

CIRCUS WILL NOT BE HELD THIS YEAR

QUOTA FOR NAVAL RESERVE TRAINING NOT YET FILLED

Students Who Desire 21 Months Service Should Report to Lt. Thomas

MAY SERVE WITH MARINES

Only ten applicants from Technology have signed up with Lieutenant Reginald D. Thomas for the new schedule of 21 months of aerial training for the United States Naval Reserve Corps in which there are facilities for 54 men.

Ground school work will be held at the Institute after the mid-year recess for which the student will receive no compensation. After the ground school instructor the men are enlisted as second class seamen and go to the base at Squantum, Mass., for a 30 day elimination course with about 18 hours of flying. Upon receipt of his orders the student will receive his transportation and serve on a pay status.

May Serve With Fleet

Men who are successful will continue to receive compensation during an eight months training period in primary and advanced work at Pensacola, Florida, where they will get 200 hours of flying. At this station they will serve as enlisted men in the naval reserve. Some men will then serve with the fleet on active duty as ensigns for one year. After this service they may join the fleet reserve with the privilege of attending a maximum of 60 drills a year with one day's pay for each drill. This runs from 300 to 350 dollars a year. They may also do 15 days service annually on full pay.

It is possible to qualify as a second lieutenant in the Marine Corps. In order to be eligible for this training the student must be a senior, have finished his professional course, be a citizen, not under 18 and not over 28 years old, and must certify his willingness to serve one year with the fleet. All interested should confer with Lieutenant Thomas, Room 3-103.

"THE CLAY CART" TO BE GIVEN SATURDAY

Play Produced for the Benefit of Hindustan Society

Under the auspices of the Massachusetts Chapter of the Hindustan Association of America a play, "The Little Clay Cart" will be presented at Jordan Hall, Saturday at eight o'clock. The play is an ancient Hindu drama of piquant flavor and quaint, oriental beauty. It has lost none of its charm in the translation from the Sanskrit into English by Dr. Arthur W. Ryder of Harvard University.

Tickets at \$1.50, \$1.00, and \$.75 may be obtained at the Box office at Jordan Hall. The proceeds realized from the play will be given over to the Hindustan Association of America for the benefit of the Hindu Students Loan Fund. Among the patrons for the presentation of the play are Ex-Governor Alvan T. Fuller, President Samuel W. Stratton of the Institute, President A. Lawrence Lowell of Harvard University, Mr. and Mrs. A. Farwell Bemis, and Mr. and Mrs. Hendricks H. Whitman.

In Memoriam

Robert Edward Wilson '30 died January 23, 1928 from a sudden development of pneumonia. He had been home only two days in St. Louis, visiting his parents during the holidays when he passed away. He was enrolled in Course VI-C and lived in the Technology Dormitories.

Altitude Record Holder Talks at A. E. S. Meeting

Problems Overcome Developing Project Is Described by Lt. C. C. Champion

Describing the various problems which confronted the navy when a project was undertaken of developing a plane which would operate efficiently at high altitudes and the methods by which each was overcome, Lieutenant Carleton C. Champion, U. S. N. present holder of the world's altitude record, explained the stages through which the project grew at a meeting of the Aeronautical Engineering Society in Room 3-270, at 7:30 o'clock December 19, 1928.

The ship used was an Apache plane. Lieutenant Champion stated that Professor Charles H. Chatfield '14 was responsible for its design. The old idea for high altitude ships called for large wing area, but the navy rejected this in favor of developing a strictly service ship which would reach the desired heights by means of increased power. Only 36 square feet was added to the supporting area. The power was increased by setting the propeller so that it gave its maximum power in climb rather than in horizontal flight, and by installing a super charger.

The first problem was the determination of the amount of oxygen an average man would need at high

(Continued on Page 4)

CORPORATION XV TO RELEASE TRIP PLANS

Corporation XV is ready to make its final plans for the annual trip to New York. The visit to the factories and industries in the vicinity of Manhattan will take place between terms probably starting January 28. The cost is usually about \$17.00 each man and theatre tickets are to be purchased in advance for those who wish them.

All members are eligible to go and non-members may join on payment of \$1.50. The complete plans of the trip will be released soon and any other information can be obtained from Gordon Rogers '29, president of Corporation XV.

January Issue of Technology Review Appears During Christmas Vacation

"Evolution Everywhere" by Prof. Shimer Featured—Alumni Write Articles

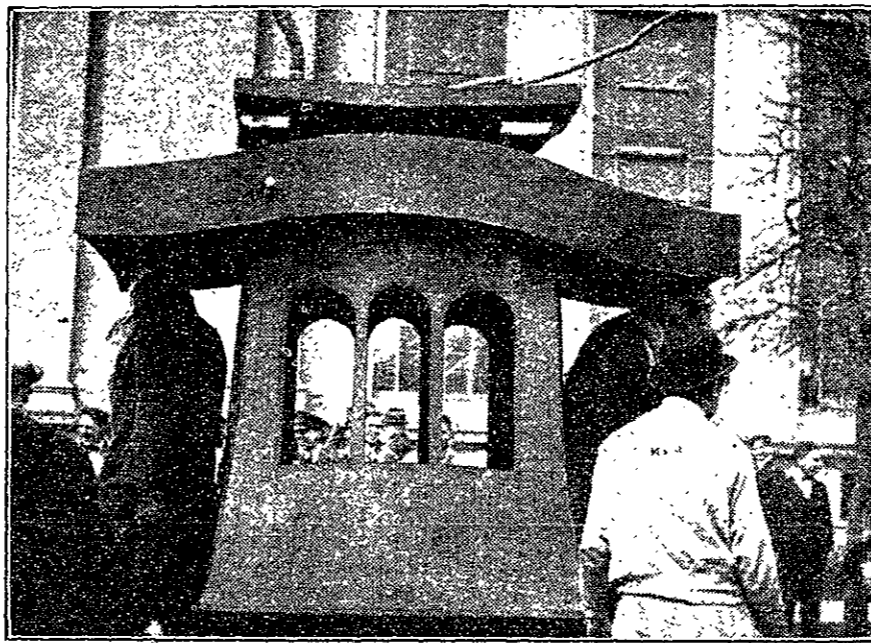
While the January number of "The Technology Review" was released during the Christmas recess, copies of the issue may be obtained at the Review Office, Room 11-203. This month's magazine, departing from the technical tone which characterizes some of the publications, features an article on an essentially non-technical subject, "Evolution Everywhere," by Professor Hervey W. Shimer.

