proper measures for their preservation. The same remarks would, in a general way, apply to the collections of the Philadelphia academy of natural science. It is sad to find no paid ornithologists in charge of these exceedingly valuable collections, and he begged to suggest that the union could undertake no worthier task than to impress upon the proper authorities the urgent necessity of immediate action in this matter.

The officers of the union were re-elected as follows: president, J. A. Allen, Cambridge; vice-presidents, Dr. Elliott Coues and Robert Ridgway, Washington; secretary and treasurer, Dr. C. Hart Merriam, Locust Grove, New York.

THE MERIDIAN CONFERENCE.

THE International conference for fixing upon a meridian to be employed as a common zero of longitude met at Washington, Oct. 1, in the diplomatic hall of the State department. Forty delegates were present from twenty-five nations. Of these, sixteen were represented, wholly or in part, by members of the diplomatic or consular service; and, as the State department took charge of the affair, the proceedings have been surrounded with much of the secrecy of that office. As a consequence, the questions involved have been very little discussed from the stand-point of scientific or commercial convenience, but the time has been mostly taken up with political diplomacy and sentiment.

The representatives of this country were Rear-Admiral C. R. P. Rodgers, Messrs. L. M. Rutherford and W. F. Allen, Commander W. T. Sampson, and Professor Cleveland Abbe; and, at the first meeting of the conference, Admiral Rodgers was elected president. In his opening address he referred to the wide extent of this country in longitude, but said there was no desire to urge the choice of a prime meridian within its borders. The rest of the session was occupied in discussing proposed methods of conducting the conference, etc.

At the next meeting, on Oct. 2, Lieut.-Gen. Strachey of Great Britain, Mr. Janssen (director of the observatory at Meudon, France), and Dr. Cruls (director of the Rio Janeiro observatory) were elected secretaries.

Commander Sampson then introduced a resolution to invite the superintendents of the *American ephemeris* and of the Coast and geodetic surveys (Professor Newcomb and Dr. Hilgard), Professor A. Hall, Dr. Valentiner (director of the Karlsruhe observatory), and Sir William Thomson, to attend the meetings. A long discussion arose as to whether these persons were to take part in the proceedings, the French delegates opposing any such proposition. The resolution was finally passed as it stood; and Commander Sampson then introduced another, that the gentlemen who had just been invited to attend the meetings of the conference be permitted to take part in the discussion of all scientific questions. The French delegates again strongly objected to allowing any private individuals, however eminent, who were not authorized by their respective governments, to influence the decisions of the conference. After considerable discussion, the motion was lost, eight to thirteen, each nation having one vote.

Gen. Strachey then introduced, as a substitute, that the president be authorized, with the concurrence of the delegates, to request an expression of the opinions of the gentlemen invited to attend the conference on any subject on which their opinion might be likely to be valuable; and this was adopted without debate.

Commander Sampson then introduced a resolution that the meetings of the conference be open to interested visitors. This, after objection on the part of the French delegates, was lost by a vote of seven to fourteen.

Mr. Rutherford, in order to give direction and precision to the work, then submitted a resolution that the conference propose to the governments represented the adoption, as a standard meridian, of that of Greenwich, passing through the centre of the transit instrument at the observatory of Greenwich.

The two French delegates made extended remarks opposing such a direct resolution, stating that this conference had no authority definitely to adopt any meridian; that it should not be influenced by the decisions of the geodetic conference last year at Rome, since that was purely a meeting of scientific men on a technical matter, while this conference was more international in its character, and should examine the thing from a political stand-point, Mr. Janssen even going so far as to express the opinion that it should confine its deliberations to the question as to whether a common zero meridian were desirable.

Gen. Strachey said we could not ignore the work of the geodetic conference at Rome; that, composed of some of the most eminent scientific men of all countries, who had fully discussed all these questions, its decisions must carry weight; that while this conference had no authority to enforce its decisions, yet it should make them as complete and definite as possible.

Mr. Rutherford said, that a discussion as to whether it were advisable to adopt a common zero meridian or not was a waste of time; that it was taken for granted by our government in issuing the invitations, and by the others in accepting them, but, out of deference to the wishes of the French delegates, he withdrew the resolution temporarily. Another was then offered by Commander Sampson, stating the desirability of adopting a universal meridian, and it was unanimously agreed to. Mr. Rutherford then renewed his original resolution for the adoption of the Greenwich meridian, and Mr. Janssen reiterated his objections to it.

