

THE TECH

VOL. XXXIV. NO. 74.

BOSTON, MASS., FRIDAY, DECEMBER 18, 1914.

PRICE THREE CENTS

HARVARD CAPTURES OPENING HOCKEY GAME

Score Six To Two In Harvard's Favor—Cochrane Stars For Technology.

In the opening game of the season the Harvard seven defeated the Technology team by a score of six to two. Both teams showed lack of form and team work, the whole game being individual work by spurts by the members of both teams. Team work was seldom seen and in many cases ceased to exist at all for long periods. Both teams will have to develop considerably if they expect to come through the season in any kind of shape. Cochrane was the whole Tech team, being by far the speediest. His individual rushes the length of the Arena with the puck were the features of the game. Although playing coverpoint position he was seen more often out with the

(Continued on Page Four)

WINTER CONCERT AND DANCE THIS EVENING

Orders Can Be Obtained At Cage Today—Concert at Portsmouth New Year's Eve.

The Winter Concert and Dance of the Combined Musical Clubs in the Copley Hall tonight promises to be one of the largest ever held. Of the entire number of seats about fifty remain unsold; it is likely that these will be disposed of today as many of the alumni are arranging to attend. For those who have already purchased tickets a supply of dance orders will be left in the Union at noon today.

The manager of the Combined Clubs desires all men who have tickets for the concert to sell to make their final report to Geo. R. Duryea at 1.00 o'clock today in the Union.

Preliminary preparations have been completed for the trip to Portsmouth N. H., on December 31st. The leaders have made their selections for the trip and the list will be announced in The Tech on Monday. The Ohio Club of Simmons' College has also arranged for the Clubs to appear in that institution on Saturday evening, January 9th. There will be dancing after each of the above concerts.

C. E. SOCIETY TRIP

The men going on the C. E. Society trip to Riverside will leave Sunday morning on the 6 o'clock car from Copley Square. The men must sign up before Friday noon with either Thomas, Hastie or at the Cage. A charge of 25 cents will be made to cover the cost of the carfare. Men from all courses are invited to see the new Boston and Albany bridge lifted into place.

AERODYNAMIC LAB OPENED WEDNESDAY

Prominent Men Attend—Wide Interest Among Scientific Men.

The new flying machine study laboratory of the Institute was opened Wednesday and about forty, including Dr. Maclaurin, Dr. A. F. Zahm, of the Smithsonian Institute, and Professor Alexander MacAdie, Director of the Blue Hill Observatory, attended the simple program which served as a dedication. The apparatus of the new laboratory was explained, and the occasion brought to light the spirit of Technology to avail itself of all the existing forces in the community. In other countries where the actual practice of flying has advanced through dint of much fatal experience to a point far ahead of anything attained here, the necessity is recognized of men who are able to determine the probable safety of flight under existing weather conditions. Such studies will form a part of the future courses in aviation.

(Continued on Page Three)

BATES TO READ

Will Resume Custom Discontinued Several Years Ago.

Owing to an injury to his eye Professor Arlo Bates has been obliged to postpone his reading of Dickens' "Christmas Carol," from this afternoon until Tuesday afternoon at four o'clock. This reading will be a revival, after a lapse of several years, of his Christmastide custom of reading this selection from Dickens. The reading will be given in Huntington Hall and will be open to the public.

JANUARY MONTHLY

The Technology Monthly has decided to contribute to the Red Cross Fund, 50 percent of all cash sales of the January issue. The number is to contain an unusual number of feature articles. The special feature will be the one on "The reorganization of the Co-operative Society." Major Cole has contributed an authoritative comparison between the methods at the United States Military Academy at West Point, and those at Technology. Upper classmen, primarily, will be interested in the first of a series on thermodynamics, which is written in an untechnical style not usually found in articles on this subject. The aerodynamic laboratory, already opened at the new site, forms the subject of an interesting story on this topic. In lighter vein will be found two pages of cartoons, and a comic doggerel upon the "Horror of War," all by undergraduates of the Institute. The issue is scheduled to appear Monday morning.

