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The fact that our printers have requested a slight extension of time from us this month in order to get the city directory out on time, gives us an opportunity to announce the practical decision in regard to the acceptance of the Bigelow gift. The Trustees of the Institute and the sub-committee from the Worcester School Committee discussed the matter in a joint meeting, and decided that the former would report to accept the gift and the latter would advise the School Committee to co-operate in the scheme, and thus give the youth of Worcester the benefit of this munificent gift. In fact, the matter seems to be so far settled that preparations have begun at the shop to receive at least a part of the machinery from the Bullard plant.

If what follows in these columns concerning Ninety-one’s recent entanglement with an abandoned wash-stand and some pension-worthy elevator crates, and the uncalled-for uproar made over the same, shall be deemed out of place by any of our readers, the blame must be laid to faulty judgment on our part, rather than to unkindly intent. There is no question about the uproar, and we say “uncalled-for” advisedly, since the sentiments generally expressed about the late fiasco, abundantly bear us out in the use of the expression.

The first words on this page indicate what is the mission of this paper. Having in mind that mission, the board has always made an effort to publish “Tech” news and make suitable comment thereon. Whenever such comments have been deemed discourteous or likely of misconception, they have been killed in the copy. When, however, any opinions of ours have been considered helpful in righting a seeming wrong or mistake, we have never hesitated to publish them.

Now it is our honest opinion that a great mistake is made and a school is done an injury, when a trifling, harmless bonfire, off the school grounds, and as early as six o'clock in the evening, is made to appear such a flagrant breach of discipline and such a frightful calamity generally. It would be hard to see what advantage has been gained, by allowing that little blaze to assume a dignity sufficient to cause two investigations,
only to flat out into an apology to the class and a contest with the *Telegram* over the correctness of the reports of the affair, as published in the daily papers.

Whether rightly or wrongly, we are under the impression that neither the students nor high authority at this school receive the respectful consideration that is their due, and if we are biting off our own noses in theorizing about the existing state of things—so be it.

Every good boy, who is still not quite good enough to die at the age required in the average Sunday-school book, gets into more or less mischief when he goes to college. If he never gets into mischief, he may always be known for his goodness, but the chances are against his ever being known for anything else. After he has had his fun, he sometimes wants to cover his guilt, and sometimes is ready to play George Washington, and settle any damages that may have resulted.

In any case, he wants time to consider what he has done in the excitement of the moment, and judge fairly what course he ought to pursue. If he is alone responsible for a misdemeanor, it is easy enough to choose what course he will follow, but when several of his companions are involved, he has a right, we believe, to expect time in which to consult them regarding a reasonable course of action. We do not wish to be understood as advocating a "combine" of students against proper authority. We do mean, though, that it is unfair to assume that a body of students intends ultimately to refuse to take the proper course, without being prodded with an immediate explosion from headquarters. However willing a fellow may be to admit his own participation in some school prank, he instinctively shrinks from answering any questions that will involve his companions. He therefore feels that his good intentions have been rudely ignored if he is placed in a trap before he has had time to give himself up. There is one course open to him, and disrespectful as it certainly is, he invariably takes it if he isn't scared into submission by the application of pressure. He refuses to answer questions. Whether such a course is ever justifiable or not, is clearly a matter of opinion. We cannot see that an injustice is done anyone, if a student demands time to offer a settlement of his account in a proper and dignified manner.

Here is a case that illustrates our point.

A division of Senior students recently gained permission to break up an old piece of furniture that had been in their way for a long time. Led on by the unusual excitement, they carried the wood to an adjoining lot, "swiped" some elevator crates, and a gallon of oil, and toasted their benumbed fingers around the result. This happened about six o'clock in the evening. They took the precaution to send a man to the nearest box, to prevent an alarm, and had, altogether, an exceedingly nice time.

Next morning, before the fire had stopped smouldering, the whole class was put through a personal examination. The men were undoubtedly all con-
ditioned, for they failed to answer any questions, and had to take a second examination.

We do not know what was the motive for the investigations, and it might be a serious undertaking to prove that it is any of our business. From what has been freely said since, however, it is easy to see that if they were intended to increase the student's regard for authority, either through love or fear, or to increase his respect for the methods used to maintain discipline, they signally failed.

And why should they not? Here is a class of students, which has reached the middle of its Senior year, without one serious breach of discipline. Never as a class has its conduct required investigation, nor has one of its number, so far as we are aware, ever been found guilty of gross misconduct. Yet at the first serious break (and we question if the Faculty would decide that it really was serious), the whole class is put through an investigation, before it has had time to offer to settle for the affair. We can only conjecture what possible motive actuated the inquisition. It could not have been to locate the division that held the barbecue; there was not the slightest question about that. Nor could it have been to single out the ringleaders. When a class builds a bonfire, what difference does it make who carries wood, who strikes the match, who guards the alarm box, or who stands by and applauds?

It must have been, therefore, to check further infringements, by showing at once the hand of authority. For the sake of that authority, we sincerely hope its efforts in the future will be crowned with success. We cannot see our way clear, however, to say that the outlook is distinctly reassuring. The boys in this school are just about as respectable and as respectful as the rest of mankind. They seldom show a vicious disposition, but like nothing better than to bait a little hook, now and then, and watch to see what sort of fish come up to bite. It doesn't take long to find out. The same ones bite every time whether you are trying for them or not; the others won't bite at all, if you try every kind of bait that you can invent. This statement of the condition of things may be unnecessarily frank, but if the moral is seen and utilized, we can prophesy with some security, that there will be less petty breaking of the unwritten rules that govern gentlemanly conduct, than this school has seen for some time.

There is nothing more gratifying to a student during his college life than to know that he holds the respect and confidence of his classmates. No honors in after life will thrill him like those they confer upon him and no defeats will cut as keenly as a denial of their confidence.

It is in the power of every class to confer distinctions on certain of its members, but why certain ones are singled out time after time has often been the source of query. Many times it is plainly on account of their pre-eminent abilities, but more often the reason is not quite so palpable, the men themselves nor their supporters being able to show wherein they excel their opponents.
In all these cases the man owes the good-will of his fellows to the study they have unconsciously made of his character as depicted in his conduct during the months and years they have spent together. If he has been frank and upright in his dealings and of an amiable disposition, his lot at the hands of his critical judges will be a fair one.

But there are men, even in colleges, who cannot stand the judgment of their fellows, and at the bottom of this heap lies the hypocrite.

* * * * *

It was to inquire after men of this description that an Amherst man accosted a Tech student recently, and he was given information somewhat after the following manner:

"Say, what did you do with that fellow?"

"What fellow?"

"Why the fellow who went back on his class and made public what some of his classmates had to say at a class meeting."

"We did nothing."

"Nothing! why if that fellow had been in Amherst college we would tar and feather him before night."

"Nonsense!"

"Yes sir, it is one of the worst things I ever heard of. Why the utter lack of manliness displayed in attending and taking part in a class meeting, holding the full confidence of one's classmates, inviting them to give their opinions on certain questions, and then to immediately betray this confidence and start the information which was afterwards used to the defamation of a man's character, is more than disgusting."

"You don't say so?"

"Were the newspapers right in saying that one of the Seniors deserted the class as soon as a little action was called for on the recent bonfire question?"

"They certainly were right."

"Well, what are you going to do with him?"

