

Nine More Dinghies Given Over Holidays

Gifts Make The Number Of Boats In Fleet Twenty-five

Major Part Have Been Gifts Of The Alumni And Friends

Prof. Owen Is Offering Series Of Lectures For Faculty

With nine more sailing dinghies presented during the Christmas vacation, Technology's fleet now totals twenty-five boats, Professor Erwin H. Schell announced last night. The proposal to make small boat sailing an undergraduate activity at the Institute has aroused widespread enthusiasm, not only among hundreds of students, but among alumni and friends of Technology, who have indicated their willingness to help in many ways. As a result it is expected that the fleet will be considerably larger by Spring.

The nine boats given recently were the gifts of Lyall L. Stuart, '21, of New York; Duncan R. Linsley, '22, Vice President of the First Boston Corporation, Boston; Phillip W. Moore, '01, Vice President of Poor and Company, Chicago; Henry E. Warren, '94, President of the Warren Telechron Corporation, Ashland, Mass.; W. Clark Arkell, '10, Vice
(Continued on Page 3)
Sailing

The Tech Staff Will Hold Formal Banquet

Announcement Of New Officers For '36 Will Be Made

The Tech staff will hold their annual formal banquet at 7:00 P. M., Saturday evening, in the Parker House. Volume LVI will be closed, and new officers for Volume LVI will be announced. The principal speaker of the evening will be Mr. J. Roscoe Drummond, executive editor of the Christian Science Monitor. Members of the retiring board will also address the meeting.

Officers of the Institute attending the dinner are Edwin S. Burdell, of the Economics Department; Harold E. Lodbell, Dean of Students; Samuel C. Prescott, Dean of Science, Frederick G. Fassett, Jr., of the English Department; Horace S. Ford, Treasurer.
(Continued on Page 4)
The Tech Banquet

Motions Of Earthquakes Duplicated From Graphs by New Shaking Table

A unique type of shaking table which for the first time makes it possible to duplicate in the laboratory the motions of destructive earthquakes directly from seismograph records, has been built in the department of civil engineering. The new machine will be used to study the destructive effects of earthquakes on buildings and other structures by means of scale models.

While the seismologist is interested in recording earthquake motions to gain new knowledge of the interior of the earth, the engineer's primary interest is from the surface of the earth upward. His problem is not only to faithfully duplicate the motions of earthquakes in the laboratory, but to study their effects on models and design structures to resist them.

The new earthquake machine was designed by Arthur C. Ruge, Research Associate in Seismology, in consultation with Dr. Vannevar Bush, vice-president and Dean of Engineer-

Posters of European Travel Will Brighten T.C.A. Office

Drab walls in the Technology Christian Association's office have given way to bright hued travel posters inviting all and sundry to tour Switzerland, the Midi, Italy, France, Spain, Germany, and the Latin American countries. The scenes range from one of the 1936 Olympic posters to a view from the belfry of a Spanish monastery. To supply a bit of contrast, there are several French Line and United Fruit Line posters portraying liners in mid-ocean.

Model Aids Study Of Cape Cod Canal

Research On Widened Waterway Aided By Miniature Replica

With enlargement of the Cape Cod Canal in progress, research engineers of Technology are making an advance study of the tidal currents that may be expected when this important coastal waterway is finished. The investigation, which involves complex research methods and precise measurements, is being carried on in a huge scale model of the canal and its approaches, Cape Cod and Buzzards Bay, with unique facilities for duplicating in miniature the tidal conditions encountered in the present canal.

The model provides for studies of the canal in its present form and as it will appear when widened to 700 feet on the surface and dredged to a depth of 40 feet, providing a waterway capable of accommodating most of the large liners and naval vessels. The model is 115 feet long and occupies an entire building.

The project is under the direction of Professor Kenneth C. Reynolds of the department of civil and sanitary engineering, who is co-operating with Colonel John J. Kingman of the United States Army Engineering Corps in a study of the hydraulic problems that will be encountered in enlarging the canal. Lieutenant E. C. Harwood is supervising the study for the government, and Donald F. Horton is his representative in residence at the Institute. The work is expected to last for several months.

The complex nature of the investigation is indicated by the fact that
(Continued on Page 2)
Cape Cod Canal

New Year's Eve Party Given By Commuter's Club

Two Hundred Couples Dance To Music Of Tom Anderson's Orchestra At Event

A gay reception was given to 1936 at the New Year's Eve Costume Party held by the Commuters' Club in the Main Hall of Walker on the last night of 1935. The dance lasted from 10 to 4 o'clock. As the old year passed away and the new was born, a net was released from the ceiling of the hall and hundreds of brightly colored balloons fell in a shower on the dancers. Tom Anderson's Yankee Network Orchestra supplied the music for the group of approximately two hundred couples.

Lighted candles on the tables made a background for the paper hats and vivid costumes of the merrymakers. Favors and noisemakers, distributed before midnight enlivened the arrival of 1936. A supper of hot chicken patties, fruit cocktails, cake, and ice cream was served at two o'clock.

Professor and Mrs. C. S. Robinson, and Mr. and Mrs. George P. Wadsworth acted as chaperons for the dancers.

In charge of the dance were the dance committee and officers of the club, all members of the Class of 1936: George R. Robinson, W. Vernon Osgood, Robert B. Gordon, Richard S. DeWolfe, Anton E. Hittl, and Richard A. Denton.

