**Vol. IX. Thursday, March 15, 1894. No. 19.**

**CONTENTS.**

<table>
<thead>
<tr>
<th>CONTENTS</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Editorials</td>
<td>235</td>
</tr>
<tr>
<td>Ninety-Four's Class-Book</td>
<td>241</td>
</tr>
<tr>
<td>The State Appropriation</td>
<td>236</td>
</tr>
<tr>
<td>A Trip to Leicester</td>
<td>241</td>
</tr>
<tr>
<td>Sigma Alpha Epsilon</td>
<td>238</td>
</tr>
<tr>
<td>An Inspection Tour</td>
<td>242</td>
</tr>
<tr>
<td>A Different View</td>
<td>238</td>
</tr>
<tr>
<td>Banjo Club</td>
<td>242</td>
</tr>
<tr>
<td>The W. A. C. Games</td>
<td>239</td>
</tr>
<tr>
<td>Success in Bicycle Racing</td>
<td>243</td>
</tr>
<tr>
<td>The Indoor Championships</td>
<td>239</td>
</tr>
<tr>
<td>Remarks of Criticus</td>
<td>244</td>
</tr>
<tr>
<td>Base-Ball Matters</td>
<td>240</td>
</tr>
<tr>
<td>Personals</td>
<td>245</td>
</tr>
<tr>
<td>Foot-Ball News</td>
<td>240</td>
</tr>
<tr>
<td>Technicalities</td>
<td>245</td>
</tr>
</tbody>
</table>

**WORCESTER, MASS.**

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

KODAK CAMERAS.
No. 7 PLEASANT STREET,
Is the place to buy all kinds of
PHOTOGRAPHIC SUPPLIES.
A Full Line of the Leading Brands of Dry Plates in
Stock. Plates for Harvard and Student Cameras.
PREMIER, HAWKEYE, BULL'S EYE, AND OTHER STYLES
OF CAMERAS.
Sello, American Aristo, Platinotype and Albumen
Papers, Received Fresh Each Week.
Try the P. & H. Developer; also Combined Toning and Fixing
Solution. Mounts of all kinds, Chemicals, etc., etc. Free dark
room. Developing and Printing done to order.

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

HOLYOKE MACHINE CO.,
WORCESTER, MASS.

S. I. HOWARD,
CARPENTER AND BUILDER,
Estimates furnished on all kinds of work. Store Fronts
in Heavy Brick, Stone, or Iron Buildings a
Specialty.
RESIDENCE 63 MAIN ST.,
WORCESTER, MASS.

J. A. YOUNG,
CATERER.
Catering of all Kinds.
Institute Work a Specialty. Estimates Given.
7 HIGHLAND STREET.
W. A. ENGLAND,
Jeweler,
394 MAIN STREET,
CUPS, MEDALS, BADGES AND EMBLEMS.

As the exclusive representative in the city of Worcester of the celebrated Reed & Barton Co. Sterling Silver and Silver Plated Ware, we possess special facilities for the furnishing of all articles in silver, or its combination, suitable for
PRIZES IN ALL ATHLETIC AND SPORTING EVENTS.
We show special and exclusive designs for prizes, or can give estimates, or have them made to order. We quote low and special prices on all articles for prizes.

TIMING WATCHES.
A fine assortment of Timing Watches in Gold, Silver and Filled Cases, sure and reliable.
Fine Watch and Jewelry Repairing.

WEDDING GIFTS.
We have just placed in stock an unsurpassed assortment of goods particularly designed for Wedding Gifts.

WE BUY OUR
FINE FURNISHINGS
AND
ATHLETIC SUPPLIES
OF
EDWARD B. CLAPP,
365 MAIN STREET.

LUD C. HAVENER,
BICYCLES,
ATHLETIC GOODS,
CLOTHING, SHOES FOR SPRINTING, ETC., ETC.
Outfitters to W. P. I. CLUBS.
507 MAIN STREET.

IMPROVED
WHEELOCK ENGINE.
50 to 3000 Horse Power. Built in all Forms,
CONDENSING, COMPOUND, TRIPLE EXPANSION.

WHEELOCK ENGINE COMPANY,
WORCESTER, MASS.


CHAS. HAMILTON,
BOOK, JOB, CARD, POSTER, AND NEWSPAPER PRINTER,
NO 311 MAIN STREET, WORCESTER, MASS.
KRONOFF & OLDBSEN, FINE... CUSTOM TAILORS... AND DEALERS IN GENTS' FURNISHINGS.
No. 256 Main Street, --- Worcester, Mass.
LOW PRICES AND SATISFACTION GUARANTEED TO TECH STUDENTS.

THE DEANE Steam Pumping Pumps.
FOR EVERY DUTY.
The DEANE STEAM PUMP CO.,
New York, Boston, Chicago, Philadelphia, St. Louis
HOLYOKE, MASS.
Send for Catalogue.

Davis & Company, FINE CLOTHIERS,
MERCHAND TAILORS.

Young Men will be Interested in the Line of
READY-MADE CLOTHING
We are prepared to Show for the Coming Season.

Novelties in SUITS, OVERCOATS and TROUSERS. Ask for the Tech Discount.

Our Line of Woolens for Custom Work is Most Complete.
Our Work the Best. Our Prices Reasonable.

