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We publish this week a novelty, under the name of College Directory, which we think will be appreciated by all students. Almost every day we hear such queries, "Who is Secretary of this Society?" and "Who are the Directors of that Association?" and so on. Now the questioned one will not have to rack his brains and finally say he doesn’t know, but may simply refer his questioner to his WPI. It is intended to publish this directory in each issue although it may be crowded out in some.

In another column will be found a communication from a graduate concerning the use of the word "school" in connection with our place of learning. Our institution, he seems to think, although not endowed with the name "college" is one nevertheless, and in this we truly agree with him. The name under which we go however is one which persons connected with the Institute tend to shorten because of frequent repetition in speaking; hence “Tech” and “the school” enters into the speech of the student and teacher, and among our friends outside “up at the Tech” conveys in toto the required meaning. But in conversing with representatives of other colleges, or in preparing a book or paper which must come under their inspection, it is indeed evident that the many times repeated “school” must influence the listener’s or the reader’s opinion of our relative standing among colleges.

Last year’s mistake in having the burlesque come so late in the season is being carefully avoided this year. It is evident that to obtain the best results the show must come at a time when the students are least occupied with outside work. The choice of time, therefore, lies between the interval just before Christmas and that immediately after the semi-annual examinations.

The show is without doubt the fittest substitute for the despised subscription paper. To the Tech student and his friends the show is most pleasing and acceptable in any case, and even the regular theatre-goer was last year forced to admit that the burlesque was above par.

Then comes the question: What kind of a show shall we have this year? Shall it be the old burlesque or a new one? Or shall we return to the minstrel show? The burlesque is by all means the more enjoyable but the time required for preparation is the argument against it. The old burlesque might be rewritten, and with the introduction of new jokes and grinds might be as acceptable as last year.
The cross-country runs still continue to be a success. The many surprises which take place tend to keep up the interest and inspire the timid ones to try their hand at the sport. The first run has shown that there are at least five new men who could be trained for some event in the inter-collegiate contests next spring. Besides this the value of the cross-country runs in preparing the way for even the Tech field-day cannot be underrated. It is a pity, too, that the Freshman class did not turn out more men for the runs. The grand showing made by their few men last time should inspire greater ambition in them, and hence a greater number of starters may be expected from them in the next run.

Good-by Excuse Book! For years hast thou withstood the jests and jeers, for years have derision and ridicule availed naught against thee. Thou hast survived the severest criticism and now suddenly, without the slightest warning, thou hast received thy death blow. The sages of other years demanded thy destruction, those of to-day are of the opinion that thy resurrection will soon be in demand.

"Lass ruhn die Todten," says the poet. The question now lies with the present state of affairs. The new rule for absences was made not for those who attend regularly and attentively to their studies; not for those who make sacrifices to complete their education at this Institute; not for the man who tries to get the greatest good out of the time spent here; but for him who cares only to pull through without regard to his standing with his fellows; for him whose weak conscience cannot restrain him from making the excuse-book the refuge from his persecutors. An analysis of the new rule says that the student cannot cut a recitation or lecture in a study which comes once a week more than once in the term. A study which requires five hours in school per week may be cut once in two weeks on an average. Shop practice as the rule stands now may be omitted at the option of the student, although it must be made up as heretofore.

The new rule affects the athletic rule in a way that the Faculty perhaps did not realize. "Only two out-of-town athletic contests, of the same character, involving absence from exercises, can be engaged in annually," says the catalogue. This of course means that such absences would be excused. Since hereafter there is no such thing as an excuse, athletic teams may go out of town as much as desired provided the members of the team take the risks of the ten per cent. rule. On the other hand, since as yet there have been no exceptions made to the new rule these two heretofore excused absences must count on the ten per cent. Hence if a man thus loses two exercises of which he has less than twenty in the term he must take the prescribed examination. Moreover, members of teams will undoubtedly receive cuts in other ways and then when the time comes for a trip away from home he must decline to go because it means an examination or two for him. Hence it is evident that to maintain any sort of a standard in athletics an exception must be made to the rule.

Concerning the other changes in the rules of government of the Institute little is said, except, perhaps, about the rule referring to conditioned students on athletic teams. It seems that some rule should be made regarding this, and perhaps the present one will tend greatly toward raising the rank in scholarship of our athletes. Such rules are now fast coming into practice in other colleges, and although it may seem hard now on some, in years to come it will perhaps be of benefit to the Institute.

Members of the Freshman class are becoming acquainted with the "Green Library" through the influence of Prof. Cutler.
WILLIAMS, 66; TECH, O.

Seventeen men received orders to start for Williamstown on the train leaving Union Station at ten minutes past eight, Wednesday, October 11th. Part of the men were at Union Station and part got on at Lincoln Square. Brigham was of course expected to be on hand but on account of an ankle sprained the afternoon before he was unable to go. As the train drew out from Lincoln Square station and the other members of the team realized that “Brig” was not aboard, the face of each one lengthened two or three inches, more or less, for with the team weakened in other ways Brigham’s absence meant considerable.

The trip to Williamstown was uneventful. Some of the men tried to see the inside of the Hoosac Tunnel from the car platform, but soon decided that the view from inside the car was good enough.

