10-15-1890

The WPI Volume 6 Issue 5, October 1890

Students of Worcester Technical Institute

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A year ago this month the WPI went into mourning over the untimely death of the Institute's foot-ball eleven. After a season's sleep, that seems to have been even more enervating to the team than was Rip Van Winkle's long siesta, the men have waked up, donned the bed-tick trousers, and started on a hunt for gory fame,—evidently trying to look as if nothing had happened. Such is the sequel to the Faculty regulation that last year killed foot-ball, and with it much of the interest in general athletics.

It is not for us to criticise, since fortune seems once again to be favoring foot-ball, but it gives us another chance to bring before the Faculty the advantages that would accrue from a more general committee for the government of our athletics. The men who regulate the tariff laws in Congress are very few in number compared with the people whom the laws will affect, and they do not pretend to make these regulations without the advice of those who are most interested in the result of their enactment. The subject of athletics is pre-eminently the property of the students, yet their advice (prompted though it be by a desire for the best good of the school) is not asked, nor is it seemingly wanted on questions concerning athletics.

Again, the statement seems conclusive, without argument, that the student is a big factor in "advertising his school." Is it policy to ignore his desire to see it advertised well?

A committee composed of members of the Faculty, alumni, and the student body, would lessen the liability to make errors of judgment, and would improve the feeling between the Faculty and students regarding this important question. In justice to the present government, it must be admitted that the Faculty committee is very satisfactory, and the disposition seems to be to relieve us of the straight-jacket in which we were put last year. While this is the case the students do not ask anything better. We hope to learn in the near future, however, that the students of this school have been allowed to join hands with the Faculty in their athletic government (as has been done with good results at so many colleges), and that the two bodies are pulling together for the best interests of the Institute.
In a recent communication to the editor of the W P I, a short list of personals was kindly appended by the writer, and he introduced them by the remark that while the paper as a whole was being conducted in a satisfactory manner, the personal column showed signs of neglect and had become weak and unsatisfactory. He also added that his note was not for publication, probably thinking that we might be somewhat sensitive in the matter of publishing criticisms on our paper. Well, we are human enough to allow that to be the fact in some cases, but in the present matter we see a way of shifting the bulk of the blame on to the Alumni, and so we come boldly out and confess that our contributor has made a fair and just criticism.

Where do the personals come from? Our chances of picking them up are very small, and when some one of the staff hands in the exciting statement that "Smith, formerly of the W. P. I., was in town one day last week, and is looking well," he is considered a hustler, and serious thoughts are entertained of trying to get a seat on the platform in the chapel for him, so that he will be expected at the exercises only a couple of times a week.

Such personals as these are well enough, in their way; their principal good is the satisfaction they give of allowing a man to see his name in print, but items such as the Alumni could contribute from time to time in regard to themselves or others would lend life to the column and make it exceedingly interesting to all.

We do not wish to discourage small personals, but simply wish to call attention to the fact that the principal news in this line must come through the Alumni.

Now, since this column is devoted principally to this body, we intend to hold them responsible for it, and that there may be no misunderstanding in regard to whom it belongs, we now formally donate the "Personal column" of the W P I to the Alumni of the Worcester Polytechnic Institute.

And, Mr. Alumnus, when you write to us in regard to your classmate do not forget to talk about yourself a little.

It is about time for the periodical reminder that any criticism by students on the nature of the courses followed here, must be ill-advised, because those who arrange the curriculum know exactly what each department most requires.

The inference is that the experience of years' teaching renders the instructor more competent to judge what the student wants than is the student himself; which is true enough if it be not carried to extremes. For instance, a child of six goes to school and takes what is given him under pain of bodily discomfort, which is exceedingly proper. When the child becomes a man, with a very definite idea of the pursuit in which he hopes to find a livelihood, especially if he must pay a big tuition to learn his business, he wants the privilege of at least expressing his ideas about what he would like to study.

Suppose a man reaches the conclusion that his success in life will be largely measured by the extent of his education in the practical applications of the science
ate by only a better chemist (not of chemistry and such other branches as will materially assist him, than he will if he puts a large part of his time on advanced mathematics that have no application in chemistry.

Now the chemists complain that they find their knowledge of the higher branches of mathematics quite useless in their investigations, and therefore the time spent on these branches seems wasted, except as their study is useful in developing precision and the ability to proceed carefully to a logical result. Too much stress ought not to be laid on the word "wasted" because it is used in a comparative sense. It is not our purpose to try to underrate the value of a course in mathematics as an accompaniment to other study, because its value is without question. The fact ought not to be ignored, however, that the study of chemistry would by no means be a cipher in developing the habit of doing accurate work, and in the mean time the student has been making great strides in his chosen profession.

The statement seems to be reasonable that chemistry is more valuable to the mechanic than is the study of higher mathematics to the chemist. If this be true it seems strange that the chemist is required to take all the mathematics that are deemed necessary for the mechanic (except descriptive geometry, which change has just been made), while the latter, who might make a practical use of more knowledge of chemistry, gets only a modicum of that branch of science.

THE REASON EVIDENT.

Dr. Fuller recently told the students that the demand for chemists from the Institute has greatly increased within the last few years, and he also mentioned the number to whom he could almost guarantee positions each year. The impression we received was, that the demand for chemists everywhere was greater, and that other scientific schools were sharing the good fortune with us. A little inquiry showed this not to be the fact however, for in many institutions a different state of affairs is reported.

To be sure, as industries increase, this demand will increase, and we would naturally expect a proportionate part of the increment. But reliable statistics prove that we will get more than a proportionate share of the gain, and a little careful observation points out the reason.

When the Salisbury Laboratories were first built, a visitor on seeing the dozen or more different rooms, each for specific purposes, which were to supplant the two in Boynton Hall, would venture an opinion that only a few of these would be brought into use for some years and probably not until the school had greatly increased in size. Let him walk through the same rooms to-day and note his surprise and his exclamation of "Not an inch to spare, is there?" No, not one. The work being carried on in inorganic, organic, and sanitary chemistry, and in all stages of each, calls for all the room and for all the appliances of one of the best equipped laboratories in the country.

At present the Senior class is busy with the analysis of water, sewage, coal, butter and fertilizers in the inorganic laboratories, and with combustions and preparation of hydro-carbon compounds in the organic.
On a practice day it is a place of interest, and a single visit will give one a better idea of practical chemistry than could be obtained in a month in a one-horse affair. We have but to add the fact that more time than ever is allowed to the chemist for chemical work, to clearly see the reason for the increased demand for our chemists.

THE EXCUSE SYSTEM.

Probably a majority of the students at the Institute, possibly some of the professors, would be glad to see the much over-worked excuse-book abolished.

Its natural substitute would be an increased number of cuts per term to be used at the discretion of the student,—a fair number being such as would compare favorably with the number allowed students at similar schools and at colleges. As to the question what comprises a fair number of cuts, there is, of course, a wide range of opinions. In some schools no cuts whatever are granted, and a student who wishes to absent himself must be previously excused. From this straight-laced policy there are all sorts of digressions, even to schools where nothing is said about absence from recitations. In such schools it is taken for granted that the student intends to make a business of going to school, and his absence is simply a great loss to himself. If he fails to keep pace with his class by reason of too frequent use of his privilege, he simply takes the natural consequences.

Perhaps the present system is as good a one as could be devised. The criticisms that follow are certainly not intended to put the innocent excuse-book in disfavor, but merely to express an honest opinion of our system of excuses as it is at present conducted.