M. E. SOCIETY TRIP TO WALTHAM WATCH CO.

Mr. Eaton, An Institute Alumnus, Shows Party Ingenious Machines.

Yesterday afternoon the first party of the M. E. Society visited the factory of the Waltham Watch Company, which employs about 3500 and produces about 3500 watches per day. The trip began at the engine room, where two 500 K. W. 125 volt D. C. generators, driven by Cooper tandem compound engines, and two 250 K. W. vertical Westinghouse sets, which supply the group drive motors throughout the factory, were inspected. The party also examined the air compressors, which supply the automatic machines.

The machine and manufacturing departments were next visited where many marvelously human machines were seen. For instance, there were the automatic screw machines, turning out almost invisible screws, the automatic turning machines, with as many as six parallel chucks, passing the work from one to the other by arms or gaws, pneumatically operated by cam-controlled valves. There were also the automatic drills which performed more than thirty operations per minute, the milling, punching and stamping machines on which the gears, balance wheels and the rest of the 150 parts of a watch are produced.

The party then visited the sales department and saw the case of watches which is being prepared for the San Francisco Exhibition.

Mr. Eaton, an Institute alumnus, who made the arrangements for the

(Continued on Page Four)

TRIP TO CAMBRIDGE

Electrical Engineers Visit Simplex Wire Co.

Yesterday and Wednesday members of the E. E. Society visited the plant of the Simplex Wire Co., in Cambridge, and the evolution of insulating material, from the raw rubber state to the finished product, was witnessed. The rigid electrical specifications of the Company's engineering staff, and the tests for insulation, resistance and capacity incessantly carried out, went to show that this end of the electrical industry is an important one.

NEW RECORDS

The Union Committee is planning to buy some new records for the Union victrola. Tomorrow at one o'clock a large number of records will be played in the Union, and the selection will probably be made from these. The Committee invites all those who are interested to be present.

WRESTLING MEET TOMORROW NIGHT

Technology Team Will Tackle Beverly Y. M. C. A. Again At M. I. T. Gym.

Tomorrow evening the Technology Wrestling Team will compete with Beverly Y. M. C. A. in the first home meet of the year. The meet will be held in the gym, and it is hoped that a large crowd will take advantage of this opportunity of proving that school spirit still exists in the Institute. The wrestling team has already defeated the Y. M. C. A. team at Beverly and confidently expects to duplicate the victory upon its own ground. Tickets for the meet can be procured for 25 cents from any member of the wrestling team.

Six or seven bouts will probably be put on tomorrow night; two or three in the 135-pound class and one in every other weight. The men wrestling for the Institute will probably be as follows: heavy weight class, Captain Crowell; 158-pound class, Bond or Wood; 145-pound class, Goodell; 135-pound class, Rounds, Giles and Hoffman; 125-pound class Bone or Stebbins and 115-pound class, Loo.

SONGS FOR SHOW

Lyrics To Be Set To Music During Christmas Vacation.

On Monday, December 21st, at five o'clock, stage manager Coleman will be at the Show rooms to give out the lyrics for this year's Show to those who intend to write music for them. The plan is to distribute the lyrics now, as men who intend to enter the competition may be able to work at them during the Christmas recess. The music will be called in on the first Monday after Christmas vacation, that is, January 4, 1915. At this time, it will be looked over by the coach and then returned to the writers for a final revision. All

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CALENDAR

Friday, December 18, 1914.

1.00—Senior Governing Board Picture. At Notman's.

1.30—M. I. T. Forum. 8 Eng. C.

1.45—Mechanical Engineering Trip. Leave from Rogers Steps.

5.00—Basketball Practice. At Gym.

8.00—Winter Concert. Copley Hall.

Saturday, December 19, 1914.

1.00—Portfolio Committee Ballots. At Union.

3.00—Indoor Track Meet. At Gym.

8.00—Wrestling Meet. At Gym.

Monday, December 21, 1914.

1.30—News Staff Meeting. Tech Office.

5.00—Basketball Practice.