286 Main Street, Opp. Bay State House.
The dissatisfaction in the two upper classes, and especially in the Senior class, with regard to the turn of affairs in the Conference Committee seems to have good foundation. That all the classes should be represented equally, which is contrary to the original agreement, is the objection which the Senior class makes to the plan. It is surely evident that in voting on a question the decision of the upper classes ought to have more weight than the opinions of the lower classes. But if, as the case seems to be, the Committee is for discussion and information only, then, of course, the classes should be represented equally.

The Conference Committee should not be condemned because at first sight it seems to have little or no power. It is true it cannot decide any question definitely, but it has the great power of presenting to the Faculty the opinions and requests of the students in such a way that they cannot fail to be respected.

The great interest which is shown in the training in the rink indicates some lively times in athletics in the spring. The new men are in abundance, and it is hoped that the stiffened joints and sore muscles which accompany the first few days of training will not discourage any one from further participation. There are yet many in all classes who are capable of doing good work, or at least of making a good beginning, with fair prospects of success in later years. These should avail themselves of the opportunity that they now have, both for their own sake and for the sake of the Institute which they represent.
That the base-ball debt will be considerably reduced this year is now almost a certainty. Everywhere there seems to be a great desire that the huge disgrace should be removed, and all are of the opinion that it should be done at once. Let graduates and undergraduates, professor and instructor give heed to the call, and "with" one grand effort totally remove the burden which rests upon us.

THE STATE APPROPRIATION.

At the meeting of the Corporation in April, 1893, the question of enlarged facilities for the Institute, especially in the way of providing more room for mechanical, laboratory, and steam engineering work, was suggested to the trustees, and at the same time the need of an additional instructor in that department was stated. At the meeting in June the matter was further considered, and it was agreed to appoint an assistant professor of mechanical engineering, and a committee was also chosen to report a plan for meeting the other immediate necessities of the case. Professor Alden, as the head of the department, was requested to suggest a scheme. A plan was drawn for a new power house and for a laboratory for steam mechanical and hydraulic testing. This general plan was approved by the trustees' committee, and reported to the corporation at their meeting in October, 1893. At that time it seemed impracticable to attempt to raise the requisite funds by subscription. The financial stress was too severe. But it was thought that the Institute had a fair claim to further aid from the State. Since, first, the prior grant from the Commonwealth was accompanied by such conditions of free scholarships to students from the State outside of Worcester County, as made it really no gift at all, and, secondly, because the training given at the Institute is very directly and greatly promotive of the interests of the manufacturing industries of the State. Accordingly Messrs. P. Emory Aldrich, Geo. F. Hoar, and Waldo Lincoln were appointed a committee to present a petition to the Legislature. This petition was introduced early in February, and is as follows:

PETITION.

To the Honorable Senate and House of Representatives, of the Commonwealth of Massachusetts, in General Court assembled.

The undersigned petitioners, a committee of the Trustees of the Worcester Polytechnic Insti-
tute, duly appointed for the purpose, respectfully represent that the existing buildings, laboratories and apparatus possessed by the Institute are quite insufficient for the accommodation and instruction of the constantly increasing number of its students. There is at the present time an imperative demand for a new or greatly enlarged laboratory for the Mechanical Department and the necessary apparatus for the same.

During the last six years the Institute has expended the sum of one hundred and seventy-five thousand dollars for two new buildings and improvements upon other and older buildings. One of the new buildings contains laboratories for the Departments of Chemistry and Physics; the other was erected to furnish additional room and facilities for practice in the Mechanical Department.

The necessary funds for this large expenditure were furnished by individual members of the Board of Trustees. But to provide for the pressing needs which now confront the Trustees, they earnestly appeal for aid to the Commonwealth, which, in recent years, has been very liberal in its grants to two other schools established and maintained for giving instruction in those arts and sciences which are the chief sources of the wealth and industrial prosperity of the State. To the Massachusetts Institute of Technology the Commonwealth granted the sum of one hundred thousand dollars in 1887, and another one hundred thousand dollars in 1888; and the State also pays annually to that Institute the income of one hundred and twenty thousand dollars, and also pays to the same Institute one-third of the sum annually received from the United States from the sales of the public lands, the sum so received being not less than fifteen thousand nor more than twenty-five thousand dollars.

To the Agricultural College the Commonwealth, within the last ten years, has made several grants of money amounting to many thousand dollars, besides paying annually to that College the income of a fund amounting to two hundred and forty thousand dollars, and also pays annually to the same Institution two-thirds of the aforesaid sum received from the United States.

The undersigned do not for a moment doubt the eminent wisdom displayed by the Legislature in making the aforesaid several grants; and as the Institute which they represent is engaged in the same practical system of education as the two institutions which have been so liberally endowed by the Commonwealth, they have been led to hope that their petition in behalf of the Worcester Polytechnic Institute would be favorably received.

They therefore most respectfully petition the Legislature for a grant of one hundred thousand
dollars to be paid out of the treasury of the Commonwealth to be applied to the purposes of said Worcester Polytechnic Institute.

(Copy of Signatures.)

