

**INDEPENDENT OFFICES
APPROPRIATION BILL FOR 1940**

HEARINGS

BEFORE THE

**SUBCOMMITTEE OF THE
COMMITTEE ON APPROPRIATIONS
HOUSE OF REPRESENTATIVES**

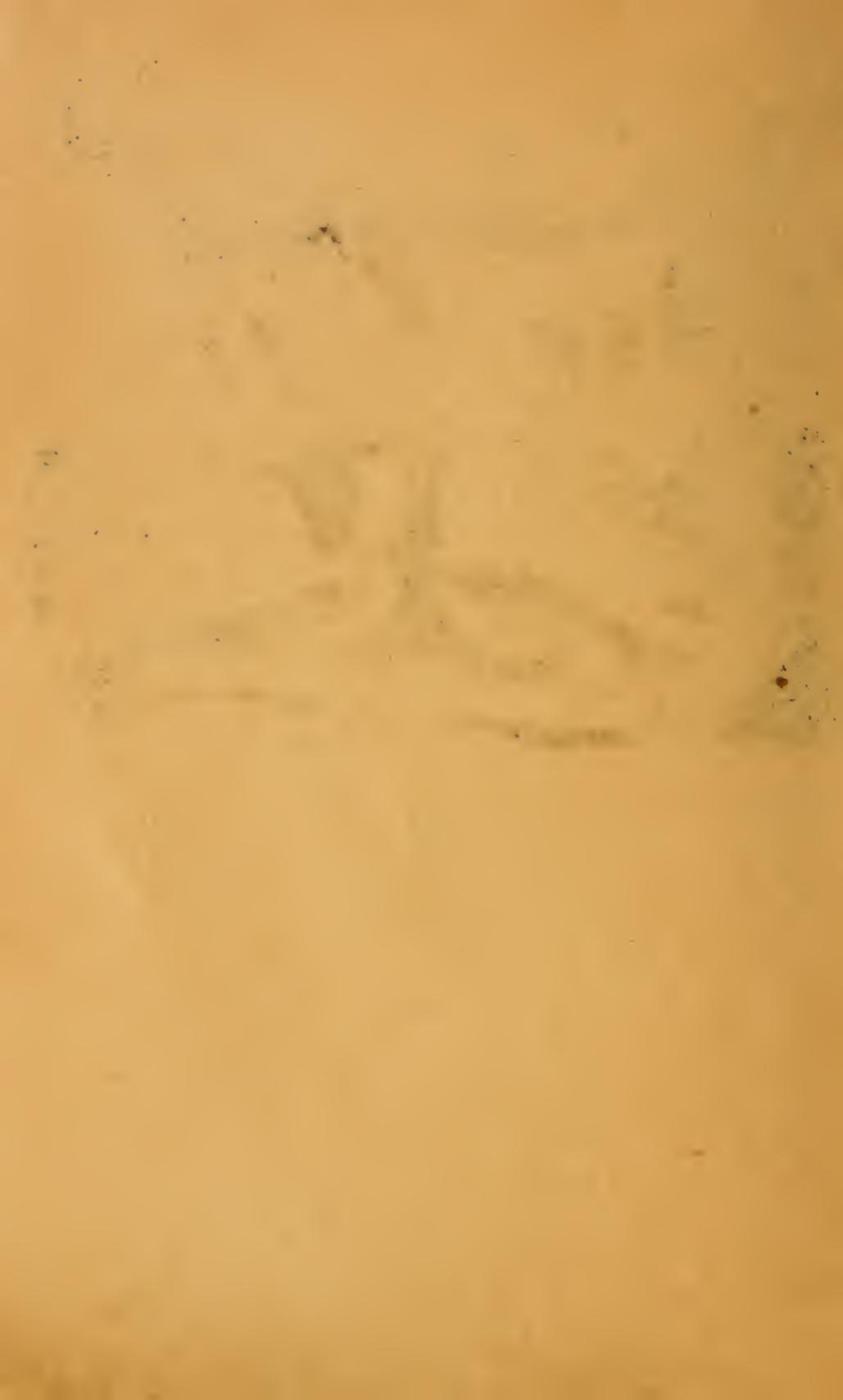
SEVENTY-SIXTH CONGRESS

FIRST SESSION

ON THE

**INDEPENDENT OFFICES
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securities from the risks of insolvency involved in the combination of the dealer with the brokerage function. Of equal importance would be the ability of trust institutions to protect customers from that confusion of conflicting and rival creditors' claims which follows the failure of a modern brokerage firm. Trust institutions could so operate that customers' rights might be realized without the difficulties and expenses which now result from the intricacy and costs of legal proceedings to wind up an insolvent brokerage house.

It is recognized that such a plan might not lend itself to immediate consummation, and exploration of the feasibility of the system proposed has, it is true, disclosed divergent points of view. Those who doubt its practicability point to the multitudinous accounts requiring banking service; the volume of cash balances and safekeeping items; the types of service demanded by customers in connection with the latter; the expense of the initial organization of such an institution and the resistance which might be met in both banking and brokerage circles. Nevertheless, it is our considered judgment that such a plan contains the desirable ingredients of self-determination on the part of the brokerage community as against direct governmental action requiring the separation of the banking and brokerage functions. Finally, trust institutions would, by their own safeguards, obviate the need for much of the program of present and future regulations on the part of the industry and Government discussed in this report. This program of regulation will necessarily be complex since it is required by the very complexities which have resulted from the combination of banking and dealer activities with the brokerage business. It will also in some respects be unavoidably burdensome. Hence it would be eminently desirable, from all points of view, if this multiplicity of regulation could be dispensed with as a result of the separation of functions by means of trust institutions to conduct the banking activities of brokers.

Mr. WOODRUM. Thank you very much, gentlemen.

THURSDAY, DECEMBER 8, 1938.

SMITHSONIAN INSTITUTION

STATEMENTS OF DR. C. G. ABBOT, SECRETARY; DR. ALEXANDER WETMORE, ASSISTANT SECRETARY; H. W. DORSEY, ADMINISTRATIVE ASSISTANT TO THE SECRETARY; M. W. STIRLING, CHIEF, BUREAU OF AMERICAN ETHNOLOGY; JOHN E. GRAF, ASSOCIATE DIRECTOR, NATIONAL MUSEUM; W. P. TRUE, EDITOR, AND DR. L. F. STOCK, AMERICAN HISTORICAL ASSOCIATION

SALARIES AND EXPENSES

Mr. WOODRUM. We will take up the items for the Smithsonian Institution, the first one appearing on page 154 of the bill.

The item for general administrative expenses is as follows:

For expenses of the general administrative office; for the system of international exchanges between the United States and foreign countries; for continuing ethnological researches among the American Indians and the natives of Hawaii and the excavation and preservation of archeologic remains; for maintenance of the Astrophysical Observatory, including assistants, and making necessary observations in high altitudes; for cases, furniture, fixtures, and appliances required for the exhibition and safekeeping of collections; and for administration of the National Collection of Fine Arts; including personal services, purchase of books of reference and periodicals, traveling expenses, uniforms for guards, supplies and equipment, preparation of manuscripts, drawings, and illustrations, supplying of heating, lighting, electrical, telegraphic, and telephone service, repairs and alterations of buildings, shops, sheds, and approaches, and other necessary expenses, \$356,620.

AMOUNT REQUESTED OF AND ALLOWED BY THE BUDGET FOR 1940

Mr. WOODRUM. Please insert in the record a statement showing the amount of your appropriation for 1939, and the amount you requested of the Budget, and the amount allowed by the Budget for 1940.

Dr. ABBOT. I will do so.