"We were thinking of making him president of the class, but—"

"Don't say any more. The degree of civilization to which you men here must have attained is so far above ours that we cannot comprehend even your simplest actions; to use an Amherst phrase, you fellows are 'out of sight.'"

* * * *

Our Amherst friend is quite right and we agree with him in the condemnation of men who would act as the above men have been accused of acting, but on a little inquiry into the first case we learn that to harm or to give the slightest chance for the censure of one of his classmates was farthest from his mind when he inadvertently spoke of the proceedings at his class meeting. Had it been otherwise, our civilization would not appear to be so vastly different from that of our Amherst friends.

In the other case we cannot censure a man for not trying to exhibit that which he does not possess. All men live in the belief that they could muster up quite a considerable amount of courage, and it requires a chance similar to the one offered this man to show them that they are mistaken.

A new catalogue of the Institute will be due in a short time, and in view of this fact we wish to present a few ideas in regard to the starring of names among the list of students. Last year a star was placed against the name of each student who had a condition of more than six months' standing in any one of his studies. Thus, the unfortunates who were entitled to this distinc-
tion were pointed out, not only to their fellow-students, but to all their friends, as objects of derision. It is a source of anxiety to anyone to know that a condition is constantly weighing one down, but to have attention called to it in this public manner is mortifying in the extreme. Just imagine how you would feel if your name were decorated in this way. How proud you would be to send a catalogue home and have it placed on the centre table in the parlor where all visitors would see it and take it up to see how your name looks in the list of Seniors or Middlers of the W. P. I. Now fancy what an acquaintance would think if upon finding your name he noticed that dreadful star, and referring to the end of the list, read—"Conditioned."

"Stimulating a student" in this way we believe to be entirely useless, and moreover, an injustice. We hereby enter our most earnest protest against starring names in the catalogue, and hope that the experiment of last year will not solidify into a custom.

Whatever a man's notions may become before completing the course in this school there can be no question raised as to what his intentions were on entering. He had resolved to draw the greatest possible benefit from it and to accomplish all the work he could.

We could not consistently say a word against this truly good resolution, though some of the Middlers have requested us to say something which is perhaps more of a plea for the good of the many, at a slight or no expense to the few, than to decry the actions of the so-called "grinds" where such actions do not interfere with other students.

In most of the exercises in this school it makes but little difference to the majority of the students how much time the "grind" spends on them, as there is just so much work to be done, and it rests with the individual as to how well he will do it. In a few exercises however, such as mechanical drawing and chemistry practice, a pace is set by the fast workers, or in most cases those who work over time, and the rest of the class is expected to keep up.

The same chance is not open to all students to do this extra work, many causes intervening to prevent them, should they have the desire to do it, so they continually find themselves behind in the work with little hope of catching up unless they put in extra time. This would be no evil however, if it did not tend to lower the standard of the work that is done. And this latter is certainly the case; for when a student is forced to consider quantity and not quality as the end to be attained, the standard is sure to fall. It is also very discouraging to a student to see those whom he knows are not his superiors, but who may spend the greater part of their dinner hour in the drawing-room, steadily drawing away from him.

If the students who find themselves ahead and have this spare time to hang around the laboratories and drawing-rooms would put their time on something besides the assigned class work, they would lose nothing themselves and at the same time would aid in raising the standard of the general class work.
The subject of cap and gown which was mentioned in the last W P I seems to have awakened more interest than was expected. Many members of the Senior class have expressed themselves as greatly in favor of the idea and are eager to have it pushed. Each one speaks of it rather cautiously, however, and appears to be waiting for some leading spirit to take the initiative before expressing his own views very publicly. It is strange that some man does not grasp this opportunity of becoming the champion of a cause which is warranted not to die without a powerful struggle.

**ELECTRIC LIGHT PLANT.**

**Work Progressing Rapidly and the Machines Ready to Go.**

The work on the electric light plant is progressing quietly but steadily. The shafting for the dynamos has been put in place by the Holyoke company, and the dynamos are now about ready for business; in fact, the one built at the school has been speeded up with most promising results. The shafting is arranged with friction clutches, so that either or both machines may be run. Connection is made between the shafting and dynamos by means of an Evans friction pulley instead of belting. The small exciter, however, will be run by a belt. The switch board apparatus is all up, and the wiring in the room and to the back laboratory well toward completion. Eleven alternating transformers have been placed in position in the back laboratory, arranged so that any one may be used without interference with the other. All the work except the heavy shafting and carpentry work has been done by members of the Institute, and quite a number of ingenious schemes have been originated in the arrangement. The small dynamos that have been the sole apparatus of the kind in the place, and have served their time faithfully and well, are not to be thrown aside, now that their big rivals have come. They will both be placed in the dynamo room close to the large ones. The continuous current machine wound last year will be used in charging the storage batteries.

It is now hoped that the new engine which is to run these machines will be finished by the middle of May. Some, more confident than others, rather expect it a month sooner. It will be placed in the room where the other engines are. What provision will be made for steam has not yet been decided.

Through the energy of Prof. Kimball the work in electrical engineering has risen, slowly perhaps, but very steadily, from a part of the routine work of the course to a distinct and important department of the school. It seems rather remarkable, when one studies the development closely, that there have been no marked changes or starting points along the line of the growth; no point from which an extraordinary advance has been made.

The gift of the apparatus, dynamo, lights, etc., seem but the legitimate results of the previous work, and the building of the large machine but a step in advance of those smaller ones already completed. Prof. Kimball is very decidedly master of the plant and of the situation, which is a key to the success which has resulted.

The future for the electrical course is a bright one indeed.

**A MAKE-SHIFT.**

**A Tech Relates a Pioneer Story.**

Some half-dozen of us were sitting around the table a few evenings since discussing supper and the momentous questions of the day, when the story telling began. Every man seemed in the spirit, and took his little turn. We were too young to bring up rem-
iniscences of the "forties," but what we lacked in personal experience we made up from the stories of our fathers, uncles and grandmothers. After quite a little volume of miscellaneous recollections, each man seemed to drift into the channel of his own department. "See here," said one of the mechanics, "I suppose all you fellows have heard of the man who used a dry goods box, a red rag and a buck goat as a hay baler; well, my father beat that. You see we had moved out to Kansas where there were stacks of prairie hay. A new railroad had just gone through, and my father thought he might make a nice little thing out of it by shipping that hay on east. But the company wouldn't take it unless it was baled. There wasn't a hay baler to be hired in the whole State of Kansas, and my father couldn't afford to buy one. At last he hit on a plan. We had an old striped mule with very large feet (for a mule). He could kick worse than any man in the Senior class. (Here the boys all looked across the table at the chemist and smiled.) Well, sir, my father went to the country store, bought a kerosene barrel, had new hoops put on it, built it up inside so that it would be the same size all the way. Then he drove some stakes into the ground, anchored the barrel fast with a chain, and propped some boards against one end, leaving the other open. He then made a plunger and we were ready.

We hauled the hay close to the barrel. One of my brothers backed up the mule to the open end, another stood by with a stick about four feet long. I would put in a bunch of hay, fix the plunger in place, and say "ready." My brother with the stick would touch the mule off, and spat he'd take it. The hay would be jammed down hard. Well, sir, we kept that up until we had baled forty tons of hay. The only objection that the company made was that the bales were round. And that old mule, I never saw such a look of satisfaction on the face of any animal before in my life." The mechanic looked up. The room was empty, and the waiter was clearing off the dishes. "Well, well," he murmured as he went softly out, "those fellows will never know what it is to shift for themselves."

