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There is scarcely anything conceivable that is more disagreeable than harping on an old worn-out theme. It is distasteful to us, and wearisome to our readers, yet we are going to sacrifice ourselves to the cause, and risk your disapproval by once more discussing a much-talked-of, long-hoped-for, and now, almost-despaired-of thing. The Intercollegiate meet brought forcibly to our mind once more the fact that the Institute cannot hope to make its mark in athleties till some different system of training is established here. This cannot be done until Tech has a suitable track and field on which to train. We grant you there is not a better place in New England to train on than the Worcester Oval-if we had it where we could get at it.

To do proper training, a man requires at least an hour and a half a day on the grounds. How is it under existing circumstances? A man gets out of the recitationroom at 4.30 , must catch the 4.45 "dummy" for the Lake, and has to leave there by six o'clock. The result is that he has to run a half-mile to catch the train, reaches the Oval tired out, hurries into his running suit, tries one or two starts, runs his distance, dresses on the jump, goes back to the city, makes a dash for his supper, and bolts it whole. This process he goes through on an average of four times a week. What encouragement is this for a man to train? What kind of training is it? What does it amount to? Just this! When it comes time to enter the
contest, he is in just good enough condition to win fourth place.

These are cold, plain facts and indisputable. If we had an athletic field near the Institute how different it would be! It would be a pleasure for men to enter athletics. With well-arranged dressing-rooms, shower baths, etc., a man could take care of his physical condition, after taking his exercise, would have time to do his training properly, and when he entered a contest would be able to do himself and the Institute justice.

A field with proper equipments would not only be a source of gratification and benefit to the students, and bring athletics up to a standard never yet attained at the Institute, but would do more to draw students to our college and to keep them unified and interested in all branches of their work here than almost any step that could be taken.

It is time action was taken. With the rapid growth of the section of the city near the Institute all chance of securing a suitable field will soon be lost. To-day there are but two places that would be suitable even could they be secured, and one is much to be preferred on account of its proximity to the Institute So much has been said about the latter that it is unnecessary to make further comment here. We refer to the piece of ground at the foot of Tech Hill, between Institute Road and Highland Street. But if securing this field is out of the question, there is another spot that would make an excellent athletic field, could be equipped for less expense, and on account of its being less valuable, would perhaps be more within our reach. This field is the old Grove Street ball-grounds. It is an easily accessible spot, well adapted to our needs. Grounds near the Institute would not only be a boon to athletics, but would be a paying investment. But all these points have been discussed time and time again. What are we going
to do? Don't let this matter drop! Now is the time to act! Students, alumni, and friends of the Institute, we appeal to you: Unite your forces, and see if something cannot be accomplished:

A son of a graduate has applied for admission to the Institute in the class of 1900. This appears an insignificant statement, but to Tech men it is one of interest, for it is the first instance of the kind in the history of the Institute. The first class was graduated from Tech in 1871, and it is a member of that class whose son is about to enter next fall.

The simple statement carries with it a multitude of reflections. What changes our Institute has undergone since the seventies ! How much better advantages and facilities are offered to the present generation, than were open to the preceding one! How an alumni, with sons fast growing to manhood, may do an untold amount of good in advancing the interests of Tech! The joy it must give a father to see his son fitting himself for his life-work, in the same place, in some of the same rooms even, where he, too, in years long past, pursued the same hard, yet pleasant, " road to knowledge" : What a pleasure it must be to a student to think that his own father once experienced, if not all the advantages, at least all the difficulties and trials, attendant upon a course at the Institute! These and many other pleasant thoughts will be brought to the minds of all Techs as they think of the incident. It is the first of the kind, but we hope and expect that others will follow, and continue to occur with ever-increasing frequency.

A member of the editorial board of the Brown Magazine has been suspended from college for plagiarism of an article which appeared in the April number of that magazine. We doubt if the punishment was any
too severe, for plagiarism is a thing that should be discouraged everywhere, and nowhere is there more need for it than among our college papers.

There is nothing that can justify this fault. No matter how much in need of an article an editor may be, or how much he may desire to publish a certain article, he should give credit to the original author. An editor who uses an article from another publication without proper acknowledgment, is just as guilty of plagiarism as is the one who publishes such an article over his own signature. This is a fact that should be impressed upon all our college journalists, and the fault is one that no editor should commit.

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## SENIOR CLASS-BOOK.

Ninety-six, with it usual amount of ambition, intends to push its class-book to the front rank of Tech "Aftermaths." It will be quite different from class-books of former years in several respects: there will be no public sale, as in previous years; no ads. of any kind will appear, and a much larger number of pictures will be shown. Cuts of all of the professors and instructors in characteristic attitudes, together with familiar scenes about Tech will be contained in ' 96 's book.

The book is designed exclusively as a class souvenir, by the class for the class, and matter not especially interesting to '96 has been left out.

Each member of the Senior class will have a certain number of books to dispose of as he likes, but Manager Vaughn will be able to furnish a limited number to those wishing to complete their file or to secure a pleasing souvenir of Tech. Very few will be on sale, so that those desiring books would do well to hand their names at once either to the Manager, or Editor-in chief Riley, as it is likely that they will go at a premium toward the latter end.

## MUSICAL ASSOCIATION.

The Glee Club elected its officers for the coming year Wednesday noon. They are as follows : Leader, L. P. Tolman; Manager, A. W. Merchant; Secretary, C. A. Burgess; Directors, Tolman, Burgess, Beckwith, Merchant and Wheeler.

## POLITICAL.

On May 20th, the McCall bill to restrict immigration into the United States was passed by the House of Representatives by a rising vote of 195 to 26 . This bill provides for the exclusion from the country of " all persons between the ages of 14 and 69 years who cannot read and write the English language, or some other language."
Mr. MeCall made a forcible and convincing plea for the adoption of his bill, and while it was expected that it would pass the House, the overwhelming majority by which it did so was a surprise even to its most ardent supporters.
A similar bill is now under consideration in the Senate, and the time is evidently not far distant when the tide of undesirable immigration to our shores is to be checked.

