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READY-MADE CLOTHING,  
For Men, Boys and Children, are now on our counters and we respectfully invite an early inspection of the same.

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409 Main Street, Walker Building, Worcester.
SINCE the Commencement number will merely supplement this present issue, our valedictory, if we have any to speak, should be given at this time. And as our salutatory was short, so let our valedictory be shorter, for we have but little to do but to step from our chairs, and yield them as gracefully as possible to our successors. And we think no words can be more fitly spoken as we retire than those which embody our ideas concerning college journalism, which we have advanced so frequently during our term, and which we now repeat to serve alike as our valedictory and epitaph.

To publish a college journal requires a sacrifice of time and labor, but the experience gained we believe is a valuable acquisition, and one which may some time be repaid with interest. We would incorporate this sentiment into the one word of advice which we have to leave to the incoming Board, viz.: Do not expect to edit the W P I without sacrificing something for it; be sure that this sacrifice is distributed amongst you; then, do not hesitate to make that sacrifice, and you will not fail to reap your reward.

THE success of the Inter-collegiate Field-day was marked, and we believe that contestants and spectators alike were well satisfied with the day's performance. There were but few things to complain of. One of the few was the
tedious dragging of some of the events, and the unnecessarily long waits between them. A little more systematic action amongst the various executive officers would have remedied this defect. With respect to the programmes, it is safe to say that the executive committee will not have them printed at Dartmouth next spring. The printer's work on those of May 24 was very poor, and the general make-up, for which we suppose the responsibility falls to the executive committee also, was wretchedly inconvenient. The programmes were not gotten up in such good form nor with such good taste as those of our own Field-day, and the tax imposed upon them seemed like an involuntary contribution to the Association's treasury.

But the occasion, as a whole, was a pleasant one, and we believe it has left us in a better condition in all respects than before. We have been brought into competition with trained men from other colleges, we have had a chance to measure ourselves, and we think that in six New England colleges, at least, we have won a respect, which will add not a little to the increasing reputation of our Institute. We hope for another opportunity to entertain our college friends next year.

THIS will be our last regular issue.

Early next month, in a special number, will be published a full account of the Commencement exercises. It will be essentially a Commencement issue, as its columns will be devoted exclusively to the exercises of that day and pertinent items of interest. A complete index to Vol. III. will be published in connection with the number.

WITH the beginning of the Salisbury laboratories, the school seemed to have partially awakened from the lethargic sleep into which it had fallen, and to have new life infused into its veins. Probably its growth in size and wealth inspired it with a desire to be something more than it had been in the past, and with this end in view it has been decided to hold examinations for entrance in other cities than Worcester. Besides the commendation which is due for this, even more ought to be given for the setting aside of that time-honored and much-used institution, the school seal and the adoption of one which is better suited to the school. But with these there comes a change which causes some discussion, especially among the chemists, whom it particularly concerns. Doubling the Senior, and increasing the Junior and Middle chemistry fees by half seems to be an act which was unwarranted. Forty dollars for materials, and extra for breakage makes nearly a dollar for every ten hours practice, whereas the chemicals used by each student during that time will not average one-half that amount. There is no reason for believing that the expense is that much greater now than it was a year ago, and because the laboratory will be better equipped ought not to count against the student. We would not be understood as complaining, but simply remonstrating, for in our present season of prosperity we are in duty bound to be thankful for what we have that is good, and abide the evil. Yet remonstrances are always in order.

WE trust the world is better
For our having lived in it;
So in night's unconscious hours
We'll ascend to the Infinite.
I spread my influence in social life,  
Till, by relation of effect and cause,  
I changed the nation's economic laws,—  
The while my increase growing steadily,  
Reflected credit on the land and me.  
And thus I kept the tenor of my way  
Through prime of life, a cycle and a day,  
Into the pockets of a favored few  
My golden gains with lavish hand I threw,  
And, in return for labor's generous store,  
I've driven want from many a cottage door.  
Far did my keen-directed influence reach,  
Conferring ill on some but good on each,  
The naked Negro 'neath the southern sun  
Fairly revered the mystic means that spun  
Sea-Island cotton, which he thought his bane,  
And gave him cloth to mitigate his pain;  
The envious look within the poor man's eye,  
When he beheld my favorites roll by,  
Clad in apparel which my bounty bought,  
Was changed in common with his change of thought,  
As he observed, with comforting content,  
His cotton suit on limbs of vigor bent.

"And yet, with all my well-earned praises won,  
Some deeds I did were better left undone;  
Some spiteful actions, spurred by woman's hate  
Of womankind, I deeply deprecate;  
And now in justice to my future fame,  
In retribution for those deeds of shame,  
Although too late to right a rabid wrong  
Or cure an ill so chronically long,  
With cutting pangs of conscience I deplore  
The envy-frenzied malice that could pour  
Death's dampering ointment on a healthy head,  
And Blanch a cheek to rosy color wed.  
What fault of theirs if I were getting gray  
The while my mental maids were blithe and gay?  
Because, forsooth, they were admired by men,  
Ought I have crushed them back to earth again?  
Mine was a weakness such as matrons know;  
Ye gods forgive my share to human woe!"

Yea, may the deity of mills forgive  
Thy trivial faults; and let thy virtues live  
'Shrined in the hearts of many-millioned men,  
Leal to the law and lauded by the pen.  
And as in sequence of ordained events  
Our country mounts her western eminence,  
Long may her welcoming shores be trod by such  
As he who shaped thy life with magic touch.
AN EXPERIENCE WITH A ROTARY ENGINE.

A HALF dozen of us had gathered in the draughting-room of our shop during the noon hour, and, as is usual under such circumstances, each had his story to tell or some bit of his shop experience to recount. The foreman had just finished a remarkable tale about the performance of a high-speed engine which he had helped to build sometime in that wonderful past, which every machinist so loves to tell about, when the young draughtsman, who had been meditatively puffing a cigarette as he sat in the corner, his chair tipped back and his feet upon the steam-pipe, remarked, "Did I ever tell you fellows about that rotary engine?" It lacked fifteen minutes to starting-up time, and we all leaned forward to listen as the young fellow, who was quite a favorite in the shop, threw away his "cig" and began.

"Now boys, this joke isn't on me, it's on my father, so you can enjoy it as much as you like; but if the 'old man' was around I shouldn't feel safe in telling the story, for he's awfully touchy on the subject of rotary engines since the episode to which I refer occurred. You see he is one of that practical sort of men who can't tell you why a thing should be so theoretically, but who are prepared to stake their reputation on what their judgment dictates. It is due to him to say that usually his opinions were reliable, and I have seen him floor more than one of those chaps who prove everything by long columns of figures, and $\cos \theta = 1$ and all that sort of thing. Perhaps that's why this single case troubled him so much. But to begin

the story. Father had a man in his draughting-room by the name of Durkee, who spent his time chiefly in making working drawings from father's sketches, and, when time allowed, in designing new machinery, of which we required considerable from time to time. This Durkee was a sanguine sort of a fellow, who deemed himself very wise on all mechanical subjects, but who really knew very little about them, his knack of drawing having been acquired merely as a knack and nothing more. One day a man by the name of Richardson came along, and, after inspecting our establishment, went in to see Durkee, whom he found copying a portion of a complicated drawing. He admired his work, said he was just the man he was looking for, and made him a proposal for securing his services in drawing up a machine which he (Richardson) had invented. Durkee wouldn't listen to him at first, but afterwards set his price at ten dollars a day, which terms, to his surprise, the stranger accepted. Well, for two days Durkee listened to a lecture on a 'rotary engine,' which was the machine which Richardson had invented, and then went to work to put it on paper.

