

DEPARTMENTAL NOTES

WORK OF COLLECTING OLD CLASS PICTURES

During the past year members of the Tau Beta Pi Society have been engaged on the work of securing photographs of the earlier graduating classes in the engineering department. This work has so far progressed that practically complete groups of the engineers of 1865, 1869, 1870 and all classes up to and including 1878 have been received. Photographs copied and mounted, and the framed pictures now hang in the corridors of the engineering building. A number of photos of graduates from 1860 to '64, and '66 to '68, have been received but none of these groups are complete as yet. Work is now in progress and it is hoped that within the next few months photos may be secured of the classes from '80 to '90 inclusive.

The members of the society would appreciate the co-operation of alumni who have class albums or group pictures of the engineering graduates of any year. The loan of these pictures is requested. The time necessary for making copies is not very great, and in every case except one, pictures that have already been secured have been loaned.

In addition to the old class pictures taken at the time of graduation, excellent late photographs of large size have been secured of several of Michigan's eminent engineering graduates. Such pictures now are hung of Alfred Noble, Cornelius Donovan, Geo. Y. Wisner, Charles F. Brush, E. S. Wheeler, A. A. Robinson, S. W. Robinson, J. B. Johnson, R. C. Carpenter, Otto J. Klotz, Benjamin Douglas, and other eminent engineering alumni.

It is the hope of Tau Beta Pi that this collection may be added to so

that not only all of the old class groups may be secured, but that many more of the great engineers among our graduates may be given place on the walls.

The University is becoming so large that in no other way can the student body come to know about Michigan men and their achievements. This place cannot but be a good thing for the students. They must inevitably be filled with enthusiasm for their work and with enthusiasm and love for Michigan as they come to know of the great achievements of the older alumni, and of the great places they have filled. The alumni of this department have had their share in the work of the world. We have many of the master builders among our alumni. This movement certainly will bring the students into much closer touch with the alumni and their work.

AUTOMOBILE ENGINEERING

With the establishment of four courses in Automobile Engineering, the Engineering Department of the University of Michigan has taken the lead among technical schools in the country in the development of this latest and most widely interesting branch of Mechanical Engineering. At the beginning of the present year a group of four courses was announced, as electives for senior and junior students as follows:

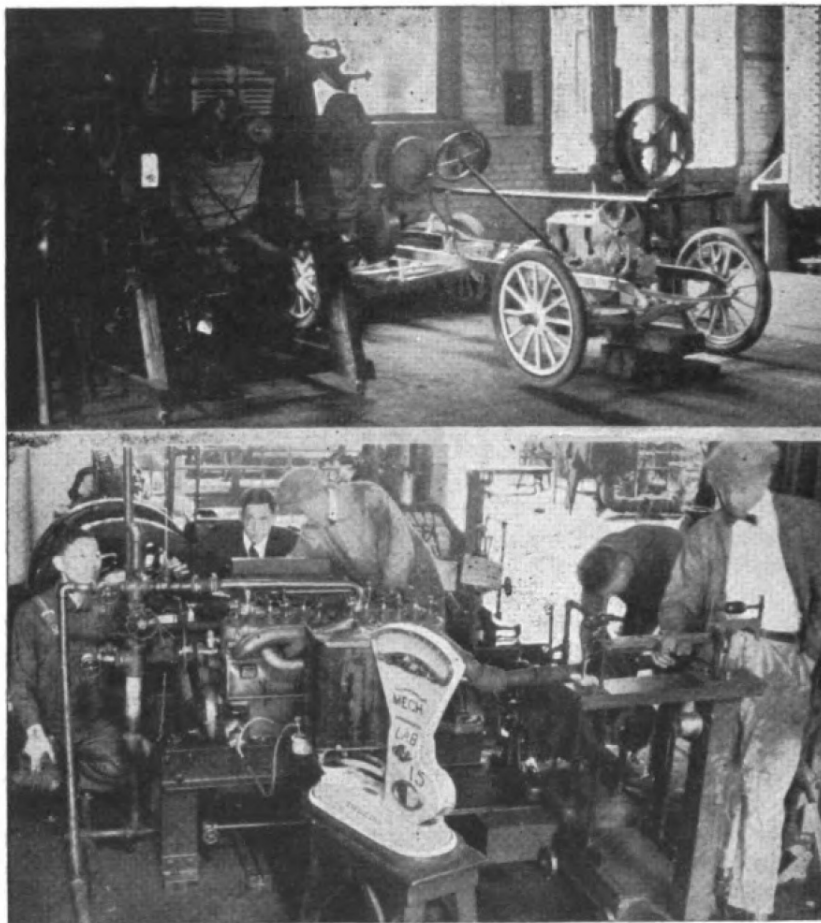
1. Gasoline Automobiles; three hours. A general course covering the fundamental principles of automobile operation and design, and their application in current automobile practice.

2. Motor Design; three hours. A course covering the theory and design of the complete automobile power plant.

3. Chassis Design; three hours. A course covering the theory and design of the automobile chassis with the exception of the motor.

4. Laboratory Testing Course; two hours. This course is for experimental laboratory study of mod-

The general course and the laboratory testing course were given both semesters, with a total enrollment of 85 in the former and 26 in the latter course. Next year the two design courses will also be given, and an advance laboratory research



AUTOMOBILE LABORATORY

ern automobile motors, with tests on horse power developed, fuel consumption, tuning, efficiency, etc.

Interest among students in both the engineering and literary departments has been great from the start, and outside inquiries indicate that about a dozen will enter the University next year for the purpose of specializing along automobile lines.

course, in which students will be encouraged to work out original problems, the solutions of which are of immediate interest to both manufacturer and owner.