The past two weeks have witnessed the ceremonies attendant upon the corouation of Nicholas II., Czar of all the Russias. The event has been celebrated with all the pomp appropriate to the acts of so mighty a sovereign, and the cost to the nation has been something enormous. Splendid pageants, sumptuous banquets, and reckless expenditures for every department of the celebration have been the order of the occasion, and the people have footed the bills and cheered themselves hoarse into the bargain. It is to be hoped that the reign of the new Czar may be as brilliant with good works as his coronation has been with the glitter of tinsel.

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It is by no means certain that all danger of war between the United States and Spain is passed. The inflammable nature of the Spanish people and the hatred of American institutions with which it is imbued, make it quite possible for a crisis to be precipitated by even a comparatively unimportant event. A recent act of Gen. Weyler, the Spanish commandant in Cuba, in forbidding the exportation of tobaceo, was a direct blow at the interests of the United States and serves to illustrate the enmity his government bears towards ours. While of course it is to be earnestly hoped that we may not be involved in war of any description, yet a very large portion of our people would undoubtedly hail with delight an opportunity of aiding to free the Cuban insurgents from the yoke under which they are groaning. Reports of barbarities by the Spanisis soldiery are becoming altogether too common, and stories of atrocities too horrible for publication are brought to us from sources which make it imperative for us to accept them. It may be well for the Spanish butchers to beware how far they tempt the
spirit of humanity in the breast of the American people.

It is the custom of our nation to pride itself upon the fact that nowhere in the world may a man speak his thoughts so freely as under the banuer of the Union, but there are times when we regret that we have no provision for preventing liberty of speech from becoming mere license. When an ex-representative to the Congress of the United States publicly advocates the secession of a portion of the Union if certain sectional demands are not acceded to by the whole country, we regret that there is no law to summarily hang him and the emptyheaded traitors who compose his applauding audience. In a speech delivered but a few days ago before a convention, composed for the most part of free-silverites, ex-Representative Belford of Colorado emphatically declared himself to be in favor of a rebellion of the States west of the Mississippi against the lawful anthority of the government, provided the country at large refused to put silver on an absolute parity with gold. While such an action on the part of the silver-producing States is about as much to be anticipated as the falling of the heavens, yet that a public man, in his right mind, could be found to advise it in all seriousness, and that an audience, presumably composed of leading men, could be assembled to endorse the exhortation by its applause, seems almost incredible. Can it be possible that any sane man, whatsoever might be his political beliefs and affiliations, would willingly plunge the country into such another struggle as that of thirty years ago? Would any man with but a grain of patriotism or manhood within him wish to see the land again deluged with the blood of its bravest that a section of the Union might become enriched at the expense of the rest? It is to be hoped that the loyal spirit of the great West will flash its disapproval of Mr. Belford's utterances in lightnings that will purge the air of the taint with which his words have permeated it.

## A NEAT Little volume.

## Of Interest to Techs.

A few months ago there appeared a small book of verses written by men of every class the Institute has graduated. No similar volume has ever been compiled, and it was hoped that its publication would meet with approval and financial support.

There are about fifty verses in the book, which have all been taken from this paper or from the various class-books. Time-honored jokes, vers de societé, quips of the class-room and Institute peculiarities have been embodied
in the pages of this book, but all "grinds" on students and Faculty have been withheld. The verses are on a variety of topies, but are in each case strictly distinctive. In short, the book is of such a nature that it will be sure to prove amusing to every Tech man, whether alumnus, or undergraduate.
The sale so far has not been what was expected. and it is earnestly hoped that during commencement week many copies will be sold.

The cost of the book is but fifty cents, which certainly puts it within the reach of all the alumni at least. The "Echoes of Tech Verse" can be obtained at the stores of Putnam, Davis \& Co., the Sanford-Sawtelle Co., and A. F. Bragg, or at the monitor's room in Boynton Hall. It it will be sent by mail on application to F. W. Treadway, Cleveland, Ohio, or to J. W. Chalfant, Jr., '96.

## SENIOR THESES.

## Mechanical Engineering.

The Seniors have nearly completed the tests and preliminary work upon their theses, but as yet the results have not been worked up.

Southwick and Ross have been running tests upon the engines at the Worcester Corset Co.'s plant, including the compound designed by G. I. Rockwood, '88. Tests have also been run upon the boiler and dynamo, and later a test will be run upon the whole plant.

Fuller and Walker have run several tests upon the Alden triple-expansion engine at the laboratory, both with and without reheaters between the cylinders, with and without exhaust valve.

The 100 H. P. Crossley gas engine at the plant of the Morgan Spring Co., at Barber's Crossing, has been tested by Parks, with the assistance of several Juniors, while Leonard tested the gas producer at the same plant, making analyses of the gas and determining the efliciency.

Riley and Jencks have conducted several experiments upon the Allis-Corliss engine at the power-house to determine the value of jackets. Tests have been run with the entire cylinder jacketed, with the heads jacketed and with the barrel jacketed.

Barbour and Phelps have determined the most efficient point of cut-off on the same engine.

Howe, who had for his subject, "The Design and Construction of a Dynamometer," accomplished part of the work in connection with the engine test at Barber's, and will complete it at the power-house.

Gifford has done some work on the Emery Testing machine in the way of experiments and drawings, which will be valuable to those using the machine in the future.

## ATHLETIC.

## Harvard, 2d, 15 : W. P. H., 2.

The first game of the year at the Oval was played May 16, Tech having as opponents the strong second team of Harvard, at whose hands Tech before suffered defeat by the score of 12 to 7. The Harvard men are a heavy batting team, having beaten the 'Varsity a few days before in a practice game, and Sanders' pitching seemed exactly to their taste as they hit the ball when and where they liked, and made safe connection with the ball for eighteen hits. Sanders did not seem to be able to find the plate and gave several bases on balls.

Outside of the box the team played a good game, the outfield especially showing improvement in handling ground balls, while the errors credited to the infield were for the most part excusable.

For Harvard, Gregory pitched a fine game, using good judgment and keeping the hits well scattered. The best stick work was done by Martin, Clark, Gregory and Morton.