At the end of a week he had the thing all drawn out and was as enthusiastic as the original projector of the plan. Several alterations had been made, and, as the design stood completed, both enthusiasts were ready to guarantee an efficiency of fifty per cent. at least. But funds were lacking, and a stock company was proposed. The scheme was brought to father, whom they wanted to take half the stock. Father had a quick eye for reading drawings, and it
took him but a minute to see that the machine drawn out contained some entirely new features hitherto unadvanced in the steam engineering line. Yet the plan looked feasible enough; indeed, the more he studied it the more he became convinced that the scheme was a good one. Finally he consented to accept the chance offered, the bargain was closed, and work began at once on the first engine, which was to be a small one, generating but fifteen or twenty horse-power. A machinist with a reputation for the extreme nicety of his work was hired, for nothing could be too good for the machine that was to revolutionize the world, and the work went on pace. As the engine drew near completion, the members of the company thought and dreamed of nothing else but their pet hobby. 'The Richardson Engine' it was to be called, and there were to be three sizes manufactured for the trade, 15, 75 and 150 horse-power respectively.

I remember father had the plan for a three-story shop all drawn out in color, and had been carefully estimating the relative cost of buying and manufacturing the castings necessary for the work of building the engines. Seventy-five per cent. was the least possible efficiency which the makers would now allow for the machine.

At last the marvel was completed. It was taken from the little secluded den where it had been put together, carefully deposited in an express wagon, for it was only a few feet square, and, with the three members of the company guarding it closely, was taken down to our shop for trial. I remember well what a compact little thing it was, and how the varnish shown on the pretty, little governor with its gilded balls and brass fittings. The engine was set up out near our eighty horse-power boiler, and steam connection was made. The valve was opened, the fly-wheel began to move, and as the indicator showed 1800 revolutions and all running smoothly the three capitalists shook their imaginary money bags at each other, and there wasn't cash enough in the country to buy them out. What a machine for electric lighting! The 'Westinghouse' alone could compete with the 'Richardson,' and that would soon be forced out of the market! The engine did run beautifully; there was not a particle of noise, save the sharp exhaust of the steam, and that little fly-wheel just hummed! Well, for an hour and a half we watched that engine run at the same speed with perfect ease. The test was sufficient. The capitalists started back through the boiler-room.

I shall never forget how father looked when he opened the door. The pump was going so fast that the separate strokes could not be distinguished; the fireman—streams of perspiration rolling down his face—was heaving coal at the rate of sixty heaves a minute. The water was down to the third gauge-cock in spite of the pump, and showed an inclination to stay there. 'Gosh,' the fireman said as he looked round, and went to heaving again. Well, boys, will you believe it, that innocent little machine had consumed in one hour and a half just the same amount of coal which our eighty horse-power boiler had used since the beginning of the week three days before. The 'Richardson' engine was practically
a steam wheel, and the steam had gone straight through it, the effect on the boiler being the same as if a four-inch hole had been punched in its side: and the fireman had been trying to keep up steam under that condition of affairs! Of course the efficiency of the machine went down to about 0, and the stock of the company went still lower. It was a sad blow to father's judgment, which hitherto had been his pride.

But the sequel is the best part of my story. Just one week after the trial a man came along and wanted to buy father out. Father told him that he was a fool, and that he had nothing to sell, but the fellow persisted, and finally gave father for the right of possession just the amount which he had put in. Well, that fellow took the engine down to the fair building, printed some circulars, led the exhaust pipe out doors where people couldn't see the steam, and in a week had multiplied his money by thousands in selling stock piece-meal, and had skipped to parts unknown.

Boys, don't invest in rotary engines. This story is a fact.

And he climbed up on his stool and went on with his work where he had left it.

A LITERARY CURIOSITY.

The agricultural editor of the WPI had a day off one rainy Saturday a short while ago, and employed his precious spare time in consulting ancient files of his favorite paper, The Farmers' Vindicator, at the Public Library. With an eagerness born of a determination to allow not even the latest improvement in wooden nest-eggs to escape him, he carefully read page after page of the Vindicator. Just as he had finished copying into his note-book a few sensible remarks on "How to make potato-bugs fat and healthy" his eye caught a little advertisement at the bottom of a column, which ran something like this:

AH! There! Well, don't stay there. Send your address and a green stamp to Hayseed and McGullem, 13 Chestnut Street, New York, for a catalogue of things curious, comical and kantankerous.

The agricultural editor happened to be feeling in need of "curious, comical and kantankerous things" at that moment, so when he returned to his boarding-place he penned a modest request for one of the above-mentioned catalogues, conscientiously adding at the bottom of the letter, "I saw your advertisement in the Vindicator." He expected to get two copies for doing this, but his expectations were not fulfilled. He received by return mail only one little pink-covered pamphlet, but he found it, indeed, filled to the brim with "k., k. and k. things." He learned from this catalogue that he could get an opportunity to wonder, laugh or "kantanker" by sending various sums all the way from ten cents to one dollar. The agricultural editor thought the following
lines advertised the most interesting thing that Messrs. Hayseed and McGullem had to sell, and he forthwith squandered twenty-five cents and a postage stamp in sending for

"The Real Secret Art and Philosophy of Wooing, Winning and Wedding, or the Lover's Hand-Book, containing all the Love-making Secrets and Plain Rules for being Popular and Successful with the Ladies. It tells plainly how to begin courting. The way to get over bashfulness. The way to 'sit up.' The way to find the sweet spot in a sweet-heart's breast. The way to pop the question, etc., etc. Everything easy. Printed directions. 25 Cents per Copy."

Now let it be understood right here that the a. e. didn't send for this book because he really needed it himself. Far from it. But he knew that many of his readers were hankering for just such information and in his generous way he intended to satisfy these longings. He found the book to contain all that was advertised and much more. It is a perfect gem in its way and its counterpart is seldom met with in literature. The subject matter is divided into chapters having headings of which these are samples:

"The age at which a man should marry. How to choose a wife. Wooing and winning. How to court a quiet, domesticated young lady. How to make love to a proud young lady. How to court a poetical or sentimental young lady. How to spark a bashful girl. How to woo an heiress. How to court a wayward or forward girl. How to make love to a literary lady. How to court a religious young lady. How to win an actress. How to court a widow. How to woo an old maid."