VISITING PROFESSORS.

A Chemical Club Formed.

An informal meeting of the professors of chemistry in the New England colleges was held in the Salisbury Laboratories, on the afternoon of Friday, Jan. 2. The following named gentlemen were present:—Professors Mears of Williams, Appleton of Brown, Riggs of Trinity, Stoddard of Smith, Bradley of Wesleyan, Comstock of Yale, Morse of Dartmouth, Harris of Amherst, Drown of the M. I. T. and Nef, Muthmann and Loef of Clark, together with Dr. Kinnicutt, Dr. Fuller, Dr. Moore and Mr. Sweetser of our own school. The discussions of the meeting were entirely informal and were principally upon methods and means in teaching chemistry.

A club was organized to be known as the N. E. Chemical Club. All professors of chemistry in the N. E. colleges and scientific schools to be eligible for membership. The only officer of the club is the secretary, there are no initiation fees or dues and the meetings will take place once a year.

The object of the club is to bring a closer relationship between the professors of chemistry in New England and to compare notes on work done and methods employed in the chemical departments of the various institutions.

The visiting professors were shown over the laboratories, the arrangement and completeness of which they admired and commended very much.

We may feel justly proud of having our school selected as the place of such a meeting and can better understand from it and others of like nature the position it has taken among the schools of New England under the management of Dr. Kinnicutt.

On Saturday morning the party visited the Sewage Disposal Works. From here they went to Clark University visiting the
ANOTHER SCHEME.

A Plea for a Literary Society at the Tech.

The last number of the W P I, contained among others, one article which was of especial interest to many of the students. This was the course of reading arranged by some of the Boynton Hall professors, with an introductory note by Doctor Fuller.

There was also a communication from "Rolyat," which was a very fine résumé of the uses and objects of reading. Now that this ever present subject of what and how to read, has thus been brought to our attention and seems, as it were, to be before the house, a few more ideas upon the subject may not be out of place.

The higher schools of this country may be, and are, divided into two distinct kinds-colleges and technical schools.

The curricula of the two differ very greatly as a general thing. The collegian has his Latin and Greek, for four years, Ancient History, French and German, Mathematics, some Chemistry and Physics, Philosophy, and more or less of those studies which come under the one general head of belles lettres.

We have of Greek and Latin, absolutely nothing, no Ancient History, in fact, no knowledge of it is required for admission, and of French just about enough to display our ignorance. Our German course, however, is thorough, and the average collegian cannot read it with a Tech. Of Chemistry, Physics, Mathematics and Mechanics, we receive much more than the collegian, but of these so-called belles lettres, almost nothing.

Now the purpose of this paper is not to decry our course and to laud that of more classic walls; not to rant because we don't get enough for three years work and four hundred and fifty dollars; no, not even to make suggestions or to advise the Faculty how to alter it. Our course is all right; we get more in the time spent than can be got in most other schools in the country.

We can't wear society pins; we can't make "Rome bowl" in great dormitories; we don't wear eye-glasses or big pants; we aren't very tough; we can't play foot-ball, have a glee-club, lead the German, take one study and get a degree, or even build a bonfire (?); but we can earn our living when we get through.

It has been said that plenty of Harvard graduates might be hired in Boston to-day for five dollars a week.

It would not be exaggeration to say that the majority of Tech graduates cannot be hired for that sum per day.

A Tech alumnus can generally obtain a paying position and not be compelled to rely upon the generosity of his father-in-law. But this is not the point, and yet again it is.

What we wish to get at, is, that too much of our time is spent in acquiring the ability to make money, or rather, too little in learning how to win pleasure as well as profit from this old world.

When we leave our Alma Mater, we ought to be fitted, or at least be in a condition to fit ourselves to take positions in the community as educated men as well as business men, as scholars as well as mechanics, as men of breadth in reading and general knowledge, as well as masters of machines and fathomers of matter.

But if our learning be confined to our required school tasks, we are not. Scarcely any of the belles lettres are here studied. No rhetoric, no ancient or mediæval history, no philosophy; only five hours of history and literature in the first half of the Senior year. This is the sum total.

Dr. Fuller probably recognized this fact, and with that in mind, drew up, with suggestions from Profs. Smith and Cutler, the course of reading to which we have alluded. There they are—the best books—books which should be read before we are thirty years of age. Yes, but a prominent alumnus said at once on seeing the list, "That is very good, but we can't read them before we are thirty. When you get through school, if you intend to succeed, to become a leader in your trade, you must spend what little time you can find for reading, in getting at those books which bear especially on your work; scientific journals, patent office reports, etc., and leave these others until you are fairly started."
Thus it becomes evident that the most of what we get in this line, must be gotten here before we have handed in our theses.

Now, with this rather prosy and long introduction, let us present the scheme.

Wouldn't it be possible to have a society for the study of American and English literature, and even art? Those who are interested in electricity have formed a society where papers are read, discussions held and lectures given, the whole under the supervision of one of the professors, and without interfering with regular work.

Isn't there another member of our Faculty who is interested enough to help form an organization corresponding to this,—one which should do with literature, what the Tech Elect does with electricity.

Meetings might be held fortnightly, at which different authors could be studied, some rhetoric brought in, an idea of style acquired, the peculiarities of writers pointed out, and some knowledge of criticism obtained.

We read the list of books; they are the best. Why? How many of us can tell?

Why is Scott greater than Cooper? Why should we read Washington Irving before Bayard Taylor?

We listen to a fine sermon, a great lecture, we even read the editorial column of a daily paper, and what multitudes of quotations and allusions, fictitious names and common proverbs we meet with, not one of which we could place or give its origin.

A student who belonged to such a society during his three years' course would be immeasurably benefited; his appreciation of books would be greatly enhanced. He would listen to lectures and read books with redoubled pleasure, and indirectly his own style of composition would be improved. He might not have covered a great amount of ground or studied many authors, but he would know good reading when he saw it, and one book carefully read would be as much to him as ten read without any particular aim, merely to be "posted." There are many prominent scholars in our city who would, we doubt not, be glad to talk to us some evenings on subjects of this kind upon which they are especially well informed.

Among such are Mr. Green, the genial librarian of our city library; Prof. Russell, of the Normal School; Dr. Hall and others, to say nothing of our own Faculty.

An evening off might be taken now and then for a glimpse at art and the old masters, and the examination of reproductions of their greatest works. There are professors, doctors, ministers, lawyers, many men of scholarly attainments, who have travelled much, who would help us now and then, for the word Tech is an open sesame anywhere in the Heart of the Commonwealth.

Isn't there one among our corps of teachers who can spare the time, and would be willing to conduct such a society? Have we not one with love enough for literature, the boys, or the school, to undertake such a class? If so, will he then not volunteer?

There are enough, we think, who would be glad to avail themselves of the opportunity to increase their knowledge, and if a leader from among our instructors would only appear, such a society or study class would be a success.

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**DR. KOCH'S PARA TOLUID.**

**Facts not Commonly Known Regarding Its Discovery and Use.**

The experiments which led to the discovery of Dr. Koch's inoculation fluid seem to be, from what has been published on the subject, the following:—

First, the action of pure tubercle bacilli culture on healthy guinea pigs.