The score :

Martin, c. f.
Holt, s. s.
Beale, 2 b.
Hayes, 3 b.
Clark, 1. f.
Bouve, 1 b.
Cariton, r. f.
Gregory, p.
Morton, c .
Totals,

## Zaeder, 3 b.

Knowles, 2 b.
Cullen, s. s.
Harris, c. f.
Booth, c. f.
Sanders, p.
Smith, 1 b.
Bunker, ! f.
Chamberlain, r. f.
Fisher, c.
Totals,

## Innings,

Harvard, 2d,
Polytechnic,
Earued runs, Harva base hits, Martin 2, Clark 1, Morton 1; three-base hits, Morton; stolen bases, Martin. Holt, Beale 2, Hayes 1, Clark 1, Bouve 1, Zaeder 2; first base on balls, Holt, Beale 2, Bouve, Knowles, Harris, Fisher; hit by pitched ball, Hayes, Zaeder; first base on errors, Harvard, 2d, 3, Polytechnic 1; struck out, Martin, Holt, Beale, Carlton, Sanders, Smith, Bunker; passed balls. Fisher 2; time of game, 1 hour 50 minutes; umpire, Delaney.
*Carlton and Hayes hit by batted ball.
**Knowles hit by batted ball.

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We, the undersigned, hereby certify that we have examined above report and found it correct.
L. L. CONANT,
R. S. RILEY,

Auditing Committce.

## Tennis.

At a meeting of the association held Tuesday noon, May 26th, the following officers were elected :-

President, Walker, '97.
Vice-President, Fish, '97.
Secretary and Treasurer, Hayes, '98.
Directors:-Storer, '97; Bicknell, '98; Coburn, '99.

## INTERCOLLEGIATE GAMES.

The annual field-day of the N. E. I. A. A., held last Saturday, is conceded by everyone to have been the most successful yet held in Worcester. For once, the rain forebore to descend, although at noon the sky was clouded. The energetie officials of the W. A. C., headed by clerk of course Harry L. Dadmun, hustled along the events, which began exactly on schedule time, so that the necessarily long program was run off at a few minutes after six.

The hopes of Tech men, which had been flying high this year, were doomed once more to disappointment. Time after time did we get men into the finals, seemingly with every chance of scoring, but in the final burst for the tape they fell back into the ruck, finishing just too far back to score.

We do not wish to eriticise the team, but it certainly seemed to spectators that in every case the men lacked training, as they ran well and strongly until the finish, where their lack of endurance showed disastrously.

Notwithstanding the discouraging reports circulated from Dartmonth, everyone really expected them to win, and they did so by a margin almost as large as that of last year. Stephen Chase again carried back to Hanover the same fifteen points that he captured last year, though he did not come near equalling last year's records.

The trials in the 440 yards dash were run in the morning, so as to shorten the long program of the afternoon, and to give the athletes time to recover. A. B. Davis, W. P. I., was in the first heat, with Stebbins, of M. I. T., the probable winner, and five other flyers. Davis was not in their class. The heat was won by Stebbins in $52 \frac{1}{5}$. In the second heat, Worcester's representatives were Vinal and Harrington. Harrington took the lead at first but was passed on the back stretch, and finally dropped out. The heat was won by Elliot of Amherst in $53 \frac{1}{5}$ seconds.

In the third trial, Vaughn, who was looked for to score, took the lead, and held it all the way, winning in 53 ?

The first event in the afternoon was the $100-$ yds. dash which was run in four trials, and a heat for second men. No Tech man was placed in a heat, although the times were all slow. In the final, O'Brien of Brown won out in $10 \frac{2}{5}$, with Sears second, and Christophe third, both of Dartmouth.

The next event, the half-mile run, which was won last year by Bolser of Dartmouth, was thought to be anybody's race this year, but Bolser upheld his reputation, and won in good
style in 2.03. "Tim" O'Connor ran the first lap well up in the bunch, but fell behind in the second and finished well back. Kendall of Bowdoin took second, and Boston of Dartmouth third.

The first two places in the high hurdles were conceded to S. Chase, and Horne of Bowdoin, but Lundgren was expected to take thid. He won his heat in good style, but in the final was beaten out by Mossman of Amherst, who had won the heat for second men. Horne and Chase had it out for first, Chase winning.

The slowest, and at the same time the most sensational event of the afternoon was the twomile bicycle. Two of the three trial heats were marked by accidents which might easily have been very serious, but which fortunately resulted only in bad scratches and bruises. Perkins, W. P. I., was the most unfortunate, and narrowly escaped serious injury. In the first heat Gary, last year's winner, took the lead at the start and held it through the race; on entering the second lap there was a spill, and Mossman, Stearns, and Gilman went down in a beap, throwing them out of the race. Gary set a fair pace and wou with Farnum second. The second heat was a loaf till the last lap, when Schipper of Brown came up and beat Donovan of Tufts to the tape. The last lap was also a miserable loaf until just before entering the last lap when they hit up the speed. Perkins had been riding in second place, and on entering the curve took a bad tumble, and all the men behind him went down in a heap. Perkins was badly done up and was taken to the hospital in an ambulance. Andrews, who had been riding in first place and thus escaped the general smashup, easily came in first, and Cole picked up his wheel and got second, qualifying for the final. In the final Gary led, setting a slow pace. On the last lap Gary spurted. Donahue of Tufts responded and even gained in the home stretch, but could not eatch Gary. Farnum took third.

Next came the finals in the 440 , the starters being the place winners in the morning trials. Vaughn took the lead and set a fast pace; he ran strongly in the lead to the middle of the last turn, when the field commenced to draw up. He made a noble effort, but finished fourth, completely used up. The place winners were Stebbins, M. I. T., Elliot, Amherst, and Ham, Dartmouth, in the order named. Time $52 \frac{3}{5} \mathrm{~s}$.

