

room, ten feet by twenty-one feet, at the north end, which is to be used as a computation and record room. The floor of the main laboratory room is provided with a waterproof mulsomastic covering pitched downward toward a drain outlet located near the center of the room, and is flashed with sheet lead around the walls. A drain pipe to the sewer has been installed and the piping for the water supply has been completed. Further installation details await delivery of the principal machinery now on order.

The immediate purposes of this laboratory are to provide testing facilities for determining the characteristics of pumps of rotary and centrifugal types, and to permit testing under unusual service conditions to observe effects of erosion and corrosion. The information so gained can then be used in the development of improved designs.

It is planned that the laboratory will be further developed to include facilities for research, experimentation and demonstration in the mechanics of fluids (both liquids and gases) for the benefit of graduate and undergraduate students.

In the testing of pumps the power input will be provided by direct coupling to 220-volt, direct-current electrical, cradle-type dynamometers, three of which have been ordered. These dynamometers have motor-ing capacities of 40 horsepower, 5 horsepower and $\frac{1}{2}$ horsepower, with speed variations from 1,200 r.p.m. to 5,000 r.p.m. The small unit will be included in a bench set-up for which a suitable laboratory bench equipped with drain has been provided. The largest unit will be mounted on a steel-slotted engine base about five feet wide by fourteen feet long, which will be provided with adjustable supports for mounting pumps of various designs or dimensions. This same base and driving unit will be equally well adapted to the testing of rotary, centrifugal or axial flow gas compressors. It is expected that the units to be tested will be changed frequently, hence a monorail running the length of the laboratory and extending to an outside door of the building will be installed. This will be equipped with a hoist capable of lifting the machines to be tested from grade level, about twelve feet below the floor level at this outside door. A precision, air-balance type, recording flow meter along with suitable accessory air-compressor equipment has been ordered. Also, there will be provided various types of flow-measuring devices, including venturi meters, orifice meters and nozzles. Much of the latter equipment, along with necessary instruments, is available in present laboratory equipment. Following the installation of the equipment now on order the piping arrangements will be completed, including tanks and drums to contain the fluids to be handled. Weighing tanks mounted on platform scales will be added. Part

of the piping and storage tanks will be adapted to the handling of corrosive solutions of various sorts.

In addition to the equipment provided for testing machinery there will be developed and built various types of apparatus for demonstration and experimental work in the flow of fluids. Also, it is planned that various installations will be made from time to time for research purposes. In general, the idea prevails that this is not to be a fixed installation to be retained as originally made for a period of years; but is to be a very flexible laboratory installation capable of following closely the needs and trends of industry in the field of fluid mechanics.

FLUID LABORATORY

Objectives:

Testing facilities for determining characteristics of pumps.
Development of pumps.
Facilities for student research, experiments and demonstrations in the mechanics of fluids.

Equipment:

3 dynamometers accommodating pumps from fractional HP sizes to 40 HP.
Precision, air-balance type recording flow meter.
Air compressor.
Gages, miscellaneous.
Tanks and drums suitable for adapting equipment to various fluids.
Record files, drafting facilities, technical reference literature.
Laboratory benches and cabinets.

Difficulties in getting materials, equipment and problems of constructing special test stands, etc., are delaying factors.

Laboratory space: Laboratory 34 × 21 and adjoining office 10 × 21. Totally enclosed. Located in Machinery Hall.

1/2 HP at 1,800/5,000 r.p.m.

5 HP at 1,250/4,000 r.p.m.

40 HP at 1,550/4,000 r.p.m.

JOHN A. KING

SYRACUSE UNIVERSITY

CHAPTERS OF THE SOCIETY OF THE SIGMA XI

THE Cornell Chapter of the Society of Sigma Xi held its annual initiation on May 23. President O. F. Curtis spoke on "Biological Science in the News." Following the banquet, Professor A. A. Allen, of Cornell University, gave an illustrated lecture on "The Bird's World." The Cornell Chapter has recently written to all former members in connection with its affiliation program. The portion of all affiliates' dues which remains with the local chapter will be used for the establishment of the Cornell Sigma Xi Fellowship, with a stipend of \$500. It is anticipated that the first award will be made in 1946,

sixty years after the founding of Sigma Xi at Cornell University.

