

# TECH NEWS



VOL. XV.

WORCESTER, MASS. JAN. 15, 1924

No. 14

## TECH GRADUATE DESIGNS MACHINERY FOR STONE MOUNTAIN MEMORIAL

To Be the Lone Wonder of the World  
 SIX TO EIGHT YEARS TO COMPLETE

Overshadowing in its immensity all the great works of art which man has produced, Stone Mountain Memorial will take its place as the "lone wonder of the world." Although it will surpass in grandeur the pyramids of Egypt, which required decades in their construction, this memorial will be completed within seven years. This is a fine tribute to modern engineering practice, and it is with great pride that we note that Harry E. Scott, W. P. L. '99, is engineer in charge of the design and construction of the machinery to be used on the project.

Stone Mountain is about sixteen miles east of Atlanta, Georgia, and is the largest solid body of granite in the world and its foundations underlie almost half the state of Georgia.

On one side the mountain drops in a sheer perpendicular precipice almost a thousand feet from summit to base. Across this face, Gutson Borghum, the noted sculptor, is engraving an indistructible monument to those who gave their all for the Southern Confederacy. The work is to be about 1350 feet long. Carved in full relief will be a panorama, representing the Confederate armies mobilizing around their leaders. There are to be groups of artillery, horsemen, and long ranks of infantrymen. The center will be taken by an enormous representation of General Lee. His head alone will cover an area thirty feet square. Around him in somewhat smaller proportions will be the figures of other Southern leaders. The whole panorama will contain about 700 figures.

The entire memorial will also include a Memorial Hall and amphitheatre. The former will be quarried

out of the mountain immediately beneath the central groups. The amphitheatre will be a huge granite structure resembling the Coliseum.

The construction is very interesting. The figures of the central group were projected by means of a powerful lantern onto the face of the cliff. This was done at night, and men suspended by steel cables, painted in the outlines of the figures on the rock.

An ingenious device by which the work can be accomplished with comparative safety and ease has been perfected by Mr. Scott. A long boom derrick was placed above the point where the first carving was to be done. This derrick was used to place a row of steel trusses in the face of the cliff at right angles to it. A track will be laid over these trusses, upon which a travelling crane will operate.

Under this is an inverted tower on a turntable to which is attached a pantograph, an instrument by means of which patterns may be traced.

This allows a wide range of movement in all directions. The whole apparatus is electrically operated and controlled by one man on the working platform.

No blasting can be done, so all drilling is done with compressed air operated tools.

The whole country both North and South is interested in its development and more than \$3,500,000 has been donated.

A more complete account of the work may be obtained from the Journal, which also contains interesting pictures and sketches.

## SECONDS ARE NOSED OUT

Boys' Club Shows Come-Back  
 SCORE IS 22 - 15

In a game replete with fast, accurate passwork by the Boy's Club and close guarding by both teams, the Tech Seconds were nosed out last Saturday night in the preliminary to the Tufts-Tech game. The Seconds showed the best form they have yet displayed, and the game saw-sawed back and forth with Tech taking the lead just before the half, but losing it again in the second period, when the Boy's Club put up a wonderful fight, outscoring the second team by 17 points to 4.

The game began with the Tech Seconds putting up a stubborn defense, but soon the forwards of the Tech team began to work and Harris rang the bell with a clean shot. Kasper evened matters soon afterwards and went Harris one better by getting another basket within a few minutes. However, Harris was still in the running and he tied the score at 4 all. The guarding of Wright and Calder was the feature of this part of the game with the all round playing of the Boy's Club. Before the half ended, Calder and Dimick rolled up what seemed an insurmountable lead for the Seconds, the former caging two pretty long heaves and the latter making a basket on a follow up shot. The Boy's Club fought hard to even things in this half but Tom Wright was all over the floor, spoiling many accurate passes. The half ended with Tech in the lead 11-5.