In the mile run Dartmouth again put her best foot foremost, the lucky man in this event being Pringle, who has developed during the last year into a fine runner. He took the lead after the first half and finished an easy winner. Tower of Wesleyan took second and Furbish of Am-
herst third. Cummings, the champion, was in poor form and was not a factor in the race.
H. H. Morse started for W. P. I. in the low hurdles, and although he has been in poor condition all the spring, was thought to have a chance to score. He ran in the first trial heat, and won it easily in $28 \frac{1}{5} \mathrm{~s}$. S. Chase did not have to run to win the next heat, which was done in 27 seconds. Mossman of Amherst got second. Horne of Bowdoin had an easy time beating Sparks of Trinity in his heat. In the heat for second men Mossman won, thus getting into the finals. Horne pushed Chase closely in the final heat, while Morse and Mossman had a close struggle for third. Chase won from Horne, and Mossman just beat Morse in the sprint from the last hurdle.

In the 220 flat Vaughn ran a fine race and won his trial beat. H. M. Warren also ran well and just missed qualifying for the semifinals. Vaughn was unplaced in his heat of the semi-finals, and in the finals O'Brien won his second race in $23 \frac{1}{3} \mathrm{~s}$. Elliot was second and Kendall of Bowdoin third.

In the mile walk Houghton of Amherst had designs on his own record, but did not quite touch it, although he won by balf a lap. H. L. Dadmun acted as judge of walking and did great execution. He even dared to warn Houghton, something which has never occurred before. The only fight was for second place and was taken by Tyzzer, with Bartlett third. Time $7.16 \frac{4}{5}$. Barbour walked pluckily, and if "Dad" had only ruled off a few more contestants, he would have scored.

The two-mile run was supposed to be a gift to Soule of Bowdoin, " a three-time winner," but he shared Cummings' fate in the mile and did not come near scoring. Braman raised the hopes of the Tech men by taking the lead and holding it well into the last lap, but he could not finish strong and was passed by Tower, Bean, and Sinkinson, who finished in that order in $10.27 \frac{4}{5}$.

The only field event in which a Tech man scored was the pole vault. In this, Scott and Traill were both entered. Traill dropped out at 9 ft .6 in . Scott vaulted well until the bar was raised to 10 ft . 3 in ., where he tied Morgan of Amherst for third place. Wilder took second at 10 ft .6 in ., and W yatt of Wesleyan cleared 10 ft . 8 3in., almost the record. Scott vaulted well, and will be heard from in a year or two.

In the shot put, Bowdoin sprang a surprise in the shape of Godfrey, a freshman, who won first with a put of $38 \mathrm{ft} .6 \frac{1}{2} \mathrm{in}$. Smith of Brown took second, and Tyler, of Amherst, third.

Trinity scored her only points in the high
jump, taking first and second with Baxter and Littell. Baxter broke the record, going sft. $9 \frac{3}{4} \mathrm{in}$. Tyler of Amberst got another third in this.

As was expected, Smith of Brown won the hammer throw, and at the same time broke the record by over ten feet. Distance, $123 \mathrm{ft} .8 \frac{1}{2} \mathrm{in}$. French took second, and Healey third.

Stephen Chase easily won his third event in the broad jump, though he only did $20 f \mathrm{ft}$. 5 in .. Horne and T. W. Chase tied for second, and in the jump-off Horne won.

The points scored by the different colleges were as follows :-
loo-yards dash,

## COLLEGE NOTES.

Harvard won from Princeton in the anuual intercollegiate shooting-club tournament.

The Stanford track team will represent California at the Western Intercollegiate contests to be held in Chicago, June 6th. This movement was encouraged by the fact that Berkeley had given up the idea of sending a team East.

The Freshmen banquet at the University of Michigan resulted in a serious row. Some of the students were arrested and several badly bruised. A few nights before the banquet, the Freshman toastmaster was "pinched." He received a free hair-cut, and considerable paint. Several rough-and-tumble fights followed, and some of the "Sophs" were clipped. When the time for the banquet arrived, all were on hand. Everything went smoothly until stones and antiquated eggs began to fall upon the tables. After much trouble, the police dispersed the crowd. The banquet proceeded, but most of the young lady students had fled from the hall.

## RAMBLER.

We are glad to note that the baseball team is not to disband, but will play out the schedule in spite of the series of defeats it has suffered. Rambler is glad to be able to compliment the management upon the pluck it displays in this determination, but he feels that he voices the opinion of the students when he declares that such a condition of demoralization as recently existed in the team was entirely uncalled for. For Capt. Zaeder, Rambler, in company with the student-body, has only words of praise. He has been this year, as in the past, a hard-working and conscientious leader, but of certain other members of the team we cannot speak too severely. These individuals, considering themselves sure of their positions on the team have come to regard the out-of-town trips as merely junketing expeditions arranged for their benefit, or, in other words, to consider " public office a private snap," and to act accordingly. As a consequence, they have played a listless and don't-care game that would kill any branch of athletics in any college whatsoever, if persisted in. It does not make the matter any the less serious that this spirit originated with one or two men ; it is as catching as small-pox. Now it may seem a matter of but small import to some that such a feeling exists in any of our organizations. Will such ones pardon us for saying that we have long suspected that their range of vision terminates at the ends of their noses? Do they realize that we are making, hour by hour, the history of the Institute, and that if it is to have, as we hope, a grand and glorious future, and take rank among the foremost colleges of the country, we who are here now in its infancy cannot afford to "despise the day of small things"? It may not be within our lifetime nor within that of our grandchildren that the W. P. I. shall have a prestige as grand and a name as world-widely famous as any educational institution on the face of the earth, but let that not prevent our taking care that we are hastening and not retarding the approach of that golden era. We have a duty to perform, although the occasion of its performance is so trivial an event as a baseball game. It is not that a man has accomplished much, but that he has done a little, and that little loyally and well for Tech, that determines that he has done his duty in his college life.