Expended, 1938-----	\$342, 515
Available, 1939-----	337, 285
Reserve, 1939-----	6, 500
Appropriated, 1939-----	343, 785
Requested of Budget Bureau for 1940-----	465, 595
Recommended by Budget Bureau for 1940-----	356, 620
Increase over appropriation for 1939-----	12, 835

JUSTIFICATION OF ESTIMATE FOR 1940

Dr. ABBOT. I submit the following justification for the record:

The work under this appropriation provides for certain expenses of the Smithsonian Institution for administration, research, and operation as (1) for salaries of employees concerned with the general administration of the several Government bureaus under the direction of the Smithsonian Institution together with miscellaneous office supplies and other routine expenses connected with this work; (2) for carrying on the exchange of governmental, scientific, and literary publications between the United States and foreign countries in accordance with the Convention of Brussels of March 15, 1886, to which the United States was a signatory and under which the Smithsonian Institution acts as agent for the United States Government; (3) for the investigations of solar radiation, their accurate measurement, the analyses of the results obtained and their interpretation in terms of weather changes; (4) for the investigation of the languages, customs, and history of the American Indians and the natives of Hawaii, including the archeology as related to these races and the preservation of archeological sites; (5) for the maintenance and operation of the Museum buildings under the administration of the Smithsonian Institution including salaries of the mechanical force, repairs and alterations of buildings, exhibition and storage cases, and related miscellaneous expenses; (6) for the work of the National Collection of Fine Arts, including the custody, preservation, and exhibition of that portion of the national collections of fine arts in the custody of the Smithsonian Institution.

The increase in appropriation for 1940 is explained as follows:

(1) *1 senior stenographer CAF-3, \$1,620.*—One additional CAF-3 senior stenographer at \$1,620 is requested for the Secretary's office, to help in taking care of the increased amount of work here during the past several years, during which time there has been no increase in the personnel. The steadily mounting correspondence and statistical tables of all kinds called for by many Government branches renders the present small force in this office inadequate to handle the work.

(2) *1 senior mechanic (metal worker), \$1,860.*—An additional sheet-metal worker is urgently needed for work on the roofs of the Museum buildings. During the past year, serious conditions have developed both on the copper roof of the Natural History Building and on the tin roof of the Arts and Industries Building. An attempt was made to remedy the latter with temporary mechanics but deterioration owing to pitted tin and rotting wood has progressed to such an extent that a considerable amount of extra work will be required each year on this roof if we are to escape the large cost of putting a new roof on the building. The situation as regards to the roof on the Natural History Building is similar to that which obtained on the roof of the Senate Office Building where a new roof has been found necessary. It is hoped that emergency repairs carried on at regular intervals will make it possible to delay placing a new roof on this building for a considerable period. When outside work is not practicable because of weather, this man will assist in the regular work of the tin shop, which is now more than the two men employed (one tinner and one tinner's assistant) can handle.

(3) *Increase of salaries, \$3,360.*—The last general promotion, a modest one, was given in 1930. Since that time very few promotions have been made and then only in special cases, generally for the assumption of extra duties. For practically all the personnel, there has been no reward for excellent efficiency over the past 8 years. This is caused entirely by the lack of funds, since under our financial condition no general promotions have been possible as no funds have been specifically added for this purpose. There has been no possibility of providing for promotions within the appropriation as the small amount above the salary roll is all required for fixed necessary expenditures. The present condition as regards lack of promotion has resulted in considerable dissatisfaction among the personnel with resultant attempt to transfer to other departments. The modest amount requested will make possible promotions of a single step in a portion of the more deserving cases.

(4) *Additional supplies and materials, \$3,995.*—This request is divided into two portions as follows:

(a) \$2,955 for additional building repair supplies. A number of leaks in the roofs of both the Natural History and the Arts and Industries Buildings have resulted from cracks in the tin and copper sheets. If the considerable expense of placing new roofs on these buildings is to be avoided, regular repairs must be made each year, requiring material additional to that available under our existing appropriations. There is needed also increased supplies of paints and plaster for usual work in preventing further deterioration in the halls of the Natural History Building.

(b) \$1,000 for supplies for the astrophysical observatory. The maintenance of the observatory heretofore has been assisted largely from private funds. Those private sources have now diminished and the place of this shrinkage must be supplied by increased public support. Recent studies have more than ever emphasized the great present and future value of the results which the observatory, alone in the world, is obtaining.

(5) *For furnishing additional electrical current, \$2,000.*—The amount expended annually for current has been increasing steadily with the addition of new equipment and the increase in lighting in the exhibition halls and laboratories. In the 2 years since all of the current has been purchased, the amount expended for this purpose has increased \$1,700. During the past year, it was found necessary to install a number of new lights in the plant gallery and the bird rooms, as well as in some of the exhibition halls, and it is apparent that the added load cannot be met from the allotment available for such purposes. With the other heavy fixed expenses under this appropriation, it is impossible to provide for the increased charge.

ITEMS OF INCREASE IN ESTIMATE FOR 1940

Mr. WOODRUM. Do you have any further prepared statement you would like to make?

Dr. ABBOT. There is no specially prepared statement, with the exception that in the justifications before the committee from which you will note there is some increase authorized by the Bureau of the Budget which relate mainly to step-ups in the salaries of some employees in the different branches of our organization. Those are the main increases which I will mention in connection with the estimates of the Bureau of the Budget.

Mr. WOODRUM. They are small increases.

Dr. ABBOT. Yes, sir. It has been a matter of about 8 years since we have had any such increase, and the morale is affected, as you can very well see, if there are no increases of any kind. Therefore, we hope very much that these increases which have been allowed by the Bureau of the Budget will be allowed by the Congress.

Mr. WOODRUM. Do you have any kind of tabulation showing what they amount to annually in the first item of appropriation? In the item for "General administrative expenses" you have a slight increase of about \$13,000.

ADDITIONAL STENOGRAPHER AND SALARY INCREASES

Dr. ABBOT. Mr. Dorsey can speak to that.

Mr. DORSEY. \$3,360 of that is for one-step promotions for seven employees in the lower grades. The Bureau of the Budget also allowed for one new position, a stenographer in grade 3 in the Secretary's office at \$1,620.

I might say, sir, that in the Secretary's office the work has increased so greatly since 1928 that a very large part of the time of my assistant is taken up by making up reports and other statements which are called for by various departments of the Government. There has been no increase in force there at all, and the work has enormously increased.

This part of the appropriation has to do with the payment of employees in the Secretary's office—that is, the general administrative office—administering the several Government bureaus under the Institution.

Mr. WOODRUM. These administrative increases: How much do they amount to, on the average?

Mr. DORSEY. They amount to \$60 a year on the average.

Mr. WOODRUM. For the lower paid employees who have not gotten an increase for 8 years?

Mr. DORSEY. Yes, sir.

Mr. JOHNSON of West Virginia. What do they get?

Mr. DORSEY. They range from laborers at \$1,200 to clerks at \$1,600 to \$1,900.

Mr. FITZPATRICK. How is the amount involved apportioned between the lower-grade and higher-grade employees? Suppose that \$50,000 went to increase salaries, how much of that would the lower-grade employees receive and how much would the higher-grade employees receive?

Mr. DORSEY. Practically none but the lower-grade employees are included in this amount. They are all in the intermediate grades and the lower grades. The higher grades get none of it.

Dr. WETMORE. The sum involved in this appropriation amounts to \$3,360 only, and the bulk of that is for the step-up in the lower grades.

ADDITIONAL SHEET-METAL WORKER

Dr. WETMORE. There is one further addition to the pay roll here, if I may speak to that.

This concerns one senior mechanic, grade CU-7, at \$1,860, an additional tinner, principally for work on our roofs. Up until 1909 the Institution had one man employed in the metal shop. When the Natural History Building was constructed, we added an assistant. Those two men have done the roofing and the necessary metal work of the shops ever since. Our buildings are getting steadily older; one of them dates back to 1883, the other to 1911. The roofs need more attention steadily, and are at present more than the force can handle. As a matter of fact, we are constantly under the necessity of employing temporary employees to help out in cases of emergency. We hope that with the addition of another man on this work we can avoid replacing these roofs for some time to come.

The men work outdoors in good weather, and then in the inclement weather of winter or at other seasons they are employed inside, where there is a great deal of metal work in covering the storage cabinets and work of that type.

This employee is one that is very definitely needed.

SUPPLIES FOR ASTROPHYSICAL OBSERVATORY

Mr. WOODRUM. What else is involved in that small increase?

