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Attention is called to the "Wants" column. It is invaluable to those who use it in soliciting information or seeking new positions. The name and address of applicants should be given in full, so that answers will go direct to them. The "Exchange" column is likewise open.

REPORT ON THE MEMORIAL PRESENTED TO THE SMITHSONIAN INSTITUTION REGARDING AN AMERICAN TABLE AT THE NAPLES ZOÖLOGICAL STATION.¹

To the Biologists of the United States: I have the honor to submit the following report on the Memorial which was circulated last winter, petitioning the Smithsonian Institution to support a table at the Naples Station.

Thirteen copies of the Memorial were sent out. Twelve of these, bearing the signatures of nearly two hundred working biologists, representing about eighty universities, colleges, and scientific institutions, were returned to me, and were presented in person to Professor S. P. Langley, secretary of the Smithsonian Institution.

In reply to the Memorial, the following letter was received:—

SMITHSONIAN INSTITUTION,
WASHINGTON, April 7, 1893.

Dear Sir:

I have given careful consideration to the petitions and papers presented by you, and I have decided, in behalf of the Smithsonian Institution, to rent a table at the Naples Zoölogical Station for three years, and have already taken steps to secure it.

I shall be glad to be able to learn the opinions of the representative biologists of the United States in regard to the best administration of this table, and I shall esteem it a favor if, through your mediation, an advisory committee of four persons may be formed; one to be nominated by the president of the National Academy of Sciences, one by the president of the American Society of Naturalists, one by the president of the American Morphological Society, and one by the president of the Association of American Anatomists, with the understanding that I may, if need arise, feel at liberty to ask their counsel in regard to the regulations for the use of the table, or as to the merits of applicants for it.

The table will be known as The Smithsonian Table. Publications resulting from its use will bear the name of the Smithsonian Institution, and such of them as are of sufficient importance will probably be printed in the "Smithsonian Contributions to Knowledge."

While the exact conditions will be determined later, I may say, subject to better advices, that it seems to me now that applications for the use of the table should be made to the secretary of the institution, who will probably desire to feel authorized to consult the above-mentioned committee concerning them, whenever, in his judgment, occasion arises for doing so.

If this meets your approval, will you kindly communicate to

¹ Scientific journals throughout the country please copy this report in full or abstract it, so that it may reach every working biologist.—C. W. S.

the president of each of the societies named my request, that he nominate a member of the advisory committee in question?

Very respectfully yours,

S. P. LANGLEY,
Secretary.

Dr. C. W. Stiles.

In accordance with this letter, I communicated with the gentlemen designated and forwarded the following nominations, made by them, to Secretary Langley:—

Major John S. Billings, M.D., U.S.A., nominated by Professor O. C. Marsh, president of the National Academy of Sciences.

E. B. Wilson, Ph.D., professor of zoölogy, Columbia University, nominated by Professor Chittenden, president of the Society of American Naturalists.

C. W. Stiles, Ph.D., zoölogist, Bureau of Animal Industry, U. S. Department of Agriculture, nominated by Professor C. O. Whitman, president of the American Morphological Society.

John A. Ryder, Ph.D., professor of embryology, University of Pennsylvania, nominated by Professor Allen, president of the Association of American Anatomists.

In regard to these nominations, the secretary of the Smithsonian Institution has addressed the following letters to me:—

June 5, 1893.

My dear Sir:

I am pleased to receive your letter of 2d instant, in reference to the appointment of members of the advisory committee, with whom I may feel at liberty to consult, concerning appointments for the Smithsonian Table at the Naples Zoölogical Station.

As I understand you, Doctor J. S. Billings, U.S.A., of Washington, is nominated by the National Academy of Sciences; Professor E. B. Wilson of Columbia University, New York, to represent the American Society of Naturalists; you to represent the American Morphological Society; and Professor John A. Ryder of the University of Pennsylvania to represent the Association of American Anatomists.

I am glad to accept the nomination of these gentlemen, and in each case to appoint the nominee a member of the committee; and since you do not name the chairman, I beg that you will, acting provisionally as such, make this statement to each of the gentlemen in question.