There is no event during the whole year which Rambler more thoroughly enjoys than the Intercollegiate games, and the events of last Saturday were fully equal in interest, to his mind, to those of any of previous years that he has had
the pleasure of witnessing. But it is to be hoped that ere another Intercollegiate Day comes round, there will one of two changes be madenamely, that all bicycle races be eliminated from the programme, or that a place will be selected for holding the meet where such events may be run off without danger to the life or limbs of the contestants. While there is no more interesting event known to a lover of true, clean sport than a good bicycle race, nor any that more highly develops qualities of true sportmanship and manhood, provided it be conducted under suitable conditions, yet when, owing to the lack of such conditions, the occurrence of such an event inflicts on a great audience a momentary expectation and dread of witnessing a fearful tragedy, it is emphatically time to call a halt. The track at the Oval, while unsurpassed in New England as a running track, is absolutely unfit for the racing of bicycles, and it is wrong, nay it is worse than wrong, it is criminal, to require athletes, who are bound by their spirit of college honor to compete wherever the glory of their institutions demands, to imperil their lives upon it.

It must be a source of only the most heartfelt thanksgiving with us all that the life of one, who is among us so pre-eminently a favorite, both as an athlete and a Techman, was not sacrificed in the unfortunate accident of last Saturday. So lucky an outcome of what at first promised to be a fatality, might not happen again in a century. We want healthful, enjoyable athletics, not horrors, so let us have no more tempting of Providence on the unbanked turns at the Oval. According to time honored precedent he now makes his semi-annual announcement that "examinations are with us." Not but that you knew it before, fellow-victims, but tradition commands, and we hasten to obey. Having imparted to you the strikingly novel information thus in bare outline, we are expected to enlarge upon it after certain established rules. First, we are supposed to advise you with a sort of calmly-superior, infallible, never-touched-me air, not to be afraid of "Old Man Exams," for " his bark is worse than his bite" and so forth. Then we are to tell how cheerfully Rambler always greets the aforesaid gentleman with the robust voice and the dull teeth, which narrative we would unhesitatingly brand as a cheerful lie if anyone told it to us as his own experience. After that we are to state that is is expected that about $67.0038 \%$ of the students will be exempt from taking any examinations by virtue of the term-mark rule. Having delivered this
careful and exact statement, we are to turn up our eyes and groan in much travail of heart over the delinquencies of those who have bowed down to false idols during the term and have now to cram desperately in order to make up for it. And then-but do we hear someone saying with Longfellow :

> "Under the spreading blacksmith tree, The village chestnut stands"?

Well and good, obstruct us in our duty if you will! Hiss us off the stage before our lines are spoken! We don't care. We tried to do what we ought. You didn't appreciate it this time but we will have another go at what's left of you next January-that is, if Rambler doesn't have to go himself.

> "My pull is gone," said weary Will.
> "For since they pulled my leg,
> I can't support myself, and so
> I'm pulled because I beg."
"POLY'S" BACK-TALKS TO STUDENTS.
Under this head "Poly" will answer, each week, all queries sent to "Poly," care of the W P I. Queries will be answered according to the best authority and judgment. Those sending questions are requested to sign their nom de plume only.
"Ignorance." Your questions are difficult to answer satisfactorily, but I venture the following:
(1.) Knowledge is not always a source of happiness.
(2.) Y'es, the Seniors do know a great deal, but, it is said, that on account of certain circumstances the Juniors know More.
"Outsider." No, "Poly" is no relative or disciple of either "Ruth Ashmore" or "Cousin Marion," yet "Poly" will not discriminate as to the nature of questions answered in this column.

To your questions I give the following answers:
(1.) To raise a fine crop of raven hair I would advise you to try your luck in the West. Scalp some bloodthirsty Indian, while he is quietly sleeping.
(2.) For a nice rosy complexion try an internal application of Cutter's XXX.
"Willie." Yes, you might raise your marks as you suggest, but dynamite would do it more effectively. Razors have been used with success, or you might try the hydraulic elevator in the Lab., provided of course you didn't raise them so fast as to attract the attention of the instructors, who have been known to use elevators themselves.
"One of many." Poor fellow ! It is too
bad you cannot find a suitable form of Athletics to enter. "Football," you say, " is too horrid rude, baseball too lively, and ruuning too 'fast.'" Well, you might try tennis, although I am afraid that would bring on an attack of nervous exhaustion. On the whole, I think you had better try a game of checkers. Nothing like it to build up your museles. After a few weeks you may feel strong enough to play tag for five or ten minutes each day.
"See Saw." I saw what you wrote, but I don't see what you meant. Try writing in English, or if that was English, write in Chinese next time. The legibility of your writing reminded me of the Dutchman's query. '"If I ask you a question, what's the answer?"
"Junior:" The fact that the whole class is to be excused from an examination in physics does not mean that the Profs. have an opinion that an ordinary exam would flunts seven-eighths of the class, but it is another indication of the tender love and affection with which the Profs. in that department have always borne you.

## N. E. I. P. A.

On Friday afternoon and evening, May 22, the convention of the New England Intercollegiate Press Association was held in Boston. The two afternoon meetings took place in Rogers Building of Boston Tech. At the first of these, a general introduction of delegates was followed by the reading of papers concerning the different problems of press work, and a discussion of the various methods for solving them. During the second session, a provisional constitution was formally adopted, and the officers for the coming year were elected, as follows :-

President,-Fred B. Whitney, Williams Werkly;
Vice-President,-Miss Josephine Batchelder, Wellesley Magazine;
Secretary - Treasurer,-George L. Miner, Brown Daily Herald;

Fourth Member of Executive Board,-H. H. Titsworth, Amherst Student.

At eight o'clock, about thirty of the delegates assembled at the Vendome and freely discussed an excellent menu, after which, Mr. Steadman of Brown Daily Herald, as toastmaster, introduced an interesting toast list. The presence and active interest of the delegates from Smith, Mt. Holyoke and Wellesley made the convention unusually pleasant. President Irvine, of Wellesley College, and Mrs. Wm. T. Sedgwick, wife of Prof. Sedgwick, of M. I. T., acted as patronesses. They both made brief remarks at the close of the banquet.