A few extracts will show the style of the book and the excellence of its teachings. Here is a pointer on "wooing and winning":

"If she be a smart, active, matter-of-fact girl, she will require to be approached in a business, smart and effective manner, sentimentalism will not do here, and those finer feelings that the poets so delight to describe must be indulged in very sparingly. * * * Girls are peculiar in this respect, they are all imperial despots in love affairs, she may treat you with a provoking coolness, or seemingly by word show indifference to your suit, but where there is no positive dislike, or outright disagreeable demeanor displayed, perseverance will generally overcome this indifference, and her love will be all the more intense, when it is kindled."

This is the way to court a quiet, domesticated young lady:

"* * * Young man, if it is your good fortune to know one of this class, rejoice, and be exceedingly careful in your manner of proceeding to secure this jewel. * * Begin gradually to devote yourself to her, by being interested in her work, or have some new labor-saving domestic machine to bring to her notice and explain. * * Let her see that you are earnest, energetic, and industrious, and especially that your tastes and inclinations all tend toward a home—that you are thoroughly domesticated in your habits. You may bring this to her attention by referring to the lives of soldiers and sailors, commercial travellers, and others who are compelled by their occupation to be away from their homes; you could dwell upon the misery it would cause you to be so situated."

The Senior about to graduate may soon find a use for his Shakespeare and "English" in courting a poetical or sentimental young lady as follows:

"A young man who sets his heart upon a girl of this class, must live much on the ethereal. To be much absorbed in mundane matters will prove disastrous to all your aspirations in this direction. You must be
thoroughly versed in the poetry of life, so that in your initiatory addresses to her, you can give a romantic view to the simplest point in hand. * * Study Shakespeare, and get familiar with his imagery and pointed sayings. You will find in him an inexhaustible fund of material suited for all occasions. * * *

Most of us, however, are desirous of knowing "How to woo an heiress." This is the only proper way:

"You must at all hazards remove the idea that you are after money. Refer to it frequently as being a bar to happiness and full conjugal enjoyment. Have a due sense of your own importance, and ability to make a home happy and comfortable. Be very earnest in your addresses, let her see love in your acts as well as in your conversation, endeavor to show her that it is herself you love, her intelligence, her beauty, her fine qualities and unsurpassed accomplishments, and that with her you could be content to live anywhere. Enlarge upon your own prospects and ability to maintain a wife. Tell her you would prefer her to place her wealth in the hands of some Trust Company, subject to her own order, or to make it over to her heirs."

In another burst of confidence the author says:

"Bashful girls are usually dear, precious creatures, so confiding, innocent, and sweet, no distrust, reserve, or coquetry, and when married, make the best and dearest treasures that a man can be blest with."

If you finally succeed in getting married, you can start off at housekeeping with this maxim:

"Do not lay yourself out to keep much company."

There are many other things in the little book equally interesting. It ought to be seen to be fully appreciated. We do not know who the author is. He prefers to write anonymously. He deserves, however, to have his name printed in red ink on the cover.

CIVIL ENGINEERING.

It sounds very nice to talk of becoming a Civil Engineer, to dream of future success, laurels won, etc. But the Civil's day-dreams, like those of every aspirant for fame and success in other lines, must sometime meet the element of cold and stern reality; and lest his imagination may get the better of his reason, while thus he devotes himself to castle-building, we would caution him to look the situation squarely in the face.

If he casts his lot in the East, it generally means many years of drudgery and often waiting for dead men's shoes before attaining to any position of responsibility, and perhaps never attaining anything beyond squinting through an instrument. Or he may wish to cast his fortunes amidst the railroad development of the West, in the hope of better pay and more rapid advancement. What then is the result? A continually shifting life, full of "ups" and "downs," often coupled with hardships; as we once heard it expressed, he simply becomes an "educated tramp."

But do not draw too dark a picture from this, for we wish to emphasize the fact that the road to success is often pretty rocky. The idea that a "recent graduate" can go into the "wild and woolly West" and that there his light will shine out in brilliant contrast to its surroundings is all wrong, for very few men ever came West without finding smarter men there before them. If our "recent graduate" is lucky enough to find work, he may possibly be given a "rod," but he should neither expect nor feel confident of being able to do anything better on the start; in fact, the
axe is the best thing to rub off the tenderfoot on, providing he is fortunate enough not to cut it off.

If he does not kick at the work or the grub without reason, is active, and evinces a desire to learn, an advancement will soon come if the work warrants; but here enters another consideration. Two-thirds of the railroad work of the country is done in the summer time, and every winter finds two-thirds of the engineers and instrument men, etc., let out, lucky to get through the winter without getting "strapped," and ready to begin over again in the spring.

And as for hardships we have personally put in five successive days and nights in a howling wilderness in the midst of a blinding snow-storm, and that with ten feet of snow already on the ground, for provisions a scanty supply of bacon, flour, and coffee, and with our backs against a tree at night for a camp. This is but one instance where we have had the pleasure of lying out in a snow-bank one or more nights at a time, often with nothing to eat, and more than once have we been compelled to go a month at a time without changing a rag of our clothes, thanking our lucky stars for what we had on. Did we ever think then about night-shirts, soap, toothbrushes, etc.? Well, hardly! The Pullman-car critics as they inspect the great transcontinental lines of to-day never dream of the hardships endured by the first explorers and engineers over the very ground they are traversing to-day in such luxurious ease.

The first few years decide the future of the young engineer. If he has the natural ability with his heart in the work, and proves himself reliable under any circumstances, in a few years his ability will secure recognition and he will be able to command a fair salary, spending but little time unemployed.

No study or endeavor should be spared to become a first-class man, with an aim distinct from that of a large majority, who look at the business as an evil only to be endured in consideration of so many dollars per month. This accomplished, the rest will take care of itself.

In conclusion, we will say, that while we recognize the great value of a technical education, yet the civil will generally find it inexpedient to attempt to carry all his school text-books about the country with him. One civil in a hundred might be able to differentiate $x$ after being out of school and in active practice five years, and as for German, Thermodynamics, &c., he knows little or nothing about them. So that on the whole it is better to pack them down in a box with a layer of salt on top and "let 'em pickle." A set of drawing instruments, one or two field-books, and the large fund of practical experience yet to be gained constitute the stock in trade.

A Civil of '82.

LAYING THE CORNER-STONE OF THE SALISBURY LABORATORIES.

