

The Tech.

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NO. 6.

THE TECH.

Published on alternate Thursdays, during the college year, by the students of the Massachusetts Institute of Technology.

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Y defeating Stevens on Thanksgiving Day Tech. secured fourth place in the league. The work done by this year's team, however, is much better than our position in the league would indicate. For the first time since 1889 we have made a praiseworthy showing in the league games. In all the games, with the exception of that with Williams, Tech. has proved herself, if not the equal, at least a worthy opponent of her rivals. Out of sixteen games played Tech. won seven, lost seven, and tied two. After the discouraging season of last year which ended in leaving football at Tech. at its lowest possible ebb, the success of this year's team seems the more remarkable. The team deserves commendation for the work it has done at a critical point in the football history of Tech. The work of Clarke is especially worthy of praise. It was largely through his earnest and untiring labors that Tech. was able to make such a creditable showing for the football season of 1891.

Our last victory at Stevens proved again the presence of excellent material, as other incidents of the football season just passed have proved the blameworthy mismanagement in the one department where we had every assurance of success. The importance of having a coach, and a good coach, has been dwelt upon before. Our misfortune in that respect is the cause of a great deal of the unsatisfactory work of the season. Captain Clarke has done all in his power; none can expect more of him. Had he met with that co-operation of other officials of the Football Association to which he was entitled, the result of the season would have been far different.

The effects of that lack of co-operation are clearly and truly set forth in the communication which we print in another column.

It seems hard to have such obstructions placed in our path, utterly uncalled for and inexcusable as they are. Much has been said and done to bring Institute football to the front, and yet our gate receipts are cut down and pecuniary disaster invited simply by mismanagement. Anyone taking the trouble to scan back copies of the city newspapers of three, four, and five years ago can verify the statements made by our correspondent. And in the face of such facts, who can wonder at the constant falling off of interest among us in football matters?

We cannot suffer our most vital interests to be jeopardized in such a manner, and we ask that the necessary action be taken to prevent its happening again.

THE will of the late T. O. H. P. Burnham, the well-known Boston bookseller, bequeaths \$20,000 to the Institute of Technology. Mr. Burnham left an estate valued at about a million, and of this amount nearly one

half goes to public institutions. There are rumors that the will is to be contested, and of these the *Herald* says editorially:—

Such seems to be the fate of all wills in which men who expected to be beneficiaries are disappointed. Mr. Burnham was a man of whose sanity there can hardly be plausible questioning, and he was not one whom it was easy to influence to any marked extent. His will itself appears to bear evidence on that point. He was a benevolent man, as well as a shrewd one, in all his life. The disposition he has made of his property is consistent with this character, and we opine that it will be proved so when the will comes to be tested, if it is ever attacked.

Mr. Burnham has done well in leaving so large a sum to the Institution which is by all odds the most prominent factor in scientific education in the United States to-day, and his generosity will never be forgotten by the friends of the Institute.

A DECIDED stimulus has been given very recently to athletics at the Institute, and the credit is largely due to Dr. Williams of the Corporation.

Many of the students have by this time heard of the appointment of Mr. Albert Whitehouse as permanent gymnasium instructor and general athletic advisor. Mr. Whitehouse, who is a native of England, has been in America for about two years. While in England he was assistant to T. Renshaw of the Manchester Gymnasium, who has a high professional reputation abroad. During his sojourn in this country his time has been spent as instructor of the Ottawa Amateur Athletic Club and as assistant at the Hemenway Gymnasium, Harvard.

Besides thoroughly understanding all gymnasium instruction and class exercises, Mr. Whitehouse is also well acquainted with English Rugby football and cricket. He may be found in the gymnasium every afternoon from four till six, excepting Saturdays.

The Corporation and the Faculty, and Dr. Williams in particular, have been liberal in furnishing us with a trainer, and THE TECH wishes to express, in behalf of the Institute, its appreciation of their most thoughtful action.

THE scheme of sending a team from the Institute to the Manhattan Athletic Club meeting held in New York December 28th, we regret to say fell through. The winning records in some of the events were low enough to give our athletes, comparatively novices, excellent chances, and it is more than probable that had we had a competing team there, the M. I. T. A. C. would have carried off two or three medals. For instance, the novice 440 was won from the scratch in 66 seconds and a fraction. Undoubtedly there are novices in the Institute who can beat this hands down. The 440 handicap was won in 55 seconds and a fraction from the 15-yard mark; there are ten men in the Institute to-day who can beat this.

This, in a way, should give our athletes the greatest amount of encouragement, to say the least, and should induce entries in all meetings in the future, while the events in our closed meeting on the 12th should all be warmly contested. A man doesn't know what he can do until he gets at it, so don't hold back with the idea that you can't do anything, but go in and try. There are a great many fellows practicing in the gym. every afternoon, and you can get some good pointers and experience there.

COMMUNICATIONS.

The Editors do not hold themselves responsible for opinions expressed by correspondents.

BOSTON, Dec. 4, 1891.

TO THE EDITORS OF THE TECH:—

Why did the Tech. football management wish to restrict the attendance at the games in this city? I take it for granted that such was the intention. At any rate there was hardly anything done to get out a large attendance from the public at large. I knew early in the season that Tech. had a football team (having been told so by a friend who had it straight from a student). So I turned every morning to the football column in the *Herald* expecting to read there sundry items of interest concerning the team,—its prospects, the dates of its home games, some personal

items about the players, or managers, or even about the substitutes. I found there much interesting gossip not only about the major league teams, but also about the Dartmouth eleven, the Williams champions, the Amherst team, and football elevens representing colleges I had hardly heard of; items which in some mysterious manner had found their way from most distant and obscure places; but never, or scarcely ever, a single word about Tech.'s team. A number of the alumni had asked me about the championship games in this city which they wanted to attend but which they could learn little or nothing about unless they happened to see the regular schedule dispatch published early in the season. On the morning of the Dartmouth game in this city, when football enthusiasm was at its height, there was not even a line in the *Herald* football column concerning it. Properly advertised, that game ought to have drawn a large crowd from the college alumni in Boston. I didn't see even a poster announcing it until yesterday, when I ran across one on an obscure side street. I recall one football campaign not many years ago when not only were the newspapers properly worked, and the horsecars plastered, but also the regular bill boards, and the enterprising manager fearing it hadn't even then been properly attended to, took a pail and brush and did a large amount of paste and paper decorating himself, after the good citizens and policemen of the town had retired to rest.

In the case of the newspapers they cannot be blamed themselves, for unless their attitude has greatly changed, they would be very glad to publish interesting items and news of the Tech. team (and for that matter of Tech. itself) if the management of the team and others who make a pretense of being newspaper representatives would wake up and show a little enterprise.

