CONTENTS.

Editorials ............................................. 27 The Class Championship Base-Ball
Sketches from my Note-Book ......................... 30 Series ............................................. 39
The Cross-Country Run .................................. 32 The Tech Base-Ball Nine ......................... 39
Spring Field-Day .................................... 38 Amherst's Prospects for the Pennant
Inspection Excursions .................................. 34 Social Life Among the Students ............ 40
The New Electric Light Plant ............................ 36 Personals .......................................... 41
The Raving ............................................ 37 Among the Colleges ................................ 42
The Laboratory Elevator ................................. 38 Who Killed Cock Robin? ................. 43
Technicalities ........................................ 43

WORCESTER, MASS.
THE WORCESTER POLYTECHNIC INSTITUTE.
W. H. JOURDAN & CO.,
ANTHRACITE AND BITUMINOUS
COAL,
WHOLESALE AND RETAIL.
Fire Sand, Clay and Brick,
Offices: 366 Main St., and at Yard,
Green Street.
WORCESTER, MASS.
W. H. JOURDAN.  W. G. STRONG.  W. S. JOURDAN.

CHAS. F. HANSON & CO.,
317 Main Street,  WORCESTER, MASS.

W. H. JOURDAN & CO.,
ANTHRACITE AND BITUMINOUS
COAL,
WHOLESALE AND RETAIL.
Fire Sand, Clay and Brick,
Offices: 366 Main St., and at Yard,
Green Street.
WORCESTER, MASS.
W. H. JOURDAN.  W. G. STRONG.  W. S. JOURDAN.

THE HERCULES
TURBINE WATER WHEEL.
Best
Part-Gate
Efficiency of
Any Water
Wheel ever
made.
Manufactured by

HOLYOKE MACHINE CO.,
WORCESTER, MASS.

W. H. JOURDAN & CO.,
ANTHRACITE AND BITUMINOUS
COAL,
WHOLESALE AND RETAIL.
Fire Sand, Clay and Brick,
Offices: 366 Main St., and at Yard,
Green Street.
WORCESTER, MASS.
W. H. JOURDAN.  W. G. STRONG.  W. S. JOURDAN.

CHAS. F. HANSON & CO.,
317 Main Street,  WORCESTER, MASS.

THE HERCULES
TURBINE WATER WHEEL.
Best
Part-Gate
Efficiency of
Any Water
Wheel ever
made.
Manufactured by

HOLYOKE MACHINE CO.,
WORCESTER, MASS.

W. H. JOURDAN & CO.,
ANTHRACITE AND BITUMINOUS
COAL,
WHOLESALE AND RETAIL.
Fire Sand, Clay and Brick,
Offices: 366 Main St., and at Yard,
Green Street.
WORCESTER, MASS.
W. H. JOURDAN.  W. G. STRONG.  W. S. JOURDAN.

CHAS. F. HANSON & CO.,
317 Main Street,  WORCESTER, MASS.

THE HERCULES
TURBINE WATER WHEEL.
Best
Part-Gate
Efficiency of
Any Water
Wheel ever
made.
Manufactured by

HOLYOKE MACHINE CO.,
WORCESTER, MASS.

W. H. JOURDAN & CO.,
ANTHRACITE AND BITUMINOUS
COAL,
WHOLESALE AND RETAIL.
Fire Sand, Clay and Brick,
Offices: 366 Main St., and at Yard,
Green Street.
WORCESTER, MASS.
W. H. JOURDAN.  W. G. STRONG.  W. S. JOURDAN.

CHAS. F. HANSON & CO.,
317 Main Street,  WORCESTER, MASS.

HOLYOKE MACHINE CO.,
WORCESTER, MASS.

W. H. JOURDAN & CO.,
ANTHRACITE AND BITUMINOUS
COAL,
WHOLESALE AND RETAIL.
Fire Sand, Clay and Brick,
Offices: 366 Main St., and at Yard,
Green Street.
WORCESTER, MASS.
W. H. JOURDAN.  W. G. STRONG.  W. S. JOURDAN.

CHAS. F. HANSON & CO.,
317 Main Street,  WORCESTER, MASS.

HOLYOKE MACHINE CO.,
WORCESTER, MASS.

W. H. JOURDAN & CO.,
ANTHRACITE AND BITUMINOUS
COAL,
WHOLESALE AND RETAIL.
Fire Sand, Clay and Brick,
Offices: 366 Main St., and at Yard,
Green Street.
WORCESTER, MASS.
W. H. JOURDAN.  W. G. STRONG.  W. S. JOURDAN.

CHAS. F. HANSON & CO.,
317 Main Street,  WORCESTER, MASS.

W. H. JOURDAN & CO.,
ANTHRACITE AND BITUMINOUS
COAL,
WHOLESALE AND RETAIL.
Fire Sand, Clay and Brick,
Offices: 366 Main St., and at Yard,
Green Street.
WORCESTER, MASS.
W. H. JOURDAN.  W. G. STRONG.  W. S. JOURDAN.

CHAS. F. HANSON & CO.,
317 Main Street,  WORCESTER, MASS.

W. H. JOURDAN & CO.,
ANTHRACITE AND BITUMINOUS
COAL,
WHOLESALE AND RETAIL.
Fire Sand, Clay and Brick,
Offices: 366 Main St., and at Yard,
Green Street.
WORCESTER, MASS.
W. H. JOURDAN.  W. G. STRONG.  W. S. JOURDAN.

CHAS. F. HANSON & CO.,
317 Main Street,  WORCESTER, MASS.

W. H. JOURDAN & CO.,
ANTHRACITE AND BITUMINOUS
COAL,
WHOLESALE AND RETAIL.
Fire Sand, Clay and Brick,
Offices: 366 Main St., and at Yard,
Green Street.
WORCESTER, MASS.
W. H. JOURDAN.  W. G. STRONG.  W. S. JOURDAN.

CHAS. F. HANSON & CO.,
317 Main Street,  WORCESTER, MASS.
SANFORD & COMPANY,
No. 364 MAIN STREET, WORCESTER, MASS.,

---DEALERS IN---

Drawing Materials of Every Description.

SUPERIOR SWISS DRAWING INSTRUMENTS.

Whatman's Drawing Papers, all sizes, hot and cold pressed. Roll Drawing Papers, both plain, and mounted on muslin; all widths and qualities.

Prices as Low as Consistent with STRICTLY FIRST-CLASS GOODS.

BAY STATE HOUSE. W. F. GILMAN, D. D. S.,

DENTAL OFFICE,

11 Pleasant St., Worcester, Mass.

ODD FELLOWS' BLOCK.

Office Hours: 9 A. M. to 1 P. M.; 2 to 5 P. M.

DOUGLASS & BROWN,

Proprietors.

EZRA A. DAY,

MECHANICS HALL SHOE STORE,

Fashionable Shoes For Ladies and Gentlemen.

FINE CUSTOM SHOES TO MEASURE.

325 MAIN STREET, WORCESTER, MASS.

HOLLAND & HAVENER,

Successors to HILL & TOLMAN and LINCOLN HOLLAND & CO., Dealers in

Bicycles and Safeties, Athletic, Gymnasium & Gen'l Sporting Goods,

PRIVATE GYMNASIUM, PROF. L. C. HAVENER, Instructor.

507 MAIN STREET, WORCESTER, MASS.

CHAS. HAMILTON,

BOOK, JOB, CARD, POSTER AND NEWSPAPER PRINTER,

NO. 311 MAIN STREET, WORCESTER, MASS.
IMPROVED WHEELOCK ENGINE.

50 to 3000 Horse Power. Built in all Forms.

CONDENSING, COMPOUND, TRIPLE EXPANSION.

WHEELOCK ENGINE COMPANY,

WORCESTER, MASS.


THE DEANE

Steam Pumps.

Pumping Machinery,

FOR EVERY DUTY.

The DEANE STEAM PUMP CO.,

HOLYOKE, MASS.

Send for Catalogue.

THE WPI.

DAVIS & CO.,

286 MAIN STREET, 286

DEALERS IN

FINE READY-MADE CLOTHING,

Stylish Garments for Young Men a Specialty.

Those who prefer garments made to measure will find us prepared at all times to show seasonable goods of all grades and prices.

All Work Warranted Satisfactory.  Prices Reasonable.
Novelties in Furnishing Goods.

DAVIS & CO.

Opposite Bay State House.
Spring athletics are just now having a glorious struggle with spring lessons for supremacy, with odds in favor of athletics. Not since the days of John Souther and Willard Fuller has so much activity been shown by the students in all sorts of sports as this spring has witnessed. It is not many years since this school could boast a ball nine that could meet and beat almost anything that chanced to come its way. We have lost now the reputation that we once had on the ball-field, and are not depending much on a school team to “advertise the school” this year; however, an attempt to organize a Tech nine is being made. Our class teams also, which are having lots of fun with each other, would doubtless get a jaundiced eye if they should try to play anything half their size outside the school.

On the other hand the playing, such as it is, is more spirited and is indulged in by more students, than has been the case for some time. Into general lines of sport, also, aside from base ball, the students have entered with a vim that has seldom been equalled. Runs into the country are frequent, the field-day apparatus was unearthed before the frost left the ground, and every day witnesses contests of some sort in preparation for the intercollegiate sports. It is a little remarkable that so much energy is displayed after the stagnation of all our interests that has marked the past winter.

A sound body and a sound mind go hand in hand, and without the former it would be criminal for a young man to attempt, or be allowed to attempt, to take the full course at the Institute. Not only should he have the requisite strength on entering, but he should take such exercise as would keep his physical condition apace with his mental development. Unless some systematic form of exercise is adopted, the desire will soon die out and evil results are almost certain to follow. By a systematic form we do not mean, that a certain drill should be carried out daily, but that a habit should be cultivated of going to some place where sports of various kinds might be indulged in.

The special object of this article is
to speak of the place, accessible to Tech students, which would afford the proper accommodations for our sports.

