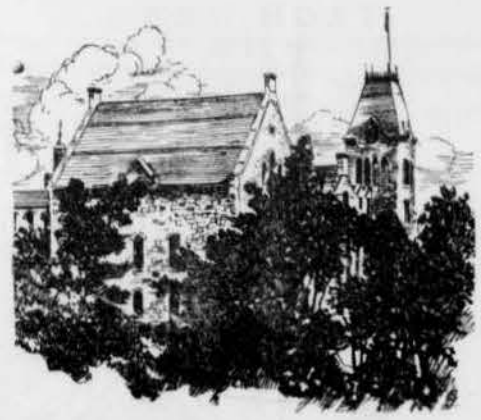
TECH NEWS



VOL. 25 WORCESTER, MASS., APRIL, 17, 1934 NO. 23

THOUSANDS VIEW TECH'S INNER WORKINGS ON "AT HOME DAY"

ELECTRICAL ENGINEERING DEPT. GIVES SPECTACULAR DISPLAY

Physics and Chemistry Departments Also Provide Main Features for Vast Number of Interested Onlookers

CIVIL DISPLAY INCLUDES HYDRAULIC PROJECTS AND SURVEYING INSTRUMENTS

The E. E. Department put on an unusually good exhibit this year, showing practically every phase of the work that is taken up by the students, and probably some more which the students never saw before. The whole building was used to the fullest extent, and was one of the biggest and best displays of Tech's "At Home Day."

In the lecture room, there were shown pictures of sound waves, pictures of electric waves, and the stroboscope. The sound waves attracted particular attention, especially when a record of Guy Lombardo's "A Night on the Water" was played and produced a series of jagged points entirely contrary to the opinion that Lombardo's music is "smooth." Following this, an instrument was demonstrated which showed the difference between the light given off by a bulb operated by alternating current and one operated by a dry cell. The means of detection was sound; when an alternating current was tested, a machine-gun tapping was produced, while a steady current gave a steady hum. The stroboscope is a light (of mercury vapor) which flashes intermittently, each flash lasting but five millionths of a second. The rate at which these flashes occurred could be varied, making it possible to see swiftly moving objects as though they were stationary. In this way, a TECH NEWS on a disc revolving at the rate of 1,750 rpm appeared as if it were standing still, and effects were made on other discs of a ball rolling inside a ring, and a man swinging back and forth—"just like a movie."

The basement contained a display of high-potential phenomena. Here were demonstrated the flash of a high-potential current around a large insulator, a pinwheel driven by electric "wind," the lighting of candles by a high-potential flash, the blowing out of these candles by electric "wind," Corona glow, Roget's spiral, and an illuminated colored water fountain.

Entering the large lab, each visitor was counted by a photo-electric which actuated an electric sign giving a welcome to "At Home Day."

One of the most spectacular displays was the arc from a high-voltage oscillator which in one case acquired an interrupted length of over three feet; this can be better realized when it is known that the voltage was 500,000, and the frequency 2,000,000 cycles per second. Several experiments were performed with this machine, including

(Continued on Page 5, Col. 4)

LITTLE WORLD SERIES STARTS

Intra-mural Baseball Opens With a Galaxy of Stars---A. T. O. and T. U. O. Play April 23rd

The twenty-third of this month will see the first game of another series of intra-mural baseball, a series that has as much, if not more, fun and good sportsmanship than any other of the intra-mural sports. In the preceding years, most of the games have been a comedy of errors with everyone joining in the laughter, including the team's coach.

For the information of those unacquainted with intra-mural baseball, the competition will be among eight fraternities, and each game will consist of five innings to be played after varsity baseball practice.

There is much surmising as to who the possible winner might be. Several of the houses claim to have teams that exceed the ones they had last year and are sure that they have an excellent chance to bring the cup back to their respective houses. L. X. A. won the cup in a playoff with P. S. K. last year.

INTRA-MURAL BASEBALL SCHEDULE—1934

Apr. 23—A. T. O.-T. U. O.
24—S. A. E.-T. X.
25—L. X. A.-Friars.

(Continued on Page 4, Col. 2)

LAMBDA CHI WINS THE BOWLING CUP

Lambda Chi Alpha Wins by Six Points from Phi Sig.

The final matches in the interfraternity bowling series were cleaned up during the last two weeks to give Lambda Chi the annual cup. They clinched the cup by two additional victories; the first over T. U. O. with a score of 4-0, the pinfalls being 1,072 to 969, and the second over A. T. O. to the tune of 3-1 with the low pinfall of 1,036 and 987.

Theta Chi beat Phi Sig in a close but low-scoring match, 3-1, knocking over 1,005 pins to their opponents 998. Phi Gam lost a 3-1 match to A. T. O., winning its one point by a one-pin margin, but nosed out the Friars 3-1 to take fourth place, forcing the Friars back to sixth.

S. A. E., by virtue of its tie with S. O. P. managed to keep out of the cellar. The total pins falling over numbered 1,033 for S. A. E. and 1,029 for S. O. P.

(Concluded on Page 4, Col. 5)

CALENDAR

TUES., APRIL 17—
9:50 A. M.—Chapel Service. Rev. Joseph Rogers.
7:30 P. M.—Masque Rehearsal in Commons Room, S. R. H., Third Act.

WED., APRIL 18—
9:50 A. M.—Chapel Service. Rev. Joseph Rogers.
4:30 P. M.—Band Rehearsal. No School All Day Tomorrow. No Preps Tonight. Plan to Sleep Late.

THURS., APRIL 19—
Patriots' Day—A Holiday.
7:30 P. M.—Start Those Preps Now.