In this connection a word on the general slight Tech. receives from the newspapers may not be out of place. It is strange but nevertheless true that more mention is made in the papers of small and obscure colleges, and their news and happenings, than is given Tech., with its hundreds of students, eminent instructors, and high educational standing. I cannot believe this is an intentional slight, or due to any cause except to the fact that the students themselves, or rather the few who pretend to represent the papers or have the management of the various athletic teams and other organizations, are lazy or without enterprise.

A few years ago the Boston daily papers contained Technology Notes and other items of interest to

students and alumni about *Alma Mater* in nearly every issue. Lately I notice a few Tech. items once in a while, and curiously enough they seem to appear the day after THE TECH is out, and their perusal seems simply to confirm what I've read in your local columns.

Such representation is not fair either to the Institute or to the newspapers.

Yours truly, '87.

BOSTON, Dec. 5, 1891.

TO THE EDITORS OF THE TECH:—

HAVING been asked, since the last meeting of the Twentieth Century Club, as to what had been done this year towards reorganizing that association, I take this opportunity to answer all such inquiries in full in order that there shall be no further misunderstanding on the question, and in order to arouse interest in this organization of the men of the Senior and Junior classes.

Since Mr. Ripley, the president of the club, is not present in the Institute this year, Mr. Swan, the vice president, acting in conjunction with the executive committee of last year, as specified by the constitution, called a meeting for the 16th of November, at which time an organization of the club was to be effected. In spite of the fact, however, that the occurrence and object of such a meeting was announced through the regular channels of the club, and although all men known to be interested were, as far as possible, personally informed of the meeting, there was no quorum present and accordingly no business could be transacted. The meeting was adjourned until November 23d, it being hoped that by that time earnest work by members of the society would secure the needed quorum. Accordingly the meeting was announced on the club's bulletin board, upon the '92 board, and an article and notice of the meeting, its objects and hopes, was inserted in THE TECH of November 25th.

This second attempt met with no better success than the first, and again the men failed to show any interest in the undertaking. At that meeting it seemed best, however, in order to save the club, which was in imminent danger of shipwreck, to make a temporary organization, and to exert one more effort to arouse the interest of the upper two classes.

Accordingly there will be a meeting held at 4.15 P. M., on Friday, December 11th, in the Rogers Building, to which all members of the classes of '92 and '93 are invited and at which a permanent organization will be effected.

For the benefit of those who wish to know what efforts have been made, I submit a copy of the minutes of the two meetings so far held.

"First Regular Meeting of the Twentieth Century Club for the year 1891, November 16, 1891. Called to order at 4.30 by Mr. J. Swan, Vice President. Mr. Mathews was appointed Secretary *pro tem*. As only twelve members were present there was no quorum, and no business could be transacted. The members present proceeded to discuss, in an informal manner, the prospects and plans of the Club for this year, and adopted the following resolutions, as expressing their opinion of methods of work, to be discussed at the next regular meeting of the Club:—

"Resolved:

"1. That part of the meetings of the Club shall be devoted to discussions by members of the Club.

"2. That some of the meetings shall be open to outside lecturers.

"3. That the number of meetings so given up to outside speakers be at the discretion of the Executive Committee, but that the number of such meetings shall be limited.

"4. That all members shall be enrolled, and all so enrolled shall, when called upon by the Executive Committee, take part in the discussion.

"5. That all meetings be open to all members of the Senior and Junior Classes, but that debating be confined to the members.

"6. That copies of these resolutions be placed in the corridor of each building of the Institute, and in the Margaret Cheney Reading Room."

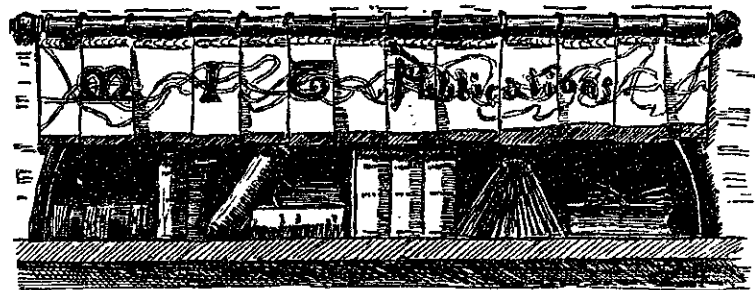
The meeting thereupon adjourned until the next regular meeting called for November 23d.

"Second Regular Meeting, November 23d, 1891. Called to order by James Swan, Vice President. No quorum was present. After a short discussion as to whether the Club should be dropped, or should be re-organized, it was decided to elect temporary officers and effect a temporary organization until a quorum should be secured. The following temporary officers were accordingly elected by ballot: President, James Swan; Vice President, Richard Waterman, Jr.; Secretary and Treasurer, Albert P. Mathews.

"It was voted that, until regularly elected, the three officers should constitute the Executive Committee.

"Meeting adjourned until called by the President."

A. P. MATHEWS,
Temporary Secretary.



WE have at hand two pamphlets in the "International Modern Language Series," edited under the direction of Professor Bôcher, of Harvard, and Professor Van Daell, of the Institute. The aim of the promoters of the publication is the advancement of the study of the French and German languages and literatures. There will be four subordinate series, viz.; a Preparatory course for children, and an Elementary, Intermediate, and University series. The first two divisions will consist chiefly of text-books; grammars, readers, etc. The two latter series will contain, besides advanced grammars, etc., texts with and without notes comprising specimens of the chief literary periods in French and German literatures. Many of these works will be preceded by introductions of a literary and historical character which will greatly increase the utility of the books. When published the series will fill a place long vacant among the facilities for a correct study of French and German writers. [Ginn & Co., Publishers, Boston.]

A circular has been sent to the Alumni and friends of Princeton calling attention to the need of an infirmary for sick and disabled students. The estimated cost of a suitable building is \$30,000.

The students of Wesleyan University, both male and female, are greatly wrought up over a new order issued by the Faculty compelling the young men to get a written permit from the Faculty before calling upon a young lady.

A novel proposition is being considered at Oberlin in reference to the field-day sports. The new scheme is to reproduce the Greek Olympiad with its gaily appareled heralds, javelin hurling, crowning with laurel, and public speaking and singing. The modern events on the programme will be assigned Greek names.

The Summer School of Metallurgy.

(Concluded.)

MONDAY, June 15th, was spent at the works of the Pennsylvania Lead Co., at North Mansfield, Penn. Mr. George Faunce, M. I. T., '82, is Superintendent there, and he gave his whole attention to showing and explaining the many processes used. The company desilverizes much lead bullion and refines large quantities of gold and silver bullion.

The rest of that week was devoted to open-hearth and Bessemer Steel Works. We first went to the American Iron and Steel Works of Jones & Laughlin, in Birmingham, Penn. Then, two more days were spent at the works of Schoenberger & Co., one each to study the Bessemer steel and open-hearth processes. Mr. C. E. Stafford, the manager of both these departments, spared no pains in making us at home in all parts of the works except the horseshoe department, where they have some "secret" machines and processes. Only Brown got in there, but he says he can't remember just what he saw.

