

## INDUCED REACTION EX- PLAINED TO CHEMISTS

Prof. Lamb Does Laboratory Experiments at Chemical Society Meeting — Induced Reactions and Catalysis Described

### NEXT TRIP FRIDAY

The members of the Chemical Society had the opportunity of observing some most interesting and instructive experiments at their meeting last night when Professor A. B. Lamb, of the Chemistry Department of Harvard, gave laboratory demonstrations of a number of induced reactions. Before taking up these induced reactions, however, Professor Lamb considered the several ways of increasing the speed of a chemical reaction. The first of these is increased concentration. To demonstrate this, he took two jars of ferrous chloride with a little sulphur cyanide added to give color. To one of these he added stannous chloride of a certain concentration and to the other he added the same substance but of double concentration, and the difference in the speed of the reaction was quite evident.

The second way of increasing the speed of a reaction was by raising the temperature. This he demonstrated by using the same substances as before, but instead of using stannous chloride of different concentrations, he raised the temperature of one of the jars of ferrous chloride.

The third way of increasing the speed of reaction was by catalysis. To demonstrate this, a thirty per cent solution of hydrogen peroxide was taken and to it a solution of finely divided platinum was added. The increase of the rate at which oxygen was given off was very obvious.

In the next experiment a very dilute solution of starch and potassium iodide was taken. To this was added some nitric acid and there was no noticeable reaction. Then some powdered zinc was put into the solution and it immediately turned blue, thereby showing that the potassium iodide had been oxidized and iodine given off. This experiment is one of the many examples of induced reactions. These induced reactions differ from catalytic reactions in that the substance used to increase the speed of the reaction is entirely used up in the reaction. The way in which they are explained is that the inductor, the substance used to promote the reaction, forms a super oxide upon coming in contact with the actor, which in the above experiment is the nitric acid, and this super oxide breaks down into the oxide and oxygen and this oxygen combines with the remaining substance. Prof. Lamb did a number of other experiments of this nature in order to prove the generality of them.

The next trip of the society will be to the American Sugar Refining Company. This is the second section of this trip and is for those who did not get to take it several weeks ago. The men will meet at the corner of Boylston St. and Massachusetts Ave., Friday, at 1.45 o'clock, where they will take a City Point car to South Boston.

The membership of the society is increasing very rapidly, over thirty members having been admitted at the meeting previous to the one last night. The total membership at present is over one hundred and sixty, which breaks the record established last year.

Nomination papers for next year's officers will be due on or before Friday, December 15th. Only members whose dues are fully paid up will be eligible to hold office or to sign nomination papers. The election will be held Friday, December 22.

The next meeting of the society will be held some time in December, the exact date of which will be announced later. The speaker at this meeting will be Mr. Reese of the Du Pont Powder Company.

## MORE SOCCER CANDIDATES

Technology Team to Meet Harvard Next Spring

According to Manager Loutski, prospects for a strong soccer team are at present unusually good. Many new candidates reported at the last practice and all showed up well considering that they had never had any former experience. Loutski expects to round out a seasoned team, despite the fact that he is handicapped by a lack of experienced players. When asked about the statement that soccer was dying out as a sport at the Institute, he said that he greatly resented this opinion which he termed as unrepresentative of the sentiment of most Technology men towards the sport. In a statement to a reporter of The Tech, he said: "I see no reason why soccer should not be a success as an Institute sport, especially when I consider the enthusiasm and punch of the men who have already reported. I'm going to push the game to the limit and I believe that we will have a team which will put up a good game against Harvard and other teams."

Loutski is an experienced soccer player and has followed the sport for several years. He is a graduate of the University of Paris, where he played on the soccer team. The Paris team was one of the strongest in France. Before coming to the Institute he played with Columbia University. He has sent out a special call for new men to report at the Field Friday at 4 o'clock, when he will outline his plans.

## FORMER EDITOR SPEAKS

Henry M. Waite Tells of Work as Dayton City Manager

Henry M. Waite '90, a member of the Board of Editors of The Tech, Volume IX, and at present City Manager of Dayton, Ohio, recently explained some details of his administration before the members of the City Club of New York. Mr. Waite took over the affairs of Dayton in 1914 and has often been referred to as the "Dean of City Managers."

In explaining the methods of municipal government as it has been installed in Dayton, Mr. Waite went into a few details and laid particular emphasis on the fact that in selecting the heads of the various departments no political influences are taken into consideration. In the first place a council of five members are elected by the people whose duty it is to find a man who by merit of previous experience and executive power can efficiently direct the affairs of the city. The man thus chosen in turn selects the heads of the five departments of finance, law, service, safety and welfare.

