



Vol. II. No. 9.

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Vol. II.

WORCESTER, JUNE, 1887.

No. 9.

## THE W T I.

Published Monthly, during the School Year, by the Students at the Worcester Technical Institute.

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AS the last number of Vol. II. slowly approaches completion, and the weary editors discern in the distance the long-coveted vista of rest and repose, there are thoughts in their minds and feelings in their hearts to which they would gladly give expression. But in this Commencement number, want of space imperatively forbids any lengthy indulgence in retrospective memories. The present and the future monopolize the space, and we have not even the room to make a graceful farewell bow, but before we sever our official connection with the W T I, we must at least acknowledge our deep debt of gratitude to the students and the alumni for their hearty support of the school paper, for their appreciation

of our efforts, and for their indulgent forgiveness of our shortcomings.

And now for a few words of advice, thrown together promiscuously, yet reflective of the opinions of many, and addressed to whom they may concern: Do not throw away the golden opportunities of student life. Begin your thesis early. Let your Commencement reception continue farther into the night, and have your class supper some other eve, or not at all. Do not forget to invite the alumni. Put us on record as heartily endorsing what Mr. Chittenden wrote last year of the printing establishment of Mr. Chas. Hamilton. Support the W T I next year as well with your pockets as you have in the past, and better, if possible, with your pens.

AGAIN we have passed through the dangerous waters of a semi-annual, and look about us to find but few of our crew injured. While the damage sustained is in the main slight, yet a number have been so jostled about as to make some sore heads and cause considerable confusion. The foremast hand rubs his eyes to find himself upon the quarter-deck, and the officer rudely thrown into the fore-castle is ordered aloft by the cabin boy. Men, whom the almost infallible judgment of their division declares superior to others, and in some cases eminently so, find themselves out-ranked by their inferiors,

while their disappointment is heightened by the mystery which surrounds their marks.

Undoubtedly the examination mark is reliable. Here the student is given definite questions which he will answer either correctly, indifferently or not at all. To these answers a definite mark is given. But the evil lies in the unbounded latitude allowed in the bestowal of the personal mark. We do not make the charge of intentional unfairness, but instance the results of the last examination as indicating how an instructor's judgment may be biased by his liking for a student. With each succeeding examination the feeling is aggravated that the system of marking as practised here is a poor one and that our marks mean nothing. This feeling is very generally shared and we have heard men say that there being no encouragement to effort they are indifferent to their mark provided they escape a condition. The effect is to drive students to pursue the pleasanter studies to the exclusion of the, perhaps, more important ones. It is unfortunate that this loss of faith in marks should prevail, and we trust that another examination will bring a more equitable distribution of the honors, and restore that confidence without which the student's work must prove futile.

**I**N that period of rest and inactivity known as the summer recess, it certainly seems as if the Board of Trustees, or the Faculty, or whoever has charge of matters pertaining to the school and its surroundings, might muster up the necessary courage and the

pecuniary wherewithal to see that the ablutionary apparatus, or the tank, or the watering trough, or whatever that lavatory appliance in the basement of the Washburn Machine Shop may be called, is renovated. In a school where the precepts of godliness are so fluently taught to the students, cleanliness also might be placed within the reach of all, for is not cleanliness next to godliness? To come down to cold facts, such a place is not fit to be used as a lavatory. It is bad enough to be obliged to furnish the soap, but when it comes to using this soap in six inches of liquid of which a chemical analysis would be necessary to determine as water, it surpasses human endurance. The principal trouble appears to be in the supply stream of water, which, although running constantly, serves to keep only the water in the upper trough wholesome. This stream is about three-sixteenths of an inch in diameter, and runs with sufficient force to fill an ordinary water pail in the remarkably quick time of ten minutes. It is understood that the pipe which conducts this water is stopped with an incrustation of oxide or something else. The only way to remedy this is to tear out the whole length and put in a new line of pipe at least one inch and a half in internal diameter. The stand-pipes in the shop to be used in case of fire certainly give a flow of water amply sufficient for all purposes. Having secured the necessary water, the next thing would be to have the plugs connected with the sewer occasionally removed, say once a week. This would give the iron filings and the machine oil a chance to wash off slowly.

It is said that a certain corporation in Paris makes an enormous sum of money by removing the oil from the surface of the city's great sewer, the Seine. An humble fortune awaits the man who will seize the opportunity to do the same at the W. M. S. If the authorities are unwilling, however, to undertake this much needed change, it might be possible to erect a filtering apparatus in the cellar, and, by means of a pump connected with the boiler, the same water could be used over and over again. The money saved by this process might be used in purchasing the soap. But, seriously, something ought to be done. Won't somebody make a note of this, please?

THE daily papers are now full of advice to recent graduates to bring themselves down to the level of common folks, and not consider themselves the cream of the world. The time for such writing is now past. Fifty years ago a liberal education meant something out of the usual order of things; the young man who received his B. A. diploma felt his education was above that of the people with whom he would associate, and, for a few years, he may have assumed pedantic airs. How is it now? A college graduate who would ever amount to anything knows perfectly well he must begin at the bottom of the ladder; he sees men graduated *cum laude*, acting as clerks and bookkeepers, and recognizes that Latin and Greek, algebra and geometry, are not the tools of business. The graduate of a technical school, if he has learned anything, has learned the im-

mense field comprised under the terms: chemistry, engineering, electricity; and so he goes humbly to work in some little alcove of these great departments and endeavors to add his grain to the sum total of knowledge in his line.

WITH all the gifts that our Institute has received it would seem as if we needed no more, and it would seem rather preposterous to expect another grant from a man who has done so much for us lately. But, still, it is a self-evident fact that the Salisbury field south of Boynton Hall would make a splendid campus wherein we could have our base ball games, and also, with little trouble, our field sports.

A quarter-mile track could easily be laid around it for running, and in the centre could be laid the ball diamond, which could also serve for a foot-ball field in the proper season. In the corner next to Prof. Sinclair's could be placed more tennis courts, which the needs of our growing Association will demand. At the base of the rise could be the catcher's fence, and upon the rise there could easily be erected seats which would give a fine command of the field. All that this would cost the donor would be the grass, because if it were wanted for building purposes we could give it up.

THE energy of the Techs was well illustrated Commencement Day by the repeated cheering at the Institute by the Seniors, when they cheered everything under the sun. Then when the Apprentices (Juniors) were let loose they made the quadrangle resound for a few minutes, to the cry of 'Ninety. But where the cheering was more marked

than ever was at the Union Station, where about eight of the new-fledged Juniors were gathered to bid some of their number good bye. It happened that there were about fifty Holy Cross men there for a similar purpose, and when our boys cheered they responded, and then we cheered alternately till the train went, at which time both schools cheered together, and our yell (?) being a little the longer was the last to stop. It seemed as though our eight or nine men made as much noise as the fifty Holy Cross men. A gentleman afterwards told me we made quite as much if not more, and our cheer was much easier to understand than the H-C-C of the College boys.