P. EMORY ALDRICH.
WALDO LINCOLN.
GEORGE F. HOAR.

On Feb. 9, the Committee on Education, to whom the petition was referred, held a hearing at which Judge Aldrich, and Messrs. Lincoln and Washburn of the Trustees, and President H. T. Fuller and Professor G. I. Alden and Mr. M. P. Higgins of the Faculty, attended. Each, so far as the time permitted, presented arguments in advocacy of the request, Judge Aldrich leading and occupying most of the ground. He reviewed the history of previous grants of the State in aid of education and showed that it was the policy of the State to encourage higher education and especially industrial education. Mr. Washburn spoke of the good management of the finances of the Institute and of the fact that it had incurred a debt for current expenses. Prof. Alden stated the necessity for a new laboratory and showed sketches of plans for the same. Dr. Fuller dwelt on the uniqueness of some features of the work of the Institute, and of the value of its instruction in engineering lines to the leading industries of the State. Hon. E. B. Stoddard of the State Board of Education followed, commending the Institute and showing how much the training given was prized by those who were enjoying its advantages. A summary of these arguments has been printed in a neat pamphlet and copies have been sent to all the members of the legislature and to all of the graduates of the Institute.

On Friday, Feb. 17, Messrs. Miller, Lawrence and Gray of the State Senate, on invitation of Mr. Senator Salisbury, visited the Institute. The next week the bill was reported favorably and later, on its third reading, Mr. Miller, the chairman of the Committee on Education, advocated it in a speech which was pronounced by some members as the finest they had ever heard in the Massachusetts State Senate. The result was that the bill passed the Senate without opposition. It was then introduced in the House and referred to the Committee on Expenditures.

On Saturday, March 3, this committee, with their clerk and messenger, and Messrs. Salisbury, Lincoln and Washburn of the corporation, visited the Institute. They were received at the office in Boynton Hall by President Fuller. He explained both the general and the special features of the work of the several courses, and showed how the recent growth of the Institute and especially the large demand for wider instruction and more laboratory practice in civil, mechanical and electrical engineering had made a new building with suitable equipment for hydraulic experiments, steam-testing to a greater extent than was now possible, and the testing of strength of materials, indispensable. The committee then went through most of the rooms in Boynton Hall, thence to the shops, where Supt. Higgins took them in charge and explained the courses in wood and iron work, as the company followed him through the machine shop, the wood-shop, the product-room and the forge-room. They looked with astonished eyes on the magnitude of this part of the plant, admired the perfection of the products, and asked why other schools could not do similar work in the same way.

They then, not quite daring to commit themselves—a full dozen in all—to the tender mercies of the freight elevator, climbed to the topmost floor of Salisbury Laboratories, had visions of the Sophomores at their chemical experiments in the General Laboratory, and were welcomed to glimpses of the deeper mysteries of sanitary and organic research work by Prof. Kinnicutt and Dr. Moore. The physical and electrical engineering laboratories were next visited, and the methods of instruction and experimental practice were described. Prof. Alden met the company in the reception-room and showed the plan of the grounds, the sketches of the proposed laboratory, and how the growth of the Institute made not only more space for experimental work desirable but also more lecture and recitation rooms absolutely necessary.

As the party left the building President Fuller called attention to it as the gift of Mr. Salisbury, whereupon the latter in a very modest way disclaimed greater interest in the Institute than others had and related how Boynton Hall was erected by the subscriptions of hundreds of Worcester citizens, including the workmen in a score or more of manufactories and shops.

Carriages then conveyed the party to the Worcester Club, where they with Judge Aldrich, Mayor Marsh, and Representative A. S. Roe, were the guests of Senator Salisbury. In the conversation at the luncheon many inquiries were made concerning the practical features of the instruction at the Institute, the methods of similar schools elsewhere, the work done by graduates, etc., and the visitors expressed their gratification with what they had seen and heard.

On their reassembling in Boston the next (last) week, the committee recommended that the resolve in favor of the Institute ought to pass, and so reported to the House. On Thursday, March 8,
it passed the second reading without opposition, and at present writing there seems to be little doubt of its final passage to a third reading and engrossment. The fact that there has been no obstacle thus far presented and that those best acquainted with the general plan of the training at the Institute approve it, confirms the wisdom of its methods, makes it measurably clear that improvements should be along existing lines and that, if generous private gifts supplement the proposed grant from the State, the four years' courses will be put on a very substantial foundation, and the technical and professional parts of these courses will be rendered very complete and symmetrical.

SIGMA ALPHA EPSILON.

Another Fraternity has established a chapter at the Worcester Polytechnic Institute. Besides the Pi Iota chapter of Phi Gamma Delta, there is now the Massachusetts Delta chapter of the Sigma Alpha Epsilon Fraternity. The installation ceremonies were performed last Saturday afternoon by the members of the Harvard chapter, assisted by brothers from Trinity, Boston University, and Massachusetts Institute of Technology.

Two years ago this spring, several members of the Class of '93 conceived the idea of forming a local society, the object of which should be to find a suitable Greek Letter Fraternity, and, if possible, to obtain a charter from it. Men from other classes were consulted, and, as a result the Tech. Co-operative Society was formed, and No. 4 John St. was chosen for a club house. The field of Fraternities was carefully examined, and application finally made to Sigma Alpha Epsilon. As a sequel, the 1-20 train bore the T. C. S. men to Auburndale where the exercises were to be held. After the initiation exercises were disposed of,—to the infinite sorrow of the Lasell delegation,—an elaborate banquet was served in Woodland Park hotel, at which ninety-one brothers were present. Among the toasts following were "Worcester Tech," by H. N. Smith, W. P. I. '94; "Founder's Day", by C. T. Tatman, W. P. I. '93, Harvard Law, '94; "S. A. E. in the Fraternity World" by Edward Melius, W. H. S.'91, Harvard '95. The party of Techs arrived at Worcester shortly after midnight.