The Western Reserve University Chapter has elected the following officers for 1945-46: *President*, Dr. Helen A. Hunscher; *Vice-president*, Dr. Harry Goldblatt; *Secretary*, Dr. Moffatt G. Boyce; *Treasurer*, Dr. A. Sidney Harris.

At the Princeton University Chapter on June 5, the following new officers were elected: *President*, E. W. Engstrom, director of research, RCA Laboratories, Princeton; *Vice-president*, Professor W. O. Puckett, department of biology; *Secretary*, Professor M. H. Nichols, department of physics; *Treasurer*, Professor R. H. Wilhelm, Engineering School; *Committeeman*, Dr. W. M. Stanley, the Rockefeller Institute for Medical Research.

The Purdue University Chapter initiated twenty-five new members and associates at a meeting on May 8. At the close of the initiation exercises, new officers were elected as follows: *President*, W. L. Ayers; *Vice-president*, L. Greene; *Secretary*, Elizabeth Mackay; *Treasurer*, J. Tiffin. An important feature of the initiation dinner was the presentation of the first annual research award to be made by the chapter. It was presented by Professor C. V. Ludy, a charter member, to Donald J. Belcher in recognition of research on engineering characteristics of soils determined from studies of aerial photographs. The award

consisted of a certificate, fifty dollars in cash and a plaque to commemorate the establishment of the award on which Mr. Belcher's name is the first to be engraved. Mr. Belcher has been invited to discuss his work before the chapter on some future date.

At a meeting which celebrated the tenth anniversary of the Smith College Chapter Dr. Albert Blakeslee, president, reviewed the decade of scientific achievement at Smith and welcomed seven graduate students and nineteen seniors into associate membership in the society. Dr. Katharine Blodgett, of the General Electric Company, gave an address on "The Colors of Thin Films."

The Abbott Laboratories Science Club, Chicago, is the first research group in the pharmaceutical industry to qualify for and be granted affiliation with the Society of the Sigma Xi. One hundred and eighty-four chemists, engineers, pharmacists, bacteriologists, pharmacologists, physiologists, physicians, botanists and other scientifically trained personnel of the laboratories attended the installation, which was held at the Georgian Hotel at Evanston, Ill. Dr. George A. Baitzell, professor of biology at Yale University and executive secretary of the society, conducted the installation ceremonies and presented the charter. Dr. Michael Heidelberger, professor of biochemistry at the College of Physicians and Surgeons of Columbia University, gave the address of the evening. It was entitled "Blood Complement."

SCIENTIFIC NOTES AND NEWS

THE honorary degree of doctor of science was conferred on the occasion of the one hundred and ninety-first commencement exercises of Columbia University on Professor Edwin Joseph Cohn, of the Harvard Medical School, and on Dr. Herbert Gasser, director of the Rockefeller Institute for Medical Research.

DR. W. B. R. KING, Woodwardian professor of geology in the University of Cambridge, has been awarded the Prestwich Prize of the Geological Society of France in recognition of his "distinguished researches and also for his services to France in *la géologie militaire* during the War of 1914-18 and 1939-45 as geological adviser to the British Army."

THE medal of the Liverpool Geological Society has been awarded to Dr. Douglas A. Allan, director of the Royal Scottish Museum, Edinburgh, in recognition of his original geological work, mainly connected with the structure and petrology of the Highland Border of Scotland and Angus, and in acknowledgment of his great services to the society.

THE Trudeau Medal of the National Tuberculosis Association was awarded at a meeting of the executive

committee of the association on June 6 to Dr. Florence R. Sabin, emeritus member of the Rockefeller Institute for Medical Research, in recognition of her work on the pathology of tuberculosis and on the origin, nature and activities of the white blood cells. The medal is given annually for "meritorious contribution to the cause, treatment or prevention of tuberculosis."

THE Chauvenet Prize for 1941-43 has been awarded by the Mathematical Association of America to Professor R. H. Cameron, of the Massachusetts Institute of Technology.

ACCORDING to a wireless dispatch to *The New York Times*, Prince Louis de Broglie was admitted to the French Academy in the first public session that it has held since 1939. The address of welcome was made by Duc Maurice de Broglie, his brother, who was elected to the academy ten years ago. Both are physicists.

DR. GEORGE D. STODDARD, Commissioner of Education, and president of the University of the State of New York, who was for seventeen years a member