I would suggest that it would much facilitate the business in hand, if the chairman of the committee should be a resident of Washington, and be so far authorized to speak for the committee, that he need not consult its individual members on every separate application. I am, sir,

Very respectfully yours,

S. P. LANGLEY,
Secretary.

June 8, 1893.

Dear Sir:

I wish to add to my letter written two days ago the statement that I have decided to designate Dr. Billings chairman of the Advisory Committee on the Smithsonian Table at the Naples Station, and yourself as secretary.

Please communicate this fact when you write to the several members of the committee announcing their formal appointment.

Yours respectfully,

S. P. LANGLEY,
Secretary.

DR. C. W. STILES,

U. S. Department of Agriculture, Washington.

Professor Langley has also sent me the following announcement for publication, and a copy of the contract between the Smithsonian and Professor Dohrn, which is here published for the benefit of those who contemplate a trip to Naples.

The secretary of the Smithsonian Institution announces that the Institution has secured a table at the Naples Zoölogical Station for the use of American investigators. Applications for the use of this table will be received at any time, and should be accompanied by credentials indicating that the candidate is qualified to carry on original investigation in some field for which especial facilities are offered at the Naples Station. These credentials should be accompanied by a statement of the history of the candi-

date as a student and investigator, together with a list of such original papers as may have been published by him. The application should be also accompanied by a statement of the character of the investigation which the candidate desires to pursue, and the dates between which he wishes to occupy the table.

Appointments will be made by the secretary of the Smithsonian for a specific period, and, in the consideration of the claims of the candidates, the Secretary will probably avail himself of the counsel of an advisory committee of four, representing the National Academy of Sciences, the Society of American Naturalists, the American Morphological Society, and the Association of American Anatomists.

Persons who may occupy the Smithsonian table are expected to make a report at the end of their term of occupation, or every three months in case of long residence at the station. It is expected that due credit will be given to the Smithsonian Institution in any publication resulting from studies carried on at its table, and the "Smithsonian Contributions to Knowledge" will probably be available for the publication of at least a part of the papers resulting from the Naples investigations.

All correspondence should be addressed to S. P. Langley, Secretary of the Smithsonian Institution, Washington, D.C.

STAZIONE ZOÖLOGICA DI NAPOLI.

Entre la "Smithsonian Institution," Washington, et le Professeur Dr. Antoine Dohrn, Directeur de la Station Zoölogique de Naples, a été établi le suivant

CONTRAT.

1. Monsieur le Docteur A. Dohrn met à la disposition de la Smithsonian Institution une table d'étude dans les laboratoires de la Station Zoölogique à Naples, aux conditions suivantes et contre l'indemnité qualifiée dans l'article 11 de ce contrat.

2. La table doit être prête à être occupée par le savant nommé par la Smithsonian Institution, dans le terme de huit jours après que l'Administration aura été avisée de son arrivée.

3. La table doit être munie des objets énumérés ci-dessous:—

(a) Des principaux réactifs chimiques,

(b) Des instruments nécessaires à la technique anatomique et microscopique,

(c) Des accessoires pour le dessin.

Les laboratoires seront dûment pourvus d'instruments et d'appareils plus compliqués qui sont devenus d'usage, pourtant ceux-là se trouveront au nombre de deux ou trois exemplaires, et l'on est tenu de s'en servir en commun.

La Station ne pourvoit pas les tables d'instruments optiques, puisqu'il s'entend que ceux qui viennent y travailler en possèdent de leur propre choix.

4. La table possède un nombre suffisant de petits aquariums pourvus d'eau de mer courante, et devant servir aux expériences que le savant se trouvera dans la nécessité d'entreprendre.

5. Les animaux qui feront l'objet d'étude seront renouvelés aussi souvent que possible et selon que le savant en demandera. On pourra en outre avoir du matériel préparé et conservé selon les méthodes voulues, afin de pouvoir continuer les études commencées à Naples.

6. Le grand Aquarium annexé à la Station Zoölogique sera ouvert gratis à l'occupant de la table, soit pour en jouir, soit pour y faire des études sur les mœurs des animaux.

7. La Bibliothèque de la Station Zoölogique est accessible à l'occupant de la table, dans une salle contiguë aux laboratoires, et peut servir de salle de lecture et à la compilation des manuscrits.