The second period had hardly begun when Foley scored a couple of points on a pretty basket. Wright was replaced by Stevens and then Harris made another basket from the floor. The Boy's Club seemed to be fighting harder than ever at this point and scored six points on a pretty long shot and two baskets which came right after the tap, with the Tech backs out of position. The Seconds fought hard to regain their lead but the close checking of the Boy's Club prevented any scores. It was then the visitor's turn to rally and they were more fortunate, completely fooling the second team guards and scoring two more baskets. Kasper was playing a wonderful game and was easily the fastest man on the floor. The fast pace was beginning to tell on both teams and Leyland

(Continued on Page 3, Col. 5)

## TECH TEAM LOSES FIRST GAME OF THE SEASON

Tufts' Defense and Scoring Ability Too Much for Engineers  
 TUFTS 44 WORCESTER TECH 18

Playing in hard luck throughout the entire game, the basketball team was handed one of the worst defeats in the history of basketball at the Institute by the strong Tufts' quintet, who won 44-18. The worst defeat ever suffered by the Crimson and Gray hoopers was the game won last year by the Springfield College boys when they scored 42 points to Worcester's 12. The Medfordites were always in the lead, at one time holding an advantage of 31 points. The Engineers fought gamely in the second half, playing well enough to win against any usual team, but the superhuman defense of the Tufts team was impossible to break through to score often enough to do any damage.

Evans, forward, and French, center, of the Tufts team were responsible for the most of the visitors' scoring, the two together accounting for 31 points. Evans was one of the best visiting players ever seen in Alumni Gym, no shot appearing too hard for him, no matter from what position on the floor.

Tech's hard luck in shooting proved a bugbear, for during the second half when it was evident that the only way to score was by long shots, Sharpe, Tech's diminutive forward, kept continually bombarding the basket, but invariably he overshot the basket. He played hard and was backed up by the rest of the team, but they were unable to get their passes through the iron-man defense of the Tufts aggregation.

Coach Bigler tried a different combination last Saturday in his starting lineup. He moved Capt. Higgins up to the pivot position, placing Delphos in a guard position until after the tap. This put Sharpe and Bittner together

in the forward court, and Gross, the former Fitchburg High star, started the game in the other guard position. During the second half he went back to his old line-up, with McAuliffe at center, Parsons replacing Gross, and Delphos and Sharpe in the forward positions. Parsons played like a mad man during the time he was in the game, and showed that he will have to be reckoned with when it comes to honoring the permanent holder of the honor of teaming up with Capt. Higgins in the guard positions. Sharpe as usual, was the high scorer for the Boynton Hill players, but his count was kept to a minimum by the excellent work of Dowson playing opposite him. Delphos also turned in several neat shots for scores.

The game started slowly with the ball in Tech's hands, the Tech players passing the ball around the center of the floor looking for an opening to their opponents' basket, but were unable to break through. Evans captured the ball and immediately started the Tufts team on its way to victory. Mahoney followed Evans' example by dropping one in after a scrimmage under the basket, and Evans added another two-point basket and dropped one in from the 15-foot line.

Sharpe broke the ice for the Tech team when he dribbled through the Bostonians' defense and dropped one in from under the basket. The opposing team watched him carefully after this and he found it impossible to move on the floor without an opposing guard right on his heels. Evans added to the visitors' score and Sharpe shot a couple which rolled around the rim only to fall outside. French, the lanky Tufts center, made the next basket.

(Continued on Page 4, Col. 3)

## NOTED EDUCATOR DISCUSSES CHINA

Dr. Edmunds Gives Lecture

On Wednesday evening, Dec. 19, Dr. Charles K. Edmunds presented a very interesting talk on China, profusely illustrated with pictures flashed on the screen. He was introduced by Dr. Hollis as an engineer, explorer, educator and author. An elaborate description of the economic, social and geographic conditions of China followed.

In Dr. Edmunds' geographical survey, he pointed out the great part the rivers of China took in dividing the country into provinces. These rivers have changed their direction of flow in the past due to the breaking down of dykes and due to floods. As an example of this tragic effect upon the development of China and her progress, he told of the change that took place in the direction of flow of the Yellow River near its mouth. This river is sometimes called the Sorrow of China, and is rightfully named as it overflows its banks annually causing famine and death. This great body of water overflowed its banks in 1854, changing its course so that the mouth of the river

(Continued on Page 4, Col. 2)

## MUSICAL CLUBS HAVE LONGEST TRIP

Give Concert in Brimfield

On Friday night, January 11, the Tech Musical Clubs journeyed to Brimfield where they gave a concert in the Congregational church under the auspices of the Senior class of Hitchcock Academy. Although somewhat late in starting, the concert was run off with a bang.

