

THE TECH

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BASKET BALL SQUAD DEVELOPING RAPIDLY.

BEST MEN NOW SHOWING UP.

Shooting and Passing Have Improved a Great Deal.

Good form and endurance is being rapidly developed by the basket ball squad. One or two new men have reported. Short practise at shooting baskets, followed by an hours steady scrimmage is the daily program. The practice days have been cut down to Tuesday, Wednesday, and Saturday owing to the formation of gymnasium classes.

At present Cahill and Hartgraves seem to have the call for forward positions, with Parker, Fernstrom and Pettengill as alternates. Pierce is undoubtedly the best man at centre, and Stuart can be developed into a good substitute. Wentworth and Nichols look good for backs, although Gregory and Ruckmann are also playing well.

Shooting and passing have improved a great deal, and fouling is not nearly as noticeable as at first. Indications point to a snappy, well-balanced team.

DEMAND FOR SUGAR ANALYSTS.

Graduates of Course Well Located.

The class in fourth year analysis this term is the largest in the history of the course. Twenty-two men are taking the work. The demand for men trained in this branch of technical chemistry has been so great that for several years the number of positions open in West Indian sugar houses has exceeded the number of graduates.

Mr. Geo. W. Rolfe, instructor in charge of the course, has been actively engaged in sugar work in the West Indies for a number of years. On completion of this term's work at the Institute, Mr. Rolfe goes to Aguiere, Porto Rico, to take charge of the plant of the Aguiere Co. He returns to the Institute at the close of the sugar refining season.

Several former students of sugar chemistry are holding prominent industrial positions as chief chemists and factory superintendents. D. B. Weston, 1895, is with the Trinidad Co., Trinidad, Cuba; Knight, 1899, and Shapely, 1900, are in Porto Rico; L. W. Seidenstricke, 1898, is now chief chemist for Arbuckle Bros. C. P. Underhill, 1904, is with the Hawaiian & California Sugar Co., at Crockett, Cal.

Mr. G. F. Ulmer, 1898, one of the most successful of the younger men in the sugar industry, died in September. Mr. Ulmer was superintendent of the Hawaiian & California Refinery, and had for eight years been chief chemist for the Arbuckle Brothers' Refinery.

TECH LECTURER TO GIVE LONG COURSE.

C. Howard Walker Will Talk on Decorative Art.

C. Howard Walker, special lecturer on the history of ornament in the Architectural Department, will give all but three of the series of twenty-one illustrated lectures on decorative art held under the auspices of the school of design of the Museum of Fine Arts at Huntington Chambers. He will lecture at 3 P. M. on Nov. 25, and on the first three Mondays of December, and the first three Fridays of January on the early development of decoration starting with "Egyptian Art as Related to the Collection in the Museum of Fine Arts." His other lectures through the spring will be on the ornamentation at different periods of history, ending April 20 with "The Artistic Progress in America."

NEW MATH BOOK BRINGS BETTER RESULTS.

CARRIES VARIOUS BRANCHES FORWARD SIMULTANEOUSLY.

For That Reason Student Understands His Work Better.

To the students in mathematics at the Institute as well as other scientific schools there has always been evident a lack of connection between the various branches of the study in the actual teaching. The branches are intimately connected and correlated but in the instruction, with each branch taken up as a separate study, this intimacy is not usually brought to the student's attention.

To bring to the student a full realization of this correlation between algebra, analytic geometry, trigonometry and calculus and to enable the student to obtain a better mathematical grasp of his work in applied mathematics, are the purposes of the new mathematics book used in the Freshman year at the Institute, the first volume of "A Course in Mathematics" by Prof. F. S. Woods and Prof. F. H. Bailey of the Department of Mathematics.

A great amount of attention has been called to this new book in other engineering schools and it has been highly commended by various engineering journals. This volume is the most important American outcome of the deep impression recently made by advocates of a reform in the methods of teaching mathematics.