THE TECH

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FRIDAY, DECEMBER 18, 1914

IN CHARGE OF THIS ISSUE.

Editor, W. F. Johnson, '17.
Associate, D. E. Bell, '17.
Assistants, B. N. Stimets, '16, F. A. Birmingham, '18, W. J. Henry, '18, J. C. Purves, '18, B. A. Thresher, '18.

We are glad to note that the point-system committee has reconsidered its decision and intends to recommend only a few minor changes at the Institute Committee meeting next Thursday. The system is at best only an approximation, the ratings being based partly on the honor attached to each position and partly on the work required. As the experience of several years with the old ratings has produced, on the whole, very satisfactory results, we believe they should be changed only gradually and with careful consideration, as each individual case is found to require it.

Apparently the Union Committee intends to carry into effect immediately a few improvements which have been needed for some time. The new flag on the Union fulfills a long felt want, and additions to the repertory of the victrola will do likewise. We hope that those who have complained about the antiquated victrola records will be present tomorrow to choose their favorites.

Tomorrow evening our wrestling team, undefeated for over two seasons, will be opposed by the Beverly Y. M. C. A. in the first home meet of the year. Every undergraduate should endeavor to be present; a good attendance is due a championship team.



No improvement has yet been shown in the number of freshman candidates for the pole vault, high jump and shot-put. Good meets are coming soon and more help is needed in each of these events. There is an excellent opportunity in the shot-put for some of the heavy men who made the freshman tug-of-war team, and equal openings in the high jump and pole vault for all possible competitors.

H. C. Stephens, '18, is showing remarkable form and speed in his distance running at the Gym. Although only a freshman, he has an excellent chance of making the Varsity team which will run at New Haven on March 8.

The prospects for the short relay team are continuing to be good. All the candidates are working steadily and with the right spirit.

Track practice for the rest of this week and next will be very important, as there will be no work during the Christmas vacation.

Technology will be up against some fast runners this season. Prawn and Llewellyn, veterans of last year, are both back at Dartmouth and Lagay, a new man, is showing great speed. McGuire, formerly of Exeter, is another man to be watched.

NIELSON RECOVERING

The Cushing Hospital reports that Benjamin Nielson, who was taken there on Monday, is getting along comfortably. Nielson, the son of Alice Nielson, the Metropolitan Grand Opera prima donna, entered the Institute this fall as a special student in the architectural department. Last February, Nielson married Miss Lillian Adams, a member of the Boston Opera Ballet. He developed appendicitis last Saturday, and was operated on Monday. Although he is getting along well, it will be several weeks before he can leave the hospital.

JUNIOR CLASS DINNER

The Junior Class will hold its annual dinner in the Union at 6.30 on January 5th. The committee in charge has arranged to have moving pictures by the Vitagraph Co., illustrated songs and two other features which will not be announced until later. As the seating capacity of the Union is two hundred, only a limited number can attend the dinner.

SENIOR OFFICERS

The picture of the Governing Board of the Class of 1915 will be taken at Notman's today, at 1 o'clock.

NATURE sometimes makes perfect things, but "processing" spoils 'em. A good-natured boy may be "processed" into a dern fool by the wrong education—an' tobacco can be spoiled similar.

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FORUM TO ORGANIZE ON PERMANENT BASIS

Will Hold Meeting This Noon To Plan Activities For Coming Year.

The M. I. T. Forum will hold a meeting this noon at 1.30 in 6 Eng. C for the purpose of completing a permanent organization and planning the year's activities. All men interested in the study of Socialism, as well as those who applied for membership in the Club last Tuesday, are invited to attend.

The Forum is affiliated with the Intercollegiate Socialist Society, with branches in over fifty of the leading American colleges and universities. The purpose of the Society is "The promotion of an intelligent interest in Socialism on the part of College Men and Women."

The activities of the Forum will include the procuring of several speakers during the year to address the students on subjects connected with Socialism. It is not unlikely that the Club may also hold regular discussion meetings, and possibly also some form of study course. These matters will be discussed and decided at the meeting today.