ON the last day of August the football season will begin in this school, and we hope that the athletic editor of the next board will be able to write up games reflecting more credit on the W T I than those of last season. We certainly expect to see better playing, and, though we do not anticipate having as good an eleven as the nine we had this year, still the qualities of the men are better known. The junior class has shown itself willing to enter into all sports with earnestness and a strong determination to win; they have put the only class nine in the field this year, and a good tug-of-war team, so we may confidently expect some good men in foot-ball. Crosby, E. S. Frary, Dawson and Loynes, have shown themselves to be men from whom good things may be expected.

The team should not be put into the field next season without a manager;

the lack of organization last year was mainly due to the fact that the directors of the Athletic Association were the managers of the eleven instead of one man filling the office.

If practice begins promptly on returning from vacation, we shall be able to pick out men for places more accurately than was possible last year. The inter-class teams revealed many excellent men who were too modest to try for the school team. More men must be in fit condition for playing than last year, so that if perchance we have a little extra time, a game can be at once arranged between practice elevens. The inter-class games, so fruitful in good results, must be kept up and their number increased, if possible. Last year the captain selected the best men at his disposal. If we take more time in practice games before choosing players for the school eleven, doubtless a team can be made up that will play infinitely better than last year's men, although the best individual players may not be on it. "It is a very simple thing to go on a field and pick out eleven individuals, saying, probably with a fair amount of accuracy, too, that they are the best players, but it is equally simple to meet that team with eleven men inferior, individually, but who play together well and beat them so thoroughly that spectators would wonder why they played at all." A man who played on a crack college team told us that there was enough "mouth work" on our rush line during the second game with the W. A. to give the game to the other side twice over; and it is a strong confirmation,



by the way, of our captain's judgment as to the best player in the school, that this veteran pointed out Patterson, '88, as the finest man on the eleven, who certainly is one of the quietest men on the team. Looking over the list of half-backs, we find that the school has several good men. Cushman played excellently last year, and he made nearly all our good runs. Nelson, in the game between '87 and '88, did some fine work, but he plays a little too much by himself. Allen, '89, is another good man, and Patterson and Hartwell have always given satisfaction in the position. Kimball's playing is too well known to speak of, and if he should play half-back there is no doubt of the place being well filled. For centre rusher there is little choice between Camp and Patterson; Gilbert understands the duties of the place well, but is too light for the regular snapper. Rice is most certainly the best quarterback in the school, and with a little more speed in throwing the ball, leaves nothing to be desired. Jewett, Ferry, Doon, G. H. Frary, Lovell, Paul, Marshall, MacFadden, Rockwood, in '88; Bartlett, Cook, Hadley, Harriman, Penniman and White, in '89, have all had experience and shown themselves good men.

---

AMBIGUOUS.

SHE.

" I DIDN'T mean to scold, dear Ned"—  
The tears her large eyes fill—  
" But you'll forget what I have said  
And say you love me still?"

HE.

" My dearest May, I love your voice,  
So talk away at will;  
But—since you say it is your choice—  
I also love you still."

COMMENCEMENT

Day dawned auspiciously on the thirtieth of June, and when the Senior awoke to begin his laborious but eventful thirty-six-hours watch there was every indication of fair weather, and a hot time ahead.

The morning trains brought to the city many relatives and friends of the members of the graduating class, ripe windfalls for the obstreperous hackman, who thus early in the day began to reap a harvest that continued to yield its golden rewards long after the evening shades had enveloped the resounding walls of Insurance Hall. It was a goodly audience that, at half-past nine, assembled in the chapel to hear the reading of thesis abstracts, by several able aspirants to the degree of Bachelor of Science; and it was a much-crushed, much-heated, but much-admiring company of ladies and gentlemen that, an hour and a half later, made hurried ingress into the cool corridors, which they slowly promenaded on their way to the fine displays of drawings and other student handiwork in the several rooms.

Thesis drawings were admiringly inspected by the friends of the delineators, the exhibitions of drawings in the Mechanical, Free Hand and Civil Engineering Rooms received due attention, and the all-observing visitors beheld with awe the voluminous evidence of "constant toil and midnight oil" in the shape of the written work in English, French and German that loaded down the tables in Prof. Smith's room.

But amid all these objects of interest at Boynton Hall the Washburn Machine Shop was not forgotten, and many were

the sight-seers that strolled across the square and through the tidy shop to watch the horny-handed sons of toil do scientific wonders on planer, lathe or saw.

At 12 o'clock, sharp, the Seniors assembled in front of the Hall and having cheered that stately edifice they took up their line of march. Preceded by Chief-Marshall Chadwick, '88, and headed by President Murray, they marched to the site of the new Salisbury Laboratory, stopping on the way to give a hearty cheer for the shop. Another lusty cheer for the new laboratory, and then, preceded by the Worcester Brass Band, the Seniors wended their dusty way to their class-tree.

To say it was hot is putting it coolly; and to say that the class-tree orator was pretty thoroughly warmed up to his subject by a temperature of ninety-six in the shade is simply stating the plain unvarnished truth, without any isothermal expansion.

Every man in the class carried a cane, and every cane bore jaunty streamers of lavender and wine. These were thrown gracefully across the branches of the tree, and added very materially to the beauty of that healthy, dark-armed daughter of the soil. After cheering generously for their class, for the Tech, for Mr. Salisbury, the Faculty, the Undergraduates, and the Alumni, and listening to the responsive cheers of the two last-named bodies the weary Seniors adjourned, to meet again in Mechanics Hall at 2.30 P. M.

Here at the above hour a large number

of alumni, undergraduates and friends of the graduating class and of the Institute had gathered, despite the oppressive heat. On the platform with the gentlemen of the Faculty and of the Board of Trustees were seated Gov. Ames and staff, Prof. Thurston, and many other friends of education from this city and elsewhere. The exercises, as usual, included music, prayer and addresses by President P. Emory Aldrich and Dr. Fuller. But the event of the afternoon came at the time of the Commencement Address when we all enjoyed the rare pleasure and privilege of listening to the world-renowned scientist, Prof. R. H. Thurston of Cornell University.

Space permitting, we would print the address entire, although it was quite long, requiring nearly an hour of rather rapid delivery.

Gov. Ames read a pleasant little speech. Judge Aldrich's address this year was short and somewhat audible, and Dr. Fuller's was marked by brevity and pleantries.

The public speaking was gracefully and fittingly concluded by our eloquent valedictorian, whose address, as well as that of the class orator, appears in the subsequent pages.

The conferring of degrees and the awarding of the Salisbury prizes closed the regular commencement exercises, and some of the more elderly and more exhausted spectators sought the cool shadows of their hotels or their homes; but for the valiant newly fledged alumni there was no rest this side of the—Reception, the splendors whereof we will tell you later.

## 'EIGHTY-SEVEN'S RECEPTION.

WE had almost called it the Senior Reception, but that would be incorrect inasmuch as that the class that so pleasantly received their multitude of friends at Insurance Hall between the hours of 5 and 11 on the evening of June 30, 1887, had been, for several consecutive minutes prior to the beginning of said reception, sage and dignified alumni. But learning perched lightly and gracefully on their brows, and dignity leaned not too heavily on their shoulders. Despite their stupendous wisdom and world-acknowledged importance, they were so thoroughly cordial and condescending as to banish from their actions and manners every trace of Johnsonian imperiousness or Carlylian frigidity. At any rate, this is what one would infer from the appearance of the gay and brilliant company of ladies and gentlemen that promenaded the spacious parlor to the sweet strains of enchanting music and the inspiring influence of beauty and grace. For everywhere the laughing eye bespoke the happy heart; and the self-complacent air of many a beautiful maid proved that the genial hosts were still as courteous as in days of yore, when, as jolly students, they were wont to sue these selfsame ladies for their company.

