

The Technology Review

VOL. X.

OCTOBER, 1908

No. 4

THE NEW TECH UNION

That the Corporation of the Institute is directing its attention with earnestness to the social condition of undergraduates is shown by the appointment, last year, of a Corporation Committee on Student Welfare, and this movement has had immediate fruition in the establishing of an almost luxurious social centre for the students at the very doors of their lecture-rooms and laboratories.

The new Tech Union is practically a modern club, embodying all the comforts and conveniences that are really worth while, having no restrictions that are not necessary in every club, and where the Tech student, rich or poor, may feel that he is really at home. Not only has the Corporation, generously assisted by friends of the Institute, afforded facilities which will amply suffice until the Walker Memorial can be built, but it has recognized the importance of placing responsibility on students, so far as this is feasible, and has appointed a governing committee of the Union, consisting of five undergraduates and four older men, so that the new Technology Union is run for the students and by the students, and its general success rests with them. The experiment is interesting because of the possibilities of further expansion in other directions if the results show that executive traits can be developed during student years.

The new Tech Union is located on Trinity Place, between the Pierce Building and Engineering C, occupying a space sixty feet long by sixty feet wide. The social room on the

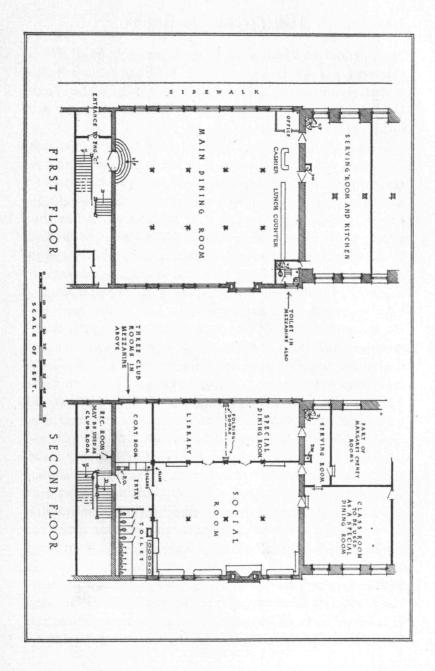
The Technology Review

second floor is a commodious room, high-studded and airy, and at the same time very homelike and comfortable. The principal feature, as one enters the social room, is a hospitable fireplace, capable of taking in five-foot logs, and the welcoming suggestion of upholstered couches and windowseats and comfortable easy-chairs, set off by harmonizing colors of walls, rugs, and draperies. As will be seen from the plan, this room occupies about two-thirds of the area of the second floor, outside the coat-room, entry and toilet. The other third of the area has been made into two rooms,one of them a special dining-room, and the other a library, with folding doors between, so that they can be thrown into one large room capable of seating one hundred and twenty-five. Inasmuch, however, as there is a large classroom in the Pierce Building, to which connection has been made with the Union, which can be used for a private diningroom, it is thought that the encroachments on the library will be very few, and in this room, therefore, have been placed a large round table and chairs, the gift of the class of '08.

On the ceiling of the social room hang the various class banners of cardinal and gray, which are used on Tech nights at the Pops, and on the walls are large pictures of the various Tech shows. On the reading table in the library are newspapers, magazines and other periodicals of interest to the students, and in the bookcases on the walls is the library which was given by the late Frank H. Cilley ('89) before his death. Connected with the private dining-room, and also with the recitation-room which will be used as a diningroom, is a serving-room, which has connection with the kitchen by a dumb waiter as well as a spiral staircase.

One enters the social room through an ample lobby, which has on one side a coat-room and on the other the lavatories. On the coat-room counter are the post-office boxes which

400



have heretofore been located in Rogers Building, also a counter for cigars and tobacco. A public telephone is also located in the lobby. The social room will be open from eight in the morning until eleven o'clock at night every day in the week.