FRI., APRIL 20—
9:50 A. M.—Chapel Service. Rev. Robert J. Nichols.
11:00 A. M.—Fuller Lecture, Charles B. Rugg on "The Engineer and Business Law."
4:30 P. M.—Orchestra Rehearsal.
7:30 P. M.—Masque Rehearsal, First and Second Acts, Common Room, S. R. H.
8:15 P. M.—W. P. I. and Salem State Teachers' College Combined Glee Club Concert and Dance at Alumni Gym.

SAT., APRIL 21—
8:00 P. M.—Dorm Dance, Music by Boyntonians.

MON., APRIL 23—
9:50 A. M.—Chapel Service. Mr. Victor Siegfried.
4:00 P. M.—TECH NEWS Assignments, B-19.
4:30 P. M.—Glee Club Rehearsal.
4:30 P. M.—Intra-mural Baseball; First Game of Series, A. T. O. vs. T. U. O., Alumni Field.

THANK YOU

To Our Student Body:

On behalf of the "At Home Day" Committee I wish to thank our students for the splendid manner in which you worked to bring about the success of "At Home Day." Every student organization responded whole-heartedly. Your loyal cooperation was a splendid example of college spirit and enthusiasm. It has brought us all—students, faculty and alumni—closer together. May I venture to predict that when you have left us and gone to join our Alumni, the part you took in making our 1934 "At Home Day" a success will be one of the pleasant memories of your days on the Hill.

THEODORE H. MORGAN,
Chairman, "At Home Day" Committee.

NEWS ASSIGNMENTS

Monday at 4 P.M.
Boynton

LIBERTY ENGINE BIG FEATURE IN M. E. DEPARTMENT PRESENTATION

Dynamometer and Strength of Materials Prominent Exhibits---Photo-micrographs on Second Floor

PLANS COMPLETED FOR JUNIOR PROM

Committee Has Promised an Enjoyable Evening

Fellow students, take this opportunity and turn the page of your calendar to the month of May. When you get there, mark a circle around May 11. If you don't know what this is all about, well here is the low down. May 11 is the date of the Junior Prom.

We all agree that good functions have good backing. Take it from us, one can't go wrong with the backing of the following committee. "Phil" Sullivan is the chairman and also on the music committee. Swift is the other man teamed up with Sullivan to give the best in music. C. Marshall Dann is in charge of patrons and patronesses. Leonard G. Humphrey, Edward F. Cronin and Richard Stephen Falvey are taking care of the tickets, hall and marvelous decorations. Thomas F. McNulty, Joseph R. Sigda and Charles S. Smith are getting elaborate programs and dazzling favors.

The price to be sure is the most interesting, especially in these times. The Juniors are assessed six dollars. All Juniors not going will pay one dollar and a half and their tickets will be sold to members of other classes in

(Concluded on Page 6, Col. 1)

STUDENTS PLAY HOST TO A. I. E. E.

Student Branch of A. I. E. E. Gives Preview of Exhibits

Thursday evening saw the lecture room of the Electrical Engineering building well filled as the W. P. I. student branch, acted in the role of host to the local section of the A. I. E. E., gave a preview of "At Home Day" exhibits of the department. The meeting was opened by the chairman of the senior section, who turned the meeting over to Professor T. H. Morgan, chairman of the Program Committee. The latter then introduced the president of the student branch, George A. Stevens, who welcomed the visitors in behalf of the student organization. Jerry Basset & Co. then gave a fine demonstration with the stroboscope as he put his collections of pin wheels and gear trains through an amazing variety of undreamed-of gyrations, with Professor Newell's assorted oscillographs as preliminary treat.

(Concluded on Page 6, Col. 2)

ACETYLENE WELDING AND MOLDING COMMENTED ON BY W. P. I.'s VISITORS

After registration and checking, the first exhibit to meet the eye in the Alumni Athletic building was the photographic exhibit in the music room. Prize photos entered in a nation-wide contest were shown including many views of the campus.

Upstairs the band played selections, and the Blue Shirts played the White Shirts in a basketball game.

A life saving class was going for a while in the pool. They demonstrated different methods of approaching a subject, ways of breaking holds. This class which is not required, is an annual feature.

The members of the Rifle Club kept the ranges open most of the afternoon, and the bowling alleys were in constant use.

In the early evening, the guests were invited to the banquet at Sanford Riley Hall, the dormitory. Speeches were made by different alumni interspersed with selections by the Glee Club and the orchestra. It is estimated that three hundred and fifty guests were cared for in the dining room.

THE "TECH NEWS" EXHIBIT

The TECH NEWS held an interesting exhibit at the east end of the basketball floor in the gym. A temporary office was set up with bound copies of the TECH NEWS on display. All during the afternoon and evening, the reporters were busy visiting the different features of the Exposition, getting ready to write it up. During the late afternoon the write-ups were read and reread, words counted, head lines composed. In short, the greatest part of the work of making up this issue of the TECH NEWS was accomplished on Saturday. Under ordinary conditions, with the "At Home Day" so late in the week, this news could not have been written up, but the entire staff cooperated like clockwork to get real news into the earliest possible issue. Every visitor was offered a copy of the Brown issue, a special feature not ordinarily printed for this paper, a souvenir that will remind them of their trip in the future days.

