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Published on alternate weeks, during the School Year, and devoted to the interests of the Worcester Polytechnic Institute.

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CHAS. HAMILTON, PRINTER, 311 MAIN ST., WORCESTER, MASS.

Messrs. Alfred D. Flinn, '93, and Harry L. Cobb, '94, have been elected members of the Board of Editors. Owing to the resignation of Frank E. Norcross, '94, there is a vacancy in the delegation from his class, competition for which closes to-night.

Manager Phillips has shown commendable taste in arranging his games entirely with college 'varsity teams and not with high school and freshman elevens. We can swallow a defeat from one of the former, but with an insignificant fitting school, the dose becomes nauseating.

A communication in another column regarding the Tech pin is worthy of attention. For years graduating classes have had some design of pin for a badge of their old class, and recently by the adoption of a uniform style, it has come to represent as well the school. It would be a shame now to have this custom fall into disuse merely because of the perversity of one dealer. The several classes should elect representatives to a committee of the Institute and this committee should re-let the contract, if our communicant's complaint is well-founded.

As again we gather from far and near to resume the daily studies which three months ago were discontinued with more or less of relief, the changes that have taken place call our attention, and we see new surroundings, new rules, new faces. The Shops have widened out until their capacity is nearly doubled; tuition has risen one fifth; strange faces greet us in recitation room and corridor. But other changes to which we had looked forward, are noticeable only from their absence. A new member has been elected to the Faculty, but he comes to take a chair which until recently has been filled by another. Numerically that body remains the same as it was a year ago, and excepting those who have been elected to fill vacancies, there is but one member of the present Faculty who has joined it since 1883. In these nine years, the grounds, the buildings, the number of students have nearly doubled. Why, we are led to ask, is this disproportion? Is it far-sighted policy? Apparatus and equipments are fine things to have, but in the education of a young man, above and more than all the apparatus and equipments, is the indefinable benefit which comes to him from daily contact with men of scholarly abilities and breadth of thought, whose opinions are better authority than the words of the text-book. It has been said of the late Mark Hopkins, that a log, with him at one end and a student at the other, was all that was required for a university. So here after
all, we need men more than buildings, and association with brains more than with books. Who can say that the advantages offered to students to-day are greater than those of ten years ago, when although a free school, the work was carried on in smaller divisions and under the direct supervision of professors; not delegated to instructors and assistants of less experience and knowledge? Surely some of the inducements which the Institute used to extend to students, are vanishing; are they being replaced by greater?

This leads directly to another subject, for criticism at least. Within a few years it has grown to be customary to appoint members of the last graduated class as instructors in the Institute. It is a little difficult to find the reason for this. Either our graduates have greater ability than those of other schools and hence are much better qualified to teach, or their services can be obtained for less remuneration. If the latter is an explanation, they must be men commanding less pay than those from similar schools—an unpleasant admission to make. If the former, it takes considerable faith to believe that a student in one class is capable of instructing others who are but a year or two behind him. Although we pay a good round sum for tuition, more indeed than is paid in many colleges, we can pass it over when a new graduate is engaged in tutoring an Apprentice, or Junior, but when he is expected to guide in the paths of learning, men of the Senior class, many of them older than himself, and with perhaps a more extended High School education, the average student has a right to object. However great his ability, he has had no experience in teaching and cannot have the influence over his classes that a stranger would have, and no matter what their good intentions, students will not gracefully submit to authority coming from one whom they have pounded on the football field and fooled with in the halls. This school, if it stands in the rank which it should, is no place for newly-fledged Bachelors of Science to experiment with their knowledge, and the students are not corpses to be dissected for the instruction of would-be teachers. This process of educating teachers for “home industry” has developed so much of late, that as a paper devoted to the best interests of the Institute, we feel called upon to remonstrate, and to demand in behalf of the students instruction from experienced men, not from those the ink upon whose diplomas is scarcely dry!

The foot-ball subscription paper approaches and students are requested to give some material evidence of their interest in the sport. Last fall, after a lapse of several years, the game was revived and the fire of enthusiasm was started only to burn lower and lower as the season advanced until at last it nearly expired. The Institute score card showed nothing but a succession of defeats, but was that an excuse for saying that it is not possible for the Tech to put a victorious eleven on the field? A manager was not appointed until after the fall term had commenced; he took a fortnight’s vacation and then his successor, handicapped by three weeks’ time, was elected. The Captain also was not chosen until late, and then had to pick his team mostly from men new at the game, and exercise them on a poor field without the services of a trainer. The season was nearly over before it was possible to pick out the best players and apply to them even the adjective, good. This year all is different. The Manager and Captain were chosen last spring and had plans well under way at the opening of the term. Both are conscientious hard workers and the latter has an eleven,
the majority of whom are experienced and know the ball from the goal-post. Through the generosity of Mr. Stephen Salisbury a splendid practice ground is at their disposal and it is hoped a coach will be at hand in a few days.

When these advantages are recognized, it is difficult to see how any one but a croaker can prophesy an unbroken series of defeats. If practice, if weight, if hard work, if an energetic and determined captain, if a Business Manager count for anything towards success, a certain amount of it is assured the crimson and gray eleven this fall.