THE ceremonies attending the laying of the corner-stone of the Salisbury Laboratories occurred on Saturday, June 2, at five o'clock. A clear sky and comfortable temperature conspired to make the exercises a success, and altogether it seems as if the occasion was an unusually pleasant one. The
speakers were not unnecessarily dry and tedious, and the exercises were completed in little over an hour. The audience though not large, yet comprised many distinguished citizens of Worcester, and not a few ladies showed their interest by their presence. Judge Aldrich was director of the ceremonies, and served as master of the derrick and trowel. Brief addresses were made by each of the following gentlemen: Dr. Fuller, Judge Aldrich, Stephen Salisbury, Frank P. Goulding, Esq., and Hon. W. W. Rice. Rev. Austin S. Garver made the closing prayer, the benediction being pronounced by Rev. C. H. Pendleton. Mr. Salisbury's remarks we give in full:—

LADIES AND GENTLEMEN: "Confidence is a plant of a slow growth in an aged bosom," said the great William Pitt, earl of Chatham, in 1766, and the aphorism has a universal application to men of all ages. In the sense of faith and trust, it is the highest compliment that can be paid to character and desert. Oftentimes, much as we may wish to approve, our honest judgment refuses to yield the desired avowal. Then Institution that has summoned us to-day to participate in an initiative step toward providing a much needed addition to its educational facilities is fully entitled to and should possess our confidence. Established on a broad and liberal basis, it is administered by the self-sacrificing devotion of a body of able teachers whose object is not their own fame and promotion but the progress of their pupils in the rudiments of science and art. The influences that surround the students are wholly those that teach self reliance, and the knowledge that it is to themselves and to their own efforts that they must look for successful advancement. The school is not a scientific club to which students may resort at convenient opportunity to inspect the labor and experiments of skilled instructors, and to pass such portions of time in superficial training as may be entirely agreeable to them. To graduate requires capacity fully of the average, and constant and painstaking effort during three years, and allows of no escape from hard, unremitting work.

The result is that graduates from this school are at once recognized as entitled to consideration, and instead of the problematical question arising as to whether they have learned anything which they can turn to account, the reputation of the school and of its past graduates attaches immediately to those who follow.

In short, a diploma from the Institute has a real value, for the reason that it comes from an institution carried on without show or parade, with the simple purpose of teaching carried on without show or parade, with the simple purpose of teaching the most possible in the short time allotted to the course.

From the last annual catalogue we learn that "the present average age of all graduates is only a little more than 30 years, very few having attained the age of 40 years; and yet of the 351 who are living, 91, or more than one-fourth, are either partners in business, or superintendents, chiefly in manufacturing enterprises, and 25 are teachers, some of them being professors in colleges or polytechnic schools. The demand for the services of graduates who are prepared for good work is constantly in excess of the supply." With such a record, and with the evidence of its usefulness so clearly demonstrated, this Institute should not fail to command the interest and assistance of the friends of practical education.

After the laying of the stone the following hymn, written by Dr. Fuller for the occasion, was sung by the students to the tune of America:

"Confounders"
To Thee, O God, we raise
Our song of grateful praise
In this glad hour,
For all on mount and plain,
For all in stream and main,
For all the heavens contain
That shows Thy power.

For all Thy laws revealed,
For all Thy might concealed
In nature's store,
For all the thoughts that thrill,
For all that tests our skill,
And spurs the heart and will,
We Thee adore.

Thy gifts and gifts of men
Who hold and give again
Are built in one.
So build we here to-day,
So would we build for aye,
As stone on stone we lay
Till all is done.

The stone occupies a position on the northeast corner of the building, and is marked by the noticeably plain and modest inscription chiseled in the granite, "W. P. I. 1888."

INTER-COLLEGIATE FIELD-DAY.

The college men had been coming on all the trains, till the city was full of them, by far the largest delegation being from Amherst, although Dartmouth too, was well represented. The interest in the games was quite general in Worcester, so that, by quarter of two, the grand stand at the Park was being rapidly filled by the stream of people who were pouring in at the main entrance. The attendance was about 1,800, a good proportion being ladies. The Amherst fellows drove to the grounds in a coach, displaying from the top their large banner, which, during the rest of the day, occupied a prominent position in the front of the grand-stand. Music was furnished by the Worcester Brass Band before and during the events, and, altogether, everything conspired to make the occasion a pleasant, not to say an exciting one.

The first event, the quarter-mile run, was started somewhat after 2 o'clock, and when the eight men came down the home-stretch, they found a well-filled grand-stand to cheer them on. The race was not a close one, the second man, Bulkeley, of Trinity, being thirty yards behind the winner, Gove, of Dartmouth, at the finishing tape. Time, 58 sec.

The second event, the tug-of-war between Brown and Dartmouth, was not an interesting one. The Brown men appeared to be capable of giving the Dartmouth giants a hard pull, but the manner in which they settled to their work showed them to be very deficient in a knowledge of tug-of-war tactics. Dartmouth won the drop and pulled in excellent form, taking no less than eight inches of rope from their opponents.

In the two-mile run the Techs looked to Bartlett as a possible winner of the event. He ran in as good form as any of the starters, and at the end of the third lap spurted finely to first place, but retired soon after. The feature of the race was the spurt on the home-stretch...
by Ellis, of Dartmouth. He came in at a remarkable speed, ten feet at a stride, and finished in 10 m. 24½ sec., beating his own record of last year. Gilbert, of Amherst, came in a poor second.

The three preliminary heats of the 100-yards dash were all exciting, especially so to Worcester men, who looked forward expectantly to their favorites, Allen and Dadmun. It may not be out of place to mention here the many compliments showered upon these two runners for their fine showing. They were certainly the prettiest sprinters on the field, and demonstrated clearly to the Techs, at least, that they were the fastest. Allen took second in the first heat in a beautiful race with Jacobs, of Amherst, the winner. In the second heat, Dadmun, although set back a yard, won easily, with Mendenhall, of Brown, a poor second. In the third heat, Cooke, of Brown, and Keay, of Dartmouth, were first and second respectively.

The final heat was perhaps the most exciting race of the day. Keay, of Dartmouth, won in 10½ sec., with Allen and Dadmun so close to him in the order named that the race was almost a dead heat. Dadmun more than made up the yard which he lost by a false start.

The standing high-jump was a long and tedious contest for second place between Cooke, of Brown, Barrows, of Dartmouth, and Garfield, of Amherst, each of whom jumped 4 ft. 9½ in. The men finally tossed up for it, and the prize went to Cooke. Crook, of Williams, won first prize with 4 ft. 11½ in.

In the mile run there were thirteen starters, which number rapidly diminished towards the close of the race. Wells, of Amherst, ran in fine form, finishing first in 4 m. 40½ sec., Lee, of Williams, ten yards behind.

Ludington, of Amherst, won the running high-jump easily by a jump of 5 ft. 4¼ in. Amadon, of Williams, and Cobb, of Dartmouth, were tied for second place at 5 ft. 3¼ in.

The hammer throw was uninteresting. Bodwell, of Dartmouth, broke his own record of last year by over 6 ft., throwing 82 ft. 9½ in. His nearest competitor was Selleck, of Williams, who threw 75 ft. 2 in.

The Amherst men looked forward to their favorite, Sherman, as the winner of the mile walk. He, however, was evidently too anxious to make a record, and was fairly warned several times to refrain from running. He persisted, however, and the judge who was watching him finally drew him out of the race, and there is no doubt that he was fully warranted in his action. The Amherst boys showed their disapproval by a chorus of hisses, which were decidedly out of place and displayed their character in a light which is to be much regretted. The withdrawal of Sherman gave the race to Bradford, of Worcester; time, 8 m. 14 sec. White, of Williams, was a poor second.

The second tug-of-war contest was a severe struggle between Williams and the Tech. Williams won the drop by 1½ in., but the excellent coaching and anchoring of Bartlett brought the rope over to the Tech's side by an inch. The Williams men, however, by heaves at opportune moments, won back their advantage and the three minutes ended with an inch of rope in their favor. The Techs were in fine form during the entire pull, and made an excellent showing.