Professor Shimer's field is paleontology, and from his study and experience in the science he is able to offer some new views on the subject which has of late caused so much comment throughout the world. "Continual change is the essential characteristic of life," he says, and goes on to show how this basic principle has been responsible for the present developments in the animal and plant kingdoms. He traces the evolution of common animals and vegetables in this article, which is an abridgement of a chapter of an impending book of his on new aspects of the theory of evolution.

Enforcing his own opinions with the views of Professor Dugald C. Jackson, head of the Department of Electrical Engineering and the President of Swarthmore College, Frank Aydelotte, an alumnus, Richard H. Frazier '23, gives the views of the in-

PROPOSAL TO REPLACE CIRCUS WITH CARNIVAL DEFEATED AT MEETING

Betas' Toonerville Trolley Which Was Prize-Winning Float at Last Circus



DEBATING SOCIETY TO MEET JANUARY

Freshman Debating Team Still Has Places Open to New Candidates

It was announced that the Debating Society will hold the initial meeting of the year in Room 1-176 at 1 o'clock on January 5 to plan the debates and organize the teams for this year. Any freshmen who are interested should be present so that Professor Dean Fuller can have an idea as to the power of the yearling team.

The trip of the Varsity Debating team has been partially arranged and

(Continued on Page 3)

FOREIGN PROFESSORS WILL LECTURE HERE

Three visiting professors from foreign countries will lecture at the Institute this Spring. Professor Reinhold Rudenberg, chief Electrical Engineer of the Siemens-Schubert Works in Merlin, and Honorary Professor of Electrical Engineering at the Technische Hochschule in Charlottenburg, will deliver a series of lectures at the Institute from February 5, to 26, 1929.

Professor Werner Heisenberg, Director of Leipzig, and one of the founders of quantum mechanics, will deliver nine lectures extending over the period from March 10 to April 10, 1929. Eight of the lectures will be on group theory and its applications to ferro-magnetism and chemical valency, and one on the "Principle of Indeterminism."

Doctor Ing. Th. Rehbock, of the Technischen Hochschule, Karlsruhe, Germany, professor of Hydraulics, will give a series of lectures beginning on March 21. He is famous for his experimental work in connection with stream flow.

STEFANSSON TO GIVE LECTURES AT ROGERS

Noted Arctic Explorer Will Speak on Discovery in North

Vilhjamer Stefansson, noted Arctic explorer, will give a series of lectures at Huntington Hall beginning Monday, January 7 and ending Thursday, January 31. The lectures are free and are open to everyone. Tickets may be obtained by sending a stamped, self-addressed envelope to the Curator of the Lowell Institute.

"The Northward Course of Discovery" will be the title of the series of illustrated lectures. Monday the subject will be "The Arctic and Sub-Arctic as they really are to the best of our present knowledge and belief—climate, resources, and people;" Thursday; "Greek views on the nature of the Arctic after 500 B. C.;" Monday, January 14: "The Norse colonize Iceland;" Thursday, January 17 "The Colonization of Greenland;" Monday, January 21: "The Greenland Republic, its history from 986 to 1500;" Thursday, January 24: "Summary of Arctic Discovery from Cabot to Franklin;" Monday, January 28; "Summary of Arctic discovery from Franklin to Peary;" Thursday, January 31: "The relation of the Arctic to the world as a whole."

NEW PLAN CAUSES MUCH DISCUSSION TO RENEW CIRCUS

Hamlin, Boyer Head Opposing Parties on Question of Holding Carnival

RECOUNT IS NECESSARY

No Circus will be held at the Institute this year. This was definitely decided upon at the Institute Committee meeting held in North Hall of Walker Memorial, yesterday afternoon. Both sides of the question on whether it would be advisable to hold a Circus this year were greatly discussed and when the final vote was taken the proposal was defeated.

After the Circus Investigation Committee had made its report the recommendation was made to the Institute Committee that an All-Tech Carnival be held this year. This would take the place of the Circus which was abandoned last year. This brought out a great deal of discussion with the principal objection being the fact that the proposed All-Tech Carnival was the Circus under a different name.

Real Carnival Proposed Under the discussion in favor of holding such a Carnival it was proposed that it be run in the manner of all carnivals with raffles, roulette booths, exhibitions of boxing, and other activities. The purpose was to give everyone an opportunity to participate in the events of the evening.

At the former Circuses, acts and shows were put on by the various

(Continued on Page 4)

PROFESSOR WILKES WILL BE LECTURER

"Cold" is the Subject of Second Popular Science Lecture

Professor Gordon B. Wilkes '11, of the department of Industrial Physics at the Institute will be the speaker at the second of the Society of Arts Popular Science lectures to be held this year. The address will be given in Room 10-250 on January 11, 12, and 13. As usual the lecture will be open to students of high and preparatory schools on Friday and Saturday and to the public on the last day.

"Artificial Cold and its Applications" will be the subject of the lecture. Experiments on the production of low temperatures and the properties and uses of liquefied gases and solid carbon dioxide will be shown. Various types of refrigerating apparatus will also be explained.

Last Technique Photos Today and Tomorrow

Resittings of Seniors whose first photographs for "Technique" were unsatisfactory, as well as photographs of individuals and groups not previously taken, will be made today and tomorrow in Room 11-003 in the basement of the Infirmary. Appointments are not necessary this time, as the men will be photographed as soon after they arrive as is possible. This is the final opportunity to get your picture taken for the year-book.

A Record of Continuous News Service for 47 years.



Official News Organ of the Undergraduates of M. I. T.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

MANAGING BOARD: L. C. Hamlin '29, General Manager; H. Rouse '29, Editor; D. T. Houston '30, Managing Editor; A. C. Pforzheimer '29, Business Manager.

ASSOCIATE BOARD: L. Verveer, Jr. '30, News Editor; W. F. Howard '30, Features Editor; F. C. Crotty '30, Sports Editor; G. Smith '30, Advertising Manager; G. K. Lister '30, Treasurer; D. W. Diefendorf '30, Circulation Mgr.

EDITORIAL DEPARTMENT: Editorial Board: M. Brimberg '29, W. E. Schneider '31.

NEWS AND SPORTS DEPARTMENTS: Assistant to Managing Editor: C. Connable '30.

Night Editors: E. W. Harmon '30, F. C. Fahnestock '30, R. Davis '31, S. C. Westerfeld '31, E. S. Worden, Jr. '31.

News Writers: J. W. Bahr '31, M. F. Burr '31, J. R. Swanton '31.