ELECTRICAL SOCIETY

Meeting Tuesday Night — Mr. Blood Will Speak.

The Electrical Engineering Society will hold a meeting in the Union on next Tuesday, December 22, at 8 o'clock. Mr. W. H. Blood of the Stone & Webster Company has been secured to speak and will give "Some Suggestions on the Making of Examinations and Reports." Mr. Blood is a graduate of the Institute and has had a very wide experience in engineering work. The subject which he has chosen is very interesting and every member of the Society should plan to be on hand.

COMMUNICATION

To the Editor of The Tech:

I have been told by an alumnus of the Institute that the original idea of a "Point System" was to make conditions such that one man could not hold the important offices of several activities, or in other words to make it impossible, for instance, to be a class officer and at the same time to hold a high position on the Show or The Tech. I question whether the new "Point System" proposed at the last meeting of the Institute Committee fulfills the original purpose of such a system. It would certainly seem that if the proposed system allows a man to be advertising manager of The Tech or Tech Show and at the same time be the secretary of his class and vice-president of the T. C. A. it is not conducive to a distribution of honors. A number of these possible combinations of offices which a man can hold were given in a recent communication to your publication. It is unnecessary for me to repeat these.

In fact a mere perusal of the Point System Committee's report published in full in the issue of The Tech on

PHONOGRAPH RECITAL GIVEN IN THE UNION

Edison Diamond Disc Machine Is Demonstrated By Choice Program.

A pleasant variety in the way of entertainment at the Union was given last Wednesday, when the Edison Phonograph Company gave a demonstration, in the form of a concert recital, of the recently developed Diamond Disc Machine. The following program was given:

- Overture from William Tell...Rossini
- Charmant Oiseau.....David
- Ave Maria—Violin Solo.....Schubert
- Ah non credevi tu (Mignon)...Thomas
- Titl's Serenade.....Titl
- Miserere (Il Trovatore).....Verdi
- Ah, mon fils (Le Prophete)...Meyerbeer
- Rondo Capriccioso—Violin
- Saint-Saens
- Darling Nellie Gray.....Hanby
- Kathleen Mavourneen.....Crouch
- O, That We Two Were Maying
- Smith
- Happy Days.....Strelezki

AERODYNAMIC LAB.

(Continued from Page One)

The laboratory in Cambridge includes a four-foot blowing tunnel in which velocities may reach forty miles an hour. A seven-foot fan sucks the air through the tunnel, in the center of which, where the air currents are most regular and steady, there are arrangements for placing the various devices to be tested. The most novel feature of the equipment is the aerodynamical balance; an instrument measuring forces in any one of three directions. It measures wind pressure, the twist due to inequalities of pressure and the lift and is adaptable to all kinds of surfaces. Thus the effect of the wind on planes may be determined, or on such complex things as propellers or even different forms of sails. The balance is of the pattern of that devised for the National Physical Station at Teddington, England, which institution permitted Technology to use its patterns and the instrument for America was made at shops in Cambridge, Eng. It was accorded the honor of a special social meeting of the Royal Academy before coming to this country and has now been in position long enough to be regularly at work. In fact the readiness to do things struck the guests, Dr. Zahn remarking that the laboratory is already achieving results.

Wide interest has been aroused among scientific men for this school is the first of its kind and the Government has already recognized the value of the new course and it is proposed by the Signal Service to supply officers for special training along the special lines of aerial study at Technology.

December 11th will afford ample evidence of the numerous ways in which the proposed arrangement would defeat the original aim of the "Point System."

Next Tuesday at the regular meeting of the Institute Committee the question of the adoption of the new (Continued on Page Four)

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T. C. A. TALK

Reverend O. P. Gifford, the latest of the T. C. A. speakers, spoke on "Counting the Cost" at the Union yesterday noon. Doctor Gifford, who has spoken here before and is noted for his humorous anecdotes, illustrated his talk with present-day examples of people who did not "count the cost."