Dr. ABBOT. There is an addition of \$1,000 in the Astrophysical Observatory for supplies.

I might speak a little about that, sir, if that is in order at this moment.

Mr. WOODRUM. Briefly; yes.

VALUE OF WORK OF ASTROPHYSICAL OBSERVATORY

Dr. ABBOT. I am convinced more and more, sir, of the value of the work of the Astrophysical Observatory. We not only have calls for it from various other countries, but recently I have had occasion to make a study of the relation of the variations of the sun to the weather which seems to me so very interesting that I would like, just for a moment, to point it out.

Here I have a chart [indicating] in which there are 12 months of the year indicated, and in each month we have two curves, one in full line and the other in a dotted line, which go, as you see, in opposite directions, just as the right and the left hand are in opposition one to the other.

This represents the differences in temperature in Washington following the rising or falling of solar radiation as measured by our station in Chile. That is to say, the sun's rate of radiation actually increases or decreases slightly for a few days, and on that account things happen on the earth; and here in Washington these changes occur as shown on the chart, which represents the result of 320 cases of rise or fall of the solar radiation, averaging only about seven-tenths of 1 percent in each case.

Now, you may suppose, perhaps, that this is accidental. In order to check that, I have very recently made a study in this way. These curves follow along for 16 days after the events. Now, I have taken the same events, but for the 16 days preceding, and I have studied these to see whether they would give any similar curves to these. They do not. The correlation between the curves that you see on the chart is minus 55 percent, plus or minus 5 percent. That is to say, the correlation coefficient is 11 times its probable error. If you take the 16 days preceding these events, the correlation comes out 11 percent plus or minus 6, which is of no significance.

In other words, there is no relationship between the behavior of the temperature of Washington before these events, but there is a very definite opposition in what happens after the events.

Now, these effects are large, as you will see by the scale on the side of the curves. There are changes here which run from 10 to 25 degrees Fahrenheit, and I am perfectly convinced, sir, that if we could have daily observations of the radiation of the sun of sufficient accuracy to show these small changes which, as I say, on the average

are only about seven-tenths of 1 percent, we would be in a position to give to the weather bureaus all over the world information from which they could forecast by a couple of weeks in advance details of weather just as they do now for a day or two in advance, on other grounds.

So I am very fully convinced at the present time that this work is very worthwhile indeed, and that if we could amplify it to a large extent, maybe on the order of \$300,000 a year instead of \$30,000 a year, we would be doing a service to the whole world in enabling them to forecast for a couple of weeks in advance.

Mr. FITZPATRICK. I notice that the months of February and December take up a greater space than the others.

Dr. ABBOT. Yes; there is a very wide range there, in the winter months.

Mr. FITZPATRICK. What is the reason for that?

Dr. ABBOT. In the summer months there is a lesser range; but in the winter months the ranges are large, and there are really major changes in the weather which seem to be determined by these variations of the sun.

We are at the present time operating three observatories—one in Chile, one in California, and we did have one in Egypt, which we operated mainly from private funds but owing to the danger from the war situation and various other causes, we had to abandon that one, and we are setting up the same apparatus in southwestern New Mexico, at a station about 8,000 feet high, where it seldom rains, and there we are carrying on.

Now, we find it difficult to maintain even these three observing stations. We ought to have 10, but we have 3; and the request for \$1,000 additional is because some private funds with which we have been supplementing the Government funds for a good many years have now shrunk, so that we are not really in a position to carry these stations without this additional \$1,000 which is mentioned here.

Mr. WOODRUM. Thank you, Doctor.

SUPPLIES AND MATERIALS FOR REPAIR OF BUILDINGS

Now, what else is there on this item?

Dr. WETMORE. In addition to the item of \$1,000 that Secretary Abbot has mentioned, there is a further addition under supplies and materials of \$2,995 for additional building repair supplies. This is intended principally to care for the purchase of additional metal required in work on our roofs—tin and copper sheets, and additional paint, lumber, and other similar supplies needed in the repair work on our buildings. The present appropriation does not give us sufficient funds to cover these necessary supplies with the result that the buildings are deteriorating rapidly.

As I mentioned before, the buildings are getting older every year. Our maintenance is not excessive, but we need more money to care for these repairs.

Mr. WOODRUM. Have you a break-down for each one of these increases?

Dr. WETMORE. Yes, sir. They appear in the justifications already inserted.

ADDITIONAL ELECTRIC CURRENT

Mr. WIGGLESWORTH. There is another item of \$2,000 for additional electric current.

Dr. WETMORE. Yes, sir. The consumption of electric current is increasing steadily every year, as we need to use additional electric light in our exhibition halls and in our laboratories. Several years ago when we operated our own heating plant and manufactured part of our electricity our electric consumption amounted to around \$16,500 per annum. It has now run up to nearly \$19,000 and is increasing steadily. It is an item that is highly necessary—one that we control so far as possible, but one for which there must be increased expenditure.

We estimate that \$2,000 additional will be necessary for that item next year, and that this will care for our needs for some time to come.

I may add that part of this expense is coming through improved exhibitions in which we use indirect lighting. One of the greatest enemies in most museum exhibitions is daylight, as the light itself causes deterioration in the exhibits. Indirect lighting is far preferable, and is something that we must use with our more valuable things.

Dr. ABBOT. In this connection, Mr. Chairman, there is a great improvement in lighting, which you have perhaps noticed in some places, where they have tubes which are lighted by fluorescence. This makes a very beautiful white light. It may become quite important in the near future.

Dr. WETMORE. This type of light while still in a somewhat experimental stage is without question the type of light that will be used in the future. It has come on the market commercially only in the last 6 months. We are examining into it and getting data on it but are not quite ready to proceed with installation yet.

PRESERVATION OF COLLECTIONS

Mr. WOODRUM. The next item is:

Preservation of collections: For continuing preservation, exhibition, and increase of collections from the surveying and exploring expeditions of the Government, and from other sources, including personal services, traveling expenses, purchasing and supplying uniforms to guards and elevator conductors, postage stamps and foreign postal cards and all other necessary expenses, and not exceeding \$5,500 for preparation of manuscripts, drawings, and illustrations for publications, and not exceeding \$3,000 for purchase of books, pamphlets, and periodicals, \$628,800.

NOTE.—The following is a citation of the law relating to the above: (20 U. S. C. 50).

Expended, 1938.....	\$606,088
Available, 1939.....	606,380
Reserve, 1939.....	3,000
Appropriated, 1939.....	609,380
Requested of Budget Bureau for 1940.....	651,645
Recommended by Budget Bureau for 1940.....	628,800
Increase over appropriation for 1939.....	19,420

There is a slight increase in that. The appropriation for 1939 was \$609,380, and the estimate for 1940 is \$628,800.

Have you a statement on that item, Doctor?

JUSTIFICATION OF ESTIMATE

Dr. WETMORE. Yes, sir. We submit the following justification:

The funds under this appropriation provide for the maintenance of the national collections relating to arts and industries, anthropology, biology, geology, and American history. Under it there is carried on the work of identifying, classifying, exhibiting, and storing the national collections embracing these subjects, the preparation of reports presenting the results of their study, expenses in connection with additions to the collections, and the greater part of the cost of the maintenance of the extensive public exhibits of the Museum which are housed in three buildings and a portion of a fourth. The appropriation covers the salary roll for the curatorial staff, as well as the guard, labor, and char forces. It provides also for books for the Museum library and for foreign postage used in the transaction of Museum business.

Over 95 percent of the appropriation is allotted for salaries and the remainder is barely sufficient to meet the minimum responsibilities of the Museum.

The increase in appropriation for 1940 is explained, as follows:

(1) *One additional assistant curator, \$3,200.*—The Division of Insects with its collection of 4,846,000 specimens has on its small staff only one professional worker, a curator. It is impossible to perform the identification work required by Federal and State agencies without neglecting the care of the collections and jeopardizing their preservation. At present, several important groups of insects are without direct care and for identification reliance must be placed on the slow and uncertain voluntary services of outside workers. The help thus received is of great utility but it cannot meet the service required of the Museum in the field which is of such vital importance to man in many ways. Further, in the absence of the curator for any reason, there is no one in the Division to take charge, to handle office work and the scientific inquiries that come. The appointment of an assistant curator (grade P-3) at \$3,200 is urgently required to expedite the work of the Division and to insure its oversight at all times by a well qualified expert.