The Arcadians gave the concert a flying start by displaying their usual pep in the rendition of several popular pieces. The Glee Club then rendered, "Tis Morn" and "Please Won't You Be My Him?" In this last selection the club was assisted by the church cat, which had a very powerful voice. The Mandolin Club took its turn and played two selections "Say it With a Ukelele" and "Annabelle." They were followed by two baritone solos, "Three for Jack" and "Rolling Down to Rio," by "Mab" Steele.

There was, now, a change from music to some Swedish impersonations by Nordstrom, which were well received by the audience. After these impersonations came W. S. Bissell with sev-

(Continued on Page 3, Col. 5)

## TECH SHOW CASTS WORKING HARD

Need Freshmen For Mexican Army

Work on the annual Tech Show has already begun and two casts have been chosen. The production is to be "The Dictator," by Richard Harding Davis; this play deals with a revolution in a Central American republic and it is a typical Davis adventure story.

The major cast, as selected by Coach Jack Leigh, is as follows: Brook Travers, D. G. Downing, '26; Simpson, A. A. Figenbaum, '24; Hyne, W. F. Ames, '26; Col. Bowie, S. R. Wendin, '25; Duffy, A. R. Brown, '25; Rev. Bostick, J. V. Estabrook, '26; Lieut. Perry, P. H. Linsley, '24; Capt. Codman, R. G. Heselbine, '25; Gen. Campos, I. S. Webster, '26; Dr. Vasquez, E. P. Wood, '26; Corp. Manuel, H. A. Wendin, '26; Col. Garcia, E. F. Cahalen, '25; Jose Dravo, C. H. Nordstrom, '25; Lucy Sheridan, H. A. Emerson, '26; Mrs. Bowie, C. N. Mansur, '24; Juanita, J. C. Irish, '25; steward, H. A. Taylor, '25; Mexican soldiers, L. P. Gaucher, '26; D. S. Burns, '25; J. J. McAuliffe, '25; N. A. Bergstrom, '26; A. J. Zalinsky,

'26; T. D. Perry, '25; E. B. Lovewell, '26 and A. E. England, '25.

The Freshman cast is as follows: Travers, W. M. Vaughn, Jr.; Simpson, A. H. Holway; Hyne, P. Snyder; Col. Bowie, B. M. Bowker; Duffy, C. R. Sanford; Rev. Bostick, F. C. Pomeroy; Lieut. Perry, P. F. Meigs; Capt. Codman, J. A. H. Crosier; Gen. Campos, G. L. Esper; Dr. Vasquez, Carlos Carmino; Corp. Manuel, H. C. Walter; Jost Dravo, L. S. Clark; Lucy Sheridan, R. G. Whittemore; Mrs. Bowie, F. C. Taylor; Juanita, L. C. Adams; steward, Norman Arter.

The two casts, as given above, are subject to change at the discretion of Coach Leigh. Coach Leigh would like to have about twelve Freshmen come out for the Freshman Mexican army, which is a highly important part of the show.

Both the coach and the management hope to make this year's Tech Show the best ever and with the early start that has been obtained this year, it seems that their hopes will be realized.

## VARSITY BASKETBALL

- \*Dec. 15, N. E. 27, Tech 33
- \*Jan. 5, Brooklyn 12, Tech 18
- " 12, Tufts 44, Tech 18
- " 16, Harvard
- " 19, Lowell Textile
- Feb. 7, Amherst
- 9, Open
- 13, M. A. C.
- " 16, Brown
- " 22, University of Maine
- " 23, Alumni
- 27, Springfield
- \*Mar. 1, Harvard
- 5, Brown
- " 8, N. H. State
- " 15, St. Stephens
- \*Home Games.

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EDITORIALS

HITTING THOSE EXAMS!

The time is rapidly approaching when we as Tech Students will be tested for the knowledge which we have acquired during the term. Some of us have been through the mid-years many times, and have an idea of what they mean. Others have yet to experience them for the first time, and therefore entertain grave doubts concerning our ability to pass them.

If we are of that more fortunate class of fellows who have seen the results of our efforts materialize in good grades from day to day, we need have no fear for the future. But there are some less fortunate who have not seen the fruits of their labors. We may have plugged away each night, seemingly to no avail for the class work of the following day may have shown no signs of clearness of understanding, or even of fair comprehension.

There have been long nights of constant grind, and when the monthly exams came the effort seemed to have been in vain. We have been discouraged over and over again. Some of us feel that it is of no use to continue. Perhaps after all we are in the wrong school? The course is too much for our intellects. If we tried another college we surely could do better.