The wound appears to heal, being covered over with a sticky substance, but after twelve to fourteen days a hard nodule forms which, breaking, forms an ulcerating sore which continues until the guinea pig dies.

Second, tubercle bacilli culture with guinea pig suffering from tuberculosis.

The wound covered over with sticky matter, but no nodule forms. The place where the injection was made begins, after a day or two, to become dark colored and hard; this spreads until the spot has a diameter of from 0.5 to one centimetre. The skin thus changed is neurotic and finally peels off leaving a flat ulceration which generally heals.

Third, the action of dead culture on healthy guinea pigs. The culture which has been killed by heating to a certain temperature, after rinsing with water, when injected even in large quantities under the
skin of a healthy guinea pig has very little action beyond local irritation.

Fourth, the action of dead culture on guinea pigs suffering from tuberculosis.

The dead culture, when injected in any amount under the skin of a guinea pig suffering from tuberculosis, produces death.

If, however, the dilution is very great, the animals inoculated remain alive and a noticeable improvement in their condition takes place. If frequent inoculations take place the injection wound becomes smaller and smaller, and finally sears over and the animal appears to entirely recover.

These experiments seem to indicate that the tubercle bacilli, during life, produce certain substances which kill living protoplasm.

If the tissues then become neurotic the bacilli find such unfavorable conditions for nourishment that they cannot grow, and therefore become dormant and die. This being the case, it is only necessary to extract from the bacilli this active principle, and in a form which would easily enter the human circulation.

This Dr. Koch accomplished by using a fifty per cent. glycerine solution.

The para toluid is, then, a fifty per cent. glycerine extract, derived from pure culture of the tubercle bacilli. It contains, besides the active principle, a small amount of mineral salts and coloring extracted by the glycerine.

Regarding the chemical composition or nature of the active principle very little seems to be known even by Dr. Koch, and nothing that has as yet been published gives sufficient information to allow of its preparation outside of Koch’s laboratory. The substance appears to have a close affinity to the albuminose substances. It does not belong to the tox-albumens, because it is not decomposed at high temperatures and filters quickly and easily through membranes.

| CONCERNING SHOP PRACTICE. |

**Why is the Reward of Industry Withheld?**

**EDITOR OF THE W P I:**

As the Senior mechanics are about finishing their course in the work at the shop, and as, one by one, they burst their shells of time in our great mechanical incubator, and stand alone free from all duties connected with the shop, they, perhaps, are in a position to express their opinions in regard to some of the rules by which they have been governed during their course in shop practice. It is not my wish to complain, or even to criticize, as there may be some good reason of which I am unaware, for the practice about which I am to write an opinion, but the thought occurred to me the other day from an instance brought to light when looking over the excuse book, that it would be only just to some men who have time made up ahead, to be allowed to omit regular practice if they wish, just as long as they are ahead of their class, and still not be obliged to enter excuses. Of course every man who is behind time, or “in the hole,” as a mechanic would express it, should be obliged to have good and sufficient excuse for his absence, and if he does not have it, should receive a mark as the rules of the school require in an absence of this kind; but on the other hand, if a man has, by a judicious use of vacation time, a sacrifice indeed to most of us, made up time ahead of his class and should wish to remain away from regular practice, what is the objection to granting him such a privilege? Should there not be a reward for industrious habits, as well as a punishment for occasional neglect? There is, perhaps, not a department in the school where so much satisfaction is felt among the students and where so many privileges are granted them as in the shop, but with all these things considered, it seems to me that the idea of which I am writing is a point worthy of a good deal of consideration. At the present time for instance, when the Seniors are having practice Friday afternoons and Saturday mornings, there are many times when a man who is many hours ahead of his class, would like very much to make use of his practice time for some other purpose, but who is held down just as rigidly by the rules of the school as is his neighbor who may, perhaps, be many hours “in the hole.” It seems to me that the former student should be given the benefit of his advantage over the latter, and if in his judgment he can afford to lose some of the time which he has made up ahead, it seems to me that he should be allowed to do so.
Such a rule would surely tend to keep men up with their class and out of the "hole" which to most of us, when once we are in it, assumes the proportions of a bottomless pit. This opinion is written merely as a suggestion, and occurred to the writer a few days ago from seeing a Senior, who was a good deal ahead of his class, marked for an absence which, perhaps, should not have been excused in one not ahead of his class in time, but which it seems to me was justifiable under the circumstances.

THE CAMERA CLUB EXHIBIT.

The Tech Camera Club Exhibit on the 13th a Decided Success.

The exhibition of all kinds of work in photography was much admired by the visitors, most of them friends or schoolmates of members of the club, all interested personally in the display. In addition to these visitors, there was a number of amateur and professional photographers from over the city, who attended to see what the Tech boys were doing in the line of picture taking and making. All expressed themselves as much pleased with the exhibit, which showed the result of hard work and the application of considerable skill.

The free-hand drawing room was fitted up for the place of exhibition. Large boards were arranged around the sides, and a row of the screens used in drawing, down the centre of the room closing in a neat exhibition room. On the boards and screens, the pictures—487 in number—were arranged in groups of each man's work. An additional effect was obtained by the variety of ways of grouping.

The largest number of prints entered by one member was 94, entered by H. H. Tracy, '91. A. C. Higgins, '93, was next on the list with 84. N. V. Fitts, '91, had 76; C. A. Davis, '91, 50; E. W. Vaill, '93, 24; A. D. Lunt, '91, 22; F. E. Bradford, '91, 21; Harry Sinclair, '93, 21; E. E. Kent, '93, 10, and A. H. Smith, '92, 10. All the above entered their work with the intention of competing for the two prizes offered. Four members of the club made a display of their work, but with no intention of winning prizes. They were A. L. Smith, '90, who had 25 prints on the line; S. H. Rood, '90, 8 prints; J. O. Phelon, instructor in physics, 13, and H. A. Coombs, '93, 8. Mr. Smith's display was composed wholly of instantaneous exposures with celluloid films.

There were two prizes to be competed for: An artist's proof etching, "An Inland Stream," by Louis K. Harlow, the first prize, and a photograph album the second prize. The judges were Dr. E. V. Scribner, J. Chauncey Lyford, Ferdinand Flodin and Dr. E. P. Smith. They began their work when the exhibition opened, at 1.30 p.m., concluding their labors, which were quite arduous and exacting, not until 6 o'clock.

Prizes were awarded by the judges as follows:

- Landscapes.—1st, Higgins; 2d, Smith.
- Architectural work.—1st, Fitts; 2d, Tracy.
- Portraits.—1st, Davis; 2d, Lunt.
- Interiors.—1st, Kent; 2d, Tracy.
- Marines.—1st, Fitts; 2d, Higgins.
- Animals.—1st, Higgins; 2d, Tracy.
- Machinery and apparatus.—1st, Tracy; 2d, Higgins.
- Instantaneous exposures.—1st, Sinclair; 2d, Tracy.
- Copies.—1st, Bradford; 2d, Fitts.
- Flash light exposures.—1st, Lunt; 2d, Fitts.
- Groups.—1st, Tracy; 2d, Fitts.
- Statuary.—1st, Fitts; 2d, Tracy.
- Blue prints.—1st, Davis; 2d, Higgins.
- Bromides.—1st, Sinclair; 2d, Fitts.
- Enlargements.—1st, Davis; 2d, Bradford.
- Platinotypes.—1st, Fitts; 2d, Davis.
- Aristotypes.—1st, Lunt; 2d, Vaill.
- First prizes counted 5, and seconds 3.