Staff Photographer: T. Lewenberg '31.

Reporters: I. Finberg '31, E. F. McLaughlin '32, H. Kamy '31, P. A. Roberts '32, P. A. Davis '32, W. N. Currier '31, D. L. Dionne '32, S. G. Norling '32, A. H. Feibel '32, R. Thomas '32, S. R. Fleming '32, E. F. Newman '32, M. S. Hatway '32, E. W. Schafer '32, E. B. Hubbard '31, R. A. Fuller '32.

OFFICES OF THE TECH: Walker Memorial, Cambridge, Mass. News and Editorial—Room 3, Walker, Telephone Univ. 7029. Business—Room 302, Walker, Telephone Univ. 7415. Printer's Telephone—HANEcock 5060-1-2.

SUBSCRIPTION PRICE, \$2.50 PER YR. Published every Monday, Wednesday and Friday during the College year except during college vacations. Entered as Second Class Matter at the Boston Post Office. Member Eastern Intercollegiate Newspaper Association.

BUSINESS DEPARTMENT: Treasurer Department: Assistant Treasurers: E. L. Krall '30, D. M. Goodman '31, D. S. Loomis '31.

Staff: W. Holst '32, H. Swachman '32.

Assistant Circulation Managers: J. J. Alkazin '31, J. K. Minami '31.

Staff: L. C. Littlefield '32, E. D. McLeod '32, W. M. Moore '32, W. B. Pierce '32.

Advertising Department: Assistant Advertising Managers: R. H. Haberstroh '31, G. M. Roddy '31, H. J. Truax '31.

Staff: J. B. Tucker '31, L. Fox, G. L. C. Bond, '32, W. H. Barker, '32, C. E. McCormack, '32, A. Jewell, '32, W. B. Simonds, '32, E. F. Moran, '32, M. D. Triouleyre '32, A. S. Ellis '32.

In charge of this issue: E. S. Worden, Jr., '31

BEATITUDE

BLESSED are the inmates of M.I.T., though they realize it not. Blessed in a way that is peculiarly foreign to most colleges of modern times, if hearsay may be accepted as fact. For they have an infirmary that is far and beyond all expectation, all precedent, all comprehension of the uninitiated.

Were you ever particularly happy when the grippe confined you to a sickbed? Probably not. Were you ever eager to stay ill just to preserve the delights of convalescence? Foolish question. Did you ever cherish the longing to enter a hospital for pleasant associations and a long-needed rest? Again a very negative answer. Undoubtedly you have much to learn. We almost wish that all the unenlightened might have a slight touch of this or that just badly enough to be sent to the Homberg Memorial for a few days. We daresay those would be among the brightest days in their Technology careers.

Without doubt infirmaries at other colleges have received more or less rightfully the reputations they now bear—dull, cheerless places that are incentives to stay well. Not so the new hospital at M.I.T. Just as a bit of proof let it be realized that very few who have had the good fortune to be confined within its pleasant walls have failed to return later on purely social calls, just out of tribute to its excellence. The staff is exceptional for its ability to make one feel at home; the treatment leaves naught to be desired; the rooms are beautiful; the food is great; the solarium is a masterpiece; and the rates would make the poorest of us sigh relief. We fail for adjectives—but what else is there to say? We have an infirmary that cannot be equaled; that's enough for anyone.

IT WON'T BE LONG NOW!

"HAPPY NEW YEAR!" Cheery greetings pass back and forth as we return to school from the vacation. But they are rather sour salutations—we are thinking about the more fortunate students at other institutions whose scholastic requirements are less rigid and allow them to stay away for longer respites. Or we are still in a daze caused by the new girl who took the old home town by storm—or perhaps the old one whom we had not seen for years. But more likely are our jolly words tinged with sarcasm when we think of the exams which are hovering over us. "Fourteen more working days till mid-terms," as it were. Only two weeks to assure your continuance at the Institute. Only two weeks to finish up those problems, to complete the back drawings, or to work up the lab experiments. It is a remarkably short time, and all of us are too prone to procrastinate, even in these last few days, as we have done during the term.

There is still chance for re-establishing oneself in the good graces of the professors. For it is still the custom at Technology to make the final examinations count for a large part of the ultimate grade. Lots of midnight oil, then, and a few week ends at home for a change will do it. The chance of staying is growing smaller with some of us, but the unstinted effort is well worth while.

AN OUNCE OF PREVENTION

WHILE the Universities of Wisconsin, Minnesota, Nebraska and other Mid-Western schools have been released for a prolonged vacation, while there are some 300,000 cases of influenza in Detroit for example, the epidemic which has so ravaged the West has not as yet reached alarming proportions at Technology. The movement of this dread disease has been eastward this time, and such cases as there are in New England are under control.

But there is imminent danger of the contagion spreading into these parts, particularly since so many students visited the centers of the "flu" during the past vacation. Realizing that it would be fatal for the students here were an epidemic to start, and that there is vital need for good health for the coming examinations, Assistant Dean Lobdell has sent out letters to all the fraternities stressing the dangers involved.

While medical science has been constantly working on this peculiar malady, doctors are still inadequately equipped to battle with it, once it gets started. But its prevention is well understood, and the measures are simple. For your own good, as well as the general welfare of the groups with whom you are associated, keep healthy!

THE OPEN FORUM

Opinions From The Faculty

Fifth in the series of letters from the M.I.T. Faculty on the subject of European educational merits comes this interesting article by Dr. Charles Terzaghi, Professor of Foundation Engineering at the Institute. Professor Terzaghi received his diploma in Mechanical Engineering from the University of Graz, Austria, in 1905; since then he has been successively construction superintendent of hydroelectric power developments, and in charge of hydraulic investigation and construction in the Balkans and northern Russia. In 1911 he was awarded the degree of Doctor of Civil Engineering at Graz. For two years he worked in different capacities in western United States, and during the war was an aviation officer in the Austrian army. He became in 1916 a professor at the Turkish Imperial University at Constantinople, and later a professor at Robert College, as well as a consulting foundations engineer, finally becoming a member of the M.I.T. Faculty in 1925. His opinions are obviously the result of an unusually broad, practical experience.

To the Editor of THE TECH:

Your editorial entitled "Blind Braggadocio" combines the merit of containing some grains of truth with the deficiency of suggesting that something like a paradise for students where miracles are performed is apt to exist somewhere on our globe. Hence, it may be useful to make some comments on the situation from the point of view of the consumer of the human material emerging in an endless procession from our institutions of higher learning.