There is but one spot fitted to fill the requirements, and that is Dewey's field. The location could not be bettered, joining directly on the Institute grounds, removed from business thoroughfares and embracing all the advantages which high land possesses over low. It is true that we now have the privilege of using these grounds for our sports and for this we are grateful; we must state, however, that neither base-ball nor football games can at present be played to good advantage here on account of the unevenness of the ground and the impossibility of staking out grounds which will not be interfered with, at least indirectly, by the walls and boulders. This is not our greatest cause for uneasiness, however, for we realize that it is only a matter of a short while when the land will in all probability be cut up into building lots and then,—well we dislike to even think that such may ever be the case. What a want would be filled if this land only belonged to the Tech; what a benefit to the thousands of students who will attend the Institute in years to come.

It would be little more than nominal labor to put the grounds in excellent condition, giving ample room for the diamond, the goals and the tennis courts. The room is here also for a gymnasium, should it ever be the good fortune of the Institute to possess one. But we must not carry the vision too far, we can only hope that something will turn up which will be the means of making Dewey's field a part of the property of the Worcester Polytechnic Institute.

Before another issue of the W P I the final examinations of the year will have come and gone, and it will not be till then that many of the students will be able to judge as to whether their term's work has amounted to aught or not, as far as receiving a passing mark is concerned. There can be no doubt but that a good many students have worked with no other end in view than to simply obtain this passing mark; the examination has loomed up before them since the beginning of the subject and when once safely passed they feel that they have done their duty nobly. A mistaken idea. But the fault lies with the system; not with the student. Should the student be brought to realize that his mark would depend upon his daily recitations throughout the term he would look on the subject in a very different light. He would see that a thorough knowledge of it was desirable in order to make good daily recitations and this would be an incentive to a systematic study of the subject. There would then be no cause for putting the work off till the eleventh hour. When almost all depends on the final examination the average student glances hurriedly through the lesson before each recitation, just enough to get a slight idea of it and taking his chances on making a weak recitation in it. When the time comes for the examination, one or two evenings are taken to cram up on the points he expects to meet in the trial. If he strikes the right points and is successful, he immediately forgets all
about the subject, even purposely ban-
ing all thoughts of it from his mind, so as to be ready for the examination on
the next subject. If unsuccessful he
begins to realize the error he has made
in his method of coping with the sub-
ject, but it is now too late to change;
nothing but a thorough review of the
whole will suffice to fill the gaps left by
the shiftless way in which it was first
treated. It is evident that if the method
of the daily mark was in vogue as soon
as a falling off occurred, the student
would be apprised of it and better work
would be the result. Life would be no
harder for the student, for the worry
and anxiety attendant upon examina-
tions, would to a certain extent be re-
moved.

What a remarkably fine time we
would have of it here at the Tech, if a
few of our fault-finding fellow-students
could only "doctor" up the course a
little to suit themselves. No German
for the mechanics; no mathematics or
mechanical drawing for the chemists;
no chemistry for the civils, etc., etc.
A very fine course. Even the fault-
finder himself, however, places very
little belief in his criticisms, for he
must acknowledge that the course at
the Institute is about as perfectly fitted
to the demands of a technical education
as could be desired. It is our intention
to suggest a little addition this time
instead of a relaxation; nothing directly
in the way of school work, but some-
thing to make our school life a little
more attractive.

When home is attractive to a boy, he
is seldom in a hurry to leave it, and
even when he does, it is with regret.
In after years his vision of it will al-
ways be bright and cheerful, and its influ-
ence cannot fail to be felt in all times of
difficulty and temptation.

During our three years stay here,
many of us learn to feel a home interest
in the W. P. I., where everything goes on
so monotonously, week in and week out,
where nearly everything that will occur
at the school for six months may be seen by one glance at the hour plan.
Is it an attractive home? What will be
our visions of it in after life? If in the
day time what is there to recall other
than the regular routine of recitations
and lectures, and if at night, than the
Institute buildings looming up darkly and
dimly above the trees which gird the
hill, with possibly a single beam of
light streaming out of the monitor's
room?

Any change or innovation in the day's
programme would, without doubt, be
unwise, but it does seem that on two or
three evenings during the year, the
buildings might be lighted, an evidence
to outsiders that something was going
on which was probably both interesting
and instructive to the students. It is
not the lights to take away the gloomy
appearance of the buildings that we
desire, but the something which is asso-
ciated with them.

The nearest approach we have had to
a little variety of this kind was a promise
from one of the professors to give an
evening exhibition on a certain subject,
to one of his classes, but unfortunately,
circumstances arose which prevented
the completion of the plans and the
little entertainment was given up. This
fact is to be deplored, for it might have been the entering wedge to a system from which much benefit and pleasure would be derived.

It may be said, that if the young men of the school wish to devote an evening now and then to a lecture or entertainment in some of the halls of the city, they are at liberty to do so. Very true, but strange as it may seem, we believe that fully fifty per cent. of the students never do attend anything of the kind throughout their whole course at the Institute. The reasons are many: money, lack of interest, scarcity of time and ignorance of the opportunities are among them. But should the lecture or any other entertainment be given in connection with the school, it is safe to say that not one student would miss it. It would be giving the students of all the classes something in common—the little talks the President of the Faculty frequently gives us have to be very short as other professors are waiting for their classes, furthermore these talks are mostly confined to matters relating to school regulations, and often concern only one class or division. Thus they do not fill the want.

Now it seems that a little time could be devoted occasionally, without seriously interfering with school work, to a lecture course of some kind, be it as informal as it may, the effect could not fail to be inspiring to the student, even though the subject had very little bearing on school work.

It is with pleasure that we recall the “Emergency” lecture given some time ago by a prominent local physician; the interest shown by every one connected with the Institute on this occasion, is a sufficient guarantee that anything which may be done in the future in this line, will be looked upon in a very grateful way by the students.

SKETCHES FROM MY NOTE-BOOK.

A man who goes through college without being considered “fast” has to use a deal of discretion in the way he comports himself on his evenings out. Having roosted at home for one successive evening, I recently decided on a coup d’éclat that should excel all my prior attempts at riotous living. As a result I squandered two whole hours and my net assets (twenty-five cents) on the great Baby Show. It was truly a grand, juicy, inspiring sight to see a hall full of mama’s darlings, in various degrees of dress and undress, competing for the prizes.

The show was so arranged that nearly all the prizes were given to the most generally approved style of children, hence babies of the single pattern were the rule. But there were also several entries of doublets, a grist of triplets, and even a bunch of “fo’bllets” was promised, but they failed to materialize. The visitors had the privilege of voting on the chicks, and I believe the prize for the homeliest baby went to a youngster who resembled a summer squash that has been stepped on, and who did not cease during the evening to give a magnificent rendering of a solo that had a good imitation of Ninety’s buzz-saw yell in the refrain.

However, what I intended to speak about is another Baby Show that, as a student, I am obliged to attend daily. It is comprised, according to one of the professors, of a certain class at this school. The fact is that an unusual number of the class were conditioned a year since in a certain subject, and instead of staying in the hole they had made for themselves, a few crawled out as big as life and maligned the professor about his examination. Now a teacher is not infallible, and this particular examination may not have been just what was expected, but it certainly showed a colossal lack of tact in someone to offer to teach an instructor of so many years’ experience. It is no wonder that the professor felt
abused, and we have had ample opportunity to see that he has not forgotten the offence.

What does seem unjust is that the rest of us, who are inclined to take our defeats in silence, must bear the consequences of the indiscretion of one or two men. The whole class may be a dreary waste intellectually but we are not all babies and we are naturally averse to being called such. There is something commendable about a man who is a fool and admits it, but a man who is both a fool and a baby, is a good bit farther down the scale, and for one who thinks he does not belong in that category, it requires a deal of self-control to sit in silence and be called a baby as often as occasion seems to admit.

***

In just a month from now the final examinations will be finished, and every student who has not made a slave of himself during the term vacation will meet a foe that is worthy of his steel. Of course I mean the monster that haunts the student by day, robs him of his sleep by night, and mocks him every time he attempts to have a little relaxation from his other tortures—the fiend, the triple-jawed dog, the acme of gnawing demons, the one hundred and sixty-eight hours extra practice! Oh, that I knew a language as voluptuously expressive as the profane and at the same time a little more fit for publication, to let you know how I feel.

But to come down to something sensible (an awful tumble, I admit), the fact that I will be in for it with the rest next June has served me to spring a choice idea on my prospective jailers for the summer of 1890. It is simply that a sort of "counting-room" be devised for students who practice in the shop—the idea being to give them a little insight into the practical management of a machine shop. The printed rules of the Washburn Shops say that the student should be ready at any time to answer questions about the cost and use of the piece on which he is at work. That is very beautiful in theory but what is practically the case, is that nine-tenths of the students fall into the habit of becoming themselves machines, with no other end in view than to finish well what they are making. It is not the fault of the shop, because there are enough instructors ready to answer questions, but the

fact is, the questions are never answered, because we don't know how to ask them. An instructor in mathematics might as well tell his class to ask any questions they chose. If he answered nothing but what was asked him both he and his class would have a very stupid time. Besides the shop has to compete with other companies and there are certain questions that it might not be advisable to tell the whole school. Hence there are questions like:—How much lower can the shop figure on an elevator than the Worcester Elevator Company? and How much does the shop pay to place its name on the emery grinders? etc., etc., that we wouldn't find out if we asked, so a student who would like to know more about what he is doing, is unable to discriminate between proper and improper questions, and therefore asks none.

To be a little more definite, I think the time would be spent to advantage, if every student were required to estimate the cost of one of the Washburn lathes, and describe every piece in its construction. I believe, too, if I had been required to take down on paper an account of stock in the tool room, and know the name and use of every tool before I began iron work, I should not now have to point through the wire screen and say, "I want that jigger up there." The graduates of the mechanical course are not working at lathes as a rule. They are the foremen, draughtsmen and superintendents, even, of like shops, and it seems to me that a little insight into the management of the shop now would be of immense advantage to every man who intends to graduate in the course.

