4. *K. O. Wright* described results obtained from a Photographic Comparison of the Kienle Step-Filter and the Victoria Rotating Sector. When care is taken to ensure uniform illumination over the field, the calibration curves are found to be identical within the errors of measurement. He also discussed a table of equivalent widths of lines in the spectrum of *Procyon;* pre-1950 observations showed large divergences especially for weak lines, but for later observations obtained with high dispersion the scatter is decreased appreciably.

The President had brought the step-filters of Kienle and Minnaert that had been calibrated by Kienle, and they were on display at the meeting. They have been used to check the calibration procedures at Victoria, Saltsjöbaden and Asiago. Taffara had sent the results of his comparison of the Asiago exponential diaphragm and edge with the Kienle step-filter.

In his concluding remarks the President commented that it seems desirable that there should be some organized group to maintain the interest in co-operative intensity measurements and in calibration problems. He suggested that the Sub-Commission should continue as a Committee of Commission 29. This was approved by all members present (and later by Commission 29).

29*c*. SOUS-COMMISSION DES CLASSIFICATIONS STELLAIRES

Report of Meetings

PRESIDENT: W. P. Bidelman.
ACTING SECRETARY: P. J. Treanor.

First meeting, 17 August 1961

The President's *Report* was adopted in the form in which it appears in Vol. XI A of the *Transactions*, the only significant change from the *Draft Report* occurring in Appendix II, which was slightly modified at the request of the authors.

W. W. Morgan and *H. A. Abt* reported on progress on the new *Spectral Atlas*, for which the plate material, secured on Kitt Peak, is approximately 85% complete. The atlas is being prepared from grating spectrograms of dispersion 125 Å/mm which extend to the neighborhood of $\lambda 3500$ for early-type stars, but its final form is not yet definite. The atlas will not be available for at least another year.

A. Slettebak reported that the funds allocated three years ago to the Perkins Observatory to support a spectroscopic information center there had been returned to the IAU, because the requisite clerical help was not available. The President noted that an information file on all stars for which luminosity determinations (objective-prism or slit) or remarks concerning spectral peculiarities are available (some 15 000 stars) is currently being prepared at the Lick Observatory. Information from this file can be supplied on request; the catalogue uses 1900·0 co-ordinates. C. Jaschek has a similar catalogue for southern objects. The President expressed the opinion that the publication of a complete list of stars that possess two-dimensional classifications is not desirable at the present time, but suggested that any future edition of the Yale *Catalogue of Bright Stars* or other similar catalogue should contain such data.

K. G. Henize discussed his southern-hemisphere objective-prism classification work on carbon and S stars, and his survey of emission-line objects, while N. G. Roman reported on her unpublished slit-spectra classifications of some 600 objects in various Selected Areas. W. W. Morgan announced that he plans to continue work on the classification of OB stars

at Yerkes, using the image-tube equipment now under development there. D. J. K. O'Connell stated that successful objective-prism tests had now been made with the new Vatican Schmidt. This instrument is provided with three objective prisms giving dispersions ranging from 75 to 800 Å/mm. Ch. Fehrenbach discussed his classification (and radial-velocity) programs with his objective-prism equipment. A total of 1500 classifications have now been published, while 2000 more await publication. The older objective prism goes to 10th magnitude, the newer one to 12th. Work is now under way on the south galactic pole region and on the Magellanic Clouds. K. Gyldenkerne spoke briefly on his three-dimensional classification work, with special reference to the G and K stars.

Second meeting, 21 August 1961

At the second meeting of the Sub-Commission, E. K. Kharadze reported on the bright-Hα and general spectral surveys being carried out at Abastumani with the 28-inch objective prism. C. Jaschek spoke of his classification work, carried out at Bosque Alegre, and of the proposed 42 Å/mm spectral atlas of southern stars. D. S. Evans commented briefly on the "fundamental data" program for southern stars. O. C. Wilson discussed his recent work on the relation between spectral type and color for late-type dwarf stars; his new spectral classifications are based on spectrograms of dispersion 10 Å/mm. Recent classification work in terms of the parameters G_{uv}, G_b, and D (ultra-violet and blue gradients and Balmer jump) was summarized by L. Divan: numerous standard stars are being classified between declinations $+15^\circ$ and -15°, and stars of special interest are being extensively observed. Work in this field is continuing at the Jungfraujoch.

RECOMMENDATIONS

It was strongly recommended by the Sub-Commission that when the results of objective-prism surveys are published suitable finding charts also be made available, especially for stars near or below the *Durchmusterung* limits, to facilitate slit-spectrographic observations of individual objects. Such charts can easily be made from the existing Palomar or Lick *Sky Atlases*, but the specific requirements depend upon the magnitudes of the stars involved and the complexity of the fields. The President recommended that the blue Palomar prints be used, rather than the red.

A formal resolution, proposed by W. W. Morgan, requesting that Sub-Commission 29*c* be given Commission status, was seconded and approved unanimously by those members of the Sub-Commission present. This resolution was transmitted to the Executive Committee by the President of the Sub-Commission, but was not accepted. The Sub-Commission becomes a Committee of Commission 29.