Science Exhibition

(*Continued from 1 March issue.*)

Ace Glass, Incorporated

Vineland, New Jersey
Booth No. 125

In our effort continually to widen the scope and application of our spherical joints, we are now exhibiting and supplying these joints in new sizes and in different materials other than pyrex glass. The new sizes, namely, 40/25, 75/50, 102/75, and 130/90, will make it possible to have spherical connections on glass pipe and large-size glass tubes and still have the same flexible, nonfreezing, and interchangeable features of our standard line. The standard line of joints will be available in stainless steel and clear fused quartz. The new sizes listed above will be available in metal only. These joints will all be interchangeable so that installations having metal lines can be clamped together with the glass just as readily as the regular glass joint. In order to facilitate clamping of these joints we are going to feature our new-type clamp, which will be radically different from any offered on the market today. One of the features of our exhibit will be a large pilot plant-size evaporator, constructed entirely of pyrex glass from the stopcock manifold to the heat exchanger tubes. It will be possible to operate it continuously or for batch operations, both at atmospheric or lower pressures. In addition, there will be many smaller items, such as the split flask, or resin flask, from 500 ml. to 5,000 ml.; the light oil pycnometer, now tentative ASTM No. ES45; various distilling columns, such as the Penn State Semi Micro Column, which has a column length of but 11″ and a separating power of 50 plates.

Bausch & Lomb Optical Company

Rochester, New York
Booth No. 134

This exhibit includes a stereoscopic polarizing device of new design, laboratory microscopes, wide field stereoscopic microscopes, micro-projectors, and Balopticons. The new B & L Stereo Polarizer produces stereoscopic vision through monobjective laboratory microscopes with binocular eyepieces. This is accomplished by a split-field polarizer, showing halves of the field polarized at right angles to each other, and two eyepiece analyzers, each of which can be aligned with one-half of the polarizer field. The B & L CTA Microscope has inclined binocular eyepieces, Abbe condenser, mechanical stage, and other accessories for advanced microscopy. A simpler model, the Bausch & Lomb BA Microscope has a monocular body but is otherwise similar to the CTA. Models A and FB are simpler microscopes designed primarily for educational use. The B & L BKW Stereoscopic Wide Field Microscope shows objects right side up in three dimensions. Fitted with a revolving drum nosepiece, it affords instantaneous change of magnification. The B & L B Micro-Projector utilizes any standard laboratory microscope. Since the stage is always horizontal, this projector is well adapted to showing living or wet mount specimens. Combining opaque and slide projection, the LRM Balopticon projects quiz papers, book pages, slides, solid objects and other material.

Biological Abstracts

University of Pennsylvania
Booth No. 130

A cooperative, nonprofit journal published by biologists for biologists. *Biological Abstracts* is the only abstracting and indexing service in the world that affords an adequate coverage of the literature in all fields of biology. Currently abstracting some 2,300 journals, the coverage is being expanded as rapidly as possible to include the many European and Scandinavian journals that have not been available to the scientists of this country since the outbreak of the war. *Biological Abstracts* is published not only in the complete edition but also in eight low-priced sectional editions specially designed for individual biologists who are interested only in one or more closely related fields. These sectional editions will be on display, and Dr. John E. Flynn, editor-in-chief, and H. I. Anderson, business manager, will be in attendance to welcome visitors and furnish information.

Distillation Products, Inc.

Rochester, New York
Booth No. 152

Users of high-vacuum equipment looking for the latest and best in vacuum producing, measuring, and controlling units will find a complete display of fractionating diffusion pumps, vacuum gauges, and high-vacuum valves at the Distillation Products exhibit. Featured here, in operation, will be vertical metal fractionating diffusion pumps—ranging in capacity from 2 l/sec. to 260 l/sec.—which mark an entirely new and highly efficient principle in the production of low pressures. Recent developments in high-vacuum valves—which provide greater control with lower impedance—are to be represented by especially designed valves in the 2″ and 4″ sizes plus a solenoid valve for ¾″ lines. The latest models of D.P.I.'s newest gauges, which include those of the Knudsen, Philips, Pirani, and Ionization-type, will also be on display. This group of gauges provides a series capable of accurately reading pressures from .00000001 mm. to 1 mm. of mercury. Design changes which make the new gauges of particular interest to industrial and laboratory users include the following: The Knudsen gauge has been improved so that satisfactory operation can be obtained under normal factory conditions of vibration; the Philips gauge has been constructed to give readings from 25 microns to 2×10^{-5} mm., and yet is so built that it will not be damaged by accidental exposure to atmospheric pressure; the Pirani gauge has been stabilized with re-

spect to voltage and made into a continuously recording gauge for the range of 0 to 1000 microns; the familiar type of hot filament ionization gauge has been equipped with a new type of flexible control for use between 1 micron and below 10^{-6} mm. Hg. In addition to the equipment described above, examples of other gauges and D.P.I.'s two- and three-stage glass fractionating pumps for obtaining extremely low pressures without cold traps will be shown. Information and illustrative material will also be available on larger diffusion and ejector-type vacuum pumps, high-vacuum evaporating equipment, and stills for high-vacuum distillation.