The pent-up enthusiasm of the Techs found relief in the next event, the 220-yards dash. Allen won the first trial heat and Dadmun the second, and each time the "Rah! Rah!! Rah!!! T-E-C-H!" sounded forth in full volume. Dartmouth and Amherst waited for the final heat, and then, as the men came down the track, cheered their men on. Allen and Dadmun were running beautifully, the latter, however, being slightly in the rear. Then the Tech cheer sounded again and again, and when Allen breasted
the tape in 23\frac{3}{4} sec., breaking the previous record of 24\frac{3}{4} sec., the "steel-gray and cardinal" waved forth its victory from every part of the grand-stand. It was really one of the most brilliant victories of the day, and very prettily won. Dadmun nearly wrested second place from Gove, of Dartmouth, with whom he ran a close race.

The two-mile bicycle race was a very interesting contest. Sparhawk, of Dartmouth, held the lead for a mile with Harriman, of Worcester, second. Harriman spurted finely on the last lap and took a bold lead which he held till the last moment, when Delabarre, of Amherst, who had been closely following him, passed and won by a length, making a record of 6 m. 51 sec. Matthewson, of Worcester, though he did not come up to the expectations of his admirers, yet finished fourth in good form. Amherst went wild over this event, and vented their enthusiasm in most extravagant style.

The standing broad-jump was a most dry and tedious contest, to the spectators, at least. The men were made to jump from a scratch, contrary to the generally accepted custom. This change handicapped some of the men considerably. Crook, of Williams, won, breaking his last year's record by a jump of 10 ft. 5\frac{3}{4} in. Garfield, of Amherst, second, with 9 ft. 11\frac{1}{4} in.

In the half-mile run Worcester looked to White as the winner, but Porter, Amherst's favorite, in spite of his injured condition, ran the race in fine style, winning in 2 m. 6\frac{3}{4} sec. Lee, of Williams was second; with White, of Worcester, a good third.

Although the main object of the pole vault is to clear the greatest height, yet it is one of the events where the style of the performance appeals very forcibly to the spectators. Though Warriner, of Amherst, won the event with 9 ft. 7 in., yet not a little of the success of the event belongs to Marshall, of Worces- ter, who contested so long with Shannon, of Trinity, for second place. It is safe to say that no one on the field was watched so closely, and applauded so sincerely as Marshall. The grace and ease with which he swung himself over the stick was superior to any of the other contestants, and his vault of over 9 ft., when it is considered that his own height is just about half of that distance, is something remarkable.

The 120-yards hurdle race was the occasion of considerable excitement. Ludington, of Amherst, easily won the first heat in 19 sec., and Keay, of Dartmouth, took the second heat, Dadmun, of Worcester, holding second place with no effort. In the final heat, the race evidently belonged to Keay, but, after jumping the last hurdle, he slipped and fell, and the race lay between Dadmun and Ludington, who were close behind him. The chances were about even, and it seems as if the wise thing would have been to declare the race a tie between these two men. But the judges did not see it, and the race went to Amherst.

Putting the shot was another event in which the spectators had no interest. The contest was quite close, however, Chandler, of Dartmouth, taking first with a "put" of 33 ft. 1 in., while Watkins, of Amherst, was a close second with 32 ft. 7\frac{3}{4} in.

The running broad-jump was the event which the Techs most felt the loss of. Jewett, the man who should have been the winner, holds the Institute record of 21 ft. 2 in., and had his ankle been in condition there is little doubt but that the distance covered by him in the event would have approached 22 ft. He demonstrated the fact clearly enough that he could jump 20 ft., which many of the college men had been so bold as to doubt, but Warriner, of Amherst, won the event, making 20 ft. 2 in., just one foot under Jewett's record.

The final tug-of-war was a good one, and the comparatively light team of
Williams pulled admirably against their heavy opponents from Dartmouth. The centre of the rope alternated from one side to the other throughout the pull, and when time was called was directly on the scratch. Another trial was made and the victory went to Dartmouth by four inches. The form of the Dartmouth team, in both tugs, was in every respect excellent.

The result of the afternoon's work by colleges, was as follows, which shows that Worcester, although the last, is not the least of the institutions who have joined the N. E. I. A. A. No second prize was given in the tug-of-war.

<table>
<thead>
<tr>
<th>College</th>
<th>1st</th>
<th>2nd</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amherst</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>Dartmouth</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Worcester</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Williams</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Trinity</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Brown</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Wesleyan</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Of the records of last year Dartmouth improved five, Amherst, three, Worcester, two, and Williams, one. This fact, it will be seen, places Dartmouth very nearly on a level with Amherst although the latter leads in prizes won.

Amherst's joy knew no bounds when the result was known. After cheering till they were hoarse, her men formed in line, carrying their banner, and marched away singing jubilantly. The meeting was a very successful one, eleven records being broken. A great deal of the day's success was due to the efficient manner in which the referee, Mr. Carr, performed his duties. There was but one fault to find, and that was in regard to the posting of the score after each event. This was not done at all satisfactorily, and the spectators found it next to impossible to fill their score books correctly. Even the reporters who were present got varying results.

And in closing we wish to mention one thing which we have heard commented upon several times since the sports, and that is the gentlemanly appearance of the college delegates, there being none of that boisterous recklessness which so often accompanies student gatherings. Worcester people appreciate such things, and we prophesy that, if the sports are held here next year, and they undoubtedly will be, the attendance will be still larger than it was the 24th.

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### MAY 24. INTER-COLLEGIATE FIELD MEETING. 1888.