Although the rather oppressive heat forbade any long-continued indulgence in the Terpsichorean exercise, the promenade concert which occupied the earlier part of the evening, was followed by dancing, in which a goodly number participated. Waltzes were

the rage. To the man who is debarred from joining in the mazy waltz, by reason of the unfortunate possession of an Orthodox foot, or its equivalent, there is a charming sadness in watching a merry company of dancers. Perhaps, dear reader, you have been there yourself. And, perhaps, to you too, Mrs. Hemans' beautiful line came back with plaintive energy:

"Ah, I would that my foot could flutter to the strains of that melodie!"

But let that pass; we had some collars next day, and the waltzers hadn't.

And yet,—and yet my mind goes back to that rhythmic grace, that very poetry of motion, and involuntarily I exclaim with Byron:

Imperial Waltz! imported from the Rhine  
(Famed for the growth of pedigrees and wine),  
Long be thine import from all duty free,  
And hock itself be less esteem'd than thee.

Besides enjoying the pleasant company of sisters and friends we were honored in the early evening by the presence of Prof. Thurston and a considerable number of our own professors with their wives. It was an unalloyed pleasure, also, to receive the several members of the alumni; but most gratifying of all was the comparatively large number of undergraduates present.

It was the intention of the class to have the undergraduates well represented, and although the number of the latter was not so large as we would wish, it was sufficient to bear out the now well-established proverb that There's nothing mean about 'Eighty-seven.

Everybody pronounced the reception a success and the most enjoyable part

of the whole day's programme. Zahonyi catered to the satisfaction, as well as to the appetites, of all. Verily, it was an occasion to which the graduating class can look back with pardonable pride, and every guest with pleasure.

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#### 'EIGHTY-SEVEN'S CLASS SUPPER.

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**E**ARLY in the morning of the first of July there might have been seen, seated at a table whose long, broad boards were bountifully heaped with most palatable edibles, an easy, jolly, hungry company of alumni. Of course they were hungry. Including their frequent repasts at the reception they had partaken of food six or seven times during the previous day, but in view of the trying ordeals through which they had passed, and yet had to go, it is no wonder that they still craved sustenance.

So, once again Caterer Zahonyi meted out, measure for measure, to the assembled multitude the spirit-staying staves of life.

At about 2.30 A. M., Mr. John A. Chamberlin, our felicitous toastmaster, waved like a magic wand his patent gavel and thereupon began the "feast of reason and the flow of soul." Following are the toasts:—

The Class, C. B. Murray; The First Six, G. W. Burr; The Last Six, E. F. Miner; The Mechanics, J. A. Rourke; The Chemists, C. Davis; The Civils, E. W. Bemis; The Designers, W. H. Kirchner; Our Alma Mater, W. W. Bird; The Undergraduates, J. F. McNab; The Faculty, C. J. Sawyer; Athletic Training, F. T. Harvey; Athletic Records, J. C. Knight; Base

Ball, H. H. Allen; The Ladies, J. P. Pierpont; Worcester, F. L. Emory; The Empire State, J. O. Phelon; The Old Bay State, H. S. Streeter; Box 25 X 2=\$50, I. S. Lhoyd; Class History, G. P. Tucker; Class Prophecy, G. A. Ward.

Little more than half of the toasts had been given when the rosy dawn began to mount the purpling east, and it was deemed expedient to start out on the foraging expedition to the Tech, but all soon returned to finish the toasts and before the bells sounded seven our canny soothsayer had impressively pronounced the last words of the class prophecy.

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#### VALEDICTORY.

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J. A. CHAMBERLIN.

**P**EOPLE of Worcester: For the first time since the young men before you came to your city, they now have an opportunity to look into your assembled faces and to speak a word to you.

We do not, however, meet as strangers, nor as the friends of a day. Few of you, it is true, are known to us personally, but the years during which we have identified our lives with yours, made your interests our interests, as we believe ours have been yours, have certainly removed all strangeness and mere acquaintanceship from between us.

So, then, we welcome you here today as friends to whom we would speak before we go to seek new friends, before we go to find new hopes, or to push the old to fulfilment.

The fact that the Free Institute is located in your city, is not of interest to

you solely because of its excellence,—because the reputation it has reflects upon you; but it imposes a responsibility upon you, which you do well to heed. It is an institution already long and well established, but your interest should not become dormant on that account,—you must *show* your interest continually,—you must be aggressive. The word you speak in its behalf, and the deed you do for it, may not bring you direct response; but the word and the deed are not, therefore, vain.

Is it now too soon for me to hope that after twenty years, we may all unite in adorning "Institute Park" with a building which in its usefulness, will be worthy the public spirit of the one citizen, and worthy the pride of every citizen?

As this is the first time, so is it the last time we shall meet you;—I am sorry, and remember I speak for my class, I am sorry, because during the time we have lived in your city, we have learned to love it, and to look upon it as a home. Some of us know no other home, and for these I need say little; as for the rest of us,—wherever a friend is, there we are at home; and we wish to call you all friends, and we wish, simply, that you should know, that in saying farewell to you and in leaving Worcester, we feel regrets at parting from those we have grown to know so well, and whose friendship we so highly prize.

Mr. President, and Gentlemen of the Board of Trustees: We know you or of you, mainly, so far as we realize that wisdom, foresight, and prudence have been shown in the management of the school before we came to it and

since we have been in it. Without these qualities it could not have won that reputation which recommended it to our notice in the first place, nor had they been lacking during our stay here could we go away satisfied. Nor do I need say to you that that wisdom must be exercised more and more as the school grows; that there is room for its exercise now.

I cannot forbear to speak of what one of your number has done to so deserve the gratitude, not only of the students but of each of his fellow-citizens. From the former he has, ere this, received a testimonial which was full of meaning to those who signed it. But ink and paper are, at best, unfeeling agents.

In behalf of my class, as is my right, and also of the school, as I know they will allow me, let me thank the gentleman most sincerely and heartily for his generosity. Those of us who are leaving will not receive direct benefit therefrom, so our gratitude cannot be based on selfish motives; but we realize the meaning of the gift to its future beneficiaries, no less than will they themselves. The new laboratories will not only broaden the influence of the Institute but will greatly increase its efficiency where that influence is now felt.

In severing our connection with this Institute, then, Gentlemen, we are glad to thus publicly recognize the success of your efforts, and show our appreciation of them. May your future policy be still an advance upon the past and no less successful.

Undergraduates:—To you, I could say much; much that would savor of advice, and that is something you do

not want, nor perhaps, need, but you had better take what advice you can get, for you will not perhaps get much.