Dormitory Committee To Hold Dinner Dance In Walker On Feb. 14

Open House to be Held In Dorms During Dance; Freddie Bergin to Play

The sixth annual Dormitory Dance will be held this year on Friday, February 14, in the Main Hall of Walker Memorial, it was recently announced by the Dormitory Committee. This event has in the past been one of the outstanding events in the social season of the Institute. The dinner and dance, which will be formal, are under the direction of a special committee, chosen from among the members of the Dormitory Committee.

Dinner will be served at six-thirty and dancing will follow a short time later and continue until three o'clock. Open house will be held in the Dormitories before and during the dance. Admission to the dance will be \$4.00, and the remainder of the expense will be carried by the Dormitory Committee out of the profits from previous dances. To facilitate the arrangements, sign-ups for tickets and table reservations will be obtainable in the Dormitory Committee Room on January 6-11 between 7:30 and 8:30 in the evening. The cost of sign-ups will be \$2.00 per subscription, and it will be possible to secure tables for parties of eight or ten if application is made early enough.

The Dance Committee is making arrangements to secure the services of Freddie Bergin and his orchestra,
(Continued on Page 3)
Dorm Dance

At A Glance The Heart of the News

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COMMUTERS' New Year's Dance, p. 1
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Seniors To Attend Game Before Dance

Technology Students Spend Large Sum For Fares Home

Fares home for the Christmas vacation cost Technology students over \$5,000 last month. This figure represents only the value of the tickets purchased through the carriers' representatives at T.C.A. office during the two weeks before the vacation.

The total sales of tickets by the railroad, bus, and air lines that had agents in the T.C.A. office amounted to \$5,094.13, which is about twice the amount that was sold last year. A good deal more must have been spent by students who bought their tickets at the stations or who went home by other means.

Dorms Cede Dance Schedule To I. F. C.

Late Spring Dance Cancelled To Promote Friendly Relations

Cancellation of their late spring dance in order to avoid conflict with the Interfraternity Conference Dance scheduled for May 1, was announced by the Dormitories last night.

The Dormitories had previously signed for that date, but they have announced their withdrawal in the interests of more friendly relations between the Dormitories and the Fraternities.

In return for this concession, the Interfraternity Council will offer to the Dormitories one hundred options on dance tickets to be sold by the Dormitory Dance Committee.

Scheduled for the night previous to Open House, the dance will be again held in the Grand Ballroom of the Hotel Statler, the committee announced last night.

Admission will be approximately the same price as last year; that is, about \$3.00 when one takes advantage of the sign-ups. Following last year's precedent, the committee is endeavoring to obtain an orchestra with a nation-wide reputation. Last year, Isham Jones played for the dance. Ticket sales will be limited to six hundred couples.

"Nick" Carter Is Presiding Genius In Chemical Engineering Stockroom

"Curator of Apparatus"



This picture of "Nick" Carter was taken while he was engaged in one of his many diverse jobs.

Kent Bartlett Plays For Senior Dance Friday

Committee Sets Tomorrow As Last Date To Obtain Tickets

Dr. and Mrs. Compton To Head List Of Patrons And Patronesses

Those planning to attend the Senior dance this Friday evening may well occupy the time preceding the dance by witnessing the clash between the Technology varsity and the Lowell Institute basketball teams at 7:30 in the Hangar Gym. A number of Seniors have already announced their intention to watch the game, which will last approximately two hours.

Following the game, Kent Bartlett and his orchestra will supply the music for the dance in the Main Hall of Walker from 10 to 2 o'clock. Kent's orchestra has recently come over from England, where he played at the Mayfair in London.

One more opportunity will be offered those Seniors, who have so far postponed obtaining their tickets to the dance. Tickets will be distributed free to Seniors in the Main Lobby of the Institute today and tomorrow
(Continued on Page 4)
Senior Dance

Course XVI To Hold Convocation Tuesday

H. F. Guggenheim Will Address Staff And Students

A convocation of the student body and staff of aeronautical engineering will be held Tuesday, January 7, at 2:00 P.M. in Room 3-270.

The occasion is the visit of the visiting committee of the Corporation: C. A. Dorrance, Chairman, H. A. Morss, H. F. Guggenheim, R. D. Weyerbacher and G. W. Lewis. The convocation will be addressed by Mr. Guggenheim.

All Juniors, Seniors, Graduate Students, Department assistants, and Staff members are urged to attend. Conflicting classes will be omitted.

Amid the most conglomerate assemblage of motors, generators, fans, lamps, furnaces and balances, Harold H. "Nick" Carter, sage of the Chemical Engineering Department, dwells in his niche in the basement of Building 4.

"Curator of Apparatus" is the title given to this (genial) individual who probably has more different jobs to perform than any other single person at the Institute. Giving advice to seniors and graduates for their thesis designs, erecting lecture apparatus, directing the N.Y.A. work of the department, drawing all the cuts for the department's publications, supervising the work of the shop, turning out all the mimeograph work of the course, and acting as intermediary between the faculty and the students are all a part of "Nick's" routine work.

Has Varied Jobs

Under the direction of Professor Harold C. Weber, "Nick" is in charge of Course X's service department, thus he is called upon to perform tasks all the way from cleaning and repairing apparatus to assisting students in
(Continued on Page 4)
Harold "Nick" Carter



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1935 IN REVIEW

PRELIMINARY STOCKTAKING

NOW that the curtain has fallen on the year 1935 it is possible to select some of the events which appear to be of more than passing importance.