On Friday we went to the great Homestead Steel Works at Munhall, Penn. Mr. Knight, '74, is Assistant Master Mechanic. All the work is done on a gigantic scale. The place abounds in huge engines, hydraulic cranes, and furnaces. We were fortunate enough to see the trial of a new charging machine for feeding billets into the open-hearth furnaces. At these works, many of the great armor plates for the new cruisers will be made. Machinery for rolling a steel ingot 80 x 74 x 36 inches was being put up during the summer.

While writing up the notes of the Homestead Works at the evening session, there was a warm discussion between two of the party, concerning the number of doors in the new open-hearth furnaces. The first member said that there were three doors at the back and only a taphole in front.

"There are three doors in front, too," said the second member.

"No, sir!" said the first, "there are no doors at all in front."

"There are, too, for I put my head through one of them to look inside!"

"You must have put your head through a solid wall, for I could just squeeze my knife-blade through a crack so to peek inside!"

"Well," said the second, "I don't like to contradict you, but 'I'd like to bet yer'!"

Just then, Professor Richards smiled and called for order. It was finally decided that both were right, for they had looked at different furnaces.

On Saturday morning we saw the stationary Clapp-Griffith converters at the Oliver Iron and Steel Co.'s works in Birmingham; afterwards we went to the wire-rolling department of the same company.

During the third and last week of our stay in Pittsburg, we visited ten different kinds of establishments.

On Monday we made an all-day excursion to the Connellsville Coke Region. Mr. Eliot Holbrook was host that day and treated us to a free ride over the road of which he is General Superintendent. We visited the Standard Coal Mine and the coke ovens connected with it, at Mt. Pleasant. This mine is within half a mile of the place where the Hungarians were killed during the strike last spring. While we were in the mine we saw another strike, though a somewhat small one. A large black mule had been down in the mine only three days, but during that time he had refused to do any work whatsoever. After trying every way to get work out of him, it was decided that he should return to the surface; but he didn't want to do that, even. A bag was put over his head and as many men as could put a hand on him finally pushed him, after a hard struggle, onto the car, and he was carried to the top. Again he refused to move and had to be pulled from the car. The foreman said, "There's nothing like a mule for cussedness."

The Standard Mine is only three hundred feet deep, but is very extensive; it is very systematically laid out and is very neat for a coal mine. The total output is immediately made into coke in ovens near the mine. In one of the chambers, fire damp was discovered on the morning of our visit. With the manager for a guide, our party went beyond the danger signal to see the tests for the fearful gas. As the safety lamp was held up and the little blue flame played inside the wire gauze, most of us felt that we were in close quarters, for if there had been a defect in the gauze, the Summer School would have disbanded, "*sine die*."

Our party naturally caused some comment among the miners who were waiting at the bottom of the pit during the "mule strike"; the following conversation was overheard:—

"What them fellers want down here?" said one miner.

"They're studying mining at some school," answered the second miner.

"They better get up a tree and study the stars; they might get scared down here," said the first.

"Oh, they'd not dare climb a tree; they'd be afraid of getting hurt," said a third miner.

"No, they wouldn't. They'd take good care to have a safe platform built before they climbed up," answered the first. Just then we went up to the surface, and the rest of this complimentary conversation was lost.

While waiting for the train, Professor Richards took a photograph of the party, with a "U. S. Bonded Warehouse" for a background.

At several blast furnaces we were told that we were looking at the "record breaker." On Tuesday morning, June 23d, we went to the Edgar Thomson Steel Works at Braddock and saw the *only* blast furnace that holds the world's record,—*an output of four hundred and fifty tons of pig iron in twenty-four hours*. Two "Iron and Steel" policemen escorted us over the plant to show us the sights and to see

that we didn't lug off any steel rails. One of them said that he never had such hard work in keeping a party together. From the time that the iron ore goes into the blast furnaces at these works, until it is made into steel rails ready for shipment, it does not cool down.

Wednesday forenoon was spent at the artificial ice factory and storage house, and at the Pennsylvania Glass Factories, where window glass and bottles are made. At the ice factory we saw eggs and poultry that will be put on the market during the holidays. The cakes of ice made there were beautifully clear.

Thursday morning we went to Latrobe to see the Latrobe Steel Works. This plant was designed expressly for the production of steel tires for locomotives and passenger cars. As this requires a special steel, the company makes it, right there, just enough steel for one tire being cast in a peculiarly shaped ingot. The system used for keeping track of the products of this company seems perfect. Each steel ingot, weighing from two hundred to fifteen hundred pounds, is numbered and marked as soon as it is cool. That number, the date of casting, the analysis of the steel, and other information are registered at the office. Then the number is so deeply stamped into the tire that it remains with it throughout its existence. If, in the wear of the tire, it shows any flaw or peculiarity, the cause can be accurately traced.

On our return from Latrobe, a short visit was made to the foundry and machine shops of Mackintosh, Hemphill & Co., makers of blowing engines and other large machinery used in iron and steel works. While we were there, they filled the moulds of some very large steel castings. One of the members of the firm conducted us over the place, and wished us all manner of good fortune and success when we left.

On Friday morning a short excursion was made to the Pittsburg Water Works to see the great pumping engines, the largest of their kind in the world. The four plungers of the

pump lift 2,700 gallons of water in one full stroke.

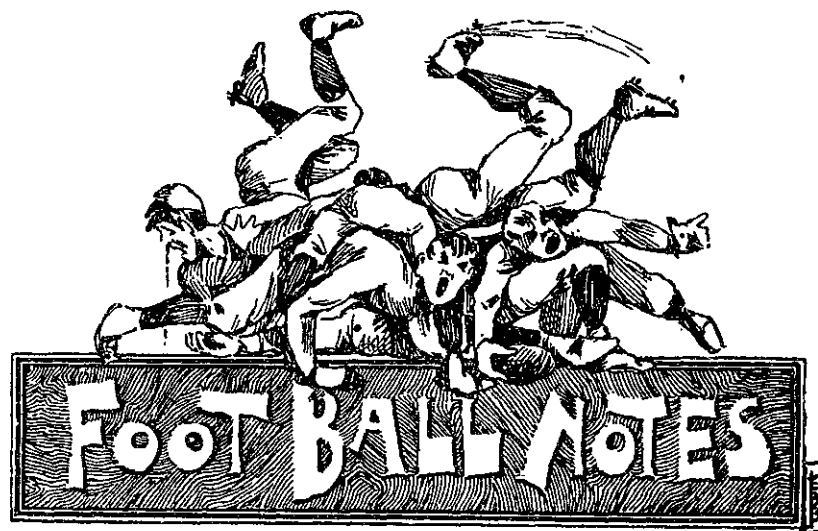
It was unfortunate for the Summer School that the aluminum works of the Pittsburg Reduction Co. were being removed to Kensington during June; but we saw the remains of the old works, and got some specimens of the metal. Capt. A. E. Hunt is President of this company.