You should seek to know your school thoroughly. You have all been long enough in it to be more or less acquainted with it, but none of you know it as you will know it when the anniversary of this day comes, in '88, '89 and '90. For each of those days you have already made partial provision, and it will be well for you if, when that day comes, you have much to look back to and little to regret.

You are here for a definite purpose, each of you for himself. That view of your position is the fence which will keep you in the straight and narrow way which leads with no shadow of turning direct to Commencement and the degree of B. S. Your name will appear with the names of the rest of your class on that day, and you yourself will sit with the rest of your class on this platform,—that is all true, but that is about all you will have in common with them. Ah, my friend, I hope you will get a broader idea of your position as a student than that. You *are* here for your own sake, and if you were alone, you could ignore everything else. But here are two score with you, come for the same purpose, attaining it by the same means, meeting the same successes, disheartened now and then by the same difficulties. Are you going on in your own way and let them go on in theirs, or are you going to reach over to grasp their friendships, offering your own in return? Are you going to be envious of their successes and indifferent to their discouragements,

or will you let their sunshine fall upon your own path, and by-and-by produce an answering radiance to light them over the dark places? If you will, then you have the true class feeling, the feeling which will find a source of continual enjoyment in your class, and which can at the right time, merge with no loss of fervor into a common school patriotism.

It is this idea which in the fulfilment will make you proud of your class and school, and which will make you welcome to them. It will make your course here a pleasure in spite of its rigor, and the regrets you will feel for your mistakes will be shut out by the satisfaction that you have found friends to whom those mistakes count for nothing; friends whose faces will haunt you as your memory dwells on your student days, and whose friendship will be to you "a joy forever."

In saying good-bye to you, then, our fellow-students, the Class of '87 puts out its hand and gives yours a hearty shake, wishing you all encouragement and success, and as the doors close behind us as students, we feel that we are leaving friends whose good-wishes go with us.

Gentlemen of the Faculty: Your mission to us is ended, and it seems to me that if we are to carry away any permanent impressions of our school life, apart from our studies proper, it is natural and fitting that those impressions should be of you.

The value of the services you have rendered us we shall appreciate more and more the longer their effects go with us, and in the successes we work out you will find your reward and thanks.

The instruction we have received at your hands has not been altogether from books. There is something besides scholarship to be striven for and attained. There is a broader instruction to be imparted, a broader education to be gained, in which books have no part.

That instruction has not been wanting for us; and if we have attained to that education, though imperfectly, then it is indeed, well for us.

But, Sirs, the time has come when our instruction must henceforth come from within, and I take it, that it was to better prepare for such instruction that we came to you. Then the most and the best that we can say in going from you is to tell you that we feel that we *are* better prepared, that the purpose we have had in view, we have with your help attained.

Classmates: What shall I say to you in addition to what I have said and, feebly perhaps, endeavored to show in these past years, that we may the better understand one another at this last moment?

For myself I could feel well content to let the final hand-shake suffice. But custom has established a precedent which our reverence for the Past will not permit us to depart from now. Yet it is far from my interest or desire to review publicly the record of the class, —like the private life of the individual, that record belongs to us alone. Why should I review it? What would be the purpose of such review?

There is not one of you but has a clearly defined opinion of each of his fellows, and that opinion is perhaps

founded less upon prejudice than any subsequent modification of it is likely to be.

Could I in a moment, now, hope to alter or to strengthen to any degree the opinion of years? I doubt my ability to do the latter, and I should shrink from a responsibility like the former, were it possible for me to assume it.

The consummation of the life of the individual, the lesson of that life, should be for the universal eye. So, too, it is right and proper that those among whom we are ready to take our places, should have some opportunity to judge of what manner of men we are, not doubting what manner of men we *would* be, and it is for that reason that we are before the public gaze to-day.

This is my opportunity to speak to you, and I wish to continue with the same thought I had in mind when I was speaking to our brother students here. I spoke in behalf of that idea to them first, because the opportunity is still theirs; for us it is passed, and we each know whether or not we have availed ourselves of it.

But that idea is capable of a broader, a richer meaning.

The platform upon which we stood as students, will after to-day, be broad enough to hold the whole human race on its ample boards. *Then* will be our opportunity renewed. Then it will be for us to decide whether we shall allow this class feeling to expand and develop into what I like to call the true essence of patriotism.

We believe that we can feel an honest satisfaction in looking back at our work here, and I tell you that if the

sentiment I have spoken of and which I believe has here been awakened in us, is permitted to rule the future of each of us, that on a distant day, when we again are standing face to face with an unknown future, and are saying our final valedictory, we may look back at the years between this day and that, and especially at the years just closing, and, if we cannot now, yet then we shall see, and see clearly, that our satisfaction was not untimely, that, indeed, we wrought *better* than we knew.

One great trouble with student life like ours is, that we hardly begin to realize the strength of the friendships we have formed, when our paths diverge as widely as before they met. It is the thought that they are so soon to separate, that brings us to a sense of the benefits we have derived during the short time we have been side by side.

And if we are now at that point of divergence, with a heart full of gratitude to the Past, we will not look back, but go on with a larger hope for the Future; that is what separation should mean to us. It should not mean that our friendships are to be broken; the song of friendship, once sung, will ring in our ears forever,—no discord can subdue its harmony; the words may become confused or lost even, yet we shall find them “from beginning to end” long afterward, in the heart of our friend.

My words you will soon forget, but my thoughts, made a part of your thoughts because they are uttered for you each and all, will find a place in your hearts, and whenever and wherever one heart shall again give them

expression, then and there “’Eighty-Seven” will be, in full sympathy.

CLASS-TREE ORATION.

J. W. BURKE.

*Classmates and Friends:*

THERE are epochs in the lives of men, turning points in men's existence, times when the daily routine is laid aside to be replaced by something more appropriate to the occasion, more expressive of our feelings, and more lasting in our memories.

The ever-ebbing tide of time may wash away the learned lore of books, may blur the once familiar rule and formula, but never can it hide from our mind's eye the clean-cut outline of these vivid scenes. Perhaps some future day of temporal advancement or professional triumph may vie with this for memory's seat of honor, but never during our natural lives shall the events that are now transpiring be effaced from our minds. For this day marks a turning point in our existence, an epoch in our lives, the day of transition which, as by magic, shall change us from delving students to worldly men; which shall promote us into the ranks of the world's producers, and give us a worthy place among those earnest men that exercise the sway of mind over matter.

Henceforth our duty calls to other fields. No more we'll wend our weary way up yonder hill in search of learning for the mind and hand. No more the greensward of the campus will muffle our hurried foot-steps or hide our tennis-balls. No more in listless moments will we stroll along these



quiet walks or gaze in thoughtful mood at those historic elms,—mile-trees, as it were, along the street of time.

But before we leave these pleasant surroundings, before we bid adieu to the dear friends and associates who have contributed so much to the pleasure and profit of our three-years' task, we desire to establish here a fitting memento of ourselves.

And what shall that memento be;  
A portrait, bust, a shrub, a tree?

Who would hesitate to make a choice from these? Who, even without the influence of the long-established custom at the Institute, would not select the graceful, living, lofty tree? And when to the natural choice he adds the indefinable charm of time-honored custom, who can deny the fitness of the selection we make to-day?