A discussion followed as to the powers of the conference, and the intentions of this government in calling it. Mr. Rutherford referred to the language of the secretary of state in the invitations, saying that each government was invited "with a view to learning whether its appreciation of the benefits to accrue

to the intimate intercourse of civilized peoples from the consideration and adoption of the suggested common standard of time so far coincides with that of this government as to lead it to accept an invitation to participate in an international conference," etc., and said that they were here to fix upon that meridian; that the delegates must have studied the matter before coming here; and that no one would be likely to come unless he knew, or thought he knew, something about the matter.

Most of the delegates then stated that they had no power to bind or pledge their governments, but only to *recommend* to them the decisions of the conference.

Mr. Fleming, one of the English delegates, called the attention of the conference to the act of congress which called them together; viz., —

"That the president of the United States be authorized and requested to extend . . . an invitation to appoint delegates . . . *for the purpose of fixing upon a meridian*," etc., and said that the word 'recommend' was not used at all.

There being, apparently, considerable doubt as to just what they were there for, the conference adjourned over for four days to get further light on the subject.

At the third meeting, on Oct. 6, the pending resolution of Mr. Rutherford was so modified as to define the meridian of Greenwich as a standard meridian *for longitudes;* and it was then temporarily withdrawn to give an opportunity for the French delegates to introduce a resolution providing for a prime meridian having a character of *absolute neutrality*, cutting no great continent.

Gen. Strachey said that the conference at Rome had concluded that a prime meridian must pass through an observatory of the first order; and only those of Berlin, Paris, Greenwich, and Washington fulfilled this condition.

Commander Sampson summarized the many points necessary and desirable in a prime meridian; and, on the side of convenience and economy, he made the strong point, that seventy per cent of all the shipping afloat now use the Greenwich meridian, and that the cost of the plates now engraved for charts reckoning from Greenwich was seventy-five per cent of all the world's charts. To adopt any other meridian would necessitate changing all these, which cost about ten million dollars.

Mr. Rutherford said that the Paris observatory must soon be moved out of the city, and only sentiment kept it where it was; while Greenwich observatory was in an isolated park, secure from injurious encroachment.

Mr. Janssen defended the proposed neutral meridian, saying, that, if that principle were rejected, it would be useless for him to continue the discussion. He went into a long defence of the plan, historical, sentimental, and patriotic; giving the history of the Isle of Ferro as a zero of longitudes, the great work of the French in early days in astronomy, navigation, and chart-making, and how many valuable charts they now possessed, etc. The only point worth combating was the statement that the needs of the common prime meridian were limited to geography or hydrography alone, and were entirely distinct from the meridians for astronomy, geodesy, and topography, which were local national affairs, and might just as well have separate and independent meridians; in this ignoring the principal objects of the conference.

Professor Adams of Cambridge, England, said that Mr. Janssen's argument seemed to be a defence of the Paris meridian rather than of a neutral meridian, and to be based simply on motives of sentiment and patriotism; that the question of convenience and least change from present status was not touched upon. Besides, why talk of a *neutral* meridian? They were not belligerents, but were all neutral, as scientific men, or men looking for the greatest good to the whole world, should be. If an entirely new meridian be chosen, an observatory must be set up on it, and connected carefully by telegraph with others, and all existing longitudes changed.

Mr. Janssen tried to insist upon the distinction between astronomical and geographical longitudes, and that such a high degree of accuracy was not needed in the latter.

Professor Adams showed that they must, in any case, depend upon astronomical observations; that even geodetic observations of high accuracy cannot determine great differences of longitude exactly, on account of the irregular figure of the earth.

In accordance with a previous resolution, Professor Newcomb, the superintendent of the *American ephemeris*, was invited to give his views on the question. He said it would be impossible to select a meridian absolutely neutral in Mr. Janssen's sense, as it must be on land, with an observatory upon it connected by telegraph with others. He referred to the impossibility of connecting every newly determined longitude directly with the principal meridian, but said that each country or each region must have its secondary meridian and observatory to connect to, and then the whole system would receive systematic correction as the accuracy of determining the longitude of this secondary observatory was increased. He agreed with Professor Adams that the proposals of the French delegates were based purely on sentiment, and that he should answer them just as the former had done.

Gen. Strachey said that longitude was longitude, and as a geographer he must repudiate the idea of first-class longitudes for astronomical purposes and second or third rate geographical longitudes.

At the session of the conference on last Monday the question of a prime meridian was finally settled. Mr. Fleming, the British delegate from Canada, opposed the pending resolution of Mr. Janssen for an absolutely neutral meridian, because it would only add another to those already used, and advocated that of Greenwich on account of the overwhelming preponderance in its present use over any other; while Dr. Cruls of Brazil favored the neutral meridian. The resolution was put to vote, and lost by a large majority.