A person entering the Mechanical Engineering Building by the West Street door at any time after two o'clock on Saturday afternoon, would have been greeted with a nerve-wracking thunder. This came from the exhaust of the big liberty engine. This motor was donated by the United States Navy. In the northwest corner of the same floor was the Marmon and

(Concluded on Page 5, Col. 2)

TECH NEWS

Published every Tuesday of the College Year by
The Tech News Association of the Worcester Polytechnic Institute

NEWS PHONES { Editorial 3-9411 / Business 3-9094

EDITOR-IN-CHIEF
Leonard G. Humphrey, Jr., '35

MANAGING EDITOR
Homer R. Morrison, '35

BUSINESS MANAGER
H. Victor Leckie, Jr., '35

NEWS EDITOR
Charles S. Smith, '35

ASSOCIATE EDITOR
C. Marshall Dann, '35

SECRETARY
C. Gordon Lincoln, '35

CIRCULATION MANAGER
Richard P. Merriam, '35

JUNIOR EDITORS
H. T. Anderson, Jr., '36 — C. E. Leech, '36 — R. A. Morrill, '36
K. D. Eastman, '36 — R. A. Langer, '36 — G. A. Sherwin, '36

JR. FEATURE EDITOR
H. N. Pierson, '36

BUSINESS ASSISTANTS
T. C. Frary, '36 — W. R. Hannah, '36

REPORTER
J. B. Sutliffe, '37

TERMS
Subscriptions per year, $2.00; single copies, $0.10. Make all checks payable to Business Manager. Entered as second class matter, September 21, 1910, at the postoffice in Worcester, Mass., under the Act of March 3, 1897.
All subscriptions expire at the close of the college year.

THE HEFFERNAN PRESS
Worcester, Mass.

April 17, 1934

AT HOME DAY A SUCCESS

Once again Tech returns to a normal atmosphere after playing host to several thousand guests who came to visit her last Saturday. One of the most successful "At Home Days" ever put on was the result of the hard work, thoughtfulness and planning of the faculty and the students. Credit is due to all those who participated in it and to those who helped to put it over.

The work of the individual departments was also very interesting to watch, both from a spectator's viewpoint and from a student's viewpoint. Competition was keen and the little extra points or exhibitions that materialized at the eleventh hour were amazing. However, there were some of these departments that certainly lead the rest. With all due credit to the rest of the departments and to those who certainly did a lot in these other various departments, the Electrical Engineering Department was the most outstanding in all ways. From Thursday evening to Saturday evening this department went through its demonstrations in a manner befitting a trained seal. Congratulations are in order to this department and most of all to its head, Professor Morgan, who not only ran the entire show but put on a highly entertaining performance.

The reception afforded to the visitors who made the trip out to Chaffins was highly praised from one end of the Hill to the other. Congrats to you, Charlie, you certainly kept up the fine work.

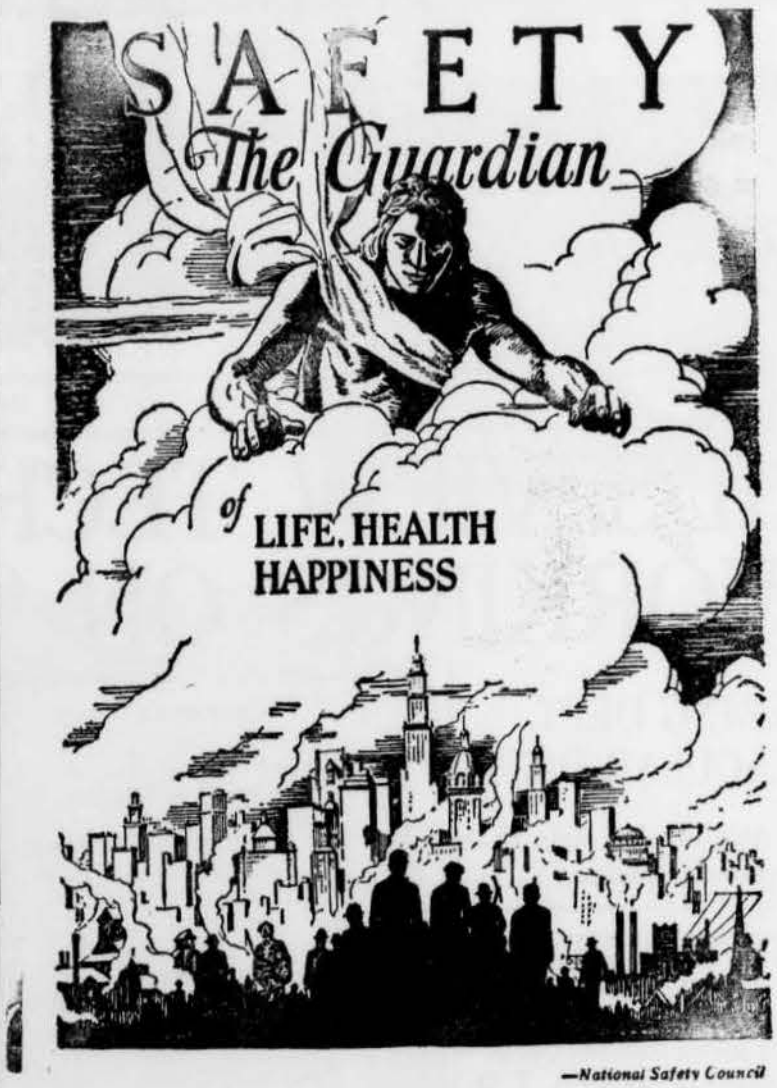
One of the new features this year which added considerably to the success of all the exhibitions was the system of guides, admirably managed by Paul Swan. Groups of visitors were in this way enabled to take in the main points of interest and to see many exhibits which they would otherwise have missed. The entire student body, with few exceptions, pitched in nobly and helped out the faculty with their excellent work.

It seems certain that the demonstration will be a real help to Tech, not only in attracting quite a few high school boys to help swell the enrollment, but also in giving us some of the long deserved publicity which we have failed to receive.

ARE YOU A GENTLEMAN?

If the average Tech student was asked this question, he would undoubtedly answer in the affirmative. Yet, if he would stop and consider the true meaning of the word "gentleman," he would probably be unable to truthfully give an affirmative answer. A good common-sense definition of a gentleman is "one who can conduct himself properly under any variable circumstances." We mean by this, one who would be a credit to himself at home, in classes, on the athletic field or wherever he might be. By this definition we see that refinement, decency, and fair play are all characteristics of a gentleman.