After I left the university, for a period of twelve years I did not even suspect the possibility that I ever might be connected with such an institution in a teaching capacity. Therefore, I merely regarded universities as factories destined to furnish animated tools for handling engineering problems, and valued their merits accordingly. Furthermore, it was my lot to cooperate in succession with graduates from the universities of different countries, including Austria, Germany, France, Russia, the United States and Turkey.

My present conception of the possibilities and limitations of university education, largely developed under the influence of these early contacts, and my opinions are the result of definite experience—made under field conditions. In no case could I discover that the university education was distinctly beneficial to the humbler minds. As a result of theoretical training, they merely lose what little common sense nature has bestowed upon them—under the European plan much more so than under the American one; this by-product of the university education is very deplorable. Furthermore a superficial acquaintance with fundamentals is far more detrimental than none at all. Hence, for carrying on the routine of construction business, the more intelligent graduates of the ditch, of the construction camps, and of modest trade schools seem to be better fitted than are equally intelligent university graduates. They are keener, better equipped for handling men, and less pretentious. On the other hand, merely the most outstanding men among the university graduates can be successfully used for handling novel and difficult problems.

The fundamental difference between European and American universities resides in their attitude towards this rather embarrassing situation. European universities are supposed to exist for the very best minds only. Their function resides in training these minds in productive thought. As a consequence, very little attention is paid to the teaching of mere facts. Those among the students who cannot keep pace with the teachings are allowed to perish according to their own fashion, and they usually do so at the poor public's expense by entering government service. In brief, the institutions are run according to the principle, "We must risk boys in order to get men."

In contrast to this, the American universities seem to plead, "Let's give a chance to every one of these poor boys." The poor boys seem to know it; hence, they consider initiative on their own part a waste of energy. It is up to the teacher to fill their vessels while they patiently sit and wait. Since lectures should be within the reach of the feeblest members of the audience, almost anybody may do for delivering them. No wonder the brilliant ones among the students consider the performance rather dull, and they hardly ever get an opportunity to make a serious loading test of their mental capacities! As a result of this system, the average run of the output of the American university is somewhat better than that of the European ones, but the elite of the students sadly fails to get the training and the inspiration required for pioneer work. If in later life such graduates actually achieve prominence, the university cannot claim more than a small fraction of the credit.

Thus, it seems that both the European and the American systems have their serious drawbacks. It is pathetic to see a European faculty seriously pondering over the scientific achievements of a prospective candidate for teaching an elementary course. It is no less pathetic to see in the United States in charge of post graduate courses numerous people who never in all their life had an idea of their own. Future development will undoubtedly see a fusion of the merits of the two systems.

The elementary courses should be conducted strictly according to the American system, by people congenial to the average run. By combining these courses with football and other setting-up exercises, the primitive instincts should be kept alive, instincts for successful salesmanship and other harmless post graduate occupations. The courses should consist in the fundamentals—the facts which are known and accepted.

In the second group of courses, the most promising students should get a chance to learn about the gaps in our knowledge and about the methods for closing them. Hence these courses should be conducted strictly on the European plan and should be given by men who themselves are successful pathfinders. The one distinguishing feature between a first and second class university consists in the number and quality of men available for this second group of courses.

The institute can boast of having on its faculty an unusually great number of successful research men, fit for decorating any European faculty. But at M. I. T. the student expects Providence and the faculty to do the work, while he remains in an attitude of receptive contemplation; at a European university he himself has to do the work, and the faculty merely provides the tools. This is apparently the result of a low standard of intellectual initiative caused by inadequate high school training. The beneficial effect on individuals of a European training over that available at M. I. T. seems not to be due to the superiority of the system but to the atmosphere created by the attitude of the European student body. Transfer the student body at M. I. T. in bulk to a European university and you would make discoveries strangely at variance with your expectations.

The social and financial position of a university professor in Europe is attractive enough to be desirable even for the most capable representatives of the nation. Hence, the intellectual level of the European faculties maintains on an average a very high standard and justifies the social prestige associated with the membership. The difference between the United States and Europe, as far as the quality of the staff is concerned, consists in the fact that here the M. I. T.'s are very rare, while there, due to the distinguished position of the faculty members, almost every university can afford to live up to a similar intellectual standard. At European universities complete mastery of the subject invariably represents the minimum requirement for occupying a chair, and ample leisure is provided for keeping track of contemporary developments. This is too rarely the case here in America.

In Europe exactly the same group of assets as possessed by the Institute would be presented to the public by using a different scale, shifting the emphasis from the real estate to the scientific achievements of the most prominent members of the faculty; and as a consequence, in Europe too M. I. T. would be considered a high grade institution. Hence at our institute the student can find as much stimulation for creative work as he would at any European university, provided he is willing to strive for it. If the student fails to obtain at M. I. T. the inspiration he expects, he has only to blame his own lack of initiative.

Charles Terzaghi

Play Directory

Stage

COPLEY: "The Whispering Gallery". A note the first-time-in-America show; this time mystery. HOLLIS: "Marco Millions". O'Neill's brilliant satire done by the Theatre Guild. COLONIAL: "Jim, the Penman". Old favorite played by old favorites. PLYMOUTH: "And So To Bed". The diary of Samuel Pepys makes whimsical entertainment. SHUBERT: "Rain or Shine". Joe Cook and Tom Howard in a laughable New York success. MAJESTIC: "Cafe de Danse". Drama with music and dancing, presented by Ben Bernie. REPERTORY: "Alice in Wonderland". Last two days of the fairy-tale classic. TREMONT: "Blackbirds". It'll be here as long as "Good News" yet. ST. JAMES: "Enter Madame". Keith-Albee players with Lina Abarbanall as guest star.

Screen

LOEW'S STATE: "The Awakening". Good picture with Vilma Banky. METROPOLITAN: "Sins of the Fathers". Emil Jannings in another emotional drama. OLYMPIA and NEWWAY: "My Man". Fannie Brice gives Jolson some competition. MODERN and BEACON: "Prep and Pep" and "Power of Silence". Not as bad as the titles, but— KEITH MEMORIAL: "Scarlet Seas". Richard Barthelmess competent.

INTERCOLLEGIATE

That the wheezing and coughing "collegiate" Ford must not have its sister conveyance in the air, is the warning of Mr. Edward P. Warner, Assistant Secretary of the Navy in charge of Aviation. Mr. Warner, in an address before the Third Intercollegiate Aviation Conference at Yale, pointed out the danger of flying with any but trustworthy planes.