COMMUNICATION

(Continued from Page Three)

arrangement of points will be decided. Certainly every man who is interested in this Institute should make it a point to be on hand. Personally I think it would be a good idea for a number of those who take great pleasure in knocking everything done by any activity around Technology, and especially the Institute Committee, to attend these fortnightly meetings and get some idea of what they are so authoritatively discussing. It might be well to state here that the meetings are free, and that they occur every fortnight.

UNDERGRAD.

THE TECH**Has Trade to Sell at a****Discount****INDOOR TRACK MEET
IN GYM TOMORROW****Entire Track Team Will Take
Part In Practice
Meet.**

There will be a practice Track Meet in the Gymnasium at three o'clock tomorrow afternoon. Every man on the Track squad is to take part, and consequently there will be no workout in the early afternoon. There will be no charge for admission. The following events are open to competition: thirty-yard dash, thirty-five-yard high hurdles, four laps, eight laps, fifteen laps, high jump, pole vault, shot-put and three lap relay. All those taking part in the meet will run in the last event.

This meet is strictly a Technology event and is open to all who wish to compete. No prizes will be awarded, but the meet will give an idea of how the members of our Track Team compare.

M. E. VISIT WALTHAM

(Continued from Page One)

party, treated the men royally. His kindness and the willingness of the guides and employees to answer the innumerable questions made the trip very instructive and successful.

The second party leaves Rogers steps at 1.45 today. The men are particularly requested to stick to their group and guide, as this helps the guide and allows the group to see more, since the guides know how and where to see the most in the least time.

HARVARD WINS HOCKEY

(Continued from Page One)

forwards, Fletcher playing back with Gould. Winton's work was good but he did not show up much speed although he handled the puck cleverly. The Harvard scores came principally in the first period when Blakewood at goal was conspicuous for his absence at inopportune times, having more or less of a propensity for wandering away from the goal. He showed up well by streaks only in the first part of the game but managed to settle down in the second half when he put up a fairly good defense. Left wing seemed to be the weak place in the lineup and the lack of a good man there to meet one of Harvard's strongest men was noticeable. The lack of substitutes of varsity calibre as compared with the Harvard subs who were nearly as good as her first string men, weakened the Tech team considerably.

The game opened with Baldwin of Harvard opposing Winton at the face-off. Technology got the jump on the Harvard men when the whistle blew, and carried the puck well down into Harvard territory where the Cambridge men put up a stiff fight and managed to rush the puck down to the Tech goal where Morgan scored the first goal of the season at the Arena after three minutes of play. Play was well mixed up for a time after this, the rubber being kept down by the Harvard goal, Tech getting several shots at the cage but being unable to get by Wyld, the Harvard goal tend. The play saw-sawed up and down the ice for a time until Blakewood got rather venturesome and Curtis skated in behind him and scored. Wanamaker, who replaced Curtis, scored easily a minute or so after. Technology braced

up again and kept Harvard on the run for quite a while after this. Cochrane put up a fine showing at this time and showed good speedy work both in defense and in rushing the puck. Townsend finally succeeded in scoring Harvard's fourth goal, and the last one of the half.

The second half opened with Technology on the aggressive, but after one minute and a half of play Wanamaker of Harvard scored the fifth goal of the evening. From then on Harvard seemed to have its own way and after three minutes and fourteen seconds Townsend snatched the puck out of a scrimmage and cleverly shot it past Blakewood into Tech's cage.

These two goals in such a short time seemed to arouse the red and gray team and they showed a style of play which had been seriously lacking up to that time. Tech made several brilliant dashes down the ice but unfortunately they did not gain very much until Cochrane took the puck the length of the rink and by clever dribbling and good judgment shot it into Harvard's net scoring Tech's first goal. This score seemed to give the Tech team encouragement and they turned the tables somewhat so that most of the playing went on in front of the Harvard goal. At one time Winton and Captain Fletcher made a clever dash down the ice and showed some much needed team work but unfortunately no more scoring for Technology took place until Winton shot the puck past Harvard's goal after eighteen minutes of play. The rest of the half found Tech forced to play on the defensive and the time ended with the score in Harvard's favor six to two.

For Technology, Cochrane certainly played an excellent game. Although playing cover point, a defensive position.

