

22 brightest stars; provision for interpolation for the odd minutes of declination, and for precession in the case of the stars, is made by means of tabulated variations. In each group of four pages for a given declination, the altitude and azimuth are tabulated for each integral degree of latitude and hour angle; no provision for interpolation is made for these arguments. The tables are being computed independently, and copy for the first three volumes is complete. It is expected that the first volume will be ready shortly, and issued under the title of *Astronomical Navigation Tables*.

Dr Robertson showed a photostatic copy of the new catalogue of zodiacal stars which he had recently completed. He remarked that it had been originally started by Dr Comrie, who handed it over to Dr Eichelberger. The real work, however, had been done by himself in 1930-38, after the retirement of Dr Eichelberger.

Dr Comrie asked if the catalogue was complete to magnitude 7.5, the limit now adopted for occultation predictions, and was assured that it was. He then remarked on the satisfaction that astronomers would feel that Hedrick's zodiacal catalogue, produced at Washington 40 years ago, had been succeeded by this new catalogue. The Commission then expressed its gratitude to Dr Robertson for completing this work.

At the end of the session Prof. Leuschner moved the following resolution which was seconded by Prof. Fayet and carried unanimously: "Commission 4 having been advised that Dr Comrie will retire from the Presidency at the close of the 1938 meeting of the I.A.U., hereby expresses to him its appreciation of his constructive policies and leadership, and of the efficient manner in which he has conducted the work of the Commission."

COMMISSION 5 (BIBLIOGRAPHY)

PRESIDENT: PROF. KNUT LUNDMARK.

SECRETARY: DR PER COLLINDER.

The Commission held a well-attended meeting on August 4. Fifteen were present, of whom five were members.

The President greeted the members and said some words regarding the two members deceased since the last General Assembly, *viz.* Prof. P. Stroobant, and Count de la Baume Pluvinel, and referred to the distinguished services rendered to the history of astronomy by the late President of the Commission, Prof. Stroobant.

The draft report was read and comments were given by the President. In this connection a letter to the President from M. Bourgeois was read.

Prof. Vyssotsky had made the suggestion that steps should be taken to translate the astronomical parts of the old Russian chronicles. Now that Prof. Vyssotsky himself was not in a position to undertake this, he was willing to try to find Russian collaborators for the translation. The President pointed out the considerable interest connected with this plan. The investigation of the astronomical references in old literary and historical documents is important not only because of their contribution to the cultural history of mankind but also because they, in many instances, reveal hidden astronomical observations of novae, comets, meteors, etc. It was agreed to appoint Prof. Vyssotsky as President of a Sub-Commission for carrying out his proposal.

Mr Neubauer had proposed that an Institute for the History of Astronomy should be established at Lund, and that one of the objects of that institution should be the construction of a card record of observatories and astronomers. This work should commence with the present time and work backwards as and when means permitted. In this connection the Commission discussed a proposal by Mr Ryves, that a new edition should be issued of Prof. Stroobant's work "Les observatoires astronomiques". Inasmuch as a new edition cannot very well be undertaken at present, the President pointed out that it seemed most appropriate to use the above-mentioned card record, as soon as it has been established, as a basis for the publication of the new edition of Prof. Stroobant's book. It might be feasible for this to be published in time for the next General Assembly. In this connection a few statements were given as to the activities of the international Society for Astronomical History at Lund, founded in 1934.

Mme d'Azambuja, and MM. Baldet and Grouiller gave an account of the financial status of the review, *Bibliographie mensuelle de l'astronomie*. It was pointed out that part of the financial support from France had been withdrawn, and, in addition, the costs of printing had been raised. Nevertheless, the speakers considered that it would still prove most economical to continue the publication of the review in France and moved that the I.A.U. should raise its contribution from £100 to £150, otherwise the uninterrupted publication of the review could not be guaranteed. The President informed the Commission that he had intended to ask for a financial support of £50 for the card record of astronomers and observatories, but realizing the importance of the French motion, he had decided not to make this request and to give his warmest support to the plan of raising the contribution to the *Bibliographie mensuelle*.

The President and Dr Collinder explained the plan for a card record to be prepared under the auspices of the Lund Society for the History of Astronomy. This record is to be constructed on the biographical and bibliographical data in Mr Sarton's "Introduction to the History of Science" and will embrace not only astronomers but all men of science. For further particulars reference was given to a paper by Dr Collinder in the *Transactions of the International Congress for Documentation* in Paris, 1937. This congress was attended by the President and the Secretary of the Commission and short statements were given as to the general impressions from that congress.

Dr von Klüber considered that the time might be ripe to take up a renewed study of ancient Egyptian astronomical documents and that a collaboration should be established with one or more egyptologists for this purpose.

Dr Nordenmark was invited to present statements as to his work on old Swedish astronomy. Dr Nordenmark said that he was mainly interested in the epoch of the eighteenth century. He has completed an extensive work on Anders Celsius and is now preparing an account of the life and work of the important astronomer and statistician P. W. Wargentin.

Mr Pelseener proposed that a list should be worked out, containing important subjects for investigations in the history of astronomy. This list should serve as a guide for workers in this field who had not sufficient general historical education to choose problems for investigation by themselves. Mr Pelseener further proposed that steps should be taken to edit the correspondence of Newton under the sponsorship of the Royal Society of London.