Then when the foot-ball men themselves are expending so much time and force to make this possible, let the other students cheerfully subscribe their money and pay for a coach and the necessary running expenses. There must be a hundred students who can subscribe $2.00 each, and many more who can give smaller amounts.

Do not hold off and mutter about "Wait until they do something." Make it possible for them to do something. If Wesleyan is to be played do not compel the men to walk to Middletown and then wonder why they are defeated. Friends of the Alumni, we are assured that checks with your valued autographs could be conveniently cashed in town. Let every student who can, attend the games and contribute his share towards the expense and enthusiasm.

YALE GRADUATE SCHOOL.

While the graduate school at Yale is perhaps less often heard of than that at Johns Hopkins or Harvard, one would hardly be justified in assuming for that reason that its merits need not be investigated when choosing a university where graduate work may be pursued most advantageously to one's self.

The academic department, or college proper, was founded at Saybrook in 1701, being known as the "Collegiate School" and was removed to New Haven in 1716, where in 1718 it assumed the name of Yale College, changing in 1887 to the university. It was not until 1847 that the first graduate courses were announced and it is only within the past few years that much attention has been paid to this department of the university work. Recognizing, however, the ever increasing demand for facilities for advanced work, the graduate school has been steadily broadened until to-day it offers two hundred courses to the graduate student with facilities for individual research in any department of study he may desire to pursue. In this letter I shall not attempt to point out any of the advantages of graduate work after leaving the Tech, since that feature has been expatiated upon in previous letters from other sources. Taking it for granted therefore that the student will be acquainted with the benefits of more extended and, I must say, more serious study in whatever line his talents and inclination may lead him to pursue, we will suppose him asking where such study shall be done.

Of the many courses offered at Yale he will find under the general head of philosophy and logic seventeen courses open to him under the direction of Prof. Ladd and his assistants, for which however one is hardly prepared by his previous training at the Tech. Passing therefore, to the subject of Economics and Political History, twenty-three courses will be found, which under the direction of Profs. Sumner, Hadley and Farnam are perhaps superior to any offered in America. Professor Sumner's abilities and researches are too well known to need any commendation from me, while in the field of the Economics of Railroads and Corporations Professor Hadley stands perhaps second to none. Instruction is by recitation, lectures and reports by the student, which method has been found most advantageous, and is employed in all departments, including the professional schools. For many of the courses here offered the Worcester graduate will find himself well prepared and at the same time many of the undergraduate courses are open to him in advance of his Tech work and may very profitably be pursued. If the student desires to take up Mathematics thirty-three courses are open, besides undergraduate courses which one may arrange to take, under the direction of Prof. DuBois (whose "Strains in Framed Structures" is used at the Tech by the Civil) of the Scientific School, or Profs. Newton, Richards and Phillips with their assistants of the academic department. Natural and Physical Science offers nineteen courses under men who are leaders in their particular lines. Dana in Mineralogy, Chittenden in Biology and its kindred subjects, Profs. Bursh, Verrill and their assistants are all men with whom mere contact in recitation must stimulate one's interest in his
work and be productive of best results. Finally, eighty courses in Language, ancient and modern, are open to any who may desire to follow them. Such a letter as this is necessarily very incomplete and for further information I would recommend writing for a university catalogue, stating the branches to be pursued and after a careful perusal of what will be checked therein, writing personally to the professor under whom most of the work will be done, or better yet, run down to New Haven and have a personal talk with him. Whatever the subject chosen every facility will be offered for its successful study. The University is equipped with two libraries besides those of the professional schools, in all containing some 215,000 volumes, which are at the disposal of the graduate student and are supplied with all current magazines, literature, the foreign periodicals alone numbering five hundred. Three laboratories offer unsurpassed facilities to the chemist or physicist, while a new mechanical laboratory in the scientific department is at the disposal of the engineer. The degrees of M.E. and C.E. are given for two years study to the graduate of scientific schools; M.A., Ph.D. are reserved for those only who have obtained the degree of Bachelor of Arts. No specified period of study however is required for the pursuit of single courses not leading to a degree, provided the student can show previous study sufficient to qualify him for the work desired to be taken.

To aid one in his work various clubs exist in which membership is open, for the investigation of topics connected with the courses pursued. Such are the Mathematical Club, the Political Science Club, the Graduate Club, and many others. I myself had the privilege of being connected with the latter named organization during the year just passed and found it a very useful organization. It was composed of about twenty men selected from the various departments, to give the greatest diversity of membership possible, and at each meeting one or more papers were read by some member upon subjects directly connected with his department, be it science or art, law or theology, but of general interest, thereby acquainting each other with the latest developments in each field. The value of such work, entirely voluntary as it is, cannot be overestimated. Various lectures are also given by men prominent in their spheres each winter in the university course or under the auspices of the various research clubs; on an average of two or three a week. Admission to these lectures is only limited by the size of the hall in which they are given and a regular attendance upon them is an education in itself. Last year such men as Henry Cabot Lodge, Ex-

Minister Andrew D. White, Congressman Wilson, chairman of the State Democratic National Convention, General Francis Walker and many others were heard in these lectures. A course of Mechanics' lectures and a series of chamber concerts are also given each year at which a small sum is charged for course tickets.