College men are beginning to take to the air in appreciable numbers. The Harvard Flying Club and that at the University of Southern California are two of the most advanced student groups. The latter already owns several planes. European students, however, surpass the Americans in flying. One of the speakers at the conference cited a meeting in the Rhone River section last August where 400 planes were entered. Eight hundred pilots took part, ninety percent of which were college men. College men won all the prizes.

The popularity of flying has added a new prohibition to the list of "thou shalt nots" of the Wellesley College Handbook. The Dean's office issued the edict that, "no student while under the jurisdiction of the college may ride in an aeroplane unless permission has been granted from the Dean's office and the written consent of her parents secured."

The problem of chaperonage has not yet been settled, and is without doubt taxing the ingenuity of many a dean of women. (New Student)

A New Year's Resolution! "I will get the Best Food at the Lowest Prices By eating at THE ESPLANADE" Mass. Ave. at Beacon

8395 Decisions Favoring This Smoke

Ipswich, S. D. Sept. 4, 1928 Larus & Brother Co., Richmond, Va.

Gentlemen: In answer to the challenge of J. J. Roberts of Columbia, S. D., as printed in the Minneapolis Journal dated Sunday, September 2nd, I have smoked Edgeworth for twenty-three (23) years and for two years previous to that time I smoked Quid, which, I believe, is manufactured by your firm.

During this time I have smoked at least one can each day, and to verify this statement you may address the C & C Cafe of this city, where I make my tobacco purchases. It may be interesting to know that my purchases of Edgeworth during this period have totaled more than 8395 (eight thousand three hundred ninety-five) cans, representing a total expenditure of more than \$1259 (twelve hundred fifty-nine dollars).

I have never smoked any other brand of tobacco but Edgeworth during the twenty-three years. Yours very truly, (Signed) Chas. Bostock Justice of the Peace

Edgeworth Extra High Grade Smoking Tobacco

HOCKEY SEXTET MEETS NEW HAMPSHIRE

Pucksters Confident of Victory Over Wild Cats In Durham Game Tomorrow

On Saturday, the Varsity sextet will meet New Hampshire at Durham, at 2:15 o'clock, and if conditions are favorable may play a morning game, which will probably start at 9 o'clock. The starting lineup is as follows, White, l.w.; Crosby, c.; Cullinan, r.w.; Lucy, l.d.; Hazeltine, r.d.; Riley, g.; with Hall, Ford, Donahue and Peene as substitutes.

Last year the Wild Cats defeated the Cardinal and Gray by a small margin in the morning game, and tied the afternoon game. The hockey team has been practicing diligently over the Christmas vacation, at the Boston Gardens every morning at 7 o'clock. Also spurred by their decisive victory over Norwich, of 5-0 they expect victory over the New Hampshire sextet. New Hampshire has won several minor games, but as yet their strength is still untested, and although little is known of the team, it is expected that they will have a strong team on the ice to greet the Tech pucksters.

Crosby at center has been especially outstanding in the past games, and he is expected to be a factor of importance on the Tech offensive. On the defensive, Riley has been outstanding at the position of goalie, and he will undoubtedly stop many shots at the Cardinal and Gray goal.

Freshmen Start Monday
Starting Monday the freshman squad will be out for practice at the Boston Gardens at 7 o'clock. Coach Stewart, who has been devoting all of his time to developing the Varsity, will start coaching the freshmen for their coming meet with Boston College on January 18. The freshman squad has been out over the vacation with the Varsity, and have acquired some valuable experience. Those men on the Varsity who have not been out for practice are asked to appear at 7 o'clock Monday to practice with the freshmen. Not much is known of the freshman team. They have never played in a game, and their strength is still doubtful, but with the vast amount of material that reported at the beginning of the season, the freshmen should put a good team on the ice against Boston College.

TICKET AGENCY IS PLANNED BY T.C.A.

Due to the fact that numerous students at the Institute often experience much inconvenience and delay in obtaining theater tickets, the Technology Christian Association is attempting to formulate a plan by which tickets may be reserved at their office.

Although all plans to date are tentative, it is hoped to allow the student to notify the T. C. A. as to the number of tickets he desires, and the price that he wishes to pay. The theatre box office will then be asked if such tickets are available, and, if so, they will be requested to reserve them.

Letters have been sent to the managers of the various theaters in Boston requesting their opinion of this idea, and if favorable answers are received, it is probable that this plan will be put into practice.

Flying to a grid game via airplane is a new fashion of University of Akron co-eds. Two of them attempted to attend the Wooster-Akron game in a Waco plane piloted by a friend of theirs from Chicago. They had only travelled a short part of their trip when their motor began skipping. Since the air at this point had become very rough, it became necessary that they make a forced landing, which was negotiated successfully.

"We just had to go to the game and the only way left to us was to bum," explained one of the girls. "We got good rides and were only a bit late for the kick-off. Some big-hearted students made room for us to return with them."

FRESHMEN SWIM IN OPENING MEET WITH MALDEN TOMORROW

Election of Captain and Choice of Team to be Made at Practice Today.

RINEHIMER LOOKS GOOD

With only one more day before their first meet of the season, the freshman Swimming Team is busily preparing to face Malden High at Malden tomorrow afternoon. Coach Brown has made no final selection of entries as yet, but the lineup will be picked after tonight's practice, so it is important that all freshmen swimmers attend. The Captain of the freshman team will also be elected today.

So far it has been difficult to select a freshman team, but judging from the inter-class meet held before Christmas the outstanding men are Rinehimer and Sparre for the 50-yard dash; Rinehimer and Teague for the 100-yard dash; Proulx, Thomas, and Abott for the 200-yard swim; Levinson and Beckett for the backstroke; Henderson and Lyon for the diving events; Holst and Huessener for the breast-stroke. Competition for the relay team has been keen, but it is expected that it will be chosen from among Rinehimer, Proulx, Sparre, Teague, and Thomas.

Varsity to Meet Amherst
A week tomorrow the Varsity tankmen make their debut against Amherst at Amherst. Under the watchful eyes of Coach Dean they are rapidly smoothing out the vacation wrinkles and should be in fine shape for their initial intercollegiate meet.

DEBATING SOCIETY TO PLAN SCHEDULE

(Continued from Page 1)

It will meet George Washington University on February 2 and Lafayette on February 3. The proposition is: Resolved: "That the public should retain the ownership of, and develop the principal sources of hydro-electric power in the United States." Technology will take the negative side of this question in all the meets arranged to date.