The college papers represented were :-
Aggit Life, J. M. Barry, C. I. Goessmann; Amherst Litcrary Monthly, P. H. Boynton; Amherst Student, A. H. Merriam, H. H. Titsworth; Bowdoin Orient, R. S. Hagar; Brown Daily Herald, G. L. Miner, C. L. Steadman; Brown Magazine, G. D. Dowling; Brunenian, C. W. Towne, J. S. Murdock; Colly Echo, W. L. Hubbard, C. H. Whitman ; Mt. Holyoke, Miss Bertha C. Bidwell, Miss Margaret B. Lake, Miss C. W. Wood: Smith Monthly, Miss Anna H. Branch; Tech, L. D. Gardner, W. R. Strickland, C. E. A. Winslow : Trinity Tablet, W. W. Parsons ; Tuftonian, O. H. Smith; Wellesley, Miss Josephine H. Batchelder, Miss Grace M. Dennison; Williams Weekly, F. B. Whitney ; W PI, L. P. Tolman.

Souvenir issue next number. Events of class-week in fuil. Will be out soon affer Commencement. All extra copies should be ordered at once.

## OFFICIAL PROGRAMME FOR COMMENCEMENT WEEK.

Sunday, June 14,-Baccalaureate sermon by A. Z. Conrad, D.D., at 7.30 P. M., at Central Church.

Wednesday, June 17,-Class-Day exercises on the Campus at $2.30 \mathrm{P} . \mathrm{M}$. In the evening, from 8 to 11 , President's reception to the Senior Class at his residence.

Thursday, June $18,-$ Commencement exercises in Boynton Hall at 10.30 A. M. At 3 P. M. the Washburn Engineering Society will meet in the lecture hall of the Engineering Laboratory.

The annual meeting of the Alumni Association will be held in the same room at $6 \mathrm{P} . \mathrm{M}$.

## TECHNICALITIES.

If yon desire to hear a profound discussion of Metaphysics or English, visit Prof. Conant's classes in "Invent."

Vocal solos are not appreciated in the library.
The following conversation was overheard in the Washburn shops:-
"For whom were these desks ordered?"
"I do not know."
"To whom are you charging your time?"
"To the members of the Freshman class."
At the Thursday noon meeting of the Y. M. C. A., May 21, Prof. Cutler conducted a very interesting and instructive meeting.

The Juniors have been excused from all examinations in Physics.

Geo. Wm. Throop, '97, has resigned as Edi-tor-in-Chief of the Class Book, as he will not be in college next year. Archie W. Merchant has been elected to fill the vacaney.

Frank W. Smith, ex-'97, recently passed his examinations for the United States Revenue Marine, and will soon begin a two-years' course as cadet aboard the Revenue bark S. P. Chase.

The Freshmen class recently spent an afternoon in a visit to Pero's foundry.

The Senior class went on a tour of inspection
through the city electric light plant, one day last week.

Prof. : Well, what would you do next?
K-y-s : Well er, er, roll it out.
Prof. : Roll out what? If you said roll out a barrel of beer I should know what you meant.

Profs. Burke and Marks, of the Lawrence Scientific School, paid Tech a visit last week Friday, inspecting the Shops and the plant at Chaftin's. In the words of one of the above gentlemen, we have a " bully plant."

Prof. Haynes sailed this week for a three months' trip in Europe. About half of the time will be spent in England, and the remainder on the continent, mainly in Germany.

The Junior class will be exempt from examination in the Political Science course.

Prof. Al--n, " Now-er-if you could only get a good hold and pull on me it would be just what you want, wouldn't it?"

D-r-nd, '97, "Yes Sir!"
In Metallurgy, the Juniors were recently shown a fine collection of iron specimens, which were presented to the Institute by H. E. Field, '95. The specimens are large, and encased in air-tight cases with glass faces.

## SCHEDULE OF EXAMINATIONS.

Beginning at 9 A. M. when not Otherwise stated.
SENIOR CLASS.
Tuesday. Electrical Engineering, Physical lecture room.
Wednesday. Steam Engineering, Mechanical lecture room.
Thursday. Mechanics, Mechanical lecture room.
Junior class.
Monday. Thermodynamics, Mechanical lecture room. Special Chemistry, Chemistry lecture room. $\left.\begin{array}{l}\text { Least Squares, } \\ \text { Geodesy, }\end{array}\right\}$ Prof. White's room.
Tuesday. Metallurgy, Chemistry lecture room; room opposite Prof. Conant's Physical lecture room.
Wednesday. Mechanical Drawing, Mechanical drawing room.
Thursday. Mechanics, Mechanical drawing room.
Friday. Mineralogy, Lecture room, Salisbury Laboratory.
Saturday. Chemical Journals, Chemical lecture room.

## SOPHOMORE CLASS.

Monday. Descriptive Geometry, Chapel. Special Chemistry, Chemistry Lecture Room.
Tuesday. Calculus, Chapel. English (Chemists), Room 18, Boynton Hall.
Wednesday. German, Chapel.
Thursday. Physics, Physical and Chemical Lecture Rooms.
Friday. Civil Engineering, Prof. White's Room (practice).
Saturday. Mechanical Drawing, Drawing Room.

## freshman class.

Monday. Chemistry, Chemistry and Physical Lecture Rooms and Prof. Conant's Room.
Tuesday. Inventional Geometry, Prof. Conant's Room.
Wednesday. German and French, Room 19, Boynton Hall.
Thursday. Trigonometry, Prof. Conant's Room and room opposite.
Friday. Elementary Mechanics, Chapel. Division C. Free-hand Drawing at 2 P. M.

Saturday. A. Free-hand Drawing at 10 A. M. B. Free-hand Drawing, 8 A. M. Special Chemistry, 9 A. M., Chemical Laboratory. C. Civil Engineering.

## ALUMNI NOTES.

Cards are out for the marriage of Miss Jessie Walker and Mr. E. Walter Davenport, W. P. I., '94, at the home of the bride's parents, 6 Merrick Street, Wednesday evening, June 3d.
The engagement of Ferdinand Andrews, W. P. I., '89, to Esther M. Garbot, daughter of the late John Garbot, of Pittsburg, Pa., is made public.