A barge was in readiness at Williamstown where the team arrived at about half-past twelve and we were driven to the Taconic Inn, where dinner was waiting. The Williams training-table is at this same place and the two teams had dinner while seated at neighboring tables. After dinner we strolled down to the gymnasium, left our grips and then strolled off for about an hour. Some of us were enabled through the courtesy of Mr. Turner, manager of the Williams team, to visit and look over one of the society houses for which Williams College is noted.

The game was called sharply at 3 o’clock. The particulars of the game are uninteresting and need not be repeated here. The Tech team, weakened by the absence of Brigham, by the general change in the team which had been made only a few days previous, and by the physical condition of some of the team who had been injured in practice, had no confidence in themselves and were only surprised at the number of touchdowns being scored against them.

The teams lined up as follows:

<table>
<thead>
<tr>
<th>WILLIAMS</th>
<th>Positions</th>
<th>TECH</th>
</tr>
</thead>
<tbody>
<tr>
<td>H. Degroat,</td>
<td>left-end-right</td>
<td>Ware</td>
</tr>
<tr>
<td>Townsend,</td>
<td>left-tackle-right</td>
<td>Leland</td>
</tr>
<tr>
<td>Ogilvie,</td>
<td>left-guard-right</td>
<td>Lamson</td>
</tr>
<tr>
<td>Robinson,</td>
<td>centre</td>
<td>Brooks</td>
</tr>
<tr>
<td>Parkins,</td>
<td>right-guard-left</td>
<td>Durand</td>
</tr>
<tr>
<td>Sawtelle,</td>
<td>right-tackle-left</td>
<td>P. Degroat</td>
</tr>
<tr>
<td>Lee,</td>
<td>right-end-left</td>
<td>Harris</td>
</tr>
<tr>
<td>Heald,</td>
<td>quarter-back</td>
<td>Chase</td>
</tr>
<tr>
<td>Ranger,</td>
<td>left-half-back</td>
<td>Allen</td>
</tr>
<tr>
<td>Ide,</td>
<td>right-half-back</td>
<td>Mayo</td>
</tr>
<tr>
<td>Wright,</td>
<td>full-back</td>
<td>Nelson</td>
</tr>
<tr>
<td>Hayne,</td>
<td></td>
<td>Arnold</td>
</tr>
<tr>
<td>Gage,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Draper,</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Umpire, Rogerson, Williams, ’92; referee, Dadmun, Worcester.

Degroat, the Williams player who was loaned us for a part of the game, played against his own team even better than he might have been expected to. His knowledge of the Williams signals was, of course, a great help to him.

Williams played a very clean but at the same time a very hard game, and Worcester seemed unfortunate in having men hurt. Allen, Leland, Durand and Chase were all retired, though none of them received serious injury. Arnold played with his weak ankle and, added to this, for most of the game he played with an arm that he could not raise from his side but kept pluckily at it because there was no one else to take his place.

After the game the men dressed as quickly as possible and started for North Adams in a barge. Supper was eaten at North Adams and the train immediately boarded for Pittsfield. Close connections were made there and the men were on the train for home. They were met at Union Station by about thirty loyal Techs who had tried hard to believe that the score telegraphed to Worcester was a mistake.

W. P. I. vs. M. I. T.

Again the gloom of defeat settles over our foot-ball eleven. Last Saturday our eleven met the strong M. I. T. team at the Oval and were beaten to the tune of 40 to 0. While the Boston team were considerably heavier than the Worcester team, weight did not play so prominent a part as in the Brown game. It was skill and knowledge of the game that decided the result, and although Worcester’s line showed up well, the work of the backs was discouraging. The poor work of the backs was brought out more clearly by the magnificent work of the Boston backs, whose running and blocking were superb.

The team lined up as follows:

<table>
<thead>
<tr>
<th>W. P. I.</th>
<th>M. I. T.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ware,</td>
<td>Underwood</td>
</tr>
<tr>
<td>Morse (Proctor),</td>
<td>1. end,</td>
</tr>
<tr>
<td>Brigham,</td>
<td>1. tackle,</td>
</tr>
<tr>
<td>Boydken,</td>
<td>1. guard,</td>
</tr>
<tr>
<td>Brooks (Capt.),</td>
<td>rt. guard,</td>
</tr>
<tr>
<td>Durand,</td>
<td>rt. tackle,</td>
</tr>
<tr>
<td>Harris,</td>
<td>rt. end,</td>
</tr>
<tr>
<td>Lathrop (Warren),</td>
<td>quarter-back,</td>
</tr>
<tr>
<td>Allen,</td>
<td>rt. half-backs,</td>
</tr>
<tr>
<td>Nelson (Zaeder),</td>
<td>rt. half-backs,</td>
</tr>
<tr>
<td>Arnold (Cunningham),</td>
<td>full-back,</td>
</tr>
<tr>
<td>Referee, H. L. Dadmun,</td>
<td>Umpire, A. Highlands.</td>
</tr>
</tbody>
</table>

Time of game: 1st half, 20. 30 min.; 2nd half, 18 min.

Boston won the toss and took the ball, Worcester defending the south goal.