As to the expenses, they will be found somewhat greater than for the same accommodations in Worcester, but here as there they may be made to fit any pocket-book. Here however if you excel in your special line of work tutoring may be easily obtained and will be found very remunerative. Two to three dollars an hour are readily obtained, ranging as high as five dollars during the weeks immediately preceding examinations. The Tech graduate at Yale should find himself particularly well fitted to obtain profitable tutoring in Mathematics and the sciences.

In a short space then Mr. Editor I have endeavored to set forth the advantages and possibilities of post-graduate work at Yale. Any further information within my power I shall be pleased to impart to any one in doubt who will take the trouble to write me.

F. W. Treadway.

Sept. 16, 1892.

THE OUTLOOK FOR FOOTBALL.

A Painstaking Captain. A Good Team.

All remember well the football season of 1891, and the revival which the sport had at that time. Much enthusiasm was aroused among the students and a fair amount of money was raised for the support of a team, which although not having the good fortune to win a single game, played so well and conscientiously that it won the admiration of all the students, and proved conclusively that the day was not far distant when the W. P. I. would become a worthy antagonist.

All have looked forward to seeing a good team represent the Institute this year and from present appearances, hopes will not be disappointed.

M. C. Allen, '94, who was last fall elected Captain, seems to be the right man in the right place. He has been in training more or less all summer, and has had the welfare of his team constantly in mind. Besides being a fine player himself he understands the game thoroughly and the management of a team, and with proper support, will undoubtedly lead it to victory.

Early last week the candidates for the team appeared on the field and practice has been
held every day since. Allen has picked out the following men for the regular eleven. Here it should be said that he is working solely for the best interests of the Institute, has chosen those who in his opinion will make the best players, and it is to be hoped that no one will feel hurt because he is not included, but rather will enter heartily into the work of the second eleven.

The make-up of the eleven is as follows:

P. W. Lincoln, '93, Left End.
D. H. Hodgkins, '93, Left Tackle.
F. H. Brigham, '93, Left Guard.
C. O. Rogers, '93, Centre.
N. M. Brooks, '94, Right Guard.
C. P. Ware, '95, Right Tackle.
A. D. Butterfield, '93, Right End.
M. B. Chase, '94, Quarter.
M. C. Allen, '94, Left Half.
F. L. Stone, '95, Right Half.
H. M. Southgate, '92, Full Back.
F. W. Smith, '95, Subs. Tackle.
G. O. Rollins, '95, " End.
A. D. King, '95, " "
H. C. Boyden, '94, " Guard.

It is noticeable that this is a very representative team, '93 has four men, '94 three, and '95 three, while Southgate, '92, completes the eleven.

Capt. Allen feels that he has a strong even team. Nearly all the men have played considerably before. Lincoln, Rogers, Butterfield, Chase, Allen, and Southgate, all were on the regular team last fall, and Hodgkins was one of the best men on the second eleven. Brooks was for two years on the M. I. T. varsity team, and understands the game perfectly. Brigham, although a new man and green at the game, is showing up in fine form. He is just the man needed for his position being especially good on running with the ball. He bids fair to make a second Heffelfinger, and were he at Yale would be sure to be valued. Ware is an old tackle on the Academy team and a tricky player. Stone has played back in the English Rugby at his home at St. John, N. B., and seems to understand his position.

The tackles are perhaps a trifle light, but this is fully compensated for by quickness and agility. The ends are also a little heavy, but Capt. Allen considers this to be a good quality. The three centre men and the three backs are to have new suits.

The field back of the Institute where it has been the custom to practice is so rough and full of hummocks besides being situated on a slope that it fails to answer the requirements of the team. At the meeting of the Football Association, Messrs. Fuller, '93, Paull, '93, and Southgate, '92, were elected a committee to see Mr. Salisbury and find out if arrangements could be made whereby the team might have the use of the land on Highland street between Boynton and West streets. After being interviewed, Mr. Salisbury took the matter into consideration. Later he sent for Mr. Fuller and said that he would be unable to let the team have the field. Mr. Fuller very happily asked if the Grove street ball grounds were being used. Mr. Salisbury said he had not thought of these and was perfectly willing that the team should have the use of them. The students are hence once more indebted to Mr. Salisbury for his generosity. The grounds afford a most excellent place for practice, and Capt. Allen says are just the right distance from the Institute as it obliges the men to take a good run, and will prevent any one from slipping off without participating in this exercise. All the football men are overjoyed to know that at last the team has a good practice ground.

Nothing has been heard from Lake, '90, now at Harvard, who it was expected would coach the team, and it is probable that he will not be able to come. If such be the case Newell of Harvard will probably be secured. He has been at football ever since his connection with the University and is an excellent coach.

As soon as possible, games will be arranged with Harvard Freshmen, Tufts and the M. I. T. Holy Cross sent a list of dates for consideration, but as they were mostly for other days than Saturday but one game could be arranged.

The following is the schedule of games as arranged to Monday noon. Many will be disappointed because none have been planned with the Academy eleven. This is owing to the fact that the Principal of that school has forbidden games with any but fitting school and college freshmen elevens, hence the satisfaction of effectively beating that Academy Eleven is to be denied to Allen this fall:

Oct. 1, Amherst Aggies at Amherst.
" 15, Amherst Aggies at Worcester.
" 29, Browns at Worcester.
Nov. 12, Holy Cross at Worcester.