According to the above awards, Fitts took first honors and the etching, with a score of 32 points. Tracy won the photograph album with 25 points. Higgins had 19 points, Davis 18, Lunt 13, Sinclair 10, Bradford 8, Kent 5, Smith 3, and Vaill 3.

The prizes were won fairly, and little or no complaint was heard from the exhibitors. One very fine group by Mr. Bradford was not awarded the first prize which its merits would have taken, on the ground that it had been made in a studio and had somewhat of the "professional" in it. This was thought rather unjust, especially when another, under portraiture, made in a studio, had been given a first.

Mr. Fitts did a very wise thing in select-
ing his exhibit, having pictures of every class but one. Mr. Tracy had all but three.

There were among the many fine pictures of the collection, some especially noticeable and much commented on by the visitors. Some of these were, a Moonlight on Boston Harbor, blue print, by Mr. Davis; The Diver, an instantaneous, by Mr. Sinclair; The Kittens, small silver print, by Mr. Higgins; a set of aristotypes, by Mr. Lunt; groups, by Bradford and Tracy; marines, by Vail; a church interior, by Kent; and a landscape, by Smith. The Boston Harbor and The Diver are perhaps unexcelled by pictures anywhere.

The exhibit was a most gratifying success in every way. The attendance was larger than expected and the finances balanced favorably at the end of the day in spite of the rather heavy expenses of the affair.

The club is but a two-year-old, having come into existence last year through a suggestion of Dr. Smith’s. He, thinking it would be good training in the literary work of the Senior class, asked those members who made pictures, to select quite a number and arrange them in his recitation room and be prepared to describe them and to answer questions that might be asked. This succeeding finely, the boys tried a free public exhibit, which was a success also. This year’s work is but another step, and a good one.

A club was formed just before the exhibit of last year and has become a feature of the Institute, having dark rooms, a supply of chemicals and apparatus, and general equipment. Dr. Smith has been the earnest and energetic patron of the club since its birth, and deserves the thanks of the boys for his interest in, and work for the good of the society.

A selection will be made from the prize winning pictures and best ones in general, which will either be placed in an album or mounted together and be made the permanent property of the club.

A GYMNASIUM NEEDED.

The Institute Ought to Have a Gym. Will It Ever Have One?

One of our greatest needs is a building for athletic purposes. There is no question at all of the fact that every educational institution ought to be provided with the means of keeping its students in good physical condition. During the spring and fall we have abundant opportunity for outdoor exercise, if we can get time. But during the long winter months there is no chance for proper exercise. Of course, when a fellow works half a day in the shop he doesn’t want or need any more, but the ten hours a week thus spent are not enough to keep a student in good condition. He needs physical drill the other four days as much as he does the two that he spends in the shop. The chemists and civil engineers have still less opportunity for exercise.

Those students who live in the city are benefited somewhat by their walks of three or four miles daily. Still, walking is not all the exercise a person needs, although it certainly is one of the best forms of physical drill. Some students attend the classes of the Y. M. C. A. gymnasium, but it takes so long to go to that building and return that comparatively few take advantage of the opportunities there afforded.

This article was suggested by something in the Polytechnic, the journal of the Rensselaer Polytechnic Institute, Troy, N. Y. They have a new gymnasium there, and the above-named paper claims that it is as good as any college gymnasium in the country. The members of our Faculty agree with us when we say the Tech needs a gym., Dr. Smith for one having so expressed himself some time since. The students would hail the prospect of one with great joy. We doubt not that sometime in the dim, dark future the Institute will own a gymnasium with full and modern equipment. May that time come during our lifetime, that we may see the blessings it will bring to those who follow us!

Ninety-one makes Tracy a present of $7.30 to adjust his personal loss in paying for the bonfire!
AN HISTORICAL CLUB.

Middle in Search of Means to Enlighten Themselves on Historical Subjects.

There is more or less demand for scientific German for all departments; but one familiar with the matter must admit that the course in that language now pursued by Middle A is of inestimable benefit. The historical knowledge which is gained, the taste for historical reading which is awakened, is a boon to all. More than one of the students spent a part of the Christmas vacation reading Motley, Prescott or some other authority. Two incidents showing what it has already accomplished would not be out of place here.

During an informal discussion at a church literary society, the Norman invasion was mentioned, and one of our brightest men in giving many facts in reference to it, launched out such a description of the times and of the people, that he has ever since been regarded as an encyclopædia of historical knowledge. The secret of his knowledge is that Schiller's Normänner had been read in the class a few days previous.

Another student had the opportunity to explain to a group of friends the difference between the Spanish inquisition and those inquisitions which have caused misery since. He is now considered a prodigy.

Now to supplement this work, we suggest that a club devoted to historical research be organized at the Tech. Papers could be read on assigned topics, to be followed by general discussions. Thus with a minimum of time, a maximum of knowledge could be gained. As such a movement would need a head, and students are modest in assuming leadership in affairs, we suggest that Prof. Smith, who knows full well the benefit of such a course, consult with his pupils in reference to it. Of course the question arises as to the limits of such an organization, whether it should be confined to a single class or opened to all students.

Some claim that the time might be employed to better advantage in our special line of work; that the time is already too short for the present course; that we can study history after leaving school.

True, the time is short, but not much preparation would be required save about twice during the school term. Yes, we can study history at any time, but unless one acquires a taste for such reading, one is apt, after leaving school, to devote his leisure to his particular line of work. The times demand men with a liberal education; broadened, enlightened minds are those which will be conquerors in life's battles.

ONE WHO WILL JOIN.

JAPAN AND AMERICA.

One of Our Number Tells Us the Difference Between His Country and Ours.

It gives me great pleasure to see the deep interest you take in the welfare of my country, and I am always ready to answer all questions as far as I am able. But what can I do when you ask me if I know Tom, Dick, Harry, and every missionary that ever trod on the soil of the Japanese empire? It is no less absurd than if I should ask you whether you know Mr. Capri of France.

Don't ever accuse Japanese of eating rats! I never heard of their being eaten until I came here; so I have good reason, perhaps, to think that it is you who eat them; then Japan is too fertile to compel men to condescend to such low diet. I wish you would not confound Chinese and Japanese. Of course, highest respect is due to both nations, but those two nations are represented in this country by very different classes.

We sometimes hear those Japanese customs which are contradictory to yours spoken of with a tone of conceit as though only Americans knew anything. When you enter a house you take off your hat; we, our shoes, for we consider it impolite to use another's house as a street. When you mourn for the dead you wear black garments; we dress in white. Is it not sufficiently sad when our dear friends leave us without robing ourselves in gloomy black?

A traveller in Japan once wrote that when we build houses, we construct our roofs first, then the structure underneath. Ah, that man must have been out late the night before, for the truth is that when we build a house of some value we first raise a large temporary roof on frame-work as a shelter for the workmen and for the plastering; under that we build the house. In this country workmen are so often hindered and
plastering damaged by uncontroUeUleable rain. The gentlemen of the mechanical course would be interested in the fact that we work our planes and saws by pulling, not by pushing as you do.

When we read a book we proceed from right to left. In addressing an envelope we write, for example:- America, United States, Massachusetts, Worcester, Boynton Street, Worcester Polytechnic Institute, Mr. X. These are but few of all the things that we do in the wrong (?) way.