But wait a minute! Didn't we start in at Tech with the idea of graduating? Didn't we have a purpose which was outstanding, and which made us come here in the first place? Let's hold to that purpose until the last horn blows!

Emerson's philosophy was pretty good. "Finish every day and be done with it. You have done what you with it. You have done what you could. Some blunders and absurdities no doubt crept in; forget them as soon as you can. Tomorrow is a new day; begin it well and serenely and with too high a spirit to be encumbered with your old nonsense. This day is all that is good and fair. It is too dear with

its hopes and invitations to waste a moment on the yesterdays."

If we have done the best we could from day to day we need not worry about the exams. We may be down, but it is nothing to fall flat. But to lie there—that is disgrace. We may have had some bad failures, but there is that old saying that the harder you fall, the higher the bounce, and how true it is. Not until some folks are flat on their back do they learn to keep looking up.

Fellows, pluck wins! Life doesn't consist in holding a good hand, but in playing a bad hand well. Edgar Guest put it well in these lines:

Somebody said that it couldn't be done

But he with a chuckle replied,  
That "maybe it couldn't," but he would be one  
Who wouldn't say so till he'd tried.

So he buckled right in with a trace of a grin  
On his face. If he worried he hid it.  
He started to sing as he tackled the thing  
That couldn't be done—and he did it.

Somebody scoffed: "Oh you'll never do that,  
At least no one has ever done it;"  
But he took off his coat and he took off his hat,  
And the first thing we knew he'd begun it.

With a lift of his chin and a bit of a grin,  
Without any douting or quidding  
He started to sing as he tackled the thing  
That couldn't be done, and he did it.

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He started to sing as he tackled the thing  
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ties and mingles with his fellows develops a personality which is of great value.

But of paramount importance is the character of the student. Teachers, exert the best influence you can upon your students. Classmates, be loyal to Tech standards and uphold her highest ideals. Alumni, remember the name of Worcester Tech is within your power to honor, and to uphold by the finer influence which you as college men may exert on your associates.

Thus with steady and firm foundation the old school may be elevated to the heights where, as the ideal school, she may be a shining light to the country, and men will come to recognize in her the finest and best that college life has for the undergraduate.

A. S. M. E. NOTES

Prof. A. L. Smith Gives Interesting Illustrated Lecture

The first regular meeting of the student branch of the A. S. M. E. was held Wednesday evening in the Mechanical Engineering building. President Bemis reported as delegate to the conference held recently in New York. He told how the various branches were conducted and the method used for arousing enthusiasm. Several plans were discussed for conducting the local branch. Directly following the report, Prof. A. L. Smith gave a very interesting lecture



BENJAMIN FRANKLIN  
1706-1790  
Printer, journalist, diplomat, inventor, statesman, philosopher, wit. One of the authors of the Declaration of Independence and the Constitution, author of Poor Richard's Almanack; and one of the most eminent natural philosophers of his time.

on "Peculiar Mechanisms." He gave some very interesting facts regarding the number of patents issued and said there were, in his mind, two animating motives for inventions: laziness and curiosity of the research spirit. The first he explained by referring to Adam and Eve in the Garden of Eden, where everything was done for them. The curiosity of research motive he reconciled by the example of Eve eating the apple out of pure curiosity "to see what would happen."

Among the models and pictures he showed were those of a locomotive built in England in 1825, a lathe built by one of Worcester County's leading inventors, Thomas Blanchard, for the turning of gun stocks and shoe lasts, the use of a cam to cut a square hole and a slot machine used more than 2000 years ago for obtaining Holy Water in a Grecian monastery. After the lecture coffee and doughnuts were served. The local branch plans to hold meetings regularly once a month from now on.

WIRELESS ASSOCIATION

The Tech station started the New Year right, by succeeding in reaching the 7th district of amateur stations. A card acknowledging the reception of the Tech signals on Jan. 2, 1924, was recently received from 7QD, at Seattle, Washington. This is the first time that the reception of 1YK has been

reported in the 7th district, although the other eight districts have been reached a number of times.

Reports from "across the pond" state that Tech is being heard consistently in Europe; and if receiving conditions in Worcester were better, two way communication could probably be very easily established.

Theta Chi

On Friday evening, Dec. 21, an informal dinner and dance was held at the house.

To Mr. and Mrs. Kenneth W. Crossman, '19, Nov. 29, 1923, a daughter, Shirley.