(2) *One additional senior scientific aide, \$2,000.*—The National Museum is making a beginning on the modern type of habitat groups for its exhibits in natural history, to bring the biological exhibits up to date and put them on a comparable basis with those of other large museums. Excellent material for such exhibits is now on hand and more will be available as we are able to care for it. It is planned as soon as possible to renovate some of the older exhibits in which very good material is shown to poor advantage, being possibly 40 years out of date. We possess expert taxidermists to do the work on the animals themselves, but we have no one to take care of the accessory work such as treating natural vegetation for exhibit purposes; making artificial leaves, plants, and flowers, and modeling rocks and other backgrounds. Since this portion of the work is essential to good exhibition, it is of primary importance in habitat groups. The position requested is one of primary importance to the Museum.

(3) *Two additional guards, \$2,400.*—The Museum staff of guards is still inadequate to perform the watch service considered necessary to protect the valuable material in the exhibition and study collections of the National Museum. This situation presents a continuous danger to the collections in our care. Beyond this, with our undermanned watch force, it is impossible to give our guards fair compensation in the way of excused leave for the Sunday and holiday services they perform. It is our desire to provide a sufficient guard service to allow a proper 5½-day week. The addition of the two extra positions requested will enable us to give fairer treatment to our present guard force.

(4) *Increases in salaries, \$9,820.*—For many years the National Museum has been unable to make promotions unless specific funds were received for that purpose. With an inadequate allotment for supplies and materials, it has been necessary to divert savings on the salary roll to the purchase of supplies and equipment required for the care of the collections. Funds for a small general promotion were received in 1930. In the past 8 years a very few promotions have been made in the guard and labor forces from savings made in replacing retiring personnel; none in the professional, subprofessional, and clerical groups. This condition has affected the morale of many of the personnel to the extent that many from the lower positions have transferred to other Departments where the outlook is brighter, to the distinct detriment of the Museum. Dissatisfaction is increasing in all branches of the service and it is certain that funds

spent for promotions will give a greater return to the Museum than would an equal expenditure for any other purpose. The sum requested will make possible the promotion of a portion of the more urgent cases.

(5) *Supplies and materials, \$2,000.*—Practically all of this appropriation is allotted for salaries and of the small amount remaining the greater portion must be reserved for such fixed charges as guard uniforms, cleaning supplies, stationery, photographic supplies, and freight. Some of these fixed obligations including the purchase of scientific and other necessary supplies, are obtained from savings in the salary roll, but even with this addition, the amount is below that required to carry the work of the Museum at a proper standard. The situation is especially serious in regard to funds for such supplies as alcohol, herbarium paper, and disinfectants which must be used in large quantities every year in order to insure the safety of the collections. The benefits which would result from this requested increase would be far beyond the cost involved.

RECENT ADDITIONS TO COLLECTIONS OF SPECIMENS

This is the principal appropriation that cares for the maintenance of the National Museum. Our Museum, as you know, is concerned with the preservation of national collections of natural history, including anthropology, biology, geology, arts and industries, and American history. The collections are enormous. Our catalog entries at the present time run over 16,000,000, and the total value of the collections we appraise at upward of \$130,000,000. It would be impossible to duplicate many of the large number of unique things that it contains for any sum.

Additions to these great collections are not made in a haphazard manner, as we make a careful selection each year, as I have told you on other occasions, among the many things offered to us. The increment last year ran around 312,000 additional specimens. These come to us from various sources. I have ventured to bring with me again a few interesting things that I would like to show you, to illustrate the type of material that we receive.

Mr. WOODRUM. Yes; we would like to see them.

Dr. WETMORE. One of the important sources of new collections is the expeditions that are sent out, mainly under the sponsorship of the Smithsonian Institution, the Smithsonian from its private income furnishing the money to be used in field expenditures. The collections obtained come to the National Museum.

We have between 25 and 30 expeditions, large and small, out each year.

Mr. HOUSTON. Who pays for those expeditions? Are they paid out of private funds?

Dr. WETMORE. Out of private funds; yes, sir. A part are financed from direct gifts to the Smithsonian from individuals who are interested in this type of work, and a part from the regular private income of the Smithsonian.

Mr. HOUSTON. Does that amount of money vary from year to year?

Dr. WETMORE. It varies considerably; yes, sir. It is less now than it has been at various times in the past.

Dr. ABBOT. Mr. Chairman, I would like, just at this exigence, to say that the relationship between the Smithsonian Institution, with its small private funds, and the Government, is very helpful to the Government. These expeditions, as Dr. Wetmore, has said, bring back to the Government and put into the Museum collections some of the most valuable and interesting material, and in order to get that material you can well understand that we go to places like

Alaska or other out-of-the-way regions where it is often very difficult to meet emergencies and take prompt advantage of exceptional opportunities under the fiscal regulations of the United States. In such cases the expenditure of small sums from the private funds of the Institution often brings results which could be obtained in no other way. Even with small contributions, these expeditions can do a great deal which otherwise would be very, very difficult. So the relationship between the Government and the Smithsonian Institution's private funds, is very, very helpful to the Government.

Mr. WOODRUM. Thank you, Doctor.

Mr. HOUSTON. Could you not have W. P. A. projects on this work?

Dr. ABBOT. We do. We have a good many of them.

Dr. WETMORE. They have been very helpful to us in many ways.

This small specimen here [indicating] came from work in New York State last summer—a fossil starfish from Devonian deposits near Kingston, N. Y. This animal lived approximately 200 million years ago, and it is interesting to note that many of our present-day starfishes preserve the almost identical form. We received many hundreds of good specimens from that expedition.

Mr. HOUSTON. Haven't you found many fossil specimens—not necessarily such as these—at Mesa Verde, Colo.?

Dr. WETMORE. A good deal of archaeological material has come from there.

Mr. HOUSTON. How high is that out there?

Dr. WETMORE. It is around six or seven thousand feet.

Dr. ABBOT. Mr. Chairman, at the Grand Canyon, as you go down the Bright Angel Trail, you see fossil deposits at 6,000 feet.

Dr. WETMORE. We had another expedition to the Virgin Islands last fall and winter, excavating in the village sites of the Caribs, village sites inhabited by these Indians before Columbus came to this country. The specimens that I have here come from Magens Bay, on the island of St. Thomas. This [indicating] is a dagger made of a manatee rib, highly decorated. Here [indicating] is a stone breast ornament that could be used for a pendant around the neck. Here [indicating] is a small hand tool.

Mr. FITZPATRICK. What would you call that?

Mr. WOODRUM. An arrow?

Dr. WETMORE. No; it is a celt.

Mr. FITZPATRICK. Is it metal?

Dr. WETMORE. No; it is stone. It is a celt, of so-called greenstone. It was used for dressing hides, or digging, in short, a general utility tool.

Mr. FITZPATRICK. That is not the natural shape, I suppose.

Dr. WETMORE. No; it is shaped by hand—chipped out first and then polished.

Mr. FITZPATRICK. How many years old would that be?

Dr. WETMORE. That dates back a period before Columbus came to America.

Mr. FITZPATRICK. What kind of instruments would they have to put it in that shape?

Dr. WETMORE. They simply ground it down with fine sand and similar abrasive materials.

Dr. ABBOT. Stone was all they had.

Dr. WETMORE. Stone and bone made the implements of those days. This dates back to when the American Indian was living in the Stone Age.

Here [indicating] is a very fine piece from an expedition that Dr. Hrdlička made in the Aleutian Islands this past summer. It is a knife or a fleshing instrument, chipped out of stone by hand. A piece of stone is taken—it is a hard material—chipped off by hand and shaped until it assumes the proper form.