(Continued on Page Six)

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TALK ON GOVERNMENT EXPERIMENTAL TANK

Graphic Description Of Testing Out Miniature War Vessels.

At the dinner of the Naval Architectural Society last Tuesday night, one of the most fascinating branches of experimental science was described by Prof. Keith of the Department of Naval Construction and Design. The United States Experimental Model Basin, with which he was formerly connected, was the subject of his talk.

The Model Basin is situated near the Potomac River about a mile outside the city of Washington. It is 470 feet long, 42 feet wide, and 14 feet 8 inches deep. The building over the basin is 500 feet long and 49 1-2 feet wide on the inside. It is heated in winter by an elaborate heating device which maintains a constant temperature slightly higher than that of the ordinary work room. This is found necessary because the people on the travelling carriage are liable to discomfort owing to their constant motion through the necessarily damp air. Steel troughs are provided around the sides of the tank which act very efficiently as wave absorbers.

The apparatus for determining the resistance of models is all contained in the carriage. This is a large steel structure spanning the basin, and running upon steel rails. The carriage weighs about 31 tons, and hence has sufficient inertia to give an appreciable "flywheel" action to resist sudden variations in speed. It is driven by four electric motors and is capable of developing a speed of about 20 knots in a run of 200 feet.

The models used are made of wood and are 20 feet long. When a model is ready to run it is placed beneath the carriage and fastened to a flexible towing rod. There are also guides on the bow and stern of the model which "take" with rigid pointers on the bottom of the carriage and allow free vertical motion caused by the tendency of the bow of the model to rise, but at the same time keep it going in the direction of the carriage. The resistance of the model is measured by an ingenious electrical device that records the readings on a revolving drum the speed of which is proportional to the speed of the carriage. A "card" is taken for each trip of the carriage down the basin, and the resistance, speed, and trim are measured therefrom. A complete run for a model will consist of a large number of these cards taken at speeds quite close together, starting from a low speed and working up until the range desired is covered. From these cards resistance curves may be plotted.

A very interesting feature of these resistance curves has been noticed. No matter how carefully the runs are made, slight humps and hollows always appear in the curves. These are due to the fact that two systems of waves are formed when a ship moves through the water, one by the bow and the other by the stern. The length of these waves depends upon their speed, which is, of course, the same as that of the ship. It is easy to see that at certain speeds of the

RED CROSS CAMPAIGN TAKES PLACE MONDAY

Good Response Hoped For From Appeal To Students For Belgians.

Next Monday is Red Cross day at Technology. The selection of a certain day on which moneys may be contributed to the Red Cross society is the result of a nation-wide movement among schools and colleges. The work is under the control of "The School and College Campaign to Assist the Red Cross European Relief Work."

Their letter to the school states, "Many schools and colleges are already interested in the work of relief and rehabilitation, so organize effort and encourage contributions in those institutions where nothing has yet been done. This campaign has been inaugurated with the hope that a concerted movement may inspire and help those who otherwise would have no share in this great work."

One of the chief aims of the movement is "that the schools and colleges join in a nation-wide 'self-denial movement', sacrificing for the present the unnecessary extras of their courses." Technology has been appealed to as an institution where men are trained in the service of mankind, and, as men realizing the big problems and expenses of keeping sanitary and well regulated camps and hospitals for those so unfortunate as to be the victims of war, Technology men are expected by this committee to respond loyally to the call for funds.

There will be boxes in Rogers building and the Union, where money may be left, and there will be duly appointed men who will canvass the rooms and laboratories. Harvard raised well over two thousand dollars in their campaign, and the committees, both national and local, look for a good response from Technology.

The length of the bow waves will be such that a wave crest of this system may coincide with either a crest or hollow of the stern wave system. In the first case, the stern wave will become larger, thus increasing the resistance and making a hump in the curve, while in the second case, the stern waves are somewhat neutralized, and the ship drives more easily, and a hollow is seen in the curve. It might seem an important matter to choose a length for a given speed so as to land in a hollow, rather than on a hump, but it is not of great practical importance.