To Mr. and Mrs. H. G. Saunders, Dec. 11, 1923, a son, Donald G.

Among the recent visitors at the house were: "Bob" Perry, '22, Brothers Cunningham of M. I. T., "Freddie" Benz, '22, A. W. Langevin.

IC THAT SO?

I've often wondered  
Why any guy  
With brains  
Ever wastes his time  
Writing lines like this,  
Or why the editor of  
The TECH NEWS  
Would publish them.  
Now I know that  
They are damned handy  
To fill up space.

But nobody had thought to do it

By bringing electricity down from the clouds over a kite string, it was a simple thing to prove that lightning was nothing more than a tremendous electrical flash.

For centuries before Franklin flew his kite in 1751 philosophers had been speculating about the nature of lightning. With electrified globes and charged bottles, others had evolved the theory that the puny sparks of the laboratory and the stupendous phenomenon of the heavens were related; but Franklin substituted fact for theory — by scientific experiment.

Roaring electrical discharges, man-made lightning as deadly as that from the clouds, are now produced by scientists in the Research Laboratories of the General Electric Company. They are part of experiments which are making it possible to use the power of mountain torrents farther and farther from the great industrial centers.



Electrical machines bearing the mark of the General Electric Company, in use throughout the world, are raising standards of living by doing the work of millions of men.

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### ALUMNI ASSOCIATION PLANS EXTENSIVE ACTIVITIES

The coming weeks will be extremely busy for Professor Taylor and others connected with the Alumni Association at Tech.

About the eighteenth or twentieth, Professor Roys will leave Worcester for a tour of many of the mid-west colleges. He will speak at the University of Michigan and again on January 23, he will address a body of our alumni at Chicago. Professor Taylor also plans to be at this meeting in Chicago. On the following day Professor Taylor will go to Cleveland where he will meet the alumni of that city.

The semi-annual meeting of the Alumni General Committee will be held in the reception rooms of the Gymnasium on February eighth and ninth. This is one of the most important meetings of the Alumni Association. At this meeting each district Association will be represented. Delegates from Washington, Pittsburg, and Chicago will be among those present.

It is planned to have the Alumni Journal come out about January 21. The feature of this issue will be the "Story of the Hoosac Tunnel." This article is said to be exceptionally good and it should be certainly worth reading, especially since it is written by Charles Wells of the Class of '80.

Joseph Beals, of the Class of '85, a veteran clerk of the School Committee, and business manager of the public schools, was re-elected clerk for the twenty-fifth term of one year at a recent meeting of the School Committee. Twenty-five years ago he won only after the 17th ballot and at the last meeting he was unanimously elected.

Democratic members of the City Council recently nominated Major Tucker as a candidate for the office of Superintendent of Sewers. Major Tucker graduated from Tech in 1912 with a degree of sanitary engineer. During the war he served on the sanitation staff of the army. For a time he was superintendent of the water works of Portsmouth, Va. Later he was given charge of purification and filtration work in the Panama Canal zone. This work he finished in five years. At present Major Tucker is consulting engineer for the firm of McDougal, Pease, and Freedman of Montreal, Can.

### SKEPTICAL CHEMISTS

The first Skeptical Chemist meeting of 1924 was held in the Chemistry lecture room Jan. 7, 1924. The speaker was Mr. Louis Davis, '11, who has gone into the manufacture of biological products. Mr. Davis went to M. I. T. after graduating from here to study Biology, after which he was with Parke, Davis Co. for a number of years and is now in business here in Worcester.

The talk, illustrated with lantern slides, traced the production of small pox vaccines, antitoxins, etc.

Slides showing the injection of the serums into countless guinea pigs with tables showing maximum lethal doses and other statistics were among those shown. Horses and cattle are the breeding places for the disease germs until the chemist collects these germs to make into serums for the injection into humans to make them immune from these diseases.

Mr. Davis ended his talk by a short discussion of the Schick Test.

# DEPARTMENT NOTES

## CHEMISTRY DEPARTMENT

Under the guidance of Mr. Burgess the Sophomore Chemists in the class of mineralogy, in place of their regular laboratory period on Thursday, were privileged to view the extensive and well chosen mineral collection of Mr. H. W. Goddard at his home on Salisbury Street. Here were displayed some splendid specimens of native gold, silver and copper, azurite and malachite of a wonderful velvety surface and varied shades of coloring, fire opal, amethysts, garnets, rubies, sapphires, topaz, tourmalines and other precious stones, agates, chalcedony and nodules showing the siliceous water imprisoned within. Especially noteworthy was the fine collection of antique carved jade, statuettes and ornamental objects of varied colors and intricate designs. The trip furnished a most pleasing ending to a very fascinating course.