The Sigma Alpha Epsilon Fraternity was founded in Alabama in 1856, and has until late years extended only through the South and West, where it is very strong. Lately, however, steps have been taken to introduce chapters into Northern Colleges, and Delta Chapter is the fifth established in New England. There are at present fifty-three chapters in the United States.

The following men from W. P. I. were initiated into the Fraternity: Class of '93—Charles Baker, Jr., Charles W. D. Dyer, Arthur C. Comins, William H. Larkin, Jr., Nathan Heard, Walter J. Denny.


Class of '96—Frank E. Congdon, James B. Mayo, William H. Cunningham, George S. Gibbs.

The Chapter will remain in its present quarters for a time at least. In all probability the name of "Sigs" will soon be heard commonly throughout the Institute as "Phi Gam" is at present.

A DIFFERENT VIEW.

Editor in Chief W P I.

DEAR SIR:—I must confess great surprise in reading in the current number of the W P I a plea for the return to compulsory chapel attendance. During the time that I was at the Institute these exercises were very far from producing, for me at least, any additional reverence for religion, having in fact a tendency in the opposite direction. At that time these exercises were performed in so perfunctory a manner that even the most religiously inclined found in them, not only no spiritual help, but actual spiritual poverty.

That this state of affairs has not been materially improved, seems to be evident from the statement that scarcely "a dozen students" are in constant attendance now that they are not compelled to be.

Even in a scientific school like the Institute, I presume the attendance would be voluntarily large if the students felt that there was really any benefit to de derived.

But even admitting that these exercises supply in the best possible way, to the religious man, the spiritual and moral impetus of which he stands in need, there would still be no valid reason for making the attendance compulsory.

We are individuals in this world and we each require for the proper growth of our characters, physical, intellectual, moral, religious,—a little different kind of material from that of any one else. If any one finds what he needs in the chapel exercises let him be at liberty to appro-
priate it to himself. Also if any one finds in them aught that is distasteful let him be equally at liberty to seek elsewhere for what he needs.

I presume there are many men now at the Institute, as there were in my time, who look upon these same exercises as a survival of the superstitions of our forefathers. If so, it not only does them no good, but may do them absolute harm to force them to go against their wishes.

This idea of trying to compel others to do as we happen to think is best for them, is altogether too conspicuous a characteristic of our self-righteous American civilization. We talk very glibly of our liberties when in fact we are tyrannized over by a majority which in our case of universal suffrage means the mediocrity.

We are told what we shall not drink, what we shall pay for this or that commodity, what our children shall be taught, how we shall spend our Sundays, and so on, till it may be doubted whether the individual has any rights at all.

As young men, therefore, who are preparing to take active parts in life, we should resent every encroachment, not only upon our own individual rights, but upon the individual rights of others.

Yours very truly,

THE W. A. C. GAMES.

The second open handicap meeting of the Worcester Athletic Club was held in the rink on Saturday evening, March 3rd. Fully two thousand spectators were present including a goodly number of Tech men. The event in which the greater part of the interest centered was the team race for the indoor championship of New England.

The games commenced as usual with the trial heats in the forty-yard dash, in which Killam, Allen and O’Connor were entered. Killam ran from the four-foot mark in the second heat but failed to get a place, the heat being won by Bigelow of the High School. Allen ran in the third heat, his handicap being six feet. He secured second place but was beaten out in the semi-finals by Clark of the Academy. O’Connor did not start. The final heat was won by Bigelow in 4 4-5 seconds.

The entries in the 1000 yards run included Gallagher, O’Connor and Harris. O’Connor had fifty yards handicap—ten yards more than any one else—and it is highly probable that he would have made a good race for first place had not another event prevented him from starting. Gallagher had twenty-three yards but was also an absentee. Harris started from the thirty-yard mark but had a hopeless task before him. He finished, however, in sixth position. This race was won by Blake of Harvard in 2 min. 28 sec.

The 600 yards run was in two heats and resulted in a victory for Bull of Harvard who had twenty yards. Allen, Gallagher and O’Connor were entered but did not start. The time made was 1 min. 24 4-5 sec.

There was also a potato race won by Clark of Harvard.

Sandwiched in between the above events were heats in the team race, the first being between the Loyola and the Worcester Academy teams. The Academy boys won rather easily in 3 min. 22 sec. The next heat was between the regular W. A. C. team and Tech’s old rivals, the M. I. T. team. The W. A. C. men were first in 3 min. 22 sec. Gallagher ran third for the Worcesters. The last of the trial heats was between the High School team and the second Athletic Club team. On this 2nd Worcester team were O’Connor, Allen and Whipple who ran second, third and fourth respectively. This team had no difficulty in defeating their younger opponents in 3 min. 25 sec. Then the Academy men should have met the Worcester Athletic club regulars but their principal forbade their racing further and so the representatives of the High School took their place. It was no race at all, simply a big jog for the Athletic Club men, who won as they pleased in 3 min. 30 4-5 sec.

The final heat for the championship was between the two Athletic Club teams. No one thought that the second team would be able to make the regular one exert itself. But such was the ease, for this was easily the most exciting race of the evening and the regular team had to go in the fast time of 3 min. 18 3-5 sec. to win the championship.

The M. I. T. and the second W. A. C. teams were then tied for second place, and so after only about five minutes rest this race was started. The M. I. T. men won in 3 min. 24 4-5 sec. although their tired opponents made a game figt.