Mr. Ellis Warren Lazell, of Spencer, W. P. I., '90, has received the degree of Ph . D. from the University of Göttingen, where he has been spending the past two years, and will sail for home May 23.

Elmer C. Rice, '90, will represent the Boston Herald at the Republican convention at St. Louis, and also at the Democratic convention at Chicago.

## SCIENTIFIC NOTES.

## Caleium Carbide.

Dr. L. P. Kinnicutt, of our Institute, was a member of the commission appointed by Progressive Age Co. to investigate the plant of the Willson Aluminium Company, at Spray, N. C., and to determine the exact cost of calcium carbide. On the same commission were Dr. Edwin J. Houston and Dr. A. E. Kennelly, electrical experts. The detailed report of this commission may be found in Progressice Age, April 15, 1896.

The process of making carbide is very simple. The most essential work is done by electrical furnaces. In modern metallurgical operations, the electric furnace plays a most important part, and I can do no better than quote the description of the two furnaces at Spray, N. C., as given in the above-mentioned report.
"The side and partition walls are of ordinary brick, while the front is open, but partly covered by cast-iron doors. The floor space in each furnace is 3 feet by 2 feet 6 inches, and at a height of about 8 feet, they rise into a single short chimney which serves to carry off the gases
evolved during the operation of the furnaces.
"At the base of the furnace is placed a heavy iron plate about 6 ft . long by 2.5 ft . wide and one to two inches thick. On this bed-plate rests 2 carbon plates 3 ft . by 2.5 ft ., by 6 in . to 8 in . thick, one in each furnace. These carbon base-plates, in connection with the iron plate, form the lower electrodes.
"The upper electrode for each furnace is a heavy carbon block 12 in . by 8 in . cross-section and 36 in . long. It is composed of six carbons laid side by side, and weighing 30 lbs . The electrode is protected by a casing of sheet iron. The interstices between the casing and the carbons is filled with a hot mixture of pulverized coke and pitch, so that the electrode becomes practically a solid mass of carbon in intimate contact with an iron shell.
"The electrode is clamped vertically in a metal holder supported by a vertical copper rod 3 in . by 3 ft ., passing through the roof of the furnace to a chain runuing over a pulley to a hand-wheel by the side of the switch-board, so that the upper electrode can be raised or lowered at will by the switch-board attendant."

The coke and lime, properly ground, are mixed in a definite proportion. Some of this mixture is thrown in upon the furnace floor and the current is turned on. The current soon becomes steady, and from time to time more mixture is shovelled in. The electrode is raised, being governed by the volt and ammeter. When raised 33 inches, no more mixture is added and the current is turned off. The carbide formed is in a rectangular mass, coated with slag. $50.75 \%$ of the charge remains unconverted.

The work of the commission was very thorough, and it is interesting to know that all the samples of lime, coke and of carbide formed, were analyzed at the laboratory of the Worcester Polytechnic Institute.

The ultimate result of the commission is stated in the report as follows: "Our estimate, therefore, of the cost of producing calcium carbide at Spray, by working the furnace 365 days a year and 24 hours a day, yielding on the average one ton of 2,00 ) lbs. gross carbide a day, is $\$ 32.767$ per ton.

Noared Like a Bird.
For some time Prof. Samuel P. Longley, Secretary of the Smithsonian Institution, has been conducting experiments with flying machines. Statements regarding the results of trials are now made public. They are written by Prof. Alexander Graham, and are, in part, as follows : "The aerodrome of 'flying machine' in question was of steel, and driven by a steam engine. It resembles a bird, soaring in the air with extremely regular curves, sweeping steadily upward in a spiral path, the spirals with perhaps a
diameter of one hundred yards. After the machine had soared about one-half mile, the steam giving out, it settled quietly to the ground. A second trial was no less successful."

## Electrieal Noten.

A course in electro therapeutics will soon be added at the Long Island College Hospital.

The Western Electrical Instrument Co. are exhibiting in New York an 80,000 ampere station meter.

A most interesting demonstration of the annihilation of space and time by modern telegraph facilities was carried out recently at the National Electrical Exposition in New York. A message by Chauncey M. Depew was sent as far around the world as is possible by existing lines, there being no Pacific cable to completely encircle the globe. Col. Albert B. Chandler, President of the Postal Telegraph Cable Co., acted as sending operator in a balcony of the Exposition Hall, while Mr. Thomas A. Edison received the message in another balcony when it came back. Mr. Depew's message was addressed to Mr. Edw. D. Adams, President of the Cataract General Electric Co., and was as follows: 'God created, nature treasures, science utilizes electric power for the grandeur of nations and the peace of the world."

Mr. Adams' reply was: "Mighty Niagara, nature's wonder, serving men through the electric circuit, proclaims to all peoples science triumphant and the benevolent Creator." The messages were sent from New York to New York via Chicago, Los Angeles, San Francisco, Vancouver, Winnipeg, Canso, London, Lisbon, Gibraltar, Malta, Alexandria, Suez, Aden, Bombay, Madras, Singapore, Hong Kong, Shanghai, Nagasaki, Tokio, London, and Boston.

The instruments used will be presented to the Smithsonian Institution.

Sections of the following famous cireuits were used in the transmission: first, a section of the wire over which Prof. S. F. B. Morse sent the first message over the telegraph; second, a section of the wire over which audible speech was first transmitted by Prof. Bell ; third, a section of the Atlantic cable over which the first cable message was sent across the Atlantic by Cyrus W. Field; fourth, an Edison plug and a section of the wire which lighted the first incandescent lamp from an electric light station; also, a section of the first trolley circuit installed; sixth, a section of the wire through which President Cleveland opened the Columbian Exposition; seventh, a section of wire used in the first demonstration of vacuum tube lighting; and eighth, a section of the first power cable from Niagara Falls. Mr. Depew delivered a great oration on the future progress of electricity.

## VISITED THE INSTITUTE.

Professor A. Barr, of the University of Glasgow, Scotland, who has been making a short tour of the leading Engineering Colleges of America, spent some time, on Tuesday, the 26th inst., in examining the laboratories and equipments of the Institute.