***

Perhaps this column is as good as another in which to protest against a practice that is sure to make any straight-forward, manly fellow lose his respect for those who maintain discipline here. Not being a victim myself, I believe I give the impartial opinion of the boys when I say that the practice of writing letters home to parents on account of the misconduct of students is as unlikely to preserve order as it is an inexcessibly mean way to treat a fellow. That sort of thing may be necessary in kindergartens, but among students of our age it seems to me wholly uncalled for. Besides, it is a lamentable confession of weakness of discipline.
Here is a body of students, most of whom are either men in fact, or old enough to be treated as such. We are no different from other students in cutting up all sorts of shames that would seem silly enough if there were no one round to see. Indeed, if it were but known, the temptation to bad behavior is at least doubled by the opportunities thrust upon us. To my mind there is very little fun in misconduct at school, anyway, and none at all when the element of danger is lacking. A mere door has no affinity for books and like missiles, but when you are aware that some one has sneaked up on tiptoe and is listening behind it, the diable in you is sure to get in his work and a student who does not feel the temptation to batter the door must have missed his calling when he came here—he ought to have wings.

Now, we want our fun as well as anyone and if we are caught in a scrape we want to stand up and take the consequences like men. It is fair to suppose that when a fellow's mother sends him off to school, she unties her apron-strings and expects him to hustle for himself. If we are not old enough to do that now we never shall be. We simply want to be met on the square in this matter and if we are fit subjects for discipline we can stand being told so to our faces. Only give us a chance to speak for ourselves, that our parents may be spared the inconvenience of reading letters that they have neither the time nor the inclination to consider.

---

**THE CROSS-COUNTRY RUN.**

Saturday, May 3, was a great day for athletics at the Institute. Besides the final game of the championship series, the day witnessed the great cross country run, over which so much interest has been displayed. The original plan was to have two hare and hound runs and a cross-country run. Only one of the former took place as, an excess of ball games prevented the second.

The final contest, however, came twenty out of twenty-two entries line up for a chase over the country. Judges were sent to Flagg Street and Barber's Crossing, at which places every runner was obliged to report. Lake and White were judges at start and finish and it was just 2:32 when the former sent off the first squad containing the six-minute men—Barton and Gibson,'91, Alderman,'92, Pixley and Kelley,'93. In one minute another crowd was sent off, containing Perham, J. P. Taylor, Whittaker, and Phelps, '91, and Strong, '93. Another wait of a minute and a still larger pack was let loose, this one containing Armstrong, Booth, Hodgman, and A. L. Rice, '91, Southgate and Fish, '92, and Fletcher, '93.

This took off nearly the entire field, but the war-horses were yet to start. In just a minute Stearns was untied, followed in two minutes by Dadmun, and finally by E. A. Taylor (all of '91), six minutes after the first lot were sent off. Thus '91 had sixty-five per cent. of the entries and a good chance to win, which she improved, as the result shows.

The result also shows that handicap races are extremely difficult to arrange satisfactorily to everyone and that a race through a jungle, across quagmires, and out of the clutches of vicious farmers, requires other elements than that of speed.

One of the men, whose authority is indisputable, was sure that the distance (over seven miles) would be covered in about 45 minutes. Another, whose judgment is equally good, said the race would not be run in less than 60 minutes. As a matter of fact, Stearns, the winner, finished in just 53 minutes, 16 seconds, after starting. He took a different course from that followed by the others and as will be seen from the table made a great gain between Flagg Street and Barber's Crossing. The other winners were Phelps, '91, Strong, '93, and Kelley, '93, in the order given. To those who are at all familiar with the triangular course the following time table may be of interest. It contains the winner's time at different points and also that of the scratch man.

<table>
<thead>
<tr>
<th>Start.</th>
<th>Flagg St.</th>
<th>Barber's.</th>
<th>Finish.</th>
</tr>
</thead>
</table>

The actual time made by the five men in order was 53:16; 55:41; 58:28; 59:40; and 59:42. Prizes of the value of five, two and a half, one and a half, and one dollar were given to the winners.
SPRING FIELD DAY.

Ninety-one again carries off the honors with over fifty per cent. of first prizes.

A steady southwest breeze, bringing with it a determined looking rain storm was the cause of many a sigh at the school last Saturday morning. The prospect seemed indeed poor for the field-sports, and at 11.30 the editors of the WPI retired to the sanctum to write an obituary notice of them. Two hours later, however, the aspect was very different. Old Sol evidently deemed it his duty to preside at so momentous an event as the shattering of five Tech records, so he glanced down upon the Park track, drying up the little pools of water; beam'd in upon the Battery B Band and fair Hypathia in her new spring hat, and upon “Admiral” Lufkins with his last “spring-halt,” and everything was in readiness for the contests.


The apparent lack of interest shown by classes may be accounted for by the fact that the sports are looked upon as simply preparatory to the Intercolligiate sports which take place May 28, and in which a similar list of events will be contested.

The events were as follows:

Standing Broad Jump—This event brought out two new men and gave ’93 her only first prize. 1st, Bullard, ’93, 9 ft. 7 ½ in.; 2nd, Fish, ’92, 9 ft. 6 in.; 3rd, Rawson, ’93, 8 ft. 11 ½ in.

120-yards Hurdle—Dadmun was an easy winner in this event, though he made no attempt to approach his former record. 1st, Dadmun, ’91, 20 ½ sec.; 2nd, Fish, ’92, 21 ½ sec.; 3rd, Taylor, ’91.

Two-Mile Run—Wires, ’90, Stearns, ’91, and Kelley, ’93, were the only starters out of nine entries. This proved to be one of the most exciting events on the programme, both Stearns and Wires thinking they held a mortgage on the race. Kelley dropped at the three-quarter pole and from this point to the last quarter it was anybody's race. At this point Wires began to slowly draw away from Stearns and finished a winner by 75 yards, both men breaking the school record. 1st, Wires, ’90, 11 min. 28 ½ sec.; 2nd, Stearns, ’91, 11 min. 50 sec.

Running High Jump—In this event another record was broken. 1st, Fish, ’92, 5 ft. 2 ¼ in.; 2nd, Armstrong, ’91, 4 ft. 10 in.; Taylor, ’91 and Kelley, ’93, were tied for third place at 4 ft. 8 in.

100-yards Dash—This was a very pretty race between Allen, Elec., and Dadmun, ’91, bringing to mind the former closely contested races between these two men. 1st, Dadmun, ’91, 11 sec.; 2nd, Allen, 11 ½ sec. Rawson, ’93 was a good third.

Running Broad Jump—Six out of eleven entries contested this event but failed to approach former records. 1st, Dadmun, ’91, 18 ft. 9 ½ in.; 2nd, Booth, ’91, 18 ft. 6 in.; 3rd, Taylor, 17 ft. 11 ¼ in.

Half-Mile Run—The alleged running at the start in this event reminded one of the pace set on the last day of a six days' race by those who are out of it. Just as the spectators were beginning to wonder if the contestants had lost the way, the three foxy fellows, whom some remembered to have started, crawled up to the 220 yards pole and then made a grand break for the tape, Taylor, ’91 struck it first in the magnificent time of 2 min. 40 ¼ sec.; 2nd, White, ’90, 2 min. 40 ½ sec.; 3rd, Allard, ’91, 2 min. 44 sec.

220-yards Hurdle—Dadmun showed his old time speed over the low hurdles and ran in fine form, lowering the record three-fifths of a second. 1st, Dadmun, ’91, 29 ½ sec.; 2nd, Booth, ’91, 35 ¼ sec.; 3rd, Fish, ’92.


Two-mile Bicycle. The track was too heavy for the cyclers to do themselves justice in this event, and on a good track there is no doubt that Dunbar could give the school record a tight squeeze.

1st, Dunbar, ’91, 8 min. 9 ½ sec.; 2nd, Pixley, ’93, 9 min. 30 sec.; 3rd, Southgate, ’92.

220-yards Dash—The Intercolligiate
sprinters came to the front in this event, Dadmun, '91, winning in 24\frac{3}{4} sec.; 2nd, Allen, Elect., 25\frac{1}{2} sec.; 3rd, Rawson, '93, 26\frac{3}{4} sec.

Putting 16-lb. Shot—1st, Lake, '90, 30 ft. 7 in.; 2nd, Bullard, '93, 30 ft. 4 in.; 3rd, Armstrong, '91, 27 ft. 11 in.

One-mile Run—1st, Taylor, '91, 5 min. 41\frac{1}{4} sec.; 2nd, Wires, '90, 5 min. 40\frac{3}{4} sec.; 3rd, Stearns, '91, 5 min. 44\frac{1}{4} sec.

Pole Vault—1st, Fish, '92, 8 ft. 7\frac{3}{4} in.; 2nd, Farnum, '90, 7 ft. 8 in.; 3rd, Dunbar, '91.

Mile Walk—Bradford, '91, who has twice won this event at the Intercollegiate sports, was taken sick and dropped out at the first quarter. This left Devlin, '90, the only other contestant, to walk against Bradford's record, which he lowered one-fifth of a second. Time 8 min. 41\frac{3}{4} sec. Those who should have been interested were seemingly very negligent in looking after Devlin, who was somewhat exhausted after his effort.

Standing High Jump—Fish came in for another record in this event. 1st, Fish, '92, 4 ft. 7\frac{1}{4} in.; 2nd, Southgate, '92, 4 ft. 4\frac{1}{4} in.; 3rd, Wires.

440-yards Dash—1st, Dadmun, '91, 54\frac{3}{4} sec.; 2nd, Taylor, '91, 58 sec.; 3rd, White, '90, 59 sec.

