

Commission 5. (BIBLIOGRAPHY.)

ACTING PRESIDENT: M. J. Bosler.

SECRETARY: Miss K. Williams.

M. Bosler in the absence of Prof. Stroobant, presented the President's report as printed in the reports (pp. 21-23).

A resolution presented by Mr F. de Roy, on behalf of the Belgian National Committee of Astronomy, on the question of filling the gap between the *Bibliographie générale* of Houzeau and Lancaster (1880) and the *Astronomischer Jahresbericht* (1899) was endorsed and adopted.

The Commission further expressed a hope that Prof. Stroobant would be enabled to complete and publish his work of bringing the "Vade Mecum" of Houzeau (1882) up to the date of the *Astronomischer Jahresbericht*.

It was reported that M. Pio Emanuelli had offered to prepare an alphabetical Table of Contents for the *Bibliographie générale* of Houzeau and Lancaster (vols. I and II). This proposal was warmly approved by the Commission.

A proposal from M. Gabba (Milan) that the Union should publish a bibliographical Bulletin, to appear at short intervals, was not adopted, as it was felt that an annual volume is sufficient, and more convenient, for the comparatively small literature of astronomy. A resolution on this subject was passed for submission to the General Assembly. Dr Kopff expressed a wish for further collaboration in the *Astronomischer Jahresbericht* from French bibliographers.

The text of the three resolutions passed by the Commission will be found on p. 282, among the resolutions forwarded for submission to the final meeting of the General Assembly.

A proposal from M. Pio Emanuelli, that the title of Commission 5 be changed to "Commission des analyses de travaux de bibliographie et de l'histoire de l'astronomie," was not adopted, the present title being considered sufficiently comprehensive to include the history of astronomy.

Commission 6. (TELEGRAMS.)

PRESIDENT: Prof. E. Strömgren.

SECRETARY: Mr Felix De Roy.

Sir Frank Dyson submitted the following resolution, which was seconded by Prof. Van Biesbroeck, and carried:

"The Commission recommends that the yearly subsidy of £66, granted since 1928 by the Union to the Central Bureau of Telegrams, be continued."

The President described some proposals of modifications to the European code which he thought desirable. By using time instead of arc for Right Ascension, and Declination instead of Polar Distance, anybody receiving a telegram would be able to read it directly, without any computations, whereas its security would remain sufficient. This code is, in the main, similar to one which Prof. Förster had suggested many years ago.

Several members having approved of the suggested modifications, the President announced that he would now discuss the matter with the members of the Commissions and with Prof. Kobold, of the Kiel "Centralstelle."

The President communicated that he was ready to print new instructions for the use of the European code, embodying the alterations made to it during recent years, with respect to equinox, beginning of the year, and Universal Time. This announcement was received with unanimous approval.

Prof. Strömgren recalled that, at previous meetings, the Committee had discussed the question of giving in the telegrams some information about the physical appearance of newly discovered objects, and that Commission 20 (Asteroids, etc.) had requested the Commission to take the matter up again. In consultation with Prof. Van Biesbroeck, he had devised a scheme of nine combinations which he proceeded to describe, whereby it is possible to give information about presence, absence and length of tail, diffuse or nuclear appearance in one figure, which would take the place of the decimal of the magnitude, considered as superfluous.

Prof. Van Biesbroeck suggested that this scheme, which met with approval, might be used in connection with the Harvard code.

The President announced that he would discuss the question with Dr Shapley, and also with Prof. Kobold.

#### *Commission 7. (DYNAMICAL ASTRONOMY.)*

ACTING PRESIDENT: Prof. E. Strömgren.

SECRETARY: Mr Felix De Roy.

After having marked his agreement with Prof. de Sitter, when he stated in his report (p. 27) that at the present moment there do not appear to be any problems in dynamical astronomy requiring combined action and international co-operation, the Chairman briefly reviewed those problems in dynamical astronomy which have been studied in the past four years.

They include methods for the determination of orbits and their adaptation to the use of computing machines; multiple solutions in the problem of the determination of orbits; researches on the final state of dynamical systems with slowly varying parameters (e.g. with varying masses), applications, for instance, to the problem of tides; general dynamical problems of stability and recurrence; lunar theory (problems of convergence, non-uniformity of the rotation of the Earth); problems of perturbations (development of the perturbation function, the Trojan group and other asteroid problems, satellites); the restricted problem of three bodies (numerical investigations and their mathematical foundation, the problems of "sorts" and "groups" ["Klassen"]); analytical investigations on the non-existence of periodic solutions in the range of critical commensurabilities); regularization of the singularities of the problem of three bodies; special cases of the problems of 3 and  $n$  bodies; general mathematical theory of the existence of rotating figures of equilibrium; relativity—gravitation—light.

Dr Comrie drew attention to the existence of new 7- and 8-figure tables of the six principal natural trigonometrical functions at intervals of  $1''$ , which he had prepared in collaboration with Prof. Peters; he circulated specimen pages of both works. The price of printing 1000 copies of each volume is estimated at about 12,000 dollars.

It was suggested that the 8-figure tables should be printed first.

Prof. Kopff announced that Prof. Peters had prepared his precession tables for 1950, and that they would be printed as soon as circumstances permitted.