A tree,—noble by birth, graceful by breeding, firm-rooted by choice, aspiring by nature, it will stand here to receive the kindly glances of our friends and the admiration of all passers-by. Learned professors walking along this avenue, industrious students on their way to laboratory, hall or shop, will lessen their pace to scan the outline of our sturdy elm. And as they read the plain inscription on its trunk may their thoughts recur to a little band of honest, modest, manly men, and may they be able to exclaim: "Ah! worthy reminder of the class it represents, whose character, like their tree, is straight, stalwart, unflinching and upright every time."

And do you ask, why did we choose the elm in preference to all other trees that grace the landscape in this northern

zone? Oh! oft-told tale. Ask of the ancients why they chose this tree. We have their reasons and as many more. Ask why it skirts the streets of our quiet country towns; why it droops so gracefully above the eaves and gables of the homes we love. Ask why it spread its leaves above the head of our immortal Washington, that summer-day, at Cambridge, when in the patriotic breasts the fire of liberty flamed warmer than the noon-day sun. Ask why it is so inseparably associated with love and peace and liberty, with thoughts of country and of home. The answer you receive shall be our answer to your query.

Observe this scion of a noble race; a race whose history is interspersed with scenes of love and patriotism and valor. See how the very breezes, blowing where they list, are caught up by those tender leaves and made to whisper curious tales and quaint traditions.

In future days when we, perchance,  
Cast up by the sea of circumstance,

shall stand beneath the shadow of the tree whose long career begins to-day, some other breezes blowing through other leaves on these same boughs, will tell the story of the by-gone years; will tell what men of brain and courage shall have achieved upon that stone-crowned height; will tell of progress and prosperity for alma mater; tell how her wants were filled and her growth directed.

Then let us give our tree once more to mother earth,—tenderly, trustingly. Here in a sightly, sheltered spot, whence she will see the new brick

pile arise as if to guard her from the bleak north winds.

All-nourishing earth receive her lovingly! Give to her of thy abundance the good that she craves. Ye mighty winds relax your wrath; like gentle zephyrs wander through her boughs and nestle cosily among her leaves. May sun and air and earth unite to foster, nourish and protect her!

To her to-day our hopes are given,  
Our prayers for her find rest in heaven.

And may kind Heaven, which we trust will guide our footsteps on life's flinty road, deign also to direct the healthy growth of the tree whose branches now so naturally support the wine and lavender of 'Eighty-seven.

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CLASS ODE.

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Words by J. W. Burke. Music by G. W. Burr.

I.

WITH retrospective memory  
We scan the busy years  
Since first our little company  
Joined hearts and hopes and fears;  
And though the parting pang be keen,  
Though sad the fond farewell,  
The mirrored rays of those happy days  
Will soon the clouds dispel.

*Chorus.*

Then swell the chorus, ev'ry man,  
Let tongue give voice to heart,  
With just a touch of sadness at  
The thought that we must part;  
With just one wistful glance around,  
And just a glance above  
At the granite walls of those stately halls,  
And the faces that we love.

II.

Advance the gladsome tidings on  
O'er bush and bank and lea,  
Let tireless echo answer back  
Our song of victory;

For many mishaps have we met,  
And trials not a few,  
But sturdy will and ready skill  
Have brought us safely through.

*Chorus.*

Then swell the chorus hopefully,  
Let tongue give voice to heart,  
With just a touch of sadness at  
The thought that we must part;  
With earnest prayers of gratitude  
For health's inspiring train,  
And with the fond confiding hope  
That we may meet again.

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THESIS SUBJECTS.

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WE give below the names of the gentlemen composing the Examining Committee for the Commencement of 1887, as well as the names of the theses and of their authors. The asterisks denote that the students against whose names that mark appears, read abstracts from their theses before the examining committee and the audience in the chapel.

EXAMINING COMMITTEE.

Charles A. Allen, C. E., Worcester.  
Francis C. Blake, B. S., Mansfield Valley, Pa.  
Prof. David Casares, Merida, Yucatan.  
Clarence A. Chandler, B. S., Boston.  
Prof. Leverett Mears, Williamstown.  
Prof. R. H. Thurston, Ithaca, N. Y.  
Charles G. Washburn, B. A., Worcester.

THESES.

DEPARTMENT OF CHEMISTRY.

Geology of Worcester and Vicinity, Harry H. Allen.  
Examination of a Residue obtained in the Manufacture of Maple Sugar, Harry H. Boyden.  
Examination of Butter and Oleomargarine, Clinton Davis.\*  
Disposal of the Sewage of Cities, Frank Harvey.

Methods of Determining Nitrogen in Sewage, Fred W. Morse.\*

Determination of Manganese in Iron and Steel, Charles B. Murray.\*

Investigation of Commercial Emery, Henry S. Streeter.

Examination of an English Venetian-Red, George P. Tucker.

#### DEPARTMENT OF CIVIL ENGINEERING.

The U. S. Coast and Geodetic Survey, Earl W. Bemis.

Foundations in Deep Water, John W. Burke.

Stresses in a Cantilever Bridge, Edwin L. Grimes.\*

Pavements, Irwin S. Lhoyd.\*

#### DEPARTMENT OF DESIGN.

Design in Textile Fabrics, William H. Kirchner.\*

#### DEPARTMENT OF MECHANICAL ENGINEERING.

An Oscillating-Piston Engine, William W. Bird.\*

The Harris-Corliss Engine, George W. Burr.

The Henderson Open-Hearth Basic Steel Process, John A. Chamberlain.

Computations for the Parts of a Dynamo, Frederick L. Emory.\*

Drop-Forgings, Ernest H. Fairbanks.

A Transmission Dynamometer, Ira L. Fish.

Manufacture of Iron and Steel at Pennsylvania Steel Co.'s Works, Harrisburg, Pa., Ronald P. Gleason.

The Cowles' Electric Furnace, John C. Knight.\*

Tests of Lubricating Oils, Jang Landsing.

The Barrus Calorimeter, William A. McClurg, Jr.

Electric Railways, John F. McNab.

Chemical Processes in the Manufacture of Paper, Edward F. Miner.\*

Design and Construction of an Absorption-Dynamometer, Joseph O. Phelon.\*

Classification of the Surfaces of the Second Order, James P. Pierpont.

Steam Gauges, Edward J. Quinn.

Design of a Tubular Boiler, Joseph A. Rourke.

The Clapp-Griffith's Steel Process, Charles J. Sawyer.

Electric Railways, George A. Ward.

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### ATHLETICS.

**A**T the lake sports, June 11, Chadwick, '88, cleared 4 ft. 9 in. standing high-jump, breaking all previous Institute records. An amusing fact concerning his jumping was the repeated attempts of Cahill of the Holy Cross College to rattle Chadwick. Cahill fell out of the contest quite early, and stood facing Chadwick while the latter jumped. Every time he was about to jump, Cahill either made some contemptible remark or some motion to bother him, but Chadwick jumped all the better for it. The Holy Cross men showed their winning side by not saying a word to Cahill other than to encourage him in his meanness.

Marshall won the pole vault, making 8 ft. 5 in. Jewett won the running broad-jump, making 18 ft. 4 in.