The Faculty showed a more than usual interest in the sports; among those present were Drs. Fuller and Kinnicutt of the committee, and Dr. Smith, Prof. Gladwin and Mr. Haynes.

<table>
<thead>
<tr>
<th>Event</th>
<th>Winner</th>
<th>Record</th>
<th>Tech. Record</th>
<th>Intercol. Record</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standing Broad Jump</td>
<td>Dadmun '91</td>
<td>10 ft. 4 in. (Chadwick '88)</td>
<td>18 2-5 sec. (Dadmun '91)</td>
<td>30 1-5 sec.</td>
</tr>
<tr>
<td>120 Yards Hurdle</td>
<td>Bullard '95</td>
<td>20 4-5 sec.</td>
<td>11 min. 28 4-5 sec.</td>
<td>24 4-5 sec.</td>
</tr>
<tr>
<td>Two-Mile Run</td>
<td>Wires '90</td>
<td>20 4-5 sec.</td>
<td>11 min. 28 4-5 sec.</td>
<td>24 4-5 sec.</td>
</tr>
<tr>
<td>Running High Jump</td>
<td>Fish '91</td>
<td>5 ft. 2 1-2 in.</td>
<td>5 ft. 2 1-2 in.</td>
<td>5 ft. 2 1-2 in.</td>
</tr>
<tr>
<td>100 Yards Dash</td>
<td>Dadmun '91</td>
<td>2 min. 40 1-5 sec.</td>
<td>2 min. 40 1-5 sec.</td>
<td>2 min. 40 1-5 sec.</td>
</tr>
<tr>
<td>Running Broad Jump</td>
<td>Taylor '91</td>
<td>29 4-5 sec.</td>
<td>29 4-5 sec.</td>
<td>29 4-5 sec.</td>
</tr>
<tr>
<td>Half-Mile Run</td>
<td>Dadmun '91</td>
<td>70 ft.</td>
<td>70 ft.</td>
<td>70 ft.</td>
</tr>
<tr>
<td>220 Yards Hurdle</td>
<td>Farnum '90</td>
<td>6 m. 61 1-5 (Harriman '89)</td>
<td>6 m. 61 1-5 (Harriman '89)</td>
<td>6 m. 61 1-5 (Harriman '89)</td>
</tr>
<tr>
<td>Throwing Hammer</td>
<td>Dunbar '91</td>
<td>23 4-5 sec.</td>
<td>23 4-5 sec.</td>
<td>23 4-5 sec.</td>
</tr>
<tr>
<td>Two-Mile Bicycle</td>
<td>Dadmun '91</td>
<td>30 ft. 7 in.</td>
<td>30 ft. 7 in.</td>
<td>30 ft. 7 in.</td>
</tr>
<tr>
<td>Putting 16 lb. Shot</td>
<td>Lake '90</td>
<td>8 min. 4 1-5 sec.</td>
<td>8 min. 4 1-5 sec.</td>
<td>8 min. 4 1-5 sec.</td>
</tr>
<tr>
<td>One Mile Run</td>
<td>Taylor '91</td>
<td>8 min. 4 1-5 sec.</td>
<td>8 min. 4 1-5 sec.</td>
<td>8 min. 4 1-5 sec.</td>
</tr>
<tr>
<td>Pole Vault</td>
<td>Fish '92</td>
<td>4 ft. 7 1-4 in.</td>
<td>4 ft. 7 1-4 in.</td>
<td>4 ft. 7 1-4 in.</td>
</tr>
<tr>
<td>Mile Walk</td>
<td>Devlin '90</td>
<td>4 ft. 7 1-4 in.</td>
<td>4 ft. 7 1-4 in.</td>
<td>4 ft. 7 1-4 in.</td>
</tr>
</tbody>
</table>

INSPECTION EXCURSIONS.

An Alumnus Makes Some Good Suggestions Concerning Them.

To the Editor of the WPI:

Last week an eminent professor of Cornell University, with a body of some twenty-five or more students from that institution, made a tour of inspection through the works of the ——— Manufacturing Co. of this city. The firm showed them a degree of attention which must have been highly gratifying. The escort furnished them was a man thoroughly well informed scientifically, and perfectly acquainted in every principle and detail with the path over which he led them. The trip must have been a very interesting one,
to say the least, and if the party went away without gaining some valuable information, it was not through lack of opportunity offered.

Something more than a month ago, Prof. Denton, of Stevens' Institute, with a similar party, made a like excursion to the same establishment. The degree of favor he met with was, apparently, not less than in the case previously cited. In the latter, as in the former, no pains seem to have been spared to exhibit the ways, means, and products of engineering skill, as embodied in the particular line of manufacturing to which the energies of the firm of the Co. are devoted. The appearance of a body of men headed by a reliable authority secured the favor of far more advantageous inspection than is usually accorded to a single individual.

The two incidents cited above, both of which fell under my observation, I wish to let serve as a text, upon which a few words of comment may not be out of place, referring as they do to the interests of that institution in which I, as an alumnus, hold a special pride.

The plan of establishing a series of educational trips to manufacturing concerns is one which, it seems to me, has been long awaited development at the Worcester Polytechnic. True, we visit the Steel Works and the Washburn & Moen Works during our course, and each is a most excellent type of the class of concern it represents. But in resting our observation tours with these two, are we not falling behind our sister institutes, with whom we may justly claim to be at par in other respects? Are we not neglecting our advantage of location in the centre of a large manufacturing district? Ithaca, N. Y., sends her delegations to inspect Worcester, Providence and Boston. Hoboken, N. J., deems a trip of a couple hundred miles well repaid by visits to our manufacturing concerns. And Worcester? Boston is the "Hub of the Universe" but Worcester is the "Heart of the Commonwealth" and of all New England beside, yet she fails to use her advantage of locality. In Boston, Fitchburg, Hartford, Springfield, Providence, and—ah—yes—even in that suburban city, Pawtucket, are features of mechanical engineering which will more than repay the student visitor the cash value it costs to see them.

Providence alone so easy of access from your city, offers three of as diversified type, and withal of as large proportions, as will be found in cities much farther removed, and consequently less easy to reach. The Rhode Island Locomotive Works, with its 1200 or more employes, appeals to the lover of problems in railway traction; the Corliss Engine Co., with its splendid equipment, and its exemplification of the most prominent type of stationary engine in use at the present time, presents most interesting features to the man who sees his future work in the line of furnishing power cheaply to the manufacturing world; lastly, the establishment of Manufacturing Co., with its even 1000 laborers, to one whose interest lies in the possibilities of mechanical precision, and who finds in machine tool building a congenial field in which to exercise his genius, cannot fail to present itself as a most attractive place to visit. I am not informed as to the possibility of securing admission to the Works of the Corliss Engine Co. as I am with regard to the others, but I feel confident that with a proper degree of diplomacy the favor would be granted.

With regard to the advisability of establishing a systematic series of excursions, or the practical value of the same, it seems to me there can be but one opinion. The methods of Industrial and Technical education, however good in themselves, can only procure a high grade of theoretical instruction and in addition, a certain small degree of practical knowledge, much limited by the necessarily small capacity of the technical workshop. Better preparations for actual business can only be secured by so placing the undergraduate student that his powers of observation and absorption of ideas may come into full play, and thus that he may work out his own end. This position can be given him, by visits like the above to places where he may confidently expect sometime to find himself in a strictly business relation. Of course, as in everything else, the active and interested student will eagerly grasp his opportunity and secure his profit, while his indolent and unconcerned brother will fail to reap any benefit whatever. Each will work out his
own end, but I think we may safely affirm that with the majority the profit will repay the outlay.

I have premised two things in the foregoing lines: First, the student's desire to incorporate in his course the plan suggested; Second, the complete co-operation between student and professor. In this connection I would notice, that neither Prof. Gleason nor Prof. Denton took Saturday or Wednesday afternoon for his trip, also that for the time being all the unpleasant college bravado usual in a company of students gave way to a very apparent interest in what was before them. Professor and students alike accepted the explanations of their escort as authoritative. If discussions were made, they came in the classroom afterwards.

I present the above from beginning to end merely as a collection of thoughts which arose in my mind after observing the incidents related; inferences can be drawn at will. The opportunities enjoyed by the undergraduate student are, it seems to me, peculiarly great. No point can be urged more strongly than to make the most of them.

With the most cordial interest in the continued success of the W P I and the noble Institute it represents, I am,

Respectfully yours,

CHAS. L. GRIFFIN, '88.

PROVIDENCE, R. I., March 31, 1890.

---

THE NEW ELECTRIC LIGHT PLANT
And its connection with the Polytechnic Institute.

Those of the students resident in Worcester can remember when the streets of the city boasted not even a single electric light, but now within a few short years a great change has taken place; all the important streets have their arc lamps and our merchants recognizing that they can get a better and a cleaner illumination for nearly the same cost are rapidly introducing incandescent lighting in their stores.

Besides this there are numerous concerns employing electricity for power in their shops, and at the present time the Street Railway Co. is about to introduce the modern electric railway upon some or all of their lines as a substitute for the more cumbersome and expensive horse power.

This rapid development of electricity for lighting and power, not only in New England but throughout the United States and European countries, has never been equalled in any other industry.

The sudden growth of the business is creating a demand for men to engage in it and as a result the scientific schools of the country have all established courses for training electrical engineers well versed in theory and practice.

A few years ago the company that could build the best dynamos were those that had experimented the most and then it was simply a case of selecting the best from a large number of trials, but now it is possible for trained engineers to compute the dimensions and proportions with as great accuracy as in designing steam engines or other machinery.

It is in line with this demand for men versed in theoretical knowledge as well as practical that, through the efforts of Dr. Kimball, the trustees of the Institute have established a course in electrical engineering.

It is the aim of this course to give the student theoretical and practical training which will serve as a good foundation for professional work.