Season tickets and a complete schedule of the games for the season are soon to be issued.

In regard to the quality of the teams with whom the W. P. I. will play it is needless to speak. The Aggies and Brown are both much stronger than last year. Harvard Freshmen have nearly all the members of the Hopkinson team which last season took the Interscholastic championship.

One change of some importance has been made in the rules, i. e.: After a touchdown is made the ball goes back to the centre whether the goal is kicked or not. Capt. Allen likes the
new rule, because under the old one a strong team could virtually give up two points for the sake of saving twenty-five yards. It will tend to give both teams a better chance and will probably slightly lower the score.

Little now remains but for the students to vigorously support the team with money and enthusiasm. Several of the Alumni have already shown considerable interest, Messrs. Bartlett, '92, Camp, '88, and Patterson, '88, have several times been on the field. If the Alumni would thus encourage the men and a few of those who are able would open their purses a little for sake of the school on the football field it would be a great help. It certainly does not seem too much to ask of the Worcester Alumni to buy season tickets.

NEW INSTRUCTORS.

Wm. MacDonald, the new professor of Political Economy, was born in Providence, R. I. He lived there but a short time, however, his people moving to Newton, Mass. In the public schools of that city he prepared for college.

When about to enter upon his college course, his health became completely broken down, and two or more years were spent in seeking to regain it. During this time he went to sea. Upon his return he began a course at the New England Conservatory of Music at Boston, and was graduated in '84. He then assumed the position of Dean of the Department of Music in the University of Kansas, an institution at that time about eighteen years old. His work here was the business management of the department although he did some teaching in theoretical branches. Everybody connected with the university was greatly interested in pushing and developing it, and Prof. MacDonald was no exception. He travelled a great deal for the purpose of lecturing, also wrote articles for the papers and did whatever he might for the purpose of extending the scope and power of the institution. He made the acquaintance of many of the public men of the State. During this time he became acquainted with the daughter of Mr. J. G. Haskell, State Architect, the lady to whom he is married. The last three years of his stay at this place were devoted less to teaching than to the study of History, Economics, and Literature, for he had it in mind to make a change in his work. He entered Harvard in 1890 as an advanced student in these subjects, completing his course last June, and was appointed during the summer professor at the W. P. I.

Prof. MacDonald is taller than the average, and of good proportions. He is light complexioned, wearing a heavy mustache but no beard. He has already become quite popular with the Senior Class.

His opinions on athletics will doubtless accord with that of a majority of the more thoughtful students. He regards athletics (including football) as a most important means to an end, viz.: a sound and healthy development physically, but he holds the means subservient entirely to the end.

Prof. and Mrs. MacDonald are settled for the winter at No. 35 Chestnut St., corner Bowdoin, where he will be glad to see those who need his services or desire to call. The W P I can assure them of a cordial welcome.

The other instructors and assistants are: Mr. Geo. Viles of Harvard College, in Modern Languages, Mr. T. E. Brayton in the Mechanical Laboratory and Messrs. H. M. Southgate, C. O. Smith, and E. M. Howard, all of '92, in Physics and Electricity. It is expected that this department will need a further addition to its corps of instructors.

ATHLETIC ASSOCIATION.

The semi-annual meeting of the Association was held in Chapel, Thursday noon, Sept. 22nd. Vice-president Dyer in the chair. Chas. Baker, Jr., '93, was unanimously elected President for the ensuing half-year. The other officers elected were: Vice-president, C. A. Burt, '94; Secretary, G. A. Denny, '95; Treasurer, W. H. Parker, '93; Keeper, H. W. Moore, '94; Manager Intercollegiate Team, A. C. Comins, '93. In the absence of Mr. Baker, Mr. Burt took the chair after the election of Vice-president. There was considerable discussion over several subjects. A scheme for having a running track laid out near the grounds was proposed. It was suggested that the Association hold an indoor meet some time during the winter at which the new men could be brought out and selections made for the team. This was met by another suggestion that the Manager be instructed to put an Institute team into open contests held in the city during the winter, and the Directors were finally authorized to take the matter into consideration. The most important action by the meeting was the vote ordering the Cross Country runs to be held in the fall instead of the spring. This change was discussed at length last spring, both in the columns of the W P I and outside. The change is an important one, and the result will be watched with much interest. The principal advantages are that long-distance running conflicts less with foot-ball training than with base-ball and general athletics, and that in the spring students are engaged in two branches of ath-
letics while in the fall only foot-ball occupies the time.

At the opening of the meeting Treasurer Rawson read his report for the preceding half year. In an abbreviated form it was as follows, and was accepted without question.