Of many wonderful things we Japanese see in America, the American woman is toward the head of the list. I recollect distinctly how I pitied the first portly American lady that I ever saw, for I thought surely that she was deformed in at least three different places. I had the idea that all Americans had yellow hair and blue eyes like the imported dolls which used to badly scare my little sisters. In America the lady is the lord of all that she surveys; and she goes about the streets and associates with men with extraordinary freedom.

Japanese ladies one and all, have black hair and eyes. They do not long for woman suffrage, nor deliver temperance lectures, nor use brooms for any other purpose than for sweeping. They just keep house and take care of the family. In Japan young ladies and gentlemen never indulge in such pastimes as calling, talking in the streets, dancing, linking arms, kissing, and biting at the same apple; they do not appear at the parties even as wall flowers, for the host hires a number of charming and beautiful minstrels and dancing girls to entertain his guests. Yet there are left plenty of ways by which young people can meet often enough so as to lead to marriage. Moreover marriage is not regarded merely as fulfillment of love, but as the means of connecting and continuing families. If you wish to read up about Japan, read nothing that is ten years old, for it is within less than twenty-five years that Japan has severed the bonds of the feudal system and revolutionized the government into a constitutional monarchy. Last November the first Parliament went into session for the first time. G. K.

Soon will the Preplet a new towel bring;
He'll hide it "weal hard" from that bold Senior thing.
But we'll swipe the whole lot before first day of Spring.

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THE COMING CATALOGUE.

Some of the New Points That It May Contain.

The annual catalogue of our school, setting forth the duties and essentials of students, the titles, age and pedigree of the Faculty, the manufactures of the Washburn Shops, the price of tuition and a beautiful oil painting of the school, which alone is worth the entire price of the work, will soon appear.

The managers have been most fortunate in obtaining copies of the proof sheets of this volume, and it is with pleasure we submit below a few extracts.

These extracts, which by the way, appear exclusively in this morning's W P I, are given first in their original form of last year, and afterwards the additions which have been made this year are appended.

Study Hours.

The course of study is so planned, that all the time of every student is demanded for study, recitation, practice and drawing, except so much as may be taken up in the necessary duties of life.

Students are expected to study at least six nights a week. Special care has been taken to have no exercises occur on Sunday, and the whole of this day is given for recuperation, since but about five hours in the afternoon are required for school duties.

Examinations. (First Appearance.)

That the students may keep well up with their work, a few examinations in each study are given during the term.

These examinations are of but an hour's duration, and there shall not be more than four a week in any one study, neither shall they be previously announced.

Note:-By an hour examination it is of course meant one in which the student is given fifty minutes to write, and the hour is the time occupied by the professor in arranging the questions.

Tuition.

The charge for tuition * * * *
All students are charged an average of 3 to 5 dollars per half-year, for use of chemicals and apparatus in the laboratories. There is also a semi-annual fee of $10 for use of elevator in the Salisbury building, and extra for breakage.

Students in the chemist and civil departments are charged $7.25 per year for use
of soap and bath-tubs in the shop. No collection is taken up in chapel.

Buildings. (First Appearance.)

WASHBURN SHOPS.

Great care is taken that students in these shops receive no physical injury while at work. Special regard is paid to the eyes.

For this purpose each gas jet is provided with at least three leaks, so that if sufficient light to prevent straining the eyes cannot be obtained after duly cleaning dirt from the nozzle, these may be lit.

The appointments of the building are of the best. The wash-room is provided with two (?) elegant sinks, antique, finished in the natural wood, with hard soap trimmings. These each cost about $50, and are models in their way. The plumbing arrangements are most excellent, in fact for their kind cannot be surpassed, although they differ es-scentially from most others.

They are the first thing that the visitor notices as he approaches, and the effect remains long after his departure.

Exhibit of Tools.

For this purpose a beginning has been made of a permanent exhibit of the best American and foreign tools of all kinds, properly arranged, and open to the inspection of the students, and used as an illustration of the best, so that students may become familiar with standard tools and the names of the makers. This exhibit of tools and machines is used in lectures and general instruction to classes.

It has been found that students who have completed their Apprentice Half, have, from their constant examination and handling of these tools, and the frequent "instruction to classes," become practically authorities upon the makers of the best tools, and are fully competent to assume charge of any wholesale hardware establishment.

RELIEF AT LAST.

The Old Organ's Plaintive Walk will Haunt Us No More.

There was once a young fellow named Dick,
Who had a good ear for music,
But our old organ's strains—
Gave him infinite pains,
And each morn in the choir he was sick.

Now this same Dick has a father who is much interested in the manufacture of organs, and when Dick told his father of the sad condition of the very poor imitation of an organ which made him so ill and tired each morning at chapel exercises, his father was much moved indeed, and exclaimed, "Such things cannot be!" The result was, that with a generosity for which we are all extremely grateful, Mr. A. H. Hammond presented the Institute, as a Christmas gift for 1890, with a fine organ built in harmony with the chapel surroundings, and one which sends out in tones full and clear the notes of "Homeward Bound," "44," and the like, to the perfect satisfaction of the students. No longer must we watch Dutchy's painful countenance as it used to quiver with each touch of those upper notes all freckled with age; we must hear no longer those deep bass notes so much like the braying of a mule with a very hoarse voice; no longer will its tremulous tones cause the windows to shake and rattle, and even the pines outside to groan and moan until our worthy President feels constrained to raise a warning hand; we are relieved at last. The thanks of every member of the school go out to Mr. Hammond, and each alumnus in the classes of 1890, 1889, 1888, etc., etc., for years back, has long ere this, if the news has reached him, thrown up his hands with the exclamation: "What a blessing!" We are doubly grateful—for not only is the Institute the recipient of a beautiful gift from a prominent citizen, but we will no longer find vicious thoughts arising within us as that little thing sends forth its painful wails.

MORE WATER.

When forced to walk up a long flight of stairs several times a day during class work in water colors, students have wondered why a wash sink has never been placed in the free hand drawing-room. But once upstairs with a few kindred spirits, when conversation and jokes reign supreme, the reason is apparent—it is to allow more time for recreation. Or, when a student, with a desperate expression in his eye, a tumbler in his hand, and a book in his pocket leaves the room, and, three quarters of an hour later, he returns, carefully carrying a tumbler of water, and with an innocent smile on his face, the Prof. thinks that the young man has been after water, but the boys
know that said student was out the night before, and has just been writing his sentences in Dutch or copying some problem in Descript.

Undoubtedly, if as ink were placed in the room, the students would have more time for painting, the steps would not be covered with water, and the handsome cover which Prof. Gladwin keeps on his table, would not have to be replaced every week. But what are these advantages compared to the students' happiness under the present arrangement—and is not the pleasure of the students the first desire of the Faculty?

As a problem in arithmetic for candidates for admission to the Prep class, we suggest the following:—

If 18 pupils in going upstairs for water to prepare ink, to mix paints, to clean boards, lose an average of 5 minutes a day, 2 days a week, 36 weeks a year, how much time is lost in 10 years?

How much does this time cost at $4.77½ an hour for class instruction?

Would the Institute gain or lose, and how much, if by expending $22.50 for a wash sink, this time would not be lost?

THE FIELD OF SCIENCE.

Noteworthy Items on Live Scientific Topics.

The motions of fishes under water can be photographed at the rate of 50 exposures per second.