One objection, that may be a mere fancy of the writer's, is that the present number of cuts (five a year) is too meagre. This is of course on the supposition that the student intends to enter a strictly honest excuse for every absence. The reason that this number seems illiberal is because there is a possibility of cancelling one's five cuts de grace in a single day. Suppose, say, a Senior is out on one of his long days and his excuse fails to "go." He gets a letter home to his father (which doesn't count), and five unexcused marks which do count. Besides that, he lives in constant fear of placing himself liable to suspension by reason of another unexcused mark.

A second objection is that the tendency to hold the system in contempt seems to be growing. More fun is made of the poor excuse-book than even of its guardians, and that is saying a great deal. The tendency seems to be either to treat the system as a farce and enter no excuse whatever, or to use the book for the publication of an alleged joke. A fair example is the excuse of one man who writes "I was absent because I was not here." And the various excuse-books contain scores of just such inane efforts.

Perhaps a more serious objection than either of these is the fact that the excuse-book invites a student (especially if his allowance of cuts be nearly gone) to write an intentionally ambiguous excuse—an excuse that may or may not be literally true and which it is hoped will be favorably construed by the instructor. In other words, the excuse-book is made the medium for some artistic and ingenious distortion of the truth. A few samples will suffice to show to what an extent the truth is maltreated in those little brown books. One man writes, "I was down town getting some drawing materials." At this stage of the writing, with the help of a flourish at the bottom, the space allotted to the excuse is fully occupied, and the man has no room to add that he hired his "drawing materials" at Spooner's and that the span cost him five dollars.

Another man sobs "My mother was home alone sick." That looks pathetic enough and doubtless the man who wrote it actually staid at home to chuck potions at his ailing mother. It would require further explanation, however, if the professor should take it into his head to bear down hard on the word "alone."

An excuse that is worked until it must be tired is the simple word, "sickness." It
looks all right, is easily written, and always goes. In fact, the student finds it a very useful tool because it contains no idea of time, and because it fails to state with precision whether the man who writes it or his landlady's canary-bird is the subject of the indisposition. If the day previous were fine, and the student is well up in the art of working the excuse-book, the chances are ten to one on the canary.

Two more specimens that show the absurdity of some excuses, are called to the writer's mind. He cannot vouch for their genuineness, but quotes them on the authority of one of the students. They are both intended to excuse a tardiness. One is, "It began to rain when I was near school and I returned for an umbrella." The other, if genuine, is a good example of the nerve to which some men attain at an early period of life. The man unblushingly writes, "The fog was so dense, I could not see my watch."

Of course a lower classman never thinks of writing a questionable excuse, but he soon gets hardened to it, and many a student who begins school with a conscience and continues strictly upright in other respects, goes all to pieces when confronted with the necessity of building an excuse that will be approved.

There is no particular need of smothering the fact that the excuse-book is badly handled, because every one knows it. Nor does the writer wish to make it appear that the book is a tremendous factor in enticing students to join the caravan that is travelling the broad way that leadeth to destruction. Simply that the students in general, consider the question of being excused at all of so slight importance that the system is treated as a farce, and an intentionally misleading excuse, now and then, is perhaps the least of the burdens that the average Tech student has to bear on his conscience.

It seems to the writer that if the excuse-book were abolished, and the number of cuts were reasonably increased, it would have at least two good effects: It would obviate the necessity of entering any excuse, thereby removing any chance of deception; it would also probably better the attendance. A man who has a limited number of cuts would be much more liable to watch his attendance carefully than would one who is an adept at working the excuse-book.

CHAMPION OF THE UNITED STATES.

P-1! P-1! Rah-Rah! Rah-Rah!
P-1! P-1! Rah-Rah! Rah-Rah!

Ouray! Ouray!

Harry Dadmun! Rah! Rah! Rah!

T-1-G-E-R!!


Just as we are paging up what, through a dearth of lively news, has seemed an especially cumbersome number, this little sheet is startled out of its five senses by the news that this quiet school of ours, accustomed to nothing more exciting than an occasional brush-fire or a new Faculty baby, holds the winner of a United States championship.

Harry L. Dadmun, of the Senior Class, is the man. He is a member of the Manhattan Athletic Club of New York, which numbers among its members some of the greatest amateur athletes in the country. Every fall the Amateur Athletic Union holds a big meeting in some big city, the recent meeting having been held in Washington, D. C. Dadmun was chosen to help represent the Manhattan team, and he obtained permission to attend the games, although he did not hope to get even a place in his event, the half-mile run. To the surprise of everyone, himself more than anyone else, he breasted the tape with some yards to spare before the second man, J. S. Roddy of Princeton college, finished. The latter is credited with being one of the strongest runners in the country for that distance. Dadmun's time was 1 min., 59 1-5 seconds, and his winning the event makes him the holder of the championship of the United States for one year in the half-mile run.

Dadmun is very modest about his running accomplishments and seldom speaks of them, but the metropolitan papers speak very highly of his performance, and he is credited with making the sensation of the day. The fact that three world's records were broken at the meeting shows the class of men with whom Dadmun had to compete. A local paper gives him only due praise when it says, "it is a pleasing sight to see a man win
a crown that doesn’t require a shoe-horn to put it on.”

The students of this school will consider it not a favor, but merely the fulfilment of an obvious duty, if the proper authorities will sign and deliver Dadmun’s diploma at their earliest convenience.

NO SEMI-ANNUALS THIS YEAR.

A Radical Change in the Method of Conducting Examinations.

Comments by Students.

Last Thursday morning President Fuller appeared in Chapel in a broadcloth Prince Albert coat. A Prince Albert coat is supposed to be tabooed at the Tech, anyway, and an exception to the rule means one of three things. First, we are going to try a new hymn. Second, there is a funeral somewhere, and every one but the students is invited. Third, the President has something of importance to announce to the school.

We didn’t sing anything that could be called positively unique, and there was no tangible evidence of a surplus of funeral pageants.

There was something of importance to be announced, however, and it came in the shape of the reading of a regulation recently passed by the Faculty. This regulation provides for a complete change in the method of giving examinations at this school,—the intention being to entirely dispense with the semi-annual examinations in January, and to hold in their place, unannounced hourly examinations at regular recitation hours, not more than four such examinations to be held during the term. The new method is to be followed this term as an experiment,—the four or less examinations during the term in a given study playing the same part in determining the term-mark, as did the one final examination in the past. In case a student is sick or is unavoidably absent during an examination, he will doubtless be given the same chance to make up the loss as has heretofore been the case. This plan of more or less frequent examinations during the progress of a given study has been followed to some extent at Harvard, Institute of Technology, and some other schools.

There are two important reasons, as stated by the President, for making so radical a change. The first is to check the tendency on the part of the students to allow the work to fall behind, with the intention of cramming up for examinations.

The second is to prevent the possibility of doing the student an injustice or injury by requiring him to pass through a long period of severe examination, when he might be at the time either mentally or physically unable to stand the strain.

The first reason is based on the supposition that some students get into the habit of drifting along with the class, keeping in the swim because there is no particular cause to draw them out of it, and finally making a terrible brace just before the semi-annuals.

Theoretically this state of things may not be true, but practically there isn’t any doubt about it. It would be an ideal school in which every student tried faithfully to do his best all the time, and this is by no means an ideal school.

The justice of the second reason for making the change is so potent, that it seems hardly to require any comment. There are enough sad illustrations of over-ambitious men, who have laid an unnatural burden on their minds and nerves, and who have fallen easy victims to the trying ordeal of continuous examinations.