L. W. Rawson in account with W. P. I. A. A. Cr.

Balance from Minstrel Show ........... $1859.91
Rec'd from Whipple ..................... 6.75
" " Denny, '93 ......................... 5.75
" " Strong .............................. 2.25
" " Gallagher ......................... 4.00
" " Southgate ......................... 2.00
" " Davis .............................. 3.00
" " Leland ............................ 0.00
" " Whipple .......................... 4.25
" " Sale at gates ..................... 46.50
" " Profits on programs ................. 5.45
" " Springfield Bi. Club, rebate .......... 5.00
" " Constitutions ...................... 4.50
" " Whipple for shoes .................. 1.75

Total ................................ $226.06

Dr.
Southgate and Comins' expenses to Boston 84.26
Entrance fee, Bean Pot race ................ 2.00
Printing programs, tickets, etc. ........... 21.50
Cross Country badges ..................... 5.75
Entrance fee, N. E. I. A. A. .............. 15.00
Police and ticket collector ................ 4.00
6 hammer handles ........................ 5.00
3 Medals ................................ 12.00
Badges .................................. 20.25
Hire of Oval ............................ 10.00
Advertisements .......................... 5.00
'94's banner ................................ 0.50
Paid Bartlett, '92, Manager ............... 50.00
R. R. Fares ................................ 32.37
Express and storage ..................... 8.50
Shoes ................................... 10.75
Sundries ................................ 2.31
Vaulting pole ........................... 4.50

Balance remaining in treasury ........... 7.87

Total ................................ $226.06

THE NEW STUDENTS.

In numbers, the present Junior class, of about ninety, eclipses all its predecessors. It is as yet hard to tell what athletic material there may be among them. Field did good work at the last High School field day, winning the 120 yds. hurdle and taking second in the 220 yds. hurdle and ½ mile run. In the interscholastic games he tied for second in the 120 yds hurdle, and has also played end and half-back on the high school eleven. A. W. Doe was one of the high school's foot-ball men having played tackle and end. If there are other athletes among them, which is very probable, we shall expect to hear from them later. The class beats the record on ages, ranging from 16 to 34.

Below are the names of the new men who have entered this fall:

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Home</th>
<th>Former Place of Scholarship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albertson, C. W.</td>
<td>18</td>
<td>Worcester</td>
<td>Worcester</td>
</tr>
<tr>
<td>Burton, N. G.</td>
<td>19</td>
<td></td>
<td>High</td>
</tr>
<tr>
<td>Doe, A. W.</td>
<td>17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Edmands, F.</td>
<td>18</td>
<td>Hopkinton</td>
<td></td>
</tr>
<tr>
<td>Farwell, S. A.</td>
<td>20</td>
<td>Hubbardston</td>
<td></td>
</tr>
<tr>
<td>Field, H. E.</td>
<td>19</td>
<td>Worcester</td>
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COMMUNICATIONS.

To the Editor of the W. P. I.

The writer wishes to say a few words from the students' standpoint on the unfortunate position in which certain members of the Senior Class now find themselves. Last spring, when the students were given an option between electrical practice or shop work, a small number, somewhere about ten men, signified their intention of taking electrical work. The understanding then was that the men would be required to be graduated as electricians.

In response to certain inquiries made by members of the class and presented to the Trustees, they decided that anyone who had made up the whole of his shop practice should be allowed to take an electrical course but to be graduated from the Mechanical Engineering Department. Under these rules, twenty-two signified their desire to take electrical practice, more than half to be graduated as Mechanics. A few more were undecided.

When school opened this fall it was found that aside seven or eight who wished to be graduated in the electrical department, there were twenty or more who had made up various amounts of time; who wished to be Mechanics but to have some electrical practice. Ten who had made up their full time may go on with electrical work while the others are barred out, in accordance with the vote of the Faculty.

Now some of these men purposely left some of their time to be made up in the Senior year in accordance with suggestions from the Super-
intend of the Shops. Naturally they felt disappointed at not being allowed to get some insight into practical electricity but, of course, nothing can be done. Prof. Kimball says that he cannot accommodate them, and we think all will admit that his department is now overworked.

The writer is one of the fortunate ones who has made up all his time, hence he cannot be accused of impartiality on the ground of having himself been disappointed. But to his view and to that of many of the class, it seems as though the disagreement between what may be called the literary and mechanical factions of the Faculty had here worked openly to the disadvantage of the students. It is decidedly unfortunate that such factions should exist, but still more unfortunate that the students should be the inoffending victims of the quarrel. In the future let us hope that if differences must exist, they will be kept in such abeyance that the good name and character of our Institute shall not suffer.

Ed. W P I:

When a college is discussing the prospects of a foot-ball team, the first thing looked for is the support of students, and this is the condition of things at the W. P. I. Will the students of the Institute back Manager Phillips?

Practice has already begun and the first eleven should be at a training table, but this cannot be done until there is some money in the treasury. Now as soon as there is money steps will be taken to have the men board together, and until then we cannot have a strictly first-class eleven.

Now I think that no student will dispute the benefits of a training table or that the Institute can not support one, so let every man "ante up" his little mite and stand by the team.

The players have already shown up in good form and there is every prospect of a first-class eleven, and a few plus games. Owing to athletic meets at the Oval there will be no home games until Oct. 15th, but when they do come let every student go and bring all his friends, whether male or female, and give the team support that will make Manager Phillips and the eleven feel as if they were working for something.

"One Interested."

THE TECH PIN.

Ed. W P I.