On the domestic scene the most conspicuous event was the continued and general industrial recovery. It has persisted in spite of the assertion of the "rugged individualists" that the policies and enactments of the government are ruinous, and it has continued in spite of the termination of the NRA even though the New Dealers staunchly maintain that the Act was a necessary prerequisite for economic comeback. The lasting value of some of the other laws should be appraised with caution in view of the decided inclination of the Supreme Court to declare much of the legislation unconstitutional. The AAA (now defunct) represents an effort to introduce controlled production into agriculture in order to establish adequate purchasing power for the farmers as an important market for industry's products. Other measures to effect this (in place of the AAA) are more than likely.

The principles embodied in the Social Security Act and in the Wagner Labor Bill recognize the need for social legislation if a reasonable measure of industrial and political peace is to be preserved. The form in which these principles are to be applied will undoubtedly be modified. The Omnibus Banking Bill providing for closer control over national credit should play an important role in future attempts to check the violence of business cycles.

Events from abroad are headed by the Italo-Ethiopian conflict with good prospects for the ultimate collapse of the Fascist regime resulting from the combination of sanctions applied from the outside and internal economic exhaustion.

Germany used the year for further re-arming even though it involved tightening of the belt and defiance of world opinion with attendant increased prospects for war. Japan proceeded to gobble up some more of China and is coming closer to an open conflict with Russia. Add to that the (preliminary) failure of the London Naval Disarmament Conference and you have the tough outline of a rather disquieting foreign situation.

Paradoxically, the year 1935 has been one in which both national and international disagreement tended to drive people further apart whereas aviation with its most notable feat of the conquered Pacific signified the increasing closeness and interdependence of men. The year also clearly served to indicate the lack of a more scientific and unbiased approach on the part of almost all nations in their attempts at a solution of their problems.

In this country the absence of "statesmanship" in business has undoubtedly been a contributing factor in connection with much of the punitive laws like the Holding Companies Act, Old-Age Pension Act and the various

labor relations acts. If business men all over the world should realize that a mature, long-range point of view in dealing with their employees and with the public is much more likely to show beneficial results in the end than (and only then) the year 1935 will have made a valuable contribution to human progress.

Add to this the fact that the Ethiopians, aided by the climate and topography of their country and their exceedingly able leader, Emperor Haile Selassie, stand ready to inflict a crushing defeat on the Italian Army and some disturbing conclusions are reached. A complete Italian collapse, even assuming that it did not precipitate an immediate war, would undoubtedly have serious repercussions, both economic and military, throughout Europe.

LO! THE POOR STUDENT

CONCENTRATED FINALS

OBJECTIONS to the system of final examinations at the Institute are as varied as they are intense, but the most pertinent one is directed against the practice of concentrating examinations into a period of five days. For most people the actual period is even shorter; three or even four examinations are crammed into the unreasonable space of three consecutive days.

The impracticability of studying in the limited time allowed after the last day of classes (examinations for many begin the following Monday) should be apparent. It is useless to attempt a comprehensive review of a course in the time allotted; the impossibility of such a feat leads to the questionable practises of speculating on the questions which will be asked, and attacking the examinations as composed of type problems.

But the impossible must be attempted, and so, for the examination period at least, the Technology student may be recognized by his personal appearance. He is greatly disheveled: his hair has not been combed since classes ceased; his clothes look as if he has slept in them, which he probably has; great circles surround his eyes; and if you attempt to speak to him the only intelligible response is in terms of his examinations. This is not only true of the high-rating student, but is even more marked in his case since he is more desirous of keeping his grade where it has been all term.

Of course the proponents of the concentrated examination schedule protest that the good student need never worry, and that the low-rating student does not deserve better treatment. But such protests are made in pure ignorance of the facts as they exist. The proponents have never seen the sad spectacle of the high-rating student in a futile race against the absurd time allotted for review.

It would take a medical man with an engineering background to figure the nervous energy consumed, and the consequent decrease in working efficiency. But it is apparent even to the lay mind that spreading the examinations out over a period which would allow one or even two days to elapse between each one would be a significant improvement over what is at best an atrocious system.

CROWS

IN THE DRAFTING ROOMS

CROWS are known to steal articles for which they have no particular use, hiding them in inaccessible places, and frequently forgetting the theft as soon as the booty has been secreted. In every human group there are sure to be at least a few "crows", stealing from their fellows objects which are never as useful to them as they were originally to the owners.

For some time the Department of Mechanical Engineering received complaints from students regarding the lack of pencil sharpeners, until the department eventually installed several. But a student body is a human group, and so the "crows" lost no time in stealing the pencil sharpeners wherever it was possible to remove them without the manipulation of a crobar.

Probably the "crows" have no great need for pencil sharpeners, and certainly their fellow students were in much greater need of them, but the primal instincts of a kleptomaniac are strong, and the pencil sharpeners are gone.

Although it is possible to present an infinity of arguments to show that the sharpeners should not have been stolen, it is not accepted practice to reason with neurotics such as these "crows" undoubtedly are. It is better to extend our sympathies to the miscreants, and express the hope that they will consult a competent psychiatrist to cure their afflictions.



Welcome back

Now that most of the student body (corpse?) has returned and the merry little brownbaggers are hard at work while the other ninety-nine per cent of the boys are still trying to orient themselves and stop the world from going round and round, we find ourselves confronted with a nice blank column and no dirt of consequence. So let the dribble splash where it may.