The last iron industry visited was that of the Carbon Iron Company. They use a unique method for the direct reduction of iron from the ore.

The last excursion of the Summer School was made Saturday morning, June 27th, to the Allegheny Observatory, in Allegheny. Up to this time we had been dealing with tons and thousands of heat units;—on that day, Professor Very, who is in charge of the observatory, showed us instruments that dealt with quantities so small as to be beyond our conception. With one instrument, he could measure accurately the infinitesimal quantity of heat, which, if concentrated at a point within a cake of ice weighing one pound so situated as to receive heat from no other source than that in question, it would take a thousand years to melt the ice. We had a good view of the sun spots through the large telescope. We were still more staggered by the minuteness of some things when Professor Very took us to the little shop of Mr. Brashear. This enthusiastic scientist is a maker of lenses, spectroscopes, and various other delicate instruments.

At noon, June 27th, the Summer School broke up and the members scattered, not more than two going off together. In concluding the record of the "Pittsburg trip" it seems but just that the scribe should thank Professors Richards and Hofman, in behalf of the Miners, for the successful planning and carrying out of the Summer School of Mines and Metallurgy in 1891.

R. H. S.



Dartmouth, 8; Tech., 6.

THE Dartmouth eleven won their last championship game from Tech. last Friday afternoon, November 20th, on the Congress Street Baseball Grounds, in a very close and interesting game. Only a small number of Tech. men witnessed the game, but this was greatly on account of the inaccessibility of the grounds. The cheering, although not as good as at the Amherst game, was very fair.

The playing of the Tech. eleven was by far the best they have put up this year, and should have won them the game; but, as usual, our bad luck was with us, and some of our best men were injured and had to retire, their places being filled by substitutes. Besides which, in the first half Tech. lost the ball on Dartmouth $2\frac{1}{2}$ -yard line by a pitifully poor decision of the referee, who claimed that Tech. had failed to gain their necessary five yards. Clarke disputed, the distance was measured with the use of a foot rule, and it was found that Tech. had gained one foot over the requisite amount. But the referee refused to change the decision and the ball went to Dartmouth.

The teams lined up at 2.45, Tech. having the ball, and making five yards on the V, which Johnson followed with a gain of six yards; then Andrews, Kales and Boyd were sent through the center for five yards apiece. On four downs the ball went to Dartmouth and Fulsom made five yards. The umpire then gave them five yards more for offside

work by Tech., and Ide and Pollard followed this up by making a further gain of five yards. Kales tackled Ide on his next run; the ball was dropped and Beattie picked it up, ran half the length of the field, and made the first touchdown, from which Andrews kicked a very pretty goal. Time, 5 minutes. Score: Tech., 6; Dartmouth, 0.

Dartmouth's ball in the center of the field. They gained about ten yards on the V, but Tech. got the ball on a fumble and began to rush it down the field. Andrews made five yards and Clinton and Boyd made eight more. Andrews drew back as if to kick, but instead ran and made twenty-five yards by it. The ball soon went to Dartmouth on four downs, but it was almost immediately returned to Tech. for the same reason. Andrews again ran for twenty yards, being well guarded by Dearborn, and Boyd added five yards more; it was Clinton's turn now and he responded by a run of fifteen yards. At this point Abbott of Dartmouth was hurt, and Carson took his place. Tech. rushed the ball to Dartmouth's $2\frac{1}{2}$ -yard line and lost it as previously noted. Dartmouth now braced up and went through Tech.'s line time and again. The ball was soon on Tech.'s 20-yard line, when time was called.

Second half. Dartmouth's ball, and ten yards gained on the V. Then Pollard and Ide made ten yards more. Morse was hurt and his place filled by Haskell, and for the next thirty minutes the ball was kept near the middle of the field, Dartmouth having it most of the time. Then they gained steadily through Tech.'s center and had a second touchdown in forty minutes. No goal. Score, Tech. 6; Dartmouth 8.

No further gains were made, and time was soon called with the ball in the middle of the field. Score, Dartmouth 8; Tech. 6.

The teams lined up as follows:—Tech.—rushers, Noblit, Johnson, Beattie, Harvey, Haskell (Morse), Clinton, Kales; quarter back, Clarke; half backs, Dearborn, Boyd;

full back, Andrews. Dartmouth—rushers, Hall (capt.), Fulsom, Walker, M. Jones, Carson (Abbott), Jones, Barton; quarter back, McKay; half backs, Ide, Pollard; full back, Price.

Tech., 16; Stevens, 0.

TECH. ended the football season with a victory—its first in two years. Stevens is thereby forced into last place, with a record of four games lost to none won.

We took the risk of losing the game by the disabling of one of the team, as we had no substitutes on the field, but our luck forgot us that day, and our men met with no accident whatever. Our chief gains were made by the use of the circular V. It was too much for the Stevens eleven, who didn't discover how to successfully oppose it until too late.

The team left Boston Wednesday, November 25th, via Fall River. About thirty men accompanied the eleven. The two teams lined up at 10.30 next morning on St. George's Cricket Field, Hoboken, Tech. having the ball. A V was formed, and Johnson gained twenty yards. Then the new V was tried, and was completely successful, Boyd being twenty yards nearer Stevens goal before they were aware that he had started.

Andrews then went around the end for a touchdown, one and a half minutes after the ball had been put in play. Clarke kicked the goal, and the score was 6 to 0.

Stevens' ball. P. Mackenzie made ten yards on the V and Fielder ran prettily for a six-yard gain; P. Mackenzie and Hake together advanced the ball eight yards farther, and P. Mackenzie getting the ball made a good run for eighteen yards. Tech.'s ball on a fumble. Andrews made forty-five yards on a punt, Stevens making a fair catch. It was impossible for Stevens to gain against Tech., and the ball went to our eleven on four downs, and Crocker ran through Stevens' center for fifteen yards, which Johnson in-

creased by three; Andrews fumbled and a Stevens man fell on the ball; Fielder made twenty yards by a pretty run, being finely tackled by Crocker. Here Stevens lost by a "crisscross" and the ball went to Tech. on four downs, but was lost on a fumble. P. Mackenzie made nine yards, and the ball came to Tech. on Stevens' failure to increase that distance on the third down. Boyd ran finely for nine yards, adding five more in the circular V. Andrews made twelve yards, and Boyd and Andrews together carried the ball fifteen yards farther; but the ball was lost on a fumble, and P. Mackenzie gained three yards. Stevens soon lost the ball, and Andrews ran up the field for twenty yards. Clarke rushed the ball over for the second touchdown in just thirty minutes, but failed at try for goal. Score, Tech. 10—Stevens 0. Time.

Stevens' ball, which they advanced four yards on the V; but they lost on a fumble, and Andrews, Batchelder and Boyd gained twenty-four yards by runs, and Johnson, Crocker and Boyd followed with nineteen more. Then Noblit went over the line for the third touchdown, from which Clarke kicked the goal. Score, Tech., 16, Stevens, 0.