The following points were specially discussed:

It was proposed that the Sub-Commission for editing ancient observations and

for the translation of classical works of astronomy consisting of Dittrich, Brasch and Pogo, should be extended by co-option of the following persons: E. Zinner, W. Norlind, J. Pelseener, E. M. Antoniadi, R. A. Sampson, N. V. E. Nordenmark, and K. Lundmark. Lundmark should act as president for the subcommission.

The publication of the periodical bibliography was extensively discussed by Mme d'Azambuja and Messrs Baldet, Grouiller, Lundmark, and Pelseener.

A letter was read from the Belgian National Committee about the proposals for filling the gap in astronomical bibliography between 1887 and 1899, and the President added some explanatory words and expressed the great importance of Dr Stroobant's fine plan being carried through. Dr Pelseener gave an account of the present state of the work and expressed the hope of obtaining one collaborator from a number of countries. For Sweden Dr W. Norlind was mentioned by the President, and Mr Beer offered his services. Other collaborators should be appointed in course of time. It was decided that a special meeting should be held for decisions about the collaborators.

The following resolutions were adopted:

1. That a grant of £150 should be given for the publication of the *Bibliographie mensuelle de l'astronomie*.

2. That the Sub-Commission, appointed for the purpose, should find out the possibilities of critical editions of classical astronomical works.

3. That the Belgian work for filling the gap in the astronomical bibliography should be warmly supported by the I.A.U.

4. The use of the decimal system of classification in bibliographical work should be recommended and encouraged.

5. That it is very desirable that steps should be taken for the translation of the astronomical and meteorological parts of the old Russian chronicles.

6. That the Lund card record of astronomers and observatories is a very desirable undertaking.

7. That the study of old Egyptian astronomy is a very desirable undertaking.

8. That a Sub-Commission be nominated for compiling a small list of useful subjects in the history of astronomy suitable for treatment by authors who are not trained historians.

9. That, jointly with the Royal Society of London, steps should be taken to edit the scientific correspondence of Newton and that the edition in question should, if possible, be issued before 1942.

Réunion des collaborateurs de la Bibliographie générale de l'Astronomie, 1881-98. Mercredi, 10 août, 1938. La réunion fut présidée par M. N. V. E. Nordenmark.

M. Pelseener a exposé l'état actuel du projet de combler la lacune entre la bibliographie de Houzeau et Lancaster et le *Jahresbericht*. M. Pelseener indiqua qu'il s'agit de continuer l'œuvre entreprise par M. Stroobant. Entre les trois plans, qu'on pourrait suivre, c.-à-d. Houzeau-Lancaster, le *Jahresbericht* et la *Bibliographie mensuelle de l'Astronomie*, il faudrait, croit M. Pelseener, suivre le plan du *Jahresbericht*. Une brève appréciation de chaque ouvrage sera très utile. Il est à désirer que le travail soit fait dans un délai de moins de trois années.

Dans la discussion, les astronomes suivants ont pris la parole: MM. Banachiewicz, Collinder, de Roy, Grouiller, Hartner, et Siadbey. La discussion a porté principalement sur la question de savoir si la bibliographie devait donner une critique ou un résumé succinct de chaque publication. La plupart des membres présents ont été d'avis de ne donner qu'un résumé des publications.

Quant à la langue adoptée pour la bibliographie, M. Pelseener proposa les cinq langues suivantes: anglais, allemand, français, italien, espagnol. Pour les publications non rédigées dans l'une de ces langues une traduction du titre et du résumé sera donnée dans l'une de ces cinq langues. L'opinion des membres présents s'est montrée favorable à cette proposition.

COMMISSION 6 (TELEGRAMS)

PRESIDENT: Dr H. SPENCER JONES.

SECRETARY: Dr LOUIS C. GREEN.

The Commission approved the report of the Director of the Bureau and asked for an annual grant of 1200 gold francs to the Bureau of Astronomical Telegrams until the next meeting of the Union.

COMMISSION 8 (MERIDIAN ASTRONOMY)

PRESIDENT: Dr J. JACKSON.

SECRETARY: Dr G. VAN HERK.

Commission 8 of meridian astronomy met on Friday, August 5, at 10^h 30^m.

On request of the President some supplementary remarks were made on the subjects mentioned in his report. Since the President's report was written a few more reports have come in, viz. from Pulkovo, stating that fundamental work is still carried on and that the trials of an automatic registration of star transits with a photoelectric cell connected with the Bamberg instrument are successful for stars down to the magnitude 5.7; from Tokyo, saying that fundamental stars are being observed in connection with the bright minor planets; from Prof. Leuschner a paper by Mr Herrick on standard coordinates on photographic plates and the transformation from one plate to another.

Prof. Boss remarked that the proper motions from the Albany General Catalogue give consistent results for solar motion with regard to a subdivision to types and magnitudes. The hope was expressed that in future the calibration of the barometers and thermometers used, will be given in the introductions to observational results in order to facilitate computations on refraction researches. Dr Jackson remarked that the Leiden azimuth instrument gave declinations free from refraction. A statement was made that plans for improving the Leiden instrument for determining declinations from azimuth observations will be realized in the near future. The differences Leiden minus G.C. declinations show the same general line as is the case with the P.G.C. declinations, the numbers being only about 0".30 smaller.

Dr A. Lambert gave an account of the present state of the work done in France and Belgium on faint galactic stars. From the 4800 stars in all, about 1000 have been observed now. The hope is expressed that some southern observatory will join in the work.

The Astronomer Royal gave an account of the work being done in Greenwich with the new transit instrument. If one uses the pivot telescope the lens should be