Holiday spirit unbottled

The excess of enthusiasm pervading the holiday dripped over the edges somewhat and broke into print. There was a cut line in one of the Boston papers stating

TAKE XMAS GIFTS FOR ABROAD ON THE SAMARIA

Causing us to wonder about Prof. Fasset's rules for punctuation. The Herald movie column made its usual slip up and titled a head-and-shoulders cut of Elissa Landi "John Barrymore".

Make up your own comments

Also in the same spirit is the watch manufacturer who advertises over the radio, "The American Girl, small, round, dependable, set with diamonds".

Applied Science

The earthquake machine which you read about elsewhere in the issue has its points. We like the idea of feeding a record of a real quake through and reproducing it in miniature. This sort of gadget would be invaluable to the profs who can't get reaction from ninety-nine percent of the class. All that they would have to do would be to wire the chair of a 5 rating man, talk to him for the hour, and record his reaction. The individual chairs of the rest of the class would be then connected to a similar machine, and the record run through. Of course, the original reactions would have to be multiplied say twenty times to get a rise out of the average lecture-listener. But it would be tremendously heartening to the prof. to hear his class laugh heartily at his witticisms, a laugh free from an undercurrent of "the music goes round and round". And it would be inspiring to see a class wave its arms wildly to answer what are now purely rhetorical questions.

Dorms again

He crossed the street from the dorms earnestly striving to read the address on the envelope. Under the street light he stopped, checked the destination again. Hinges on the letter box grated as he peered within to make sure that the slot was clear. Came a voice from the dorms. "Watcha doin' Harry?" "Mailina ledda, whadya think?" This exchange of profundities completed, the letter-mailer started back to the dorms. The other curb gained, he stopped as the voice inquired, "Hey Harry, Jamailyn letter?" Whereupon Harry looked down to see the envelope still clutched tightly in his hand.

Celebration

There was the inebriate who pushed into a crowded subway car, turned to face the door, and had it close on his nose . . . not to mention the Soph from the dorms who insisted on riding from Park to Kendall on the lap of one of the female passengers . . . more than one prof. showed the results of the holidays in interesting ways . . . post holiday excitement at Walton as a student scattered nitrogen iodide here and there . . . a committee of experts has concluded that the Dogcart is unfair to Tech students . . . statisticians and language experts will be interested in the frequent use of "between you and I", and "to you and I" by the Mechanical Engineering staff . . . eccentricities among the co-eds . . . one wrote "Advice to the Lovelorn" for her school paper . . . another came to Tech yet wanted to "preserve her illusions" . . . a happily engaged co-ed is knitting stockings . . . a fourth disapproves of all frivolities . . . Dramashop has been considering a production of Peter Pan with one of the co-eds as Peter . . . the high spot being when Peter floated out over the heads of the audience . . . just imagine a co-ed operated by wires.

Reviews and Previews

COPLEY—Ceiling Zero an aviation melodrama with Mary Young.

PLYMOUTH—3 Men on a Horse still going strong. This afternoon there is a special benefit performance for the actor's fund, 400 seats at \$1, no tax.

OPERA HOUSE — Ziegfeld Follies starring Fannie Brice and glorifying the American Girl. Matinees Wednesdays and Saturdays.

ON THE SCREEN

FINE ARTS—Last performance today of La Maternelle. Starting Wednesday the French version of Crime and Punishment.

PARAMOUNT AND FENWAY — Ends today Captain Blood. Starting tomorrow, Bette Davis and Franchot Tone in Dangerous, romantic drama, and a new Warner musical Broadway Hostess.

METROPOLITAN — Through Thursday Claudette Colbert in The Bride Comes Home, comedy romance. On the stage, Phil Spitalny and his all-girl musical revue. Coming Friday, Gladys Swarthout and John Boles in Rose of the Rancho screen operette.

KEITH MEMORIAL—Lily Pons I Dream, Too Much.

LOWES STATE AND ORPHEUM—Ronald Coleman in A Tale of Two Cities. Remarkably well done.

RKO BOSTON—Another Face, and Broadway Revels on the stage.

MODERN—Shirley Temple in The Littlest Rebel and Stars Over Broadway with Pat O'Brien and Jane Froman.

Cape Cod Canal

(Continued from Page 1)

the average rise and fall of the tide in Cape Cod Bay is five feet greater than in Buzzards Bay, a distance of 13 miles through the canal. There is also a tide time difference of three hours between the bays. As a result, the tide in Buzzards Bay is rising while the sea is still falling in Cape Cod Bay, and the tide in Buzzards Bay begins to ebb several hours before high water at the other end of the canal.

Occasionally, under unusual conditions of flood tide, driven by high winds, differences in level of nine feet between the bays may occur. At high tide in Cape Cod Bay the water rushes westward through the canal to the lower level in Buzzards Bay. Six hours later the current reverses and flows swiftly east. Under ordinary conditions the maximum velocity of these currents exceeds three miles an hour, while during storms it may reach nearly five miles an hour.

The model is built to a scale of approximately nine feet to the mile, and is constructed of concrete and sand to form a channel accurately reproducing the curving path of the canal across Cape Cod. The reproduction of Buzzards Bay alone, with its numerous inlets and islands, occupies a space 35 by 50 feet.

Enlargement of the canal is expected to change the sea levels at both ends of the canal and to alter the velocities of currents through the waterway. At present water flows through the canal at approximately 13,500,000 gallons per minute. After enlargement the flow is expected to be at least 75,000,000 gallons per minute. Scientific devices accurately reproduce in miniature the ebb and flow of the tides, and sensitive instruments arranged along the canal record the effect of currents and wave motion.