This course arranged as it is so that it is open only to graduates from the Mechanical Engineering course affords a very complete and desirable training and the fact that the student taking it must be a mechanic exactly follows the results of experience, namely, that it is of an untold advantage for an electrical engineer to have mechanical ability, and experience in a practical shop such as the Institute affords.

In addition to the present equipment of generators, motors and storage batteries, there is in process of construction a 300-light machine which will eventually be used for lighting the Salisbury Laboratories. Besides this, through the liberality and hearty co-operation of the directors of the Worcester Electric Light Co., and their superintendent, Mr. Coughlin, the students of this course will have an opportunity to investigate the actual workings of a model central station: to make tests of their own with the generators and instruments actually in practical use.
THE WPI.

This is an opportunity rarely afforded to any educational institution and the fact that this new station now in process of construction is to be a model of its kind, ranking among the very best in the country, enhances its value in no small degree. The station, at a short distance from the school, on the shore of Salisbury pond, just east of Institute park, may be said to be divided into three parts: the boiler-house, the engine-room, and the dynamo-room.

The boiler-house is on the side next the pond, and contains two batteries of four boilers each, built by Wm. Allen of this city, and there is enough additional room to set up as many more.

Adjoining this are the coal sheds, capable of containing a full supply of coal. The water for the boilers is to be pumped from the pond close by. On the other side of the boiler-house from the pond is the engine-room, which at present contains two compound engines built by the Corliss Engine Co. of Providence, and additional room enough for two others of the same size.

These engines are intended to drive the generators used for lighting and are of 350 and 550 horse-power. In each case, the steam passes directly from the boiler into the high-pressure cylinders, then is exhausted into a receiver and from thence taken into the low-pressure cylinder and out.

The additional room at present unoccupied will be filled by engines and dynamos to generate electricity for power purposes, and for the street-railway service as soon as it is adopted.

The engines are set up on piers of solid brickwork and masonry about sixteen or seventeen feet from the earth and three feet below the level of the dynamo-room, each cylinder being on a separate pier; the fly-wheels (22 and 20 feet in diameter,) common to each pair of cylinders revolving between their respective piers, are belted directly to the shafting in the basement beneath the dynamo-room. From this line of shafting belts take the power through to the generators on the floor above.

The generators for arc lighting are Thomson-Houston direct-current dynamos, and for incandescent lighting, Westinghouse alternate-current machines are used.

The dynamo-room is large, light and without posts. It is said to be the largest continuous floor space in the city. On the second floor are the Company's offices, lamp-room, store-rooms and lockers for employees.

The wires enter the building through a turret on the roof and come down through a cage in the centre of the building to the switch-board on the first floor.

Exactly what form of instruction will be followed out is not arranged in detail but will probably be something like the regular shop practice. Whatever this may be it will at any rate be of great value to the students and the Institute.

THE RAVING.

(After Poe)

After Poe.

Once, upon a midnight dreary,
As I wandered weak and weary
To our reading room, a while to pore,
Suddenly I heard a chatting
As of some one loudly spitting, Spitting just behind the office door.
'Tis some chapel crime, I muttered. And my heart in terror fluttered;
I drew nearer than before. Silence there was, nothing more.

Then again arose the jawing. Sounded much like crows a' cawing, Seemed its force would crack the very door. And it louder grew and heated, Short quick words were oft repeated, Each contestant seemed to sweat at every pore. What could be the fault, I thought, there This poor fellow could have brought there, I pressed closer to the door— A sound like mopping on the floor.

Then I heard the awful sentence, Sure 't would bring the lad's repentance. "You will have to sit before" On the Prep seat in the choir. It will raise your morals higher Higher by an inch or more. At your stature I've been gazing, I think you little folks need raising." Here a large, three-cornered grin came through the door. I retreated, fearing more.
Now arose the young man’s ire,
The very keyhole blazed with fire,
And I fear me much some undergarment tore.
And he spoke (the knob did shine there),
“T’ll tell you, D—e, I draw the line there,
I’ve never been a Prep and will not be, that’s more.
You may keep your blamed old sheepskin
That I’ve worked for till I’m down thin.”
And he started for the door.
The D——r stopped him and spoke lower.

Then arose a mild entreaty,
Sounded much like lambs a bleating.
“Hadn’t wished to say a thing to make you sore,
Hoped the matter ’d be adjusted,
Hoped no friendship’s ties were busted,
Wished things might go on as smoothly as before.

[Aside.] I didn’t know he was so fighty,
He looks little but he’s mighty;
Ugh! He might have thirsted for my gore.”
The door shut with a bang and silence
reigned once more.

Il. Been.

---

THE LABORATORY ELEVATOR.

It is not representative of the Institute’s high
grade work.

A member of our school recently received
an urgent request from a friend to be permitted
to visit the school. Of course the student gladly complied with
the request and showed his guest about the
Institute. After visiting Boynton Hall and
meandering about in the Shop, the Laboratories were reached. The host, being
anxious to show the new building off in the
best light possible, and not being a chemist,
conceived the idea of taking his friend up
to the top floor of the building on the elevator.
The lower door was found unlocked and
he pulled the cord to bring the elevator
down and then stepped into the boiler
room to show its mysteries while the car
was descending. After looking about the
room for a while the visitor turned about as
if to look for the elevator and both walked
to the door expecting to be carried up.
But the car had not arrived as yet and upon
looking up it was found that it had
descended but one floor, and was slowly
wending its way toward them. They were
somewhat surprised at the rapidity of the
descent but thought nothing of it, or rather
the student thought nothing of it and did not
notice that his companion was eyeing it sharply. After waiting a moment or two
longer it was found that the car had stopped
and it took several pulls and pushes on the
shipping cord to get it below the second
floor. It finally arrived, however, and the
sight-seers stepped aboard and began to
ascend. The visitor asked if this was the
usual rate of speed, but the student replied
that, as the doors were almost invariably
locked he did not know but was of the
opinion that something was out of order,
with which conclusion his companion readily
agreed. At the third floor the speed slack-
ened almost to a stop, but by several pulls
upon the shipper and the visitor putting his
weight upon the gate, they moved slowly
on and finally reached the top floor after
about five minutes of tugging, pulling
and pushing. Upon arriving the first
chemist seen was questioned by the visitor
as to the speed and value of the elevator.
This young man replied to all the questions
but was unable to say that he ever knew the
ascent to be made in less than 2½ minutes
and he added that the chemists could
usually walk up the stairs and get half a
day’s work done before the elevator could
bring them up.

When the visitor, who was a prominent,
well-to-do business man, was about to leave
his guide, he remarked that he had wished to
visit the school, not so much to see the build-
ings as to notice the elevator as he was on the
point of getting two for a new block he had
recently erected. The student did his best
to get out of the scrape and say a good
word for the elevators in general, but it was
of no avail. The gentleman thought
that the school would of course have its
best machine at home for an advertisement,
and he certainly could not think of putting
in two such machines as the one he had
rode upon.

Now if there is any moral to our story or
if it is possible to learn anything from it,
we believe it is this: Our school has more
than 150 students coming from all parts of
the United States and some from foreign
countries; these men leaving the school will
go to shops and places of business where
elevators are used; in all probability many
of them will in time have to purchase an
elevator; now we believe it an economical
scheme to keep the elevator in good working order; to keep it in such a condition that we may recommend it to our friends who might purchase: further we believe the school would profit financially, even at the expense of $8.005 per trip, if the elevator were open to the use of students, at any rate to those who have to go to the top of the building from one to ten times some days.

THE CLASS CHAMPIONSHIP BASE BALL SERIES.

'90 Must Content Herself with Second Place.

To use a big word, this season's base ball series has shown up in great style the idiosyncrasies of base ball. '90's finest, who had a right to the championship for a third time, in their own minds, on the principle of the survival of the fittest, have been chastised by '92.

'91, a class that could play recognizable ball in its infancy has been maltreated by everybody but the Prep aggregation.

The latter, '93, which essayed in the last WPI to explain the national game to the upper classes, has been given food for reflection by each of them in succession, and comes off with an unbroken record—three blanks.

'92, the winner of the championship, also has a clean record.—three straight games,—and it must be admitted that the penant has been won by good playing rather than through the agency of its mascot.—a questionable looking bottle with "'92" in letters of blood painted upon it.

Altogether the series has been an improvement over those of previous years. While the games as a whole have been an exhibition of ragged team work, the playing has developed some individual ball players who will fill their respective positions with credit if the school succeeds in building a nine. Unfortunately for the future, the graduating class contains a number of these players and they will take away a big slice of our base ball "raw material" when they join the ranks of the Alumni. When it is remembered that this school once had a ball team that could beat nines from the colleges, and that these latter now put up a stiff game with the National League teams, it will be seen how entirely we have failed to keep pace with other schools in the matter of base ball. An effort is being made, however, to organize a school nine this spring and it ought to meet with a cash encouragement from every man in school.

At a recent meeting of the association, E. S. Phelps, '91, was elected captain. The only odds to be overcome is the question of a battery, as the latter is generally considered a necessary appendage to a good ball nine, and if a man can be found who will undertake to pitch a ball that a school-girl couldn't hit the question of a school team will be solved.

'93 has some good players and ought not to allow her defeats to discourage her. Those who did not see the final game between the Preps and the Juniors missed the finest contest of the series. The Preps kept their opponents in hot water throughout the game and a little timely batting might have put a different face on the record of the championship games of 1890. In deference to the individual players, the full scores of the series are suppressed.

