the observatory is worth while.

Mr. ALDRICH. Mr. Chairman, we feel that we have made considerable progress during the year. Doctor Abbot suggested that I show you these photographs of our various stations, which may perhaps be of interest to you. [Exhibiting photographs.]

This one [indicating] is the California station, newly established. It was moved a year ago from Arizona.

Mr. WOOD. Why did they move to California from Arizona?

Mr. ALDRICH. We found a higher station, and the results proved that the observational conditions are better. We have more days of observation and better skies.

The next photograph shows the newly established station in southwest Africa, maintained under a grant of money from the National Geographic Society. Observations were begun at that station, I think, about the middle of November this year.

This [indicating] is our Chilean station, at Montezuma.

The CHAIRMAN. They all seem to be modest dwellings.

Mr. ALDRICH. They are all modest dwellings, at all the places. The one I lived in in Chile was made of corrugated iron. It was a very modest place.

Mr. WOOD. How long were you down there?

Mr. ALDRICH. I was down there two and one-half years. I returned a little over a year ago.

Mr. WOOD. Were you there continuously during that time?

Mr. ALDRICH. Yes, sir.

Mr. WOOD. What is the mean temperature there?

Mr. ALDRICH. The mean temperature is very decent indeed, but the extremes are very great. The nights are very cold and the days

are quite warm. Summer and winter are very similar to each other. We are very isolated there, being 12 miles from the small Indian town where all our supplies have to be obtained.

RESULTS OBTAINED FROM OBSERVATIONS

Mr. WOOD. What have you discovered in your observations during the last year?

Mr. ALDRICH. The observations have continued at the two stations consecutively as far as possible, except on the few cloudy days that we have had. During the year Doctor Abbot made a very careful study of our accumulated Mount Wilson observations—the observations that we made of a similar type at Mount Wilson, Calif., in previous years, extending back some 20 years. This study brought out in quite a new and independent way the reality of the variations in the solar radiation that occur from day to day. This solar radiation is not the actual amount which reaches us at the earth, but the actual amount which strikes the outer atmosphere. We make, as best we can, corrections for the losses in the atmosphere, so that we have a daily determination of what is called the solar constant—the actual amount of radiation which would be received here at the surface of the earth if there were no atmosphere. This, we find, is a varying quantity, varying irregularly from day to day; and it is this long series of observations, which now has extended at our Chilean station over about eight years, which we are hoping to use as a basis for forecasting weather.

USES OF OBSERVATIONS FOR WEATHER FORECASTING

We have now accumulated in these eight years something like 400 weeks, so that we feel that we have quite a background for an effort to forecast, we will say, one week in advance. We have 400 weeks of observations. But if we attempt to forecast for a longer range than that, say, for a whole season, you will see that we have not the background that we would like to have, because we have only eight years of observations. We can not feel that we can forecast for a longer period, or that forecasting could be done for a longer period, until we accumulate still more observations.

Mr. WOOD. Are you using to any practical effect the results of your observations now in the forecasting business in this country?

Mr. ALDRICH. We ourselves are not, as our full time is occupied in making these observations. Mr. Clayton, who about a year ago was connected through a private fund with the institution, in an effort to correlate our results with weather conditions about New York City, has continued this work separately from the institution up to the present time. He is doing it now, I believe, in a commercial way, forecasting for a period of one week in advance.

EFFECT ON WEATHER OF SUN SPOTS

Mr. WOOD. If I remember correctly, Doctor Abbot has told us that it is the sun spots that control or have to do with the heat and the cold and the rainfall and snowfall. Is that correct?

Mr. ALDRICH. Doubtless sun spots have something to do with it. These outbursts of disturbed conditions upon the surface of the sun no doubt do affect the radiation.

Mr. WOOD. What causes these sun spots?

Mr. ALDRICH. I could not tell you.

Mr. WOOD. Has anybody ever figured that out?