State Geologist Orton of Ohio says, that the supply of natural gas is being rapidly exhausted. The gas is wasted shamefully.

A new unit in electrical measurements is the Henry. It is the unit of induction, and was named in honor of an American, Prof. Joseph Henry.

A newly discovered gas, is hydrazoic acid, which is composed of three atoms of nitrogen and one of hydrogen. It is quite powerful and somewhat resembles hydrochloric acid.

A great railway tunnel is being constructed under the Hudson river at New York City. It will be high enough for the largest cars, and wide enough to accommodate two tracks. The total length is to be about four miles.

One morning in December, a man in Clinton, Mass., was passing by a new barn, when he noticed smoke issuing from cracks around the barn-door. He quickly notified the owner of the building, who unlocked the door to find his horse suffocated, the varnish blistered off his carriages, and the barn somewhat damaged; but the fire was out. The barn was well built, and so tight that the fire, which had probably begun the night before, had smothered itself.

According to the Crank (Cornell) a new mineral has been recently discovered in Canada, which if as plentiful as expected, will prove a most valuable find for Tech men. The mineral is an arsenide of platinum, and was found in the district of Algoma, Ontario, in a mine which has been worked for gold quartz since 1888. It is a tin-white crystalline substance which in a closed tube melts only at a very high temperature, but in an open tube gives off arsenic, forming with the air arsenic tri-oxide. A marked peculiarity of the mineral is that though it has a specific gravity of 10.6, it shows a decided tendency to float when placed in water, and particles immersed in water carry down large quantities of air, which they hold very firmly. It seems quite probable that a large amount may be obtained.

HALF WAY THRO'.

An Account of Ninety-two's Preparation to Honor This Event.

The social events which brighten our pathway during the course at the Institute are few and far between, and year after year one class after another takes its departure with but very few occasions to serve for landmarks, as fancy leads them through the old familiar scenes at the Tech. One of the most memorable, if not the most pleasantly remembered of these, is the "Half-way supper."

After plodding together for a year and a half or two years, with only too little beside the daily routine of school life to draw them together as a class, the fellows here gather round the festive board in full numbers.

With the blight which, to a certain extent, has fallen upon athletics since '92 began her career, and the consequent diminution of school and class patriotism, gatherings of any nature have been even fewer than in former years. For this reason
the present occasion should be particularly inspiring as well as enjoyable.

At a class meeting, called for that purpose, a committee was appointed to arrange for the place and fix the date for the supper, and it may not be amiss to add a few words with reference to this meeting.

It seems to be a universal opinion that there are some influences at the Tech conducive neither to straightforward behavior nor to the highest order of manly conduct, which are beyond the power of the students to rectify. It is not our intention or desire to disprove the grounds for this impression, but when students meet as a class, upon their own responsibility, there is certainly no excuse for behaving otherwise than as men, and as gentlemen, too.

We have often seen the members of this institution referred to as "college students" in these columns, as well as elsewhere, but it was evidently forgotten upon this occasion that "college students" are supposed to be men and not infants. Whether or not the class chose to show its prohibition principles by voting to have no wine on the menu, is, in one sense, a small matter compared with the small display of petty likes and dislikes shown on this occasion, and to be left in darkness by making a stampede for the door, was a fit ending for such protracted nonsense.

"I would protest against it," has been a by-word among us, and yet it might well be brought from its resting place after Affairs of this kind, which amount to nothing, and yet amount to everything, if one wishes to sustain the dignity of one's class and that of the school at large.

If such displays are manly, then most certainly "men are but children of a larger growth."

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AMONG THE COLLEGES.

What Is Being Done at Other Educational Institutions.

Attendance at chapel is no longer compulsory at Columbia.

Pomona College, California, has inaugurated a College Senate on Amherst's plan.

Of the 335 instructors in the University of Berlin 52 are of Jewish extraction.

It is expected that Smith College will be provided with a new gymnasium within a year.

Oberlin College has a seventy-five cent school pin. Where is the Tech's five dollar one?

Chauncey M. Depew thinks that for some unknown cause "salt water" colleges are much superior to "fresh water" ones.

It is said that in proportion to population Connecticut furnishes more college students than any other State.

The late Daniel B. Fayerweather, of New York City, bequeathed $2,100,000 to twenty American colleges.

Cumnock, Harvard's victorious foot-ball captain, has been presented with $5,000 by his father for his success in the game with Yale.

A chapter house is projected at Williams, to cost $200,000, and to be used in common by the fraternities represented in the college.

A scientific exploring and dredging expedition is to be sent out by the University of Pennsylvania to make a trip to the Bahamas and the Caribbean Sea.

During the Christmas vacation, six Harvard students took a snow-shoe trip through the White Mountain region, and ascended to the top of Mt. Washington, a feat which only two snow-shoers had before accomplished.

A chair of Entomology and Zoology has just been established in the agricultural department of Dartmouth. It has been decided to admit women to that college as special students.

The average age of members of the class of '94 at Yale is 18 years, 10 months; average weight, 135 pounds. The tallest freshman has a height of 6 feet, 22 inches; the shortest, 4 feet, 8 inches.

Professor Harper of Yale, who has been offered the presidency of the new Chicago University, says that the institution will be on an entirely new basis, and a great improvement over existing colleges.

The Cornell register for 1891 shows a total of 1,347 students in all departments of the University. Of this number 211 are mechanics, 136 civil engineers, 22 chemists, and 43 are in the department of science.

Although the Greek letter societies are very popular and powerful in most colleges, at Harvard they are practically a dead letter. However, there are so many other organizations at the latter place that the
students manage to work in considerable enjoyment along with college duties.

Brown University is about to issue an elaborate new catalogue showing an attendance of 352 students, an increase of 67 in the past year. The Faculty has been increased by the addition of 12 new instructors, and greater facilities provided for the study of Spanish and Italian.

The bequests of the late H. B. Fayerweather, of New York City, to educational institutions, amount to $2,100,000. Yale was most fortunate, receiving $300,000, for Sheffield, Columbia and Cornell each receive $200,000, and a long list follows having $100,000 and $50,000 respectively.

THE NEW STORAGE BATTERY.

The storage battery that was built last year did not give very good satisfaction after the first few days, and this year the plates were taken out to be recast. The Ramsdell brothers have been employed most of the vacation in refitting it. Most of one week was employed in casting the plates, 15 plates to the cell and 18 cells. The plate was designed by the younger of the brothers, and he claims for it that it will not “buckle” and will hold the lead well. Something like 450 pounds of lead was used in casting. The plates will be held in position by hard rubber rods and washers. Altogether it has the appearance of a substantial and durable battery.

PERSONALS.

C. K. Prince, '90, is teaching drawing in the evening schools of Westfield, Mass. where he is employed in a hot water heating concern.

Horace B. Fletcher, formerly with '93, is now located at Mukilteo, Washington, where he has a contract for building several miles of railroad.

Dr. Arthur Michael, who came here from Clark University, is pursing chemical researches in company with his wife at their private laboratory on the Isle of Wight.

James H. Clancy, '90, is meeting with success as draughtsman for the West End Company of Boston.

To the class of '86 we announce the following: Born Oct. 28, in Kansas City, Mo., to Mr. and Mrs. W. E. Newbert, a son.

H. L. Houghton,'89, is studying medicine at the Harvard Medical School.

TECHNICALITIES.