Mr. WOODRUM. Is that a very hard stone?

Dr. WETMORE. Yes, sir.

Mr. JOHNSON of West Virginia. What was that used for?

Dr. WETMORE. As a knife in skinning animals, in dressing hides, and in digging; these large ones [indicating] probably had some ceremonial significance also that we do not quite understand.

Dr. ABBOT. You will recall, Mr. Chairman, that they chopped down trees with stone axes that were no sharper than that, if as sharp.

Mr. FITZPATRICK. Why could they not use the instruments that they used in cutting out the rock?

Dr. ABBOT. They used these to cut the rock also. They had nothing but rock.

Dr. WETMORE. This thing was shaped by taking a bit of antler or hard bone and putting pressure along the edge of the stone. Flakes were forced off and while it was a slow process, a skillful workman could shape the stone to his needs. This is somewhat of a lost art, although we have men in the National Museum who can take a piece of glass and make such objects as arrow points in a few minutes. It is an interesting art.

Such are things that come to us from expeditions. In addition to these we have numerous gifts of high value.

Here [indicating] is a bit of modern pottery from a collection of about 300 pieces given to us about 6 weeks ago. The specimen is from Bennington, Vt. The entire collection is one of the most valuable of its kind that has come to us. I speak of modern pottery to distinguish it from that made a hundred or more years ago as the specimens included have been collected within the last 50 years.

Mr. WOODRUM. What is there about it that makes it valuable and rare?

Dr. WETMORE. It gives examples of types of work of different potteries. I brought this, a replica of an Egyptian scarab, because it is easily portable.

Mr. FITZPATRICK. It is just an ornament?

Dr. WETMORE. Yes, sir.

There are many fine vases in this collection—beautiful things.

This past year has brought us some novelties in the way of snuff boxes. There [indicating] is one from England, which dates back to about 1820. This one [indicating], made of horn, was carried through the Revolutionary War by an American; one of his descendants had it during the World War, and since then it has been given to us.

Here [indicating] is an American snuff box of a somewhat different design, that was taken by the Indians and used in one of their "magic bundles." It contains the skin of a weasel, and something else done up in a bit of buckskin, and was used in ceremonies by the Cheyenne

Indians. It was treasured for many, many years, and recently was given to us.

Here [indicating] is a hairpin from China. The decoration, in the blue color, is made from the feathers of a kingfisher, overlaid with cloisonné. You will notice the spoon on one end, an instrument for cleaning wax from the ears.

Here is something from nearer home. This [indicating] comes from Belvedere Beach, on the Potomac River, a short distance below Washington, on the Virginia side. It is a plate tooth from a fish that lived during the Eocene period, about 30,000,000 years ago. It looks almost like an ornament and could be mounted in a brooch.

Here [indicating] are further objects from Virginia—three Indian pipes from a village site at the mouth of Potomac Creek, a village that was visited by Capt. John Smith in 1608, and the same village from which Pocahontas was abducted about 1612.

Mr. FITZPATRICK. Was tobacco used in this?

Dr. WETMORE. Yes, sir. Tobacco, of course, is an American product.

Mr. JOHNSON of West Virginia. Where did you say you got these?

Dr. WETMORE. At the mouth of Potomac Creek, approximately 50 miles below Washington.

Mr. JOHNSON of West Virginia. How did you get them? Do you mean you excavated these?

Dr. WETMORE. Yes, sir; we have been carrying on excavations there in an extensive old Indian village site. These particular pipes came to us from the late Judge Graham who initiated this work, giving us his material. Since his death we have been carrying on further excavations and getting more material. Two of the pipes are made of pottery, and the third one is stone.

In previous years I have brought you meteorites to show you, as the only concrete things that come to us from outer space. This one [indicating] is of particular interest because of its definite history, since it fell about 6 p. m. on the 24th of June 1938, in Butler County, Pa., near Pittsburgh. There is a rather interesting story connected with it. Daylight saving was the rule at the time, and a great many people were outdoors when this meteorite fell.

Mr. FITZPATRICK. In August there was one that fell in the State of Connecticut. I was sitting on my porch in New Jersey, and they thought it was a plane or a ship on fire. Did you get any history of that at all?

Dr. WETMORE. I do not recall that we had any report on that one.

Mr. FITZPATRICK. The papers were filled with it. Newspapers all through the country carried it. It was a Sunday evening, I believe. The thing was found some place in Connecticut.

Dr. WETMORE. I remember now reading the account, but we were not able to obtain that one.

Mr. WOODRUM. Tell us about this one.

Dr. WETMORE. This particular specimen left a trail of smoke through the air, and was seen by a number of observers. It happened that men at an airport were making some scientific observations with transits, and with their instruments got the elevation of the trail of smoke as the meteorite passed with a loud roaring sound. Some thought it was an airplane, and some thought it was a huge bird in the air.

A gentleman who became interested in this began to trace these reports, and plotted the area in which the meteorite might have fallen, through the intersection of various lines of observation. A farmer recalling that on the day on which the fall occurred, he had heard some commotion in his henyard, made a search and found this meteorite, which has been presented recently to us for our collection.

Mr. HURSTON. Had it gone very far into the ground?

Dr. WETMORE. No; it was lying on the surface.

Dr. ABBOT. These meteorites come with such tremendous velocity, and the resistance of the air to their flight is so very high, that they get very hot on the surface and burn off very fast, so they are much reduced in size and slowed up so much that most of them do not fall with sufficient force to sink into the ground.

Dr. WETMORE. We examine into many newspaper reports about falls of meteorites. Last year we added 70 new meteorites to the collection, the largest number we have ever had in a similar period.

Mr. WOODRUM. Without wishing to be skeptical, I would like to ask you what evidence you have that this thing found in the henyard was a meteorite, or whether it was a rock. It looks to me like a rock.

Dr. WETMORE. The physical structure of the stone indicates very definitely that is a meteorite. We have hundreds and hundreds of reports of supposed meteorites: many samples are sent in to us for examination, but most of them prove to be bits of slag, bits of ordinary stone, and objects of that type. But our mineralogists can tell certainly by examination whether a specimen is a meteorite or whether it is a terrestrial fragment.

Mr. WOODRUM. What is the scientific explanation of where that thing came from, and what happened?

Dr. WETMORE. Presumably it is a fragment from outer space; perhaps due to an explosion of some distant planetoid long ago.

Dr. ABBOT. You see, Mr. Chairman, there are in orbits around the sun quantities of these fragments. Millions of them strike the earth's atmosphere every year, possibly every day, but they are mostly very small. But there are going around the sun, in orbits, these fragments, in addition to the planets, and sometimes the orbit of a planet, like that of the earth, intersects the orbit containing these fragments, and so they fall into the earth's atmosphere, are slowed up, and come to the earth's surface, or else are entirely burned up before they reach the earth's surface.

Mr. FITZPATRICK. They are afire at that time?

Dr. ABBOT. They get very hot because of the resistance of the air. You know, of course, that if you compress air in a bicycle tire, or anything else, you heat the air. So as these things encounter this great resistance in going through the air they get very hot on the surface, so that they show sometimes very bright indeed.

Mr. FITZPATRICK. They frequently burn out entirely before they reach the earth?

Dr. ABBOT. Frequently. Of course, if they are big enough, they get to the surface of the earth. This one was big enough to come through.

Mr. WOODRUM. That is very interesting, Doctor.

Dr. WETMORE. To discuss further our collections, we get some things by exchange. I have here a green garnet that we received in exchange for other minerals last year. The specimen comes from

Russia. It weighs about 10 carats, and is valued at about \$600. It is the largest one of its kind that is known to us.

We have in the Smithsonian Institution certain funds that have been given to us for the purchase of specimens to increase our mineral collections. That income is available only for such purchase, and each year we secure through this source some highly interesting and scientifically valuable specimens.

Here [indicating] is a zircon, a very fine one, of a beautiful color, that we got last year. It weighs 28 carats.

Mr. WOODRUM. Will that retain its brilliancy and luster?

Dr. WETMORE. Yes, sir.