Under Mr. Waite's plan it is possible to broaden and stimulate the community spirit. Toward the development of this spirit the formation of a Civic League was an important step. This league provided recreation grounds for all classes of people and in this way kept up the interest of the citizens in the city affairs. In many cities there is a pronounced disposition to cry down any philosophical efforts, but in Dayton, the city management encourages such movements as a basis for experiment. When a privately supported charity is found to be successful, the city authorities immediately take it over and run it.

A detailed record of the work of every city employee is kept and in this way the "dead wood" is easily located and gotten rid of.

In the matter of prison reforms the Waite administration has been very successful in its methods. Every prisoner, who is physically fit, is working at some trade, not for the city but for himself. A portion of the prisoner's earnings is retained for himself but a greater part goes to the maintenance of his family and toward the payment of small debts.

When the new form of government was established, the city had borrowed \$125,000 against unexpected revenues. Since that time this sum has been cut down to \$50,000 and the city's sinking fund has been raised from \$100,000 to \$600,000, while the total assets of the city has been increased from fifteen to seventeen millions.

## D. BREWER EDDY SPEAKS

Describes Condition in Prison Camps of Europe

Monday afternoon, in Room 10-250, D. Brewer Eddy addressed the student body of the Institute on the subject of "Five Weeks with Kitchener's Mob." The talk dealt principally with a description of the personal experiences of the speaker in England. He told about his visit to some of the mobilization and concentration camps, also his trips to the largest naval bases in England. He then turned to a description of the suffering and needs of the men now in the prison camps. He also related the experience of Mr. Bartholomew, a graduate of Yale, who is now located in Russia in a German Prison Camp. When he arrived in the camp there was nothing but the greatest disorder and confusion. The men were not organized; they could not do anything for themselves; they had no work excepting the hours of camp routine work. The prisoners lived in squalor and filth.

The fact that it was the educated men who suffered the most was emphasized. These were dependent upon mental activity which they were now deprived from. The mental strain resulting from this privation was terrific, and many of the men went insane. There was a decided moral let-down among the prisoners. The first thing Mr. Bartholomew did was to issue a call for all those men who desired to better their condition. As a result of the first summons five men reported.

With these five men he went to work to make the camp more livable. Gradually other men became interested. A survey of the camp was then made for the purpose of finding out the men who had ever taught before the war, and whether they would care to assist in improving the conditions of their fellow prisoners. A school was formed and inside of a few weeks it had an enrollment of 1200. The men who had previously become so discouraged, and who had gradually drifted back into savagery, now took an interest in life.

Besides the school, there was established a camp orchestra and glee club. The men had something to do then. They began to write letters home and soon carloads of mail left the camp weekly.

Mr. Eddy explained that the men who took charge of this organization work received only \$850 a year, out of which they had to support their families.

It is for this purpose that the campaign is being run by the T. C. A. The nature of this campaign to raise funds for the relief of the students in the prison camps of all the countries at war was explained in a previous issue of The Tech. As early as this, subscriptions have been received from Technology men. From Course VII, a collector handed in a report after three hours of canvassing, having obtained thirty-nine dollars for the fund. In the cabinet of the T. C. A., every man owes sums ranging from one to ten dollars, and besides these, Faculty contributions have begun to come in.

## SWIMMING TEAM

The Swimming Team is practicing regularly in the Boston Y. M. C. A. natatorium in preparation for the opening of their season two weeks from Saturday. From the showing made by the squad, the management believes that the coming season will be a successful one. Although all dates have not been definitely booked as yet, the following tentative schedule for the year is announced:

Dec. 16, Springfield Y. M. C. A. College, at Springfield; Jan. 13, Amherst, at Boston; Jan. 27, Rutgers and New York University, at New York (pending); Feb. 10, Harvard and C. C. N. Y., at Boston; Feb. 17, Brown, at Boston; Feb. 24, Worcester Academy, at Worcester; March 10, Wesleyan, at Middletown; March 24, Intercollegiate, at Philadelphia.

Dates for meets with Princeton and Yale are also pending.

# ANNUAL TECHNIQUE SLAUGHTER WILL BE STAGED THIS SATURDAY

The Tech's Invincible Squad Begins Practice on Spectacular Plays to be Used Against Technique Scribes

## VICTIMS WILL BE SPARED FOR THANKSGIVING

Before a marveling throng of spell-bound spectators, the first secret Raw-Meat Drill of The Tech's football steam-roller was held yesterday afternoon, in preparation for the annual chastisement to which Technique will be submitted next Saturday. It was decided not to hold the game Thanksgiving Day on account of the brutality of eliminating the Technique team before their last chance to enjoy a square meal. For this reason the last services for the lost will be held for Technique Thursday and they will have ample opportunity to wind up their temporal affairs.