The original resolution to adopt Greenwich was then introduced. Mr. Allen presented a resolution of

the Railway convention, held in Philadelphia, Oct. 9, and reciting the importance to railroads of retaining this meridian. The resolution to adopt Greenwich was then passed with only one dissenting vote, that of San Domingo, France and Brazil not voting.

Mr. Rutherford then introduced a resolution to count longitudes in two directions from Greenwich up to 180°, east longitude being plus, and west minus. This was favored by the delegates from Great Britain and Russia, and opposed by Commander Sampson, the latter advocating the plan of counting only in one direction, from 0° to 360°, as simpler. This plan was also favored by the delegate from Sweden, Count Lewenhaupt, who moved to adopt the fourth resolution of the Roman conference, counting longitude continuously through the whole 360°. Pending further discussion, the conference adjourned till Tuesday at one o'clock. On Tuesday the discussion was continued, and the resolution offered by Mr. Rutherford passed by a small majority.

SEMITIC NOTES.

AN interesting collection of oriental antiquities has been brought to this country by Mr. Bernhard Maimon. The collection consists of bronzes, lamps, manuscripts, seals, and an Assyrian barrel-cylinder with inscription. Mr. Maimon offered it for sale at one thousand dollars, but, finding no purchaser for the whole, he leaves the seals and cylinder in the Metropolitan museum in New York, and has sold the other objects to Professor Marquand of Princeton, N.J.

Information dated London, Sept. 28, has been received, that Dr. W. H. Ward, the leader of the Wolfe expedition to Chaldaea, would set out the following week for Constantinople. Here he hopes to be joined by Dr. Sterrett, who has returned to Constantinople from his extensive tour in Asia Minor. From Constantinople the party will perhaps go by Alexandretta, Aleppo, and Mosul, reaching Bagdad toward the close of November. The months of December, January, and February are those most favorable for a visit to Chaldaea; and the Wolfe party expects during this time to accomplish its task. During his stay in London, preparatory to his trip to Chaldaea, Dr. Ward spent his time in the British museum, studying the Assyrian antiquities, and specially acquainting himself with those which are forged. Cylinders are so valuable, that a flourishing business is done in forgeries by some of the enterprising orientals; but the practical eye can always detect traces of the forgery. Usually a mould is made from a genuine cylinder, and the forgery is cast in this mould. The joining of the two halves of the cast cannot be successfully concealed.

Mr. J. R. Jewett, who graduated at Harvard last year, is now in Beyrout, Syria, engaged in the study of modern Arabic. His favorite studies during his last two college-years were the Semitic languages.

D. G. LYON.

TURNER'S SAMOA.

Samoa a hundred years ago, and long before, together with notes on the cults and customs of twenty-three other islands in the Pacific. By GEORGE TURNER, LL.D., of the London missionary society; with a preface by E. B. TYLOR, F.R.S. London, *Macmillan*, 1884. 16+395 p. 12°.

THIS work was prepared under very exceptionable circumstances favorable to its value and accuracy. The author published, in 1861, a volume entitled 'Nineteen years in Polynesia,' which was chiefly directed to narrate the introduction of Christianity into, and the missionary work in, the group of volcanic islands in Central Polynesia, long known as Navigator's Islands, but correctly called Samoa. In the present volume he abandons the missionary style, as well as its subject; and gives the result of his miscellaneous researches for upwards of forty years. He has clearly apprehended the desiderata in the presentation of the results of ethnological research: i.e., he has confined himself almost exclusively to the detail of facts, classified so as to assist students, but has left to specialists all promulgation or advocacy of theories. The result is that very few works are of greater value in assisting the study of comparative ethnology, or in the solution of problems in physiology, mythology, history, and philology.

The volume, being a repertory of an immense number of details in all branches of anthropology, affords little opportunity for such quotation as would give any true idea of its value. It must rather be regarded as a brief encyclopedia of the various titles to which the sociologist, the linguist, the student of folk-lore, the physiologist, and indeed all persons interested in the several divisions of anthropology, can turn with profit. The mythic traditions and the folk-lore constitute, to the general reader, perhaps the most attractive part of the work. In this connection it may be proper to offer a slight criticism.

In the cosmical genealogy, an early character is called 'Valevalenoa,' or, as translated, 'Space.' This deity had a long-legged seat; and, after a time, 'Cloudy Heavens' brought forth a head, which fell from the heavens. 'Space' set it up on his high stool, and said to it, 'Be a son, be a second with me on the earth.' Space started back, for all of a sudden the body of a man-child was added to the head. The child was sensible, and inquired who his father was. Space replied, "Your father is yonder in the east, yonder in the west, yonder towards the sea, yonder in the land,