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INSURANCE
 OF
 ALL KINDS

Basketball Team Beats Mass. State In Thrilling Game

Tech Quintet Stages Comeback In Final Half To Win By One Point

Enthralled Crowd Goes Wild With Excitement At Spectacle

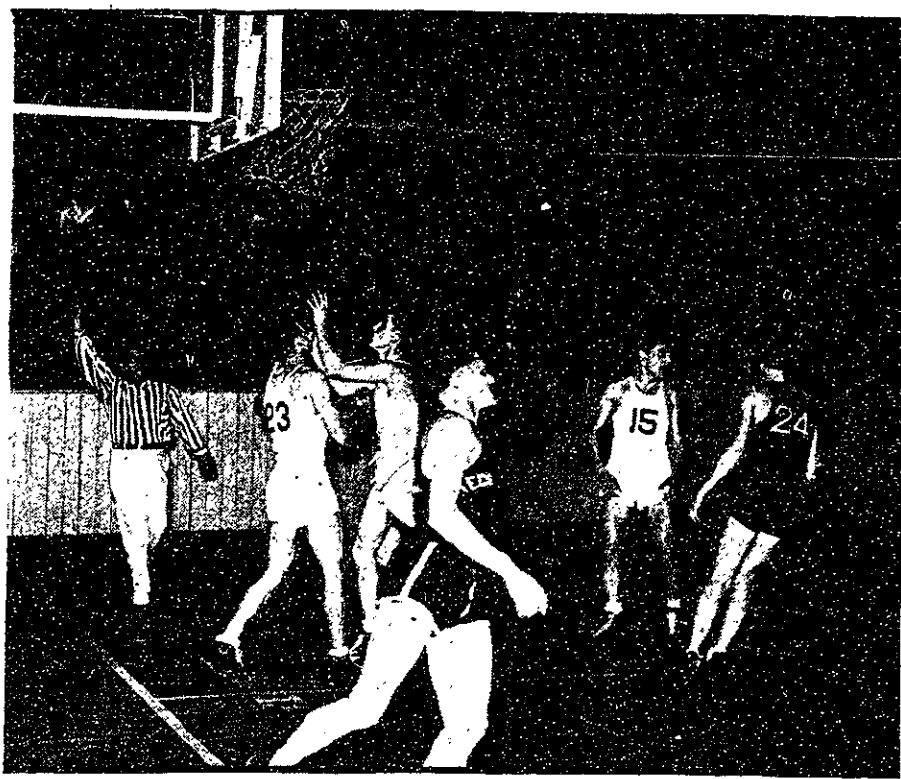
Harvard Favored to Defeat Tech In Game Tomorrow Night At Harvard

Coming from behind in the last thirty seconds, Coach McCarthy's quintet defeated the Mass State basketball team by one point in one of the most brilliant and exciting games ever played in the Hangar Gym. Held the Friday before Christmas vacation, the game attracted crowds of both Technology and Mass State rooters so that the gym was filled to overflowing.

Mass State Forges Ahead
In the first half, Tech was evidently out classed by a surer-passing and faster team. "Mass State," said Coach McCarthy of Tech, "showed itself to be a better team than B.U., and had our team played against B.U. as they now performed against Mass State our first game of the season might have seen a different ending". To the despair of the multitudes of Tech rooters, the half ended with Mass State leading Tech to the tune of 25 to 12.

Tech Stages Come-Back
The second half saw a Tech team that would not be defeated, score point after point until the score stood at 30-29. Tech was still trailing by one point, and there was less than a minute to play. Kangas scored a point from a foul to tie the score,

Crucial Shot in Mass. State Game



Captain William W. Garth sinking the deciding point to win for Technology in the last thirty seconds of play.

and the crowd went wild as with only a few seconds left to play, Captain Garth of the Engineers scored the winning point on a foul shot, giving a final score of 31 to 30.

The starting team consisted of Garth and Kangas, forwards; Lippitt at Center; Denton and Wu, guards. Later entrants in the game were Thornton, Devereux, Wepler, and Barbaroso. High scorers were Garth, Lippitt and Kangas. Billy Wu, versatile Chinese athlete, played an excellent game.

Will Meet Harvard
Tomorrow evening both the varsity and freshman teams go up the river to meet the Harvard teams.

Dorm Dance

(Continued from Page 1)

which has been at Cedar Grove in New Jersey.

The Committee in charge of the dance consists of Herbert M. Borden, '36, chairman; Joel B. Bulkeley, '36, in charge of the orchestra; George B. Payne, '36, in charge of the dinner; David A. Werblin, '36, in charge of decorations; Stanley B. Smith, '36, in charge of publicity; Robert E. Worden, '36, in charge of chaperones and guests; William R. Saylor, '36, in charge of tickets; James H. Carr, '36, in charge of seating; Richard S. Mandelkorn, representative of the Graduate House; and Brenton M. Lowe, '36.

Undergraduate Notice

Rifle Team and the Varsity Rifle Team will shoot in a series of four-postion R.O.T.C. matches during the coming month. These will be the first of the freshman competitive shoots, since most of the matches for the latter come in the second term.

Beaver Pucksters Take Game From Northeastern, 7-4

Engineers Sextet Outclassed Their Demoralized Opponents

Harold Acker, '38, Is Tech's High Scorer With Three Goals

Team Will Meet Dartmouth At Hanover Tomorrow Night

Playing a superior brand of hockey, the Technology ice men justified the high faith in which they were held at the beginning of the semester when it defeated a hopelessly outclassed Northeastern team 7-4 at the Boston Arena last Thursday night.