The Tech team is rapidly perfecting its smashing double-end run, by which the Technique defence is to be surrounded on all sides and then baled to

prevent loss. As a variant to this method, whenever it becomes inconvenient by reason of Technique's dodging powers, a member of the latter team will be blindfolded and permitted to carry the ball over his own goal line. This will be used if by any chance the Technicians happen to get hold of the ball.

Upon being sympathetically approached yesterday, chief Red Cross man Johnny Sharkson of the Technique lineup said, "It is impossible to tell how it will come out. However, we can always hope for police intervention." The Tech captain, who when seen was thoughtfully tossing freshmen over the goal posts, said, "I can promise nothing, except that decent burial will be provided for Technique players accidentally hit."

## DORMITORY MEETINGS

Y. M. C. A. Man Tells of War Conditions—Dorm Rules Discussed

Last Monday evening Dormitory Sections B and C held their second meetings. The Senior House Committeemen in each section read the proposed House Rules which were passed by the Institute Committee last Friday. The discussions which followed indicated that Rule 4 governing visitors in the dormitories was not unanimously favored.

Both meetings were addressed by Mr. Herrick, a Y. M. C. A. Foreign Secretary formerly stationed at Honolulu, Japan, who has just returned to this country from his relief work in the war zone. Mr. Herrick described more particularly the work in India and Mesopotamia, where he has been active. In the Bombay district of India over \$300,000 have been subscribed by the natives for the support of the Y. M. C. A. relief in the camps and hospitals. In one Indian hospital where writing material had been supplied to the sick soldiers, Mr. Herrick told of noticing that all but one man failed to use his paper and pencil. Upon inquiry the soldier told Mr. Herrick that he was too weak to write. Mr. Herrick offered to write from the wounded soldier's dictation. The soldier dictated a letter to his mother. The next day Mr. Herrick heard from one of the attendants that this man had died during the night.

In Mesopotamia, according to Mr. Herrick, the British soldiers are living under terrible tropical conditions. The Y. M. C. A. secretaries there supply the "Tommys" with everything from ice machines to cigarettes. Mr. Herrick then told of the bad conditions in the prison camps of all the warring nations, and explained the great good the Y. M. C. A. is doing in providing supplies such as crutches, insect powder, and stationery, in establishing "huts," and in sending American college men to direct this relief work.

Last evening Sections D and E held similar meetings, which were addressed by Mr. Shedd, also a Y. M. C. A. War Secretary, fresh from the work in the trenches.

## DISCUSSION GROUP

Today at 4.15 o'clock Professor Doten of the Economics Department will conduct the Discussion Group which Professor Sedgwick was scheduled for in Room 10-267.

## FRESHMAN HARRIERS TO RUN

To Compete With Moses Brown School Over Franklin Park Course

Thursday at 3 o'clock the 1920 men will engage the Moses Brown School harriers from Providence, R. I., in a dual cross-country meet over the Franklin Park Course. The first part of the N. E. I. C. A. A. course will be covered, making the race about four and a half miles long. Although the character of the Moses Brown material is somewhat uncertain this year, this school has always turned out good teams in the past and Coach Kanaly expects a hard race.

Only the first five men on each side will score, but the starters are unlimited, and our coach wishes as many as possible to compete for Technology. Last Saturday the freshmen raced the varsity team over the Harvard course at Belmont, performing creditably, although losing to the more experienced men by a score of 18-41. One freshman, McMahon, finished third, after having run second throughout the race to within 50 yards of the finish. Myers, Lavanige, Handy, Miller, Couch, and Bradley finished in the order given for the freshman team. The management has made several efforts to secure more meets for 1920 without success, but if the weather continues to be so mild, some may be scheduled after Thanksgiving.

THERE WILL BE A NEWS MEETING IN THE TECH OFFICE TODAY AT 1.05 O'CLOCK.

## CALENDAR

Wednesday, Nov. 29, 1916  
4.00 P. M.—The Tech Football Practice, Technology Field.  
4.15 P. M.—M. I. T. Orchestra Rehearsal, Stringed Instruments.  
5.00 P. M.—M. I. T. Orchestra Rehearsal, Entire Orchestra.  
5.00 P. M.—Second Wrestling Team Practice, Room 1-050.  
Thursday, Nov. 30, 1916  
3.00 P. M.—Freshmen Race Moses Brown School, Franklin Park Course.  
Friday, Dec. 1, 1916  
4.00 P. M.—Soccer Candidates, Technology Field.