J. H. Emerson Company

Cambridge, Massachusetts
Booth No. 111

In this booth will be shown the Emerson micromanipulator, which operates on a lever principle so that the motion of the lever which controls horizontal motions of the needle is identical with the apparent motion of the operating needle in the field of a compound microscope. This feature makes possible much more rapid control of the needle and makes it easier for an operator to learn to use the machine. There will also be shown the Emerson model of the Barcroft-Warburg apparatus. The J. H. Emerson Company was first to manufacture this apparatus continuously ever since. Literature will be available on the medical line of equipment manufactured by the company including "iron lungs, resuscitators, oxygen humidification apparatus, hot pack apparatus, fever therapy apparatus, and a new device for treatment of tuberculosis by means of lung immobilization."

E. Leitz, Inc.

New York, New York
Booth No. 148

This exhibit will include the following instruments: the *Leitz Photo-electric Precalibrated Colorimeter*, an instrument used for colorimetric determinations of human body fluids; the *Leitz Photo-electric Hemoglobinometer*, a portable instrument designed for use by individual practitioners so that they can make rapid colorimetric determinations of the hemoglobin content of the blood stream; the *Leitz G & D Electric Titrator*, an instrument used to determine by electronic means the end-point of a chemical titration; the *Leitz Magarc*, a completely automatic carbon arc microscope lamp giving a highly intense source of illumination; the *Leitz Microlux*, a Universal Microscope lamp used for visual observation, photomicrography, and microprojection; the *Leitz Micam*, a camera attachment which will fit any microscope accommodating standard eyepieces, produces a $3\frac{1}{4} \times 4\frac{1}{4}$ negative, and may be used for making black-and-white or Kodachrome photomicrographs; the *Leitz Micro-Manipulator*, an instrument permitting manipulation of specimens during microscope observations; *Leica* camera accessories —American made lenses, view finders, and other devices for use in scientific photography.

Mallinckrodt Chemical Works

St. Louis, Missouri
Booth No. 55–56

"Research and Development for Today and Tomorrow" will be featured with an exhibit of a variety of new organic products as a consequence of fundamental researches by Mallinckrodt chemists on ester condensations. Among samples available for inspection will be oxazolidones, malonic esters, and higher alkyl carbonates such as dicetyl carbonate and dioctadecyl carbonate. Phenylacetic acid and phenylacetic ester also will be exhibited. In addition to the above compounds, the exhibit will include pyridylmercuric acetate, pyridylmercuric chloride, and pyridylmercuric stearate, which are effective fungicides and mildew-proofing agents. These compounds may be incorporated in textiles, felt, leather, cork, paints, wood, rubber, resins, and waxes. Mallinckrodt Chemical Works is cited in the Smyth report on atomic energy for having achieved in production "a degree of purity seldom achieved even on a laboratory scale." This achievement was in part possible because of many years of fundamental research and long experience in the production of analytical reagent, medicinal, photographic, and high-purity industrial chemicals. Examples such as Mallinckrodt Analytical Reagents and Primary Standards, universally known for uniform, dependable purity, will be exhibited. The high purity of these reagents is of specific interest to, and meets the exacting requirements of, research and clinical laboratories.

Merck & Company, Inc.

Rahway, New Jersey
Booth No. 123–124

The enormous success of penicillin in helping in the treatment of war injuries and diseases has made the chemotherapeutic importance of the newly investigated antibiotics of great scientific and public interest. The House of Merck has been in the forefront of antibiotic research in the United States from the early collaboration in the large-scale investigation of gramicidin in 1939 through the wartime development of penicillin, to its more recent interest in the newest antibiotic, streptomycin, discovered by Waksman in 1944. This exhibit, devoted entirely to the Story of Streptomycin, will show briefly the commercial history of the better-known antibiotics and trace the processing of an antibiotic from the parent organism to the pure crystalline compound. A brief resumé of the presently known chemistry will be outlined, and following an account of its pharmocological properties, the proposed clinical uses of this chemotherapeutic agent are briefly listed. By means of illuminated transparencies below the background panels of the exhibit are to be shown the parent organism, *Streptomyces griseus*; the crystalline forms of streptomycin compounds; and culture plates demonstrating the action of the drug on various pathogenic organisms.

