

Princeton leaving the University premises virtually in the hands of the Acoustical Society for the final sessions. As an innovation, the local committee eliminated the traditional banquet and substituted for it an evening collation and open-house at the Acoustics Research Laboratory of the Massachusetts Institute of Technology. The Acoustical Society, for reasons not strange perhaps, seems always able to muster an autogenous orchestra whose amateur standing veils only better to reveal the professional qualifications of its members. The large attendance at this "sociable" and the evident enjoyment of the opportunity to enjoy mixed company and science at the same time would commend such an informal function to the consideration of other program committees.

The technical program included three invited lectures and forty-three papers contributed by seventy authors. It was thus possible to allow fifteen minutes for presentation of papers without the necessity of holding dual simultaneous sessions, thereby keeping alive for a little while longer the Acoustical Society tradition that everybody listens to all the papers—in the other fellow's specialty as well as his own. E. G. Richardson of King's College (England) opened the first day's program, which was devoted largely to ultrasonics and physical acoustics, with a report on ultrasonic work in progress in Europe. As in a number of other fields of physical science, it is turning out to be rewarding to investigate second-order effects with care and precision. Dr. Yeager and his colleagues at Western Reserve described a novel electrokinetic effect which shows some promise for utilization as a point probe at very high frequencies. R. W. Morse, Brown University, described the unexpectedly large influence of the sound-velocity gradient in the top few feet of the ocean on sound propagation into the so-called shadow zone. In connection with a survey of the acoustical output of marine life in the Narragansett Bay area, detailed analyses of some of the strange noises emitted by certain species of fish were reported by A. S. Kelsey, Jr. and R. T. Beyer (Brown) and Marie P. Fish (Narragansett Marine Laboratory). Other contributions to this portion of the program chronicled with due formality the steady march toward understanding the fundamental physics of sound generation and transmission.

The second day of the meeting was largely devoted to architectural acoustics and was opened with an invited paper by W. Furrer of Berne, Switzerland on acoustical studio design practice in Europe. Post-war reconstruction of radio broadcast facilities in Europe has gone forward vigorously and Dr. Furrer made it clear that American designers will be well advised to keep themselves informed about the innovations receiving tryout on the other side. Other contributions to these sessions made it continually clear that the field of architectural acoustics is a fertile one in which the best is yet to come. Much attention is currently being devoted to the analysis of various objective parameters with which to supplement reverberation time as a correlate to listener satisfaction. The goal of finding a one-dimensional scale on which listening spaces can be rank-ordered according to acoustical merit is still elusive and much of the progress in this field is lateral, but there is a forward component.

The Saturday sessions, devoted to psychoacoustics, provided several high points for this meeting. E. G. Wever, Princeton University, opened the morning session with a challenging review of the modern status of auditory theory. J. C. R. Licklider (MIT) then put forth a duplex theory of pitch perception that manages to stir into the psychophysio-

logical pot the latest thinking of communication experts on autocorrelational analysis. His hypothesis will explain neatly several stubborn paradoxes in hearing if it can be confirmed without being confounded. R. C. Jones (Polaroid Corporation) almost stole the show at the close of the Saturday morning session with a description and demonstration of an automatic device for discriminating between speech and music. To the suggestion that the advertisers who pay the radio bills will scarcely welcome so effective a de-commercializer, Dr. Jones had the compelling reply that any listener willing to pay good money for such a gadget could hardly be catalogued as susceptible to this advertising channel. By utilizing a logarithmic signal rectifier and pulse integration, the device is able to function with good operating margins by capitalizing on the absence of repeated deep intensity minima in the usual spectrum of music sustained by reverberation. Since clarity of diction is a mark of effective oral advertising, Dr. Jones says his device will even "get" the singing commercials.

The final session of the meeting was devoted to apparatus and instrumentation and was high lighted by description of automatic equipment for plotting nonlinear distortion as a function of frequency (H. F. Olson, RCA), and by the presentation of a photographic method for displaying the space patterns of sound radiation from various sources (Winston E. Kock and F. K. Harvey, BTL).

The next meeting of the Acoustical Society will be held at the National Bureau of Standards in Washington, D. C., May 10-12, 1951, and will feature symposia on underwater sound and architectural acoustics.