The Sophomore Chemists in their course in qualitative analysis recently made an examination of Pluro. This is an article, said to be manufactured by the Lawrence Manufacturing Co., Hoboken, N. J., at present being widely advertised and sold to the Worcester public, ostensibly as a new and wonderful cleansing agent for silverware, washing clothes, dishes, windows, rugs, floors and general household purposes where softening of water is desired. The analyses by the class showed the article to be a good grade of sodium carbonate, commonly called washing soda, and under the name of Pluro is being bought by the public at about five times its real value.

In the November issue of the American Chemical Society, Professor Kraus of Clark University has published the results of the work done by C. B. Hurd and W. W. Ducas for their degrees of Doctor of Philosophy. Dr. Hurd graduated from the Institute in the Class of 1915, remaining here for several years as graduate assistant and instructor. He is now professor of Chemistry at Union College in Schenectady. Dr. Ducas was instructor in General Chemistry at the Institute from 1921 to 1922 and is now connected with the chemical staff at the University of Pennsylvania.

Recent visitors at the laboratory were Charles A. Gammal, '20, R. E. Cushing, '22, and D. F. Richardson, '23. Mr. Gammal has severed his connection with the Matheson Alkali Company of Niagara Falls, where he has been research chemist for the past three years. Mr. Cushing has left his position as research chemist with the Arnold Print Works and taken a position with the Victor Talking Machine Co., Camden, N. J., with Mr. Thompson and Mr. Haigis. Mr. Richardson, after graduation, accepted a position in the Bureau of Standards at Washington, D. C., where he is at work under Professor Herschel on problems connected with lubricants. In his spare time he is taking courses at the George Washington University preparatory to an M. S. degree.

During the Christmas recess, Professor Jennings and Mr. Phillips made a trip of inspection, in the interests of the Worcester Medical Milk Commission, to the Alta Crest and Sibley Farms in Spencer. The Alta Crest Farm is distributing an all Ayshire milk under the certification of the Worcester Medical Milk Commission and the Sibley Farm an all Jersey Inspected Milk. The chemical and bacteriological control of these milks is made weekly for the Commission at the Salisbury Laboratory.

## M. E. DEPARTMENT

Professor C. M. Allen will present a paper entitled "Comparative Tests of Draft Tubes" before the American Society of Civil Engineers in New

York this week. The paper was prepared conjointly with I. A. Winter of the Alabama Power Company. An abstract of Professor Allen's paper entitled "The Salt Velocity Method of Water Measurement" appeared in the January issue of the A. S. M. E. Journal.

George Cary, '23, visited the Institute recently.

Prof. A. L. Smith gave an interesting lecture before the Student Branch of the A. S. M. E. last week, his topic being "Peculiar Mechanisms."

Lt. Karl Schmidt, '13, United States Representative in Germany, expects to return to this country in the Z-R-3 dirigible which is being built here.

The Junior Mechanics, accompanied by Prof. H. P. Fairfield, made an inspection trip to the Taft-Pierce Co., Woonsocket, R. I., and the Brown & Sharpe Mfg. Co., last week. The following men were in the party: D. C. Bailey, R. N. Brooks, H. L. Eastman, M. E. Hutchins, A. W. Kleoska, F. J. Manning, L. G. Morse, K. H. Pratt, E. J. Quinn, and O. S. Swan.

Mr. A. C. Eaton, Hydraulic Engineer with the New England Power Company, gave an illustrated talk to the Senior class last week on "The Davis Bridge Development on the Deerfield River."

The Washburn Shops have just installed a Reliance Tumbling Barrel. This is going to be placed in a new room built below the shipping platform and will be driven by an electric motor.

Professor C. M. Allen gave a talk last week before the Lynn Branch of the American Institute of Electrical Engineers on "Water Measurement and Modern Hydroelectric Practice."

H. H. Judson, '23, with the Riley Steeler Co., at the Murphy Iron Works, Detroit, Michigan, visited the Institute last week.