P. Mackenzie gains twelve yards on the V but the ball is lost by Fielder, Kales falling on it. Batchelder is pushed through the center for six yards; which Andrews and Boyd follow up with nine more; the ball is lost on a fumble, and Fielder kicks to Andrews, who makes a fair catch. Crocker went through the center for twelve yards and Boyd for five. Time was called with the ball in the middle of the field. Score, Tech. 16, Stevens 0.

But 30 minute halves were played, this being arranged to give the men time to see the Yale-Princeton game.

The teams lined up as follows: Stevens—rushers, Griswold, Hutchinson, Schmacher, Canda, C. Mackenzie, Maynard, Cogne; quarter back, Strong; half backs, P. Mac-

kenzie, Hake; full back, Fielder. Tech.—rushers, Noblit, Clinton, Morse, Harvey, Beattie, Johnson, Kales; quarter back, Clarke; half backs, Boyd, Batchelder; full back, Andrews.

THE annual football game and cane rush between the Freshmen and Sophomores took place at the South End baseball grounds Monday, November 23d. The usual enthusiasm was manifested, especially in the early part of the game. Later on, as '94 kept increasing the score, '95 ceased cheering and turned their attention to the flag pole.

The game was well played on both sides, but the Sophomores' team was much the heavier. Ninety-four's eleven was also much more experienced and understood the game better than '95, they having five Varsity men to the Freshmen's two. Vorce, who is a regular five-year man in '93, was sharply criticised by many besides the Freshmen, for playing on '94's end. The Sophomores were confident of winning the game, and a better feeling would have existed had they not allowed Vorce to play.

The teams were composed as follows: '94—rushers, Nash, Dumaresq, Collins, Stevens, Johnson, Muskland, Wilson, Shepard, Vorce; quarter back, Story; half backs, Clark, Spaulding; full back, Haseltine. '95—rushers, Hurd, Newall, Kushing, Smith, Walworth, Faxon, Tillinghast; quarter back, Winslow; half backs, Batchelder, Thomas; full back, Sias.

Two half-hour halves were played, '94 scoring two touchdowns in the first half and four in the second. Clarke kicked all six goals, making the final score 36-0. Several of the goals were very hard, but they were just what "Willie" wanted. The best rushing for '94 was done by Johnson and Clarke; and Sias and Batchelder both did well considering the heavy line they had to buck.

The example set last year by '93 in flying their class colors at the flag pole, was unsuc-

cessfully attempted by the Freshmen; the Sophomores foiled them, and flew a large '94 flag instead. Long before the game began, '95 had hoisted their flag, and greased the base of the pole, but, unfortunately for them, they neglected to guard their colors. This, '94 was quick to notice, and Locke, fastened to a pair of climbers, so to speak, ascended the pole, and substituted the flag of his class.

The cane rush was without any difference from the cane rushes of former years. After about twenty minutes of shoving, garment-rending and individual scrapping, Referee Kales counted hands on the stick. The Freshmen had twenty-six, while the Sophomores had only a meager eight. This mitigated, to a great extent, the sting of the football defeat, and '95 rode home on their coach cheering as though there was no such thing as a '94 football team.

The grind doesn't ask what team Tech. plays,
Or if you the date remember;
He hasn't as yet caught on to the craze,
But he'll ask you next December.

A Fact Founded on Fiction.

Together they went to the barber's stand;
They were friends that were true and tried;
They played football for glory alone,
And cared for nothing beside.

They took their seats and ordered the drinks;
Then gazed at themselves in the glass;
And as each one looked across at his friend,
He thought he looked just like an ass.

The barber he cut away all afternoon;
On him they both had strong "sinches."
He cut their hair for a quarter, they say,
Although they had full five inches.

And when they left that barber's place,
Our two friends, Willie and Joe,
Wandered 'round as if they were really lost,
As the wind didn't know where to blow.

J. R. S.



Williamstown, November 24th.—At a meeting of the football team of Williams College to-night, I. Garfield, of Mentor, O., son of Ex-President Garfield, was elected captain for next season. Garfield plays half back.

There is great probability that a league, composed of four or six teams, will be formed for the purpose of playing polo on roller skates.

The use of the First Regiment Armory, on Irvington Street, has been offered, and practicing, besides the regular scheduled games will take place there. In case the armory is unobtainable at any special time, or if it is deemed expedient to play two games at once, Winslow's Skating Rink is available.

The league will be made up of teams representing Technology, Boston Athletic Association, First Regiment, Cadets, Naval Reserves, and Trimount Athletic Club. Nothing definite has been decided yet, but the games will probably begin in a fortnight, and each club will play a game with every other club, according to a prearranged schedule. On Wednesday, December 2d, a meeting was called, in the gymnasium, of all those interested in polo, to decide on the feasibility of having M. I. T. represented in the league. Mr. Lord was appointed chairman, and, after calling the meeting to order, explained what would be necessary if a team were formed representing Tech. The team would at first be obliged to furnish skates, sticks, and balls for themselves, but when the scheduled games were begun, uniforms, training, and all other expenses would be paid for.

The games would be decided before large crowds, much pleasure would be derived by

the members of the team and the spectators, and the teams are sure to be self-supporting. Professional polo has always been well supported, and there is every reason to believe that the amateur game would be.

Suitable trophies would be presented to the individual players, and a banner, or other emblem, would be offered to the champion team.

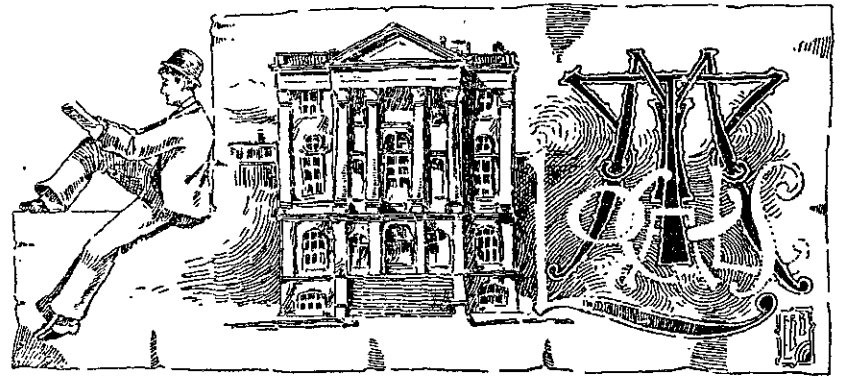
No professional coaches would be necessary, as sport and exercise are the chief objects of the game. The early games especially, therefore, would probably lack great science; this would be advantageous to Tech. as we already have many good individual players; however they have not yet had time to perfect any team work.

There is every reason to believe that M. I. T. could place a winning team on the floor, and if the same interest is continued which there is at present, our prospects are bright.