Mr. ALDRICH. The scientific opinion is that the sun is an immense gaseous body, and the conditions existing there, with such an enormous body having enormous temperatures in its interior, are such that it would be difficult to state the reason for these spots of the sun, or these enormous outbursts.

Mr. WOOD. Did it ever occur to any scientific gentleman that these spots on the sun are indications that a portion of it is cooling off and has ceased to be a molten mass?

Mr. ALDRICH. The spots, we know by observation, are cooler than the rest of the surface of the sun. That is, a dark spot on the surface indicates that it is a cooler place, but relatively only. It is much hotter, even in the cooler places, than anything we have experienced on the earth.

DIMINUTION OF SUN'S MASS DUE TO RADIATION

Mr. WOOD. According to this report that I have here, it seems that the sun is wasting a good deal of material. It says that it is radiating away its mass at a rate of about 4,200,000 tons per second.

Mr. ALDRICH. Its mass?

Mr. WOOD. Yes. It says:

The sun is radiating away its mass at the rate of 4,200,000 tons per second, and if it were once as massive a star as Sirius now is, then it has been radiating for—

Seven plus 12 years. I do not know what that algebraic expression means.

Mr. ALDRICH. That is seven times 10 to the twelfth power. That would be 12 ciphers.

Mr. WOOD. It continues:

This means an age of at least a million million years for the sun.

Mr. ALDRICH. Yes, sir.

Mr. WOOD. Well, if it has been running that long, I guess it will last our time, anyhow.

COOPERATION WITH WEATHER BUREAU

Mr. WETMORE. If I may say one word further, Mr. Chairman, in this work you will understand that we are not running counter to the Weather Bureau in any way.

Mr. WOOD. I was just wondering whether or not you were cooperating with them.

Mr. WETMORE. We are cooperating with them. Since the 1st of January of last year the Weather Bureau is including the figures that Doctor Abbot derives from his observations on their weather charts that are issued daily. In other words, they have become interested in the matter and are attempting to correlate these constants of solar radiation with the actual weather conditions as they occur over the country.

Mr. WOOD. Is it possible to predict, say a year ahead, what the weather is going to be on a certain day?

Mr. WETMORE. There may be a possibility of that. It is believed now that weather eventually may be predicted a day, a week, and a month in advance by means of the constants derived from solar radiation studies. Whether it will be practicable to extend that to a year or not, we can not say at this time.

ASSISTANT SECRETARY

Mr. WOOD. You have an item here for an additional assistant secretary of the Smithsonian Institution, \$6,000. That is the same amount as has been carried for several years?

Mr. DORSEY. That is Doctor Wetmore's salary.

Mr. WOOD. Does the salary reclassification that we have been talking about affect this item?

Mr. DORSEY. Mr. Wetmore is at the minimum of his grade, sir.

Mr. WOOD. Is your position within the classification.

Mr. WETMORE. Yes, sir.

Mr. WOOD. That grade is from \$6,000 to \$7,500, or an average of \$6,750. You are not getting the average, are you?

Mr. WETMORE. No, sir; I am at the initial rate of my grade.

Mr. WOOD. That might be increased \$750.

Mr. WETMORE. Yes, sir.

Mr. WOOD. Did you ever take that up with the Reclassification Board?

Mr. WETMORE. No, sir.

Mr. DORSEY. The Reclassification Commission has put his salary in that grade. The rates of increases are all provided. It does not require any action by the Reclassification Board. It is just a question of Congress appropriating sufficient funds for it. No additional authority is required.

Mr. WOOD. You have not taken the matter up with the Budget, either?

Mr. WETMORE. No, sir; I have not taken it up.

Mr. DORSEY. If I may say a word there, the Budget did take it up with Doctor Wetmore and said that his salary ought to be increased, but Doctor Wetmore is too modest to bring that up.

NATIONAL MUSEUM

CASES, FURNITURE, FIXTURES, AND APPLIANCES

Mr. WOOD. The next item is the National Museum. Tell us about that.

