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the face of what seems like an accelerating decline of civilization all over the world today, we hope you will not exit through our portals without the indelible impression of an overwhelming determination, on our part at least, to stamp out this insidious tide, not with the whip and the lash, or the rifle and the tank, but rather with the never-ceasing application of all the elements of human knowledge, scientific or otherwise, magnified beyond anything existing today.

What we are presenting to you, then, is our conception of those elements, and many of their applications which we believe can go far in making this world a happier place in which to live. Today, such an Open House can mean, we think, much more than it could have meant in the past. It is significant of a dynamically constructive way of life, believed in by the students and those who educate them . . . and believed in, too, at a time when so many millions of people are being schooled in obedience to principles that are dynamically destructive.

T.B.

THE RESEARCH FOUNDATION

Fiction writers, cartoonists and even the movies like to picture the research worker as a lone character who locks himself in his laboratory (preferably subterranean), eats only an occasional meal from a tray left outside the door, and keeps himself in a constant frenzy by a series of revealing inspirations. Such men have existed and in some instances have made significant scientific advances, usually after years of patient work. Indeed, the science of chemistry had its beginnings in the efforts of many such hermits who divided their time between the search for the philosopher's stone and the preparation of violent poisons on special order.

Research for industry today must get workable results in a very short time. This calls for an organized attack on each problem. The individual scientist is still the principal figure in developing the solution, but it takes more than his mere inspirations to get the job done rapidly. It also takes the combined supplementary ideas of other scientists, together with the assistance of a corps of skilled craftsmen to provide special equipment when needed.

In meeting this last, the Armour Research Foundation shops are called upon to make, alter or repair everything from microscopic mechanisms to large steel structures. The entire northwest corner of the new experimental engineering building is devoted to this work, the machine shop and tool room occupy nearly 3000 square feet.

Under the direction of Otto I. Olsen, foreman, the machine shop staff includes Harvey A. Strahl, Milton Sherfy, Leo Franck, Wayne Waggoner and Marshall Lee. These men must be instrument makers, tool and die makers, machinists, welders and steel erectors. The shops are constantly expanding and at times must operate a second shift to supply apparatus for the many projects under way. The largest jobs tackled so far have been the experimental foundry and a portion of the Snow Cruiser construction. The smallest was probably the welding of some fine thermocouples so small that a magnifying glass had to be used while working.

To outfit the ever-increasing number of research laboratories with standard laboratory furniture the Research Foundation maintains a shop adjacent to the Graduate House, where carpenters Fred Schubert and Edwin Ihrig have already produced hundreds of tables, benches, cabinets and special items, supplying not only the Research Foundation but also new instructional laboratories on both campuses.

A new unit is the research staff shop in the main Research Foundation building. Here the research men themselves have a complete set of machine and hand tools for small jobs which need not be handled by the main shops.

The Lewis staff of Technology News wishes to thank John Rebik and Neil Whiteford, members of the maintenance department at Lewis, for their very valuable assistance in equipping the Publications and Activities office. These men went to no small amount of trouble in seeing that the desired type of bulletin boards, cabinets, etc., were furnished and installed in time for Open House.

Three Departments Promise Interesting Chemical Exhibit

Variety plus entertainment! This describes the exhibits and experiments that have been planned by the three chemistry departments for Open House. These promise to provide a very interesting show.

Under the supervision of Dr. Murray, the department of general chemistry is featuring exhibits on colloids, electrolysis, continued motion experiments, combustion and flames, fire resistance of materials, alchemical transmutations, smoke rings, trick experiments, spontaneous combustion, silvered vessels, and soap bubbles and floatation. Some of the experiments are: determination of the ignition temperature of matches by means of a series of hot plates of increasing temperatures, ignition of a gas stream without a spark or flame, fire writing on treated paper, transformation of pennies to silver coins, and the fireproofing of such inflammable materials as cloth and wood.

The organic chemistry department is giving a show that has been organized by students and will be shown by them. Lawrence Nadel is the student chairman. The faculty sponsor is Professor Hamilton. The theme of the show is "Organic Building Blocks" or the process by which the organic chemist manufactures a wide variety of products from raw materials taken from mines and fields. Experiments on the distillation of coal and wood is featuring the "glass and chemical tools" of the organic chemist. Another exhibit is the "three dimensional" flow chart having on it samples of the product in the various stages of production. Synthetic fabrics, dyes, perfumes, and pharmaceutical products are also being produced by the students participating in the show. The final exhibit, called "organic oddities," shows such phenomena as "cold light" and platinum, glowing red, without any visible source of heat, ing it.

Exhibits in Physical Chem.