The reaction probably will be,—"Sure, I have cultural manners, I play fair in athletics,—why, then, am I not a gentleman?" But,—do we stop and consider that fair play and decency must be carried out under all circumstances if we are to consider ourselves gentlemen? It is not only in our hostess's drawing room or on the athletic field that we must carry on creditably, it is wherever we may be. What then, is the trouble? Where are we deficient in these qualities? The answer is—in our class lectures. We always hear some crank "crabbing" about an instructor or professor who doesn't "give a fellow a break" but this same fellow does not appreciate a "break" when he gets one. He doesn't know the principles of fair play. When we have an instructor or professor who tries to make things pleasant and agreeable in every manner that he possibly can, there are multitudes of self-styled gentlemen who make things just as disagreeable and difficult for the one conducting the lecture as they are able. Does this seem like fair play and decency? Is it right to take advantage of a person's good nature and thoughtfulness? Any normal person would immediately say that it is not right, it is not fair nor is it decent. Yet why do so many of us always seize such an opportunity to give vent to all our hilarious feelings? One good turn deserves another is a very sensible maxim and we are sure that a few less cat-calls and crude outbursts would be a pleasant turn for some of our professors. We still can have our fun without taking it all out on one good soul. It would seem that the conscience ought to guide one in a case like this but results show that the conscience has utterly failed. So we make this an appeal to everyone to be more respectful, fair, and decent Let's be square-shooters, be fellows such that we can call ourselves thorough gentlemen.



—National Safety Council

Safety can be applied to activities on the Hill as well as to the highways and other sources of ordinary danger. We are exceptionally fortunate, here at Tech, in the scant number of accidents which occur. However, with all our different laboratory courses there remains a probability of accidents. The machine shop, the pattern shop, the M. E. Laboratory experiments, the E. E. Laboratory work and the Chemistry Laboratory work are all sources of danger unless one is cautious. The one outstanding cause of injuries is **carelessness.** If instructions are followed faithfully, the probability of accidents occurring is nearly negligible. Let us try to be cautious in our laboratory work. Don't try some stunt to see what happens. The fellow who "fools around" is likely to get an unpleasant surprise. Be SENSIBLE!

CAMPUS LOW-DOWN

We saw some pretty wry faces last Wednesday after marks came. But cheer up fellows for a term card of one of the faculty slipped out of a book in the Civil Library the other day. It might be a good idea to examine these marks and then figure out how he made Tau Beta Pi.

C. E.	46
Lang.	75
Math. 3	58
M E. 22	60
Physics	61
Phys. Ed.	95

Those certain sophomores who received "F" in Phys. Ed. ought to get together and see how they did it in the good old days, too.

* * *

"Hello, is this the maternity doctor? Well, come over right away, please." This is a snatch of the conversation that came out of a certain fraternity house the other night. The patient was none other than that sentimental gentleman from Washington. His big pal was that "smooth" senior who has been sporting a "W" lately. Probably hearing that "Mike" had a stiff neck made him forget himself for the moment.

* * *

From the same fraternity none other than that stellar inter-fraternity 220-yard swimmer had a wild dream Friday night and jumped up and down on his bed till he broke it. He spent the next hour and a half running up and down stairs looking alternately for his mattress, pillow, springs, and good-nature.

* * *

A sophomore Physics class were conducting an independent experiment the other day on light before class. The set-up was the Physics lecture room completely dark. They tell me the subject of the experiment was "Slips

(Concluded on Page 3, Col. 5)

OPEN FORUM

This is intended as a rebuke to "What Price Athletics," an editorial of the April 3 issue.

The price for playing the game at Tech is not too high. Where the editorial writer obtained the authority for saying the general consensus of opinion is "Yes" he leaves vague. Having been a very close follower of Tech sports for the last four years, I challenge the statement altogether.

Perhaps the best answers to all the allegations of the NEWS writer are contained in an interview between Coach Pete Bigler and a sports writer of the "Worcester Evening Post," published in that paper in March of last year. The story deals with football in particular, but I believe it reflects definitely the consensus of opinion in all athletics on the hill.

I quote from the story in part:

"Football may be a drudgery to some college players (probably of the type of the NEWS editorial writer) but Worcester Tech gridsters found that the grid season was enjoyable, judging from the answers they filed to a questionnaire submitted by the athletic officials.

"If there is one school in this vicinity where the game would be a drudgery, it would be at Tech, because of the strict scholastic requirements, the long hours needed to keep up in the work, the lack of incentive of huge crowds, newspaper publicity, and other factors that might tend to compensate a player at some other institution.

"Not only did every player of the eighteen who responded to the questionnaire respond favorably to that question, but some even went to the extent to comment on the question. One player remarked that he was sorry it was his last year of competition and another added, 'very much' to his answer in the affirmative.

"The answers to the questions were enlightening, proved that college boys like sports and that they play chiefly for the fun obtained from the competition and that exercise, physical benefit, love of the game, and not any kind of compulsion prompted their participation in football."

I emphasize this paragraph especially. If the players themselves do not think the price of playing is too high, who then has a right to think so? Thus, my reason for challenging that first statement of the NEWS writer.

A bit further along in the "Post" story is a paragraph which throws some light on the reason for the NEWS man for making his assertions. I quote again:

"In answer to the question about the causes for playing the game, the players were asked to answer each subdivision. Ten replied they played for the exercise as well as for other reasons, nine because of the physical benefit derived, thirteen for the love of the game.

"No one replied that he played because of fraternity pressure or for the lack of something else to do, but some of the boys were frank enough to admit that they played partly for the glory of playing, this answer coming from a quartet. (The plot thickens.) Four also played because of the opportunity to win a "W" and four because of Alma Mater. In the last three subdivisions of the question these boys also said that they played as well for the physical benefit, the love of the game or for the exercise."