When the Union was first discussed, it was hoped that the funds would be sufficient to build a three-story edifice, the third story to be devoted to offices where the student activities could be grouped together and where would be located alumni headquarters. It may be somewhat surprising to the older alumni, to know that the amount handled by these student activities runs considerably above \$25,000 a year. This involves a large amount of book-keeping which has formerly been done by the students, necessarily in a very imperfect way. Arrangements were made last year by which some of this work was done at alumni headquarters, and it is now proposed to offer such facilities that all of the book-keeping and filing of this kind will be taken care of in this way. This will relieve many students of work which has taken a large part of their time at the expense of their studies, and which, even at the best, has not been done in a business-like manner.

It was found, however, that a three-story building could not be built for the amount appropriated, so that the alumni headquarters will remain in Rogers Building, the student activities occupying the three small offices on the mezzanine floor over the coat-room and toilet, and another somewhat larger office in the hall of Engineering C. Another small office in the hall will probably be available very soon. It will be very inconvenient for some of the student organizations to be so far removed from alumni headquarters, but it is hoped that in the near future some arrangement can be made to have this office brought nearer to the Union. The interest which the students are exhibiting in the Union, which will be opened a few days before the REVIEW goes to press, indicates that it will not only serve its purpose, but will also be an inspiration to them so to organize their student activities that this outside work shall not menace the standing of the men connected with them, but shall be an important part of their education.

The lunch-room, on the first floor of the Union, is a great departure from anything that we have ever known at Technology. The evolution from Jones's restaurant in the old drill shed, where Walker now stands, to the new lunchroom, is very great indeed. The room is the full size of the building, sixty feet by sixty feet. The kitchen, which is located in Pierce, is as large as those in some of Boston's first-class hotels, and is provided with modern apparatus for cooking food and keeping it in proper condition to be served. The side walls of the buildings have large window openings, and the artificial lighting is not only ample, but brilliant. There will be several pictures in this room, and also the large Tech banner, which is used at Technology reunions. Hanging from every bay is a basket filled with vines and flowers, and about the posts are blooming plants, which are changed each month by the florist who has this contract.

It is expected that, when the lunch-room opens, it will be called upon to feed about one thousand a day. As the rush is greatest at noon, preparations have been made to give the most expeditious service. Students seating themselves at tables can order of the waiters, who will serve them from the kitchen, or they can go to the lunch counter, where food will be served by an attendant as ordered, to be eaten at one of the near-by tables. The two types of service are entirely distinct, the special dishes at the lunch counter not being the same as those served from the kitchen. The scheme of making payment is very simple, and eliminates delay. Students who are working their way through the Institute are employed as waiters. The "waiter service" hours for breakfast are 7.30 to 8.45 A.M.; lunch, from 12 M. to 1.45 P.M.; dinner, from 5.30 to 7 o'clock. By this it is to be understood that during these hours will be served special dishes suitable to the meal, but the bill of fare contains as great variety as that of a first-class hotel in a large city, and special orders will be cooked and served at any time during the day. The lunch counter is open from 8.45 in the morning until 5.30 at night. At this counter can be had all forms of dairy dishes, pastry, fruit, coffee, milk, ice-cream, and three special entrées each day. The steward, T. J. Gibney, has been steward of the Hotel Pilgrim, Plymouth, during the past season, and the chef is William McIver, who has for several seasons been chef on the Floating Hospital, and who had charge of the Tech Union lunch last year. The price charged for food are extremely reasonable, although it is of the very best quality, and generous amounts are served. Books of meal tickets, good for \$3.30 worth of food, are sold for \$3, and books good for \$1.10 worth are sold for \$1, and the aim has been so to arrange the menu that a young man obliged to economize can get good substantial food, and enough of it, for about \$3.50 a week. The hours for meals on Sunday are from 8.30 to 10 for breakfast, dinner at 2, and cold supper from 6 to 7. The Sunday dinner will be served as nearly like a family table as possible. All the vegetables, with bread and butter, will be on the table, and it is hoped that the meat can be carved on the table by one of the students. If it is found feasible, this table d'hôte dinner will be added to the à la carte service on week-days.