At Brown University on February 29 the freshmen will have their first debate, taking the negative side of the same question as the Varsity. The freshman team will go to Princeton on March 23 to uphold the negative while the remaining part of the squad will uphold the affirmative against a second part of the Princeton debating team. More debates are to be scheduled as soon as possible for both the freshmen and the Varsity.

M.I.T.A.A. EVENTS FOR JANUARY

- Saturday, January 5:**
Hockey
Varsity vs. New Hampshire Univ. at Durham, N. H.
7:00 P.M.—Wrestling
Freshmen vs. Harvard in Hangar Gym
8:00 P.M.—Swimming
Freshmen vs. Malden High at Malden Y.M.C.A.
- Wednesday, January 9:**
7:00 P.M.—Basketball
Freshmen vs. Brown at Providence
7:00 P.M.—Wrestling
Freshmen vs. Tufts in Hangar Gym
8:00 P.M.—Wrestling
Varsity vs. Tufts in Hangar Gym
8:00 P.M.—Basketball
Varsity vs. Brown at Providence
- Saturday, January 12:**
2:00 P.M.—Swimming
Freshmen vs. Brown at Providence
2:30 P.M.—Swimming
Varsity vs. Amherst at Amherst, Mass.
7:00 P.M.—Basketball
Freshmen vs. Harvard in Hangar Gym
8:00 P.M.—Basketball
Varsity vs. Harvard in Hangar Gym
Wrestling
Varsity vs. Yale at New Haven
Freshmen vs. Yale at New Haven
- Saturday, January 26:**
7:00 P.M.—Track
Knights of Columbus Games

Cardinal and Gray Fives Prepare for Brown Games Wednesday at Providence

As the Christmas holidays are now over the basketball teams are rapidly getting back into shape. On Wednesday evening the Varsity held a short scrimmage which showed that the team had suffered some due to the lack of practice over the holidays.

Results of Athletic Events for December

BASKETBALL			
Dec. 1	M.I.T. 39	New Bedford 14	
Dec. 8	M.I.T. 34	Boston Univ. 23	
Dec. 15	M.I.T. 44		
		Newport N. T. S. 10	
Dec. 19	M.I.T. 31	Manhattan 28	
FRESHMAN BASKETBALL			
Dec. 8	M.I.T. 15	Boston Univ. 19	
Dec. 15	M.I.T. 29		
Wentworth Academy 37			
HOCKEY			
Dec. 12	M.I.T. 1	Harvard 9	
Dec. 17	M.I.T. 5	Norwich 0	
SWIMMING			
Dec. 12	Interclass Meet won by Juniors.		

Coach McCarthy sent the team through a vigorous workout last night for the first heavy scrimmage of the year. As there is no game this Saturday the team will hold a long scrimmage this evening. Captain Brockleman, George Lawson, Dave Motter, and Brig Allen are getting back into shape again. Bob Nelson was not out to practice on Wednesday, but it is expected that he will be in shape by the time of the Brown game next Wednesday.

Freshmen Resume Training
Technology's yearling five are again back at work and they are determined to win their first victory in the game with Brown's freshmen on Wednesday. Brown's freshmen have a pretty good team and as a result the Engineers are going to have lots of hard work ahead of them.

This year the Brown Varsity has a pretty weak team and the Cardinal and Gray five should have little trouble in taking over the Providence team. The big game this season comes a week from tomorrow when the Beavers encounter Harvard in the Hangar Gym. The Crimson have defeated Northeastern and they are going to be out for the Engineers' scalps. If the Cardinal and Gray five defeats Brown, Harvard will be up against an undefeated five that is going to be hard to beat.

Boxers Training Hard For Coming Spring's Fight

Varsity Team Has Several Good Alternates in Heaven Classes

Although their first meet is still a long way off, the mittmen have been training hard for their spring schedule. Since no practice was held over the vacation, the men are working hard for their coming meet with the Navy. The men who are getting into shape to represent Technology in the coming meet are Svenson, 175 Horton, 160; Jameson, 145; Captain Bolanos, 135; and Lammoretti, Cristofalo, Clyne, Saavedra, and Joyce for the 125 pound position, with Orleman, and Kalman competing in the 115 class. Competition will probably be keener in the 125 pound class, with Lammoretti and Cristofalo from last year's yearling squad, and Joyce, of the Varsity of two years ago, who expects to return this year. Bob Sidur, of last year's Varsity, has been forced to give up boxing because of his eyes, and his position will probably be filled by Orleman, who has been doing very good work. He was a member of the Sophomore relay team, and is very fast on his feet. It is hoped that he will be able to equal the fine showing made by Sidur who was beaten last year in the Inter-collegiate by the ultimate champion after winning most of his fights of the season.

SIMPLEX

WIRES AND CABLES

—

INSULATED WITH RUBBER

PAPER OR VARNISHED

CAMBRIC

—

SIMPLEX WIRE & CABLE CO.

MANUFACTURERS

201 DEVONSHIRE STREET

BOSTON

CHICAGO SAN FRANCISCO

NEW YORK CLEVELAND

JACKSONVILLE

The Store for Men

Jordan Marsh Company

A Separate Store in a Separate Building

300

MEN'S SUITS

Two and 3-Button Coats—some Double Breasted

tailored at Fashion Park

\$46.50

our usual prices \$60 to \$75

—the name "Fashion Park" is a guarantee of smart cut and fine tailoring

—worsteds in browns, grays and fancy blues



A perennial favorite with smart people and one of the best—

LEO REISMAN'S ORCHESTRA

from 6:30 to 2 A. M.

HOTEL BRUNSWICK

EGYPTIAN ROOM

OFFICIAL BULLETIN

ELECTRICAL ENGINEERING

A colloquium will be conducted by Mr. J. O'R. Coleman of the National Electric Light Association and Mr. R. F. Davis of the American Telephone and Telegraph Co. on

Inductive Coordination

The discussion group will meet in Room 10-275 from 3:00 to 5:00 p.m. on Monday, January 7 and Tuesday, January 8.

BIOLOGY AND PUBLIC HEALTH

A meeting of the Sedgwick Biological Society will be held Wednesday, January 9, at 7:00 p.m. in the Emma Rogers Room. Officers for the next term will be elected. All members are urged to be present.

CALENDAR

Monday, January 7

3:00—Electrical Engineering Colloquium, Room 10-275.

Tuesday, January 8

3:00—Electrical Engineering Colloquium, Room 10-275.

6:00—Boston A. I. E. E. Lecture and Dinner, North Hall.

Wednesday, January 9

6:00—Civil Engineering Society Dinner Meeting, North Hall.