The results of the games are as follows:

<table>
<thead>
<tr>
<th></th>
<th>Runs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seniors vs. Preps</td>
<td>'90 ... ... 26</td>
</tr>
<tr>
<td></td>
<td>'93 ... ... 18</td>
</tr>
<tr>
<td>Seniors vs. Middlers</td>
<td>'90 ... ... 9</td>
</tr>
<tr>
<td></td>
<td>'91 ... ... 8</td>
</tr>
<tr>
<td>Seniors vs. Juniors</td>
<td>'92 ... ... 11</td>
</tr>
<tr>
<td></td>
<td>'90 ... ... 6</td>
</tr>
<tr>
<td>Middlers vs. Preps</td>
<td>'91 ... ... 22</td>
</tr>
<tr>
<td></td>
<td>'92 ... ... 21</td>
</tr>
<tr>
<td>Middlers vs. Juniors</td>
<td>'92 ... ... 21</td>
</tr>
<tr>
<td></td>
<td>'91 ... ... 12</td>
</tr>
<tr>
<td>Juniors vs. Preps</td>
<td>'92 ... ... 13</td>
</tr>
<tr>
<td></td>
<td>'93 ... ... 10</td>
</tr>
</tbody>
</table>

THE TECH BASE BALL NINE.

"It is the unexpected that happens."

Last fall it was a foot-ball funeral. This spring it is a faculty committee in sympathy with our athletic interests, and now, wonder of wonders, a Tech ball nine has been organized and has actually played a game—the first played by a regular Institute nine in many seasons. Certainly "The world
do move." This game was played Friday, May 9, with the Chatham Club nine, and, with the acknowledged assistance of the umpire, resulted in a defeat for the Tech nine by a score of 9 to 8. Captain E. S. Phelps is well satisfied with the game that the men put up, however, and believes the school has the making of a strong nine. In the first game the positions were filled as follows,—Catcher, Crosby, '90; Pitcher, Phelps, '91; 1st. Base, Wallace, '92; 2nd Base, Tucker, '92; 3rd Base, Southgate, '92; Shortstop, Cully, '92; Left, Andrews, '92; Centre, Rice, '90; Right, Lake, '90.

These players, with such men as the Treadways, '90, Dadmun and Kimball, '91, and others from the lower classes will make a team that will do the school credit if the men take time to practice. A game will soon be played with the Academy nine, followed, if possible, by a game with the Amherst Aggies.

AMHERST'S PROSPECTS FOR THE PENNANT.

What we are to Expect in the Coming Contest.

Amherst's prospects for the pennant seem to be unusually bright this year, and to Amherst men themselves they appear extremely so.

Dartmouth's walking away with the pennant last year was a very bitter pill for them to swallow, and so this year they are working with a dogged determination which means win if possible. They have very little to say for themselves and about their men, and seem to be going on Dartmouth's last year's plan of keeping "mum."

Their men are all working in good form and most of all of them have gone into active training, and a few have been training throughout the winter, for their men have excellent opportunities for putting in good in-door work as their gymnasium facilities are surpassed by none in the country.

Ninety-three brought them some very good men last fall who are expected to take prizes this spring. One of them broke Delebarre's intercollegiate record for the two-mile bicycle at a meet last fall. He is a good man and seems sure of first.

They also have a new man for the shot and hammer, whom they claim is a record breaker, and when you talk to them of the mile run, they only remark that "Wells has not graduated yet."

For the 120 hurdle they mention Ludington as a sure winner, but if he does win, it will require more training on his part than he usually gives to it.

They also have a dark horse for the pole vault, whom they are pushing, for now that Marshall is gone they feel sure of another first.

For the hundred yards great work is expected of Raley, a man who got a place in the finals last year.

The half-mile which was theirs last year looks blank to them now, for Porter who won it is gone and the time which won it has been lowered by Taylor three-fifths of a second.

On the whole they have some very good men, and feel very confident.

While we have not much to say one way or the other, we have one or two men that are going to make Amherst get a great big hustle on herself to beat.

SOCIAL LIFE OF TECH STUDENTS.

Lack of Sociability Even Among Ourselves.

The amount of time given up by the Tech students to social life is indeed very small, very much smaller than it should be. A reasonable amount of time, so as not to too seriously interfere with the studies, spent socially will hurt no man. It will do him good, it will bring him in contact with different people, he will get new and broader ideas, it will help to make his school life a pleasure instead of a drudgery, and when he graduates he will be a much broader minded man, and will not be totally ignorant of the ways of the world with which he must cope.

Now, don't mistake our meaning, and think that we mean he must go to every dance that comes along or to every party that is given, we make a distinction between social and society life. When a man comes to Worcester if he has any friends or relatives who can introduce him to people and make him acquainted, so that he may be received at their homes, then that man is very lucky indeed. The bare fact of being acquainted with a man if he is prom-
inent and influential, is often a great help to a person, especially to young men.

You meet a young lady, you call at her house, you meet her father and mother, her father may be a prominent man; he may be of some help to you some time; this acquaintance and coming in contact with him can surely do you no harm and probably will do you lots of good.

The more acquaintances and friends a man has the better he is fitted to make his way through life. With many members of the school when they first enter, especially with the Prep class, the case is that they know no one in town. Then what shall they do with their spare evenings; well the larger part of them either walk the streets or attend the first place of amusement they come across; they have no way of being introduced so if they wished to make a call they could not, so they do anything to pass the time.

Some of the men in school give up a great deal of their time to social amusement, while others only indulge in it to a moderate extent, and there are still others, and these latter are the most numerous, who do not spend any of their time socially. If they wish to and have no means of getting acquainted, then let some means be provided by which they can have their due share.

And there is yet one more point and it is that the fellows in general are very unsocial among themselves. Now, why can not some means be provided by which the men can become better acquainted with each other outside of school hours? Why cannot this school support a good society of some kind—other schools of the same size support a good many, now why can’t we?

That would be our way to start some social life among the Tech students, and spread among them a friendliness and regard for each other which is now very little felt.

---

PERSONALS.

L. H. Bateman, ’76, has changed his location and is now with his brother F. W. Bateman, ’71, in charge of the construction of the Franklin and Tilton R. R. of New Hampshire.

A. W. Burnham, ’83, has resigned his position with F. E. Reed of this city to accept a position as mechanical engineer with Chicago architects.

Chester B. Albree, ’84, in business at Allegheny, Penn., has recently published an illustrated catalogue of Bridge Railings, Designs for Posts, etc.

At the meeting of the Society of Mechanical Engineers at Cincinnati, in session this week, the Institute is represented by two of its instructors. Prof. Geo. I. Alden has a paper on an “Automatic Absorption Dynamometer,” and W. W. Bird, ’87, presents a paper on “An Open-end Mercury Column for High Pressures.”

At a meeting of the Radiator Association of the United States, which has for its members the leading radiator manufacturers of this country, W. H. Oakes, ’86, engineer for the National Hot Water Heater Co., of Boston, was unanimously elected secretary.

F. L. Emory, ’87, has accepted a position as superintendent of the technical instruction department in Concord Reformatory.

The Sprague Electric Motor Co., of New York City, with whom McFadden, ’88, is connected, is equipping cars with electric motors for the Lindell Car Works of St. Louis. Mr. McFadden is now at that place superintending the job.

Schofield, ’88, is draughting for the Kidder Press Manufacturing Co. of Boston.

Harriman, ’88, gave us a call recently. He is engaged in electrical work.

Ball, ’88, was seen in the city recently.

J. W. Mills, ’89, has bought a half interest in an assaying and analytical establishment in Birmingham, Ala.

Davenport, formerly in the class of ’90, is now with the Thomson-Houston Electric Co. at Lynn.

It is rumored that Lake, ’90, is to join Harvard’s ranks, next year.

Barnard, formerly of ’90, has an enviable position in the engineering department of the Pittsburg, Cincinnati and St. Louis R. R., with headquarters at Pittsburg, Pa.

Chester Howe, ’90’s mascot of last year, failed to put in an appearance this season, and to that fact the boys lay their defeat on the diamond. ’90 was ever dependent on
mascots for her successes, though "horse

trots" were said to be exceedingly popular

last year.

The Treadways, '90, received a flying
visit from their father last month.

G. W. Carleton, formerly of '91, has been
travelling for the past few months, introducing
a water-gas plant, recently invented by
his father.

W. N. Fish, ex. '91, is now connected
with Hotel Bristol in New York City.

AMONG THE COLLEGES.

Notes from Other Institutions of Interest to
Tech Students.

A package of circulars was recently sent
by an Ohio firm to the Yale senior class for
distribution. The circular contains the de-
tails of a scheme for furnishing compositions,
theses, papers, orations, etc., at
anything from three to twenty-five dollars
each. It concludes with the words, "There
are students who waste both time and
parental money in gorging a brain with ma-
terial as essentially forein to that particular
intellect as sawdust to the human system.
The large number of productions that we
have furnished to the best colleges in the
land have given entire satisfaction." This
oration factory is said to have done a thou-
sand dollar business with Cornell alone last
year. We hear from another source of two
students in a prominent college who handed
in essays which were identical with the ex-
ception of one word. It was probably an
oversight on the part of the managers of this
same factory, in sending like copies to the
same college.

There was an amusing incident recently at
Colby University, Waterville, Me. The
Co-ed. girls gave a reception to the Fresh-
man Class. As it was a rainy night the
guests were provided with umbrellas which
certain tricky Sophomores thought it would
be a good plan to steal. They got into the
hall and sneaked off with all the Freshmen
umbrellas, but the Freshmen took kindly to
the joke, borrowed umbrellas of the girls
and the next morning circulated the report
that the girls' umbrellas had been stolen.
Before night the Sophs had returned all the
umbrellas to the girls' quarters; thus the
Freshmen had a good laugh on the Sophs.

A collection of vegetable products con-
sisting of valuable wood fibres, fruits, etc.,
is to be established at the University of
Pennsylvania. When complete it will be
known as the Museum of Economic Botany.
The different specimens will be exhibited in
the rough and dressed state with the pro-
ducts of their manufacture grouped around
them. Sections of trees will be shown cut
at right angles and parallel to the grain.
The museum when ready will be open to
the Philadelphia manufacturers to whom it
will be of great benefit when in search of a
certain quality of timber. The enterprise
will be the first of its kind in this country.