Thomas stood at the centre of the field with the ball, while the remainder of the team lined up 10 yards back. They then formed into sort of running wedge on which 12 yards was gained;
Curtis being downed by Arnold. Hayden made 3 yds. through centre, Curtis made 6 yds., Andrews 4, and Hayden 4. Hayden fumbles, but Curtis gets the ball and starts to run, but is downed by Nelson, with 8 yards lost. Hayden then gains 20 yards around the end through fine interference; this brings the ball to Worcester's 15-yard line. Boston gets 5 yards for offside play by Brigham. Curtis fails to gain through centre. 2nd down, 5 yards to gain. Then Curtis goes between Harris and Durand for a touchdown. Andrews kicks the goal.

Score, M. I. T., 6; W. P. I., 0.


Ball is passed to Curtis who, aided by good interference and wretched tackling by the Worcester backs, scores a touchdown after running 75 yards. Andrews kicks the goal.

Score, M. I. T., 12; W. P. I., 0.

Allen has the ball in the V and gains 9 yards. The ball is then held for 2 downs, and Worcester is obliged to punt. Nelson makes a wretched punt the ball going away off to one side with scarcely any gain. Boston's ball on their own 45-yard line. Gains of 5 yards, then 4, follow. Curtis gains 25 yards around the left end. Ball is held for 2 downs, Harris tackling finely. Then Curtis again circles the end, runs 15 yards and scores another touchdown. Andrews again kicks goal. Score, M. I. T., 18; W. P. I., 0.

On the V, Arnold has the ball, but drops it when he is tackled, and Simonds falls on it. On the next play, Ware, who is playing a fine game, tackles Andrews with no gain. Hayden then gains 7 yards, Andrews 10 more, and Curtis circles the end, and as the ludicrous attempts of the Worcester backs at tackling prove unavailing he makes a touchdown after a run of 45 yards. Arnold makes 7 yards in the V and is injured, Cunningham taking his place. Cunningham makes 3 yards through centre, and again 1 yard. Third down, 1 yard to gain. Allen then makes 15 yards through Harris' fine blocking, but the referee thinks he went outside and puts him back seven yards. The ball is here held for 3 downs and goes to Boston. Curtis gains 10 yards. Then Hayden fails to gain at the centre.

On the next play Curtis fumbles, but manages to save the ball, but he is immediately downed by Ware with a loss of 3 yards, and Boston is forced to punt. Andrews punts 25 yards, and Allen gets the ball but is immediately downed. Durand makes 4 yards and Cunningham 3, first down. Parker is injured but continues to play. Allen fails to gain. Cunningham makes 1 yd., Durand 3, and ball goes to Boston on 4th down.

Lathrop breaks through and tackles Curtis, 3 yards lost. Harris and Ware break up the interference finely, and Brigham makes a pretty tackle, forcing Andrews to punt. He kicks to Worcester's 20-yard line. Here Cunningham goes to sleep and waits until Parker falls on the ball. Curtis fumbles but Parker falls on it. Hayden soon carries the ball over for a touchdown. The ball is touched down over to one side, but Andrews punts out to Thomas directly in front of the goal. Andrews misses the goal however. Score, M. I. T., 28; W. P. I., 0.

Allen has the ball in the V but fails to follow his blockers and only gains 5 yards. Boston soon gets the ball on a fumble. Ware downs his man for no gain. Then 2 yards are gained through centre. 3d down. Curtis goes 8 yards around left end. Hayden gains 6. Worcester holds here, and Andrews punts 30 yards. Morse is hurt at the next scrimmage and Proctor takes his place. Worcester fails to gain, and Nelson punts back to centre of field, Cunningham downing Curtis finely as he caught the ball just as time was called.

In the second half Zaeder takes Nelson's place, and the only good playing back of the line for Worcester is done by him.

On the V, Zaeder makes 11 yards. He is then sent around the left end and makes 10 more. This brings out a "P I" from the grandstand, the only Worcester yell during the entire game. After a few short gains Boston gets the ball on 4 downs. Boston then forces the ball back by gains of 3, 7, 5, 6, and 8 yards at a time. Lathrop gives way to Warren. Hayden makes 20 yards. On the next play Warren tackles finely, and 1 yard is lost. Curtis and Simonds gain 4 yards each, and with 3 yards to go Curtis carries it over. Andrews kicks the goal.

Score, M. I. T., 34; W. P. I., 0.

Four minutes more to play. Cunningham gains 7 yards in the V, but the ball is then held for 4 downs. Brigham makes a fine tackle and several yards are lost. The Boston backs then make steady gains of 10 yards at a time. Ware makes a good tackle on the 15-yard line, and Proctor gets through and tackles for a loss of 2 yards.

But this is only momentary, and Hayden scores a touchdown just inside the time limit, from which Andrews kicks goal.

Score M. I. T., 40; W. P. I., 0.

The general play of the Boston team was strong, Curtis especially did excellent work, as did Thomas. The interference of the backs was superb, and their tackling sure.

Team play for the Worcester's was an unknown quantity, the backs usually going alone against the strong line of their opponents. The
tackling of the Worcester team as a whole was fearfully weak, and even after a man was down he was allowed to go several yards because no one knew enough to sit on him. The position of full-back on defensive, the place above all where sure tackling is needed, was filled in a wretched manner; the opposing half-backs going past about as they pleased. It seems rather late in the season for the team to begin learning to tackle, but a great improvement will have to be made in this respect, before we succeed in winning many games with strong teams. It is to be hoped that Saturday was merely an off day with the team, and that they will regain their old form again by next Saturday, for their playing last Saturday was certainly behind their work in previous games.