C. C. Covert, Hydraulic Engineer with W. and L. E. Gurley, Troy, N. Y., formerly with the United States Geological Survey, will give an illustrated talk to the Senior class on Tuesday, Jan. 8, eleven a. m., on "Stream Flow Investigations."

Professor C. M. Allen and Messrs E. A. Taylor and O. H. Dudkin made an efficiency test a week ago, on one of the units in the new power house at Anson, Maine, for the Great Northern Paper Co. This power house has four units, of 1500 horse power each, with space reserved for a fifth unit. This is the first test where the salt velocity method was used in an open channel. A special flume 16 feet wide, 18 feet deep and 100 feet long was built for the test.

Professor and Mrs. H. P. Fairfield spent the Christmas holidays with their son and family in Pittsburg, Pa.

Mr. C. F. Merriam has been appointed auditor of the Cordaville Woolen Company, manufacturers of fine woolen blankets.

Walden-Worcester, Inc., has presented to the Mechanical Engineering Dept. a complete set of wrenches.

## E. E. DEPARTMENT

Mr. A. L. Cook, '01, head of the Electrical Engineering Dept. of the Pratt Institute, was a visitor here during the Christmas holidays.

Professor H. B. Smith was in Pittsburg over the Christmas holidays and spent some of his time in the Westinghouse million-volt laboratory at Trafford. Recently Professor Smith was nominated vice-president of the American Institute of Electrical Engineers.

Professor Richie was in Indiana during the Christmas vacation.

Mr. Maitland, '22, has just been appointed instructor in Electrical Engineering at the University of New Hampshire.

J. M. Bryant, E. B. Paine, and C. F. Harding, heads of the Electrical En-

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Engineering Departments at the University of Texas, University of Illinois and Purdue, respectively, are each planning large expenditures for new electrical engineering buildings.

The Worcester section of the American Institute of Electrical Engineers, met on Thursday, December 20, in the E. E. laboratory. Mr. William C. Yates, Manager of the Industrial Control Sales Department of the General Electric Company, lectured on "Industrial Control and Applications Thereof." He spoke very interestingly, illustrating his talk with lantern slides, and actual control equipment on the platform, which he had sent on here for the occasion.

## PHYSICAL EDUCATION NOTES

Professor Carpenter recently announced that he has opened a class in fencing which started Tuesday, January 8, at 5 p. m. All men, who are interested in joining this class are requested to report in the gym next Tuesday at five o'clock.

At a recent mass meeting Professor Carpenter requested all students with season tickets, who come to the basket ball games without young ladies, to use the rear door of the gym. At the last two games, only a small percent of the students have done as Professor Carpenter wished. It seems that a larger number of the students could use the rear door and in this way help Professor Carpenter.

## C. E. NOTES

A recent letter from Carl F. Meyer, '22, who is located at Camp 3, Engineer's Big Creek, California, gives an enthusiastic report of his work on this great project.

The Southern California Edison Co. has under construction, works which will finally allow the generation of 1,400,000 horse power. The scheme involves a great amount of heavy construction in the way of dams, tunnels, pipe lines and power houses. The longest tunnel which connects two watersheds is thirteen miles in length, and has a clear height of fifteen feet and a width of fifteen feet.

A chain of power houses use the water repeatedly through drops varying from 340 feet to 2,400 feet.

About 250,000 H. P. is now in operation and the entire 1,400,000 H. P. is to be in use by 1935.

Mr. Malcolm Arthur, '20, is also on this project.

## SOPHOMORE CLASS MEETING

The Sophomore class held a meeting, Monday, Dec. 31. It was decided that the banquet be postponed until Jan. 25, to give the committee more time to work out the details. In due time the Freshman class will probably receive a formal invitation to the Sophomore banquet in order that they may all be present for the festivities.

## MUSICAL CLUB'S CONCERT

(Continued from Page 1, Col. 2)

eral saxophone solos, including the famous "Saxophobia." After the Glee Club had sung the "Winter Song" and "Waiting for the Moon to Shine," there was a short intermission.

The orchestra again opened the concert with several selections and was



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followed by "Milt" Bemis with his famous act, "A Bit of Nonsense," which brought much applause from the audience. Steele gave two more solos, "Give a Man a Horse, He Can Ride" and "Smilin' Thru," followed by the Mandolin Club with "That Old Gang of Mine" and "No, No, Nora." The concert was brought to a close by the "Stein Song," Tech songs, and the Alma Mater by the Glee Club.