6:00—Corporation XV Dinner Meeting, Grill.

7:00—Chemical Society Smoker, Faculty Dining Room.

7:00—Basketball, Varsity and freshman games, Providence.

Notices and Announcements

SOPHOMORE FOOTBALL

The Sophomore Football Team will have a picture taken in Room 11-004 Saturday morning at 8:30 o'clock. All members must appear.

DRAMASHOP

The Dramashop Picture will be taken today in Room 11-003 at 5:15. All those who were in "The Hairy Ape" and "At the Sign of the Greedy Pig" are invited to be in this group picture. One dollar will be charged.

CREW

All freshmen substituting crew for P. T. 1. must check their attendance

CIRCUS PROPOSAL DEFEATED AFTER MUCH DISCUSSION

All-Tech Carnival Recommended to Take Place of Former Annual Event

MANY OBJECTIONS RAISED

(Continued from Page 1)

organizations, fraternities and dormitories. This enabled only a few to take actual part in the program while the others had to stand and watch the performances. It was due to this inactivity that it was thought that the roughhousing resulted.

Under the new proposal all students who attended were to be enabled to take an active part. The Carnival was also considered a diversion for the students in the spring which would enable them to get away from the grind of studying and to enjoy themselves on such an occasion. It was also intended to be an outlet for student enthusiasm and to serve the same purpose as Field Day in this respect.

Oppose Recommendation

There were many arguments against the proposed Carnival and in the discussion which resulted these points were greatly emphasized. The main objection was the fact that it was the Circus under a new name and that there would be the same chances for roughhouse as in former times. Only a limited number would be able to take part in the various events at the same time. It would be impossible for a committee to provide enough events to keep all the students interested at the same time. This brought up the argument that since it as an affair for the students it would also be impossible to take care of the crowd if even half of the student body attended.

Due to the fact that the Carnival is an old affair now growing obsolete and practically disappearing it was stated that even if it was rejuvenated at Technology it would not last and that in all probability it would fall away and be a failure. It was argued that a Carnival of the proposed type would not be able to establish a tradition such as the old tradition of the Circus, due to the above facts.

Hamlin Heads Opposition

When the question of whether or not the proposed Carnival should be held this year was put to a vote it was necessary to have a recount. When this was taken it was found that the proposal had been defeated by a close margin. Those principally Richard Boyer '29, Secretary of the in favor of the motion were M.

records with Mr. McCarthy and make up all cuts before January 19.

To substitute crew for P. T. 2 a clear record in P. T. 1 is required. Men wishin to substitute crew for P. T. 2 may do so by signing for it in Mr. McCarthy's office any morning before 12 o'clock from January 4 to January 17.

REGISTRATION MATERIAL

Students who have not obtained their registration material should get it immediately from the Information Office.

Registration material must be returned to Room 3-106 not later than 1 o'clock, Friday, January 11 to avoid the fine of \$5.00.

Institute Committee; William B. Thomas '29, President of the M. I. T. A. A.; Ralph B. Atkinson '29; George T. Logan '29; Albert L. Eigenbrot '29; and Theodore A. Riehl '30. Headed by Lawrence C. Hamlin '29, General Manager of THE TECH; those opposed to the recommendation were John F. Bennett '30, President of the Junior Class; Horace S. Ford, Jr. '31, President of the Sophomore Class; Joseph Paul '32, President of the freshman class; Gordon F. Rogers '29; William Baumrucker '29; Robert B. Freeman '31; and Thomas E. Sears '32.

The Circus of former years was under the supervision of a committee appointed for that purpose by the Institution Committee. Practically its entire support as far as the floats, booths, stunts, and the like were concerned, came from the undergraduate organizations such as activities, fraternities and dormitories. As for the crowd which came, it seemed as though the whole of Technology to a man turned out. In fact, about the largest crowds of students assembled at the Institute in recent years were at the Circus, Field Day, and the passing of Herbert Hoover.

Starting as it did on the afternoon of April Fools' Day, the entire affair was a huge burlesque, additional gaiety having been produced in the atmosphere by the appearance of "The Filter Paper" earlier in the day. The parade of floats and mammers, which was the afternoon event, started in front of Walker and slowly rolled around to Massachusetts Avenue, thence to Building 10, and finally ended up on the drill ground between Walker and Building 2. On the front page is the picture of the best float of the 1927 Circus; it was typical, although rather more dignified than most of the entrants in the parade. The march was led by a hired band, and somewhere in its midst was the customary water wagon bearing the officials, who were dressed for the occasion in top hats and cut-aways. After the crowd had become tired out by their antics, every one wandered home for supper.

Many Acts Given

At odd intervals during the evening there would be some ring stunts put on, after much exertion on the part of the management. Vaudeville acts, chariot races, burlesque fights and such things were the usual attractions. At the last Circus, the crowd broke up the ring and added a tug-of-war to the list.

To give every one a chance to do something, a prize was offered for the most original costume, in addition to those for the best float, booth, and ring stunt. The awarding of these prizes came as the last event of the evening's program, and was taken by the tired revelers as the sign to break up after they had been urged for half an hour by the worn-out committee in charge.

Department of Interior Issues New Map Showing Classification of Plains

Is Part of Government Program Including Mineral and Power Survey

According to a report issued by the Geological Survey, Department of the Interior, preliminary to final publication in cooperation with the Department of Agriculture, a map of agricultural classifications of lands in western Kansas and southwestern Nebraska, was made in connection with studies of problems relating to utilization of lands in the public domain. These studies are part of a broad governmental conservation program that includes the mineral and power resources of the public domain which are well known to have a vast present and potential value. By far the greater part of the public land, however, derives its sole economic value from its capacity to produce food, either in the form of cultivated crops that can be harvested and sold in the markets or in the form of native vegetation that can be harvested by grazing animals. For the best interests of the Nation and more especially of the West, these agricultural resources need protection and wise development. Therefore all regions containing public land are being classified to determine their highest utility, whether for the production of cultivated crops, a combination of cultivation and grazing alone.

This report consists of a text defining the several land types and outlining their agricultural uses accompanied by a map showing the location and extent of the land types. It is the second of a series of five maps relating to the high semiarid plains region lying between the Rocky Mountains and the Mississippi Valley and extending from the south boundaries of Colorado and Kansas to the north boundary of Nebraska and a

westward extension of that boundary through central Wyoming. The map indicates by conventional symbols areas of first, second, and third grade dry-farming lands, rough and physically tillable grazing land, sand hills, and irrigated lands. The text contains a definition of the land types and furnishes information concerning the character and yields of crops that are commonly produced by dry farming and the methods and practices used in such development, as well as in utilizing the grazing land. It also contains a discussion of physical characteristics, dominant types of native vegetation, rain and snowfall, length of growing season, soil texture, and other conditions that relate to the utility of the lands.