The Tech team was not entered but it was the general opinion that it could have won second place had it been a contestant.

THE INDOOR CHAMPIONSHIPS.

On March 10, at the 1st regiment armory in Boston, took place the annual indoor championship games of the New England Amateur Athletic Association. The games were man-
aged by the M. I. T., and they have received praise from all sides with regard to the meeting, the only dissatisfaction being that the prizes were not in proportion to the quality of the sport. The W. A. C. men made a fine showing and secured second place in the ranking of clubs, Harvard being first. Dadmun and Allen, '94, were the representatives in the 600 yards run, which was won by Merrill of Harvard. Dadmun set the pace, which was very fast, and held the lead till the final spurt at the finish when Merrill passed him. Time, 1.18%. These two leaders had left the remainder of the starters in a little bunch behind them and this bunch did not break up till the last lap. Allen ran well to the finish, coming in fifth. Gallagher, '94, was the only Worcester athlete in the 1000 yards run, in which he finished second to Hill of Harvard, who has the phenomenal record of running a half mile on a muddy track in 1.58. The time for the 1000 yds. was 1.27%, and the defeated contestants included the best half-mile runners in New England, including Rowe, who won the championship at that distance last fall.

**BASE-BALL MATTERS.**

Base-ball has this spring started out with an impetus hitherto unknown at the Institute to that branch of athletics. There are many things to favor a successful season. The only draw back is the old debt which handicaps the association to a considerable degree.

The team has, as manager, a man acquainted with the duties of the position, to say nothing of his abilities as a ball-player. Our Captain is a man whose name as an amateur ball-player is widely known. The first object of the management is to clear up the debt, that the Base-ball association may hereafter proceed in its work unhampered. The Oval has been obtained for the necessary games, thereby insuring better grounds and better attendance than were afforded last year's team by the agricultural grounds. The Faculty have been consulted freely by the management, and are outspoken in their words of encouragement of the intended course of management. They are willing to do anything within their power to aid the team in its present course, and have given its members some good advice.

With such encouragement from the Faculty, the students should feel considerable interest in the team. Especially at the time of choosing the team, comes the real test of a man's interest in the team's welfare. Nine men only can play in a single game; yet that is no reason why thrice that number of candidates should not continue their efforts to make the team to a time beyond the first few games.

Although the team has lost but few of the old men, yet there is always room for good players. So, Class of '97, send out your men that the team may be strengthened and prove an honor to the Institute. It is too often the case, in all branches of athletics, that many good men are not known until their Junior or Senior year. There is liable to be too much of that bashful spirit among the lower classes.

If the students are called upon to raise a subscription, it will be understood that the first use, to which the money will be put, will be cancelling the debt. With that understanding, it is quite probable that a large sum will be realized. Moreover, during the season the team will need, for its success, the support of every man by attendance at the games played in the city. The lack of attendance was the great cause of the failures of previous years.

Several batteries are at work afternoons at the Rink, and, as soon as weather permits, out-door practice will commence on Bliss' field. The season will open April 10, by a game with Holy Cross on their college grounds. A complete schedule of games up to date will be published in the next issue of the WPI.

**FOOT-BALL NEWS.**

As spring makes it again possible to indulge in out-door sports it is necessary that some preparation be made for next season. No squad work will be attempted this spring as it necessarily interferes to a considerable extent with base ball and training for the Intercollegiate Sports. The candidates for backs and especially that of quarter-back will be required to devote a certain amount of time each week to perfecting themselves in these points: passing, catching, punting and running together. It was in these points that the team was especially weak last season and it is the intention of Captain Ware that the backs this fall shall be improved in these particulars.

The Institute does not belong to any league but the games already secured with such teams as Brown and Trinity make it certain that the schedule will be a strong one.

The first game of the season will be played here with Trinity. It is also the intention of the management to have a series of games for the class championship.

A short time ago a notice was posted to the effect that all foot-ball suits be returned to the keeper. Thus far not half of the suits have been returned. It is the desire of the management that all men who have suits belonging to the Association return them to Somerville, '95, at their earliest convenience.
NINETY-FOUR'S CLASS-BOOK.

As was stated in the last number of the W P I the '94 class book will soon be in the hands of the public. If the plans of the editors do not miscarry, the book will be on sale March 28, the day before the vacation begins. Thus W. P. I. students will be able to take a copy home with them. The editors expect to publish a book that will be a credit not only too the humorous ability of the class, but also a credit to the Institute.

Owing to carefully placed orders and strict watch over the money matters, the editors are enabled to go more into illustrative work than heretofore, and because of the ability of the artist these are of a high class. There are half-tones of the various classes, athletic and football teams, together with snap-shot pictures taken on the football field; sketches of Tech life and a cut of '94's professor.

There are the usual squibs, grinds, both of the Faculty and students, and Institute rules and methods. There are sketches of the experiences with the different instructors and many new features.

The book is larger than any of the previous class books, and the price will be $1.50 per copy. The issue will be limited and everyone is advised to order his copies as soon as possible. Send all orders to Mr. F. E. Killam, the business manager of the book.

A TRIP TO LEICESTER.