Mr. WETMORE. The first item, cases, furniture, fixtures, and appliances required for the exhibition and safekeeping of collections, carries \$23,730 for the present year.

For 1928, there is an estimate of \$26,500, an increase of \$2,770 over the appropriation for the present fiscal year. The total amount of increase in this appropriation is distributed under equipment; that is, the last of the categories you see below.

FOR NEW CURTAINS

Of the amount, it is estimated that \$770 will be necessary for the purchase of new curtains for the south and west exhibition halls in the Natural History Building.

The installation of exhibits in this building was completed in 1911. Frosted windows were provided on the south and west halls with the intention of cutting down the intensity of light. There is nothing more destructive to delicate objects in general than unrestricted light. It was found, however, that this frosted glass was not sufficient. It was necessary to install curtains also, that could be drawn either clear across or part way across on days of bright sunshine.

These curtains have suffered from the light to which they have been subjected, until now they will hardly hang in place. The fabric is so decayed that if you take hold of them, it is possible to stick the thumb or finger with little resistance directly through them.

We are estimating here \$770 for the necessary replacements for these curtains.

I may say that this condition was investigated by representatives from the Budget. I showed them on the floor itself the condition, and they agreed to the necessity for the inclusion of this item.

Mr. WOOD. Is anybody's salary affected in this item?

Mr. WETMORE. No; this is the one roll under the National Museum where salary increases have been provided in subsequent appropriations. These men with one exception are all up to the average of their grades.

I may say that the persons employed, cabinetmakers and carpenters, are exceptionally high-grade men. They do as good work as you can find in the city.

The other items here are distributed as follows: \$1,330 for the purchase and manufacture of necessary file cases for records, boxes for slides, miscellaneous cases, furniture, repairs, office furnishings, and similar expenses.

There is also an additional sum of \$1,000 for increase in the purchase of glass jars and vials, pasteboard boxes and trays, and especially for boxes and trays for insects.

This appropriation is the one that provides housing for the collections that come annually to the National Museum.

In the last fiscal year we received a total of 254,032 distinct objects that were of such a character that it was desirable to preserve them. We need to arrange proper housing space for them.

Included in these was a collection of moths and butterflies known as the Dognin collection that was bought by friends of the Smithsonian Institution and the National Museum at an expense of \$50,000 and presented to us. We will require drawers and cases to house it. Insect drawers cost us now between \$4.50 and \$5 each. We shall need in 1928 at least 800 such drawers. The increase of \$1,000 requested will make their manufacture possible.

RECENT BEQUESTS OF MINERAL EXHIBITS

You may be interested to learn also of certain bequests made recently to the Smithsonian Institution for the National Museum. These have come to the collections of minerals.

A gentleman in Trenton, N. J., Col. Washington A. Roebling, had amassed one of the largest private collections of minerals in the country. After Colonel Roebling's death, through his son, Mr. John Roebling, this collection has been given to the Smithsonian for the National Museum. It includes some very rich materials. I have brought a few examples of some of these beautiful things that I thought you might care to see.

That is an opal [indicating], and is peculiar in that another opal is formed inside. I am uncertain as to the exact value of that. It is something over \$1,000.

Mr. WOOD. What substance is an opal?

Mr. WETMORE. It is a mineral formed under extreme heat. Of the exact conditions, I am uncertain.

Here is a topaz. That is valued at \$1,700. You will notice the depth of light, and the red color as it catches the light from chandelier above.

I have here one other, a so-called black opal, which to me is one of the most marvelously beautiful minerals I have ever seen. That was bought by Colonel Roebling for \$1,500. I believe that it is worth considerably more nowadays.

Mr. SANDLIN. In what part of the country did he collect these, in the West?

Mr. WETMORE. This black opal came from Nevada. The total value of the Roebling collection is somewhere in the neighborhood of \$100,000, and it comes to us as a gift.

Mr. WOOD. Is that the same Roebling who built the Astrophysical Observatory?

