

card catalogue he was compiling of the known data on nebulae. The Commission's appreciation of this work was expressed in the following resolution:

"The Commission, considering it important that the existing observations on nebulae and clusters should be put in a form that is more readily available, welcomes the compilation of such data likely to be of interest to investigators, and hopes that Dr Lundmark will be able to complete the work of this kind on which he is now engaged."

A discussion took place on the question, referred to in the President's report as having been raised by Dr Curtis, of the determination of accurate positions of extra-galactic nebulae as reference points for the systematic motions of the faint stars.

No formal conclusion was come to, but various difficulties likely to be met with were pointed out and it was agreed that the Commission should recommend suitable nebulae to anyone desiring to make measurements.

Dr Parvulesco made some suggestions as to the main divisions of the proposed new photographic catalogue of nebulae and clusters, which were agreed to in principle.

Recognizing that the problems affecting clusters are quite different from those of the nebulae it was agreed to ask the President to appoint a Sub-Committee to deal with clusters.

#### *Commission 29. (CLASSIFICATION SPECTRALE.)*

Acting Chairman, Professor H. N. Russell; Secretary, Dr W. J. Luyten.

After the opening address of the Acting Chairman the following resolution was introduced by Professor Shapley, acting also on behalf of Mr H. H. Plaskett:

"It is recommended that the scope of the Commission be enlarged to include spectral photometry, and that the name of the Commission consequently be changed to the Commission for (detailed) Analysis and Classification of Stellar Spectra."

After discussion, in which Professor Newall and Mr Wright took part, the proposal was amended to read "Commission on Stellar Spectra".

The Chairman read a suggested alteration in the Report received from Harvard too late for printing or even circulation.

Mr Wright advocated the postponement of consideration of this motion and objected to immediate voting, because it was too important a change.

In the discussion, Professor Newall, Dr Plaskett, Professor Shapley, Professor Russell and Mr Wright took part.

The Chairman asked for a vote: there were 4 votes for postponement and 4 against.

Giving the decisive vote, the Chairman decided for postponement, since no harm could result therefrom.

The Report was then taken up in detail, and when, no objections having been raised, the paragraph "Stars of type O" (p. 163) was reached, the recommendations on p. 167 were included in the discussion.

Recommendation 1 was carried unanimously.

Objections were raised by Messrs Wright and Newall to the words "of hydrogen, and in some cases of metals" in Recommendation 2, since they wished the meaning of the symbol  $\epsilon$  to be quite general.

On the Chairman pointing out that past decisions gave e a special meaning for different spectral classes the recommendation, as printed, was carried *nem. con.*; this was, however, without much enthusiasm, the Secretary recording only one audible "aye".

Upon objection by Mr Wright, the letter e was inserted before the w in the nomenclature defined in Recommendation 3, the vote being 5 to 2 in favour of this insertion.

Recommendation 4 was adopted unanimously.

In the second line of Recommendation 5, the words "notation of the Draper Catalogue" were added. The recommendation was adopted.

Recommendation 6 was adopted.

In Recommendation 7 it was agreed to use the sign em instead of fe as suggested by Miss Payne.

Recommendation 8 was adopted with a slight modification and the reference to stars of type S was struck out of the Report.

The remainder of the Report was then discussed. Messrs Stratton and Shapley advised the removal of the discussion of gaseous nebulae from this Report and its reference to Commission 28.

The next session was taken up with the passing of the resolution changing the name of the Commission, and with the discussion and adoption of the important change in the Report consequent on the acceptance of the Harvard memorandum. The recommendations to be sent to the General Assembly were also discussed, and two new ones, 9 and 10, on spectrophotometry and the change of name for the Commission, were adopted.

A request from the Commission on Solar Parallax, concerning the spectra of Eros and its comparison stars was considered.

The following action was taken:

The Spectrum of Eros was defined as dGo.

The question of the Colour of Eros was referred to the Photometric and Stellar Parallax Commissions, and also to Messrs Hertzsprung and Lindblad.

The question of the spectra of the comparison stars was referred to Professor Shapley and the Harvard Observatory.

### *Commission 30. (VITESSES RADIALES STELLAIRES.)*

In the absence of the President, Dr W. W. Campbell, the chair was taken by Dr J. S. Plaskett. Dr H. Spencer Jones acted as Secretary.

The following Reports of radial velocity determinations in progress or in view in the near future at the Simeis, Potsdam, Pulkovo and Cape Observatories were read.

#### *(a) From G. Shajn, Astronomer of the Simeis Observatory.*

May I be allowed to give a brief summary of the radial-velocity determinations now in progress, or in view for the near future at the Simeis Observatory? This is a copy of a brief report sent to Professor Campbell, the Chairman of Commission No. 30, according to his request (a letter of 29 March).

The Simeis Observatory welcomes every beginning with reference to future co-operative plans for the systematic extension of radial-velocity determinations and all the problems