There has arisen of late a great deal of dissatisfaction in regard to the school pin, and the current opinion is that Mr. Gard is not the man to have the contract. He is not living up to the agreement he made with the original committee, which was that if a student wished a pin all he had to do was to order it. But instead of this if a pin is wanted, an order for at least a dozen at once must be given. Nearly every fellow wishes a pin or should wish one, and arrangements should be so made that he can go and buy one at any time without having to wait to procure other orders.

It seems to me that if Mr. Gard has not the means to keep a few pins on hand all the time, the contract ought to be taken from him and given to some party who is financially situated to keep that amount of gold in stock. Now this is a matter which does not affect one student nor one class, but the whole Institute, and it seems as if a meeting of the Institute should be called to attend to it and the sooner the better, so that if the contract is given to some one else, the new party may have time to get out new dies and thus save the students another long delay.

Ninety-Four.

Note: While calling at Tiffany's, New York, last summer, we learned by inquiry that for a single pin the price would be about $8.00, but that on a contract, or an order of twenty or more, the price could be put about as at present, $5.00.—Ed.

TENNIS.

A meeting of the Tennis Association was held at noon of Sept. 20, Vice-president Sinclaire in the chair. Minutes of previous meetings read and accepted, also the Treasurer's report which shows a balance of $40 (on the right side). Officers for this half were elected as follows:


After much desultory talk in regard to nets and marking the courts, the whole thing was decided to be a part of the Executive Committee's business.

Later the Executive Committee decided on a tournament in which the entries and drawings were as follows:

SINGLES.


DOUBLES.

Preliminary, Southgate and Nelson, bye, Derby and Nelson vs. Higgins and Coombs;
Baker and Butterfield vs. Eaton and Dwinnell, Vaill and Cleveland, byes.

The prizes in doubles are two heavy white sweaters one kindly presented by Mr. E. B. Clapp and in singles, pair tennis pants. The winner in singles plays H. M. Southgate for the Lansing Cup.

Y. M. C. A.

The Association enters this year upon its work under very favorable circumstances. The customary topic cards with the hour plan attached were on hand and distributed on the first day of school. The first weekly noon meeting was held Tuesday, Sept. 20th, and the meetings will be held as usual throughout the year on alternate Tuesdays and Wednesdays.

Arrangements are being made whereby four prominent Worcester gentlemen will be present and speak at four of the meetings of the present term. Last year a similar plan was carried out very successfully and much interest was shown by the attendance of the students. Arrangements are also being made for the annual reception to the Junior Class, which this year will occur on Friday, Oct. 7th. The Mechanical Model Room and the Drafting Room opposite, at the Salisbury Laboratories will be used. Several committees are already at work upon the matters of decoration and entertainment, and the affair promises to be more enjoyable than that of last year. It is expected that some three hundred or more will be present.

NOTICES.

Sept. 30, Friday, P. M., Bliss' Field, W. P. I. Second Eleven versus High School.

Oct. 1, Saturday, P. M., at Amherst, Amherst Aggies versus W. P. I. Eleven.

" 7, Friday evening, Y. M. C. A. reception in Salisbury Laboratories.

" 8, Saturday, P. M., Worcester Athletic Club games at Oval.

" 10, Monday, 8 P. M., Meeting W. M. E. at Laboratories.

PERSONALS.

"81. We have to acknowledge the receipt of several government publications of a scientific nature from Sydney, New South Wales, sent us with the compliments of their author, N. A. Cobb. Also copies of extracts from the Proceedings of the Linnean Society of New South Wales. Many thanks.

"88. G. F. H. Von Wrede has been promoted to Master Mechanic of the Philadelphia, Reading and New England R. R. Co. with headquarters at Hartford, Conn.

This road used to be the Central New England and Western before it became a part of the Philadelphia and Reading system.

"89. We have received cards announcing the marriage of Louis H. Harriman to Miss Henrietta Jones, Georgetown, Mass., Sept. 6th. Mr. and Mrs. Harriman will reside at 309 Spruce St., Le Droit Park, Washington, D. C.

Erwin O. Hathaway was married to Miss Nina V. Russell at Petersham, Mass., in June last. Their home is to be at 30 Spring St., Springfield, Mass.

"91. G. E. Barton is chemist for the Aetna Powder Works, Miller, Ind.

"92. F. E. Hammond is in the city engineer's office, North Adams.

E. L. Mundin is draughting at Washburn and Moen's, Worcester.

J. H. Wallace is with the U. S. Coast Survey.

E. L. Smith is private assistant to Professor Gibbs, Newport, R. I.

Clarence E. Alderman has a position in the Union Iron Works, San Francisco, Cal.

T. E. Brayton, Jr., is assistant in Mechanical Laboratory at the Institute.

A. A. Peiton is Instructor in Manual Training and Drawing, High School, Washington, D. C.

Chas. A. Needham is foreman in the Pettie Machine Shop, Newton Upper Falls.

F. B. Knight is draughtsman with Lidgerwood Manufacturing Co., 96 Liberty St., New York City.

M. J. Lyden is studying law.

A. H. Smith is draughting with Levering and Garrigues, 218 So. 4th St., Philadelphia, Pa.

H. W. Bracken is with the Hopedale Machine Screw Co., Hopedale, Mass.

F. W. Collins is in the electrical business on his own account in Worcester.

E. W. Howard is taking the advanced electrical course at the W. P. I.

G. H. Miller is with the Camden Iron Works, Camden, N. J.

A. B. Moulton is draughting for the Cleveland Machine Works, Worcester.

William Nelson is taking the advanced electrical course at the W. P. I.