Mr. WETMORE. Yes, sir.

Mr. DORSEY. That is his son.

Mr. WOOD. The son is dead now, is he not?

Mr. DORSEY. No; he is still alive.

Mr. WOOD. One of those younger Roeblings fell dead on a golf course a few years ago; he died before the old colonel did. I believe that there were three brothers originally who built the suspension bridge. There was a younger son of one of these Roeblings who had the management of the town of Roebling, a manufacturing town, and one of the older brothers was still living. The younger man died two or three years ago. I was wondering whether it was the younger man or the elder Roebling who built the observatory.

Mr. DORSEY. John A. Roebling gave the collection and built the Astrophysical Observatory.

Mr. WOOD. And you say he is still living?

Mr. DORSEY. Yes, sir. It was through him this collection really came to the institution.

Mr. WOOD. I am glad to know that.

Mr. WETMORE. And then, also we have been given the Canfield collection of minerals, another private collection which, with the material we already have, makes our mineral collection the best in this country, and perhaps the best in the world. The only one that can compare with it is in the British Museum in London. I suppose these two collections are about on a par now. This material has come to us within the last few weeks.

Mr. WOOD. It has not been placed yet?

Mr. WETMORE. No; it has not been placed. I got these out especially because I thought you would be interested to see them.

HEATING, LIGHTING, ETC.

Mr. WOOD. Your heating and lighting item carries an estimate of \$79,500. That is an increase of something over \$1,000 above your appropriation for 1927.

Mr. WETMORE. The increase in heating and lighting amounts to \$1,360. This amount was included in the estimates by the Budget for increase in pay due to efficiency, for 22 men employed on this roll. This is the item that I mentioned previously.

Mr. WOOD. How much does the increase amount to?

Mr. WETMORE. \$1,360. That amount is already in the estimate. It was put in by the Budget.

Mr. WOOD. Then there will not be any necessity for an increase in that respect?

Mr. WETMORE. No, sir. The only change that I should like to suggest there, would be an increase in the salary limitation in the wording of the act, from \$44,040 to \$45,240.

In including this \$1,360, through some oversight, the salary limitation was made identical with the salary roll. You will recall that last year there was a limitation of \$1,200 more than the salary roll. That is valuable to us. It gives us a certain flexibility in shifting our mechanics from one roll to another, whenever large jobs of work come up to be done.

Mr. WOOD. It would not affect the total of the appropriation at all?

Mr. WETMORE. Not at all, sir.

CONTINUING PRESERVATION, ETC., OF COLLECTIONS

Mr. WOOD. The next item is for continuing preservation, exhibition, and increase of collections from the surveying and exploring expeditions of the Government, etc. The estimate for 1928 is \$454,440. There is an increase of \$4,440. What is the cause of that increase?

INCREASED SALARIES DUE TO REALLOCATION OF POSITIONS

Mr. WETMORE. During the last year there have been reallocations on the part of the Personnel Classification Board of eight employees on this roll that have resulted in an increase of \$2,280 on the actual salary roll.

That increase is included in these estimates. Part of these reallocations come from appeals on the part of the persons concerned, who have felt that their salaries were not commensurate with the work they were doing. All of the reallocations have been granted only after personal investigation on the part of the board.

Mr. WOOD. The people on this roll have been taken into consideration under reclassification?

Mr. WETMORE. The majority of them are still at the initial rate in their grade. There is included for this roll in the letter read by Mr. Moore an amount of \$19,070 for the promotion of 253 employees one rate in their respective grades.

Mr. WOOD. Would that bring them up to the average of others doing similar work in other departments?

Mr. WETMORE. It would not bring them up to the average.

Mr. WOOD. How many of them are there?

Mr. WETMORE. There are 253 that are concerned here, from a total salary roll of 311.

Mr. WOOD. \$19,070 is included in the \$23,340 item that you mentioned?