The game was extremely exciting to watch. Tech played a much smarter game than its opponents and showed the effects of good coaching for the first time this season.

Tech Started Slowly

Northeastern started the excitement by making the first goal in the first few minutes of the first period. Tech rallied swiftly after this onslaught and scored three goals in short order through the bewildered opposition.

During the second quarter, Northeastern summoned up its failing energies and managed to put two goals past Tech's efficient goalie Van Patten-Steiger. Tech slipped one goal in during one of the lulls in the play.

Completely Outplayed Rivals

Toward the end of the last period Northeastern's spirit began to sag and the Beavers played rings around their befuddled, woebegone victims to score two goals to their one.

High scorer and star for the Northeastern team was John Bialek who scored three goals solo.

Acker High Scorer

Harold Acker, '38, left wing, was high scorer for the Engineers with three goals to his credit. Dick Muther, '38, came second in the list of scorers with two goals, with Jim Schipper, '36, and Bill Healey, '36, tied for third place with one goal each.

Lineup

The first team was composed of:— H. Acker, l. w.; Red Cohen, c.; D. Muther, r. w.; F. Parker, l. d.; H. Goodwin, r. d.; R. Van Patten-Steiger, g.

The second team lineup follows:— J. Schipper, l. w.; P. Daley, c.; W. Healey, r. w. (L. Anderson, sub.); Defense: J. Cook, A. Minott; D. Kenny, g.

Dartmouth Wednesday

This week the pucksters have two games scheduled:—one with Dartmouth at Hanover, tomorrow night; the second with Mass. State at the Boston Arena.

SPORTS COMMENT

Boxing Manager Joe Smedile made a trip to Penn State for a coaches' convention last week and returned with some interesting ideas concerning practice sessions. The Varsity team went into a huddle last night and decided to adopt the majority of his plans. As a result each boxer will have completed a stiff workout and will be ready to leave exactly forty-five minutes after he steps into the locker room. In that time he will have completed his regular work and will have boxed against an opponent of his own weight and caliber. It all works out according to a nicely arranged schedule.

The hockey team will probably still live up to all the nice things said about it earlier in the season. The pucksters turned in their first victory Thursday as they walloped Northeastern. Tech fans who were inclined to sour on the team after they lost to B.U., Princeton, Harvard, and Brown in a row must remember that this is a tough series of games for any team to play—and especially in a period of less than two weeks.

Sailing

(Continued from Page 1)

President of the Beech-Nut Packing Company; Frederick A. Flood, Chase & Sanborn Company, Boston; Donald W. Douglas, '14, President of the Douglas Aircraft Company; Luis de Florez, '11, Consulting Engineer, New York City, and Leland E. Wemple, '08, President of the Illinois Zinc Company, Chicago.

Meantime the committee in charge of designing a dinghy is making rapid progress and plans are expected to be ready soon.

The Shore School lectures for undergraduates interested in learning the fundamentals of sailing will be resumed tonight at 5 o'clock with Robert W. Vose of the Department of Mechanical Engineering, lecturing. These lectures will be given every Tuesday, Wednesday, Thursday and Friday for different sections. Professor George Owen, noted for his skill as a yacht designer and as a racing skipper, has offered to give a series of lectures on sailing on Fridays at 12 o'clock noon for the benefit of members of the faculty interested in learning to sail. The first of these lectures will be given next Friday if a sufficient number indicate their interest.

Engine Trends To Be Discussed By A. E. S.

Professor C. F. Taylor will address the Aeronautical Engineering Society on Thursday, January 9, at 5:00 P. M. in Room 3-270. Professor Taylor, an automotive engineer, will discuss, "Modern trends in aircraft engine design."

The first meeting of the society this year was at a dinner at which John Polando, transatlantic flier was the guest of honor.

During the winter months, the A.E.S. is working on the construction of gliders in Building 35. Actual flying will be resumed as soon as the weather permits.