Some of the more enthusiastic Seniors in connection with their research into the science of civil government, made a trip to Leicester Monday, March 5th, and attended one of those most democratic American institutions, called town meetings. It was a day of adventure for those enterprising Seniors, and they will not forget their experience in a hurry. The car had hardly left Main street before a scrap was inaugurated between the conductor and one of the more humane members of the party, because the former kicked a dog, for which the latter refused to pay extra fare, off the rear platform. This was adjusted by the conductor's agreeing not to collect the second fare until Cherry Valley was passed, thereby enabling the Senior, who still owed his October class dues, to retain the coin a little longer. As most of the party were electricians, nearly all rode on the front platform in order to give points to the motorman. The car was half-an-hour late in consequence thereof. When only a short distance from Leicester, in rounding a curve on a heavy up-grade, a great commotion took place in the rheostat box, and the car came to a standstill. Flames in the meanwhile poured out of the box. Now no one will accuse those electricians of being cowards, but the way those same electricians piled off that front platform was a caution to acrobats. Harris, in his eagerness to give the motorman more elbow room, nearly ruined those new shoes by jumping recklessly into the soft Leicester mud. Luckily it did not affect the color. How it would have rejoiced Professor Kimball's heart to hear the torrent of advice and information tendered that motorman, relative to the cause of the disturbance. "Fuse burnt out," says one. "Electricity off the track," ventures another; but the man who, after mature deliberation, informed the curious crowd that "something was wrong," hit the nail right smack upon the head. After listening to the 2,463 suggestions, and taking notes on the same, the motorman let off the brake and the car proceeded to Leicester.

It is a noteworthy fact that during the hour's ride, with all the attending circumstances, there were two Seniors who were perfectly ignorant of events. One,—one of those studious Fitchurch fiends,—had an open Mechanics in his lap during the whole trip, and the other was sharing a seat with,—well, something pretty.

When once in Leicester they were immediately given lists of the names of the party candidates, and slips for the vote on license, but owing to local prejudice they were prohibited from casting these votes.

Being very modest in disposition, the boys sought positions in the rear of the hall, but it was no go. As soon as the moderator discovered their identity he called them forward and gave them front seats on the platform. From this point of vantage they divided their time between listening to the business on the floor and the pretty girls in the gallery.

Our friend from Charleston, being of an investigating disposition, endeavored to analyze the mechanism of the McTarmmamy voting machine, but he was discovered in the attempt by the operator and promptly called down. (Laughter from the audience.) Later on, by means of a little red tape and wire pulling, one of the W P I reporters obtained permission to vote. The operation is extremely difficult. You go behind a three-cornered screen, and at the ring of the bell (for you have to drop a coin in the slot) you shut one eye, hold up one hand, and stand on one foot. There are as many handles as there are candidates, no names being attached. You can pull the knobs for five seconds, then the machine stops working. The beneficial results obtainable from this machine are immediately apparent, for the politicians can by no means whatsoever buy votes.

The business was very deep and interesting. There were about 500 voters in the hall, and as
many more outside, also a fair contingent of the gentler sex occupying the gallery. The business was conducted by the moderator, with the assistance of the Messrs. A. S. Smith and S. A. Smith, with an occasional interposition from some muffled voice in the crowd. The arguments between the two Smiths were quite animated, and at one time a scrap seemed imminent. One of our mild, inoffensive, unprogressive Canadian brethren was for going in and cleaning out the crowd, and was only persuaded by means of force to keep his coat on. $25,000 worth of business was disposed of in about ten minutes, but when the momentous question arose as to the location of a street lamp on Main street, a great controversy was occasioned. Mr. O'Flaherty called attention to the fact that the butcher's horse, Tim, had fallen through Main street and broken his leg, on account of too many hydrants and too few lamps. Mr. O'Flaherty resumed his seat amidst the sound of weeping from the audience. The party returned to town in time to attend the prize fight that evening.

Later.—Petitioned Professor Haynes for a week's vacation in order to recover from their fatigue.

AN INSPECTION TOUR.

Fourteen Juniors of Division A, under the guidance of Instructor Rice, visited several engine-rooms last Saturday afternoon. The first stop made was at the Electric Light Station, and from there the division went to Washburn and Moen’s, where a pass was obtained which enabled the division to inspect all the engines connected with their plant.

After leaving the Grove-street establishment, a car was taken for Quinsigamond and the new engines there examined. While at the Quinsigamond works the division saw red hot iron handled and swung about as though it were rope.

The new chimney there was also a source for discussion between certain members of the division and a wager as to its height resulted. Several men employed at the mills were asked its height and the positive manner in which they gave their answers was amusing. One employé said 102 and the next 160 and so on. At last, the head mason informed the men that the height was 127 feet and all were satisfied, excepting the man who lost the bet.

On the trip home the car was crowded, and the Tech men were obliged to sit three deep on the seats. They managed to keep up a constant commotion among themselves, much to the amusement of the other occupants of the car, and especially of two fair maidens, who happened to sit opposite them.

The trip was a source of much interest and profit, and it is hoped that similar trips may be made in the near future.

BANJO CLUB.

The Banjo Club assisted at an entertainment given by members of the Fourth Unitarian Church, on the evening of Feb. 28th. The entertainment was for the church building fund. The boys were treated handsomely, and the affair was voted an entire success.

A word may be said in regard to the late action of the club in selecting a new leader in the place of Mr. Boyden. Some criticism has been expressed as to the method adopted, but when one stops to consider that it is a delicate piece of business to discuss a man's position and actions with him present, one will see the necessity of some different mode of procedure. In this case the club members met and discussed the situation. It was decided that it was detrimental to the club to have things go on as they were at that time; and it was evident to all that the club under the then existing management was deteriorating, and that the membership was becoming reduced. According to the constitution, it needed two-thirds vote to alter matters, and as the required number were present, it was voted to disband the club and reorganize. This was done, and Mr. Chambers, ’95, was elected leader. Mr. Harris, ’94, was re-elected manager, and Mr. O’Connor, ’95, was elected secretary.