It would seem as if the arguments in favor of the change were unassailable, but there are two sides to every question, and it is frequently the case that a seemingly logical theory gets a very black eye when put in practice. It remains to be seen whether the results this term will justify the Faculty in making the scheme a fixture. The change is certainly a very radical one, and it has caused a deal of comment among the students.

Below are appended a few opinions of the change, showing the different lights in which different men view the new method of determining “where we stand.”

* * *

A Senior chemist said, when asked his opinion of the change, “Now I think the idea is a first-class one, and the announcement of the change pleased me very much. There is one thing about it, however, that I do not appreciate, and that is, the word ‘unannounced.’ Perhaps, on further consideration, I may change my mind about this part of it, but at present I feel that it will keep some students’ minds in a constant fer-
ment. The examination will be ever hanging over them ready to drop; its ominous shadow will never allow rest, and the useless burden it imposes may be a source of evil. Again, some men's minds are more retentive than others, and by the unannounced examination system they would be able to make a far better showing than men, who, if they had half an hour's warning, could recall the work of weeks, and evince a more thorough understanding of the subject than the first class. However, with this one exception, I believe the new system to be a great improvement on the semi-annual examination."

Another Senior expressed his views as follows:—"I think while it may be a good thing in some ways it will have some serious faults. In the mathematics it will have the advantage of coming while each part of the subject is fresh. To a certain extent this will be so in German; but now in the sciences I think that will be its most serious drawback. Mathematics is tied to all you have passed over but to nothing ahead. The sciences and languages reach both ways and it is not easy to master a piece at a time. An examination held in the middle of a subject can not but have as a result a great amount of 'parrot' answering. A great deal will have been committed that must wait for more, before it can be properly learned. If the individual instructor can have such control of his subject that he can avoid such a condition, then that danger will be ended. Another form of this same difficulty will be seen in the case of those subjects that have laboratory work following lectures. Very few so fully understand the lectures that the laboratory work will not count for more than half of their knowledge of the subject. Now if the examination comes before the laboratory work has been done on all the lectures and the completed and not completed are held the same, the student will be at a disadvantage and the disadvantage will be unfairly distributed since some from the nature of the work will have gone through with more than others. Then there will be multiplied the serious disadvantage of examinations at all. It is no part of our purpose to prepare for an examination, and any work done for such a purpose is largely misapplied and has the elements of a cram. In spite of all the
means of knowing throughout the term how he is standing.

But there is one point that does not seem quite fair,—that is, "sprung" the exams upon a class when totally unaware of such a thing.

Would it not be more fair to let it be known as monthly examinations, having them occur at the first, last, or middle of the month, for there are always times when a man has unavoidably missed some points that he would like to be "up" on for an examination. So I say let every man keep his work well up and be prepared for the examinations when they come, so that the next action of the Faculty on semi-annuals will be to abolish them entirely.

A '98 man remarked, "Well, that's a great idea; eight examinations a year in every subject; that will be a hundred or more of the pesky things before I get through here. I wonder who got up that idea? You don't know, do you?" As the reporter wasn't fond of funeral services he allowed that he didn't know. The Junior was an omnivorous reader of Beadle's in his younger days and a wild and woolly look which had been engraven by their use overspread his countenance. The reporter decided to move on right away but he was not out quick enough to escape the despairing Junior's last question "Do you suppose that applies to 'Dutch?" in which his voice reached such a pitch that the last word came with a shriek.

We are inclined to think this Junior will have to cultivate a taste for these little diversions.

Civil writes,—"While embracing many advantages, I think that, like nearly all systems it of exams., has its drawbacks. Increasing the number is a good idea, for by this means the instructor will be better able to get at the exact knowledge of the student in his branch by taking the average of three or four examinations as it may happen to be.

The greatest disadvantage now to the student is that he is liable to have an examination "sprung" on him without a moment's warning and have no time to prepare himself whatever, except from what he remembers, which may be more or less, varying directly as the memory of the individual. I am glad the new scheme is to be given a trial and hope it may prove a success. But to be fair to the student as well as the instructor, the student should have some idea as to when an examination is going to take place."

SENIOR.

NINETY-FOUR'S ILL LUCK.

A Daniel Come to Judgment.

The die is cast!
The fiat is gone forth!
The class of Ninety-four is doomed!!

Yea, verily, Selah, it will bear the burden of a Jonah from its birth up. A man named E. P. Smith has signified his intention of taking the entrance examinations in January. The W P I has before expressed its sentiments in no measured terms about the insinuating manner in which this same Smith family has been trying to crowd Bjones and Browne out of this school, but never in its wildest flights of jaundiced imagination has it pictured an E. P. Smith. Every loyal Tech not a Smith (there are a few of us left), who is interested in the aggrandizement of this school, and believes in the doctrine of equal rights, owes it to the class of Ninety-four to warn it of the spell in which it seems destined to be enfolded. We are not over-superstitious, but we cannot shake off a muscular suspicion that this man (innocent of any such intention though he be) will prove a "hoodoo" that will drag the class of Ninety-four into a hole with the string on the inside, and will envelop it in a cloud of impenetrable gloom.

THE NEW COURSE.

It Starts with a Nucleus of Seven Students.

The proposed course in Physical and Political Science is no longer a vision; it has been made substantial by the application of the required number of students for admission to such a course. When the catalogue announced this course last spring it stated that the opening of the course in September, 1891, depended on the application of at least six students before January 1, 1891. That stipulation has been fulfilled long be-
fore the limit of the time, and there are now seven men in school who have started in with the intention of clinging to this course. This course which will not only give a general scientific education without confining itself to any special branch, but which will fit a man to cope understandingly with the affairs of everyday business life and make him the broad man so much needed in all the walks of life, will no doubt have many followers.

The course will be identical with the others for the first year, but in the middle and last year a large part of the higher mathematics will be supplanted by an extensive course in natural science, a thorough course in analytical and sanitary chemistry, and special courses in geology, botany, history, literature and economics.

The advent of this course is received with commendation from all sides. It was foremost in the words of all the speakers at the Alumni banquet, who spoke of the future prospects of the Institute, and Prof. Woodrow Wilson, the able orator of Commencement, said that a more fitting supplement to the courses already established at the Institute could not be found.

The Faculty in creating this course must have recognized that extra work would devolve upon some of their number in consequence of it. A greater proof of the unselfish interest of this body in the Institute and its students, could not be obtained than the simple proviso of having merely half a dozen men signify a fancy for it, to make the course permanent.

Worcester's Pride.

The Polytechnic Institute Selected as a Meeting-place by the Board of Health.

The people of Worcester have long since acquired the knowledge that the educational institution which does the most credit to central Massachusetts, which is steadily making its influence felt more and more at home and abroad, is the Worcester Polytechnic Institute.

Though its opening is unostentatious and unceremonious, its influence is none the less felt, and the community as a whole note with interest everything that transpires from beginning to end.

When any difficulty or question arises which depends on the aid of scientific, coupled with practical knowledge for its solution, the people of Worcester look to the Polytechnic Institute for a helping hand, and no matter what the nature of, or how momentous the question may be, they never look in vain. A good example of this was seen recently when the question of disposal of Worcester's sewage was given the only full and comprehensive discussion by Dr. Kinnicutt of the Institute. And still more recently in connection with the trouble at the Worcester Steel Works, a statement made by a graduate of the Institute's chemical course in regard to the extent and value of the coal in the Portsmouth mines, was received with the most interest and considered the most reliable information ever received in regard to this property.

The Salisbury Laboratories with their increased facilities, stimulate to a constantly increasing activity in the deduction of scientific results. A new use has recently arisen for these laboratories as a place for the discussion of problems in sanitary chemistry, as in the case of the meeting of the Massachusetts Board of Health on the 15th of this month.