<table>
<thead>
<tr>
<th>EVENT</th>
<th>WON BY</th>
<th>COLLEGE</th>
<th>SECOND</th>
<th>COLLEGE</th>
<th>RECORD</th>
<th>N.E.I.A.A. RECORD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quarter-Mile Run.</td>
<td>Gove</td>
<td>Dartmouth</td>
<td>Bulkeley</td>
<td>Trinity</td>
<td>53 s.</td>
<td>54 2-5 s.</td>
</tr>
<tr>
<td>Two-Mile Run.</td>
<td>Ellis</td>
<td>Dartmouth</td>
<td>Gilbert</td>
<td>Amherst</td>
<td>10 m.244-5 s.</td>
<td>10 m. 36 s.</td>
</tr>
<tr>
<td>100-Yards Dash.</td>
<td>Keay</td>
<td>Dartmouth</td>
<td>Allen</td>
<td>Worcester</td>
<td>10 3-5 s.</td>
<td>10 4-5 s.</td>
</tr>
<tr>
<td>Standing High Jump.</td>
<td>Crook</td>
<td>Williams</td>
<td>Cooke</td>
<td>Brown</td>
<td>4' 11/1&quot;</td>
<td>4' 11/1&quot;</td>
</tr>
<tr>
<td>One-Mile Run.</td>
<td>Wells</td>
<td>Amherst</td>
<td>Lee</td>
<td>Williams</td>
<td>4 m. 40-5 s.</td>
<td>4 m. 39 s.</td>
</tr>
<tr>
<td>Running High Jump.</td>
<td>Ludington</td>
<td>Amherst</td>
<td>Cobb</td>
<td>Amadon</td>
<td>5' 44/1&quot;</td>
<td>5' 6/1&quot;</td>
</tr>
<tr>
<td>Throwing Hammer.</td>
<td>Bodwell</td>
<td>Dartmouth</td>
<td>Selleck</td>
<td>Williams</td>
<td>82' 9/1&quot;</td>
<td>76' 4/1&quot;</td>
</tr>
<tr>
<td>One-Mile Walk.</td>
<td>Bradford</td>
<td>Worcester</td>
<td>White</td>
<td>Williams</td>
<td>8 m. 14 s.</td>
<td>8 m. 14 s.</td>
</tr>
<tr>
<td>220-Yards Dash.</td>
<td>Allen</td>
<td>Worcester</td>
<td>Gove</td>
<td>Dartmouth</td>
<td>238 s.</td>
<td>24 2-5 s.</td>
</tr>
<tr>
<td>Two-Mile Bicycle.</td>
<td>Delabarre</td>
<td>Amherst</td>
<td>Harriman</td>
<td>Worcester</td>
<td>6 m. 51 s.</td>
<td>7 m. 4 2-5 s.</td>
</tr>
<tr>
<td>Standing Broad Jump.</td>
<td>Crook</td>
<td>Williams</td>
<td>Garfield</td>
<td>Amherst</td>
<td>10' 52/1&quot;</td>
<td>10' 44/1&quot;</td>
</tr>
<tr>
<td>Half-Mile Run.</td>
<td>Porter</td>
<td>Amherst</td>
<td>Lee</td>
<td>Williams</td>
<td>2 m. 64 s.</td>
<td>2 m. 3 2-5 s.</td>
</tr>
<tr>
<td>Pole Vault.</td>
<td>Warriner</td>
<td>Amherst</td>
<td>Shannon</td>
<td>Trinity</td>
<td>9' 7/1&quot;</td>
<td>9' 6/1&quot;</td>
</tr>
<tr>
<td>Hurdle Race.</td>
<td>Ludington</td>
<td>Amherst</td>
<td>Dadmun</td>
<td>Worcester</td>
<td>No time</td>
<td>18 2-5 s.</td>
</tr>
<tr>
<td>Putting Shot.</td>
<td>Chandler</td>
<td>Dartmouth</td>
<td>Watkins</td>
<td>Amherst</td>
<td>33' 1/1&quot;</td>
<td>32' 4/1&quot;</td>
</tr>
<tr>
<td>Running Broad Jump.</td>
<td>Warriner</td>
<td>Amherst</td>
<td>Jewett</td>
<td>Worcester</td>
<td>20' 24/1&quot;</td>
<td>19' 83/1&quot;</td>
</tr>
<tr>
<td>Tug of War.</td>
<td></td>
<td>Dartmouth</td>
<td></td>
<td></td>
<td>4/1&quot;</td>
<td></td>
</tr>
</tbody>
</table>
BASE BALL.

The fourth game in the Class series between the Middlers and Preps resulted in a victory for the former. The game was marked by very loose playing on both sides. The score:

\[
\begin{array}{cccccc}
\text{A. B.} & \text{R.} & \text{I. B.} & \text{T. B.} & \text{P. O.} & \text{A. E.} \\
\text{Marshall, 3b.,} & 6 & 4 & 1 & 2 & 0 & 0 & 1 \\
\text{Hartwell, c., c. f.,} & 6 & 5 & 2 & 2 & 5 & 6 & 4 \\
\text{George, 1b.,} & 6 & 4 & 2 & 2 & 12 & 0 & 0 \\
\text{Allen, 2b., c.,} & 6 & 1 & 2 & 2 & 7 & 0 & 3 \\
\text{Rheutau, c. f., 2b.,} & 6 & 1 & 0 & 0 & 2 & 0 & 0 \\
\text{Hadley, p.,} & 6 & 2 & 0 & 0 & 0 & 12 & 10 \\
\text{Leland, l. f.,} & 6 & 0 & 0 & 0 & 0 & 0 & 1 \\
\text{Sessions, r. f.,} & 5 & 2 & 3 & 3 & 0 & 0 & 1 \\
\text{Nelson, s. s.,} & 5 & 3 & 1 & 2 & 1 & 2 & 3 \\
\hline
\text{Totals,} & 52 & 22 & 11 & 13 & 27 & 20 & 23 \\
\end{array}
\]

\[
\begin{array}{cccccc}
\text{A. B.} & \text{R.} & \text{I. B.} & \text{T. B.} & \text{P. O.} & \text{A. E.} \\
\text{Kimball, c., s. s.,} & 7 & 4 & 3 & 3 & 1 & 1 & 1 \\
\text{Crane, 1b.,} & 7 & 1 & 0 & 0 & 11 & 0 & 0 \\
\text{Fiske, s. s., c.,} & 7 & 3 & 3 & 3 & 3 & 9 & 8 \\
\text{Dadmun, p.,} & 7 & 2 & 2 & 2 & 3 & 2 & 8 & 2 \\
\text{Metcalf, 2b.,} & 6 & 2 & 0 & 0 & 1 & 1 & 3 \\
\text{Fish, c. f.,} & 6 & 3 & 3 & 4 & 1 & 0 & 1 \\
\text{Kinsley, l. f.,} & 6 & 2 & 1 & 1 & 1 & 0 & 6 \\
\text{Davis, r. f.,} & 6 & 2 & 2 & 2 & 0 & 0 & 0 \\
\text{Bradford, 3b.,} & 6 & 1 & 0 & 0 & 4 & 0 & 5 \\
\hline
\text{Totals,} & 58 & 20 & 14 & 16 & 24 & 19 & 26 \\
\end{array}
\]

Score by innings:

\[
\begin{align*}
'89 & : & 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 \\
'91 & : & 0 & 0 & 1 & 1 & 3 & 5 & 0 & 7 & 20
\end{align*}
\]

E. G. Penniman, Umpire.

Scientific Notes.

A new micro-radiometer, consisting of a thermo-electric circuit suspended by a torsion fibre in a field of force, registers a change in temperature of one ten-millionth of one degree centigrade.

It has often been proposed to substitute cocoanut fibre for steel as ship armor. It is claimed that the elastic fibre will resist the action of a ball better than steel. According to the Birmingham Age, France is building as an experiment, a vessel provided with this novel armor.

Tests of the speed of the electric current over telegraph wires show that signals are transmitted at the rate of 14,000 or 16,000 miles per second. On wires suspended high above the earth, a speed of 24,000 miles per second has been registered.

A little instrument which promises to save a vast amount of gray matter for amateur photographers, is in use in France. It is a radiometer, an instrument in which small vanes are rotated by the action of light. It may be used for timing exposures, for whatever may be the intensity of the light, an equal number of revolutions of the radiometer represents a correspondingly complete exposure of the plate.