In addition to making model experiments for all new ships designed for the Navy Department, a large amount of work is done for private shipyards. This provision was placed in the bill authorizing the basin, and the amount charged to private persons for model testing is simply sufficient to pay for the material and labor used. Nothing extra is charged to help pay the overhead expense of the basin, as this is met by Congressional appropriation. The cost of making and testing a model averages about \$150 at the Washington tank, while at the new tank in Teddington, England, the cost is four or five times as much,

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TECHNIQUE BOARD

Two More Men Are Elected To The Art Department.

As a result of the recent competition for the Art Department of the Technique Board, William W. Sprague and Howard T. Evans have been elected to fill places as assistants to this department. Sprague is a member of Beta Theta Pi and Secretary of the Architectural Society. Evans is a member of Theta Xi and is taking course IV.

HARVARD WINS HOCKEY (Continued from Page Four)

tion, he was all over the rink at once and played equally well on the offensive and defensive. Winton and Captain Fletcher also played a good game. Wanamaker and Townsend excelled for Harvard, each having two goals to his credit. Wyde played a good game at goal, making several good stops. Neither team has had very much practice so far and Technology has been the most handicapped in this respect and both showed a great chance for improvement especially as regards team play. The lineup is as follows:

Technology.	Harvard.
Blakewood, g,	g, Wylde, Horte
Gould, p,	p, Morgan
Cochrane, c p,	c p, Clafin
Winton, c,	c, Baldwin, Fisher
Fletcher, r,	r, Townsend
Keeler, Toye, r w,	r w, Kissel, Ames
Ross, Gray, Holden, l w,	l w, Curtis,
	Wanamaker

Goals First Half.

1. Harvard	by	Morgan
2. Harvard	by	Curtis
3. Harvard	by	Wanamaker
4. Harvard	by	Townsend

Goals Second Half.

5. Harvard	by	Wanamaker
6. Harvard	by	Townsend
7. Technology	by	Cochrane
8. Technology	by	Winton

Referees, H. W. Foster and Ernie Doody.

Time twenty minute periods.

THESIS ASSIGNMENTS

The list of thesis subjects for Seniors of courses V and X has been posted in Walker Building. Not all men know their work, however, and it will be a week or so before a definite settlement is made. Course VI subjects have been up some time and a few of the electricals have already made their choice.

FINE ARTS TALK

There will be two lectures given at the Museum of Fine Arts Sunday afternoon. Mr. William Hagerman Graves, formerly president of the Grueby Pottery Company, will speak on "Majolica and Porcelain" in the Western Art Study Room at 2.45, and Mr. Richard Andrew, Instructor in the Massachusetts Normal Art School, will speak on "Why an Artist's Style Changes" in the Painting Galleries at 3.30. No admission will be charged.



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SHOW LYRICS

(Continued from Page One)

lyrics for the different numbers have, by this time been accepted provisionally. The management reserves the right to substitute for them any other lyrics which they may see fit.

In view of the fact that the quality of some of the lyrics was so nearly equal, it has been decided by the management, to give out each of these, and see to which one the best music may be written.

The management realizes that this is but a short time in which to write music, but experience has shown that results are best obtained during a short competition. The music competition for the lyric writers offers a great variety of choice. There are numbers which give opportunity for rag music, while there is also exceptional chance for sentimental music.

PORTFOLIO COMMITTEE

Ten Men Are Nominated—Voting Commences Saturday.

The list of nominations for the Senior Portfolio Committee, made by President Dalton, are as follows: W. M. Africa, R. L. Fletcher, J. M. Livermore, A. T. Munyan, M. B. Pinkham, C. M. Runels, H. P. Sabin, W. B. Spencer, E. A. Whiting and C. W. Wood. The ballots can be obtained at the Cage after 1 o'clock this Saturday and they must be returned before 6 P. M. the following Tuesday, December 22. Each Senior is to vote for three men and everyone should be sure to do so, for the Committee cares for his interests under the new scheme.

See The Tech
FOR
Clothes Trade