The department of physical chemistry under the supervision of Professor Longtin is featuring experiments in rate of reaction by a "chemical clock", explanation of a number of everyday phenomena in terms of colloids such as homogenized milk, the manufacture of face creams, and the physical properties of mixtures made by passing air bubbles through the solutions.

IIT Expansion Plan—

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closed only by railings.

The metallurgical building will have an entrance two stories high and will contain, besides class rooms, an exhibition hall. The hall will be without subdivisions, and an observation gallery containing the laboratories of the graduate students will run the length of the building on one side.

In buildings of the same general type will be housed the science department and the research foundation. These structures will be three stories high, the floor being open and supported by narrow steel columns. These buildings will also have movable walls.

The mechanical and civil engineering department buildings will be four stories in height, one of which will be open. The corners will be brick, the remainder being glass.

The entire plan is scheduled for completion in about five years. However, with industry being as active as it is at the present time, the final brick may be laid much sooner than that.

FACULTY BRIEFS

Drs. Thomas C. Poulter, Ernest W. Landon, and George E. Ziegler were in Washington last weekend attending the annual meeting of the American Physical Society. Papers on the latest developments in the field of physics were presented at this meeting.

Dr. Harold Vagtborg is back from his tour of South America. Welcome home!

Two members of the Illinois Tech department of mathematics are scheduled to present short talks before the Illinois section of the Mathematical Association of America. The meeting is to be held at Bradley Polytechnic Institute, Peoria, Illinois, on May 9 and 10.

Dr. W. C. Krathwohl, professor of mathematics and director of educational tests will present a talk on "Predicting Class Quality by Means of Orientation Tests." Professor Rufus Oldenburger will speak at the Saturday meeting of the association. Professor Oldenburger's subject will be "Mathematics South of the Border." This talk will survey the mathematical situation in Mexico as Professor Oldenburger found it when he was visiting professor at the National University of Mexico, Mexico City.

W S E Assembly—

(continued from page one)

will keep costs down to a minimum. More hours and less wages will increase the productive power of our country is the essence of the argument on the capitalistic side of the picture. On the other hand, labor claims that production will decrease.

Disputes Played Up

Why do we read about so many strikes in the newspapers? Certain people have instructed news reporters to play up every labor dispute in order to make the general public strike conscious. Large industries believe that this will be enough evidence to prove that labor is trying to disrupt the national defense program.

Labor knows that it is the first to be trampled on when industry begins to reap a harvest while operating on a wartime basis. One method of preventing gigantic industrial profits is to recognize higher wages. It is high time that the American government take notice of this fact.

Curtailling the right of labor to organize and strike for higher wages is out of the question. *The right to strike is a fundamental right of every American citizen.* The mediation board in Washington is trying to settle all labor disputes to the best of its ability.

NAVY—

(continued from page one)

win J. Wolaver, Harry Sieg, Don E. Peterson, Frank Jencius. These men are the juniors chosen.

Guenter Baum, Rupert K. Beach, Edw. J. Boarini, John F. Dillon, Carey A. Evans, Robt. F. Golden, Arthur Goldsmith, Edwir L. Hass, Herman L. Henry, Jr., Richard J. Hruda, Edw. I. Knorrer, Wm. F. Krause, Robt. Wm. Kearney, Martin W. Kraegel, Edw. J. Majka, Robert A. Mallek, Wm. F. Massman, Jr., Richard B. Nolte, Robert J. O'Brien, Richard L. Parkin, Zenon M. Prane, Francis A. Ransom, James R. Ray, Kenneth A. Rees, Walter P. Rusanowski, Henry J. Sliwa, Clarence T. Street, John Edw. Sauvage, and Harvey J. Taufen are the selected seniors.

WE DEDICATE . . .

To the thousands of Illinois Tech's Open House visitors, Technology News dedicates this issue, with the sincere hope that in its pages may be found a more informal, leisurely reflection of a myriad of student activities impossible to represent in the exciting thrill-packed hours of shows and exhibits. We join also with President Heald in wishing you the utmost enjoyment in observing the results of many hundreds of hours of enthusiastic effort on the part of students and faculty.

You will find, perhaps, a curious fact about this open house at Illinois Tech in that it says so much and yet leaves so much unsaid. We are trying to tell a story, in three days, of achievements that have taken countless centuries to evolve. And we are telling it in the many unique languages of the architect, the scientist, the teacher, the food technician, the engineer, the mathematician, the clothes stylist . . . in fact all of the diversified arts and professions represented by Illinois Tech's three campuses, Armour, Lewis, and the Art Institute. But it is to your own vivid imaginations that must be left the fascinating drama of the growth of what we put before you as fact.

What we wish to leave with you, however, is far more important than the presentations of the achievements of the modern and the past ages. What we must leave with you is the spirit of unceasing hope and endeavor that is instilled in the youth of Illinois Tech and youth everywhere. In