This action was not due to hard feelings toward the former leader, nor done by one man, but done in the best interest of the club. The ex-leader has done as much or more than any man in the development of the club, and through his exertions it has attained its present high standing; but unfortunately for the club, it could not continue to run by previously acquired momentum. That such slight notice of change was given was because of the fact that no time could be lost in getting ready for its next engagement the following week. That such a change could take place and engagements kept, speaks well for the stability of the organization.

There seems to be a misunderstanding in regard to the position of the Banjo Club on the entertainment question. All it wants is to see fair play. Considering the facts that the base-ball men have always heartily supported foot-ball and athletics, and that a large debt hangs over the association and the Institute, it seems that these are sufficient reasons for the athletes and foot ball men to lend a helping hand to the base-ball association, and that the first attention should be paid to wiping out the disgrace from the Institute. The Faculty are
unanimous in this opinion. The Banjo Club is willing to do its share in an entertainment, provided that a portion of the net proceeds be given for the liquidation of the existing debt. For a prominent foot-ball man to say that he wished to see all the base-ball associations swept out of existence, is surely an unnecessary crawl.

The banjo club is not trying to side-track the glee club, but wishes to co-operate with them on grounds as given before. The athletic association does not need half the money that the base-ball association does, therefore it is not plain why some men wish to shut out base-ball.

* * *

SUCCESS IN BICYCLE RACING.

It is very fascinating and entertaining to watch an exciting bicycle race from a comfortable grand-stand. It is a different thing to race. No other pastime demands such perfect condition of bodily health as wheel racing. Given two first-class riders, equally matched, and a difference of the smallest degree in matter of sleep, or food, or worry, will make the one seem a novice in comparison with the other. There are few men, even with the physical powers of Zimmerman, who could make such a season's record as his. A rider's ability to succeed depends largely upon his judgment, and a successful racer rides with his head, as they say, but pluck is the first grand essential.

After complying with the fundamental principles of training, each racer trains according to his own requirements. It is sometimes said that training is a lost art; that the ancient athletes far excelled those of the present generation, but the truth of these statements is yet to be proved. It is certainly true that the American bicycle racers excel those of any other country. Although England takes great pride in the training of her athletes, it is a fact that her methods do not produce as efficient racers as the strict, but common-sense, training of America.

Bicycling is one of the purest sports, and the bicycle racers, as a class, are clean, honest and manly. For two years the bicycle, which is a comparatively new invention, has led the horse around the track by several seconds, notwithstanding the fact that the horseman has recognized the supremacy of the steel steed over the noblest of animals, and has utilized the bicycle wheels on his sulky. This lowered the horse record by several seconds, but even this, coupled with the long experience of the horseman, has failed to cut the bicycle record.

A bicycle racer should, first of all, be physically sound, with a large, strong chest and heart, and plenty of grit and persistence. Other things being equal, the man will win who has limber ankles, set far back on the foot, and the greatest length from the knee to the thigh compared with the distance from the knee to the ankle. This will facilitate the use of the "ankle motion," and gives more leverage. The stomach should be in the best condition, it being necessary for some men to diet more strictly than others. A short man has an advantage in being able to "cling to the corners" better, on a sharp, poorly-banked curve. The man should ride the style of wheel, gear and wheel-base which suits him best. There can be no rule as to this, but the preference is sometimes given to the company which will pay the most for riding their wheels. But, of course, if this is known, the racer will be disqualified for the amateur ranks. One of the most important factors in the winning of a race is the rider's ability to jump quickly, and hold a good strong spurt. In fact, the majority of the races nowadays are won by a few inches, in the final spurt. The novice, racing for the first time, experiences a sort of "stage fright," and is easily discouraged or encouraged, but this is soon overcome, and the many "tricks of the track" readily mastered.

The muscles (for a short race) should be by no means hard, but elastic and soft. The habit of curving the back, or "humping," as it is called, has been condemned by many who do not know any better, and has been abused in road riding by many novice riders, who wish people to think that they are racers. Nevertheless, this is an important matter. The body should be bent from the thighs, and the back curved as little as possible. This relieves the great strain on the abdominal cords, and by throwing the weight on the handle-bars the chest is expanded and the lung capacity greatly increased. The liability to accident, while racing, is very great, and is apt to prove quite serious, especially on a cinder track. The writer once witnessed an accident, from the effects of which one man died. The two forward men fell, and about thirty others who were following, came piling on to the struggling mass, unable to avoid it. The wheel would strike, throwing the rider into the air. It was a sight that will not soon be forgotten. But very few accidents result seriously, and they do not seem to lessen the fascination which the sport has for its supporters.

Let us suppose a racer about to start in the important race of his life. He is determined to win. He stands beside his trainer, robed in a loose heavy wrapper, self-possessed, determined, calm, and in fine spirits. He has had excellent training, but is not over-trained; every muscle and organ in his body being in first-class condition. He has just had a brisk, light "rub-down," and the encouraging words of his experienced
trainer nerves him, and makes him eager for the coming race.

Throwing aside his sweater, and now clad in a light racing costume, he sits on his correctly adjusted wheel, in which he has the greatest confidence. Breaking the silence which reigns over the vast multitude in the grand-stand comes the shrill voice of the starter: "Are the starters ready? Are the timers ready?"