Mr. WETMORE. Yes, sir; this salary roll under "Preservation of collection" is the largest one under the National Museum. It covers the greater part of the appropriation.

For the present year, with an appropriation of \$450,000, there is a margin above the salary roll of only \$17,262. That is the amount that I have available for the purchase of specimens, stationery, and all necessary scientific supplies for the National Museum.

The sum is small, and it requires great economy in administration to cover the bare needs of the institution.

The additional increases beyond the \$2,280 are \$220 under "Supplies and materials." That is the first category under the distribution of expense.

STATIONERY

Of that amount, \$170 has been included for purchase of stationery. You will note that for this in 1926 we expended \$1,924.67.

Mr. WOOD. Why would not that come in your printing and binding item?

Mr. WETMORE. This is for the purchase of envelopes and paper that we use in routine correspondence; scratch pads, etc. One thousand eight hundred and seventy dollars will still leave us below the actual amount we found it necessary to expend in 1926.

PHOTOGRAPHIC SUPPLIES

Photographic supplies have been increased \$30, miscellaneous supplies \$15, and ammunition for revolvers, \$5.

TRANSPORTATION OF THINGS

There is also indicated an increase of \$940 in the amount for the transportation of things. That item covers our freight bill. We are given large collections, and our men who are traveling send in large collections. It is necessary to pay transportation on them to get them to the National Museum. Freight is a steadily growing item and one of considerable expense to us.

We are estimating for 1928 \$4,271 for freight and express. In 1926 we actually spent \$4,395.87, so that our estimate is still below the actual expenditure for last year.

Mr. WOOD. You can not always tell how much that will be.

Mr. WETMORE. No, sir; that is a highly variable amount. It runs always more than \$4,000.

EDUCATIONAL EQUIPMENT

The other item in which there is an increase is that of educational equipment, which is the fund from which we buy our specimens. That is increased from \$1,000 to \$2,000.

FOR EXPEDITIONS AND PURCHASE OF SPECIMENS

We have, as I have told you, large collections given to us, including many extremely valuable things. The Roebling collection that I have already mentioned alone is worth well over \$100,000. In spite of these gifts, there are many gaps in our collections that can be filled only by purchase. We have many opportunities to buy needed things, and we should be in a position to accept those of them that are required.

To indicate the small sum requested here for this purpose, I may say that in the year 1926, the American Museum of Natural History in New York expended \$406,977 in expeditions and the purchase of specimens.

The Field Museum of Natural History in the same period used over \$60,000 for expeditions and over \$80,000 for the purchase of specimens. We are asking here an increase of \$1,000 only, making a total of \$2,000.

Mr. WOOD. The Field Museum, of course, is comparatively new, and they have got their collections to build up.

Mr. WETMORE. That is true; but still there are many things that we need. The present is the time during which many objects must be acquired if they are to be preserved for future study and for edification of future generations.

Civilized man is overrunning the entire earth, and wherever he goes, he changes the natural conformation of the country. He breaks the ground and puts it under cultivation. He utilizes the trees and other natural resources for his own needs, as he should. With these changes there come losses in many species of plants and animals dependent upon natural conditions for their well-being. These minor creatures are being exterminated steadily. I look upon the next 50 years as the period of formation of large collections in our museums. After that time there will not be opportunity to get many of these things. We should cultivate every opening that will give new material for our collections.

REPAIRS OF BUILDINGS, ETC.

Mr. WOOD. For repairs of buildings, shops, and sheds, etc., \$13,000. That is \$1,000 more than your appropriation for 1927.

Mr. WETMORE. The increase of \$1,000 is intended for replacement and repair on one of the concrete roadways on the east side of the Natural History Building of the National Museum. This roadway is under our jurisdiction. We are required to keep it in repair.

For several years it has been getting in bad shape. This year we were forced from current appropriations to replace a strip 87 feet long and approximately 22 feet wide at an expense of \$1,345.