Field work and other information collected by the Geological Survey primarily for administrative use by the Secretary of the Interior supply the basis of the map. Such maps are believed to be of extensive value and interest to the general public, however, especially those interested in the semiarid plains of the Middle West. Copies of the map, with the explanatory text, are on sale at 50 cents by the Geological Survey at Washington, D. C.

Course 1-A Omits Summer Term Work In Freshman Year

Cooperative Course in Railroad Operation Removes 150 Hours of Work

Course 1-A, which requires continuous work until the end of the Sophomore year has removed some of its requirements. The changes in the cooperative course in Railroad Operation will be effective this summer and the work will be materially reduced.

According to the new requirements the following courses will be omitted: Surveying and Plotting, 1.02; Foundry, 2.192; Machine Tool Laboratory, 2.971; amounting to a total of 150 hours. The only subjects which must be taken during the summer are to be those at Camp Technology.

This cooperative course in Railroad Operation was first announced a year ago and students are now registered in the first three years of the course. The Boston and Maine Railroad allows the Institute the opportunity of working on and studying the operation of their lines throughout New England.

A. E. S. Members Hear Holder of Altitude Record

Plane Catches Fire Four Times In Breath-Taking Dive Through Skies

(Continued from Page 1)

altitudes. The medical men made estimates which ranged from 3 to 25 liters per minute. These were rejected and Lt. Champion started to experiment. There seemed to be no exact method to determine it. On some flights he would return with headaches due to lack of oxygen, at other times he felt peppy and vigorous and came down "floating from cloud to cloud." At last he found the condition of the saliva in the mouth was the most exact and sensitive gauge. If the oxygen was decreased the saliva increased, while an excess left the mouth feeling dry.

The second problem was the magneto. Its manufacturers refused to guarantee it above 25,000 feet. At this altitude the air is not dense enough and breaks down as a dielectric. This was solved by sealing the magneto and hooking it up with the supercharger. At the low pressure, the gasoline boiled off in the tank and the pump became vapor bound. The supercharger remedied this by increasing the pressure to 3 pounds per square inch.

According to Lt. Champion's experience, there is a critical altitude around 30,000 feet at which everything goes out. As an example of this, he said at this height everything was normal, then a film of white smoke appeared at the exhaust, followed by more smoke, then oil, and the motor died. It was found that the pump had to lift oil 20 inches, the pressure was so low it could not do it. The crank case was sealed and the supercharger again was called upon to remedy the situation.

Ice on the goggles was another source of danger. The warm moist air which was exhaled remained inside the face mask, this condensed on the glasses and froze. It was necessary thereafter to breathe through a pipe which allowed the oxygen to be sprayed in from the tank and the waste air to be exhaled outside the mask. Electrically heated clothes were not used as they are stiff, heavy, and require a source of energy which would add weight to the load.

During the flight on which the record of 38,474 feet was established, Lt. Champion had what he termed "hard luck." He became unconscious, the plane shot into a vertical dive, the engine speed jumped, and the pistons and cylinder head were torn out. Coming down crippled, the ship caught fire four times, each time the fire was extinguished by diving. At the conclusion of his talk, the audience joined in an informal discussion.

Stairway Beautified by Cubist Designs on Walls

Much speculation has been aroused of late by those frequenting the East end of Building 8, as to whether this vicinity was visited by an earthquake during Christmas vacation or whether the interior decorators at work at the Institute had gone in for cubist or modernist art. The smooth surface of the plaster has been broken up into a maze of weird geometrical figures, resembling some of the paintings which may be observed in modern galleries.

On the third and fourth floors the investigator encounters several men dressed in white and carrying trowels, who seem at first glance to be the authors of all this destruction. They, however, justify themselves by explaining that all the excavation has been for the purpose of mending the cracks to which plaster is very susceptible. They have been at work since the start of the holidays, and expect to be finished within the next two weeks.

DAVIS, COLEMAN TO ADDRESS COLLOQUIUM

Mr. J. R. Coleman of the National Electric Light Association and Mr. R. F. Davis of the American Telephone Association will conduct the next Colloquium of the Electrical Engineering Department which has been announced for Monday and Tuesday of next week, January 7th and 8th. The topic of the Colloquium will be "Inductive Coordination" and the discussion groups will meet in Room 10-275.

These discussion groups are open to members of the instructing staff, Graduates, Seniors and Juniors in the honor groups. Those who plan to attend these meetings should arrange to attend both days, those who attend are expected to take part in the discussion. Students who desire to see either of the leaders for personal conference will find them available in Professor Barker's office Room 4-203 on Tuesday January 8th from 9:30 till 12:00.

REPERTORY

Back Bay 7000
Eves. 8:15
Mats. Tues. Th. Sat. 2:15
Last 5 Times of
ALICE IN WONDERLAND
Seats. Filene, Jordan, Shepard, Gilchrist
NEXT WEEK—Barrie's "MARY ROSE"

Boit, Dalton & Church

40 Kilby Street
Boston

INSURANCE
OF
ALL KINDS

GRADUATE CHEMISTS WILL HOLD MEETING

Starting its activities for the year, the Technology-Harvard Chemical Club will hold a meeting at the American Academy of Arts and Sciences, 28 Newbury Street, Boston, next Tuesday evening at 8:00 o'clock.

Mr. S. H. Webster of Harvard will speak on the subject: "The Constitution and Behavior of Certain Cobalt and Rhodium Ammines." Ralph C. Young of Technology will give an address on "The Influence of Structure on the Breaking by Heat of the Carbon-Oxygen Bond in Certain Ethers."

This club is composed of members of the instructing staff and graduate students in the Chemistry and allied departments of both Technology and Harvard.

Young Men's Blue Suits

—are given a commanding position in our great stocks, because experience has shown that there should be "one in every wardrobe"—

Our new wide-wale chevviots are extremely popular—two or three button models—single or double breasted—patch or flap pockets.

Blue unfinished worsteds, always "good looking" for business or semi dress wear.

—All tailored in our Boston workrooms, ready to wear, at \$45—\$50—\$55.

Young Men's Dept.

Second Floor

Scott & Company
LIMITED

336 to 340 Washington Street, Boston