This Board, with Dr. Wolcott as president and Dr. Lemuel Woodward of this city, secretary, is composed of a few members from each of the different health boards in the State. At the meetings, which are held quarterly, reports of investigations on sanitary subjects are made, and afterward the public is warned or advised on this subject, if thought necessary. The following report of one of their investigations will speak for itself:

"The Massachusetts Board of Health has examined 76 samples of water and 336 samples of ice from 58 localities, with the result of showing that—contrary to general belief—ice may be nearly as impure as the water from which it forms. The crystallization of the water forces out the color, salt, and most of the matter in solution, and clear ice from polluted sources may be comparatively free from impurities and the probability of hiding disease germs. But in snow-ice and ice formed by flooding, the impurities become entangled so that freezing gives no purification. The public is warned by the Board, therefore, that ice is unsafe for domestic purposes when obtained from a source polluted by sewage beyond that which would be allowable in a drinking
owing to the absence of an eleven last year.

to

many members of the old eleven had been elected in the spring, Thornton, and the number of those trying for positions was

enough to take the initiative steps, as no captain for the

eleven had been elected in the spring, according to custom. At the first meeting of the W. P. I. A. A., C. A. Tucker was elected captain, F. A. Bigelow, manager, and C. H. Dunbar, assistant. Practice games were played every night on Bliss's field, but the tennis tournament and the fall field meeting, which were hurried forward, divided the attention of the students, and foot-ball practice became desultory. An eleven composed of those trying for positions on the school team played a game for practice with the Academy eleven, and were defeated by the score of 36 to 0. At first appearance this may seem discouraging, but when it is considered that the eleven who went into the game had not only never played together before, but the members of it had had only two or three days' practice in scrub teams against one another, it is evident that it was the want of practice and the fact that they had not learned to play together that caused the defeat. Individually considered the material of the picked up eleven was better than the Academy eleven, but in playing as a team they lacked the trained discipline of the other. It has taught us this fact that success in foot-ball depends on playing together, and that an eleven composed of men, inferior individually, but who play well together, can overwhelmingly defeat another composed of better players individually, but lacking that most essential unanimity of action.

Of the members of the eleven of the fall of '88, only Rice, '91, and Alderman, '92, remain, while of the eleven of the fall of '89, which disbanded before playing a game, we have Taylor, '91, Bartlett, Parks, Southgate, and Tucker, '92. Plenty of good material was developed in the class games last year, and among those who have figured prominently on their class elevens are Barton, Whittaker, Hodgman, Reinbold, Morse, Yates, and Smith. '93 has also brought in with her some men who have had experience, and other men with good physiques for foot-ball, but with no knowledge of the game.

The candidates for the various positions are as follows:—For half-backs, Taylor, '91, Southgate, '92, and Cleveland, '93. All three are good runners. Taylor has had experience in his class team and is a sure tackler. Southgate also has had experience in his class eleven as well as in minor elevens. Cleveland, though having had no experience before, is taking well to the game and has shown himself to be an unusually good dodger as well as runner, but fumbles the ball badly.

Rice, '91, and Bartlett, '92, are trying for centre rush. Rice has had more experience, having played centre rush on his class eleven for two years, while Bartlett has had but one year's experience. Bartlett has a tendency to snap the ball back in an irregular manner, at times slowly, and then again too quickly, making it harder for the quarter-back to judge it correctly. He breaks through the opposing rush line well, and tackles hard and low.

Barton, '91, and A. L. Smith, '92, are trying for the position of quarter-back. Barton has had the greater experience of the two in playing the position. Smith also obtained some knowledge of the duties of the position from playing quarter-back on his class team.

The remainder of the team will be selected from the following men:—Alderman, Rice, Reinbold, Clapp, Childs, Butterfield, Lincoln, Stoddard, Whittaker, Hodgman, Yates, Nelson, and Parks. It is too early to state with any certainty as to the positions they will occupy.
MORE FOOT BALL.

The Subject of Organization as Viewed by a Middler.

Editor W P I:

Is the game of foot-ball dead at the Tech? I sincerely hope it is not quite dead, but for one year it seems to have remained stunted from the severe blow it received at the hands of the Faculty. And now it will require skillful doctoring and careful nursing to bring it back to its former life again.

And here the question now seems to waver. Is it to be foot-ball or no foot-ball?

Most assuredly we all answer foot-ball!

If that is to be the answer, then considering the difficulties under which we play, especially the financial difficulties, it is necessary that it receive the support of every member of the school.

The Tech is not large and the number of men is small compared to the number at other schools, but that is all the more reason why universal interest should be taken in so popular a game as foot-ball.

Until last fall we had a team we were not afraid to show, but it was the result of hard training and the most careful management. It was not organized about three weeks after school began and then sent out to play games with only a little practice and scarcely any training.

The men that expect to play foot-ball should work for that and nothing else.

The fall field meet and the tennis tournament interfered somewhat, indeed quite a good deal, with foot-ball. We have not men enough in school to make them all a great success.

So if we are to have an eleven let all the men who can play well, give all their spare time to it and train for it, and leave the tennis and field sports to be taken care of by the men that are left.

The feeling is too general among men who play foot-ball and tennis and run a little, that they want to enter the tournament and sports first and as soon as they are over then they will give their time to foot-ball.

That will never do; it is too late for foot-ball then. Foot-ball, as every one must know, is no very simple game to understand and so, even with the best of men, it takes a great deal of practice to play at all well.

We have plenty of good material both in men who have played before and those who have not, so there is no reason why we can't have as good a team as any school of our size.

It wants the support of the whole school, and if it has that there can be no chance for failure.

Middle.

THE FALL FIELD-DAY.

Three Records Broken.

The annual Fall Field-day of the Athletic Association was held Saturday, Oct. 4, and but for some of the records that were made, it must be admitted that the meeting was an all-round disappointment. Everything seems to have combined against the Association this fall to "hooodoo" its prosperity. There were never so many students at school as there are this year, yet at the annual meeting of the Association for the election of officers, it was only through great effort that a quorum (thirty) could be brought together, and the business of the meeting was finished by less than that number.

Some of the men in this school, by the way, ought to be ostracized for the niggardly support that they extend to the Athletic Association. They are never seen at the meetings, never were known to help pay expenses, never enter the sports or even encourage their classmates by their presence and cheers at the games, and yet these men are the first to criticize and complain if we are beaten in contests with other schools. It is an exhibition of pettishness that makes the men who do the work very, very tired. The Association is fast learning that the time has long past for any exhibition of enthusiasm by the students, and those who have lived in the city long enough, have reason to blush when they remember the good old "Chauvenet" days, and the days of baseball under John Souther, Willard Fuller and Allie Gordon. But this is a long way from the fall field-sports.

The sports were advertised to begin at two P. M. and they would have done so but for a lack of contestants and a still greater lack of audience to witness them. The weather was somewhat responsible for this, as until 10.30 A. M. it was about an even chance between a fair and a foul day. Then the clouds cleared away and left a hot sun
that would have made the track perfect in about twenty-four hours, but couldn't quite do it in four, and the men who ran races round the track either hugged the outside fence or took a zigzag course to avoid the omnipresent "slough of despond." By 2:20 a few contestants had arrived, and the contests began before an audience comprised of several ladies, a few men, two policemen, and a contingency of "Oregon" aristocracy that sneaked in over the fence. A few Techs, also, showed a monumental courage in leaving their books for the afternoon and attending the sports.

The Record Breaking.