Mr. WOODRUM. It is very beautiful.

Mr. JOHNSON of West Virginia. Where did you get this, Doctor?

Dr. WETMORE. It came from Burma.

Mr. JOHNSON of West Virginia. Where did they get it?

Dr. WETMORE. Zircons are mined there.

Mr. JOHNSON of West Virginia. They do not mine it in this shape?

Dr. WETMORE. No; this has been cut. They are mined in rough shape, and then cut and polished.

Mr. WOODRUM. Is that a valuable stone?

Dr. WETMORE. It is worth about \$280.

Mr. FITZPATRICK. Do they go through any process at all except cutting and polishing?

Dr. WETMORE. They are a dull brown when they are mined. In preparing them they are put in sand and heated to a certain temperature and held there for some time. Some of them come out a different shade of brown, some of them a beautiful clear blue, and others are entirely colorless.

Mr. FITZPATRICK. It is not the natural color, then?

Dr. WETMORE. Since this stone is brown it is impossible to state whether it had been heated. Here is a green sapphire, an extremely valuable stone.

Here [indicating] is a topaz from Brazil, one of the finest stones of the kind we have ever seen, a stone worth a great deal more than we paid for it. It is a beautiful thing, worth around \$1,500, easily. If you turn it to get the reflection of the light, you will see the fire in its depths.

Mr. WOODRUM. It is very beautiful.

Dr. ABBET. Was this purchased out of the Roebling fund?

Dr. WETMORE. Yes, sir. -The Roebling fund may be used only for this purpose.

Mr. FITZPATRICK. Is that the natural color?

Dr. WETMORE. Yes; that is the natural color. These things that I have just shown constitute a small part of the material in our additions to the collection last year.

Mr. WOODRUM. It should be emphasized again that no Federal funds are used for the purchase of any of these things.

Dr. WETMORE. No, sir. The purchases shown have been made exclusively by private funds.

This present appropriation item, preservation of collections, is the one that carries the maintenance and upkeep of the various collections that constitute the National Museum. This year there are certain additions to the sum allotted for last year.

ADDITIONAL ASSISTANT CURATOR, DIVISION OF INSECTS

In personnel, we have listed, first, an additional curator for the Division of Insects, an item that has been considered carefully by the Bureau of the Budget and has been allowed by them.

The Division of Insects is one of the most important of the scientific divisions in the Department of Biology in the Museum. It has in its collection over 4,500,000 insects at the present time. We have now only one scientific man, the curator, in charge of the collection. He has no scientific assistant. The division is one of great importance to the work of the Bureau of Entomology and Plant Quarantine in the Department of Agriculture, which has a staff of approximately 25 people in the Museum working constantly on our collection. There is a great deal of routine work that has to be done in connection with this, in addition to the considerable work that we have ourselves. When our curator is away we have no trained man to be responsible for that tremendously valuable collection. Furthermore, the curator has more work than he can properly handle. We have included in these estimates a position in the grade of P-3, at \$3,200 per annum, to cover these needs, a position that is of great importance to us, and one that we definitely need.

Mr. JOHNSON of West Virginia. The Agricultural Department puts additional work on you.

Dr. WETMORE. Yes, sir.

Mr. JOHNSON of West Virginia. To what extent?

Dr. WETMORE. A portion of the time of our curator is taken up in making identifications of certain groups of insects, in which he is a specialist, and in making our collections available to its men, while they in turn assist the museum in the care of other groups, as a by-product of their investigations.

Mr. JOHNSON of West Virginia. That is, the Agricultural Department.

Dr. WETMORE. Yes, sir. They have specialists of their own that identify many specimens, but they call on our curator to identify certain groups because he is a specialist in those fields.

ADDITIONAL SENIOR SCIENTIFIC AIDE

There is further provision under this appropriation for an additional senior scientific aide, in grade SP-6, at \$2,000 per annum, needed for assistance in our exhibition work, to make accessories for exhibition groups and similar work of that kind. We are proceeding now with the renovation and modernization of our animal and bird groups, something that has needed to be done for a long time. To assist in this we have friends who will aid in getting new material. Last year two gentlemen made a trip to Alaska and obtained for us skins of gigantic moose to be mounted in an exhibition group. This photograph [indicating] shows the model of the proposed group roughed out in clay, with [indicating] an accessory background, the whole showing the proposed arrangement of the group. These Alaskan moose are tremendous, the largest wild animals on the North American continent. The males especially are huge—as large as a horse. The gentlemen mentioned gave us this

material and, also, skins for a caribou group. More of the same kind of assistance will come in the future. The additional assistant will give his service constantly in the preparation of background material for such groups—the trees, grass, and so forth.

Mr. JOHNSON of West Virginia. How did you make that photograph?

Dr. WETMORE. It is made from a small model, constructed of modeling clay.

Mr. FITZPATRICK. Did you say you have the moose?

Dr. WETMORE. Yes, sir; we have four exceptionally fine specimens.

RECORD OF VISITORS TO SMITHSONIAN INSTITUTION

Mr. JOHNSON of West Virginia. Do you have any record of the number of people who visit your Institution daily?

Dr. WETMORE. Yes, sir. The attendance in the last fiscal year was 2,412,195, which is the largest we have had in our history, exceeding by about 150,000 what it was the previous year.

Mr. JOHNSON of West Virginia. Generally, what was the object of those visitors?

Dr. WETMORE. They come to see and study our collections.

Mr. JOHNSON of West Virginia. What character of people visit the Institution?

Dr. WETMORE. People from all walks of life in this country visit the Institution, as well as from foreign countries. It is very interesting to note the license plates on the cars that are parked near our buildings. In the course of a short time you can see license plates on cars from practically every State in the Union.

Mr. FITZPATRICK. I doubt if there is any place in Washington that is more talked about than Smithsonian.

Dr. WETMORE. Our exhibits are entirely free. We have large groups of school children who come, especially in the spring of the year, to visit the Institution. Some of these parties spend several days in Washington. Such visitors to the Institution include high-school and graded-school students from all parts of the country. Bus loads come from Indiana, Ohio, Pennsylvania, and so forth.

Mr. JOHNSON of West Virginia. They come from Chicago and that section.

Dr. WETMORE. Yes, sir. There are many foreigners, also, who visit the Institution. We had a register at one of the doors for a short time, and while it caught only a small portion of our visitors, people registered there from 23 foreign countries and every State in the Union.

Mr. WOODRUM. You will want to put that full statement in the record, will you not?

Dr. WETMORE. Yes, sir. From the following statement it will be seen that our visitors, while coming in numbers throughout the year, are present in smaller numbers during December, January, and February.

Visitors to the Museum buildings during the year ended June 30, 1938

Year and month	Smithsonian Institution	Arts and Industries Building	Natural History Building	Aircraft Building	Total
<i>1937</i>					
July.....	67,824	187,120	128,112	43,373	426,429
August.....	62,093	180,818	97,323	27,361	367,595
September.....	40,157	114,001	67,021	21,140	242,319
October.....	22,817	65,940	52,964	9,468	151,189
November.....	15,350	41,563	34,779	7,373	99,065
December.....	10,941	29,005	26,264	6,232	72,442
<i>1938</i>					
January.....	11,474	31,939	34,767	5,019	83,199
February.....	13,233	38,382	31,603	6,661	89,879
March.....	19,104	56,168	42,715	8,336	126,323
April.....	42,848	141,362	94,548	20,355	299,113
May.....	31,608	103,004	70,417	17,273	222,302
June.....	34,321	104,952	69,794	19,248	228,315
Total.....	371,770	1,094,254	1,754,332	191,839	1,2,412,195

¹ Including 4,025 persons attending meetings after 4:30 p. m.

Interest in the collections is attested by the steadily mounting number of visitors. In 1920 the number was 759,979; in 1930 it had increased to 1,894,987; and in 1938 there were 2,412,195 visitors.

Mr. JOHNSON of West Virginia. Do you have some people who come and stay some little while, making investigations and studies?