THE NEW EXCUSE SYSTEM.

At last the old blot of excuse-books is removed from the sight of students. The old system which, as some of the instructors were wont to remark, aggravated the possibility of fitting nice sounding excuses to the spaces allotted to them, with a greater possibility of exaggeration, has been entirely dropped. What is known as the "Amherst excuse system" has been adopted. Under these rules a student may be absent from exercises in one subject to any amount under ten per cent. When that limit is reached a special examination is given, the place, time and character of the test to be at the discretion of the instructor. A condition is the result of not passing in this. All such conditions may be removed by the student attaining a standing of B for the final term examination. A man may be absent ten per cent. of the exercises, take the examination, be passed and then be absent another ten per cent. This ten per cent. test may be omitted when sickness is the cause of the absence, or may be omitted on special vote of the Faculty if so recommended by the instructor. If a student fails to attend the first exercises after a recess, each such absence counts as two, unless sickness prevents return when each will count as an ordinary absence. Practice, laboratory work and drawing must be made up as directed by the instructor. As usual, a tardiness counts as half an absence. These regulations are not to allow a student to be absent a certain part of the time, but to fulfill the conditions of the needed change and still to have strict rules regarding absence and tardiness. In our opinion it is a much better system and will undoubtedly receive the hearty cooperation of both teachers and students.

Several other new regulations have been adopted. If a student for the work of any term receives three marks below C, he forfeits his standing in the class.

No conditioned student will be allowed to belong to, or play with the base-ball or foot-ball team or to engage in any of the intercollegiate games unless by special permit of the Faculty Athletic Committee. This rule may also apply to regular or special students whose class standing is not satisfactory.

WHY A MAN SHOULD SUPPORT HIS COLLEGE PAPER.

In a previous number of the WPI under the title of "A Novel Ad.," a '94 man in substance says, "What does a college which does not support athletics amount to?" A question which should perhaps precede this and which is surely as important, is, "What does a college which does not support a college paper amount to?" or, in other words, "Why should a man support his college paper?" In reply to this question, there might be two answers, first, it is a benefit to the college, and secondly, it is a benefit to the man himself. And why is it a benefit to the college? Because through the circulation of the paper the college becomes more widely known, and students are thus induced to come and fill its ranks. Take for instance our own WPI, nearly every issue of which contains an interesting paper on some subject pertaining to mechanical or electrical engineering. After reading these papers how can anyone interested in these departments fail to see the advantages of the Institute? Secondly, through the exchange of college papers new ideas are formed which may oftentimes be profitably introduced in our own college. And now with regard to the second statement, why is it a benefit to the man himself? Under this head many different reasons might be given; however, only a few of the more important are here considered. In an institution like the "Tech," where there are no dormitories, it is a well known fact that there is a lack of sociability, and members of one society or division move entirely independent of another and little is known of the proceedings of the Institute outside their own division.

A college paper in a measure removes this difficulty and its readers become acquainted with all the societies, and indirectly with their members. In another way it is valuable to the students for it tends to make them upright and straightforward by keeping them in fear of disgrace through the columns of the paper (for a student cares more for the respect of his classmates than for the outside world). It encourages all the societies of the school, giving full reports of the meetings of each; and it gives the
The tennis tournament.

In the semi-finals, Abbott fulfilled expectations in defeating Goodrich, but the '96 man made him work harder than was expected even by those who knew that Abbott was not playing in good form. Abbott took the first set 8-6 after a hard contest. Goodrich stuck to back court game and returned many of Abbott's hard drives, but seemed weak on back-handed work. The game stood two all in the next set when the play was postponed on account of darkness. On the next day, the set was continued and Goodrich took the set 6-2. Abbott's ankle, which he hurt last spring, necessitated another postponement to Friday at one o'clock. Abbott showed a decided improvement and took the set 6-2.

Later in the afternoon, Dwinnell and Abbott met in the finals. Dwinnell won in two sets, 6-1, 6-4. In the second set with the score 5-1 against him, Abbott got three games, but could get no farther.

The rain prevented the play on Saturday between Dwinnell and Coburn for the championship of the Institute and possession of the Landings cup for a year. The match was played on Wednesday the 18th in the presence of an interested crowd of students. Both men appeared nervous and afraid of each other in the first set and both drove many balls out of court. Coburn took first set 7-5. Dwinnell started off in the second set by taking three straight games—by good placing by Dwinnell in the left-hand corner of the court and by two double faults of Coburn. Dwinnell ran to the net often but sometimes failed to get the balls over the net. Coburn then got two games. The sixth game was the prettiest one of the set and two sharp rallies were witnessed, in which both men played well. Dwinnell took the game, making the score 4-2. Coburn got one more and that was all, '94 man winning, 6-3.

In the third set, Dwinnell did some good placing and had three games to Coburn's one. Coburn then took four straight, his cross-court drives when Dwinnell ran to the net being particularly good. Coburn's service was also swifter than Dwinnell's. Dwinnell looked tired and did not try for some of Coburn's returns. Dwinnell took the ninth game after deuce had been called several times. He also took the next game and the score was five all. Coburn took the next game and did some good placing, but made many drives into the net. In the last game score was 40-0 in Dwinnell's favor, but he lost the game and set. The third set was Dwinnell's easily, 6-1. Coburn seemed all at sea and made several double faults. In the fifth and decisive set, both men played carefully rather than hard. Dwinnell was at one time within two points of the set, but could not get them. Coburn won the set 7-5. Dwinnell, on the whole, played fully as good tennis as Coburn, winning twenty-seven games to the latter's twenty-five, but he was passed at the net at critical points and did not seem to have great confidence in himself. Coburn kept to his old tactics of placing alternately in the right and left corners of the court. His cross-court drives won him many points. The score was 7-5, 3-6, 7-5, 1-6, 7-5.