H. N. Paige is with the Deane Steam Pump Company, Holyoke, Mass.

C. O. Smith is taking the advanced electrical course at the W. P. I.
L. C. Smith is instructor in mathematics at Washington University, St. Louis, Mo.

G. F. Freed is draughting with the Gould Steam Pump Co., Seneca Falls, N. Y.

W. W. Grimes is in the City Engineer's office, Somerville, Mass.

C. E. Alderman's address is 314 Eddy St., San Francisco, Cal.

Fred A. Morse has accepted a position with the Nicholas Chemical Works of Brooklyn, N. Y.

G. F. Freed's address is 62 East Bayard St., Seneca Falls, N. Y.

'93. Walter V. Gutmann, who left the class at the end of the junior year, was seen this summer by classmates. He has been studying in a weaving school at Aix-la-Chapelle, Germany, and this winter expects to spend his time as a common laborer in the finishing department of a German woolen factory, in order to fit himself to enter his father's business, that of a woolen manufacturer. He has enjoyed himself very much, can speak German quite readily, and says he is rapidly learning to absorb the contents of the historic beer mug, without stopping for breath. He intends to be in Worcester next June, and along with Fletcher and "Dan" Bullard, attend the obsequies of his old class. Like a loyal son of the Institute, he has forwarded a subscription to the W P I.

W. M. E.

The Washburn Mechanical Society will hold its second regular meeting in the Salisbury Laboratories of the Worcester Polytechnic Institute, on Monday, Oct. 10, 1892, at 8 o'clock P. M.


Alumni and members of the Institute who are interested in the work of the society are cordially invited to attend the meeting.

Geo. I. Alden, Sec'y.

CLASS MEETINGS.

'94 held a class meeting Tuesday, Sept. 20th, and elected the following officers: Pres., C. H. Dwinell; Vice-Pres., M. C. Allen; Sec., E. B. Whipple; Treas., N. B. Hale; Athletic Director, J. M. Gallagher. Preparations were also begun for the half-way supper.

At a meeting of the class of '93 held last Wednesday noon, the following officers were elected for the ensuing half-year: Pres., W. H. Larkin, Jr.; Vice-pres., Chas. Baker, Jr.; Secretary, W. H. Parker. N. M. Paull was elected Treasurer for the entire year. L. P. Strong was re-elected as Athletic Director. A committee of five was appointed to consider and report upon the best method of conducting and managing a class book. The Treasurer's report showed about $125 in the class coffers.

At a second meeting of the class held Monday noon, on the recommendation of this committee a plan for the management of the Class-book, something as follows, was adopted: It is to be under the control of a Board of six Directors, including an Editor-in-Chief who has general supervision over the work, and has the power to make assignments and to accept or reject copy, but all matter accepted must be submitted to the Board, and any action by him may be overruled by a two-thirds vote. Three literary editors, an Illustrator who has charge of the illustrated matter, and a Business Manager in charge of the financial management complete the list. The latter two officers each have two assistants, and are responsible to the Board in the same manner as the Editor-in-Chief.

At a meeting of '95 held last Saturday noon, the following officers were elected: President, F. W. Parks, Fitchburg; Vice-President, F. H. Brigham, Barre; Secretary, A. H. Warren, Worcester; Treasurer, A. W. Roe, Worcester; Athletic Director, Chas. A. Harrington, Worcester.

COLLEGE NOTES.

The American Arena is the name of a new paper which is soon to appear from its office of publication, Grinnell, Iowa. It is to be a weekly, and devoted entirely to collegiate athletics. It is proposed to have athletic news of every kind from all colleges in the country, with articles on training, cuts of teams and athletes.

The Faculty of Wesleyan have forbidden any students with conditions not made up, to enter any of the athletic teams, a regulation which is said to have seriously affected the college's athletic interests.

Brown University is to introduce military drill this fall. It will be made compulsory to the Freshman and Sophomore Classes and will be under the supervision of a United States officer. The revenues from renting the dormitories at Brown, are given to the Athletic Association—an illustration of the encouragement given to athletics.

'90. Windsor T. White was married Sept. 14th, to Miss Delia Holden.
THE NEW SHOP.

Now that the new shop is nearly completed, the equipment is to be at once put in and the machinery started up. When this is done the facilities offered will be greatly increased and more work and students can be accommodated. Most of the new machinery will be set up on the first floor, and consists almost entirely of the stock of the Worcester Elevator Co., which was sold to the Hutchins Machine Co. and later was bought by the Trustees.

The principal pieces are as follows: Two large engine lathes, with respectively 37 and 32 ft. beds and 20 and 26 in. swing; one 12 ft. and one 8 ft. lathe; a large straightening machine; large upright drill; driving engine for water or steam; $330 worth of drilling tools; small drills, pumps, presses; about $700 worth of elevator patterns; a grindstone and emery grinders, and a large amount of tools, cutters and small pieces that go to make the equipment of a machine shop. The entire value of the outfit is about $7,000, and when new must have cost a great deal more. It is in very good condition, especially the big lathes.