Dr. WETMORE. Yes, sir; many people do that. We have a good many who come to work in our laboratories. Some stay for a day, some for a week, and we have had some for months. These visitors prove that our collections, in addition to their value as public exhibits, are of great value to science and the Nation generally.

Mr. JOHNSON of West Virginia. Do you help them in any way?

Dr. WETMORE. We make the collections freely available to them. We give them library facilities, work tables, and so forth.

Mr. JOHNSON of West Virginia. Do you furnish them stenographers?

Dr. WETMORE. No, sir; we cannot do that. We do not have sufficient clerical help for our own workers.

Mr. JOHNSON of West Virginia. They may do some small routine typewriting?

Dr. WETMORE. Yes, sir.

Mr. HOUSTON. The specimens are made available to them?

Dr. WETMORE. Yes, sir. The collections are classified and arranged, and we give them free access to the collections.

ADDITIONAL GUARDS FOR MUSEUM

To revert to our estimate for 1940, there are two additional guards for the guard force at \$1,200 each per annum.

Mr. WOODRUM. We gave you two last year, did we not?

Dr. WETMORE. That was the year before.

SALARY INCREASES OR STEP-UPS

Mr. WIGGLESWORTH. Will you add something about the contemplated increase of salaries under this item?

Dr. WETMORE. We have included an item of \$9,820 to cover step-ups for the people under this item.

Mr. WIGGLESWORTH. For about how many, roughly?

Dr. WETMORE. That will cover the promotion of 123 people. Practically all the money will go to those in the lower grades. This will include a considerable number of guards and a number of laborers, as well as assistants in the lower positions. The greater part of that money is contemplated for them. As was stated earlier, there has not been any general increase since 1930. This item is of primary importance to the efficient operation of the Institution.

SUPPLIES AND MATERIALS

There is an additional item of \$2,000 for supplies and materials, which is necessary for the general maintenance work. As explained above additional funds are required for certain fixed charges concerned with the maintenance of our collections. More than 96 percent of the total appropriation is in the salary roll. For 1939 the difference between the total amount of the appropriation and the total salary roll was \$29,788, and of this \$3,000 was deducted as a reserve, leaving only \$26,788 available for expenditures. Our available funds for these needs are insufficient for the varied and considerable work that they have to cover, especially for purchasing those materials which are directly concerned with the preservation of the collections in our care.

ARCHEOLOGICAL EXCAVATIONS IN COLORADO

Dr. ABBOT. A gentleman asked a question as to the work in Colorado, and I would like to have Mr. Stirling explain that.

Mr. STIRLING. A little more than 10 years ago a cowboy riding around in southern New Mexico happened to notice some large bones sticking out of the side of a bank in a little wash, about 8 or 10 feet below the surface. It struck him as rather curious that this bone should be there, and he notified some men from the University of Denver, who happened to be in the vicinity, and they went to see them. Some of the bones were sent to the University, and were identified as belonging to an extinct species of bison, very much larger than the present living variety. They sent a routine expedition in order to remove some of the bones for further examination. When they brought the specimens back to the University, they brought with them some of the earth in which they were found, and in doing this they found two or three flint projectile points, obviously of human origin, in immediate association with the bones. That was very interesting because it has always been a mooted question in this country whether man was here contemporaneously with some earlier forms of animal life that have since become extinct. This seemed to be very definite evidence on that point.

One very interesting thing about these projectile points is that they were very specially formed, characterized by two long flat grooves on each side of the blade. The blades are so thin and require so much skill to make that workers in flint materials today are unable to duplicate them. The other flint implements were also of a very high order. For the first time there was established proof that men making this peculiar type of implements did live at the same time as these now extinct animals. Immediately the archaeol-

ogists became interested in looking for other implements of the same type, hoping to find a site formerly occupied by those people. Finally, about 4 years ago, there came to our Bureau a letter from a correspondent in the State of Colorado, sending a photograph showing about 30 examples of this type of implement. All of these were found within an area about 30 feet in diameter. Dr. Roberts, of the Bureau, was sent out to investigate. To his disappointment, he found that the flint implements had apparently formerly been contained in a deposit that had eroded away completely, leaving the specimens on an almost solid rock surface. At this point there was nothing to excavate, but he began exploring around in the vicinity, and about a quarter of a mile from this place he found a deep wash that went through the remnants of an old valley. This site is about 20 miles northeast of Fort Collins, Colo. He saw in the bank of this wash, about 20 feet below the surface, a layer of black soil about a foot in thickness, and on examining it more closely he saw that it contained some bone fragments. After digging along the edge he found two of these curious flint implements, and it became evident that this black layer must have been an old village site.

Mr. FITZPATRICK. Were they bones of human beings?

Mr. STIRLING. No, sir; they were the bones of animals, and were very fragmentary. We organized an expedition then, under Dr. Roberts' leadership, to excavate. There was a very heavy overburden of sterile material which had to be removed. Dr. Roberts has worked this site now for 3 years, and has trenched through various places along the banks of this arroyo, uncovering a considerable area. During this time he has recovered many thousands of implements made by the former occupants of this old site. He has established a very satisfactory picture of the material culture of that day from the types of implements of stone and bone recovered. More interesting, perhaps, than that were the bones of animals that had been used for food. These were discovered among the charred remains from fires scattered around in the soil surface on which they had lived. They have recovered the bones of camels and of an extinct species of bison.

Mr. HOUSTON. Corresponding to the ones first discovered?

Mr. STIRLING. Yes, sir; of the same type. Incidentally, the first find was a single kill, but at this place the people actually lived for a long time. The bones of certain other animals that have continued to exist up to the present time were also found. During this season a very interesting addition was made to the fauna through the discovery of a mammoth tusk, representing an extinct form of elephant that lived during glacial times. In addition to the direct excavation work of the archeologists, we have been working also on the geological problem in cooperation with geologists from Harvard University. After working for 3 years on that problem, the geologists finally completed their work this last summer. It has been found that this site was occupied at a period shortly before the close of the last glacial period. This might have been anywhere between 15,000 and 25,000 years ago.

Mr. FITZPATRICK. Have they found any human bones there?

Mr. STIRLING. Not yet, but we may yet find them, because the area of the site is considerable. Primitive people usually buried their dead not very far from where they lived.

Mr. HOUSTON. Is that work still going on?

Mr. STIRLING. It is not going on at the present time. We have stopped on account of the weather conditions.

Mr. JOHNSON of West Virginia. From the implements that were found, what would you say as to the character of the people who lived at that time?

Mr. STIRLING. They were people with a very simple culture. We find, for instance, no indication of any kinds of structures. They probably lived under simple brush shelters, such as are found on the sites of some primitive tribes. We did not find any filled-in post holes, indicating that they erected frame structures. There were some bone ornaments, decorated by scratches, or engraving. However, they had achieved an extremely high degree of skill in flaking stone. The flint implements made by them have never been equaled by any later Indians we know about, and they probably represent the highest type of work along these lines in America. That is very peculiar when we consider how primitive the other aspects of their culture were. Nevertheless, that is the situation.

Mr. JOHNSON of West Virginia. Can you say anything as to the climatic conditions at that time?

Mr. STIRLING. At the time the site was occupied the climate was considerably more humid than at the present. We have succeeded in recovering a great many land mollusks and snails, many small and almost microscopic ones. Perhaps 15 different species have been identified. A majority of them are forms now current, but several now exist only at localities far to the south. The general texture of the soil on the site seems to indicate that there was considerably more vegetation than there is at the present time.

The geology of the valley in which the site is located is very interesting. Formerly it was drained by a fair-sized mountain stream which went through a long mountain valley. But so much erosion has taken place since that time that another stream has cut through at right angles taking away its drainage, so that the original stream no longer runs through the valley. Erosion from the south has encroached on the hill which was formerly the southern boundary of the valley in such a way as to remove it almost entirely, and there is just a little remnant of what was formerly a good-sized hill, as can be seen in the remnants of the existing slopes.

The whole lower end of the valley is now gone; what is left remains as a hanging valley, which, in a few thousand years will be entirely eroded away.