The feature of the day's sport, in fact, the redeeming feature, was the magnificent running of H. L. Dadmun of the Senior class. The Association owes a debt of gratitude to Dadmun for giving whatever there was of character to the day's contests. This gentleman seldom gets into good running form until about September, hence his failure in the Spring Intercollegiate sports to win in the events that are his legitimate prey, has been a disappointment to himself and to his friends. His work in the fall sports is always good, and at the recent field-day he made three more records for himself and for the school, that will not soon be broken. The record for the 100-yards dash (10 2-5 sec.), held since May 11, 1889, by Mills, '89, was lowered by a fifth of a second. Dadmun lowered his own previous record of 29 4-5 sec. for the 220-yards hurdle by 4-5 of a second. His third record of the day was made in the quarter-mile run, which he did in the remarkable time of 51 seconds. It had been announced that Dadmun would attempt to break the record for the half-mile run, and he would undoubtedly have put a mortgage on the record in this event, if he had not sunk out of sight in the mud beyond the quarter pole. In his attempt he made a fast quarter (55 sec.), but was not proof against the slime that threatened to plant him fast in the track on the north side.

The remarkable spurt that Dadmun put on from beginning to end of the quarter-mile run, aroused the boys to something like enthusiasm, and he was given the only cheer that they dared venture during the day.

The Events.

In view of the fact that the new men were given big handicaps in every event, their failure to enter the races was a great surprise and disappointment to the men who had made such an effort to hold a successful meeting. Out of nine entries in the 120-yards hurdle race, record 18 2-5 secs., three men started. Dadmun, '91, at the scratch; Fish, '92, 10 yards, and Andrews, '93, 15 yards. Andrews had bad luck in knocking down hurdles. Dadmun cleared them in good style. At the last hurdle he overtook Andrews, who had held the lead from the start, and won the event by a brilliant sprint to the finish. Time, Dadmun 18 4-5 secs., Andrews 19 secs.

The 100-yard dash was run in one heat, only five of the 21 entries coming to the scratch. These were Dadmun, '91, scratch; Denny, '93, 10 yards; Davis, '91, 8 yards; Taylor, '91, 8 yards; and Tucker, '92, 8 yards. At the crack of the pistol all got off in good style. Thirty yards from the finish Dadmun had passed all but Taylor. The latter was then six feet ahead. Rapidly Dadmun closed up the gap, but the tape was reached by Taylor when a foot remained. The winner's time was 10 seconds and Dadmun was given 10 1-5. As he ran from the scratch the time went, and it was a record. It was a big surprise considering the nature of the track.

Half mile run. Record, 2 min. 5 4-5 secs. There were four contestants out of eighteen entries, Morse, '92, 50 yards; Strong, 60 yards; E. L. Smith, '92, 100 yards; Southgate, '92, 100 yards. The event was won easily by Southgate. Time, Southgate, 2 min. 3 1-5 sec.; Morse, 2 min. 12 sec.

There were five entries in the pole vault, Fish, '92, scratch; Davis, '91, 1 foot; Dunbar, '91, 1 foot; Taylor, '91, 2 feet; and Southgate, '92, 1 foot 6 inches. Taylor won the vault of 9 feet 8 inches, and Fish was second with 8 feet 10 inches. Taylor was first and Dunbar second with actual distances, but the handicaps sent them back to second and third places respectively. This event used to go to Marshall, '89, with an actual vault of 9 ft. 6 in.

There were fourteen men entered for the 220-yard dash. Only four appeared; Taylor, '91, 16 yards; Booth, '91, 12 yards; Davis, '91, 16 yards, and Dyer, '93, 10 yards, were the contestants. The race between Taylor and Davis was close and exciting. Time, Taylor, 28 2-5 sec.; Davis, 28 4-5. Record, 23 1-2 sec.
The next on the list of events was the standing high jump. There were three entries, Southgate, '92, 4 inches, Fish, '92, scratch, and Booth, '91, 5 inches. Six entries did not put in an appearance. The event was evenly contested, Booth winning at 4 feet 6 1/2 inches; Fish second with a distance of 4 feet 6 inches.

The two-mile bicycle race proved to be an exciting contest from start to finish. Dunbar, '91, was scratch man; Davis, '91, had 10 seconds; Pixley, '93, 50 seconds; and Stearns, '91, who had not been regarded as a factor in the race, was given a minute. He refused to take it, however, and started with Davis. Pixley could have made good use of a much bigger handicap, although he led the others a lively chase before they caught him, while Davis was at no time "in" the race. Dunbar and Stearns, however, stuck to each other like burs, and on the final turn of the last lap they began a spurt that kept them side by side clear to the wire, and the first place was Dunbar's by only two feet. This race was as pretty a contest to witness as the day's sport afforded. The winner's time was 7 minutes, 40 2-5 seconds.

Dadmun broke his third record in the 220-yard hurdle. He was scratch man, the other entries being Booth, '91, 12 yards, and Andrews, '91, 21 yards. Andrews won in 28 4-5 seconds. Dadmun was a foot behind. His time was 29 4-5, four-fifths of a second better than the time made by himself last spring, which has stood as a record until now.

The hammer throw was won by Fish '92, 4 feet, with a distance of 61 ft. 5 in. Morse '92, same handicap, was second with a throw of 59 ft. There were three other entries, Perham, '91, being scratch man.

Dadmun, scratch man in the mile run, won again. Strong, '93, 120 yards, was second, Stearns '91, 100 yards, also entered, but dropped out three-eighths of a mile from the start. The place winners kept together on the last half, and 20 yards from the finish, Dadmun, who had been running a waiting race, forged ahead and finished in 5 minutes 17 seconds. Strong's time was four-fifths of a second slower.

For putting the shot there were four entries. Perham, '91, 1 foot, and Southgate, '92, 18 inches, were the winners respectively of first and second. Morse, '92, was scratch.

Fifty per cent. of the entries showed up for the running high jump. Record, 5 ft. 2 1/2 in. Taylor, '91, 4 inches; Fish, '92, scratch; Dadmun, '91, 6 inches; Southgate, '92, 6 inches, were the contestants. There was a struggle for second place. Fish won first prize easily, with an actual jump of 5 feet 1 3-8 inches. Taylor cleared 4 feet 6 1-2 inches. Dadmun, 4 feet 4 1-2 inches, and Southgate, 4 feet 4 1-2 inches. The three were tied for second place. Dadmun forfeited his place and Southgate won the jump-off by increasing his jump an inch.

When the Field-Marshal announced the mile walk, not a contestant could be found. Bradford, '91, who owns the event, was off hunting for a man who would consent to follow him round the track twice. Finally Whittaker, '91, who had been tending gate all the afternoon, in the event of someone's passing and not seeming disposed to come in, was induced to give up his lucrative position, and play tail to Bradford's act in the character of "Doggy." Whittaker had a start of 45 seconds, but Bradford soon righted the relationship that is supposed to exist between every well-regulated "doggy" and his tail, and the relative positions were not again disturbed during the race. Bradford finished first in 9 minutes, 30 seconds, and Whittaker followed along in about a minute. There were eight men entered for this race.

Then came an event that proved to be one of the finest exhibitions of running that has ever been given on the local track. Sixteen men were entered for the quarter-mile run, but only two appeared. Dadmun was at the scratch and Taylor ten yards ahead. Taylor started with the pistol at a rattling pace, but he was only running, while Dadmun actually flew. He soon caught and passed Taylor, but only to heighten his speed, and he did not slacken his pace until a few strides from the pole. He finished in the best of form in an even 51 seconds. This record not only reduced the school record by 3 1-5 seconds, but bettered that of the Intercollegiate Association by more than a second. It was a performance of which Dadmun and his associates have a right to feel proud. The race was run around the south turn of the track to avoid the mud on the other side. There can be no doubt about the record as the same time was caught by several watches beside that held by the professional timer.
man, and Bartlett, '92, had 18 inches. The former made the best throw of all, 26 feet, 2 inches. Perhaps's distance was 27 feet, 1½ inches and Southgate's 26 feet, 6 inches. The record in this event is 31 feet, 5½ inches.