Nothing definite has been decided, but if a league is formed—and regarding this there is little doubt,—Technology will be represented by a team picked from the following list of candidates: A. L. Moody, J. C. Boyd, H. R. Batcheller, J. D. More, J. C. Noblit, H. R. Sargent, F. P. Simonds, E. N. Brown, W. C. Powers, P. H. Thomas, E. L. Andrews, H. N. Latey, J. Crane, Jr., S. Sutton, J. Boedeker, F. C. Shepard, O. F. Sager, J. E. Hamilton, H. Bourrough, G. K. Dearborn, W. F. Spaulding, W. S. Whiting, and F. W. Harwood.

A notice will be placed on the athletic club bulletin board giving date and place of first practice, and what candidates will be expected to bring.

The *Pennsylvanian* has decided to put up bulletin boards in all the departments of the University. On these will be posted, every day, college news of interest, and on Monday and Thursday the contents of the next day's number.



At last!

The revolving V did it!

The Sophs weren't "in it" at the rush.

H. G. Lobenstine, '92 is visiting in the city.

The '93 Dinner will be at Parker's Tuesday December 15th.

Let us hope that the Stevens game is a sample of next year's work.

Noblit, '93, lost an old friend last week. It seems to have affected his head.

The posters of the Athletic Meeting of December 12th have been out two weeks.

Make your entries now for the Athletic Meeting on the 12th and avoid the rush.

Electric lights have been introduced throughout Building No. 525 Boylston Street.

Our game with Stevens on Thanksgiving Day was the first one played without substitutes.

W-ntw-rth, '91, is hunting for the Miner who turned the hose on him in the "Lab." the other day.

Mr. Whitehouse is doing great work down in the "Gym," and dumb-bells are flying through the air.

Stevens didn't seem to see the point in those "Vs." of ours. They were circular ones,—we don't blame them.

F. H. Harvey, '92, has been confined to his bed since the Steven's game, having been injured in the last rush.

No, dear Freshie, that dandy lunch is not for the President's table; it is for another board,—the Board of Editors of Tech.'s great journal.

Mr. Henry M. Howe has begun his lectures to the Fourth-year Miners and Chemists on the Metallurgy of Copper.

Joy has reigned throughout the spacious parlors of the tonsorial artists of Boston since Tech.'s football team broke training.

It is reported they are going to raise the roof off the "Gym" for the athletic meeting. Come down on the 12th and see it done.

The "Techinque" board of directors are all feeling badly. The poems sent in for the five-dollar prize were read last Thursday night.

Those cheap board steps have appeared on Rogers for the season, and another means for the making of noises is thereby afforded the Freshmen.

Lost, by several Freshmen, some canes with streamers of '95's colors attached. Taken from the Mechanical Drawing Room by Sophomores.

All are reminded that our annual indoor meeting affords special advantages, which it is needless to specify, to spectators when accompanied by fair friends.

Sargent is still chasing the leader in the B. A. A. cross-country runs. He beat the winner's time in the last one, but was too heavily handicapped to win.

On December 3d and 10th President Walker took Dr. Dewey's place and gave the third-year class in Economic History two interesting lectures on "Property" and "Socialism."

She,—What an odd fancy that is—having silver around the tops of your pipes.

He,—Oh, but it's a very useful one. It furnishes the silver lining to our clouds.

Many Tech. men read the *Globe's* two-column account of the '94-'95 football game and rush. The author of it fairly outdid himself, "and the description was nothing if not graphic."

One of the Senior Chemists has already accepted the offer of a desirable situation, but will not go to work till the first of next

August. The demand for Tech. men increases.

We've been waiting for this joke for two weeks now. It has turned up about on time. "Speculation is still rife as to who the Freshman was who, in the laboratory, applied at the supply room for a 'glowing splinter!'"

With what pride and eagerness the Freshmen look for their names on the proof sheets of the catalogue! Read your name and be happy, Freshie, for the chances are three to two that you won't be in the list of regulars next year.

The Twentieth Century Club elected the following temporary officers at the meeting held Monday, November 30th: President, James Swan, '91; Vice President, Richard Waterman, Jr., '92; Secretary and Treasurer, Albert P. Mathews, '92.

Professor Thermodynamics: "Gentlemen, I don't want to make the illustration too simple, but suppose a man had three children —"

Parmly: "Sir! Were you speaking to me?"

A meeting of "2G" Society was held Tuesday evening, December 1st. G. W. Vaillant and G. C. Brown, '92, were initiated. A. B. Payne, '93, was elected treasurer, and G. W. Vaillant, '92, secretary. Ask Brown what G. K. T. means.

The setting up of electric lights in the Physical Labs. is a much-needed and most excellent improvement. How much better it would be if they were put into the Analytical Chem. Lab., too, doing away with the bothersome and unsightly gas posts now on each desk!

C. R. Boss, '93, has been taken seriously ill with typhoid fever, and has gone home to New London. Mr. Boss' illness will prevent his returning to the Institute this year, and it is thought unlikely that he will return at all. Mr. Boss is one of '93's best runners, and the Juniors will miss him accordingly.

One of the short Seniors was in the Physical Laboratory last week while the incandescent lamps were being put up. The instructor in charge of the work asked the s. s. if he could reach a lamp that was held up against the wall. "Yes, I can just barely reach it," said the s. s., "but you know I'm quite short." "That is why I asked you," said the instructor, "now, everybody can reach it."

E. D. Clark- (in Physics lecture): "Professor, will you please read that formula you have written on the board?"

Professor Cross: "I will when the proper time comes. Gentlemen, I wish you would learn not to interrupt when I am lecturing by asking such questions as whether the moon is made of green cheese or not."

The Wellesley Faculty refused to allow the publication of "Legenda" this year, stating as a reason that it required too much time on the part of the editors; but on a scientific kick by the students, they reconsidered and will permit a literary magazine to be issued without grinds. As this will take fully as much time, it is easy to see that their action is due wholly to a dislike of the grinds department. "Legenda" was, to be sure, rather hard on the Faculty last year, but those who are broad-minded enough to be selected as teachers should be able to take such things in the good-natured spirit in which they are written.

The Senior Class met Saturday noon in Room 11 to discuss preliminary class day business. Resolutions were read by Mr. Wells concerning the election of delegates from each course to nominate the class day officers. These resolutions were accepted. Messrs. Moody, Metcalf, and Newman were elected a committee to investigate the inducements offered by the different photographers of the city regarding the class photographs, and to report at the next meeting. The ballots cast for the above election showed the presence of two hundred members of the class, a proof that '92 has lost none of its old-time interest in class matters.

The fifty-seventh annual convention of Delta Upsilon Fraternity was held in Boston, November 11th, 12th, and 13th. On the first day, the local society of Nu Chi was established as the Massachusetts Institute of Technology chapter of the fraternity. The Harvard Chapter entertained the delegates with a theatre party, carriage ride, and a reception at the Vendome. On Friday evening, the convention ended with a banquet at the Vendome at which two hundred and fifty Delta U. alumni and undergraduates were present.