The importance of a complete laboratory equipment for demonstration and testing work was early appreciated, and the generosity of automobile manufacturers throughout

the country in sending motors, carburetors, transmissions, axles, and even complete chasses has, in one year, placed the Michigan laboratory ahead of any in the country for the study of the modern gasoline automobile. The following equipment has already been installed:

1914 Hudson Six 54 motor and Delco self starter.

1914 Ford Model T. motor.

1914 Reo the Fifth motor.

1911 Franklin air cooled motor.

1911 Krit motor.

1908 Franklin motor.

Complete Studebaker cut-out show chassis.

Timken front and rear pleasure car axles.

Timken front and rear truck axles and transmissions.

Weston-Mott pressed steel rear axle.

Complete Bosch magneto ignition outfit.

Eisemann magneto and switch.

Schebler, Rayfield, Zenith carburetors in cut section.

Spicer universal joint shaft.

Covert selective transmission.

Franklin multiple disc clutch.

Grant-Lees differential.

In addition to this list, the H. H. Franklin Co. has promised a 1914 six cylinder, air cooled motor, and the Packard Motor Car Co. has agreed to send a complete 1914 "38" chassis.

For its standard tests, the laboratory is equipped with prony brakes, water dynamometer brakes, fuel measuring devices, special cooling regulating system, pyrometers, exhaust gas analysis apparatus. Before the end of the present semester, a special Diehl electric cradle dynamometer will be installed which will make the laboratory testing equipment as complete as any in the country. The dynamometer, which is the same as the well known instal-

lation at the Automobile Club of America Laboratory in New York City, except that it has greater flexibility, will be rated at 60 horse power and guaranteed for a speed range of 500 to 2,400 R. P. M. With the installation of this new equipment, the department will be in position to do testing work of much benefit to manufacturers, inventors, and automobile owners of the state. Already several requests have been received looking toward research work, and tests have been run on carburetors, mufflers, and a special device for injecting steam into the gas mixture.

In connection with the work, it is planned to make trips to prominent automobile factories in the middle West, as well as to have one or more engineers from the active field address the sections. The first semester, the trip was made to Detroit, where the Chalmers and Hudson factories were inspected, followed by an evening at the Annual Detroit Automobile Show. Toward the close of the semester, Mr. O. E. Hunt, '97 E., Asst. Chief Engineer of the Packard Motor Car Co., gave an illustrated talk on "1913 Development" before an audience of more than 250 students and faculty members. His demonstration in the laboratory, following the lecture, of the latest Packard car was an innovation which held the interest of his hearers until well towards midnight.

The courses in Automobile Engineering are in charge of Asst. Prof. W. T. Fishleigh, '02, '06 E., who has spent several years in the engineering and experimental departments of the Packard Motor Car Company, of Detroit, and Mr. S. R. Thomas, '13 E., whose automobile experience has been supplemented by work covering several summers upon two cycle marine motors.

An automatic recording gauge for keeping continuous record of the stage of the Huron river has recently been installed by the Civil Engineering Department. This gauge is located on the east bank of the river just below the Fuller street bridge.

The gauge is installed in a circular concrete house, the foundation of which is excavated into a firm gravel foundation to a depth of about five feet below ordinary water surface in the river. The outside diameter of the building is six feet. The foundation wall extends eight feet above the ground wall. It is substantially built, so as to withstand the thrust of drift and ice jams.

The building proper which rests upon this foundation is constructed of colored concrete blocks which were moulded in circular forms of the required diameter. A conical concrete roof covering was used.

A W. & L. E. Gurley automatic gauge which stamps the actual elevation of the water surface at fifteen minute intervals, has been installed. The records may be taken from the gauge when required.

The students of the hydraulic department of the University are making gaugings of the river from the Fuller street bridge, from which a rating curve may be computed. With this rating curve and the gauge records, a continuance record of the discharge of the Huron river may be had. This method of keeping discharge records is in accordance with the best practice of the U. S. geological survey. The records of the Huron river as obtained by the students will hereafter be contained in the publications of the U. S. geological survey.

TAU BETA PI ELECTIONS

The local chapter of Tau Beta Pi, the honorary engineering fraternity, announced recently the election of sixteen Junior engineers and three members of the faculty to its membership. The elections were based upon both scholarship and personality. The following is a list of the men who were elected, the choice being made from the first one-eighth in the class with reference to scholarship:

John Henry Bateman, civil, Sault St. Marie; Kenneth Stuart Baxter, mechanical, Vandalia; Chester Clare Bockstahler, civil, Detroit; Sabin Crocker, mechanical, Mt. Clemens; Howard Austin Enos, electrical, Jackson; Oliver W. Hall, mechanical, Denver, Colo.; Carl V. Johnson, mechanical, Vandalia; Chester Clare Kennedy, chemical, Pittsburgh, Pa.; Ray C. McAllister, mechanical, Knowlesville, N. Y.; Gordon Brown McCabe, electrical, Detroit; Walter Van Cleve Marshall, architectural, Great Falls, Montana; Allen Townsend Ricketts, mechanical, Ann Arbor; James Wilson Robinson, chemical, Sturgis. Bert Arnold Standerline, chemical, Jones, Mich.; Lyon Frank Terry, civil, Rochester, Ind.; Woodward Alfred Warrick, mechanical, Alexandria, Va.

William C. Hoad, Professor of Sanitary Engineering, was elected as an honorary member; and Horace W. King, Professor of Hydraulic Engineering, and Lewis M. Gram, Professor of Structural Engineering, were elected as alumni members.

The initiation was held Wednesday evening, the 25th of March, at which several of the faculty and student members spoke.

A course in Scientific Shop Management is to be offered for the first semester of 1914-15. This is a new departure that has been con