First cross-country run.

On Thursday afternoon, Oct. 19, the first of the three cross-country runs, which are to be held this fall, took place. The course was from the boat-house at Institute Park to Barber's Crossing and back, a distance of about 4½ miles. The time of the winner was 24 minutes 31 seconds, but 16 seconds slower than the record now held by Baker.

Right here we would suggest that the Athletic Association secure, for the remaining runs, the services of some one who is either a professional timer or thoroughly accustomed to timing. It seems that this should be done in justice to men who compete and endeavor to reduce the present records as much as possible. Those

athletic team, the value of which has previously been shown, its hearty support. Not all students were built for athletes, and those who were not find recreation and pleasure in working for the paper. Most papers of this class are run by companies or by the board of editors who share equally in the profits, but while as a rule they do not pay large dividends, those connected with them are forced to exert themselves in order to make the paper pay, thus an excellent class of literature is obtained.

Members of the athletic team find it essential to success to have the hearty support of every member of the school and expect each to contribute liberally. Can the editors of a paper run it with their own money more than eleven men can run a foot-ball team, or nine, a ball-club with their own money? They deserve the support of the athletic team just as much as the athletes need that of the paper which is as beneficial to them as any other one thing. The editors have to spend much valuable time in writing, throwing up athletics and even neglecting their studies. Now let every man in appreciation of the good work they have done, subscribe for his college paper.

W. H. E.
who timed the men on this run differed in their results by over thirty seconds.

Thirty-five men were on the mark when Instructor Coombs gave them the word, a few minutes before five o'clock. They were:

'94. C. M. Allen, Buffington, Cobb, Davenport, Chambers, Eastman, Fuller, Harris, Heald, Linnell, McFarland and H. N. Smith.—12 men.

'95. O'Connor, Poore, Wellington, Clapp, Thayer, Morse, Field, Clement, Denny and Brooks.—10 men.


O'Connor immediately took the lead and scarcely a minute had passed before they were lost to the view of the spectators present.

O'Connor was the first to turn, closely followed by Lungren. Then came Davenport, Chambers, McFarland, Field, and Whittall, who was fully two hundred yards behind O'Connor.

On the road home, Whittall gradually closed up the gap which separated him from the leaders and when Chadwick Square was reached was running in third place. He continued to gain on O'Connor and Lungren and came over the mark a winner by less than three yards. Lungren was second.

All the starters with one exception finished.

The first twenty men to finish were:

\[
\begin{array}{c|c|c|c|c}
\text{Name} & \text{'94} & \text{'95} & \text{'96} & \text{'97} \\
\hline
\text{Whittall} & 20 & 19 & & \\
\text{Lungren} & & & & \\
\text{O'Connor} & 18 & & & \\
\text{Chambers} & 17 & & & \\
\text{Field} & & 16 & & \\
\text{Davenport} & 15 & & & \\
\text{McFarland} & 14 & & & \\
\text{Heald} & 13 & & & \\
\text{Brown} & & & 12 & \\
\text{Fuller} & 11 & & & \\
\text{Wheeler} & & & 10 & \\
\text{Linnell} & 9 & & & \\
\text{Eastman} & 8 & & & \\
\text{Cobb} & 7 & & & \\
\text{Poore} & 6 & & & \\
\text{Morse} & 5 & & & \\
\text{Vaughn} & & 4 & & \\
\text{Young} & & 3 & & \\
\text{Smith} & 2 & & & \\
\text{Thayer} & & & 1 & \\
\hline
\text{Totals} & 96 & 46 & 27 & 41
\end{array}
\]

As will be seen by the above score, the banner which is given to the class scoring the most points in the series of runs, will doubtless be won by '94 which class, after the first run, has a clear lead of 50 points over her nearest competitor, '95.

By far the most creditable work was done by

'97. That class entered four men and three of them succeeded in scoring 41 points.

Both Whittall and Lungren ran well and should do good work for the Institute in the Intercollegiate sports.

The first six men received badges. The three men who score the greatest number of points in the three runs will receive medals, gold, silver and bronze, for first, second and third greatest number of points respectively.

The officers of the run were:—Zelotes W. Coombs, referee; H. B. Coumans and F. E. Killam, '94, judges at turn; E. B. Whipple, '94, and W. E. Hapgood, '95, judges at finish.

The next run will be held Friday, Oct. 27, the course being to Coes Square and back.

Y. M. C. A. PENTATHLON.

On Saturday, Oct. 21st, Fitchburg was the scene of the all-round athletic contests of Y. M. C. A. gymnasiums. Each gymnasium sends a team proportionate to its membership—two for the first hundred and one for each hundred after that. Each of the men has his record taken in every event. The five events in which the men competed were, 100-yds. dash, mile run, pole vault, running high-jump, and throwing the hammer. The points which each contestant scores are determined by the individual merit of the performance and not by the relative position of the other competitors. In the 100-yds. dash, a record of 10\frac{1}{2} seconds counts 100 points and every \frac{1}{2} of a second makes a difference of 10 points. Five minutes is the standard in the mile run and every second counts one point.

