first speaker on this series and other speakers during the year will be Professor Edwin O. Jordan, Professor William H. Howell, Professor Stanhope Bayne-Jones, Dr. Maurice C. Hall, Professor James W. Jobling and Dr. Warren C. Vaughn. These lectures are given once a month to the faculty and student body in the School of Medicine.

DR. ARTHUR H. RING, secretary-treasurer of the American Academy of Physical Therapy, writes that the tenth annual meeting of the academy was held in the Hotel Walton in Philadelphia on October 12, 13 and 14. The first session was devoted to papers and discussions concerning the value of sunlight, climate and spa treatment of various diseases. There were reported in considerable detail the results of the studies on rheumatic heart disease in children, carried on the past two years under the general direction of Dr. Paul D. White, of Boston. On Wednesday afternoon there was a demonstration and discussion of the various lesions of arthritis and latest methods of treatment. Thursday and Friday were devoted to other papers on physical therapy of interest to members of the medical profession. There were clinics daily at the University of Pennsylvania Hospital, Jefferson Medical College Hospital and Temple University Hospital.

DISCUSSION

RADIO STUDIES DURING THE LEONID METEOR SHOWER OF NOVEMBER 16, 1932

THE Leonid meteor shower of this November promises to afford the best opportunity for testing the hypothesis[1,2] of a meteoric effect on radio transmission that has occurred since the advent of radio or that is likely to occur again until 1965. This is the year of maximum in the present 33 year cycle of this group of meteors. Because of the importance of studies of upper atmospheric ionization it is hoped that those who have suitable radio apparatus available will take advantage of the opportunity.

The Leonids are the swiftest of recurring meteors and therefore have the most energy for ionization.

Although the shower did not occur in 1899, because of the perturbations of the group due to the near approach of Jupiter, the excellent return exhibited last November and recent calculations based on their orbit and period lead to the hope of a truly great shower this year.

It is difficult to predict so far in advance (six weeks) the magnetic character of the day. November 16 falls near a sequence of magnetic storms and it is possible that if one occurs it will not start until the 17th or 18th. To offset the effects of a possible disturbance, radio observations outside of the auroral zones would be particularly advisable.

C. C. Wylie[3] has calculated the probable time of maximum for the shower to be November 16 at 1900 G. C. T. If it does occur at this time, stations in the Pacific are most favorably located for both radio and visual observation. For America the best time for observation would be the early morning hours of November 16th and for Europe those of the 17th.

BELL TELEPHONE LABORATORIES A. M. SKELLETT
NEW YORK, N. Y.

1 A. M. Skellett, *Phys. Rev.*, 37, 12, 1668. June, 1931.
2 A. M. Skellett, J. P. Schafer and W. M. Goodall, forthcoming papers in *Proc. I. R. E.*
3 *Pop. Astron.*, 40, 2, 97.

GEOLOGY—AN EASIER STUDY FOR BOYS OR FOR GIRLS?

FOR ninth-grade students, Victor C. Smith[1] concludes that physiography is not appreciably easier for boys than for girls. For a group of older students, who may be considered on the border-line between boys and girls and men and women, I find that physical geology is markedly easier for boys.

The group in question consists of 473 young men and women (214 and 259), whom I have had in an introductory, one-semester course in physical geology during the past four years. Nearly all are first or second semester college freshmen, 17 to 20 years of age. Instruction consists of lectures, laboratory work and field trips. No text-book is used, but students are encouraged to supplement class work by outside readings in all recent texts available. As the average size of a class is 25, there is considerable personal contact between instructor and student, especially in the laboratory and in the field. Grading for the course is on the following basis: A—exceptionally good, B—distinctly good, C—fair, D—unsatisfactory, E—failure. The individual student is graded on his work with no conscious effort to follow a distribution curve for the grades of the class as a whole. Tabulation of grades attained furnishes results given in the accompanying table.

The number of students doing exceptionally good work is too small to be of much significance, but, considering distinctly good work as well as that which is not satisfactory, the boys make much the stronger

1 Victor C. Smith, "Sex Differences in the Study of General Science," SCIENCE, lxxv, 1932, 55–57, January 8, 1932.