F. V. Hunt

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LABORATORY DEDICATED

AT UNIVERSITY OF ALABAMA

A dedication program for the University of Alabama's new physics building took place at the University last November 6th. K. K. Darrow of the Bell Telephone Laboratories spoke on electricity in metals and semi-conductors, W. V. Houston of the Rice Institute discussed recent developments in super-conductors, and modern developments in x-ray structure were reviewed by Rose C. L. Mooney, Newcomb College of Tulane University. Other speakers included D. H. Menzel of the Harvard Observatory, Arthur E. Ruark of the Johns Hopkins University Institute for Cooperative Research, and A. M. Weinberg of the Oak Ridge National Laboratory.

The new physics building has about 50,000 square feet of floor space and one wing houses the astronomical observatory, which is equipped with a new 10-inch refractor.

MEETINGS TO BE HELD

LOW TEMPERATURE PHYSICS IN ENGLAND

According to a recent communication from F. E. Simon of the Clarendon Laboratory, the Institut International du Froid (IIF), will hold its first postwar meeting next autumn in London. As the new Unesco Commission for Very Low Temperatures also intended to hold its second meeting in England (the first took place at MIT in 1948), Professors Gorter and Simon, being jointly responsible for arranging the two meetings, discussed with the IIF and Unesco conference organizers the possibility of combining the meetings in some way.

Present plans call for the first meetings to be held at

Oxford from August 22nd to 28th under the auspices of the Unesco Commission. During this time only pure physics will be discussed, probably under four headings—Liquid Helium, Superconductivity, Magnetic Phenomena, and Thermal Properties. The second part of the Conference will be held in London under the auspices of the IIF and will deal with matters of direct interest to IIF members (i.e., technical questions concerning liquefiers, the temperature scale, etc.). It is pointed out that while the majority of the visitors to this conference will be mainly interested in the technical and industrial aspects of low temperatures, the Institut also has a Commission which is concerned primarily with the physics of low temperatures.

"At Oxford," Professor Simon continues, "visitors can be put up at some of the Colleges and the cost of full board and lodging will be about £1 to £1-5-0 per day. It is hoped that funds will be available to pay the travelling expenses of some visitors, but it is already clear that only a small number will be able to benefit. In particular, travelling expenses from America are so high that it is hoped that the great majority of Americans and Canadians can obtain funds in their own country; it seems that the chances for this are quite favourable.

"Those who want to go to the London Conference, which will continue until September 5th, will have to pay a fee of £3 and their full board; this will probably be higher than it is in Oxford; it is hoped that some accommodation at a fairly modest charge can be arranged.

"Members of the conference are cordially invited to visit the Royal Society Mond Laboratory at Cambridge. As this will be closed after the conference it is suggested that Tuesday, 21st August, should be chosen for the visit and that visitors should arrive by an early train from London. They will then be transported by motor coach directly to Oxford either late in the evening of the 21st or on the morning of the 22nd."

Under the supposition that authors will publish their results in the ordinary way, those arranging the meetings do not ask that full manuscripts be sent in advance but will expect to receive short notes of perhaps 200 words from those planning to read papers. These should be received no later than the end of July. Except for a few reports covering a wide field of research, papers are expected to be limited to 15 or 20 minutes.

Those wishing to attend the Conference should so advise Professor Simon at the Clarendon Laboratory, Oxford.

NUCLEAR ENGINEERING SYMPOSIUM

The Oak Ridge Summer Symposium for 1951 will concern nuclear engineering and will be held from August 27th to September 6th. The Symposia, sponsored annually by the Oak Ridge National Laboratory and the Oak Ridge Institute of Nuclear Studies, are intended for Oak Ridge personnel, representatives of universities and industrial organizations, and others who may be interested. The sponsoring organizations decided to devote the Symposium to engineering this year following a request to this effect by a committee on nuclear engineering of the American Society for Engineering Education. Such subjects as basic nuclear engineering, general nuclear power "philosophy", and application of the engineering sciences to nuclear technology are expected to be covered. Nuclear engineering education will be emphasized. Further information may be obtained by writing to the Oak Ridge Institute of Nuclear Studies, P. O. Box 117, Oak Ridge, Tennessee.

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