Standing broad jump. Record 10 ft., 4 in. The contestants were Strong, 93, 4 in.; E. L. Smith, '92, 8 in.; Taylor, '91, 6 in.; Southgate, '92, 8 in.; Morse, '92, 4 in.; Dyer, '93, scratch. Smith, Taylor, and Morse were the best three men. In the final jump Taylor won first; Smith, second. The best jump of Taylor was 9 ft., 1½ in.; of Smith, 8 ft., 10¼ in.


The two-mile run was the last contest of the day. Stearns, '91, 15 secs. and Fish, '92, 1 min., 30 secs., were the entries. The former tried hard to overcome his handicap, but Fish was a winner by 50 yds. Time, 12 min., 36 secs. Stearns' actual time was 11 min., 45 secs.

Class and Individual Victors.
The class of '91 won 13 first and 8 second prizes. '92 won three first and seven seconds. The Juniors had to be content with one first and two seconds. Dadmun came in first in three events, second in two, winning five prizes. Taylor won four firsts and one second. Fish got three firsts and two seconds. These were the principal winners.


Field-Day Notes.
Dr. Kinnicutt and Prof. Gladwin were present at the sports. Rather careless of the ushers to allow Mr. Hurley, the timer, to pay for his programme. It was a trifling matter, of course, but an aggregate of little mistakes is what takes the polish off of public exhibitions.

A few lessons might be gathered from the recent field-day. One is, that men ought to be chosen to run the sports who do not intend to take part in them. Another is that men who cannot serve in the positions assigned them, owe it to the directors to say so.

Still another is that a field marshal who is asked to serve as clerk of course, announcer of changes in the programme, judge, and timer, can hardly be expected to help dress and undress the contestants, chase up stray luggage, and keep the sports from dragging at the same time. A clerk of the course would be a very valuable addition to the list of officers of the day.

Another is that we cannot expect favorable action by the Faculty regarding our athletic interests unless we exhibit a more decided interest in athletics than has been shown this fall.

Another Record for Dadmun.
October 6, Dadmun ran for the mile record of the school and badly smashed the former record. Mr. Hurley consented to time the trial, and being official, it goes as a school record, although not made at the sports. The half was run in 2:20, and the mile in 4:48, being 12 4:5 seconds better than the previous record. Dadmun now holds the school record in all the runs except the half and two-mile runs.

OUR ELECTRIC LIGHT PLANT.
The Appreciated Gift of the Westinghouse Electric Light Company.
The students of the Polytechnic Institute are not ungrateful beings and the recent gift of the Westinghouse Electric Light Company struck a chord of gratitude in the breast of every man in the school. It called for no general demonstration, but each man as he thought of the possible benefits to himself and the school through this gift, unceasingly became a firm friend of the company that donated it.

It consists of a complete electrical outfit comprising a 500-light dynamo of the alternating current pattern, that operates lights of 16-candle power, an exciting machine, a switchboard, and the cut outs, volt and lamp meters, ground detectors, switches, a transformer and the necessary number of lamps. The whole plant is worth fully $5000.
In anticipation of the extra power needed to run this dynamo, Dr. Kimball gave an order for a 70-horse power engine. Prof. Alden drew up plans for one and it is now in process of construction at the shop.

The engine and dynamo will be located in the large room at the southeast corner of the first floor of the Salisbury Laboratories.

The 300-light continuous current dynamo which was designed by the class of '90 and is now being built, will also be placed here. As it will take some time to get the engines and dynamos in position and wire the building, the plant will not be in operation for at least two months. The general impression has been that this plant would be used for lighting the buildings. There is sufficient apparatus for this, but it is the intention to devote it simply and purely to scientific uses and research. When it is set up the students will have a complete electric light plant under their control.

The students in the electrical course will occupy the rooms at the west end of the Laboratories for the first three stories; the lower one for electro-technical work, the second one for a test-room, and the upper one for elementary work. Several banks of lights of three sizes will be set up for experimental work in the electro-technical room. The largest size is 150-candle power, the second 32-candle power and the third 16-candle power. Several small dynamos and an electric motor will also be placed here. The room is fitted out with various volt meters and other instruments for testing the currents, and joined to it is a photometer room for measuring the candle power of the various lights.

**A Stride Forward.**

Chemists Benefit by a Change in Studies.

Fortune seems to be drifting right in the way of our Middler chemists, and our Middler chemists seem quite contented to let her drift. The latest developments show that the grim pleasure of starting up wildly from a dream in which he has vainly juggled a lot of planes, points and lines, so that the effect of the whole will be a little round dot, will never be given to a member of that division. He won't know P from a hole in the ground. When he has to do a little projecting in mechanical drawing he will haul his instrument box over and over in search of a thing marked "projector," and if you tell him to develop a surface, he will threaten to put dog-officer Foley on to you in regard to that unlicensed cur; in fact he will be a thorough ignoramus as far as descriptive geometry is concerned. But little will he care for the loss of some of these mental aberration generators; his vantage ground will lie in scientific German for which he will soon find practical use.

This change in the Middler studies is the result of a rule made recently by the Faculty, and a continuance of the transformation gradually creeping into the school which will inevitably make mathematics a part of the chemist's course only during his junior year. The rule now made excludes descriptive geometry from the course, and places scientific German in its stead.

A change of this sort has been advocated for some time, especially the phase of it which introduces the study of scientific German, and the advantages have been quite exhaustively discussed in the columns of this paper, both by editors and contributors.

If the Middlers themselves had nothing to do with this grand revolution, their influence must be indeed great, for they have brought about without an apparent effort, what '90 and '91 with a joint force of 28 legs, kicked themselves red in the face in a vain effort to attain.

Dr. Moore will have charge of the new class, and will assign lessons in chemical journals, so that the student will be enabled to add to his stock of chemical knowledge as he goes along.

**Among the Colleges.**

Here are some senior classes for 1890 recently graduated:—Boston University, 168; California University, 108; Columbia College, 318; Cornell University, 245; Harvard University, 375; Missouri University, 157; Northwestern University, 307; Tulane University, La., 141; University of Michigan, 159; University of the City of New York, 256; Vanderbilt University, 188; Wellesley College, 111; Wisconsin University, 159. The largest attendance at any of these institutions during the past year was at the University of Michigan, which had 2,258 students.
The students of Bowdoin raised $250 at a recent meeting, to defray the expenses of the foot-ball team during the season.

The first number of Massachusetts Agricultural College's new paper "Aggie Life" is out.

Amherst has removed the "running bases" and several other like undignified sports from the program of her fall field meeting, but still retains the "Potato Race," "Plug Hat Race," and "Three Legged Race."

Dartmouth loses Odlin, and Amherst, Houghton, both full-backs, from their foot-ball teams.

Harvard defeated Dartmouth at foot-ball, 43 to 0, at Cambridge, October 4. Lake, formerly of the W. P. I. class of '90, played a great game for Harvard at half-back. Dartmouth is said to be as strong as ever and judging from the game last year with Harvard, the latter must have gained in strength in the proportion of 43 to 16.