8. Les laboratoires seront ouverts à sept heures du matin en été, et à huit heures en hiver. Dans des cas exceptionnels on pourra s'accorder avec l'Administration pour d'autres arrangements, pourtant les employés ne seront pas tenus de tenir les laboratoires prêts avant l'heure indiquée. Depuis le 20 Juin jusqu'au 20 Août les laboratoires seront fermés.

9. L'occupant de la table aura le droit de prendre part aux expéditions de pêche que feront les embarcations de la Station, ainsi que de se faire enseigner les diverses méthodes en usage.

10. Les dégats commis par l'occupant de la table sur les instruments et utensiles resteront à la charge de l'Administration de l'Institut autant qu'ils ne dépasseront pas la somme de 20 francs.

11. Le présent Contrat aura la durée de trois ans, et la Smithsonian Institution s'engage à payer à Monsieur le Docteur Antoine Dohrn, Directeur de la Station Zoölogique, annuellement et par anticipation la somme de francs 2500 en or (deux mille cinq cents francs en or) pour la table louée dans les laboratoires de la Station Zoölogique.

Signé en double exemplaire.

Washington, June 9, 1893.

Naples, 16 May, 1893.

S. P. LANGLEY,
Secretary of the
Smithsonian Institution.

PROFESSEUR DR. ANTON DOHRN,
Directeur de la Station Zoölogique de Naples.

In conclusion, I wish to express my obligations to the signers of the petition for their prompt and hearty support in this matter, which is of great interest to us all.

The Smithsonian Institution has now placed a table at our disposal, and in so doing has rendered to the professional biologists of the country a service which should be appreciated by all, and which will be especially appreciated by those of us who, on account of the non-existence of an American table for many years prior to the establishment of the Davis table, have either been debarred from the Naples Station or have worked there only at the courtesy of foreign institutions or by personal favor of Professor Dohrn. Let us now show our appreciation of Professor Langley's action by seeing that the table is occupied the entire time. I would respectfully suggest that those contemplating making application for the use of the table should do so at as early a date as possible, so that ample time will be given for correspondence and for arranging a proper distribution of the table so that all worthy applicants may be given an opportunity to spend a few months at the station.

Respectfully submitted,

C. W. STILES.

ASSOCIATION OF COLORS WITH SOUNDS.

BY B. F. UNDERWOOD, CHICAGO, ILL.

A BLOW on the head often gives rise to luminous sensations (for luminousness is a sensation and not, as is popularly supposed, a thing *per se*) and, under the influence of the shock, the person seems to see a multitude of sparks. Describing the effect of a fall on the ice, boys say it made them "see stars." Frequently there is great variety and brilliancy of colors thus seen. Vibrations which, affecting the auditory nerve, produce the sensation of sound, in some cases have the power of causing the sensation of luminousness. Indeed, there are persons who, whenever they hear a sound, also perceive a color, one sound corresponding with red, another with blue, another with green, etc. Dr. Nussbaumer, of Vienna, relates that when a child, in playing one day with his brother, he struck a fork against a glass to hear the ringing, and while he heard the sound, he discerned colors. He says that when he stopped his ears, he could tell by the colors how loud was the sound produced by the contact of the fork with the glass. Very much the same were the experiences of the brother. The doctor relates the observations of a medical student in Zurich, to whom notes of music were translated by certain fixed colors, the high notes by clear, the low ones by dull colors.

M. Pedrona, an ophthalmologist of Nantes, states that he had a friend who was accustomed to the simultaneous perception of sounds and colors, but he avoided speaking of it, not wishing to be thought strange or to be an object of curiosity or a subject of discussion. At one time a number of persons were repeating a slang expression, which occurred in some popular story, "That is as fine as a yellow dog," applying it in a jocular manner to all kinds of things and actions. One of the company said of another person, "Have you noticed his voice? It is as fine as a yellow dog." M. Pedrona's friend replied seriously and with emphasis, "His voice is not yellow; it is pure red." The downright earnestness with which the remark was made, caused the whole company to laugh outright. "What," said they, "a red voice? What do you mean?" The gentleman had to explain the peculiar faculty which he possessed of seeing the color of voices. When he had done this each person present desired to be informed of the color of his own voice. The voices were charac-