The rapid advance along the line of economy and efficiency in the use of steam as a motive power is strikingly illustrated by a statement in one of our engineering journals to the effect that the average speed of English railroad trains is fourteen per cent. higher than that of twenty years ago, while the average quantity of coal consumed is about half of that then used.

The Electrical Review publishes a report of tests made by Sir William Thomson and others upon the Priestman Petroleum Engine. In this engine,
petroleum vapor is exploded in a cylinder, the working being similar to that of an ordinary gas engine. Starting with this report as a basis, Science proceeds to demonstrate the economy of private electric-lighting plants. Taking everything into consideration, it is found that the same amount of light produced by burning 1,000 feet of gas will be furnished by an incandescent plant at a cost of $1.45.

Science has lately offered a possible endorsement of what has been generally regarded as a foolish, unreasonable fancy. We have all been advised to sleep with our bodies lying along a north and south line, so that the electric currents of the earth and of our bodies might flow in the same direction, and we have ridiculed the idea. The French Academy of Science has recently experimented with the body of a guillotined man. The body was placed so that it was free to turn about a pivot. After swinging back and forth for a time, it came to rest, lying in a north and south direction. When displaced, it invariably assumed again its original position. Such is the fact. You may build the superstructure of theory to suit yourself.

**College News.**

Cornell has a young woman who is taking the course in Mechanical Engineering.

The students of Ohio Wesleyan have raised $1,500 to fit up base-ball grounds.

A course in the art of writing plays for the stage has been established at Michigan University.

The girls at the Bryn Mawr Women’s College wear the Oxford cap and gown.

The students of Dickinson College have been warned not to give their class yells on the streets, as each offender will be fined $10.

The class book of the Seniors of the Yale Sheffield Scientific School gives the average expenditure per year for each man as $970.

Greek-Letter fraternities are prohibited by Princeton, Oberlin, Monmouth and Georgetown University.

Williams College will send a scientific expedition to the Bahamas this summer to make explorations in biology.

The Harvard Freshman nine are compelled to attend the voluntary morning prayers in order to secure regularity in the morning practice.

The following colleges have reported more than 1,000 students: Harvard 1690, Columbia 1489, University of Michigan 1475, Oberlin 1302, Yale 1134, Northwestern 1100, University of Pennsylvania 1069.

The corporation of the Massachusetts Institute of Technology announces the discontinuance of its school of mechanic arts.

The University of Pennsylvania has acquired the library of the late August F. Pott, of Halle-a-Salle, Germany. This is an addition of nearly 10,000 rare philological works.

A Chinese girl recently took the highest honors of her class in the Women’s Medical College in New York City. She could converse and write accurately in five languages.

The plan of having Monday for a holiday instead of Saturday has been tried at Cornell and is a success. It is reported that several other colleges are contemplating the change.

The committee appointed by the Senior class at Yale to obtain a suitable class ivy, have succeeded in getting a root from the famous ivy growing on the old castle of Henry IV., at Pau in France.

About half the colleges in the United States publish papers. The *Notre Dame Scholastic* has a larger circulation.
than any other college paper, 1,250 each issue. The Dartmouth comes next with 1,150.

Manager Bancroft is endeavoring to persuade the Harvard and Yale College teams to make a tour of England under his direction during the summer vacation. His idea is to play ball one day and cricket the next.

During a five-hour session the Yale corporation refused to grant the petition signed by a thousand graduates to leave the historical "fence" intact. Not a single member of the corporation favored granting the petition.

President Seelye of Amherst College, is gifted with a remarkable memory. He is able to greet by name every living graduate of the college whom he has ever met, and Freshmen who have not been in college a week are surprised to hear the President address them by their first names.—N. Y. Tribune.

Cornell University is to have a department of journalism. At the opening of the fall term, classes will be formed from the seniors, juniors and post graduates. Professor Brainerd Smith will give a series of lectures on the condition of newspaper work to-day in the great cities. Two classes will be organized very much like the city staff of a large newspaper, Prof. Smith acting as managing editor, and instructions will be given in the editing of copy, in condensing it, preparing it for the printer and writing head-lines.

The number of cuts allowed in some of the leading colleges are as follows: At Yale, 24 to the Seniors and Juniors per year, to the sophomores and freshmen, 18; at Williams, 30 "cuts" from chapel and recitations; at Dartmouth, 25; at Amherst and Wesleyan a student must be present at nine-tenths of the recitations in each branch; at Hamilton, 45; at Harvard, Cornell, Michigan University and Johns Hopkins, attendance at recitations and chapel is optional.

In the Oberlin Review for May 29 is a communication from the editor-in-chief of the Amherst Student explaining briefly, the practical working of that unique organization known as the Amherst Senate. An extract follows:

"The power of the Senate is that it is a means of expressing in actual, and therefore influential form that rather hazy idea which we are wont to call 'College Spirit,' and of bringing undergraduate opinions definitely before the Faculty and the College. The Senate is more than a police organization, more than a collection of ten students to instruct the Faculty and to act for the College; it is more than a mediator between instructors and students—it is above all the miniature of the college itself. In Amherst, it has always been a conservative body, slow to act, and therefore, with every year it has seen an increase in its power. The student body is beginning to trust it and to rely upon it. The Senate has come to stand for it in the realization of a wise idea. * * * Our government is anything but one of the 'paternal' variety. I should rather pronounce it eminently 'fraternal.' The Senate has aided greatly toward this, for its institution showed the desire of the Faculty to meet the students half-way."

It appears from this that the "Senate" is, after all, of some value. In times past, it has been wrongly considered as something exceedingly dignified, but perfectly innocuous. If the experiment is tried at Oberlin (it seems they are thinking of trying it there), its outcome will be watched with considerable interest.

The students at Middlebury College, if one is to judge from the Undergraduate, are intensely excited over national political issues. An item in the May issue indirectly states that there is considerable "political brawling which now banishes quiet from our dormitories and boarding-houses." The school paper is affected sufficiently by this "brawling" to print such articles as "Why I am a Democrat," "Why I am a Republican," et cetera. Even the exchange editor uses the phrase "ghoulish glee" and the expression "innocuous desuetude" occurs in a communication. If the stu-
dents at Middlebury derive enjoyment from becoming intensely excited over national political issues, no one would wish to deny them that pleasure, but the editor of the Undergraduate ought to give the political essays which are submitted to him a most thorough revision, weed out all italicized words and exclamation points, and then, just before sending such copy to the printer, carefully burn it.

The Illini (University of Illinois) contains an account of a field-day held by the University. The prizes taken by the winners of the several events were novel, but none the less acceptable, we should imagine. Among other things were given base-ball shoes, watch-chain, slippers, perfume, hat, box of confectionery, suspenders, clock, cuff-buttons, shaving and bath tickets, and silk umbrella. And, sad to relate, there were also offered as prizes, cigars and cigar-holders. One particularly fortunate student received a whole box of cigars for putting the shot 23 ft. 6½ inches. That settles it. The University of Illinois must certainly be steeped in iniquity.