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Examination Schedule

Course	Subject	Course	Subject	Course	Subject
Monday, January 27					
9 A. M.					
1.451	Structures	16.911	Synoptic Meteor.	M731	Mechanics
1.70	Water Power Eng.	Ec11	Political Econ.		Special Examinations
1.811	Adv. San. Eng.		(2 hours)	Thursday, January 30	
2.20	Applied Mechanics	M11	Calculus	9 A. M.	
2.504	St. & Trans. Food.	M111	Calculus	2.40	Eng. Thermodyn.
3.31	Fire Assaying		Special Examinations	3.01	Mining Methods
4.421T	Arch. History	Tuesday, January 28			
	(2 hours)	1:30 P. M.			
4.423	Arch. History	1.32	Des. of Harbor Wk.	5.01	Chemistry, Gen.
	(2 hours)	1.41	Structures	5.684	Elem. Phys. Chem.
4.461	European Civil.	2.233	Struct. Mechanics	8.801	Prin. Electrochem.
4.53	Arch. Humanities	2.257	Applied Mechanics	10.17	Indust. Chem.
	(2 hours)	3.41, 3.411, 3.412, 3.418 Metal.		10.441	Distil. & Absorp.
4.651	Th. & Prac. City Pl.	6.03	Prin. Elec. Eng.	10.66	Int. to Colloid. Ch.
5.141	Anal. Chemistry	6.61	High Volt. Eng.		(2 hours)
	(2 hours)	7.80	Biochemistry	15.50	Accounting
5.76	Thermodyn. & Chem.	8.161	Optics	M36	Adv. Calculus
6.511	Elec. Circuits	10.21	Indust. Chemistry		Special Examinations
6.561	Adv. Network Th.	13.54	Marine Eng.	Thursday, January 30	
7.11	Anatomy & Histol.	13.56	Marine Eng.	1:30 P. M.	
7.701	Tech. of Food Sup.	16.62	Aeronautical Lab.	1.48	Foundations
8.01	Physics		(2 hours)	1.641	Hydraulics
8.012	Physics	M21	Calculus	1.68	Theory of Models
	(College Class)	M22	Diff. Equations		(2 hours)
8.50	Heat & Thermodyn.		Special Examinations	2.42	Eng. Thermodyn.
10.79	Automotive Fuels	Wednesday, January 29			
	Special Examinations	9 A. M.			
Monday, January 27					
1:30 P. M.					
1.35	Roads & Pavements	1.21	Ry. & Hy. Curves	5.71	Phys. Chemistry
	(2 hours)	1.571	Stat. Indet. Struct.	6.221	Central Stations
1.561	Adv. Struct. Theory	1.731	Adv. Water Pow. Eng.	6.541	Power Gen. Stat.
1.64	Hydraulics	2.701	Machine Design	7.01	Gen. Biology
2.702	Machine Design	3.05	Elem. of Mining	8.05	Sound, Speech, Aud.
3.43, 3.431, 3.432 Metal.		5.61T	Phys. Chem. I	8.461	Int. to Th. Phys. I
4.471	European Civ.	6.01T	Prin. Elec. Eng.	13.31	Ship Construction
5.061	Inorg. Chemistry	6.521	Alt. Cur. Mach.		(2 hours)
6.311	Prin. Elec. Com.	7.301	Bacteriology	16.901	Int. Meteorology
7.58	Vital Statistics	8.32	Line Spectra		(2 hours)
7.711	Tech. of Food Prod.	10.68	Corrosion	17.21	Bldg. Construction
8.471	Hist. Dev. of Phys.	13.01	Naval Architecture		Special Examinations
10.28	Chemical Eng.	13.15	Theory Warship Des.	Friday, January 31	
10.29	Chemical Eng.	16.961	Phys. Oceanog.	9 A. M.	
13.58	Marine Eng.		(2 hours)	2.15	Applied Mechanics
16.11	Aerodyn. Airp. Des.	17.31	Bldg. Construction	2.30	Materials of Eng.
Ec53	Corporations	M12	Calculus		(2 hours)
E21	History		Special Examinations	5.41	Organic Chemistry
	Special Examinations	Wednesday, January 29			
1:30 P. M.					
2.43	Eng. Thermodyn.	6.211	Ind. App. Elec. Power	5.51	Organic Chem. II
2.46	Heat Engineering	7.361	Ind. Microbiology	6.281	Prin. Wire Com.
3.13	App. of Sci. to Pros.	7.541	Pub. Health Adm.	6.58	Tr. Anal. Lapl. Tr.
	(2 hours)	8.03	Physics	6.60	Math. Anal. Mech.
6.211	Ind. App. Elec. Power	8.03	Physics		Mth.
6.251	Elec. Mach. Des.		(VI, VI-A, VI-B, VIII, XIV, XVIII)	6.671	Vibrations
7.361	Ind. Microbiology	8.541	Electromag. Theory	M31	Diff. Equa. of Elec.
7.541	Pub. Health Adm.	8.82	Electrochemistry		Special Examinations
8.03	Physics	10.31	Chemical Eng.	1.271	Transport. Eng.
8.03	Physics	15.51	Ind. Accounting	1.63	Hydraulics
	(VI, VI-A, VI-B, VIII, XIV, XVIII)	16.21	Th. of Structures	1.75	Hyd. & Sau. Eng.
8.541	Electromag. Theory	16.931	Dyn. Meteorology	2.21	Applied Mechanics
8.82	Electrochemistry			5.10	Qualitative Anal.
10.31	Chemical Eng.			5.20	Chem. of Water Sew.
15.51	Ind. Accounting				(2 hours)
16.21	Th. of Structures			6.301	Prin. Elec. Com.
16.931	Dyn. Meteorology			6.44	Elec. Trans. & Cont.
				10.52	Chemical Eng. II
					Special Examinations

CALENDAR

Tuesday, January 7

- 12:30. Dr. Hunsaker Luncheon, Silver Room, Walker Memorial.
 6:00. Chi Epsilon Dinner Meeting, Silver Room, Walker Memorial.
 6:30. Dr. Horwood Dinner Meeting, Grill Room, Walker Memorial.
 6:30. Alpha Chi Sigma Dinner Meeting, Faculty Dining Room, Walker Memorial.
 7:30. Tech Show Rehearsal, Walker Gymnasium.

Wednesday, January 8

- 12:30. Professor Pearson Luncheon, Silver Room, Walker Memorial.
 6:00. Graduate House Dinner, North Hall, Walker Memorial.
 6:30. Class of 1907 Dinner Meeting, Silver Room, Walker Memorial.
 7:00. Dormitory Basketball Games, Walker and Hangar Gymnasiums.
 8:00. Hockey Game with Dartmouth at Dartmouth.
 8:00. Varsity Basketball Game, Harvard Gym, Harvard University.

Thursday, January 9

- 6:00. Oscar Hedlund Dinner Meeting, Silver Room, Walker Memorial.
 7:30. Tech Show Rehearsal, Walker Gymnasium.