Such instruction may be viewed from two distinct standpoints. If the purpose of the instruction is to introduce the student to mathematics as a branch of pure science, in which he may later carry on research work, the best method may possibly be different from those adapted to acquainting a prospective engineer with one of the most useful helps science has to offer him.

It is generally held today that without any sacrifice of accuracy, the methods of instruction best adapted for the mathematical classes in a technical school are those which carry forward various branches simultaneously.

In the old methods of instruction it was customary to finish algebra before taking up analytical geometry, to finish analytical geometry before taking up the calculus, and to finish the calculus before beginning applied mechanics. As a result it was only the students with good mathematical memories who were able to appreciate as fully as desirable the relations between the various branches.

Such a plan has been entirely abandoned in this new course for the Freshmen at the Institute, which, it should be stated, was prepared at the invitation of Prof. H. W. Tyler, head of the Department of Mathematics, and has received the benefit of his criticism.

In the first volume, which alone has appeared as yet, there is an introductory chapter on elimination, including the use of determinates. The student next takes up the methods of plotting functions, and is thus introduced early in his course to this valuable practical method of understanding an equation.

The study of the algebraic polynomial, including the analytic geometry of a straight line, the more important theorems of the theory of equations, and the definition of a derivative comes next. This enables the student to obtain early an introduction to the principles of calculus which is particularly desirable.

The study of the algebraic function in general is next taken up, and in doing so the student's knowledge of analytic geometry and calculus is enlarged by new applications of the principles previously stated. Simple integration.

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"OVER THE GARDEN WALL" IS SHOW.

WESTERVELT 1908 WINS SHOW COMPETITION.

Large Number of Men Out For Music and Lyrics.

"Over the Garden Wall" by George Conrad Westervelt 1908 is the show selected for this year, out of the four handed in. Westervelt is a graduate student from Annapolis taking the course in Naval Architecture. The others who had written plays are Ralph J. Batchelder 1908, Henry A. Hale 1910, and Abram H. Ginsberg 1909.

Work on the Show is now fairly begun. A meeting last Tuesday of those who wished to write music or lyrics or to try for the management brought out an unusually large number of competitors in each department. About thirty gave their names to secure the necessary data for writing music or lyrics. Westervelt, the author, has written lyrics but these will be entered in the regular competition with the rest.

Thirteen men applied for the position of business manager. They were, W. D. Everett 1910, S. M. Ratzkoff 1911, G. B. Ferristall 1911, A. A. Gould 1910, S. B. Copeland 1911, Frank Russell, Jr., 1911, J. W. Brady 1911, W. C. Wilson 1910, A. W. Carney 1911, H. L. Robinson 1911, Lincoln Mayo 1908, R. H. Ranger 1911, and C. A. Woodruff 1911.

Those who are trying for the advertising management are: R. F. Burnett 1910, R. A. D. Preston 1910, D. C. McMurtrie 1910, D. A. French 1910, M. S. Chapin 1911, Dudley Clapp 1910, P. W. Burnham 1911.

The dates for the performances are: April 18, evening, at Providence; Monday, April 20, matinee, Boston; evening, Malden; Tuesday, April 21, matinee, Boston. The Boston performances will probably be at the Colonial as they were last year.

CAPT. HOWLAND MAKES CROSS COUNTRY TEAM.

RUNS A SPECIAL TRIAL.

Conditions Unfavorable But Runner Makes Good Time.

In a special trial that was granted to him Wednesday, Captain Howland of the Cross Country Team qualified at Readville for a place on the team. He ran unpaced six miles under the most unfavorable conditions. The track was very soft, it being muddy for a considerable part of the way.

His time was 35 minutes, 33 seconds, and gives him a place on the team that will represent Tech in the intercollegiate race at Princeton next Wednesday. Callaway, Gimson, and Stephenson ran five miles from Tech Field, and Batchelder, Ellis, MacCreadie, and McCarthy ran three. Clapp and White ran individually.

The make up of the team will be as follows:—H. H. Howland 1908, captain, H. R. Callaway 1908, B. L. Gimson 1908, J. H. Stephenson 1909, C. J. Batchelder 1908, R. Ellis 1909, W. T. MacCreadie 1911, and J. F. McCarthy 1909. The substitutes will be P. D. White 1911 and C. S. Clapp 1908.