Word comes from Williams College that
the men, from whom good work at Worces-
ter is expected, are: Samuel Crook, '90, in
the standing high and broad jumps; Francis,
'90, Crook, '90, and Peters, '91, in the run-
ing high jump; Strong, '90, with Davies,
'92, in the running broad jump; and Went-
worth, '91, Person, '91, Welch, '93, in the
pole vault. The tug-of-war team will be
coached for six weeks before the meeting by
Robert Winston.

According to the London Lancet the total
number of deaths resulting from football
last year was thirteen; fracture of legs,
fifteen; of arms, four; of collar-bone,
eleven; injuries to spine, three; to nose,
one; to ankle, one; to cheek, one; and to
knee, one.

All the athletic organizations at Columbia
have been united under the control of a
board of sixteen directors, eight of whom
are from the alumni. The board has the
total control of finances as well as the gen-
eral control of the athletic interests of the
college.

Dohm, '90, of Princeton, has made a re-
markable record in running. He entered
thirty-one races between May 1, 1888, and
October 5, 1889, winning twenty-five first,
three second, and three third prizes. In
every race he has been scratch man.

Brown University is soon to have two
handsome new buildings, the Ladd Observa-

tory and the Wilson Physical Laboratory,
both by recent gifts. The Ladd Observa-
tory when finished will be one of the finest
and most complete in the country.

The average weight of the eight men in
the Yale crew this year is 183 lbs. On
account of this great weight the shell is buried out of sight in the water. Captain Allen expects to reduce the weight to 170 lbs. by the time of the Harvard race.

At the Harvard Medical School, examination papers are numbered and marked with a per cent. by the instructor who is wholly ignorant as to the writer.

Some crimson letter boxes were put up in New Haven, one of which was placed in the college yard. During the night its color changed to blue. The postmaster understood and the next day had a large Y painted on the box.

There is a movement on foot at Yale to establish a hospital building for sick students, to be known as the Yale Home.

Dartmouth College has increased the salaries of her professors two hundred dollars each.

Harvard athletics in all its branches costs each student about twenty-five dollars every year.

Ten thousand dollars has been raised for a new athletic field at Columbia.

Cornell formally opened her new gymnasium on the fifteenth of last month.

Over $3,675,000 was given to forty-two American colleges last year.

A red-headed club has been formed at Rutgers.

---

**WHO KILLED COCK ROBIN?**

("Who Swiped '90?")

Who swiped '90?
We, says '92, with our nine good men and true;
We swiped '90.

Who will sound their knell?
We, says '92, with our Rah! Rah! Rah! class yell;
We will sound their knell.

Who will make their shroud?
We, says '92, we will do it and be proud; for '90 has not oft been swiped before;
We will make their shroud.

Who will get their coffin?
We, says '92, that we'll hire the Preps to do;
We will get their coffin.

---

Who will dig their grave?
We says '92, we will dig it wide and deep, like the Faculty's "bottomless pit."
We will dig their grave.

Who will drink their gore?
I, says Dewey's field, and I'll thirst for more and more;
I will drink their gore.

Who will get the parson?
We, says '92, we will see to that, if John Hurley's not on a bat,
He shall be the parson.

Who will be the singers?
We, says '92, we'll sing No. 44, nought could please them more than that;
We will be the singers.

Who will be the mourners?
We, says '92; sorry we are for you that for the championship you're goner;
We will be the mourners.

Who was the Mascot?
I, says the big black bottle, was '92's Mascot with my streamers red and black I did rattie '90;
I was the Mascot.

---

FOR SALE.—A full nickel bicycle hub lamp. Used but once. Will sell cheap.
Savage, '92.

---

**TECHNICALITIES.**

Oh, Eollie, where did you steal that tile?
Everybody is glad to welcome Cully back.
Only one month more, '90. Take a brace.
Who stole '93's catcher's gloves?
The Senior Civils have completed their design for a lattice girder of 180 ft. span.
The Worcester Brass Band has been engaged for '90's Class Day.
Why don't the Preps build a catcher's fence?
Junior and "Jonah" mean the same thing this year.
Wanted: a synonym for the word "generally" in metallurgy lectures.
Did you see the alleged game between '91 and '92 April 15? Oh, mama, mama!
Hurrah for the Preps—they have a class yell and know how to use it.
Good looking set of fellows, our Seniors; too bad they have to work so hard.

The men say that the moonlight interfered with the catching in the '91-92 ball game, April 25.

The latest rule in the Free-hand Drawing room:—"All backgrounds to be made a bluish, purplish, reddish tinge of gray."

The Seniors are undecided whether Gillmore's "Art of Expression" or the "General Excuse" book has been the most interesting study of their course.

Three of '91's bats were broken during their game with '93. Henceforth the '91 ball team will do all business under the name of the "Bat Smashe rs."

Nathan Rice, '93, has returned to school after an absence of nearly two weeks caused by a severe wound in the knee sustained during practice.

Middlers took the physical examination April 24. Next day they were beaten by the Juniors 21 to 12. This shows what we feared would be the result. The examination must go.

Talk about physical examinations! Why, just get one of Prince's statistic papers and answer all the questions and you get a better physical examination for nothing than you did for fifty cents.

Mr. O. B. Hadwen of the Worcester Parks Commission, has presented the Senior class with a fine specimen of Ulmus Americana, which has already been planted near the north gate of the Institute grounds.

Chapel music must be wearying. Every one gets so tired out on the first verse that he has to rest during the second to gain strength to come in with the leaders on the last line of the third.

Middler Mechanics and Civils have been taking indicator cards from the Colli ss engine at the shop. From them they computed the theoretical expansion curve and the horse power.

Division A of the Apprentice class has finished its English under Dr. Fuller, and will take up French again with Prof. Smith. With Division B, it is the reverse, having finished French and begun English.

The enterprise shown by the efficient guardian of our school premises is worthy of the highest praise. Our buildings are kept clean and tidy while the grounds are as well cared for as if they were the private park of a millionaire.

It is a bad give away on a man when he has to stop and cut a leaf in the middle of a translation on which he has spent two hours (?) the night before. It is an old joke, though, and the instructors are quite used to it.

Distance lends enchantment to Farnum's bicycle riding. When seen lately on the Boulevard he was cutting some very intricate scrolls, and shouting at the top of his voice: "Whoever owns this machine come take me off!"

It seems too good to be true, but it is a fact, nevertheless, that several members of the Faculty came out to see the cross-country run. This is the most pleasing innovation that the W P I has had a chance to report for some time.

Professor of Geology to a Civil of the Senior class:—What reason can you assign, Sir, for not being able to recite on this part of the lesson?

Student:—Please, Professor, I was thinking about Flora.

The Academy boys ought to feel highly flattered when they learn that the knowing small boy of Water street mistook a party of Techs, on a tear to the Quinsigamond Wire Mill, for the Academy baseball nine and its contingents.

The Middlers were beaten their first two games in the class series and Bradford played in neither game. The third game "Konigin" played and the Middlers won. The conclusion, so Doggie says, is inevitable.

Why should I strive and fume and fret,
To win a sheep-skin?—empty honor!
They're not true sheepskin, I will bet
Not one e'er had the wool upon her.
I'll give my claims up to another,
I'd rather own a bleating lamb.
These parchments never had a mother
Because they are not worth a damn.

It is rumored that only those who passed the physical examination will be allowed hereafter to shin the front walk. All others will have to take the new road round the hill and come up West street, where the grade is said to be less than forty-five degrees.
In a recent steam engineering recitation, Mr. Bird spoke of a machine that would integrate. The boys at once flocked up to give an order for the universal, automatic, calculus smasher, and were much disappointed to learn that it would not touch an ordinary problem.

One of our exchanges tells of certain higher classmen there, who take pleasure in lying awake nights to hear their whiskers grow. From the appearance of some of our men we should think that the sound of that growth would keep them awake nights whether they took pleasure in it or not.

If the elevator in the Salisbury Laboratories still persists in running at the rate of five feet per minute, how long will it be before some unfortunate chemist is caught trying to shine up the rope, so as to reach the top before the professor whom he sees walking up the stairs?

While one of the Middlers was airing his experiences at the school, to a New Hampshire minister, a short time since, he mentioned the blacksmith shop, among other things. At this the reverend gentleman’s eyes stuck out, and he exclaimed: “You don’t mean to tell me that you learn to shoe horses up at your school?”

The class in calculus was startled a short time since by the sudden opening of one of the doors. It was closed and relocked again so quickly that it caused the larger part of the class to shudder perceptibly. However, those who got their optics turned in that direction quick enough say it was not an appearance of the “hand.”

McLane seems to think that even a dead dog can be brought into use by Tech students. He was noticed confidentially advising Prof. White to use one for a “bench mark,” one day recently. Jim knowingly assured all present that the dog would never stir,—in fact he was willing to keep an eye on it to see that it was not molested.

Did some one say that ’91 has an outlook committee in search of a class yell? Why not extend this one a call?

Hip-hip hip-Ki-yi, Ki-yi,
Razzle-dazzle, cock-eye, shut-eye,
Give ’em a black eye, P I, P I,
Shiny-diddle-soup-bag, ’91.
Tiger! Tiger! Boom!!

Facts gleaned in a lecture room:—
Merrifield’s house is of glacial origin.
In no one of the New England States which lie south of Long Island can tarman-line be found.
Where the Connecticut flows into the Gulf of Mexico, the soil is more finely granular than farther up the river.

A superficial coating is generally put on the outside of wire to prevent oxidation.

The attention of our readers is called to the advertisers in this paper, many of whom are new this year. It is popularly supposed that men who advertise in school journals do so as an act of charity, and this may be the case in small towns, but here it is fair for these men to assume that they will catch the trade of the boys. Certainly it is for our interest to trade with our advertisers if, indeed, it is not our duty to do so.