Next comes a paragraph which hits directly at the type of fellow which the NEWS writer seems to be championing. Quoting again:

"One player, in answer to the question of playing for glory, facetiously remarked, 'You can't get any glory sitting on a bench.' Evidently he wore out more of the 'seat of his football pants than he did other parts of his regalia."

And now for the grand finale—the direct denial of the intimated reason for the Sigma Beta clause in the NEWS.

"Another interesting angle to the football reaction at Tech was the answer to the question, 'Can you study as well during the season as at any other time?'

"Ten replied they could, four said they could study better (what ho!) another said 'never' and one boy said that he could study as well but had less time."

S'nuff, ain't it?

Thanks for the space,

EDWARD E. JAFFEE, '36.

BASEBALL SEASON LOOKS PROMISING

First Game Here the 24th With New Hampshire State

Saturday the twenty-fourth will open the Tech baseball season with a game on the home field against New Hampshire State. This premiere will start what promises to be a series of interesting games.

The men whom Pete has retained on the squad are: Captain Roy Driscoll, Andy Sandquist, Francis Harvey, Ray Starrett, Al Cantor, Spitz Bottcher, Kommy Koziol, Jack Casey, Floyd Hibbard, Charlie Smith, Ray DesRochers, Dick Howes, Evan Luce, Orin Lee, Art Moossa, Zack Taylor, and Henry Mieczkowski.

Roy Driscoll and Andy Sandquist, both varsity pitchers, along with Harvey, a promising hurler from St. John's High, are putting the ball in the groove, and look good.

Starrett and Taylor are on the receiving end. Ray was the varsity catcher for the last year's nine, and Taylor has had a lot of experience in prep school.

Hibbard at first and Bottcher at short are "fixed" now. Second and third are still indefinite, although Moossa and Howes, respectively, seem to work the best. However, they are getting much competition from Smith, Casey, and Luce.

CAMPUS LOWDOWN

(Continued from Page 2, Col. 5)

that pass in the night," or sumpin'. One student came and saw and went home. The instructor, however, came, saw, and conquered although he did have trouble finding the lights. Incidentally, the class is still in the dark about the subject.

LIBRARY NOTES

Editor's note: Lady Montague once remarked that "No entertainment is so cheap as reading, nor any pleasure so lasting." On the shelves of the libraries here on the Hill are vast stores of knowledge and entertainment. The pleasure and value of these libraries is there for the taking. In order that the students may be better informed as to the contents of the books and magazines contained therein, that they may take better advantage of their potentialities, the TECH NEWS has requested Miss Haynes to furnish each week bits of information regarding new books and various other sources of interesting and informative knowledge. This she has willingly agreed to do and this column will be a regular feature of the NEWS each week. We wish to take this opportunity to thank Miss Haynes for her efforts and to express the hope that students will be better informed and hence better equipped to take advantage of the possibilities contained in the rooms over which she has jurisdiction.

Although our libraries here on the Hill contain vast stores for serious study, they also hold much for pure pleasure. Spears' "Old Landmarks and Historic Spots of Worcester" will tempt the reader to make an interesting tour of Worcester without cost except for time and shoe leather.

INTRAMURAL BASEBALL

(Continued from Page 1, Col. 2)

26—P. S. K.-P. G. D.
27—A. T. O.-T. X.
30—S. A. E.-T. U. O.
May 1—L. X. A.-P. G. D.
2—P. S. K-Friars.
3—T. X.-P. G. D.
4—T. U. O.-Friars.
7—L. X. A.-S. A. E.
9—P. S. K.-A. T. O.
10—T. X.-Friars.
11—T. U. O.-P. G. D.
14—L. X. A.-A. T. O.
15—P. S. K.-S. A. E.
16—P. G. D.-Friars.
17—S. A. E.-A. T. O.
18—T. U. O.-T. X.
21—P. S. K.-L. X. A.
22—A. T. O.-P. G. D.
23—S. A. E.-Friars.
24—L. X. A.-T. U. O.
25—P. S. K.-T. X.
28—A. T. O.-Friars at 4:30; S. A. E.-P. G. D. at 5:30.
31—L. X. A.-T. X. at 4:30; P. S. K.-T. U. O. at 5:30.

Rules:

Any student holding a varsity baseball "W" shall not be eligible.

Any student retained on the varsity squad after the final cut shall not be eligible at any time during the series.

All games shall consist of five innings and shall start promptly after varsity practice.

Any request for postponement shall be made at the gymnasium office at least twenty-four hours in advance.

The Physical Education Department will furnish two balls for each game and the winning captain shall return one after the game and report the score.

INTRAMURAL BOWLING

(Continued from Page 1, Col. 2)

Final standing:

	Won	Lost
L. X. A.	26	6
P. S. K.	20	12
T. X.	18	14
P. G. D.	17	15
A. T. O.	16	16
Friars	15	17
T. U. O.	14	18
S. A. E.	10	22
S. O. P.	8	24

FRACHAT

P. G. D.

We most certainly had a full house Saturday night, in fact, it might aptly be termed overflowing. There were eighteen overnight guests, the majority of them being prospective students here. Twelve of these young fellows came from the vicinity of New York City, the rest from various places.

Among the brothers who came back for the big day were: Wayne Keith, '22, Brockton, Mass.,; Kenneth Fryer, '30, Willimantic, Conn.; Chandler W. Jones, '26, Falmouth, Mass.; John T. Wenzel, Jr., '23, Yonkers, N. Y.; F. C. Bragg, '24, Bristol, R. I.; and Leon D. Skuropat, '31, Philadelphia, Pa.