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It is said that a bee can pull more in proportion to its size than a horse. "We don't know about that," says an exchange, "but they are quite powerful when they back against you and push."

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### HIS PASTOR'S TRIBUTE.

**A** GAIN the dark angel has entered the ranks of our Alumni, this time taking from his pleasant home at Irvington-on-the-Hudson, Mr. Wellington M. Houghton of the class of '76. Subjoined is an obituary notice and eulogy by his pastor:—

In the death of Wellington M. Houghton, Secretary of Lord's Horticultural Mfg. Co., which took place on the 24th day of June, his employers, as well as this community, have sustained a loss not easily made up. Mr. Houghton came to Irvington eight years ago, and found immediate employment with the above concern in the capacity of civil engineer. His marked skill in his profession, his natural abilities, and the worth of his personal character speedily won the appreciation of his employers, and he was rapidly advanced until he became secretary of the establishment, and had an interest as a partner in their thriving business, when his sudden death put an end to a career that was full of promise.

A young man of singularly pure and straightforward character, he was governed by a love of principle in all the relations of his life, and his influence, especially among the young men of this place, was a power on the side of "Whatsoever things were true, whatsoever things were honest and of good report." Of a genial and most social nature, kind and courteous to all, his companions became deeply attached to him, and found in his society a constant source of pleasure, as well as a high and lofty example, and his name and memory will long be cherished by all who came in contact with him, as being associated with all that is noblest and best in young manhood.

Mr. Houghton was a graduate with honor of the Worcester County Free Insti-

tute of Industrial Science, Class of '76, and came from Wilkinsonville, a suburb of Worcester City. The many friends who mourn his loss can best show their appreciation of his character by following the example of his useful and blameless life.

Mr. Houghton regularly attended the Episcopal church and took a live interest in the Free Reading-room of the village of Irvington.

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### WORK OF THE APPRENTICE CLASS.

**T**HE regular work in wood of the apprentice class ended about May 1. Since that time, Allen has made a white-wood tool-chest and a few patterns; Atkins, patterns and book-shelf; Booth, camera case, and, in company with McLane, a chest of drawers; Burrage, with Nutt, patterns and twin book-shelves; Clancy, wall-bracket in ash; Crosby, book-case and wall-bracket in black-walnut; Davenport, stand-table, ash; Davis, cherry easel, and, with Jenness and Taylor, a cherry roll-top desk; Dawson, sundry carvings and wall-bracket; Faulkner, with Gardner and Rood, cherry roll-top; Fitts, ash side-board and desk repairing; Frary, moulding flasks, and, with Loynes, book-cases; Gardner, patterns and roll-top; Jenness, patterns, wall-bracket, and roll-top; Loynes, tennis racquet and book-shelf, with Frary; McAuliffe, tennis box, file case and wall-bracket; McLane, wall-bracket and tool-handles; Murphy, patterns, and, with Rice, pedestal-stand, ash; Nutt, patterns, and, with Burrage, book-cases and chest of drawers; Prince, patterns and ash what-not; Rice, patterns, and, with Murphy,

ash pedestal; Rood, roll-top desk, with Faulkner and Gardner; Taylor, patterns and roll-top; Treadway, C. F., blacking case, and, with Treadway, F. W., ash wall-bracket; Treadway, F. W., book-case, screen door, patterns.

The Treadway's and Crosby also built a large chest of drawers in white-wood. Of the bench in the draughting-room of the machine shop, Frary, Loynes, Davenport and Clancy made and set up the framework, and Murphy and Rice made and fitted the drawers and hung the doors.

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### Scientific Notes.

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The bill prohibiting the use of stoves in, or about, moving passenger cars in the State of New York has been signed by Governor Hill, and goes into effect May 1, 1888. Railroads of less than fifty miles length are exempted from compliance with this law. Railroad men consider such exemption in no wise justifiable, and a serious defect in the law.

The Cleveland *Iron Trade Review* announces that some experiments, which have been conducted for some time by the Cleveland Rolling Mill Company, under the direction of Mr. Eugene H. Cowles, the inventor of the process which led to the production of aluminium bronze, have been very successful. Large steel castings made with steel charged with 0.1 per cent. of aluminium, showed an extraordinary freedom from blow-holes and other defects that are common in ordinary steel castings, and also showed a remarkable increase in tensile strength. Moreover, it was found that the addition of this small amount of aluminium imparted to the steel the property of making a clean

and perfect weld with wrought iron. The alloy also greatly reduced the chilling of the metal, permitting it to enter the mould readily and to fill it completely. Should further experience justify the deductions drawn from these experiments, the discovery is an exceedingly important one and will largely increase the uses to which cast-steel may be applied.

At present the outlook of the Panama Canal appears exceedingly gloomy. According to M. Boulangé's statements before the American Society of Civil Engineers, the Canal Company has already spent \$180,000,000, and less than one-fourth of the material is excavated. This corroborates the report recently made by Lieut. Rodgers. It is said on good authority that work on the canal was begun before the line was definitely located, and that chiefs of sections are required to work without plans, profiles or anything else to guide them. It is a strange story, but it may be true.

After commenting at length on the efforts of the Baltimore and Ohio Railroad Company to establish technical education among the company's workmen, and noticing, by the way, that such officers as the Superintendent of Machinery and the Chief Engineer are subordinate to the B. & O. purchasing agent, the *Engineering Journal* concludes as follows:—"If instead of attempting to educate its own men the Baltimore and Ohio Company would make its service attractive to those who have been educated elsewhere, it would be likely to attain what it is aiming at sooner than it will through the technical school it has organized with commendable liberality. The first thing to do to make its service attractive is to cut the wings of its Purchasing Agent, who now soars so arrogantly over all who are unfortunate enough to be obliged to

have any dealings with him. Instead of attempting to educate men, that company would do much better to find those who have received their technical education elsewhere and give them a chance to get their practical experience in the service of the company. The Pennsylvania Railroad adopted this plan years ago, and the results are known the world over."

Although the great rivers of the West as well as the Delaware and the Susquehanna in the East have long been spanned by bridges, the rugged banks of the Hudson are not yet bound together by stone or iron band at any point in its navigable length below Albany. But the Poughkeepsie bridge is fast nearing completion, and when it is finished the last great navigable river of the United States will feel the rumbling of the iron horse above its placid bosom.

Following are the conclusions drawn from the experiments on train resistance made by the brake committee of the Master Car Builders Association:—

Your committee believe from these experiments that the following figures represent the frictional resistance of long trains of freight cars in good repair, running over a track in good condition, the weather being fine and warm and the wind light. The resistance appears to be constant at speeds of from 12 to 25 miles per hour, and does not appreciably increase with an increase of speed within these limits:—

*Frictional resistance, lbs. per ton of 2000 lbs. Speed, 12 to 25 miles per hour.*

	NEW CARS.	OLD CARS.
	lbs.	lbs.
On tangent,	8.00	6.00
On 3° curve,	10.50	8.30

Good lubrication and carefully fitted boxes and journals may, with cars that have been running some time, decrease this resistance to a minimum of 4 lbs.

per ton on tangent, while brake-shoes rubbing against the wheels, and other unfavorable conditions, may increase the friction on the tangent to 12 lbs. per ton, and to considerably more on curves.