We are estimating \$1,000 additional to make necessary repairs on a small section of it this coming year. I have brought here a sketch of the floor plan of the Natural History Building. This is the north entrance [indicating] and here is the entrance toward the Smithsonian. This area here is the one we replaced this year. We find it necessary to ask for additional appropriation to repair this strip [indicating]. The east entrance which is served by this roadway is the one used by the coal trucks delivering our coal and by other

heavy traffic. The road is wearing very badly, and is much broken; there are many holes and cracks in it.

Mr. WOOD. Do you make your foundation deep enough to stand that heavy traffic?

Mr. WETMORE. We do, yes. It has stood now since 1911. It has done very well.

BOOKS, PAMPHLETS, AND PERIODICALS

Mr. WOOD. Your item for the purchase of books, pamphlets, and periodicals for reference, \$1,500, remains the same.

Mr. WETMORE. There is no change there.

POSTAGE STAMPS

Mr. WOOD. Postage stamps, \$450.

Mr. WETMORE. There is no change.

CONSTRUCTION OF GALLERY

Mr. WOOD. For the construction of a gallery over the west end of the main hall of the Smithsonian Building, second floor, including cost of all labor, material, and incidental expenses, \$12,500.

That is the same item that you asked for last year, is it not?

Mr. WETMORE. Yes, sir; that is included this time in the estimates. Do you wish to hear argument for that?

Mr. WOOD. No; we had it last year. It was not estimated last year, was it?

Mr. WETMORE. No.

NATIONAL GALLERY OF ART

Mr. WOOD. For the administration of the National Gallery of Art, \$29,381. That is the same amount as was appropriated last year. Is the reclassification item affected here?

Mr. WETMORE. Yes. There is estimated in the total given you at the beginning of the hearing \$975 to cover the promotion of 13 employees one rate in their respective grades. There is no change in the estimates in this appropriation from last year.

If there are any of the items on which you wish explanation, I shall be glad to take them up.

PRINTING AND BINDING

Mr. WOOD. Your estimate for printing and binding is \$85,000, which is a reduction of \$5,000. Is this the item that Mr. Newton and Mr. Moore spoke about?

Mr. WETMORE. Yes, sir.

Mr. WOOD. This is the item with reference to which, if it is not increased, they wish us to lower the amount for the publication of this volume of history; is that right?

Mr. WETMORE. Yes, sir; we are allowed \$90,000 this year for the publications of the Smithsonian Institution, which include the annual report of the Board of Regents, the publications of the National

Museum, the Bureau of American Ethnology, the National Gallery of Art; and the annual report of the American Historical Association, with miscellaneous printing for the other bureaus.

ANNUAL REPORT OF AMERICAN HISTORICAL ASSOCIATION

You will note the distribution of these items in the sheet there before you in which there is allotted in the present year \$7,000 for the annual report of the American Historical Association.

Mr. WOOD. What did they publish last year?

Mr. DORSEY. They get out one report each year.

Mr. WOOD. Two years ago, I remember, they got out the Aaron Burr papers.

Mr. DORSEY. Their publications continue along the same lines. They are very important. It is a very fine historical work.

Mr. WOOD. How many volumes do they publish?

Mr. DORSEY. There is one annual report, that frequently is published in two or three parts, depending on the material they have. The annual report will contain the usual matter with some historical papers and then there will be an additional volume like the Calhoun papers. That is a separate volume by itself, that is published as volume 2 of the report of its year. In the text of the law as it now stands there is provided for the printing of historical reports, \$7,000, irrespective of the amount that is allowed the Smithsonian. The Budget have cut us \$5,000.

SALES OF REPORTS

Mr. WOOD. Is there any revenue derived by the document room from sales of those reports?

Mr. DORSEY. The Superintendent of Documents has a quota of all these reports. How much he actually derives, I do not know.

Mr. WOOD. Do they sell some of them?