L. X. A.

While experimenting with high voltage charge secured by combing "Fitz" Hyatt's head, "Don" MacMillan suggested they do something practical. Thereupon he produced a small neon bulb and the process of generating light commenced. The process was not actually as technical as that formally performed by the great Edison, but it was fully as exciting. The whole affair was easy. It appeared that the bulb would glow at a variable frequency depending upon the rapidity of Hyatt's charges. The boys haven't decided yet where they can light the whole house; but if the neighborhood cats are missing we'll know there is something doing.

Among the alumni back on "At Home Day," were Harold Perkins, "Bum" Doubleday, Paul Nelson, "Roy" Nyquest, Frank Roberts, and "Don" Haskins.

P. S. K.

The graduate student spent his vacation in the big city and then came back to rest up. From what he says Club Hollywood is quite a place. It looks like we will have plenty of tall stories now for a while. Another brother thought it was kind of cold out in front of the house Friday night, and expressed his feelings in no mean terms to a group sitting in the car—was his face red? The boys have turned their attention from make-ups and contract and are now playing, "Come out, come out, wherever you are!" See Erick for details.

Several have been rising quite early lately too. (Nothing less than initiation proceedings could have caused that.) While we are on the subject, C. J.'s arm is improving.

We hear the red head brought his model T back louder and funnier. We cannot forget to mention the Sophomore that came home from a "blind" with the girl's "hanky," belt, hat, dance order, and salt shaker, not to mention most of the lipstick too. For all you who are interested, the "Wheezer" claims he was hit on the lip with a baseball.

Bro. Dunbar of Alpha chapter was a visitor at the house recently.

T. U. O.

The week-end proved a busy one here in the house with guests almost out-numbering the students. Families and friends were present in number and brothers of brothers kept almost everyone confused. Among the alumni who dropped in were, Roland Packard, '08, Herbert Morse, '11, with family, Russ Sibley, '31, Carl Rylader, '32, T. D. Hayes, '07, Cliff Martinka, Ex-'35, John Wells, '30, as well as many other local alumni.

It is also reported from some obscure source that "Baron" Crane, Ex-'33, showed his head within the doors sometime during the evening and kept brothers and guests considerably amused with his stories etc.

Many tired men dropped into strange beds, to suffer the torture of interrupted sleep, but the night went on. As may have been noticed by some,

(Continued on Col. 3)

M. D. EXHIBITS

(Continued from Page 1, Col. 5)

the dynamometer. Fifteen gallons of aviation high test gasoline had been provided to run the motors, and it is safe to say that little was left by ten o'clock of that evening.

In the Strength of Materials Laboratory there were three pieces of apparatus that were being demonstrated. The first was a "Repeated-Impact Machine." This machine exerted a blow on the same spot on a bar of iron. By three o'clock the apparatus had registered nearly 60,000 blows on alternate sides of the test bar. This machine was designed by a Japanese engineer. A second testing machine stretched bars of test specimens. These specimens were turned out on a metal working lathe, and the smallest diameter aimed at by the students turning them out was .5000" with an error not in excess of 0.0005 inches. One sample tested withstood a stretching tension of 8,000 pounds. It then "necked in" and snapped.

Upstairs in the General Laboratories were microscopes and slides for study of the crystalline structure of different alloys and states of tempering and heat treatment of steel. In the commercial world untreated cast iron is of two varieties, gray cast iron and white cast iron. The first of these has been used extensively where amount of weight is not important but where considerable mass is desired. Large diameter pipes and automobile cylinder blocks are made of this variety of cast iron. White cast iron is used where hardness without tensile strength is necessary.

The Washburn Shops demonstrated the metal and wood-working department by students and instructors operating the machines. The greatest interest for everyone was in the Aeronautics Department. A Navy seaplane is set up, and a ladder placed along side of the cockpits so that people could look in and see the dash board and the controls. The younger visitors being more adventurous climbed into the cockpits, and derived satisfaction from operating the controls. One of the demonstrators operated a model in a wind stream practically flying the plane. The wind tunnel while a valuable adjunct to the equipment of the Institute was not of such general interest.

THE FORGE SHOP

Across from the Mechanical Engineering Building, next to the Washburn Shops is the Forge Department. Here electric arc and acetylene welding and acetylene cutting were demonstrated by two Sophomores. Samples of different types of welds were shown on the welding benches.

THE FOUNDRY

So great was the interest shown in the foundry that Mr. Gray, the Superintendent, had some difficulty in getting the floor of the shop cleared so that he could go ahead with the pouring. The molds were poured, and the castings dumped. Men at the snagging wheels were kept busy, trimming up castings of the seals of the Institute. It is rumored that four hundred of these were given out, and the cry for more was persistent. The instructors of Pattern Shop and Foundry deserve credit for thinking up and executing such fine souvenirs for our visitors.

The Mathematics Department decorated the blackboards with curves of different mathematical equations, some solved by Analytic (Algebraic) Geometry, and others by Calculus. One of the most complex was the graph of the curve which represents the modulated carrier wave in radio. The parabolic arch, the ellipse by the auxiliary circle method, and the equilateral hyperbola by the strip method were some of the simpler and more common curves. There were also Geometric figures showing how volumes of the intersections of solids could be calculated. The most interesting exhibit was the machines, some part of which traced curves on glass. A one-sixth degree equation with unusual bends and twists was made by a machine of three pieces, two arms pivoted on their ends, with the other ends fastened to either of the equal angles of a tall isosceles triangle.

Another department at this school which received much attention during the "At Home Day" festivities here on Saturday was the Alden Hydraulic Laboratories, at Chaffins. Upwards of a thousand of the day's visitors took time to look over the plant and learn why Tech has gained nation-wide prominence because of it. All the equipment was in operation and numerous student guides were present to explain any detail of operation which interested those visiting the plant.