The Class of '95 held a very profitable meeting Thursday, Nov. 12, 1891. As the members of the class were orderly and seemed awake to the proper class spirit a large amount of business was transacted. Mr. Rosengarten reported the meeting for a few minutes until the arrival of the Secretary. The motion passed last meeting: That a committee of five be appointed by the chair to draw up a constitution and report next meeting,—was reconsidered and passed as follows: That a committee of five be appointed from the floor to draw up a constitution. Messrs. Powers, Huxley, Marster, Foster and Robbins were elected to serve on above committee.

A TALE.*

Two of the participants at the class rush, dressed in a cross between a civilian's garb and a football suit, are seen to eye each other vindictively. They hesitate, but only for an instant. With lowered heads and outstretched arms they charge. They meet, they struggle, they fall; they roll frantically in the mud and rend each other's hair. They each despoil the other of his raiment. They grow white with all-devouring rage. At last, utterly exhausted, they uncoil. First Gladiator: "Why you're '95." Second ditto: "And so are you." They crawl apart, and the crowd howls.

*This is history—not fiction.

1st Co-ed: "Have you seen the girl with the title, who goes to the Institute!"

2d Co-ed: "No! I haven't seen 'The Duchess' yet, but I've heard so much about her."

We think there is an error somewhere, and that Mr. Parmly is the cause of the trouble.

POSTHUMOUS FACETIOUSNESS.

"In England a rich man died recently, and 400 invitations were issued to his 'intimate friends' to attend his funeral. Only 29 came. Eight days afterwards these 29 faithful till death received a letter to call on the deceased's lawyer. They did so, and each received, according to his will, 320 pounds sterling if a lady, and 200 pounds sterling if a gentleman. The testator further directed that the names of those who received his bequests should be published in the journals to punish those who had not put themselves out of their way to attend his funeral."

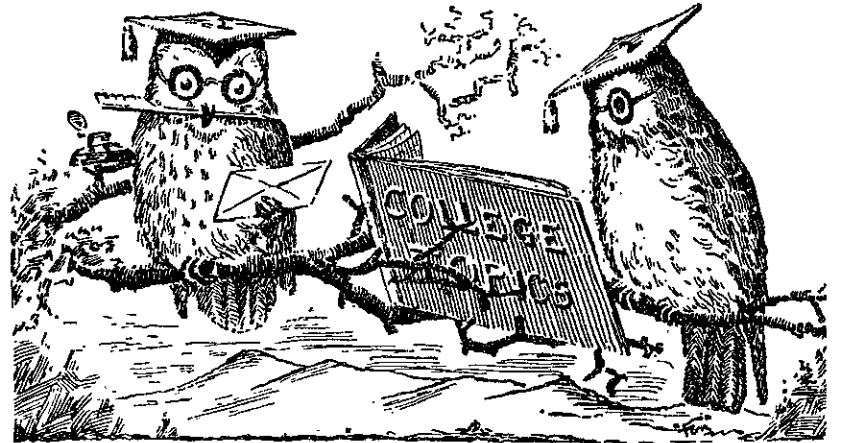
In Deference to an Old Custom.

A football man sat on a bench,
He wore a musical air,
A punted ball sailed past his head
And the wind blew through his hair.

The Faculty of Yale have decided that the Class of '94, as a class, shall not take part in any athletic sports during their college course. This action was taken because of a disturbance created on the campus, in which two tutors were roughly handled.

Statistics have been taken in regard to college journalism, showing that 80 per cent of college editors have followed journalism as a profession after graduation.

At the new Stanford University in California, 95 of the 473 students already admitted are girls.



The subject of an international eight-oared boat race between the winners of the Oxford-Cambridge and the Yale-Harvard races has been revived simultaneously at Yale and Harvard.

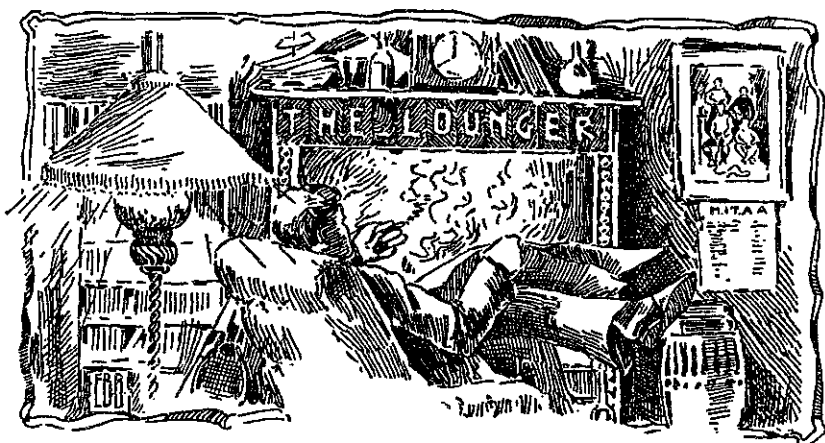
At Iowa Wesleyan University a man must have become a Sophomore and maintained an average mark of 8.5 in his studies before he is eligible to membership to a fraternity; and in many Western and Southern institutions if a fraternity man fails to come up to the requirements of the college the Faculty appeal to his fraternity for their action in the matter.

A life-size painting of Frederick Brokaw, Princeton's old college catcher, who was drowned at Long Branch last summer, has been presented to the New York Athletic Club by his father. The picture represents him in baseball costume with mask and gloves.

The following note from the *U. of M. Daily* is of interest as showing the ardor of the football spirit out West: "The game in the class league, which was scheduled to be played yesterday afternoon between '93 Law and the High School eleven, was not played, on account of the wet weather."

We clip from the *U. of M. Daily*: "The University of Pennsylvania has opened a course in Architecture this fall. This is the first college in America to give instruction in that line."

The athletic facilities at Yale are being greatly increased by the laying out of a third football field and the lengthening of the track.



PROMPTLY at one o'clock on each alternate Wednesday, the little band of workers known as THE TECH Board of Editors assembles in its office to perform its most pleasing duty. The dear old office, with its tender recollections, its trophies, and its evidences of work well done; the pictures of past editorial boards, athletic teams, and glee clubs; the piles of past TECHS and "Techniques"; the files of other college journals; the silken banner, which attests the victories of two well-fought football seasons; the peculiarly constructed window so characteristic of Rogers, which looks down on the noisy world outside; and the table on which so many literary efforts have been laboriously worked out, but which is now loaded with the choicest dainties the lunchroom can provide,—oyster patties, salads, rolls, pies, ice cream, cake, fruit, etc., are there, awaiting the onslaught. The Board sits down. For awhile little is heard except such isolated remarks as, "Pass the water, please," "Sling a biscuit over here, somebody"; but at last the flow of soul begins, and such a flow!