Mr. DORSEY. Oh, yes. Take, for instance, the Handbook of American Indians, that Doctor Fewkes spoke about. The Superintendent of Documents has printed, I think, two or three editions of that for sale; and during the last session of Congress I think Representative Hayden put in a resolution to reprint that volume. It was never favorably reported. It would cost probably \$50,000 to do it. It is a wonderfully useful book, and there is an enormous demand for it, and always has been. We could have distributed thousands and thousands of copies. We have not had a copy for distribution for 10 or 15 years.

Doctor FEWKES. We have had four impressions of it.

Mr. DORSEY. Here is a copy of the last Smithsonian report [indicating]. Each year the separate articles in that report are printed in separate form, so that if a man is interested in astronomy we can send him the separate article on astronomy without sending him the whole volume. These [indicating] are the separates comprising the volume. There is a great demand for them.

Mr. SANDLIN. If this appropriation of \$85,000 is allowed, how much will be allowed for this work?

Mr. WETMORE. \$6,500. We feel that if there is to be a reduction in the publication fund, it should be distributed among all the items concerned.

Mr. WOOD. Suppose their appropriation were reduced \$500; what would happen to them then, with reference to getting out this report?

Mr. WETMORE. They would be in the same situation as the other bureaus affected, in that they would be forced to hold up matters for subsequent publication.

I may say that we handle all matters of publication with the greatest care. We have the mailing lists checked over every year to remove all the deadwood and make sure that there are not included names of persons who are not interested. We send out a card to every person on the list and ask him to signify if he wishes to receive these publications the coming year, and we tell them that unless they return the card their names will be automatically removed. In that way we keep the whole thing alive.

Further, we reduce the edition of each paper to the lowest possible limit to supply the libraries and our mailing lists, and to keep a slight surplus for calls that may come in for the paper during the next four or five years, and no more.

In the National Museum the papers that are scientific in their character are put out in this form [indicating]. Formerly we assembled at the end of the year these separate papers into volumes and issued the complete volumes. We no longer issue this complete volume except for a limited number of copies that we use in our own libraries. All of these [indicating] go to the libraries interested, and if they want the bound volumes they are required to bind them themselves. We bind now only 60 copies that we use in our own work.

REPORT ON TREES AND SHRUBS OF MEXICO

Here is the final part of a report on the trees and shrubs of Mexico, prepared in the National Herbarium. That is the organization for which we are asking the plant gallery. The work in my hand is a technical account of all the trees and shrubs found in Mexico. It has great importance because of the dye woods, the chicle—the wood from which we get our chewing gum—and the various medicinal and food plants that are found there. I may say that up to the time our botanist carried on this particular piece of research, on which these volumes are based, more than half of the gums exported as chicle were not usable. No one knew the actual trees that produced the desirable gum. They knew that they got gum of that type from a number of trees and simply went ahead and exported the whole thing; the usable part was picked out up here in the States and the rest thrown away. Through this work it was possible to ascertain which was the important tree issuing the product.

REPORT ON MATERIAL CULTURE OF THE PEOPLE OF PANAMA

Here is a volume, just out, on the Material Culture of the People of Panama, based on the Marsh-Darien expedition. This party went back into the San Blas Indian country, where white man had never been before, and obtained a very rich collection that came to the National Museum.

REPORT ON TONGUES OF BIRDS

I have been rather interested in the manner in which some of these seemingly technical publications have been utilized. Here is a report on the tongues of birds and their form. It is a technical account. You would not think it would have any particular interest, but still a feature writer has taken this same bulletin, without knowledge on my part whatever, and has made from it a feature for the Sunday paper. He has written a very readable report that is simply an adaptation of the basic information supplied there in the paper.

INCREASED COST OF PRINTING

Mr. DORSEY. There is one thing that I should mention about restoring this printing and binding appropriation to the current amount. The cost in the Printing Office, owing to the change in salaries down there, has increased so that we do not get by any means the same amount of printing that we formerly did for the same amount of money.

Mr. WOOD. That was caused by the increase for the printers?