404

SOME RECENT INVESTIGATIONS IN THE CHEMICAL DEPARTMENT

The Chemical Department of the Institute is singularly fortunate in its relations to scientific research and investigation. For a number of years there has been associated with it the Research Laboratory of Physical Chemistry, under the direction of Professor A. A. Noyes, which, while independent of the departmental organization, has cooperated with the Department in every way possible for the encouragement and promotion of the spirit of research among both students and instructing staff, the inevitable result being an increased incentive for both to keep themselves in touch with the growth and progress of the science. The work of the corps of investigators in this laboratory is well known to all whose business it is to follow the advances in the field of physical and inorganic chemistry.

A little more than two years ago steps were taken looking toward the establishment of a Research Laboratory of Applied Chemistry, which should deal with questions relating to the technical applications of chemical science. It has, fortunately, been recently possible to place this work upon a definite footing, and under the direction of Professor W. H. Walker this Research Laboratory will begin its official existence as a branch of the Department, with the opening of the present Institute year. This and the brief accounts of the work of the past two years are doubtless already familiar to the readers of the REVIEW. There is every reason to expect that this laboratory, like that of Physical Chemistry, will, through its investigation work, its advanced courses and seminars, and the attractive opportunities for research which it affords to the junior members of the instructing staff and to advanced students, add to the incentives already existing toward thoughtful and progressive activity on the part of all within its influence. It should also add to the prestige of the Institute, and bring it into closer association with the technical interests of the country.

It is not, however, the primary purpose of this paper to deal with the work of these laboratories, which have spoken and will speak for themselves, but rather to indicate, through a few examples chosen from many, the nature of some investigations carried on outside of these formally organized laboratories. Among the most important of these is the work of Professor S. P. Mulliken, who has for several years held an assistant professorship in organic chemical research, on a systematic procedure for the identification of organic compounds. The procedure employed in inorganic qualitative analysis for the identification of the metallic elements and the common inorganic acids is familiar to all who have pursued the study of chemistry beyond the elementary stages. The carbon compounds, however, do not lend themselves readily to such a simple system because of the comparative complexity of their reactions, their enormous numbers and varied characters, and the difficulties involved in establishing conditions which permit of the study of the characteristic behavior of any one compound, or even group of compounds, in the presence of the others. It is, nevertheless, a matter of importance that such compounds should be identified as easily as possible in the interests of both the scientific worker and the practising analytical or technical chemist, and it is to this formidable problem that Dr. Mulliken has devoted a large part of his energies and thought for a number of years. The first volume of a series which

406

Investigations in the Chemical Department 407

he hopes to prepare was published in 1904, under the title "A Method for the Identification of Pure Organic Compounds." Since 1906 he has confined his work almost entirely to the preparation of a systematic analytical procedure for the identification of the modern commercial dyestuffs, as there seems to be at the present time no complete and trustworthy procedure extant which can be applied to the bewildering array of modern colors. A considerable amount of the work involved has been undertaken by various students as the subject of their undergraduate theses, a considerable part has been completed by private assistants, and much has been done through the almost uninterrupted labors of Dr. Mulliken himself. The results of this work will, it is hoped, be published in 1909 as Volume 3 of Dr. Mulliken's "Analytical Method" under the probable title "A Method for the Identification of the Synthetic and Natural Dyestuffs." It can hardly be questioned that this will prove to be of such permanent value to all concerned with the study and reproduction of dyestuffs, or of their color effects on textiles or other fabrics, as to justify the thoughtful, thorough, and time-consuming labor which its preparation involves.

Three years ago the Course in Chemical Engineering was thoroughly revised with a view to meeting the changed conditions and requirements now obtaining in this branch of engineering work. The broad, fundamental training in chemistry which the members of this course now obtain has made it possible to take up as subjects for investigation as undergraduate theses, problems which are typical of those existing in every chemical industry, and which require for their attack a comprehensive knowledge of both chemistry and mechanical engineering. Among the theses of this general type carried on in the Laboratory of Indus-