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## Exchanges.

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Ogontz certainly is an odd name, and to the uninitiated its orthography naturally is a matter of some uncertainty. The *Mosaic* has evidently been annoyed by the original manner in which exchanges spell its name, and has been provoked to publish in its columns the following:

"We do not know that there is much in a name, but there seems to be something difficult in spelling one sometimes. We have had all the changes rung upon Ogontz; but after Ogantz, Ogoutz, Ogotz, Ogoatz, Ogatz, we still cling to the original O-G-O-N-T-Z."

There is another female seminary with rather an odd name, yet in the very next column to that in which the *Mosaic* corrects the spelling of Ogontz, appears the name of *La Salle Leaves*. Now this seminary "has also had all the changes rung upon it," but in the name of the *Leaves* let us say "it still clings" to Laselle.

The *Richmond College Messenger* contains an interesting article on the "Advantage of Disadvantages." The author explains that referred to things, the above title would involve a contradiction, but applied to men, it expresses a practical truth and embraces an important principle. The advantage, we are to infer, lies in the effort of overcoming the disadvantages, and not in any inherent virtue which they possess.

Perhaps few college presidents can speak with greater authority upon Greek

letter societies than ex-president White of Cornell. His article in the — *Forum* on "College Fraternities" must be of especial interest to one desirous of knowing what of evil or of good can come of association with these societies, and in how so far they interfere with the discipline and authority of the college. Mr. White is emphatically in favor of their existence, not only from the healthy feeling of honorable brotherhood which membership brings with it, but also because they can be made use of by college authorities in reaching men otherwise inaccessible.

Among all our exchanges none more perfectly indicate the purpose of the institution from which they are sent than *The Stevens Indicator*. In this its name is well chosen. Since becoming a quarterly the *Indicator* has grown more technical than ever — the last number being especially interesting and apropos, as, in connection with our notes we made use of the article on "The Process of Smelting in the Blast Furnace" in preparing for our examination in metallurgy.

The *Pennsylvanian* says:—"The *Seminary Opinator* has dropped its hitherto very ambiguous title page, and now appears in a chaste and attractive cover."

The "Opinator" has been the title of that paper. We beg the *Opinator's* pardon for misunderstanding the nomenclature of our esteemed contemporary. We see now that we misread the first two letters of its name and presume the *Pennsylvanian* fell into the same error, as it now speaks of the cover being *chaste* and attractive.

"Talk of your English novelists, and the noise they've made in the world," said Jones. "Why, there's an American novelist whose name has made more noise than all of them put together."

"Who is he?" asked Brown.

"How'lls," answered Jones.

## College News.

A student at Amherst has been expelled by the student board for using a translation in class.

A society has been formed by the Japanese students in attendance at the University of Michigan and the high school at Ann Arbor.—*Ex.*

At Lehigh, there is a professorship of the theory and practice of photography.

Cornell University fears it will lose three of its prominent professors. Washington University is looking for a president among Cornell's faculty, while Yale and Trinity are looking to the same source for professors.—*Ex.*

*Le Temps*, in a recent article on French, English and American education, takes Oxford as the typical English, and Yale as the typical American college.—*Yale News.*

Nebraska has a college with a million dollars endowment, 12 professors and 200 students, but it languishes. The trouble is it has no distinctive yell. A college without a yell is a poor affair.—*Philadelphia Call.*

The youngest man in the Freshman class at Yale is fifteen years and 10 months old; the oldest, 30 years and 2 months.—*Ex.*

Professor Turner, the celebrated anatomist of Edinburgh, receives a salary of \$20,000 a year, said to be the largest remuneration received by any professor in the world.—*Ex.*

Yale first published a college paper in 1806; Harvard, in 1810; Columbia, in 1815; Brown, in 1829; Amherst and Williams, in 1831; Trinity, in 1833; University of Pennsylvania, in 1834; Princeton and Dartmouth, in 1835; Bowdoin, in 1839.—*Ex.*

The Yale, Princeton, Columbia and Harvard Glee Clubs have been invited to give a grand concert at the Academy of Music, New York, for the benefit of the Associated Charities of New York City. If the arrangements can be made successfully, each club will sing three or four numbers of the programme. After the concert, the Harvard Glee Club will be the guests of the Harvard Club of New York.—*Ex.*

## Personals.

Wellington M. Houghton, '76, died at Irvington-on-the-Hudson, June 24. A longer obituary appears on a preceding page under the heading, "His Pastor's Tribute."

A recent copy of a Worcester paper contained a tourist's very complimentary account of the feats of engineering which are being done on the Cascade Division of the N. P. R. R., under the immediate charge of J. J. Donovan, '82. Mr. Donovan expects to visit his home in the East next autumn.

H. W. Carter, '86, is employed by the Deane Steam Pump Co., Holyoke.

W. E. Drake, '86, has resigned the duties of assistant in the physical laboratory at the Institute, to take a somewhat similar position in Brooklyn, N. Y.

A. B. Fairbanks, '86, has gone to Milwaukee.

C. F. Hunt, '86, is with the C. St. F. & C. R. R. Co., in Kansas City, Mo.

W. S. Morehouse, '86, has left the Worcester Elevator Company to accept a position as draughtsman at the works of the Holyoke Machine Co., this city.

W. G. Wesson, '86, has resigned his position in the manual training department of the Washington High School, to accept a flattering offer from the B. & O. R. R. Co., in their technical school at Baltimore.

Allen, '87, rusticated. Also constituting a large part of Allen & Fairbanks' base-ball team.

Bemis starts for Topeka, July 20, to assume the duties of draughtsman in the Engineer's office of the A., T. & St. F. R. R. Co.

Bird will be assistant to Prof. Alden next year, in the steam engineering department of the Institute.

Burke is going to Vermont to take charge of the work that T. F. Chappell, C. E., of Pawtucket R. I., is doing for the Rutland Railroad Company.

Chamberlain has accepted the offer of a position in the manual training department of the Washington City school system.

Emory also will be identified with manual training in Washington.

Fairbanks is staying for a few days with Allen in this city. He comprises the remainder of the base-ball team.

Fish goes to Washington. Manual training.

Gleason, manual training. Goes to Washington.

Grimes has taken a lucrative position as draughtsman for the C., St. F. & C. R. R. Co. Located in Chicago.

Lloyd will go to Vermont, on the Rutland R. R., with Burke.

Morse will probably accept the offer which he has just received from the director of the experiment station at Amherst, Mass.

McNab, last on the alphabetical list, but by no means least, of the men that are going to teach the young shoots how to idea, in the manual training schools of Washington, D. C.

Miner has left for Kansas City to enter the employ of a company of contractors and builders.

Phelon will take the position of assistant in the physical laboratory, left vacant by the resignation of Mr. Drake.

Rourke is draughting for a manufacturing establishment in Brooklyn, N. Y.



## Technicalities.

"Now the hour of rest hath come to thee."

We are afraid that some Techs joined in the Harvard yell as the victorious Crimson came from the field after beating Holy Cross, on the 18th.

"Rest is sweet after strife."