“Trespassing is forbidden under penalty of the law” signs have made their spring début over every spear of grass in the big field that is such a convenient cross-cut from the school to Highland Street. It is sincerely to be hoped that both the students and the residents of Boynton Street will heed the warning. The boys would feel it keenly to see one of the Faculty driven off in the “Black Maria.”

Students from Holy Cross College presented Schiller’s Wilhelm Tell recently in Mechanics Hall. Its presentation came rather late to be useful to the Middlers, who are translating it, but the show might once have done what its instructor here has had indifferent success in doing, and that is, to instill into the minds of the class the idea that the work was not originally intended for a howling comedy. Anyone who undertakes to hear the present Middle class read “high” German, takes his sense of the sublime in his own hands, and must put up with some original translations.

The officers of the Tennis Association for the coming year, are as follows: President, A. B. Larcher, ’90; Vice-President, C. H. Dunbar, ’91; Secretary and Treasurer, F. E. Bradford, ’91.

Come now, Mr. Prep, join the school tennis association. If you can’t play now, just join and we will introduce you to the attractions of the game. It will cost you but a dollar this year and twenty-five cents a year.
afterward. Step right up and pay your dollar. It will help along the cause of athletics, and if you want to raise your "personal" with the boys, the only way to do it is to identify yourself with the athletic interests of the school.

'92 had the audacity to present the following sreech after its game with '93:

"Ach, nun Glück.
Nicht in die Suppe
Sind die Knaben
Von '92!"

That may be good enough German,—we can't tell because it is not school hours—but it would certainly be more seductive if the class would stretch it out a little and introduce some different kinds of feet, and perhaps some different languages. For instance:

Ach, nun Glück. '90 is a mick.
Noujous '91, and we make them very sick.
But, Himmels, '93. Didn't they make us hustle quick?
Ach! — Oh — Selah!

Dr. Smith entertained the Political Economy Club at his home on the evening of May 6th. The occasion was the disbanding of the club, and after a very interesting lecture on Socialism, refreshments were served and all formality dispelled. Music and other entertainment made the evening pass very quickly. At the conclusion of the lecture Mr. A. B. Larchar in a few well chosen words expressed for the club their appreciation of Dr. Smith's services, and presented him with a copy of resolutions adopted by the club.

Some time since a letter was found in one of the rooms at the school. Unfortunately there is not the slightest thing to indicate who owns it, or we would have returned it, as it seems important. Fearing that the owner never saw the letter, and is wondering about it, we print it in full:

BOSTON, April 17, 1890.

FRIEND WILLIE:

Yours of the 15th at hand, and was quite appropriate, as the package arrived yesterday, the 16th A. M., and my package, a 10½ pound girl, arrived yesterday about 1.15 P. M. Mother and child doing nicely. With many thanks for your kind remembrance, we are respectfully,

FRANK AND MIMA.

"Friend Willie" may have his letter at any time by applying at the sanctum.

The University Cynic, the pleasingly eccentric representative of the University of Vermont, in its issue of April 24, encroaches upon the valuable space usually allotted to mighty productions inspired by the encyclopaedia, and explains at tedious length the true meaning of the word "baby", apologizing, at the same time, for a rather questionable use of language in a report of the N. E. I. A. A. convention, which it printed in a former number. The W P I is pleased to receive such a complete vindication of the modest criticism concerning its loud-mouthed contemporary, which it printed in March, and hopes for a further continuance of the kind favors and touching exhibitions of brotherly love and affection which our interesting Vermont friends so well know how to give.

PINKHAM & WILLIS,

FURNITURE & CARPETS,

355 Main, corner Foster Street,

WORCESTER, - - MASS.
P. L. RIDER,
336 Main Street, opposite Burnside Building.
RUBBER

MACKINTOSHES.

FRED. W. WELLINGTON & CO.,
Wholesale and Retail Dealers in
COAL.

BICYCLES AND TRICYCLES.

GENTS’ LADIES’

New Mail
Psycho.
Rambler.
Swift.
Rover.
Swift.
Boston.
Swift.
Boston.
Singer.
Rover.
Singer.
Rover.

COATS,
Boots and Shoes,
HATS,
GLOVES,
Mechanical Goods,
Everything.

FRED. W. WELLINGTON & CO.,
Woolen & Retail Utensils
COAL

416 MAIN ST., - WORCESTER, MASS.
Branch Office, 600 MAIN STREET
Coal Pockets,
NORWICH, - CONN.
Retail Yard,

L. M. ALEXANDER,
Hill & Tolman’s Old Stand,
Hall’s Block, 195 Front Street.

J. C. WHITE,
DEALER IN
MATHEMATICAL INSTRUMENTS
And Artist Materials.
Also, Full Line of
Paints, Oils, Glass and Varnishes.

12 Pearl Street, Opp. Post Office.

BIGELOW & LONGLEY,
384 and 388 Main, cor. Elm St.

CUSTOM AND READY-MADE CLOTHING
OF HIGH QUALITY AND PERFECT STYLE.

These are the days when one must make a change in his clothing, laying off the heavy garments of Winter, and putting in their place the lighter weight and lighter colored garments suitable for the milder season now upon us. Right here, where you have found the BEST GOODS year in and year out, you will find now a magnificent line of

SPRING OVERCOATS,
That we really believe to be unequalled in Worcester. They come in Scotch Cheviots, Meltons, Wide Wale, Light and Medium Colored Worsted, and Kerseys, all are thoroughly Made and are NOBBY, ATTRACTIVE, and STYLISH, they are beauties and may be had FROM $5.00 TO $25.00

We have to-day the NOBBIEST SUITS for Young Men to be found anywhere. The goods are made to our Special Order and cannot be improved upon.

IN OUR CUSTOM DEPARTMENT
Young Men can find elegant cloths of all kinds to select from, and SKILLED ARTISTS to fit in the most stylish manner. All work in this department guaranteed, PRICES ALWAYS LOW.

BIGELOW & LONGLEY,
Corner Main and Elm Streets.
EDWARD B. CLAPP,
Fashionable Hat,
Fine Furnishing
- AND -
Athletic House.

Sole Agent for, and representing the Leading Houses of this country in Sporting and Athletic Goods. Novelties of the foreign and domestic markets.

WEDDING AND PARTY OUTFITS A SPECIALTY,
365 Main Street, Worcester.

TIFFANY & CO.,
JEWELERS AND SILVERSMITHS,
UNION SQUARE, - NEW YORK.

PARIS
Ave de l'Opera 36 bis

LONDON
5 Argyll Place, W

Received Eighteen Awards at the Paris Exposition, 1889, for their Artistic Designs and Superior Workmanship.

Exclusive Designs furnished on application for Class Cups, Class Rings, Alumni Badges and other College Emblems and Trophies; also Invitations for Class Dinners, Commencement Exercises, &c., &c.

PHOTOGRAPHIC SUPPLIES,
Cameras, Lenses, Plates, Lanterns, &c.

Chlo. Gold, Tungstate Soda,
Carb. Potass., Sulphate Soda,
Hydrochinonii, Carb. Soda,
Pyrogallic Acid.
Oxalate Potass., Sulphocyanide Ammonia, &c.,
all Chemically Pure for Photographic Use.

C. A. BOYDEN, AGT.
47 Park Street.

Hire your Hacks,
Board your Horses,
Get your Livery Teams,

HARRINGTON & BROS.,
31, 33 & 35 Central Street,
WORCESTER MASS.

REBBOLI
Confectioner and Caterer,
6 AND 8 PLEASANT STREET, WORCESTER, MASS.
C. B. EATON & CO.,
STATIONERS, PRINTERS
And Blank Book Manufacturers. Fine Office Work a Specialty.
Cards, Fancy Goods and Novelties.
No. 505 MAIN STREET, WORCESTER, MASS. Telephone 278-4.

"ADVICE GRATIS!")
Buy your
DRUGS : AND : MEDICINES,
Perfumes, Cigars, Cigarettes,
HOT AND COLD SODA,
And anything else you may want of.
Geo. E. Fairbanks,
DRUGGIST,
No. 10 Front Street, WORCESTER, MASS.

A. E. DAVIS,
PHOTOGRAPHER.
The LATEST and MOST NOVEL THINGS in
Photographic Work.
Special Inducements to Graduating Classes.
CORNER OF MAIN AND PARK STREETS.

Estate of
J. L. BURBANK,
Successor to
M. B. Green & Co.,
APOTHECARY
And Dealer in Drugs, Patent Medicines, Perfumery, Etc.
The Only Place in Town for Whipped Cream Soda.
376 Main Street, Corner of Elm, Worcester, Mass.
H. L. FISK, Manager.
Physicians' Prescriptions a Specialty.

JOHN A. SNOW,
is Prepared to do all kinds of
BOOT AND SHOE REPAIRING,
326 MAIN STREET,
Opposite Mechanics Hall, up one flight of Stairs, Room 2.
Ladies' and Gents' Sewed Work a Specialty.
Back and Front Stays and Toe Tips.
ASSISTED BY HENRY EIDT.

WASHBURN MACHINE SHOP,
WORCESTER, MASS. M. P. HIGGINS, Superintendent.

Ladies and Gentlemen Looking for Fun and a Good Healthful Exercise,
CAN FIND IT AT
J. P. WHITE'S
TEN PIN, BILLIARD & POOL ROOM,
37 Pearl Street, Worcester, Mass. Hours for Ladies: 9 A. M. to 4 P. M.
FINE CLOTHIERS AND CUSTOM TAILORS,
409 MAIN STREET.
A special feature of our stock at this time is
a very nobby line of

OVERCOATS & SUITS
FOR YOUNG MEN. AT PRICES RANGING FROM
$8.00 to $25.00.

TOM WALTERS, Jr.,
CUSTOM SHIRT MAKER,
HATTER

AND

Men's Outfitter.

DEAD! No, Only a drop in Prices.

PINAFORES AND APRONS
For the Apprentice Class.

DRESS SUITS FOR THE MACHINE SHOP.