The schedule for games in the Intercollegiate Foot-ball League is as follows:—


Harvard not being in this league has arranged a schedule of her own. The following games will be played: With Amherst, Oct. 11; Williams, Oct. 18; Dartmouth, Oct. 22; Boston Tech., Oct. 29; Cornell, Nov. 1; Wesleyan, Nov. 5; University of Penn., Nov. 8; and Williams, Nov. 12.

THE WRONG MAN.

In making up the Commencement W P I one of the members of the class of '86 kindly furnished a report of its meeting at the Bay State House. It contained, among other things, a list of the class officers who were elected at that meeting. Through some mistake, however, the name of L. A. Whitney crowded out A. A. Gordon from his rightful place as president of the class.

Our friend who furnished us with the report took the blame from our shoulders immediately and requested us to make the correction.

The correct list of officers for this class is as follows:—


NEW ASSISTANTS.

The Changes Made During Vacation.

Only one change except among the assistants, has been made in the Faculty for the coming school year. This one change is caused by the return of Prof. Cutler to his old position which he left a year ago last June to study in the Johns Hopkins University. He has the same room that Prof. Haynes used last year, and nearly the same classes. Mr. Haynes is now at Harvard, where he is taking a special course in history.

Once in a while a new instructor is seen around Boynton Hall. It is Mr. Z. W. Coombs, a resident of Worcester. He has the class of Junior chemists and civils in English that Prof. Haynes had last year. Before coming here he taught a year in Virginia after graduating, as valedictorian of the class of '89, at Amherst. He now occupies his time out of class in helping Dr. Fuller about his office work, and also in the study of law.

Desper no longer reigns lord supreme over the stock room up on the top floor of the Lab. In his place is Ellis W. Lazell. Desper has gone to fill a position as chemist in the test laboratories of the Union Pacific R. R. at Omaha, Neb. These laboratories are among the largest and best in the country, and it speaks well for our school to have the position offered to one of our chemists. Geo. P. Tucker, '87, is stationed there. Lee Russell and A. L. Smith are often seen in the Steam Engineering room at the Lab. fixing up something or other. On certain days they lay aside their overalls, wash their hands nice and clean, and assume command of the mechanical drawing rooms. They are assistants to W. W. Bird and Prof. Alden. Mr. Bird is with us only Thursdays and Fridays. The rest of the time he is occupied with his business at Cambridge, Mass.

S. H. Rood and C. A. Clough are now holding the "quizes" in Physics, and Harry P. Davis is expected to join them as soon as he returns from Europe.
THE SHOP.

All Is Well and the Bells are Squeaking Merrily.

How natural sounds the merry clatter and buzz in the shop, and what a busy aspect every thing about the shop has. The rate at which the pages on the order and shipping books are being consumed show that there is a great deal of work turned out. The elevator business is especially good. Five have just been set up in Providence, R. I., and three more are in the works now for the same city. C. W. Bowker & Co. of this city have just had two elevators put up in their establishment at Washington Square.

About the first of the month, Mr. J. W. Phillips of London, who has been selling some of the grinders in England, was in the city and visited the Washburn Shops. The men working on the drill grinders are kept so busy that they could scarcely take an “afternoon off” the day of the field sports.

Five microscopic stands, i.e., drawing stands with a circular top instead of the square table and drawers, have been ordered from New South Wales, Australia. The firm that sends this order goes half way around the world for the products of the Washburn Shops, rather than use a European or Australian made article.

An order for twenty drawing stands is being filled for the public schools of Cleveland, Ohio, and nearly a dozen will soon be sent to an educational institution in New York City.

The students enter into their work this year with much enthusiasm, and Prof. Higgins says that though the Junior mechanical class is very large he hopes he will be able to have them cover more ground than any former class he ever had.

Mr. Mitchell has been on duty every day to welcome back those of us who have “been there before,” and to show the Juniors the difference between an arbor and a hand reamer. Mr. Walls has been seen once in a while, but most of the time he has been either out of town or about town attending to the setting up of elevators. Many of the students have made up a large share of their extra practice in advance, and one happy Junior has his check for the entire 168 hours.

The Senior class began the year with thirty-five members. The chances are that several of them will graduate.

PERSONALS.

C. L. Annan, ’76, is with the city engineer of St. Paul, Minn.

E. P. Adams, ’76, as landscape architect and sanitary engineer, has his office in Boston.

B. F. Booker, ’77, as assistant engineer of the A., T. & S. F. R. R. has his headquarters in the central office of the corporation at Topeka, Kans.

W. W. Fisk, ’78, still continues to represent his Alma Mater in a most creditable manner as assayer and mining engineer in Juneau, Alaska.

Louis W. Southgate, ’85, who was admitted to the bar in Washington a few months ago, was admitted to the bar in this city last Friday. Mr. Southgate has been employed in the pension department at Washington, as assistant examiner, since leaving school and while there he studied law.

William H. Oakes, ’86, was married September 24, to Miss Ellen B. Prince of Worcester.

Ronald P. Gleason, ’87, who was married last July to Miss Nellie M. Rood of this city, is residing in Oakland, Cal. Mr. Gleason is superintendent of the manual training department of the public schools of that city.

Geo. A. Ward, ’87, was married some time ago to Miss Susie G. Sawyer of Worcester.

J. Fred Temple, ’88, and Miss May Sherwood were married this summer at Mission Bridge, Tenn.

C. L. Griffin, ’88, formerly with Brown & Sharp at Providence, has changed his address to Milwaukee, Wis., where he is connected with the E. P. Allis Co.

W. J. Duncan, ’88, is with the Louisville and Nashville Railroad Co., at Cumberland Gap, Tenn.

G. W. Patterson, ’88, is acting as assistant in the experimental laboratory at the United States Torpedo Station at Goat Island, near Newport, R. I.

Fred W. Speirs, ’88, was married last month to Miss Annie Bonnell of this city. The happy pair left the East soon after their marriage, for Vermillion, South Dakota,
where Mr. Speirs has the chair of History and Political Science in the South Dakota University.

Chas. Ferry, '88, is with a paper manufacturing company in Holyoke. We are not able to give the name of the company in which Mr. Ferry is employed.

G. M. Warren, '88, is in the employment of the City Engineer of Staunton, Virginia.

A. P. Allen, '89-'90, is acting as inspector in the central office of the American Telephone and Telegraph Co. in New York. This is the Long Distance Co. which is rapidly extending its lines in all directions.

H. C. Stowe, '89, has changed his address to Pittsburgh, Pa., where he is draughtsman for the Keystone Bridge Co. of that city.

J. J. Daesen, '89, is draughting for the Fitchburg Machine Works at Fitchburg.

Frank Leland, '89, may be found with the Electric Traction Co. of Jersey City, N. J.

J. A. Baylia, '89-'90, is with the Bell Telephone Co., Montreal, Canada.

A. B. Kimball, '89-'90, is engaged as an instructor in Lagrange, Ill.

A. J. Bean, '89, is with the Pawtucket Manufacturing Co., R. I.

Robert W. Smyth, '89, was married Sept. 24, at Fort Wayne, Ind., to Miss Bertha M. Briggs.

J. H. Claney, '90, is draughting for the Wire Goods Company of this city.

J. W. Bugbee, '90, chemist in the Nashua Iron and Steel Co., Nashua, N. H., is home for a few days and reports the best of success.

Geo. W. Perry, '90, is draughting for the Berlin Bridge Co. of East Berlin, Conn.

H. P. Wires, '90, has gone to Washington to assist the government in matters relating to patents. He will also make a valuable addition to the "Washington Branch of the Alumni of the W. P. I."

H. E. Austin, '90, is teacher of the sciences in Prof. Dalzell's Preparatory School in this city.

E. H. Rockwell, '90, is with P. M. Blake, Engineer, Hyde Park.

A. P. Smith, '90, is with the City Engineer, at Cleveland, Ohio.

H. E. Warren, '90, is in the employment of the City Engineer, at Worcester, Mass.

W. L. Smith, '90, is with the Union Pacific System, at Denver, Col.

W. T. White, '90, was seen on the streets of Denver, Col., by the above mentioned W. L. Smith.

C. F. Treadway, '90, and Paul Morgan, '90, are occasionally heard from. They are apparently on good terms with all Europe and may be found in Dornarret, Sweden.

L. E. Booth, '90, is draughting at Washburn & Moen's, Worcester, Mass.

H. P. Crosby, '90, is draughting for the Thomson-Houston Company, at Lynn.

M. W. Allen, '90, is also with Thomson-Houston, in the machine shop, at Lynn.

D. R. Collier, '90, is with the Deane Steam Pump Co., Holyoke, Mass.

C. H. Faulkner, '90, is instructor of manual training in Washington, D. C.

F. A. Gardner, '90, is with the Tacoma Foundry Co.

C. K. Prince, '90, is with the H. B. Smith Heating Co., Westfield, Mass.

C. F. Whittemore, ex '91, writes that he is enjoying the advantages of Cornell University as a member of the class of '92.

Mario de A. Brago of Rio de Janeiro, Brazil, expects to enter with the next Prep. class.

De Crey, Cornell, '92, is taking special work with '92 and '93.

Ex-instructor Haynes was in town during the Festival.

Personals from graduates will be gladly received and published, and it is earnestly requested that changes of address or occupation will be promptly reported to The W P I in order that our readers may have the mutual benefit.

CAMERA CLUB NOTES.

The Camera Club has opened with every prospect of a prosperous year. Appliances are being constantly added to the property of the club for higher development in the art. A burnisher, silvering and toning baths have been ordered by the club so that complete appliances will be available for the making of a finished picture.
A print exhibit is contemplated, to take place in the near future, and since many new and novel pictures, especially Tracy's Nova Scotia views, are promised, a successful exhibit is assured.

The present officers of the Club are:— President, H. H. Tracy; vice-president, Harry Sinclair; secretary, A. H. Smith; treasurer, A. D. Lunt; and keeper, H. H. Tracy.

THE TECH ELECT.

The Tech Elect held its initial meeting for the year in the Physical Lecture Room last Friday evening.

W. H. Ramsdell gave the result of some of his investigations with a storage battery and was followed by Messrs. Rice and Foster with remarks on the same subject.

The officers who were elected last year were reinstated for the coming term.

THE Y. M. C. A.

The Y. M. C. Association has begun an active campaign again after a season that has been somewhat discouraging to its members. The Association now numbers about seventy members, whose membership tickets admit them to all the privileges of the local association, and in fact to any association that they may visit during their school course.

The annual reception at President Fuller's was largely attended, over seventy-five being present. Pres. E. L. Smith gave an address. Meetings will be held on alternate Tuesday and Wednesday noons.

TECHNICALITIES.

'91 is on the last lap.

Janitor Pease wants a lawn mower.

The foot-ball invalids should be given keys to the elevator.

The Tech March,—

Grind, grind,— grind, grind, gr-r-r-rind!

Charles H. Dunbar, '91, has been chosen historian of the Senior class.

There is nothing like a trainer and a racer for a bicycle race.

The nude gallery—library during physical exams.

The new theatre is hard on our pocket books this fall.

We are glad to see that P. H. Hurley was one of the timers instead of "A Professional."

Analyt. recitation; Professor: "Where is the centre of that circle?" Mr. X——: "On the circumference."

Newton, '93, fell a victim to the time-worn gag of being sent to ask for a left-handed monkey wrench.

The ushers all lost their courage when it came to asking a pretty young lady for ten cents for a programme.

"Ninety-three" at the tool room: "Please let me have a rubber-jawed chuck, I don't want to scratch this piece of work."

No danger of buggies going out on bats and "getting all broke up" this Halloween; the town is no license.

'90's faithful young mascot was on hand a week ago last Saturday; he probably is not aware of the fact that '90 is no more.

'93 might have given '92 a hard rub for second place if Bullard and Rawson had not been laid up.

It might have been thought that there was to be a poker joint run at Agricultural Park instead of a field meeting—"Games" at 2 P. M."

It would be a grand good scheme to have clocks in all recitation and lecture rooms so that the Prof.'s could not keep classes ten minutes over time and then give for an excuse, "Didn't know what time it was."

Paper on the co-operative plan is the latest scheme. The class pays for the whole and each man takes what he wants. We fear the effects of the over-cautiousness of some men not to use more than their share.

The class of '91 has elected the following officers for the school term ending in January: president, E. S. Phelps; vice-president, C. H. Dunbar; secretary, Gerald Alley; treasurer, J. F. Rogers.

Where is the school flag for which the money was subscribed last year? Where is the subscription paper, anyway? What we need up here on the hill is some leading spirit who has enough stamina to put a nice finish on some of the schemes that we start so bravely.
At a meeting held Sept. 17, the class of '92 elected the following officers:
- Pres., R. C. Cleveland.
- Vice-Pres., Nathan Heard.
- Sec., C. T. Tatman.
- Treas., Chas. Baker, Jr.
- Executive Committee: A. Mackay, C. W. Dyer.
- Athletic Committee: L. W. Rawson for one-half year; D. A. Bullard for the whole year.


Prof. Alden recommends the billiard table as a field for mechanical problems. He is careful to explain, however, that a complete mastery of Bowser will not win a game of billiards, and vice-versa, that a certificate of excellence at billiards will not be accepted in lieu of the proper solutions to problems given in examination.

The small electrical building, which was made to be kept closed, has been the scene of the greatest activity since its erection during the past month. It contains a large galvanometer which is to be used as a standard in all the electrical work at the Institute. The constant which is necessary for the comparison of other instruments to it, is being determined by every man in the Senior class. These results will be compared and their average used as the constant. The house will then be reclosed until again wanted for practical use.

Many of the mechanics profited by the arrangement made at the shop allowing students to make up time in advance during the summer vacation. Of the Seniors, Ramsdell leads with 160 hours, Kinsley follows with 150\(\frac{1}{4}\) hours, then Rice 47\(\frac{3}{4}\), Stearns 39\(\frac{1}{2}\), Dunbar 40, Tracy 6. Page is at the head of the Middler list. Page 141, Howard 41, Needham 34\(\frac{1}{4}\), Eastman 124, Day 4, Brayton 2. The man who has made up the most time in the whole school belongs to the Junior class. He laboriously climbed the hill 35 mornings and 35 noons during July and August. Kuwada 351\(\frac{1}{2}\), Howe 168, Greenwood and Coombs 130 each, Vaill 35.

Owing to a combination of circumstances, we are unable to print any tennis news in this issue, but a full account of the tournament and other items of interest in this connection are promised for next time. We are sorry that our space will not allow of even the mention it deserves.

They were sitting in the parlor,
Where the light was low and dim;
She seemed very well contented,
And no murmur came from him.

"George," she asked, "are you reporting
For that horrid paper yet?
It is shameful how they publish
All the scandal they can get."

"No, my love," he answered softly,
And he winked unto himself,
"I have left." (In fact that morning
They had laid him on the shelf.)

"But," he said, and hugged her closer,
She returning the caress,
"Just at present I am working
For the Associated Press."—Ex.

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Fig 1

Fig 2

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