The pipe lathes and heavy machinery in the old iron-room are to be moved through into the new part, and in the space left, smaller and lighter machinery will be placed. All pipe-testing and setting up will also be done hereafter in the addition.

The second floor of the new part will be devoted almost entirely to the putting together and arranging of elevator cars, thus doing away with much of the present inconvenience. The third floor is to be reserved for future demands for space, although it is hoped and planned that before a great time it may be utilized for machine-design work for classes. The upper room of the tower is to be used for blue-prints and a door opens out upon the roof where there is a fine opportunity for exposing sheets.

One of the most pleasing bits of news concerning these improvements is that the Blacksmith Shop is to be removed into the new basement, and the forges will occupy the northeast corner. There is a large chimney to carry away the heavy smoke which has for so long driven the mosquitoes and nearly every other being from the old room, and plenty of light and space. The old room is to be fitted up as a wash-room, thus allowing more locker space in the ell. A large circular forge and small trip-hammer are among the things looked forward to in the new basement. Since the shop engine has been speeded up, there has been no trouble in running whatever machinery has been put on it, and it is expected that for the present at least, it will be sufficient to carry the additional machinery.

Last summer, the Seniors engaged in machine draughting, designed some three-plunger pumps. Supt. Higgins intends to put the Senior division this fall, to making the patterns for one of these, and later to have one built by the class before Commencement, this to take the place of the engine lathes which recent classes have constructed. He intends to have plans made for other sizes of these, and also of electric pumps for elevators. There is an increasing demand for them and they offer a good variety of pattern work and iron practice for students.

The Shops have two ten horse-power electric drills at work on Washington St., Boston, where two 60 ft. passenger elevators are to be put in for Hollandar, Bradshaw & Folsom.

TECHNICALITIES.

Primeval exchange—"when hunters trade knives or skins."

N—wt-n,'93, says his whiskers are what take him into society.

Some of the foot-ball suits show evidence of being intended for half-backs.

The first two officers of the Senior Class are Juniors—that is, sons of their fathers.

"What day to-day last week was?" remarked one of our "Foreign delegation" recently.

The Annual Reception to the Juniors, given by the Y. M. C. A., will be held on Friday evening, October 7, at the Salisbury Laboratories.

D—nyy says that when he landed at Liverpool, he thought everything connected with the Institute was left behind, but no sooner had he left the steamer than he stumbled on the dock.

We suggest to the authorities that when the new shop addition is completed, it would be a very nice thing to dedicate it with a grand ball, giving one floor to each class. How is that?

Did the professor mean to insinuate anything when he made the following remark to his class: "Put some cranks on a shaft and they all tend to turn in the same direction, but when some of you turn one way, etc.

Student.—Are these abstracts to be written in pencil, ink or don't you care?

Prof.—I would not object to typewriter.

Student.—I—er—I hardly think not.

Prof.—In other words you mean you don't think at all.

Prof. K. is proposing to set up a large windmill on the roof of the Salisbury Laboratories to use in connection with various electrical experiments, and there is said to be a close rivalry between the blows of the school for the contract of furnishing the wind.
The need of beam compasses in the Civil Department noted in the W P I some time since has been supplied through the generosity of Messrs. Theo. Alteneder and Sons of Philadelphia. Thus a small but long felt want is at last satisfied. Many thanks to the firm!

Last Friday evening Dr. and Mrs. Fuller entertained the new members of the Junior Class, at their home on Boynton St. Light refreshments were served during the evening. The singing by the company was a pleasing feature. About twenty-five were present.

The other day a lady driving by on West St. inquired of one of our students what the large building which is nearly completed was. He answered that it was the new addition to the shop. Then she asked, „What is that little building just behind it?“ „Oh,” he said „that is the Shop itself.”

There is a story current that a race of people in Africa have ears so large that when they lie down, they spread these ears out as blankets for protection from the ground and weather. This is all very good for a story, but there is a man in the Senior Class who has developed during the last three months, an entire curled hair sofa pillow on each cheek.

An illustration is always valuable in proportion to a person's familiarity with the subject to which it relates and when the Prof. in „Poly Con” spoke of the efficiency of a laborer depending somewhat upon the nature of the place in which he ate his noonday meal, an audible smile ran along the faces of those members of the Senior Class who are accustomed to using the Institute Dining Hall.

Last season the students noticed with much pleasure and a little surprise the presence of several members of the Faculty at the football games. It would be a great encouragement to the team if these gentlemen would buy the two-dollar tickets and go to the games this year. Good football playing will serve to keep the W. P. I. before the public, among the colleges as well, and perhaps better than some other things.

Miss Grace Underwood who has so long posed on the top of the high stool in the shop office, the cynosure of all eyes, has gone to the office of Mr. Kent at Jamesville. Students generally are in doubt whether to ascribe it to the great strain endured, or to bring suit against Mr. Kent’s hopeful for alienating the affections, etc. Miss Mamie Wright is to take her place, and anyone wishing an introduction before the Y. M. C. A. reception is requested to apply to the W P I Board for terms.

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