A method of measuring the flow of water in a pipe line, which was devised several years ago by Prof. Charles M. Allen by means of injection of salt water into a line and then observing the rapidity with which lights set along the pipe light up. Prof. Allen explained that salt water, being a good conducter, enabled the electricity to light up the lamps as the salt water reached the various points along its route. Another method for making the same study in an open spillway was also demonstrated. A travelling screen, mounted on bicycle tires travelling on the wall alongside the traveling water, is dropped into the water and the speed of the device determines the velocity of the water.

The model of the Rock Island project in the Columbia River which is to one hundredth full scale attracted much attention from those present. Every detail of the original is perfect on the model scale. The contours of the river bed as well as the rapids and velocity of the water have been carefully copied.

Methods of making a study of the flow of gases in an engine manifold were shown by the use of water and colored dyes. Student experiments showed means of studying the flow of fluids in elbows.

Differential surge tanks, with special head measuring devices; circular current meter stations; over shot water wheels; and models of other commercial hydraulic structures were all in operation and demonstration.

Two busses were run to the plant from the Institute and many hundreds of guests visited the laboratories.

VISITORS' COMMENTS

We are printing a comment that a visitor was kind enough to voluntarily submit to the NEWS office in the gymnasium. There will be a few more next week.

To the Editor:

On coming to the campus of Worcester Tech, we of the Scarsdale contingent were first of all considerably impressed by the spirit of amity and centered co-operation that seems to prevail all over the "Hill." Speaking more positively, in our wandering among the exhibits and apparatus, we discovered that here was a world of solid useful material for the engineers of the future. We believe that in this smaller group a firm foundation may be laid as well as among activities of a pleasing social order.

Signed,

ROBERT CHANNING BURTON
JOHN GARRETSON REMSEN
HUBERT PRIDE YOUNG

FRACHAT

(Continued from Col. 1)

we are again attempting the growth of grass which some day may become a "lawn." Unfortunately we are not so successful as the auditorium which seems to be able to have a lawn overnight. Some day, who knows we may be able to put up another fence in self-preservation or protection.

E. E. DEPT. EXHIBIT

(Continued from Page 1, Col. 1)

the boring of holes in wood, the manufacture of beautiful long corona, the illumination of a twelve-foot chain gap, and the jump of a twelve-inch spark to an electrode held by one of the instructors, who was luckily well insulated. All in all, this display drew one of the largest crowds in the E. E. exhibit.

Another device around which was gathered a goodly number of visitors was the rising arc which started near the floor between two wires and slowly rose in a delicate blaze to the roof trusses thirty feet above. Then there was a strength tester, consisting of a D. C. generator to be cranked by the strong men; a measure of the current generated gave a measure of the strength put into the crank. Last but not least of the floor exhibits was the drinking fountain automatically operated by a photoelectric cell when a thirsty person's head was bent over the fountain.

In the balcony and upper rooms of the E. E. building there were still more attractions for prospective engineers. In the balcony, there was an aluminum plate supported in the air by eddy currents from an electro-magnet, and further along there was an electrostatic machine producing an eleven and three quarters inch spark with 650,000 volts.

The rooms of the balcony held still more machines. One of these was "Nero, the mechanical dog." This toy would jump forward to a whistle in the microphone, and crouch back when spoken to, all depending on the frequency of the tone with which he was spoken to. Several outsiders tried but failed to get away with a fifty cent piece in a burglar-proof cage, viewed the effects of ultra-violet light on an oil painting, and saw the history of modern lighting.

Taken as a whole, the E. E. exhibit was a lot of work, but it certainly did its part in making "At Home Day" a success. A great deal of credit should go to those men who worked so hard to put it over.

The Salisbury Building Saturday afternoon and evening was the scene of much activity. The Physics department with its interesting exhibits was perhaps the most populated. Through the combined efforts of Mr. Tarbox and Mr. Lawton the visitors spent an enjoyable fifteen minutes watching what every Freshman sees performed during his first year at Tech. Among the displays were the transformation of heat energy into sound. A copper gauze in a long pipe was heated by a gas flame and when the heat was withdrawn, a booming sound was heard. Perhaps what the visitors enjoyed most was watching Mr. Tarbox play a tune on a cornet by using compressed air forced through a revolving disc filled with holes, which caused notes of different frequencies to issue. The flame that hears was one of the most interesting displays. It seemed to answer the age old question, "If a tree fell in the forest and no one was there to hear it, would there be any sound?" This flame was sensitive to any sound, jumping up and down when any sound was made; even being sensitive to frequencies beyond the range of the human ear. Among the other exhibitions were the effects of electro-magnetic fields and the vibrations set up in metals or other substances by rubbing them.

For its part in "At Home Day," the Chemistry Department showed the theses of several of the Seniors. The one which seemed to attract the most attention was that by Mr. Narcus on the effects of different sizes and kinds of orifices on the flow of liquids in pipe lines. What it most looked like on first sight was a large centipede with glass legs. However, closer examination showed the set-up to be a long pipe fitted at intervals with orifices through which water was flowing. At these points glass tubes were attached and these in turn attached to a manometer which measured the pressure of the water flowing through the orifices. From these values the velocity of the water could be calculated. This study is of interest to certain industries in that if an orifice could be placed at the bottom of a pipe through which liquid was flowing, without decreasing the velocity appreciably it would be a great advantage, for if the liquid contains any residue it usually piles up behind the orifice and blocks it when it is in the middle of the pipe.

Mr. Tashjian and Mr. Kurtz had an apparatus consisting of two pipes one inside the other, one conducting steam and the other carrying water. At several points along the line copper-constantin thermocouples were inserted in the pipes to measure the heat transfer. It has been found that a thin layer of water adhering to the inside of the pipe offers more resistance to the transfer of heat than either of the two pipes. This film of water was broken by vibrating the pipe.