The Y. M. C. A. gymnasium sees very little of the Techs lately.

Where is the polo team about which we heard so much last winter?

It will soon be time to drop a nickel in the slot and pull out your marks.

“Homeward Bound” must be a classic. It does not grow unbearable by frequent repetitions.

The Middlers are creating a very choice Chamber of Horrors in the Free Drawing-room.

A fellow that will get to the shop at 3:30 A. M. ought to have a chance to enjoy his vacation in hard work.

There hasn’t been as much fun at school since the time that John Matthewson persisted in printing his name “JHON.”

Patience Middlers! a careful look at the calendar will show you that you have only 82 more Dutch recitations.

Div. A. of the Middlers has been preparing itself for the half-way supper by modest repasts at the shop on practice days.

The Amateur chemist who carefully excludes air from his retort while making hydrogen is wise in his generation.—Puck.

Now that we have a new organ, it is proposed to move the old one into the wood-room, to take the place of the big planer.

The Middlers are thinking of substituting “Over the banister leans a face,” etc., for “Homeward Bound” as a procession of exit.

While we are talking about relief for the ex-janitor, some one ought to start a subscription for the benefit of the drinking cup in the basement at the Hall.

We are pleased to note that no white labels have been placed on the books in the library since their unsightly appearance was decried.

What is the idea in allowing the flower of the choir to languish in the back seats? Re-
member the saying, "In onions there is strength."

In view of recent happenings it may be interesting to some to know that we have it on good authority that this is the "tamest crowd that ever went to college."

It is understood that we are to be allowed the 22nd of February, in consequence of frequent allusions to the father of his country. It comes on Sunday this year.

In the shop. Boss tries some bolts a Junior has just turned. The first one too large, the second too small.

"They average well enough."

Why not put "Please help the Tech" on a box at the Union Station and let travelers drop in papers they are through with, after the fashion of the hospitals?

The fellow in the back seat in Chapel who sings (?) so hard on the swell, recently sighed so audibly on the following calm that Dr. Fuller thought the old organ had sprung a fatal leak.

They were speaking of presents they received.

Draftwell, '92—"Did you get any boxes of bon-bons at Christmas time?"

Lathesby, '91—"No, but we had a dandy bonfire of boxes just before."

The Middle class had some very fine group photo's taken by Davis not long since, and one of their number was instructed to engage enough pictures for the whole class. The photographer printed only twenty-five, but at last accounts, not all of these had been taken. Come boys, aren't you a little slow?

Those valiant lower class men who inhabit the library before and after and in between, sonorously advancing their sage opinions upon geometry and the "Trigonometrical Functions," seem to have adapted "Wir sind die Leute," for their motto in life. One sometimes wonders if they are ever led out to drink.

For some time after the beginning of operations on the new dynamo, a large number of students gathered in the Electrical Laboratory before and after lectures, to see "the mills of the gods grind." On most of these occasions, however, the mills didn't seem to be grinding, and if the gods were of ordinary clay we should presume they were doing a proportionate amount of swearing.

Königin thought one of his old thinks again. Though Doctor Fuller and the catalogue distinctly stated that school would close Tuesday Dec. 23rd for the Christmas recess, Königin was in his seat bright and early Wednesday morning waiting for the Physics quiz and wondering why the rest of the fellows didn't show up. When he learned the true state of affairs, he said "damit" in German and muttered something about "four hours," the night before.

[Saleswoman at the Book department to salesman on same counter.]

"Who was that gushing fellow who just bought the cheap translation of Schiller?"

(He)—"Oh! he's a Tech. Said he wanted to give it to a lady friend who doesn't know Deuts'd and got off something about treading the realms of lofty rhyme together."

(Sh)—"Well! here come six more of them! If every Tech buys his girl a copy, Mr. Schiller's part of the realms of rhyme will soon be crowded."

The topics upon the history of the Dutch Republic prepared for the Middlers by Dr. Smith, are certainly one of the most helpful as well as interesting features of the year's work in German. This is a period in history with which every one would wish to be somewhat familiar, yet, considering the busy life at the Institute, it would be almost impossible to gain so comprehensive an idea of the political and military events of the times in any other way.

In connection with the editorial of the last WPI upon our reading room, it might be of interest to Techs to know that at Exeter, the reading room is equipped with a long list of daily, weekly and monthly papers, which are paid for by popular subscription among the students. If the students here would appoint a committee to take up a collection, and then with the money so obtained, subscribe for a number of periodicals, we might have something besides ante-bellum tracts and kindly contributed Police Gazettes to attract us to the library.

The Middler civil from out of town who attended the "Fat Ladies Convention" at Washburn Hall during an afternoon German recitation, was afterward the victim
of mental tortures. That night in his dreams, he fancied himself in the clutches of a monstrous female apparition, who held him at the brink of the "Faculty's Pit," and demanded a dime (which he couldn't produce) for a portrait of "Fat Alice." and the landlady wondered who was calling "Ma" occasionally through the night.

The New Year reception at the Y. M. C. A. building, given partly in honor of the new secretary, Mr. Gale, was a great success. The hall was very beautifully decorated and some 1500 members and their friends were present. Congressman J. H. Walker, Rev. Archibald McCullagh, D. D., President Fuller of the Institute and other representative men of the city were among the speakers of the evening.

Dr. Fuller spoke upon culture and refinement as following the formation of good character, and emphasized the large and increasing demand for young men of strong, well-grounded character to fill positions of trust in all departments of life.

You can not please some people no matter how obliging you may wish to be, as the case in point will show. A certain Main-street tobacconist has a railroad ticket agency in connection with his business. Near by is another tobacconist who, however, is not a ticket agent. Into the store of the latter a Tech bustled one cold evening at the beginning of the holidays and hastening up to the proprietor he said: "Say, I want to go to B— tomorrow morning." The tobacconist, who is not to be outdone in politeness, replied: "My young friend, you have my full permission to go to B— at any time, in fact you may go to any place that your fancy may desire." We have since learned from this Tech that the tobacconist is "one of the meanest men in Worcester."

Junior Chemistry quiz upon lecture, mostly on rain-water.

No. 1 gets up and tells how rain-water is impure, etc., etc. No. 2 tells why impure.
No. 3 tells the gases it takes up and how.
No. 4, 5 and 6 ditto, with more or less embellishment. At the end of thirty minutes the scene closes with the following dialogue:

(Pupil raises his hand.)
Prof.—"What is it, Mr. Yellik?"
Mr. Y.—"Please t' tell me 'f rain-water isn't sometimes impure."
Prof.—"Look at your notes!"
(Smothered hysterics by supernumaries.)
Mr. Y.—"Well, I sh'd think it would be, 'cause th's so much gas 'n' smoke 'n' stuff comin' frum chimleys."
(Mr. Yellik scores a gratuitous goose-egg.)

DEAR POLLY.

I'm very full of Polygons
And Polynomials, too;
Now, when I leave the Polytech
What d'ye s'pose I'll do?
With Polly by my side I'll learn
Republicrat tricks;
Then skip to Polynesia,
And enter Politics.

A CHEMICAL ROMANCE.

Said Atom unto Molly Cule,
"Will you unite with me?"
And Molly Cule did quick retort:
"There's no affinity."

Beneath electric light plant shade,
Poor Atom hoped he'd meet;
But she copped with a rascal, base,
And her name is now Saltpetre.—Ex.

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