The Arcadians furnished music for a dance in the Town Hall after the concert until 12:30. The favorite expression on the bus going out and during the concert was: "When do we eat?" The expressions on the bus coming back were too numerous to mention but everyone agreed that the concert was "the cat's meow," especially the Glee Club's first encore.

## SECOND TEAM GAME

(Continued from Page 1, Col. 3)

went out in favor of Sanford with Jerome replacing Powers for the Boy's Club. Stevens did some clever guarding under the basket at this time, holding the scoring to a minimum, but before the game ended the visitors scored two more baskets.

## BOY'S CLUB—22

15—TECH SECONDS  
Kasper rf \_\_\_\_\_ rf Harris  
Powers, Jerome lf \_\_\_\_\_ lf Leland, Sanford  
L. Tisdell c \_\_\_\_\_ c Dimick  
Foley rg \_\_\_\_\_ rg Wright, Stevens  
T. Tisdell lg \_\_\_\_\_ lg Calder

Goals from floor: L. Tisdell, Foley 3, Kasper 6, Dimick, Calder 2, Harris 4. Free tries: Kasper, Jerome, Leland, Referee, Dan Kelly, Timer, Kimball, Scorer, Lamay.

## Alpha Tau Omega

The Christmas banquet was Sunday, Dec. 16. Forty Alumni, including Province Chief H. R. Curtis, attended.

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**DR. EDMUNDS SPEAKS**

(Continued from Page 1, Col. 1)

was 350 miles from its former opening to the sea. At another point in the course of the river several hundred miles from the coast, the direction of flow swings through an angle of ninety degrees, running in nearly a straight line for over five hundred miles. It was through this part of the river that Dr. Edmunds travelled in his survey, the first white man to make the passage. He described it as being much more vivid with its gorges and rapids than any river in this country, with possibilities for hydro-electro developments for delivering power for the advancement of Chinese industries.

Chinese religion is found in many forms and odd of character. As an example of one of their beliefs, if a widow remains as such for a long period of time she is honored by the erection of an arch over some public highway. This is a religious shrine and is reverently acknowledged by passers-by. Another shrine erected in honor of some prominent man is the "Pagoda," a tower-shaped structure built with an odd number of stories always ranging from five to thirteen stories high. From this the Priests worship to keep away the evil spirits or to observe the good spirits as they come. The form of cemeteries and their formation is of a peculiar design. The oldest member of a line of ancestry is found in the center of tombs which are grouped around him in the form of a circle. Ancient Manchows are buried in some cases elaborately, at the top of a high mound.

Moving pictures of Canton were shown after the illustrated lecture, showing the streets and places of interest of that city. Canton Christian College was screened with its activities on the campus well pictured. One

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thing of interest was the pictures of the artificial island upon which are established the French and English government buildings. It showed the English and French bridges which crossed to the mainland. These are of special interest for the part they took in the establishment of the Chinese Republic at the time of the overthrow of the Chinese Manchow, as places of refuge for foreign missionaries and representatives during the uprising, was of vital importance.

Seldom has Worcester had the opportunity to hear anything more interesting than this remarkable talk on one of the oldest countries at the present time and one that is growing more rapid than the rest of the world may realize.

**BASKETBALL**

(Continued from Page 1, Col. 5)

ket for Tufts, and Bittner scored on a foul shot. Evans and Mahoney followed with a twin counter apiece, and Tech called time out for the first time this season, with the score 19 to 3 against them, with the period only a little more than half over. The new combination went into the game at this point, with Parsons replacing Gross, McAuliffe taking hold of the pivot position, and Delphos replacing Bittner in the forward court. McAuliffe celebrated his entrance with a basket, but Evans increased the visitors' lead by scoring two more and Mahoney sank a shot from the center of the hall. Sharpe ended the scoring of both teams for the first half with one of his pretty one-hand shots, the score at half time standing 28-6 against the Worcester players.

Play was more even during the second half, Tech scoring 12 points in this period to Tufts' 16. The way the Boston team started off this half, running the score to 37 before Tech was able to collect a solitary point made it look as though they had only been fooling during the first period. However, Bigler's charges took on a new lease of life, and it was a pretty sight to watch their playing. McAuliffe got a long shot, Sharpe dropped one in from the foul line, Delphos soon followed with a floor goal, and Sharpe added a twin-counter in rapid succession, making the team look more form-



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