The geologists have been able to follow the geological formations in which this site is located and have carried them all the way down to the Platte River in Nebraska, where they were able to connect them with a known geological series. The geologists are now positive as to the geological age of the site, and we feel that it is the most important single geological contribution that has yet been made in American archaeology.

Mr. WOODRUM. Is there any bulletin on that?

Mr. STIRLING. Yes; we have two reports now published in the Smithsonian Miscellaneous Series which describe the first three seasons of work. Two additional reports will come out this year, one on the geological results, and the other describing last season's work.

Mr. WOODRUM. Are they available for distribution?

Mr. DORSEY. They are sent to libraries all over the country.

Mr. STIRLING. You might be interested as to how far back that puts man's appearance in America. It makes quite a radical change in the estimates that archeologists have been prone to give in more recent years.

It was generally thought that 5,000 years ago was a generous estimate as to when man first came into America from Asia. This projects the time scale considerably beyond that and more in accordance with what some of the old-time archeologists used to think. They thought they were working on things which were authentic, but by sheer accident their estimates were not so far wrong. It is a very interesting contribution to archeological knowledge for there is no evidence of any people ever having been in the Americas before this particular type of man, the so-called Folsom man.

Mr. JOHNSON of West Virginia. Did you find any evidence of any belief or religion?

Mr. STIRLING. There is nothing that would indicate anything of that sort, because their material culture is so primitive that none of the objects found could be interpreted as being of a ceremonial or ritualistic nature. Everything was purely practical, such as engraving tools, weapons, and tools for dressing and scraping hides.

These people used a spear-thrower, a short stick, with a hook on the end, against which the butt of the spear was placed so as to give added leverage to the natural sweep of the arm enabling the spear to be propelled with greater force.

These grooved points were probably mostly used for that type of spear.

One very interesting find was one of these points imbedded in a vertebra of one of these extinct bison. It had cut through the spinal cord in such a way that it must have caused the death of the animal. That is now on exhibition at the National Museum.

PRINTING AND BINDING

Mr. WOODRUM. You have an item for printing and binding, as follows:

Printing and binding: For all printing and binding for the Smithsonian Institution, including all of its bureaus, offices, institutions, and services located in Washington, D. C., and elsewhere, \$73,000, of which not to exceed \$8,000 shall be available for printing the report of the American Historical Association.

NOTE—The following citations are to laws relating to the above: (31 U. S. C. 588; 44 U. S. C. 289).

Expended, 1938.....	\$58,500
Available, 1939.....	67,000
Reserve, 1939.....	1,000
Appropriated, 1939.....	68,000
Requested of Budget Bureau for 1940.....	100,000
Recommended by Budget Bureau for 1940.....	73,000
Increase over appropriation for 1939.....	5,000

Will you give us your justification for that and then briefly tell us informally what it covers?

JUSTIFICATION OF ESTIMATE

Mr. TRUE. The following justification is submitted for this item:

This appropriation provides for the printing of the Smithsonian Annual Report with its appendix, and for printing the publications covering the scien-

tific work of Federal branches under the administration of the Institution, and of miscellaneous cards, forms, and labels, necessary in the work of such units. It also provides for the binding of periodicals and books for the library and includes not exceeding \$8,000 for printing the Report of the American Historical Association.

The increase for 1940 is explained as follows:

(1) *Increase, printing and binding, \$5,000.*—The increase of \$5,000 will be utilized in reducing as far as possible the accumulation of unpublished manuscripts resulting from the researches of the scientific staff based largely on the collections under the administration of the Smithsonian Institution. This material is new to scientists and contains information of importance to scientific workers throughout the world, much of which will be used as a basis of economic investigations by other students. The major portion of this increase will be utilized for the issuance of this essential information in the form of bulletins and proceedings dealing with the work of the National Museum and the Bureau of American Ethnology. A portion of the increase will be required to meet the increased cost of printing and binding.

This item is of vital importance to the work of the Institution. As you doubtless know, the Institution has only two stated functions, the increase of knowledge and the diffusion of knowledge.

The increase of knowledge we try to accomplish by scientific investigation and exploration, but before that is of value it must be issued in published form, and this appropriation is to cover the cost of our several series of publications.

Mr. WOODRUM. You have a small increase; what is that for?

Mr. TRUE. That is to cover the accumulation of manuscripts that have piled up during the lean years. We have not had an adequate appropriation since 1932. We have had a small increase from year to year, but the increases have not been sufficient to cover the cost of the publications of the Institution.

Mr. WOODRUM. How much did you ask the Budget for?

Mr. TRUE. \$100,000, which is the required amount.

Mr. WOODRUM. How much did they allow you?

Mr. TRUE. They allowed us \$73,000 this year, an increase of \$5,000 over last year. That will enable us to take up some of the more important manuscripts.

Mr. WOODRUM. You might amplify that a little bit.

Mr. TRUE. As I stated at the beginning, the Institution has only two functions, the increase of knowledge and the diffusion of knowledge. For the increase of knowledge we depend on the scientific researches and explorations of a large staff of highly trained specialists, both on the Smithsonian staff and on the staffs of its several Government branches. These scientists conduct fundamental investigations in many branches of science, and much of this work is later used as the basis for economic applications for the benefit of mankind. The results of their work, therefore, must be made available in printed form before it can be of value. So for the second half of its work, the diffusion of knowledge, the Institution depends largely on its various series of publications, the cost of which is met from this appropriation for printing and binding.

Any reduction in the funds for printing, therefore, throws the work of the Institution out of balance—it proceeds like a man with one short leg. Its staff of scientists devote their time to basic researches which are essential to the success of economic work—but when the researches are completed we find there is no money to make the results available to the world in printed form. Particularly is this true in the case of the larger manuscripts—monographic works on some form of animal

life or on some particular group of Indian tribes. These larger works are of the greatest importance to other research workers and to students throughout the world, and many of those previously published are used as standard reference works. We have several such manuscripts on hand at the present time that have been held in the editor's office for 5 years because we have been unable to print them with our reduced printing appropriations.

The last adequate printing appropriation for the Institution (approximately \$100,000) was in 1932. During the worst depression years most of the reduction in Smithsonian appropriations had to be absorbed in the printing item to avoid the dismissal of employees. Most of the other Smithsonian items have since been increased, but the printing item, although increased slightly from year to year, is still, even with the present increase of \$5,000, only about 70 percent of the normal requirement. To that extent, therefore, the program of the Institution for world-wide diffusion of knowledge is crippled.

There is \$8,000 of this item for the report of the American Historical Association in charge of Dr. Stock.

Dr. Stock. Mr. Chairman, I have not much more to say than what I have said before. Our main purpose is to provide for our annual reports, including the annual bibliography of American history. We are directed by our charter to report annually through the Smithsonian Institution on the state of historical work during the year, and we think that is best shown by the bibliography of everything written on American history. Our last volume published was that for 1934, and we are quite anxious to bring that closer up to date for the use of scholars and students.

TUESDAY, DECEMBER 13, 1938

SOCIAL SECURITY BOARD

STATEMENTS OF ARTHUR J. ALTMAYER, CHAIRMAN OF THE BOARD; GEORGE E. BIGGEE, MEMBER OF THE BOARD; OSCAR M. POWELL, EXECUTIVE DIRECTOR; W. L. MITCHELL, ASSISTANT EXECUTIVE DIRECTOR; JOHN J. CORSON, DIRECTOR, BUREAU OF OLD-AGE INSURANCE; AND D. O. THROGMORTON, CHIEF, ACCOUNTING AND BUDGET DIVISION, BUREAU OF ACCOUNTS AND AUDITS

Mr. WOODRUM. Gentlemen, we will take up the items for the Social Security Board. We have present Mr. Altmeyer, chairman of the Board, as well as several of his colleagues. We will take up the various items of appropriation for the Board, and the justifications therefor will be put in the record.

OPERATION OF THE SOCIAL SECURITY ACT

Mr. WOODRUM. Would you care to make a general statement at this point, Mr. Altmeyer?

Mr. ALTMAYER. Yes. I have a general statement I should like to make to the committee. Before doing that, may I say that our