Professor Barr is the successor at the University of Glasgow, of a long line of distinguished engineers which has made that institution famous, including, among others, James Thomson, and Professor Rankine, whose text-books on Steam and Applied Mechanics are so widely known. The institution also includes in its faculty Lord Kelvin, who very shortly celebrates the fiftieth anniversary of his appointment to the chair of Natural Philosophy. It was in this institution that James Watt was employed as an instrument maker, and in its collections may still be seen a small model of the Newcomen engine, which Watt repaired, and the study of which led to his invention of the engine of modern times.

Professor Barr expressed much interest in his visit to the Institute, and admiration for the equipment and work which he saw.

## VISIONS.

'Neath the shade of the woodland bower, Amid the flowers and songster's tune,
In musing, I pass an idle hour On this first, fair day of June.

Breaths of fragrance, songs of sweetest note, Call forth strange fancies, and now I dream, While visions, in mystic clouds afloat, With all their radiance beam.

And I see, slowly fading away,
Entwined with garlands of brightest hue,
A fairy, a queen, the Month of May; Smiling still, she's fled from view.

In her place, emblems of June now pass;
The "sweet girl-graduate" in cap and gown;
With laughter gay is each gladsome lass,
Free from care, without a frown.
At the altar in bridal array,
A lovely maiden with happy face,
Willingly bowing to Cupid's sway.-
Another vision takes its place;
A vision fairer than words can tell,
Brighter than sunshine, a loving maid
That over $m y$ life has cast a spell; A vision that does not fade!
H. H. M.

## THOSE STEPS AGAIN.

It happened on one of those dark, black nights we read about. Jones was staggering up Institute road in a vague, uneasy, where-am-I-at sort of a way, and the lamp on the corner of Boynton street having gone out, he tacked onward till he struck the first step of our new causeway up Tech hill. Here, after pondering for a few brief moments he came to the conclusion that he had reached the marble stairway of his own mansion, and he slowly and unsteadily began unlacing his shoes, giving vent to remarks something like this: "Don' wan't $t$ ' wake ev'ry one in zshe housh (hic) up, guesh I'll take m' shoes off. Won'er if th' ole' (hic) woman's 'wake - well (hic) I'll be blame' if zis ain't mosh wonerful stairs 've ever seen (hic) - mus' be built fer man with aufu' long legs, don' seem t' remem'er s' many trees roun' my shtalrs (hic) won'er if"-at this point Jones reached high for the next step, pawed around in the air a few moments, lost his balance, turned a double backsomersault and landed on the back of his neek at the foot of the bill, having severely injured the edges of six of our horizontal tombstones.

Ten minutes later, he moved uneasily and murmured feebly, "Sat's nice way treat yer poor tire" husband w'en he's comin' home in respectable way (hic), take half ze steps out shtairs and zen w'en he (hic) gits up zshe top pull whole blame' business out from ' $n$ ' under him. I'll be hang if I climb yer ole' shtairs 'gain, I'm goin' t' shleep righ' here," -and he did.
E. R. J.

## WHY IT IS BETTER.

'Tis better to have loved and lost,
The poet sings in plaintive rhyme.
Of course it is, for then you can
Make love again some other time. $-E x$.
"I cannot all my love express," Cried Cholly Noddlepate.
"If that's the case," she meekly said,
"Please send it on by freight."
-E. R. J.
(In regard to those governor weights.)
"What became of that bill of mine for damages," said - to the old engine.
"Oh?" replied the engine, "it went through the house, but they did'n't attach much weight to it so the governor vetoed it."

Chemist,-flask.
Deadly gas.
Cemetery.
Chemist-bury.
-J.
If Jack and Jill should climb Tech hill,
To find that pail of water,
And then fall down upon those steps,
They'd go home on a shutter.
Evenings in the parks,-
Lots of little sparks,-
Jolly boyhood larks, -
Result,-most direful marks :

AS IT IS.
"Yes, Mrandy, thet thar Tech is sartinly a mos' wonderful plase, cordin tu what John writes. They mus' work em awful hard though, for John writes somethin 'bout not bein able to take moments. He sez as how the elevator business hez gone up.-(wall, thets kind er natural fur elevators, aint it)? -an he sez they hed a biler test t'other day an' they weighed all the water and coal they used. Mus be hard times or a big drout their hevin down there if they hez to weigh all the water they uses. Spose he used thet thar new fangled biler scale he writes 'bout, but I'll be gul-durned if I don't think I could du hit with my ole steel-yards.
"He sez, -gooduess, gracions M'randy git me my biled shirt an' the ole' green umbrella an make some sandwiches, I'll hev to go an git John right away, -he sez the whole class hez got the-e-e-sises,-I'll bet a tew hoss waggin its some pestiferous, pesky disease o' the lungs theve caught from thet there onhealthy Quincy lake John writ 'bout,-git me them quinine pills an the sasprilly and I'll go right down."
E. R. J.

## AN ALL-ROUND MAN.

In the class-rooms where students More brilliant are known,
He finds no great hardship In holding his own.
On the gridiron and diamond With victories sown,
There, too, he is in it
And holding his own.
And now in the evening, When daylight has flown,
But words are too feebleHe's holding his own. -EC.

## FREE SILVER.

She was a modern woman All cocked and primed for flght ; And he was doomed to listen With ne'er a chance for tlight.
He listened and he listened Till several hours sped. "I see you're for free silver;" At length he calmly said.
"W hy yes, I am,-But tell me, How could you guess 't was so?"
"O, speech, they say, is silver,
And silencè, gold, you know."

- Vassar Miscellany.


## A LITTLE HYPOCRITE.

A model little maid to church one Sunday walked, Sat in the high-backed pew way up the aisle.
Her eyes were downward cast, and while the preacher talked
Her face was very solemn-not a smile.
And when the preacher spoke of goodness and of grace,
Of truth and wrong that ever are at war,
A look of radiant joy o'erspread her lovely face,-
Just thinking of the dance, the night before.
-The University Courier.

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