Then, after a moment of suspense, which seems like hours to the waiting racers, the pistol is fired. The trainer puts his full strength into the "send-off," and the race is "on."

Before the one hundred yards mark is reached the men have got down to work in their respective positions, our man taking fourth place on the curb. He takes a few deep breaths, and "hugging" the next wheel in advance bends low, and thus avoids the resistance of the wind. On the back stretch the pace slackens a trifle. There is a slight tendency to loaf, and the racers pass a few jokes. As they turn into the home stretch the pace quickens, and several change places. The last lap bell rings as they sweep by the judge's stand, well bunched. The men now commence to "dig"; several come up from the rear, and "pocket" or surround our man. He soon slackens a little, however, and rather than to slacken also they let him out. He falls a few yards behind. They are now well on the back stretch, and going at a fearful speed, the head man slowly drawing away from the "bunch."

Gradually, our rider takes up a tremendous spurt, and as he nears the unsuspecting bunch he has attained the desired momentum. Like an arrow he passes, and starts to mow down the leader. A wild shout bursts from the grand-stand, but he does not hear it. As he catches the head man the bunch has taken up the spurt, and scatter a little. They round into the home-stretch, each man doing his level best. Our man, by a few powerful "jumps" at just the right time, captures the "curb," and three men come tearing down the track "neck and neck."

The others follow closely. About twenty-five yards from the tape a tremendous spurt is started. The men lean forward. They throw all their weight ahead. The great crowd holds its breath. Every stroke tells now. Each racer puts into each thrust every atom of power and exertion at his command. As they near the tape, others come up from the rear. Some lose ground. Our man now makes a succession of telling "jumps," as though his life depended on it. He seems to thrust himself forward, wheel and all. They sweep past the tape. He wins. He knew he would win. It does not matter by how many inches. He won. The struggle is over. He is taken immediately by his trainer to headquarters, and the great crowd goes home. The crowd sees the grand result, and thinks not of what the race cost the racer. A racer is born and not made. He loves it, and deserves the honor shown him.

H.

**REMARKS OF CRITICUS.**

The article, entitled "Chapel Attendance," that appeared in the last number of the W. P. I. has been the source of considerable discussion among the students. Many have expressed themselves as in favor of returning to the old system of compulsory chapel; the greater proportion of the students, however, believe that better results can be brought about by other means, while the number who would care to see chapel exercises abolished is a minimum.

Criticus fully agrees with the writer of the article in question, that chapel exercises as now held are something of a farce; but it is certainly a fact that those who do attend demean themselves properly, and this could scarcely be said when compulsory chapel was in vogue.

The question now arises how chapel exercises can be made more popular. Criticus believes if each man did a little missionary work and induced the next man to attend occasionally, that it would not be long before every exercise would be well attended. It is not from the fact that "popular sentiment at the Institute has become antagonistic to presence at chapel" that the attendance has been so small recently. It is from the very fact that the number of men who attend is so small that more do not attend.

* * * * * * *

The number of students here at Tech who are possessors of an Institute pin is not as large as it ought to be. Especially is this so in the lower classes, and Criticus believes no one will contradict the statement that there are not a half-dozen men in the Freshman class that have them.

About a year ago this matter was discussed and at that time it was claimed that the pin was too large and that, if it was reduced in size, the emblem would be more generally worn. To this end, committees from the four classes were appointed and, as a result, the pin was reduced in size, and correspondingly in expense. But, although the pin is greatly improved in appearance, the increase in the number of students who wear one is scarcely noticeable.

For the benefit of those whom these words may stir to thought and action, Criticus would say that the pins cost four dollars and may be
obtained of L. W. Pennington, whose advertisement appears in another part of the WPI.

A novel and interesting tour, planned by two college men for college men exclusively, will be taken this summer. The plan, as outlined by its promoters, is to leave Montreal the last of July for the British Isles. The journey there will occupy five weeks and will be made entirely on bicycles. The party will return home the middle of September. The number is limited to twenty, the total expense is moderate, and everything connected with the trip A 1. All those interested should address F. W. Pickard, Editor Bowdoin Orient, Brunswick, Maine.

PERSONALS.

79. The Y. M. C. A. meeting, held Wednesday noon, March 7th, was led by C. D. Parker who is now head draughtsman at the Crompton Loom Works. Mr. Parker spoke very interestingly for fifteen minutes upon the engineering mind in the spiritual life.

81. The WPI recently received from the author a pamphlet published by the Department of Agriculture of New South Wales. The pamphlet was written by N. A. Cobb and contains accurate and minute descriptions of eighty-two species of nematoids, over half of which have never been described before. We congratulate Mr. Cobb on his masterly treatment of the subject and thank him for so kindly remembering the WPI.

91. At the last annual meeting of the Michigan Teachers' Association H. E. Kimball opened a discussion on the subject of manual training.

91. J. A. Whittaker has opened a civil engineer's office in Southbridge, Mass. Mr. Whittaker is a member of the Worcester County Engineers' Society and at the last meeting read a very interesting paper on the Flow of Water.

93. Howard A. Coombs has been spending the last week in the city.

The Gazette for Saturday, March 3rd, contained an interesting two-column article on the fine collection of birds which has been made by Harry T. Van Ostrand, '95.

The income of the Bancroft scholarship fund has been awarded to William H. