<table>
<thead>
<tr>
<th>CONTENTS</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>N. E. I. A. A. Convention</td>
<td>209</td>
</tr>
<tr>
<td>College Government</td>
<td>210</td>
</tr>
<tr>
<td>The Hawaiian Revolution, by R. B. Farwell, '93</td>
<td>211</td>
</tr>
<tr>
<td>&quot;What are We Here For?&quot;</td>
<td>212</td>
</tr>
<tr>
<td>Notes by Entropy</td>
<td>213</td>
</tr>
<tr>
<td>An Institute Council</td>
<td>214</td>
</tr>
<tr>
<td>Communications</td>
<td>214</td>
</tr>
<tr>
<td>Prof. Young's Lecture</td>
<td>216</td>
</tr>
<tr>
<td>Historical Society</td>
<td>216</td>
</tr>
<tr>
<td>The B. A. A. Games</td>
<td>216</td>
</tr>
<tr>
<td>Senior Class Committees</td>
<td>217</td>
</tr>
<tr>
<td>Camera Club Elections</td>
<td>217</td>
</tr>
<tr>
<td>The Banjo Club</td>
<td>217</td>
</tr>
<tr>
<td>Reception to the Preps</td>
<td>217</td>
</tr>
<tr>
<td>T. C. S. Reception</td>
<td>217</td>
</tr>
<tr>
<td>Happenings at the Labs</td>
<td>217</td>
</tr>
<tr>
<td>A Loss to the Washburn Shops</td>
<td>218</td>
</tr>
<tr>
<td>Shop Notes</td>
<td>218</td>
</tr>
<tr>
<td>Joy Among the Seniors</td>
<td>218</td>
</tr>
<tr>
<td>Thesis Subjects</td>
<td>218</td>
</tr>
<tr>
<td>College Notes</td>
<td>218</td>
</tr>
<tr>
<td>Technicalities</td>
<td>219</td>
</tr>
</tbody>
</table>

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Opposite Bay State House.
At a meeting of the Faculty held Feb. 16th, the Editor-in-chief of the last issue of the WPI was required to resign as such, and to sever all connection with the paper, because of the appearance in a recent number of an article deemed by them objectionable. Most of the editors had no knowledge before its publication of the character of the article, and all regret its appearance.

The delay in this issue is entirely due to the confusion resulting from the action of the Faculty.

N. E. I. A. A. CONVENTION.

The New England Intercollegiate Athletic Association held its annual convention at the Quincy House, Boston, at 11 a.m., Saturday, Feb. 11th. Mr. Southgate, of Worcester, called the meeting to order, and Mr. Haine, of Trinity, was elected chairman in place of the president, who was absent.

Mr. Bosworth of the Springfield Bicycle Club stated the offer which that club had to make to the convention for the holding of the annual games at Springfield. It was the same as the year before,—the club paying all expenses, including advertising and medals, and guaranteeing against loss, besides dividing the profits equally with the association. Last year the association received from this division only about $67.00. Delegates from Bowdoin College were then admitted, who stated why that college wished to be re-admitted to the association. In recent years the students there have given their athletic support to the crew, but now that eight-oared crews are replacing those of four oars, it has been found difficult in so small a college to find the necessary number of men. Accordingly, last year it was voted to abolish the crew. After a few remarks, Bowdoin was unanimously admitted to the association.

The committee on redrafting the constitution then submitted its report through the chairman, Mr. Beekman of Amherst. The following are some of the principal changes from the old constitution, accepted. The list and order of events were fixed, both the standing jumps being thrown out. No one can compete in more than four annual field days, and none but students in good standing who have been for at least six months members of the college from which they are entered. An extra clause was inserted making an exception for this year, in the case of the W. P. I. The annual field day is to be held on the Wednesday next preceding the last Saturday in May.

The method of awarding the championship banner was altered, and hereafter first prizes will count 5 points, second prizes 3 points, and third prizes 1 point. Nothing was done about limiting the number of entries.

To bring the matter of place for the annual meet before the convention, it was moved that it be held at Springfield. Considerable discussion followed, in the course of which it was brought out that the Worcester Athletic Club could have saved something like $350.00 to the association last year. Among the Springfield items, unnecessary here, were $100 for repairing track, $50 for use of grounds, $44 for ticket sellers and collectors, about $85 for judges and their entertainment, $10 for announcer. Williams and Amherst both thought the question should not be decided until an offer or terms had been obtained from the Worcester Athletic Club. The motion to hold the games in Springfield was lost, 5 to 4; Wesleyan, Trinity, Dartmouth and University of Vermont voting in the affirmative. It was then voted to leave the matter to the executive committee consisting of one member from each college. This committee is to decide before next Sunday. Chase, '94, is the Worcester member. The convention, after electing officers, adjourned at 3.30 P. M.
COLLEGE GOVERNMENT.

A Comparison of the Leading Systems now in Use.

Dr. Charles F. Thwing has said that the present methods of the government of college students may be divided into three general systems. The first of these he would call the monarchical, and he places it first because it is the traditional and the more common system. The second system consists of the lack of any system at all, giving as it does, absolute freedom of behavior to the students and professing only to guide them intellectually. The third is the democratic system, in which the students, themselves or their representatives, form a part of the governing body. The first of these three systems has also been called the "American" system, as distinguished from the German, or European. It is the system that is still in vogue in most of our colleges, and consists in governing students by rules that are made entirely by the faculty or trustees, without consulting the wishes, or even, as we have contended, the rights of the governed body.

No candid mind can fail to acknowledge that this system is inadequate to the present needs of the case. Its enforcement has been the source of a very large share of our most serious college disturbances, and the more or less brutal hazing traditions are the natural offspring of the spirit of the system. These objectionable features are so apparent that numerous attempts have been made to modify them. These efforts have indeed resulted in some progress, and if space allowed it would be interesting to trace the changes of the last fifty years, at the beginning of which period, students were subjected to rules and restrictions of such a petty character that they would be considered out of place in the academies and preparatory schools of the present day. Within this time one of the leading colleges of the country had a written law that "in any case of disorderly conduct within the college, in which students were concerned, every student in college at the time, whether he be a resident therein or not, shall be considered as a principal and treated accordingly, unless he can show his innocence."

The University of Virginia prohibited the wearing of boots because, forsooth, it was suspected that certain of the students had used their boot legs for the introduction of forbidden liquors to the college buildings. Students in Harvard and other colleges were required to have patrons on the faculty who had charge of their funds, regulating the expenses and paying out the allowance, after deducting a commission for their fatherly care.

Twenty years ago the annual catalogue of Wesleyan spoke of the discipline of the college as "paternal" and urged parents and guardians to "commit the funds of the students to the president or one of the professors, who will attend to their wants and discharge their bills." Most of these features of college government are absurd or even worse, and nearly all of them have disappeared. At the same time the one essential objection to the "American" system still remains in most of our colleges, in that students are required to obey laws in the framing and application of which they have no part. The German system is almost equally objectionable, and is not likely to come into great favor here, except, perhaps, in universities modelled after the German. The one system that has found the most general support among the students is the one which gives them a voice in the government of their own actions. The average American student enters college now at the age of 19, or just about the age at which the average student graduated fifty years ago.

College students are no longer boys. They are men and should be treated as such, but, as The Argus has said before, they can never feel that they are receiving this treatment until they are given a share in the government of their own conduct. It is no answer to this to say that their present behavior does not indicate capability for self-government. It is useless to expect them to show such capability while under the sway of the "monarchical" system of discipline. College students are especially quick to rebel against anything that seems to them to be an arbitrary assumption of power and authority. It is this that has so often made them regard the college faculties as their natural enemies, and has caused them to pronounce legitimate any trick or subterfuge by which the latter might be outwitted. This feeling may be a part of the "total depravity" of the student nature, but we cannot properly disregard it in considering the question of college discipline.

The immediate adoption of some such system as I have here roughly stated and argued would involve radical changes for which we may not be ready, but the plan proposed by The Argus looks toward such an ideal and may help us to move in that direction. The chief merit of the proposed plan seems to me to lie in the fact that it promises to bring faculty and students closer together and will thus tend to make less frequent the misunderstandings that have often come up between them in the past. We have no reason to believe that the majority of our professors are in sympathy with the "educators" who met and solemnly declared that "there should be a certain distance maintained between
pupil and preceptor," and that under such circumstances "everything will be better effected than where the communication is closer and less unrestrained."—Wesleyan Argus.

THE HAWAIIAN REVOLUTION.


The Sandwich Islands are a group of eight inhabited and four uninhabited islands situated about 2,000 miles southwest of San Francisco. They were discovered in 1778 by Captain Cook, and were converted to Christianity soon after 1820. The islands formerly contained several hundred thousand persons, but the native population has gradually dwindled down to about 34,000. The total population is about 90,000, the Americans and their descendants being the ruling race. The group is commonly called Hawaii, from the largest island which comprises about two-thirds of the whole area of the group.

During the reign of the Kamehameha line, Hawaii progressed rapidly from a savage despotism to a civilized state, but when the present line came upon the throne, a marked change in the spirit of the government became manifest. A series of extravagances and abuses exhausted the patience of the people, until finally an uprising in 1887 obtained from the crown the promulgation of a new and more liberal Constitution. This Constitution was firmly resisted by King Kalakau, who obstructed its action in every way possible. When his sister came upon the throne, she followed in the footsteps of her brother, and it was soon evident that she would not be satisfied with a system which did not give her greater powers.

On November 8th, a new Cabinet called the Wilcox Cabinet, came into power. About Christmas, rumors of trouble between the Queen and Cabinet become prevalent. The members of the Cabinet claimed that the Queen was attempting to dictate to them the course of action which they should pursue. In the early part of January of this year, a bill came before the Legislature which was opposed by the Ministry. The Queen interested herself actively in its passage. At first the bill seemed certain of defeat, but in the end enough members changed their position to give the votes necessary for its passage, and on the 12th of January the Wilcox Ministry was voted out of office. The supporters of the Ministry freely charged that their defeat was brought about by the extensive offer to doubtful members of money and appointments.

A new Cabinet was formed immediately, but no one dreamed of trouble. On the 14th of January the Legislature was prorogued. During the afternoon, the rumor ran quickly through the city that it was the intention of the Queen to force a new Constitution upon the people. The members of the Cabinet, who had during the morning received positive information of the Queen's intentions, consulted together, and asked advice of two prominent citizens of Honolulu. The latter advised them to refuse to sign a new Constitution, and to decline to resign if their resignations were demanded.

In the afternoon a native political society marched over to the palace in order to present a new Constitution to the Queen. The Queen replied to them that their prayer would be granted. She immediately summoned her Cabinet, demanded their signatures and announced her intention to promulgate the new Constitution at once. The members of the Cabinet demonstrated but the Queen brought her clinched hand down on the table and said: "Gentlemen, I do not wish to have any more advice. I intend to promulgate this Constitution and to do it now." She then told the Cabinet that unless they abandoned their resistance, she would go out upon the steps of the palace and tell the excited crowd that her Ministers prevented her from granting their wishes. The Ministers concluded that the safest thing to do was to retire from the palace, a plan which they speedily put into execution.

The Ministers then sent word about town asking what support they could expect in their resistance to the Queen. A meeting of the most prominent men was held and it was unanimously agreed to support the Cabinet.

Meanwhile great pressure had been brought upon the Queen to induce her to change her course. Becoming alarmed by the feeling manifested by her opponents, she addressed the crowd, telling them that she was obliged to postpone the granting of the Constitution for a few days. Posters for a mass meeting to oppose the new Constitution were distributed about the city, and a committee of citizens called the Committee of Public Safety requested the American Minister to land troops for the protection of property. The Queen then acceded to the wishes of the Cabinet, a truce was arranged between them, and a proclamation signed by both Queen and Ministers was given out announcing that the Queen had taken the course, which she had pursued, under the stress of her native subjects, and all changes in the Constitution would be sought by methods provided in the Constitution itself.

On the afternoon of January 17th, the mass meeting called by the Committee on Public Safety was held. A great crowd was present.
Energetic speeches were made, and resolutions passed condemning the action of the Crown, and empowering the Committee "to adopt such means as it should see fit for securing of law and order and the protection of life, liberty and property in Hawaii."

While this meeting was in progress, a counter demonstration was held by the Queen's party, at which resolutions were passed accepting the royal assurance that she would not seek a new Constitution by revolutionary means.

Immediately after these mass meetings, a meeting of the Committee on Public Safety was held, and a provisional government was formed. At 5 o'clock in the same afternoon, the Minister of the United States Government, Mr. Stevens, acceded to the request of the Committee and landed troops from the American war ship, Boston. A conflict occurred between an officer under the new government and a policeman, during the afternoon, resulting in the wounding of the policeman. This helped to precipitate matters, and the Provisional Government followed by a large crowd went to the government building. Here a demand for the possession of the building was made, and the official in charge, having no force with which to resist the demand, gave up the building. One of the Provisional Government then stepped forward and read a proclamation to the people, declaring that the Queen and Cabinet were removed, and the Provisional Government the sole government in Hawaii. The Queen and the Cabinet, finding resistance was useless, announced in a public statement that they yielded because of the presence of the marines which had been landed from the Boston, and waited for the United States to restore the legal government. As soon as the Provisional Government was in power, the representatives of the foreign powers were notified. All the Powers speedily recognized the new government. On the 26th of January a commission was despatched to the United States to negotiate a treaty of union. On the 1st of February Minister Stevens assumed the Protectorate at the request of the Provisional Government and raised the Stars and Stripes. Marines were landed from the Boston and the streets have since been patrolled by them.

There is now a treaty for the annexation of Hawaii before the United States Senate. The principal provisions of this are as follows:

All public buildings and public lands shall belong to the United States subject to the provision that the income from the public lands shall be devoted to educational and other purposes in Hawaii. The Hawaiian laws shall remain until changed by Congress. Commercial rela-

tions both with the United States and other countries shall continue as at present until otherwise specified by Congress. Chinese immigration into Hawaii shall be prohibited, Chinese emigration from Hawaii to the United States shall not be allowed. The United States shall assume the public debt of the islands, the amount assumed not to exceed $3,250,000. Within one year after the treaty goes into effect, the United States shall pay $20,000 to the Queen and $150,000 to the Princess of Hawaii, and shall pay annually a sum of $20,000 to the Queen for the rest of her life. A vote on this treaty will probably be taken at the special session of the Senate in March. It seems reasonably certain to receive the votes of a majority of the Senate, but whether the necessary two-thirds vote can be secured cannot be foretold.

"WHAT ARE WE HERE FOR?"

"What am I at the Tech for?" is a question worthy the attention of not only those who have recently entered the Institute, but of all the students in the several classes. A few words from a graduate may be of help to some of those who are seriously considering the question, and, with this in view, as well as with the hope that they may interest those who are there because they were sent, the following suggestions are offered.

The requests for graduates to fill the various positions for which they are fitted at the Institute invariably have this condition, "We prefer to have a man who has had some experience." Why this demand? Is there anything more than the mere knowledge of details, methods, and results gained by continued practice in any one or several lines of work, that makes experience so valuable?

An eminent author has said: "Amongst the many advantages of experience, one of the most valuable is that we come to know the range of our own powers, and, if we are wise, we keep contentedly within them. This relieves us from the malady of eagerness; we know pretty accurately beforehand what our work will be when it is done, and therefore we are not in a hurry to see it accomplished. The coolness of old hands in all departments of labor is due, in part, to the cooling of the temperament by age, but it is due even more to the fulness of acquired experience, for we do not find middle-aged men so cool in situations where they feel themselves incompetent." In other words, experience plots the course of our powers, shows the maximum and minimum values, where they become zero or possibly negative on the one hand, and the infinite branches, if there are any, on the other.
The more limited the experience to a few things, the more definite is the curve at those points; the wider the experience, the greater the knowledge of the curve in general.

The equation of this curve depends on our natural as well as our acquired abilities, our undeveloped as well as our developed resources; consequently, it can only be expressed by \( p = f(u) \), where \( p \) is the power and \( u \) is you, and no mathematical solution is possible, although teachers have and probably always will endeavor to obtain one by means of written examinations. Experience on the one hand defines the range of our powers, and on the other increases those powers by the benefits derived from the experience itself, thus the cause must be continually changing, but should, like the spiral, never recross its former path, but be ever widening and lengthening.

Another valuable advantage of experience is the ability thereby acquired to meet "the unexpected which often happens." For to the man of experience there is less of the unexpected in the first place, and less surprise and nervousness in the second place, when it does come, as come it will. This gives us another argument against regular written examinations; they only develop ability to meet the expected.

Without enumerating more of the advantages of experience, we must acknowledge the reasonableness of the condition referred to and consider whether or not we can attain in some slight degree the benefits which experience should give, and so prepare ourselves to successfully meet the requirements of the times. The chief value of a college education is not the information acquired, but rather the powers and faculties developed, and in the knowledge of the range of these same powers lies the chief value of experience. Accordingly, if we would make the most of the Institute, we must develop under its kind guidance while there, and at the same time come to know and use our own powers. While the over-estimate of them is self-conceit, which is to be avoided, confidence in them is self-reliance and command of them self-control, qualities worthy our noblest endeavors, for he that has them is

"Lord of himself, though not of lands,
And having nothing, yet hath all."

W. W. Bird, '87.

NOTES BY ENTROPY.

Worcester, Feb. 20th, 1893.

Mr. Editor:—

Since visiting Brown & Sharpe's shops in Providence I have been to two others in that city. There were some things which I noticed that may interest your readers. The first was the Rhode Island Locomotive Works. Here they build locomotives of any and every size and description. They have built the "double headers" for the Mexican Central Railroad. The first thing that we noticed was the travelling platform for conveying finished and semi-finished machines from one part of the works to another. The shops are arranged in two parallel rows, the end of each building coming up to a long passageway, a little wider than the length of the longest locomotive. In this passageway, which is sunk below the level of the floors of the shops, there is a large truck. It is propelled by steam power, crab-wise along this passageway. It is large enough to accommodate a locomotive, and the rails on its top are on a level with the rails on the floors of the shops each side. It is a curious sensation to see a machine of that size travelling toward you sidewise.

In the blacksmith shop we saw them forging side frames, axles, etc. Part of the work, even some that is pretty heavy, is done by hand, but steam and trip hammers are in constant use. By selecting a safe corner we enjoyed the sight of the glowing fires and the showers of sparks that flew like so many miniature rockets as the first blow of the hammer struck each piece. The whole thing seemed foreign, for although most of the workmen may be American voters, it seemed as if there was not a regular Yankee in the lot. It is said, indeed, that Yankees are so degenerated and inclined to fashionable appearance that none can be found who will serve the necessary apprenticeship to learn the trade. Perhaps, however, it is because the aforementioned New Englanders have all followed Horace Greeley's advice to young men, or else what there are left are better to lead in the industrial army than to be led.

The machinery used here seems very antiquated in design and quite old. Two or three triple head slotting machines and several other tools came all the way from England. The work turned out, however, has a national reputation, if not international.

In the foundry we saw evidence of progress in the shape of machine moulding. On a large portion of their smaller castings they have found it better to use machinery than ordinary hand labor. Many New England foundrymen have hardly heard of moulding machines, but in the West they are said to be much used.

We were also admitted to the draughting room. There was nothing of particular interest about this room except that we saw the chief engineer of the Mexican Central Railroad. By his name we should judge he was a
descendant from the "ould sod," and by his looks we should be afraid that he would not be allowed to pass the prep. year at the W. P. I. on account of supposed lack of "mechanical aptitude." But then, if you want to get a good job go west. Of course I don't say that on my own responsibility, for it wouldn't be practicing my own preaching, but one of my former classmates, who is now located in one of the remote suburbs of Chicago, the "fairy city," recently wrote me to the effect that money rolls round in the streets there as free as snow is here. They only use pennies to charm off snakes and witches, for no true Westerner ever pays less than a silver dollar for anything, etc. He doesn't say but what it is as easy to get rid of money as it is to get it, however.

Entropy.

AN INSTITUTE COUNCIL.

Under the heading "Athletics," an article appeared in the last number of the W P I discussing the idea of combining all the athletic associations connected with the Institute. We wish to correct the impression conveyed by that article. The thought in the minds of those who promulgated the scheme was to form a representative organization, composed of a certain part of the membership of each class, to have supervision, not only of all branches of athletics, but also of all other matters concerning the general student body, in short, a well-organized, carefully-chosen assembly (call it council or senate or whatever other name may seem fitting) which can act for the students and be responsible to the students.

For example, let this council consist of ten seniors, nine juniors, eight sophomores, and six freshmen, for, after this year, there will be four classes here the year round. Let the president be chosen from the highest class, and let the other officers be properly distributed among the classes. This would give a total membership of thirty-three, a number sufficient to cope with all the work, and yet not so unwieldly as the present so-called "associations," which are nothing more than a coming-together of those among the students who take enough interest in the particular meeting on hand to attend it. As the number of students at the Institute increases, the present system must become more and more inefficient, and the advantages of having the business managed by a small, compact organization will be more apparent. The above apportionment would keep the direction of affairs in the hands of the upper classmen, as it should be.

The intention is to have this council manage each department of athletics by means of a board of governors elected from its own membership. This is not a move to return to the old regime, but on the contrary, the plan aims to substitute for the former loosely constituted mass meetings or the present three or four similar associations, one body of definite make-up, which shall do all they did, in a more satisfactory manner, and shall supplement their work by taking charge of any other affairs of the student body which can now be handled only in a bumbling and indirect way. Next September the Institute will enter upon its new schedule of four-year courses. What better time will there be to inaugurate some such plan as is suggested above?

Communications.

Opinion on the Four-Year Courses.


Editor W P I,—

In answer to your letter I would state that I do not think that either of the first three courses (a) (b) (c) described in your letter, are sufficient to properly prepare a man for electrical engineering because the time given to electrical engineering is not enough.

The problems now presenting themselves to the electrical engineers are very difficult, are largely electrical. Alternating current phenomena and apparatus, including three phase, dynamo design, construction and operation, street car motor regulation, &c., &c., require very considerable and special electrical knowledge. If you look through the Transactions of the American Institute of Electrical Engineers, you will find that more than three-quarters of the papers are almost entirely electrical. I believe in a thorough grounding in mechanics, mechanical engineering and shop work, but more time should be given to electrical studies.

Your post-graduate course (d) would in my opinion be a far better preparation for electrical engineering and well worth the extra year. If it is necessary to limit a course to only four years, more electrical work must be put in second and third years than is now given in the three courses (a) (b) and (c), as I understand the case.

Yours truly,

F. B. CROCKER.

Adjunct Professor Electrical Engineering.
School of Mines, Columbia College.

The World's Fair.

MUSKEGON, MICH., Feb. 18th, 1893.

Editor W P I,—

Dear Sir,

Please accept a World's Fair greeting to yourself and co-workers on the Institute's bi-
weekly sheet. You fellows "way down East" don't seem to begin to realize that our National display is so near on. In the way of a suggestion for a feature in the WPI columns, why don't you establish a World's Fair Bureau or something of the sort? So far I can see no effort being made on anybody's part to interest either the alumni or undergraduates in a general meeting next summer in Chicago. Your columns are the only available means I know of to disseminate general information amongst us, and it seems to me if we are to expect any reunions next summer, agitation of the matter ought to begin pretty soon. I want to meet my class, and I want to meet the alumni generally, so far as possible, and I trust that others have the same feeling. Furthermore, if a man I once knew, and was a college chum with, is to assist in an exhibit at the Fair, I'd like to know about it, and the exhibit will have a corresponding definiteness and interest when I run across it.

Now there is opportunity, it seems to me, to call out in the WPI columns such notes by graduates concerning exhibits they are interested in, as will be of some value now, and of much greater value later, when the reader visits the Fair. I should not like to see your columns turned into advertising space for business booms, but I should like to see what Tech graduates are going to do at the Fair.

The Shaw Electric Crane Co., of Muskegon, Mich., will put in a small electric traveller of 10 tons capacity only, but it will be worth looking at, and perhaps it would be worth talking about a bit in the WPI columns.

Let's have a word from somebody else on the subject. Take a brace, and let some of us fellows out here around the lakes know whether New England is coming out to see us or not this summer.

Very Respectfully Yours,

Chas. L. Griffin, '88.

[The WPI had quite a lengthy editorial last spring upon this subject, urging its consideration by the Alumni, but no action has ever been taken before upon it, or consideration given, as far as we have heard.]

For '94's Benefit.

Battle Lake, Minn., Feb. 16, 1893.

Editor WPI,

Dear Sir:—I saw by the Feb. 9th, 1893 number of the WPI that the class of '94 has had a little unpleasantness with the Faculty, and the sequel is the same old story, the Faculty as usual and as they should, are on top. This instance calls to my mind a piece of folly I was once mixed up in, while attending the Institute, with a number of other hot heads. It was, if I remember rightly, the winter of 1880—81, the Amherst Glee Club came to Worcester to give an entertainment and most of the members of '81, '82 and '83 attended, decked out in plug hats, had clubs, &c. We occupied the gallery of the hall and some of the Faculty sat in seats below, among them, Prof. Eaton. Some of the boys amused themselves by dropping their hats over the rail on the heads of the audience below and pulling them back with a string, and they were all more or less boisterous. W. P. Daliott, of '81, was the Master of Ceremonies. We had lots of fun but the Profs. down below didn't seem to be enjoying it much, and by the time the show was over their stock of patience was about exhausted. Had we gone out of the hall quietly everything would have been all right. We couldn't, however, do that, but felt called upon to obstruct the entrance and let the other people come out when we got ready to move. This with other little pleananties fully as exasperating caused Prof. Eaton to peremptorily order one man, who was trying to outdo all the rest, to leave the hall, and the young man politely informed him that he wouldn't do it, and intimated to the Prof. that he would oblige him by attending to his own business. The next day our friend was suspended, and the balance of us were mad, oh we were real mad, so mad that we demanded an explanation of the Faculty, and we didn't get it; then we were madder than we were before, so we assembled in solemn conclave; incendiary speeches were made by older men, who ought to have known better, and we decided to issue a manifesto, our ultimatum, so to speak, and we drew up and signed about as impudent a message as any Faculty ever received from a body of students and some of us imagined that we were going to scare the Faculty; they didn't scare worth a cent, and as soon as they had a meeting they suspended every man whose name was attached to that document. Why they didn't fire us all bodily can only be explained by their having such great compassion for the fools they were dealing with. After we had received the notice of suspension we continued to hold meetings down town and there was a good deal of talk about leaving and going home, but some had fathers made of the same stuff that the Faculty was composed of, and the anticipation of meeting those fathers was not altogether lovely, so we decided to wait and see what the Faculty would do next. We were not kept in doubt long, for in a few days we each received a written message to the effect, if we did not sign and return to the principal within a certain time
a retraction in full of the circular we had sent them, our parents would be communicated with. Gall and wormwood! Sign a retraction to be filed away in the archives? No, never, that was too bitter a dose. But, boys, we did sign it and that wasn't all; they, the Faculty, put us under a set of ironclad rules that made us remember for a long time that the government of the W. P. I. rested in a Faculty chosen by the Trustees and that they intended to govern. I, for one, have never forgotten the lesson I learned that time, and I have this to say to you gentlemen of the under graduates, if you don’t like the rules and regulations laid down by the Faculty, don’t go to the Worcester Polytechnic; or, if you find they are too burdensome after you get there, better leave quietly and not disturb those who are there to learn. You may depend on two things:—

1st. The Faculty will be backed by the Trustees and the Alumni, generally, every time; and

2nd. That little paragraph in the catalogue about order means just what it says.

Yours Truly,

Warfield, ’82.

ASTRONOMICAL LECTURE BY PROF. YOUNG.

A large number of Tech students attended the lecture of Prof. Young of Princeton University, in Memorial Hall, Friday evening, Feb. 17th. His subject was the Sun, and the lecture was the first of a course of three.

The speaker was pleasantly introduced by Judge P. Emory Aldrich and was favorably received by the audience which completely filled the hall. Prof. Young holds a high rank among astronomers and thoroughly understands his subject. He is a very pleasant gentleman to listen to, speaking in a fluent and interesting manner.

The portion of his audience from the Institute was, however, rather disappointed, as he treated the subject in an elementary and popular manner, merely rehearsing matter with which most well-read Techs are familiar such as the size, composition, heat of the sun, its distance from the earth, etc. He had also a number of interesting pictures of sun spots and other phenomena, which were thrown upon the screen by a stereopticon.

The remaining two lectures, upon the planets and upon the comets occur February 24th and March 3d, and the students are hoping to hear talks of a little more scientific nature.

MEETING OF THE HISTORICAL SOCIETY.

Owing to Prof. Young’s lecture on Astronomy occurring on Friday evening, the regular meeting of the Historical Society was held on Thursday evening. Seven members were present. Papers were read as follows: By G. W. Bishop, ’94, on “The Flight to Varennes and Position of the King Because of It”; by Prof. U. W. Cutler on “The Clubs and their Influence on the Revolution”; by Chas. Baker, Jr., ’93, on “The Attitude of the King and People to the Legislative Assembly.” Mr. Baker read Carlyle’s “Massacre of the Swiss Guard, Aug. 10th, 1792.” D. I. Wright, ’93, had been assigned a paper on “The Hostile Movements of Foreign Governments,” but owing to his absence, the subject was presented by another member. All these were in connection with the subject which the Society has been studying during the winter, the French Revolution. At the close, Prof. Farwell, ’93, gave a description of the most recent revolution, the one which has just taken place in Hawaii.

The Society is nearing the close of its second year. It has performed a good service for those students who have taken an interest in it. The under-classmen should take hold of it enthusiastically and continue the usefulness of this organization.

On March 10th, a lecture will be given in the physical lecture room, by Rev. Austin S. Garver on “Old Assyrian Life,” probably illustrated by stereopticon views. All members of the Institute and friends of the Society are cordially invited to be present, and are assured that the lecture will be of genuine interest.

THE B. A. A. GAMES.

At the Boston Athletic Association games in Boston, Feb. 11th, there was a very large audience and a grand list of events. The event which most interested Worcester people was the team race between the W. A. C. and the Suffolks A. C. Whipple, ’94, ran on the former team, and although his opponent was a fast man and had a lead on him at the start, he gained slightly. Dadmun, the last runner on the W. A. C. team, made a great effort to overcome the enormous lead, but it was of no avail, and he finished a yard behind his opponent. Gallagher won a heat in the 600 yds. dash, defeating Coombs, the scratch man. In the other team races, Amherst defeated Dartmouth in a hotly contested race, and Harvard took it easy against Yale. Sweeney of New York broke the indoor high jump record, clearing the bar at 6 ft. 2½ in.
SENIOR CLASS COMMITTEES.

At a recent meeting of the Senior Class the arrangements of all the matters pertaining to Commencement Week were placed in the hands of the following committees: A committee to have in charge all the exercises which are to take place during the day time of Class Day with Norman M. Paull as chairman; a committee on the annual class reception, which this year will probably be held in a suitable hall on account of the size of the graduating class and not at the Salisbury Laboratories as heretofore, with Erastus Hopkins as chairman; a committee on the exercises of Commencement Day and also to provide for a Baccalaureate sermon to the class, with Arthur C. Comins as chairman; a committee to have in charge the annual supper held on the evening of Commencement Day, with Louis W. Rawson as chairman.

The chairmen of these committees, together with the President, William H. Parker, constitute an Executive committee to have general charge of the exercises of the whole week, and in addition have the power of appointing the remaining members of each of the committees which are to consist of three men each, except the Class Day committee which will consist of five.

The meeting adjourned after considerable discussion of some minor details of the matter of photographs and of the speaker for Commencement evening.

CAMERA CLUB ELECTIONS.

A meeting of the Tech Camera Club was called to order by Prest. Higgins, '93, in Room 17, Boynton Hall, on Tuesday, Feb. 14th. The meeting was for election of officers and general business. The election coming first resulted as follows:—President, Louis de V. Magaw, '94; Vice-President, Henry N. Smith, '94; Secretary, Howard A. Coombs, '93; Treasurer, Edward W. Vaill, Jr., '93. Edward H. Keith of '94 was re-elected keeper.

General business then came before the Club. A committee was appointed to look up and make arrangements for renting a room in one of the school buildings in which to hold meetings, keep books and property of the Club.

Meetings are to be held every two weeks and are to be made as interesting as possible. Talks are to be given by members and outsiders, and new fads in the camera line are to be tried. It was also suggested that the Club obtain the services of demonstrators at specified times for the general instruction of the members. Different plates and developers are also to be worked and the results shown to the Club.

The society is in a very flourishing condition and has a good treasury. New members are welcome and all interested are asked to join.

THE BANJO CLUB.

Although not making much ado about it the Banjo Club is doing some good work at rehearsals, and it bids fair to be a permanent organization of considerable importance. Manager Harris has had several opportunities to make engagements and some have been made. There is a chance for one more first banjo on the club. Any one wishing to try for the place can arrange a date for the trial with Mr. Harris.

RECEPTION TO THE PREPS.

The Alumni and Undergraduates of the Institute attending Central Church in this city tendered the apprentice class an informal reception on Friday evening, February 10th, from eight to half past nine.

There are at this church some thirty men who are or have been in some way directly connected with the Institute. About half of the members of the class were present and spent the first hour in an informal social. Later refreshments were served by caterer Parker and the new students departed after giving the school yell. Among the alumni present were John D. Curtis, '71, E. K. Hill, '71, F. H. Daniels, '73, U. W. Cutler, '74, J. C. Woodbury, '76, W. L. Chase, '77, G. I. Rockwood, '88 and A. H. Smith, '92.

T. C. S. RECEPTION.

The Tech Co-op. Society gave an informal reception to the Faculty on Tuesday evening, Feb. 14th, from 7.30 to 9 o'clock, at the house of the society, No. 4 John Street.

The officers, Messrs. Heard, '93, Whipple, '94, Harrington, '95, and Flinn, '93, received the guests, after which the evening was spent in an informal manner and light refreshments were served. Several friends of members of the society were also present and all were much pleased with the opportunity of meeting the society in its pleasant home.

HAPPENINGS AT THE LABS.

Chemistry Department.

Eugene W. Hamlin now has charge of the stock room.

The chemists say that they much miss the refreshing youth who lately passed out the glassware. He has gone to his home in Middlefield to participate in the annual sugaring. All
members of the Institute are cordially invited to visit Walter on his native heath.

The laboratory has recently been provided with large fire hose. The chemistry department is now fairly well able to handle any small blaze that may occur on their floor.

Physics.

The newly installed 20 H. P. electric motor is doing excellent work.

The post-graduate electrical engineers are testing a Columbia Electrical Co.'s dynamo and dynamos Nos. 10 and 11 made at the Laboratory to determine the magnetization curve and the external characteristics. Machine No. 11 has given a very satisfactory curve. The other tests are not complete.

A LOSS TO THE WASHBURN SHOPS.

John Jernberg has decided to leave his position at the shop and will go, on the first of next month, to work at the Memorial Hospital on Belmont street. A short account of the way he has spent a part of his life may be interesting to some of his many friends. Brought up at Wernaland, Sweden, he was still a young man when he began his apprenticeship. At the end of six years the diploma, signed by his employer and also by the government, was received, and then, according to the custom in Sweden and Norway, he spent several years working at places in different parts of the country to learn the methods employed and to get new ideas. Among other places he worked at four Bessemer steel works. He came to this country and city thirteen years ago and was with the Ames Plow Company for a year, and on February 8th, 1881, came to the Washburn Shops. Besides tending to his duties here he has, at his home, fitted up a modest little machine shop. Here is a small steam plant, and, besides the machines in the shop, he has an electric plant to furnish light, as most of the work is done evenings. Some of his time has been spent in making surgical instruments, braces, and trusses for the Memorial Hospital. His work has been appreciated, and thus the offer to spend all of his time there.

John will be greatly missed by all the students and others connected with the shop. He has always taken an interest in the affairs of the students and every one who has known him is his friend. He is an authority on every practical question concerning iron and steel, and it will be hard to find any one to anywhere near fill his place.

SHOP NOTES.

Short run freight elevators are being constructed at the Washburn Shops for the Tremont Nail Co. of West Wareham, Mass., and Brown, Thompson & Co., Hartford, Ct. A crew of men are employed at Jamestown, R. I., drilling a well for an elevator in the Bay View House, a large summer hotel. A large order for drawing stands for the public schools of Aurora, Ill., is being filled. Drill grinders are being shipped to England.

JOY AMONG THE SENIORS.

Prof. MacDonald, in his Monday morning lecture, stated a fact of which most of the students were previously unaware, namely, that there are laws in Mass. against trusting students and that those that trust them can maintain no action against them. Various suggestions have at once been made:

That hereafter no more board bills will be paid.

That L. P. Strong is no longer in it.

That the Class repudiate any debt which they may incur.

That the trustees cannot collect tuition.

THESIS SUBJECTS.

Civil Department.

Butterfield, A. D.—Hot Tests of Cements.
Dyer, C. W. D. { Investigation of the Cip-
Flinn, A. D. } poletti Trapezoidal Weir.
Farwell, R. B.—Rapid Transit in Cities.
Heard, Nathan.—A Design for a Highway Bridge.

COLLEGE NOTES.

Columbia is to have a new magazine of a literary nature.

The University of Chicago nine has 150 applications for games.

Wesleyan has adopted the Princeton method against cheating in exams.

Columbia has 25 candidates in training for her athletic team; Cornell, 83.

There is talk of an intercollegiate base-ball match at Chicago during the Fair.

Luther Cary of the U. of P. intends to run at the World's Fair International games.
Twenty candidates have already begun light training for the Cornell eleven of next year.

There are fourteen candidates for the Yale Varsity Crew and they will go to the training table March 1.

Prof. W. J. Tucker of Andover, lately elected President of Dartmouth, will be inaugurated in June.

Nineteen men have gone into training for the Brown Varsity nine, fifty for the Columbia nine, and forty-three for the nine at Cornell.

The University of Chicago has under consideration the formation of classes for a systematic study of the exhibits at the World's Fair.

The Amherst football managers’ report shows a balance of $95.62, and the total amount raised was $2,528.43, of which $1,229.12 was by subscription.

Some professors at Evanstown recently attended a dancing party. A committee from a mass meeting of the students will demand an explanation. [Bowdoin Orient]

Is this a sober joke or a ridiculous fact?

The current number of The Academy of this city has two very interesting articles. One upon Athletics, by Col. Samuel E. Winslow, and the other upon “Emotion,” by Dr. Thomas M. Balliott of Springfield.

Yale, by a secret ballot, has changed its decision in regard to athletics. The action of the managers of the several college teams in barring out all special and graduate students has been ratified and will henceforth stand as law.

The following is an editorial from the Amherst Student in regard to the place of holding the athletic meet of the N. E. I. A. A. As usual with Amherst, the matter is viewed entirely from Amherst’s point of view, and the success of the meet, the records made and the benefit derived for athletics in general, is of infinitely small importance as compared with the necessity of Amherst’s winning the banner. The WPI has not yet declared the Worcester Oval, in its opinion, a better place for these games than Hampden Park, but if it were to consider its own selfish interests, Springfield would never be taken into consideration. The Amherst delegates did not vote for Worcester; they urged a fair investigation of the whole matter before a decision was made, and by so doing, if the student be a criterion of the college, showed themselves to be far broader and fairer minded than their constituents.

Worcester or Springfield.

Without entering into a discussion as to how the delegates were manipulated by parties within or without the N. E. I. A. A. meeting in Boston last Saturday, it does not seem that the representatives of Amherst acted for the best interests of the Association or for the best interests of Amherst. From the point of view of the majority of the college men who will attend the meet, Springfield is the best place at which the meet can be held. The only advantage which the friends of Worcester have stated openly is that the track at Worcester is superior to any other in the country. But the track at Springfield is first-class, and, if inferior in some particulars, is practically as good for all purposes.

On the other hand the disadvantages are numerous. Especially so is it in the case of Amherst. To enumerate:

1. Smaller representations of the College.
2. All recitations must be cut.
3. The team will be greatly affected by the slow and tedious trip on the same day in which the contests are held.
4. Whatever financial gain (of which no positive guarantee is given) is obtained in the final settlement of “spoils” will be offset ten to one by the increased expenses of the teams and the aggregate increase of individual expenses.

The representative of Amherst upon the Executive Committee should well consider whether he vote for the interest of the College or be influenced by personal motives or desires of individuals. If the management wish to secure the hearty co-operation of the College, it will respect the wishes of the majority. Amherst must have the highest development in three ways to insure success—athletically, financially, and “yellingly.” The last two cannot be obtained except by the help of all—faculty and students; and the selection of any place other than Springfield will greatly weaken our power in these directions.

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TECHNICALITIES.

Grover’s command to the Republicans, “March 4th!”

Mechanics: “We first draw one pair, throw those away, and draw two other pair.”

Junior Machinist.—“Who is using this vise?”

Junior at Lathe.—“Ich weiss nicht.”

Base ball games have been arranged with Tufts and Amherst Aggie. Negotiations with others are under way.
A Desperate attempt has been made to impress upon the Juniors that they must turn on the gas before they light it.

Prof. MacDonald gave his first lecture on Social Problems and Questions in Colonial Hall, Thursday evening, Feb. 16th. The lecture was of much interest to those present and is to be followed by four lectures on these subjects on successive Tuesday evenings.

The Brown Glee, Banjo, and Mandolin Clubs gave a concert Thursday evening, Feb. 16th, in the Y. M. C. A. course. A large audience, as usual plentifully sprinkled with Techs, applauded the entertainment and called the Club out on a number of encores.

When talking with a '96 man about the proposed snow-ball fight we trembled at the thought of the awful fate which awaits '95, but after a '95 hero had pictured the battle scene our fears were turned into sympathy for the remnant of the class of '96 which will be left, a sorrowful monument of a promising class.

After June, 1894, according to the Engineering News, Cornell will require another full year of mathematics for admission to the undergraduate course. This will enable Calculus to be taken up in the Freshman year and Applied Mechanics in the Sophomore year. Cornell certainly seems to surpass all efforts which are being made to raise the requirements for admission to higher educational institutions and particularly scientific institutions. Unless other colleges respond immediately to this decidedly forward movement it would seem as if the natural result would be to make Cornell almost wholly a postgraduate school.

"'88. The engagement is announced of J. M. Goodell, of the Engineering Record of New York, to Miss Cooke of Nebraska.

A few of the students who are interested in the great game of chess met, in response to a notice posted Friday morning, in room 6 and decided to hold a Chess Tournament in the near future. Joseph A. Derby, '93, Killam, '94, and Killam, '95, were constituted a committee of three to have the matter in charge. Any member of the Institute may participate in the affair by the payment of an "initiation fee" of twenty-five cents. The value of the prizes will depend upon the number of entries, and it is the wish of the head of the committee that there may be a very large number. The entries close Saturday, March 4th.
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