The saucy local editor of the Beacon (Boston University) kept a strict account of the attendance of the Faculty at Chapel during the month of April and published the result of his statistical labor in the May number of his paper. His little list probably made highly interesting reading for the persons interested. Out of nine professors, five found themselves “conditioned,” for they had not obtained the required average of forty per cent. One of the conditioned ones, Prof. Buck, is very deep in the hole. He was absent twenty-one times and present only once. The remaining four are bunched closely for second place with a general record of eighteen absent marks out of a possible twenty-two. We fear that the Beacon will make itself unpopular by its disclosures of family secrets.

Technicalities.

Prof. (holding up a piece of cloth which he has just dyed): “You see the color given by this dye, a sort of rose madder. Now, I will just dry it in this towel. There, now you see the true color of the dye.” (Holds up a white rag. Laughter by the class and confusion of the Prof.)

We have received the following note of inquiry:

Mr. Editor:—Will you please inform me through your columns as to what is the most efficient form of motor yet devised.

“Steam.”

[We would inform our correspondent that it is believed that the simple acting carpet tack has the greatest efficiency yet attained. It has, under favorable circumstances, been known to raise a 140-pound man four feet in one-tenth of a second. The remarks which he made simultaneously with the impulse probably generated about 17,000,000 B. T. U. of heat. Eds.]

(Recitation in Mechanics—Professor explaining a rule for laying out involute teeth.)

Student: “Professor, I don’t understand that rule, I think you are working around a circle.”

Professor: “Yes, but you generally work around a circle in laying out gears, do you not?”

Senior (to professor in thermodynamics): “Professor, I think, nevertheless, you do get a lot of outer latent heat back when you are sandpapering a piece of iron in a lathe, for instance.”

Prof. (to student at the close of a year’s course in chemistry): “Now, Mr. —______, please tell us what is Hydride of Oxygen.”

Student (after a lengthy pause): “Give it up, Professor.”
Prof. (after explaining the mysteries of arithmetical progression): "Now, how many of the five quantities must be known to find the other two?"

Heard in a lecture: "Cold sulphuric acid has no action on tin, but cold sulphuric acid heated will attack it easily."

The Q. T. V. Fraternity celebrated the close of its second year in the school by a supper at their rooms, on the evening of June 2. A very enjoyable evening was passed; the toasts, being especially good, were received very enthusiastically by the members. The Worcester chapter starts on its third year with a very flattering outlook for the future.

The Y. M. C. A. have elected the following officers for the ensuing year: President, E. Pickwick, '89; Vice-President, A. L. Bean, '89; Corresponding Secretary, A. P. Smith, '90; Recording Secretary, E. S. Frary, '90; Treasurer, H. E. Austin, '90.

When one of the gentlemen, in his speech at the laying of the corner-stone, said that eight years after the building of the Public Library, the beacon light of the W. P. I. was kindled upon the hill, there was a great stir in the audience. All were wondering if it was against the rule to have bon-fires then, and if they had to pay fifty dollars for their fun, as has been the custom in recent years.

The appearance of the path and the ground about the Electrical building has been vastly improved by the grading that has been done and when the grass springs up the scene will approach perfection.

There has been some question as to the meaning of the two hearts upon the new seal of the Institute. Someone has suggested that the large heart represents the size of the student's vital organ, when he first enters the Tech and the small one when he graduates. For, don't you see, he loses heart so many times during the course.

**A STORY WITH A MORAL.**

It is customary for members of the Junior class to act as ushers on Commencement Day. On the 28th day of June, this year, a benevolent old gentleman with high-water pants and the latest Paxton style in straw hats will enter the shop under the guidance of a '90 man, stop in wonderment before the '88 cabinet lathe, and ask,

"What is this?"

"This machine," the '90 man will say in reply, "is the cabinet lathe built by the graduating class. It will turn out a complete cabinet, with a lock on the door, in 47 seconds."

"Indeed!"

"Yes, they put the lumber in at this door, and the nails and screws in here, then they put on the power, so, and pretty soon the cabinet begins to issue forth at this opening. This handle is called the side-board attachment. When you pull it towards you, so, the cabinet is changed to a side-board. If you touch this knob here, like this, it opens the shellac and varnish valves and applies any desired kind of finish. See?"

"Well, I never," the old gentleman will exclaim, "what won't they do next!"

"But the best part of the machine," the Junior will continue, "is this little nickel-plated screw here. You understand, of course, that the handling of so many boards and nails is very fatiguing to the average workman. Well, when he feels particularly fatigued, he turns this screw to the right and the machine prepares a milk shake and sets it away in this cavity to cool until the operator gets time to drink it. This increases the efficiency of the lathe at least 25 per cent. Are you interested in machinery?"

"Well, just a little," the old gentleman will say, smiling, "I've been making cabinet lathes down in Hartford for about thirty years, and I thought
I'd come up here to-day and see if the Washburn Shops had infringed on any of my patents. I am very much — .”

But at this stage of proceedings our '90 man will sneak to the boiler room and ask George to put him under the boiler where he will have a chance to cool off.

**Museum of Antiquity.**

**INELICE.**

I LOOK at him, and blush, I know,
He looks at me and brightly smiles;
And then, perhaps, confused I grow;
I know not other maidens' wiles,
I am just as silent as a mouse.

For fortune has not smiled on me,
I know not one of fashion's laws,
Mine was the school of poverty.
And he cares not for me, because
I'm the waiter at his boarding-house.

—Brunonian.

**WHY do the ladies all admire,**
Much more than's to your liking,
The man who comes up to the bat?
Is it because he's striking?
—Yale Courant.

**THE MAIDEN'S REPLY.**

I WAS from Boston, and she from the West,
She sat with her beautiful head on my breast.
I loved her! to-morrow I knew we must part,
And in Browning's own words I poured out my heart:

"Let it be now, love! All my soul breaks forth—
How I do love you! Give my love its way!
If man can have but one life and one death,
One heaven, one hell, let me fulfill my fate—
Grant me my heaven now! Let me know you mine!
Prove you mine, write my name upon your brow,
Hold you and have you, and then die away,
If God please, with completion in my soul!"

I felt her arms around my neck entwine,
Her limpid eyes looked up into mine:
I waited her answer, so soft and low:

"Say it again, and say it slow!"

—E. B. B. in Life.

"Yes," said a base-ball man, "I'm discouraged, and have given up the business forever. Why, in the first game they got on to me in the second inning, and pounded me all over the field." "That ought not to discourage you. Many a pitcher has had similar luck." "Yes, but I was not the pitcher; I was the umpire." —*New York Sun.*

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**Alumni, Students and Friends of the**

**W. P. I.**

The members of the Class of '88 beg to call your attention to the

"**LOG OF '88,**"

their Class-book, which will be ready for distribution on Class-day, June 27, 1888. Although undertaken primarily to provide a souvenir of their Tech life, it will be edited upon a broad basis, and will contain in a unique and attractive form a summary of all that is of interest concerning the Polytechnic. It is the purpose of the editors to edit a book which shall be a credit to themselves and to all in any way interested in the good name and prosperity of their Alma Mater. Owing to the many engravings and the superior quality of the typographical work used, the subscription price will be ONE DOLLAR.

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