Mr. DORSEY. Yes; it makes a great difference in the amount of printing we can produce for a given amount of money.

Mr. WOOD. Is that as high this year as it was last year?

Mr. WETMORE. I was told informally that there would be an increase of 2 per cent this year in cost of printing above what we paid last year, because of increase in salaries at the Government Printing Office.

Mr. WOOD. They have not raised salaries again, have they?

Mr. WETMORE. I understand that new rates went into effect the 1st of July.

Mr. WOOD. I think we raised their salaries by an act of Congress before the classification had anything to do with it. I do not think it was subject to classification.

Mr. SANDLIN. I thought we raised their salaries by a special act.

Mr. DORSEY. I know that the cost of printing has been increased.

Mr. WETMORE. Our situation with regard to printing at the present moment is this: We have for the year 1926, \$90,000. At the present time there is available less than \$20,000 for the rest of this year. In other words, approximately six months of the year have passed, and we have allotted over \$70,000 in our printing. For the National Museum I have available only a little more than \$14,000 for the rest of this current year.

Mr. DORSEY. Doctor Fewkes has less than \$4,000 in his allotment for the Bureau of American Ethnology.

Mr. WOOD. Your total estimate is \$849,871. That is an increase of about \$14,000, is it not?

Mr. WETMORE. \$16,570.

Mr. WOOD. And if this provision is made for these increases in salary that you have allowed, that would increase the amount by something over \$23,000?

Mr. WETMORE. Yes, sir.

Mr. DORSEY. And the \$5,000 for the printing.

Mr. WOOD. That would be a total of \$28,000?

Mr. WETMORE. Yes, sir; \$28,340.

THURSDAY, DECEMBER 23, 1926.

TARIFF COMMISSION

STATEMENT OF JOHN F. BETHUNE, SECRETARY

Mr. WOOD. Have you any statement you wish to make with reference to this item?

Mr. BETHUNE. Mr. Chairman and gentlemen of the committee, the chairman of the Tariff Commission was called out of town and asked me to explain, as I believe he has written to the chairman of the committee, why he was unable to be here.

Mr. WOOD. I will state to the members of the committee that I had a letter from him stating that he had made arrangements to spend the holidays with his family and in consequence can not be here.

Will you proceed with your statement?

Mr. BETHUNE. The Tariff Commission appreciates the opportunity to have explained to you the estimates which have been submitted as the basis of appropriations for the maintenance of the commission during the next fiscal year.

DUTIES AND ACTIVITIES

Your committee is aware, of course, that the Tariff Commission is primarily a fact-finding body whose principal duty is to gather information concerning the industries of the country for the assistance of the Congress and of the President in the discharge of their respective legislative and executive functions. A brief review at this time of the work of the commission may be helpful.

The Tariff Commission was created by the Revenue Act of September 8, 1916, and was invested with certain investigatory duties and authority. It was organized upon the appointment of its members in March, 1917. The commission's duties as prescribed in that act are:

To investigate the administration and fiscal and industrial effects of the customs laws of this country now in force or which may be hereafter enacted.

To investigate the relations between the rates of duty on raw materials and on finished or partly finished products.

To investigate the effect of ad valorem and specific duties and of compound specific and ad valorem duties.

To investigate all questions relative to the arrangement of schedules and classification of articles in the several schedules of the customs law.

To investigate, in general, the operation of customs laws, including their relation to the Federal revenues and their effect upon the industries and labor of the country.

To submit reports of its investigations.

To put at the disposal of the President and of the Committee on Ways and Means and of the Committee on Finance, whenever requested, all information at its command.

To make such investigations and reports as may be requested by the President or by either of the committees named above, or by either branch of the Congress.

To submit annually a report to the Congress on the first Monday of December, including therein a statement of methods adopted, expenses incurred, and a summary of all reports made during the year.

To investigate the "Paris Economy Pact" and similar organizations and arrangements in Europe.