The Lounger wishes that he could reproduce the wit, the sparkling repartee, the thrust and counter thrust, as the keen editors exercise their mental powers. He has thought of imitating the Round Robin Talks of *Lippincott's*, but even such a treatment could not do it all justice. Such cool analysis and dissecting of motives as here takes place, such discussions as to the best modes of stirring up the grinds or scoring a point with the powers that be. Such criticism of policy, such everything. And, finally, after the Chief Editor's call for "locals" has been successfully parried, the Board rises with that comfortable feeling towards the world in general which comes of a well-filled stomach and a quiet conscience; and once more it is the unanimous verdict that all is far from being drudgery in literature.

Through the great advantages which modern literature affords, any person can shine in society. With

his "Handy Letter Writer," "Rules of Etiquette," and "Hints on Conversation," the Lounger feels competent to face the most severe social ordeal, even including, should occasion arise, a reception to the Freshmen or an explanation to the Faculty. But others not possessing the Lounger's adaptability and *savoir faire*, seem to need even more information than the text-books above mentioned afford, and thus has sprung up that important department of our magazines known as "Answers to Correspondents." It is not strange that the Lounger should receive a few such applications for information from his admirers, and such having been the case, he will now undertake to answer a few of them as completely as possible.

FRESHMAN.—It is certainly not advisable for you to begin cigarette smoking, as it is injurious to the young, and often stunts their growth. Canes are not generally carried to school, although on the occasion of which you write, it might be allowable. As to the question why Tech. does not have better tennis courts, you had better consult the Faculty. Your writing is legible.

'94 KICKER.—The reason your class is not represented on TECH is probably due to a lack of brains. For answers to your other questions, read "Social Life" published by us, price \$1.00.

R. W.—Quiet patterns are always in good taste. Should have to see the waistcoat in question.

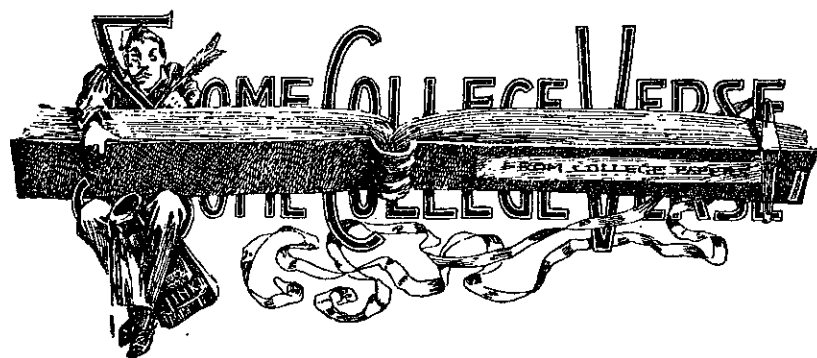
CONSTANT READER.—Soup will probably not be served in pitchers at the Senior Dinner this year. You are right in thinking it is not the correct way.

The Lounger is sorry that lack of space prevents his answering numberless other questions which have reached him and respectfully refers the knowledge-seekers to the weekly magazines which make a specialty of this sort of thing. All questions will there receive due attention, to show which the following from the *Ladies' Home Journal* may be cited:—

MOLLY.—The young man who insists upon kissing you against your will, and claims that it is an English custom, is simply showing how little he knows about English customs, and it would seem as if he thought you were equally ignorant of good taste. Certainly, if you do not want to let him kiss you it is more than rude for him to do it, and you ought, as a sensible girl, to stop it.

I have a weight upon my mind,
I overheard him say.
"That's good," she said, "'twill keep the wind
From blowing it away."

—*Pennsylvania News.*



TOO ONE-SIDED.

I tightly clasp my darling to me
 And look within her deep, dark eyes.
 I kiss her smiling, tantalizing lips,
 And to my heart I press my prize.
 Yet it's unsatisfactory *in toto*—
 Alas! 'tis but her glassy pasteboard photo.

—Red and Blue.

A WISH.

Would I were the bee that buzzes
 In and out my lady's bower,
 I would whirr in through her lattice,
 I would woo her, choicest flower.
 From her lips I'd gather honey
 Sweeter than from sweetest rose;
 Honeycomb I'd make of tear-drops
 That she weeps when night mists close.
 I would soothe her to soft slumbers
 By slow buzzing melody—
 Then I'd go and fetch from dreamland
 Dreams to make her dream of me.

—Yale Courant.

INDUSTRY.—A NEW VERSION.

How doth the little busybody
 Improve each shining minute;
 By tattling gossip all the day
 With gall and wormwood in it.

—Red and Blue.

AN OLD SLANG.

When every poetaster
 Is sorely sick to spin it,
 Some new slang will be master,
 And "in it" won't be in it.—Lafayette.

I.

(The Judge's Charge.)

"Can you show cause,
 Just cause, why we
 Should not send thee
 Away?" A pause.

II.

(The Criminal's Plea.)

'The fault's your own,
 The Faculty
 In fact worked me
 To "skin" and "bone."

—Trinity Tablet.

THOSE TENDER EYES.

When first I gazed in Phyllis' eyes
 And marked their tender hue,
 I swore by light of summer skies
 The fairest eyes were blue.

But when Belinda came to town,
 Straightway I was converted
 To worship only eyes of brown,
 And Phyllis was deserted.

Of late, such other eyes I've seen
 As thrilled my very soul;
 So dark, so deep their hue, I ween,
 Was blacker than a coal.
 For oh, we'll never see again
 Such eyes as grace our football men.

—Trinity Tablet.

INNOCENCE.

When he singled her out at an afternoon tea,
 Loyally robed in blue,
 Guess, if you can, what the end will be;
 I haven't an idea, have you?

They met, then they parted; but that wasn't all,
 He walked, rode, and danced with her, too;
 What can he mean by his call after call,
 I haven't an idea, have you?

The ballroom, one evening, was stifling and hot,
 He questioned her what they should do;
 "Let us sit by ourselves," she answered:—for what?
 I haven't an idea, have you?

They had sat in the shade of a palm-fern for hours;
 And he pleaded his love for her true.
 What answer was heard by the listening flowers?
 I haven't an idea, have you?

—Yale Record.

WHAT COULD SHE HAVE MEANT?

We sat alone, yes, just we two,
 Talking sweet words as lovers do;
 And feigning shy and bashful ways,
 Her dark brown eyes were downward sent
 Each time I tried to meet her gaze—
 Now, what do you suppose she meant?

Amid our talk I told this miss
 That truly I ne'er stole a kiss;
 She answered with all sweet accord
 While warm blood to her forehead went,
 "And boast you, sir, of that record?"
 Now, what do you suppose she meant?

A silence broke by not a word,
 A silence where no sound was heard,
 Not even one small breath of air.
 I wondered did she grant consent.
 At length she spoke, "Sir, did you dare?"
 Now, what do you suppose she meant?

—Cornell Era.