The collection of minerals in the Mineralogy Laboratory attracted a good deal of interest from those interested in the subject as well as from those not especially taken with it. "Honk" Fuller's "Bug Ranch" also came in for more than its share of visitors and interested comment.

In the Chemistry lecture room the visitors were able to sit down and enjoy the showing of motion pictures on digestion and bacteria. Demonstrations were also made of the tests used in the detection of polluted milk and of chemiluminescence.

The exhibits in the Salisbury Laboratories continued from two p. m. till ten p. m. and although the demonstrations were not as spectacular as those offered by several of the other departments, they were thoroughly enjoyed by all who saw them.

The Civil Engineering Department had a very interesting display of the results of its work to show the thousands of visitors on "At Home Day." There were maps of surveyed areas, buildings and bridge arches. One of the most interesting of these maps was a plan of the Tennessee River Valley Project. This is now a government project. The benefits from this are to be far reaching. They include cheaper power, and water, it will help in flood control, prevent soil-erosion, increase the standard of living, assist in the development of the adjacent natural resources, and will consolidate the county governments. This is one of the largest developments that has been carried out in the country.

The Civil Engineering Department also had several models on display. There was a model showing the details of construction of a mill. Several relief maps were there, one explaining the way Worcester receives its water, and the other showing a model traffic system. There were displays of surveying and calculating instruments.

The most spectacular was a model of the Fifteen-Mile Falls Development, of the New England Power Company. A Motion Picture showed the construction of Boulder Dam. There was a display of the development of the bridge, and the development of railroad transportation. The construction of a concrete bridge was shown by sectioned perspective drawings.

A chart showing the exact hours spent by students in their different Civil Engineering subjects, was shown drawn to scale and forming an arch.

NOTICE

The TECH NEWS Staff is desirous of obtaining several copies of issue No. 9, Vol. 25 dated November 29, 1933. Please leave them in the NEWS Box in Boynton Hall or turn them over to any member of the Staff.

We thank you!

JUNIOR PROM

(Continued from Page 1, Col. 4)

the Institute for four dollars and a half.

The place where this stupendous, colossal, gigantic time is to be held is down at the palatial ballroom of the Bancroft Hotel in this beautiful city of Worcester. Dancing is to be held from ten p. m. to three a. m. Tickets go on sale next Tuesday.

The band to play at the Prom will be Jack Miles and his "Band of Bands." Jack Miles, the leader, came into the public spotlight when he was the feature of Guy Lombardo's orchestra back in 1925. He left this organization to build his own band in order to carry out his own ideas. It is needless to say anyone having heard his band either over the air or in any of the places that they have played in the past such as: The Golden Pheasant, Cleveland; Granda Cafe, Chicago; Lowry Hotel in St. Paul, Belleneve Hotel in Kansas City, The Ten Eyck in Albany, Silver Slipper in Memphis, King's Cafe in Cleveland and many others will truly agree that it is the "Band of Bands."

Jack has made a recent addition to his orchestra, namely, Marge Toll. If you have not heard her over the air, by all means hear her in person. Her voice just fits with Jack's style of music.

From all predictions this year's Prom is to be finer and better than ever, so plan to attend.

A. I. E. E. PREVIEWS

(Continued from Page 1, Col. 4)

So large was the gathering that the party was divided, one group strolling down to the Hi-Pot Laboratory to view corona and flashover tests on insulators, and the illuminated fountain, while the party of the second part climbed to the Design Room illuminated by neon, sodium vapor, and ultra-violet lamps, and a host of other light bulbs. Joining forces again, both groups explored the gallery of the general laboratory, where Messrs. Reed and Basset alternately lit or blew out various light bulbs held in their fingers—phenomena apparently dependent entirely on their glowing personalities. Perhaps their million-cycle oscillator had something to do with it, as others soon mastered the trick. Then there was Eddie Milde's silk belt electrostatic generator, that would arc three inches when the crowd was there, and then jump over eleven inches when only a few were on hand to watch; a good sized electro-magnet and a mysterious aluminum plate that floated in thin air under the hand of Sullivan and Egan, and another cathode ray oscillograph that showed what speech looks like.

By this time the fireworks on the main floor were in full swing, and the crowd trooped down to watch the high voltage machine sponsored by Professor Seigfried and the P. G.'s sputter and spark. A rather striking effect was achieved by breaking the arc up into smaller sections several dozen in number. Meanwhile Bill Locke's Ladder Gap sent loops of crackling flames climbing from the floor to the very eaves, while close at hand a shiny silver half dollar lay exposed to the general public. But it was still there when the last person had gone home, for a sensitive relay effectively announces and traps anyone with suspicious intentions who reaches into the cage. Rumor hath it that the four bits is pretty well welded to the table anyhow, should the relay fail.

"Nervous Nero," the department mascot, was on hand. He advances when you whistle to him, but a growl sets him back upon his haunches. Other exhibits included the automatic drinking fountain and the welcome sign, actuated by photo-electric tubes.

The show contained not only things electrical but horticultural as well. Led by the guides, the gathering crowded to the library, there to gaze upon the rare species of Clevia now in full bloom. This exhibit, without equal in the country, is under the personal charge of John Anderson, janitor extraordinary, who spoke a few words befitting of the occasion.

It was aften ten o'clock when the last of the one-hundred-sixty-odd visitors quit the building. The enthusiastic response of the gathering seemed to augur well for the coming Saturday, and should the prophecy be fulfilled, the finest "At Home Day" ever is in store for the Institute.

GLEANINGS

(NSFA)—Two theological students at a Texas university turned bandits so that they could get enough money to continue their studies for the ministry. They got five years in prison instead of the D. D.

* * * *

(NSFA)—A report by Herbert Taylor, chairman of the bad check committee, revealed that a total of 865 checks were returned on students last year. The total amount involved was $6,422.29.—North Carolina Tar Heel.