ERROR IN ADDRESS.

Through a mistake in the list given THE TECH, an error was made in a recent issue in the address of A. M. Chidester 1906. It should have been 2321 Madison Square, Station D, Philadelphia.

SEVENTEEN MORE MEN AT TECH NOW.

ENROLLMENT THIS YEAR IS 1390.

Number of College Men Increases as Does Number of Foreign Students.

This year the total enrollment at the Institute is 1390, an increase of 17 over that of last year. The new students have come from almost all of the United States. Only five states are not represented: namely, Delaware, Louisiana, North Dakota, Idaho and Wyoming.

Seventeen foreign countries are also represented. The number of students coming to the Institute from other colleges is greater this year than ever before. There is also an increase in the number of students who have come after having spent only two years at other colleges.

Among the men from the various colleges are:

Albright College, W. H. Wengert, B. S.

Allegheny College, Ralph Edward Irwin, A. B.

Amherst, Brainerd Dyer, A. B.; Claude Thomas Wilson, A. B.

Annapolis, L. S. Border, A.; Harry Ward Cleveland, J. C. Sweeney, Jr., A.; Ernest Albert Redman.

Armour Institute, Hiram Neil Chrichton, Sidney Vincent James, James Bowen Noble, Arthur Morton Rosenblitt, Beloit, J. C. Baker, B. S.; Wm. Henry Norton, Jr.

Bowdoin, George W. Craigie, A. B.; J. Edward Crowley, A. B. Whipple, A. B.

Boston College, J. F. McMorrow, A. B. Brown, H. W. Paine, Ph. B.; W. H. Congdon, A. B.; L. C. Eddy, Jr., Ph. B.

Case, T. W. Carlisle.

University of Chicago, W. D. Ives, F. S. Lovewell, J. Mills, B. M. Pettit, Ph. B.

Cincinnati University and Ohio State University, A. C. Batsner.

Colorado College, M. D. Hersey, I. S. James, F. M. Loud.

Cornell, P. B. Johnson.

Dalhousie, E. K. Harvey, A. B.

Dakota Wesleyan, P. C. Laurson, B. S.

Dartmouth, C. R. Main, H. C. Mills, M. N. Prentiss.

Denison University, K. J. Cambell.

DePauw University, L. J. Townes, Ph. B.

Fairmount College, B. H. St. John, A. B.

Grinnell, M. W. Rew, H. B. Winterstein, B. S.

Georgia Tech., A. B. Purdone.

Harvard, B. Bigelow, A. E. Conant, A. B.; B. Dewey; L. Pritchett, A. B.; P. L. Dillon; L. S. Southwick; A. L. Fabens; H. G. Hawes, Jr., A. B.

Haverford, W. W. Warner, R. L. Cary, A. B., A. M.

Hamline University, M. Nickerson.

Holy Cross, C. A. Maguire.

Johns Hopkins, K. E. Kerr, A. E. Knipp, A. B.; T. Machen, A. B.; W. S. Davis, J. B. Hill, B. S. Bonebrake.

Indiana University, L. W. Greely.

Collegio de Guadalupe, G. Valverde.

Lafayette College, L. Lee.

Lough, A. K. Comins.

Marquette University, J. G. Bach, A. B.

Marietta, G. M. Gadsby, Ph. B.

St. Mary's Institute, W. T. Mahoney, B. S.

University of Michigan, W. D. Clark, K. D. Stellwagen.

University of Minnesota, G. G. Holbrook.

University of Illinois, G. W. Dwight.

Notre Dame University, A. L. de Romana.

Massachusetts College, F. E. Mott.

Princeton, A. W. Lunn, A. B.; W. C. Gordon, Jr., C. E.; W. T. Adams, Jr., W. H. Camp, B. S.; J. R. Carson, B. S.

Potsdam Tech., C. P. Echeverria.

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