National Roster of Scientific and Specialized Personnel

Washington, D. C.
Booth No. 138

The National Roster is a division of the U. S. Employment Service, Department of Labor. The functions of the National Roster are to maintain a national central registration of the Nation's scientifically trained personnel, to provide a placement service for scientific professional personnel and employers of such personnel, and to serve generally as a clearing house of information concerning the sciences and professions. At present a major portion of the Roster's placement efforts are devoted to locating suitable civilian positions for returning veterans qualified in the professions. During the war the Roster's efforts were devoted almost entirely to the mobilization of scientific and technical personnel in both civilian and military positions and participation in the deferment program. The Roster's exhibit will include copies of its various occupational publications and statistical information on various professions, and will show how the Roster's work is carried on. A representative of the National Roster will be present to answer questions and provide information.

St. Louis University Biology Department and Biodynamic Laboratory

St. Louis, Missouri
Booth No. 42

Study of ultrarapid cooling. When a substance which contains water is cooled very rapidly—that is, at a velocity of several hundred or a thousand degrees F. per second—ice cannot form freely in it. Either no ice is formed or very little, depending on the velocity of cooling and on the amount of foreign material dissolved in the water. There is some evidence that such rapid cooling does not harm living beings. Prof. B. Luyet, of St. Louis University, and Dr. P. M. Gehenio, of the Biodynamic Research Laboratory, have developed methods for recording the quantity of ice formed during ultrarapid cooling in droplets of solutions or of body fluids several hundred times smaller than those delivered by a medicine dropper. Small organisms were also investigated. The exhibit will include a demonstration of the methods and a presentation of the apparatus and the records.

Science Illustrated

New York, New York
Booth No. 72

This booth is designed as a general meeting place for those who are attending the Association's meetings to get together and discuss the various aspects of the advent of the new mass magazine, *Science Illustrated*, the purpose of which is to report the developments of the sciences to the general public and to describe their consequences in terms of daily living. Dr. Gerald Wendt, editorial director, will be on hand personally a good part of the time; and other members of the magazine's staff will be in constant attendance, ready to answer questions and demonstrate the editorial aim of this new magazine, illustrating from copies of the first issue which will be rushed from the press to the convention several days in advance of issue date.

Science Service

Washington, D. C.
Booth No. 131–132

The exhibit will show the variety of work done by Science Service in the popularization of science. This includes services to newspapers—*Daily News Report, Wire by Mail, Science Page, Your Health—Here's How, Star Map, Science Shorts,* and *Isn't It Odd?*; *Science News Letter,* the weekly summary of science covering new developments in 137 science subject classifications; *Chemistry,* the monthly magazine of new developments in chemistry, edited to serve intelligent laymen, industrialists, teachers, and students of science; *Things of Science,* the monthly kits of practical exhibits, experimental materials, and instructional information in what is new in science; *FUNdamentals of Science,* the kits designed for 10- to 15-year-old experimenters, containing all the apparatus necessary for carrying out dozens of experiments, for which careful directions are given; books edited and published by Science Service; magazine articles by members of the staff; *Science Clubs of America,* the materials now being sent at no cost to the more than 9,000 sponsors of clubs affiliated with Science Clubs of America, the international organization for young scientists, which now numbers more than 200,000 members; *The Annual Science Talent Search* for the Westinghouse Science Scholarships, conducted by Science Clubs of America, which is an open competition to high school seniors; *Science Clubs of America Cooperators,* the work of the 32 cooperating organizations now working with Science Clubs of America to provide opportunities for young scientists in 28 states; *Adventures in Science,* a weekly nation-wide broadcast by Science Service over the Columbia Broadcasting System, a portion of which is devoted to an open meeting of Science Clubs of America; and *Science News of the Week,* a compilation of the scientific developments of the week which is prepared for use by any radio station. Members of the staff of Science Service who will be present at the meeting include: Watson Davis, director; Dr. Frank Thone, staff writer in biology; Miss Jane Stafford, staff writer in medicine and health; Miss Marjorie Van de Water, staff writer in psychology; and Miss Margaret E. Patterson, secretary, Science Clubs of America.