In the running high-jump, a man has to do 5 ft. 7 in. to get 100 points and one point is deducted for every quarter-inch below that mark. For the pole vault 10 feet is set as the mark and every half-inch counts one point. Fifty feet, six inches scores one point in throwing the hammer and each succeeding six inches gives one point.

Worcester sent up a team which contained four Tech men out of the five, J. A. Derby, '93, J. M. Gallagher, '94, E. B. Whipple, '94, F. L. Stone, '95, and J. Moyrnan, W. A. C. In determining the team score the average number of points is taken as the result. Worcester won the championship and a beautiful silk banner with an average of 299\frac{1}{2} points, while their nearest competitors, the Pawtuckets, had an average of only 288\frac{1}{2} points. Last year with a team of only three, the Pawtuckets won with an average of 254. The highest individual score was made by Cameron of Pawtucket, who had 353 points to his credit. Derby was the second highest with a score of 343. A marked improve-
ment was evident over last year’s work, as last year no one scored 300 points, while this year Worcester alone took three silver medals for making that score. The arrangements of the games were not the best; to many of the men the timing did not seem accurate and the pole vault dragged along so that the men became tired and could not make good records. Derby, who did 10 ft. 4 in. at the Intercollegiate games, could do only 8 ft. 7 in. In the mile run the five Worcester men led their competitors easily. Whipple and Gallagher did the best work of the Worcester men in the 100-yards dash, making it in 10 $\frac{1}{2}$ sec. Whipple did 5 ft. 1$\frac{1}{2}$ in. in the running high-jump. The individual work can be seen by referring to the score.

<table>
<thead>
<tr>
<th></th>
<th>100-yds.</th>
<th>Mile</th>
<th>Pole</th>
<th>Hammer</th>
<th>Jump</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Derby 11</td>
<td>5-25</td>
<td>8-7</td>
<td>78</td>
<td>5-1</td>
<td>76</td>
<td>76 343</td>
</tr>
<tr>
<td>Whipple 10</td>
<td>5-19</td>
<td>8-2</td>
<td>69-11</td>
<td>5-1$\frac{1}{2}$</td>
<td>78</td>
<td>78 334</td>
</tr>
<tr>
<td>Gallagher 10</td>
<td>5-14</td>
<td>8-2</td>
<td>61-5</td>
<td>4-10</td>
<td>64</td>
<td>64 308</td>
</tr>
<tr>
<td>Stone 11</td>
<td>5-25</td>
<td>7</td>
<td>66</td>
<td>4-8</td>
<td>56</td>
<td>56 261</td>
</tr>
<tr>
<td>Moynihan 11</td>
<td>5-7</td>
<td></td>
<td>56-6</td>
<td>4-4</td>
<td>74</td>
<td>74 250</td>
</tr>
</tbody>
</table>

Total score, 1496
Average, 299.5

A SUGGESTION FROM A GRADUATE.

I notice in conversation with members of the Institute, in articles published in the WPI, and finally in the catalogue, that our place of learning is known and spoken of as a school.

Now, this has been brought to light before, and at first many may think of very little consequence, but on second thought I am certain everyone will agree with the writer that that is not right.

It is placing the Institute on a lower standing than she deserves. To a stranger it places her on a level with high schools, manual-training schools and others of that standing.

Now, why is the Tech not worthy to be classed with other Colleges and Technical Institutes?

She is worthy of it and does take her place with any of them in many ways. Do not let us lower her in the estimation of any one when we can prevent it in so simple a way as this.

Now that you are fast becoming their equal in the athletic line there seems all the more reason for this change. Let this little suggestion be received in the spirit it is given, not of criticism but looking forward for the best interests of the Tech.

Let us in the future hear from the Institute on the hill and not the school.

A COMMUNICATION.

The statement that no man can serve two masters was amply demonstrated last week in regard to the Physical laboratory. Our respected president teaches the necessity of attending to our devotional duties on the Sabbath. Now if we are given enough matter to prepare for an examination to keep us more than busy all day Sunday, which professor must we obey?

ASKED BY A ’94 MAN.

THE SOCIALISTS.

On Saturday Evening, Oct. 14th, the Socialists of ’92 and ’93 held a reunion at the Commonwealth Hotel on Front Street. The meeting was largely attended and members from the class of ’94 were initiated. After the initiation the company attended to the menu and the following toasts were given: the Socialists of 1892; the Socialists of 1893; the Socialists of 1894; the Ladies; the World’s Fair; and Life at the Tech. After a short business meeting, the remainder of the evening was spent in the usual socialist manner.

NEW EDITORS.

At a special meeting of the Board of Editors the following were elected to membership:—A. W. Walls and W. E. Hapgood, ’95, and H. E. Wheeler, ’97. As but few candidates tried from the Freshman class, it was decided to leave competition open till Oct. 28. The class should begin to show interest in school affairs and at least ten men ought to apply. A position on the Board is not only an advantage, perhaps, from a financial point of view but also from a social and especially an educational standpoint.

ELECTRICAL LABORATORY.