Shaking Tables

(Continued from Page 1)

piston connected to a platform which is free to move in any direction. The electric analyzing device controls a valve which feeds the oil into the piston chamber. This valve is moved in exactly the same way that a radio receiver moves the diaphragm of a dynamic loud speaker, only the force available for moving the valve can reach a maximum of nearly fifty pounds, and consequently it can move very fast.

Such a machine is broadly referred to as a "shaking table". Up to the present shaking tables have been capable only of simple back-and-forth motions, or, at most, a mechanical cam drive could be used to give certain motions of irregular character. The new machine developed at Technology is extremely flexible, does away with expensive and cumbersome mechanical cam drives and has no

limitations as to how irregular an earthquake it can reproduce. Furthermore, it can reproduce non-repeated irregular motions which continue for so long a time that no mechanical cam would be capable of producing them. To change from one quake motion to another, it is only necessary to pass a different shadowgraph in front of the eye of the machine.

One of the interesting features of this shaking table is that, although it can produce forces of over two thousand pounds when necessary, it produces only the amount of force needed to make it follow the shadowgraph properly. If a model is being shaken on the table, the machine's "thinking" device automatically regulates the forces on the machine in such a way that the reaction, or "back kick", of the model does not change its motion from the required path. This in another advantage which earlier machines did not possess.

Provision has been made for the future addition of another drive at right angles to the first, so that motions of a more general character can be reproduced. It is also possible to add a vertical component to the machine if that becomes necessary in the course of future research.

The Tech Banquet

(Continued from Page 1)

urer; D. H. Rhind, Brusar; Ralph T. Jope, Business Manager of the Technology Review and secretary of the Alumni Advisory Council on Athletics, and J. Rhyne Killian, Editor of the Technology Review.

Student guests expected include John C. Austin, '36, president of the Senior Class; Brenton W. Lowe, '36, Editor of T.E.N.; Dorian Shainin, '36, General Manager of T.E.N.; and John T. Smith, '36, General Manager of Technique.

Senior Dance

(Continued from Page 1)

from 12 to 2 o'clock. This will be the last chance to obtain tickets; none will be sold at the door to the dance!

Patrons and patronesses of the dance will be: Dr. and Mrs. K. T. Compton, Dr. and Mrs. Vannevar Bush, Treasurer and Mrs. Horace S. Ford, Dean Harold E. Lodbell and his mother, Professor and Mrs. Leicester F. Hamilton, Professor and Mrs. James R. Jack, and Mr. and Mrs. John M. Nalle.

The committee in charge of the Senior dance is composed of the following members of the Class of 1936; Scott C. Rethorst, Robert E. Worden, William W. Garth, Robert S. Gillette, and Richard S. DeWolfe.

"Nick" Carter

(Continued from Page 1)

erecting their thesis set-ups.

While giving this interview to The Tech, Mr. Carter was interrupted several times with questions of the following diverse nature: "Where is the 1926 correspondence?" a professor wanted to know. "Nick" drew out a record book from his desk and produced the desired information. "Where can I buy Bakelite tubing?" a thesis student inquired. "Nick" snapped back complete with the address and telephone number of the firm without a moment's hesitation.

Someone wanted an Orsat analyzing apparatus, someone else asked for tool checks, a professor dropped in to find out about the progress of his drawing, an N.Y.A. instructor asked for several reprint articles, a student wanted some work to do all in the short space of one-half hour while we were asking questions. All the matters were attended to with dispatch and the "clearing house" kept running smoothly under the administration of the good-natured "Nick" who boasts that there is less "red tape" in the procuring of supplies in his department than in any other in the school.

Was Errand Boy

Harold Carter came to the Institute in 1919 as an errand boy and electrician's helper. Two years later he was made laboratory assistant in what was then the Research Laboratory of Applied Chemistry. At that time, when Course X was in its infancy, investigators were working on problems for industrial concerns under the direction of William H. Walker, then head of the course.

Does Work of Nine Men

Later on, he was given complete charge of the service department of that division, which comprised a staff of nine men, including a draftsman, a clerk, two laboratory helpers, an errand boy, a stock room boy, and three mechanics. When the work of this staff was curtailed and taken over by the Division of Industrial Cooperation, "Nick", together with Ernest Gustafson, mechanic, took the work of the nine men. Thus is explained the heterogeneous nature of the jobs that he now has to perform.

When the National Youth Administration came into being, "Nick" was given charge of the men assigned to the Chemical Engineering Department, 23 of whom are now engaged in work in connection with various staff members of the department.

"Men folks . . . Humph!"

GRANDMA PERKINS' knitting needles clicked viciously. Humph! Men folks! Always trying to show how much they know!

Well—she gave them a lesson or two about chicken raising. In spite of Zeke and the boys she put some of that new-fangled Cel-O-Glass on the chick pens, just like she read in the paper, and the springers were doing better than they ever did before. Men folks—Humph!

It was the same way with her favorite chair—the old roll-seat rocker. Zeke wanted to throw it out on the woodpile. But Grandma got some Duco Cement, and put the spindles back as good as new. Then she got a can of Duco and brightened it up slick as a whistle.

Grandma Perkins doesn't know anything about Du Pont chemical research—but she got a lot of satisfaction from the three useful Du Pont products that helped show her men folks she's just as spry and smart as ever. In like manner, Du Pont products are making life more complete for people everywhere.

The Pyralin knitting needles clicked again—with satisfaction. They, too, were made by Du Pont.



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