In a French recitation. Prof., who sees that Mr. C. is not paying attention: "Mr. C. is that right?" Mr. C., who is absent-minded: "Criticisms, criticisms."

"And leave us leisure to be good."

Painters and kalsominers have materially improved the aspect of several of the rooms in Boynton Hall, particularly the Mechanical Drawing Room.

"Detur aliquando otium quiesque fessis."

"When the laboratory is built" there is every reason to believe that there will be a reading-room, open at all times, in Boynton Hall.

"Farewell, Monsieur traveller. Look you lisp and wear strange suits; disable all the benefits of your own country."

There was a young fellow at school,  
Who knew Physics, every rule,  
But he couldn't spot B,  
Which is quite hard to see,  
So he thought the day was *sehr* cool.

"So many hours must I take my rest."

The Middle Civils have been doing some quick work in Stereotomy. During the hours formerly devoted to Mechanical Drawing, the class has been at work on the problems usually studied during the practice of the Senior year. Temple the best draughtsman in the school, not only finished the regular course in Stereotomy but also

designed a skew arch, a piece of work never before done by a Middler.

"Up! Up! my friend and quit your books;

Or surely you'll grow double."

Since Bliss's Field has been fenced in and placarded with "No trespassing" signs, there has been no place nearer than the fair grounds for baseball practice. Why cannot the Athletic Association hire the grounds for the use of our men? Surely the price would be low.

"Hang sorrow, care'll kill a cat."

The Senior Class has been sitting at Davis's studio for a composite photograph.

"The toils of honor dignify repose."

The sixes are as follows:

Senior Class (for the course)—Morse, Burke, Miner, Fish, Grimes, Bird.

Middle Class—Goodell, Griffin, Shimomura, Hunting, Temple, Chadwick.

Junior Class—Penniman, Stowe, Allen, Houghton, Bigelow, Hadley.

"What's past is prologue."

Now that the name of the school has been changed, it will be necessary to adopt a new cheer. The old yell was altogether too long and slow, and we hope that the next field-day will be animated with a quick shout. We would suggest that the students reflect a little on the subject and send the cheers they may originate to the next board of editors, to be published, in order that all may come to a decision on the subject before the next school meeting.

"O most lame and impotent conclusion."

Prof.: "Put up your work now."

Student, absent-minded: "Rats."

"Sleepe after toyle, port after stormie seas."

Dr. and Mrs. Fuller's reception to the graduating class was given on the Friday evening after the Senior examinations, June 17. Quite a number of the trustees were present, as well as members of the faculty, with their wives. The occasion was decidedly enjoyable.

'77, '82 and '85 held jolly reunions at the Lincoln House, commencement night.

We regret our inability to publish in this number the music which Mr. G. W. Burr, '87, composed for the class song. We venture, however, to hint that at no very distant day his class-mates, at least, may have the pleasure of seeing it in print.

Among other changes at the Institute we should like to see the system of "Cuts" overhauled. In most American colleges, from fifteen to twenty-five per cent. of recitations is allowed to the student. We are allowed five cuts during the year. Considering the number of recitations we have, this per cent. is indeed a minimum.

It is often the case with a student who is faithful to his studies, that he would be better off if he should cut a recitation now and then, but we doubt if an excuse of "Indisposed" would pass muster under our present system.

Following are the names of the gentlemen who will keep the bow of our journalistic boat up-stream during the next school-year: C. L. Griffin, H. E. Rice, F. W. Spiers, of '88; A. P. Allen, H. V. Baldwin, H. C. Stowe, of '89; C. K. Prince, E. C. Rice, S. H. Rood, of '90.

The new board has organized with Mr. C. L. Griffin as editor-in-chief, and Mr. H. E. Rice as business manager. Let all ye Techs, at home and abroad, lend the encouragement of pen and pocket, and you will be gladdened by the monthly advent of a paper which will bear comparison with some of the very best exponents of college journalism.

After the conferring of Degrees by Judge Aldrich, the Salisbury prizes

were awarded to the First Six, as follows:—

Fred W. Morse, Berlin, Mass.;  
John W. Burke, Tyngsboro, Mass.;  
Edward F. Miner, Hazardville, Conn.;  
Ira L. Fish, Brunswick, Me.; Edwin  
L. Grimes, Princeton, Mass.; William  
W. Bird, Cambridge, Mass.

## Museum of Antiquity.

### "WANTED: A SITUATION."

It is really most distressing  
That, although my needs are pressing,  
I cannot make the money that inferior fellows  
can,  
Nor find an occupation,  
In this Philistine nation,  
Congenial to a college-bred and cultivated man.

My talents—they are many—  
Do not bring me in a penny,  
While the unenlightened vulgar go on heaping up  
their gains:  
I can do so much that they can't,  
But all "situations vacant"  
Are reserved, as I discover, for the men of  
vacant brains.

I was noted when at college  
For a very special knowledge  
Of history, antiquities, and numismatic lore—  
But in Coinage early dated,  
My interest has abated,  
Some interest on our modern coins would benefit  
me more.

In the "ologies" and "isms,"  
In all theologic schisms,  
In the speculative systems of both old and  
modern thought,  
I am versed, I may say, deeply,  
But my "views" I'd part with cheaply,  
Could I ascertain the market where that kind of  
thing is bought.

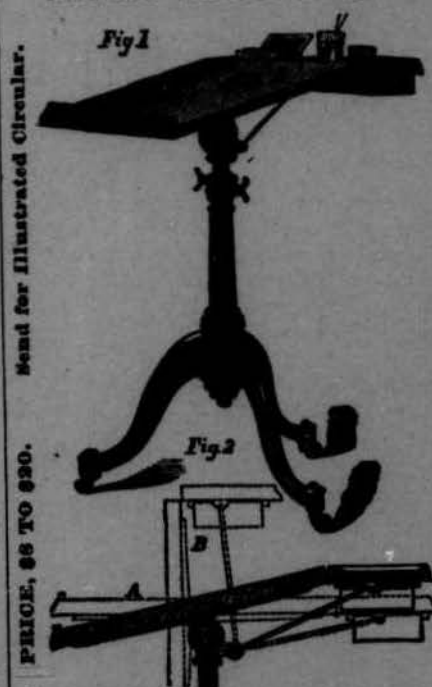
I am trying legal practice,  
But the melancholy fact is  
That, although I passed with honors when I took  
my law degree,  
And did credit to my tutors,  
I do not suit the suitors,  
And my knowledge of fee simple does not bring  
a simple fee.

The thought I sometimes harbor,  
That to be a chatty barber,  
Conductor on a surface car, or driver of a van—  
To get a place as waiter,  
Or run an elevator—  
Are about the only chances for a cultivated man.

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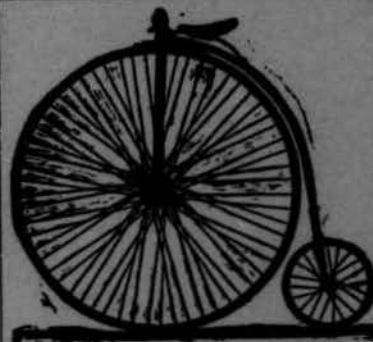
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