The Seniors’ course in the laboratory this year consists of four principal experiments, viz.:- Box of coils, tangent galvanometer, high resistance galvanometer and slide metre bridge. Under each of these there are four or five sub-experiments, such as, finding the resistance of a battery, finding the electro-motive force of a battery, etc. There are five instruments of each kind so that more than one man can be at work on the same problem. The boxes of coils have been made to measure within two-tenths of one per cent. Several standard ohms have been
adjusted to serve as standards for the Seniors' work.

The laboratory has been almost entirely re-arranged and refitted so that it has a very interesting appearance. The room is all ready for the Seniors, but some of the Seniors, those who failed to pass the examination, are not, in the opinion of the instructor, ready to occupy places in the laboratory. It is to be hoped that these will soon pass the examinations required, for there is a good deal to do and it won't pay to get too far behind.

The post-graduate men have lately been fitting up the lower electrical laboratory for their own use. Those in the Senior electrical course will keep at work on the general laboratory problems until they are finished, both general and electrical hours for practice, and then take up practice in the lower laboratory.

**A NEW PROCESS OF ELECTRIC HEATING.**

In the consular report for June there is an interesting account from Frank H. Mason, consul-general at Frankfort, of a new and wonderful method of employing electricity in the heating, melting and refining of metals, recently patented at Berlin by two Belgian scientists—Messrs. Lagrange and Hofo. So simple are the means employed that when application for a patent was made to the German patent office the official examiners were incredulous and demanded a practical demonstration of the process before they would issue the desired patent. The process was accordingly tested by an electrical expert in Berlin, with such brilliant success that, with the inventors' permission, the experiments were repeated before the Electro-Technical Society of Berlin.

The apparatus consists of a glass or porcelain vase provided with a lining of lead, the lead being connected with a conductor which brings from one pole of a dynamo a strong current of positive electricity. The vase is filled to three-fourths of its capacity with acidified water. A pair of iron tongs, with insulated handles, is connected by a flexible conductor with the negative pole of the dynamo. The current employed varies with the extent of the effect to be produced. In the experiments at Berlin a tension of 120 volts and energy of 220 amperes were registered.

With the simple apparatus described—a vase and pair of tongs—most remarkable results were produced. The electrical current having been switched on, a bar of wrought iron was taken up with the tongs and plunged into the water in the vase. Immediately the water began to boil at the point of contact. Presently the immersed portion of the bar became red hot, then white hot, emitting a flood of brilliant white light. In a few moments the heat becomes so great that the iron melts and its exterior parts fall away in bubbles and sparks, leaving a clear, glowing surface in perfect condition for welding. So rapid has been the heating that neither the water nor the end of the bar within the tongs has been more than slightly warmed. If the current is switched off the bar, with its submerged end still glowing, it may be held in the naked hand. Hitherto it has been impracticable to utilize over 20 per cent. of the electrical current in the form of heat, but by the Lagrange-Hobo process fully 50 per cent., it is said, is utilized. By employing powerful currents extraordinary degrees of heat have been produced—heats three times as great as the temperature required to extract iron from its most refractory ores.

The explanation of the process lies, according to the consular report, in the power of electricity to decompose water. The current passing from the lead lining of the vase through the water to the bar held by the tongs decomposes the water into its elements, oxygen and hydrogen. The oxygen goes to the lead lining of the vase, where it produces no noticeable effect. The hydrogen, on the other hand, is set free on the surface of the immersed portion of the bar. It forms a sort of gaseous envelope, or varnish, about the iron, and, being a bad conductor of electricity, resists the passage of the current and thus, according to the theory, develops the heat which causes the bar to glow and melt. So far the process has been applied experimentally only to the welding of various metals. But its success in this field has been such as to promise a complete revolution. The methods of electrical welding hitherto tried have been unduly expensive and they have had the defect of leaving the welded metal in a crystalline condition, to the injury of its tensile strength. This has resulted from the difficulty, under previous methods, of controlling the temperature of the electrical furnace—a difficulty which the Lagrange-Hobo method removes. The clean envelope of hydrogen about the heated metal prevents oxidation, and the welding surface is kept free from all impurities. The process will, it is claimed, greatly reduce the cost of refining metals.

**SCIENTIFIC NOTES.**

Sir Nathaniel Barnaby says the best war-ship of the future will be built of

1. Steel.
2. There must be an inner water-tight ship.
3. Excepting vessels required for training purposes, there should be no sail power.
4. The engines and boilers must be protected by a strong deck, proof against rupture by the exploding force of shell, or by equivalent means.
5. There should be more than one propeller.
6. The engines should be vertical.
7. The boilers should be so fitted as to work without serious risk of leakage under forced draught.
8. The ship should have a powerful stem.
9. The brain of the ship must be protected by efficient armor.
10. The ship should have a water-line slice or raft body from five to nine feet thick.

An Australian inventor has just perfected a method of plowing with the help of dynamite. The explosive is used in small quantities, and there is an apparatus for touching it off under ground. The result of this is to thoroughly disintegrate the soil. It is asserted that there is no possibility of a serious explosion, and that owing to the small quantity of dynamite used the cost is very little, while the resulting benefit is enormous.

When the thermometer registers 100° the cable which draws the cars of the East River bridge, New York, is seven feet six inches longer than when the thermometer is at zero.

A curious anaesthetic used in China has recently been made known. It is obtained by placing a frog in a jar of flour and irritating it by prodding. Under these circumstances it exudes a liquid which forms a paste with the flour. This paste, when dissolved in water, has well marked analgesic properties. After the finger has been immersed in the liquid for a few minutes it can be cut to the bone without any pain being felt.

For what is the greatest amount of lumber used? Nine people out of ten will say for houses and buildings. The railroads, farmers, and miscellaneous purposes take about 40 per cent., 20 per cent. goes into boxes, and it is doubtful if 35 per cent. is used for buildings. This estimate is made by one of the oldest lumbermen in the country.

The variety of calcite discovered on the Suwanee River is said to vary in color from a rich pink to a deep magenta. On further examination it may be found to display other colors much sought after for ornamentation and useful articles of marble.

**COLLEGE NOTES.**

Yale has started another reform in foot-ball. Her team this year will use rubber foot-ball spikes in place of the leather articles previously used.

It has been hinted that the reason so many colleges are throwing their doors open to women is that in this age of foot-ball and general athletics someone is needed for the faculties to teach.

Lehigh University intends to build a laboratory that will have no equal in the college world. The cost is estimated at about $200,000.

By the will of the late Joseph Spinner, of Brooklyn, Wesleyan secures nearly a million dollars.

The M. I. T. musical organizations contemplate extended trips during the coming season.

Active measures are being taken at Williams towards the establishment of a college infirmary for the benefit of any student who may become ill.

There are 117 colleges represented among the graduates studying at Columbia.

Smith College will in the future enjoy the benefits of a college journal. Unlike any other college paper, it will contain no advertisements.

Co-education at Tufts will be tried next year. Twenty-five women have already applied for admission.

Out of 150 candidates for admission to West Point, only 43 were passed.

The League of American Wheelmen has refused sanction to the L. C. A. A. A. and all colleges affiliated with the same for cycling events until the association takes appropriate action to recognize the League of American Wheelmen rules and govern its cycling in conformity therewith. All wheelmen competing in cycling events at meetings under the auspices of any of the colleges of the association will become liable to suspension.

When Wesleyan University first opened its doors to young women, there was no opposition among the young men. The former, however, have so increased in numbers that the boys began to feel their influence in college affairs, one effect of which is the decline of foot-ball, as girls are not experts at that kind of kicking. Twenty-five per cent. of the freshman class this year is of the fair sex, and the ratio in the whole body of students is as 1 to 5. The first evidence of the feeling of the boys was the name "quail," which signifies a woman student at Wesleyan. Webb hall, the dormitory of the young ladies, is known as "Quail roost," but this is not all. The boys have organized the "P. D. Q." society, the object of which is to put down the "quails." The society is secret,
On Friday, Oct. 13, division B of the Juniors, accompanied by Dr. Fuller, spent the afternoon in the vicinity of Ballard's quarry, at Quinsigamond. They were fortunate in having a perfect day for their outing, which greatly added to the enjoyment. On the way down a half-hour was profitably spent at the wire mills.

Mineralogical excursions still seem to have a great deal of interest for students. Thursday a number of Seniors, to the extent of eight, two of whom have completed the course, made a journey to the Quinsigamond quarries and there hammered and chipped the afternoon away. A stop was made at the Quinsigamond mill of the Washburn & Moen Company, where much valuable information was gained from a metallurgical point of view.

A. B. Upham of Boston has presented the Worcester councils of American Mechanics with a copy of the Stewart portrait of Washington, to be presented by the councils to the Lowell high school, in connection with the raising of the flag over the new high school building in that city, in which delegations from the Worcester councils are to participate. The portrait is accompanied by two silk flags with which to drape it.

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**HIS LETTER.**

"DEAR FATHER:

"Please excuse," he wrote, "the hurried shortness of this note, but studies so demand attention, that I have barely time to mention that I am well, and add that I lack funds; please send me some. Good-bye, your loving son."

He signed his name, and hastened to— the foot-ball game.

---

**EXCELMIOR.**

He went into a sporting store, and looked the stock of flayers o'er, and bought, the honest dealer swore, a good bicycle.

Regal he glided down the street, and bowed to all he chanced to meet; "My figure couldn't well be beat," oft to himself did he repeat, "Good bicycle."

He'll coast a hill both steep and high, Great bowlders in his pathway lie; in vain he tries to steer her by—a crash—a smash—"Alas, I die," he gurgles with despairing cry, "Good-bye, cycle."

---

**Brunonian.**
HARD TIMES.
"This store to be wound up at once,"
Was the sign that I saw down town,
And I judged that in the late dull months,
The business had quite run down.

---Brunonian.

THAT YOUTH.
"O, punning youth, restrain your words,
Keep back that silly pun;
For me it means a certain death,
And yet for you 'tis fun."
"My punning days have long gone past;
I want to rest in peace;
But you let fly at every chance.
I pray you, won't you cease?"
Now this's the way he answers me:
"I—pun my word I can't."
And making up a sancy face,
He looks at me askant.
"I'll have no faces made at me,
I hate those faces wry,"
"You're quite facetious, aren't you now?"
He says in pert reply.
"O punning youth, flee hence at once!
Why must I kick you out?"
But dodging he departs and cries,
"'Twould be a feat, no doubt."
I turn away. "No use," I say,
"For me advice to give;
Each boy must have his share of puns
Or be to good to live."

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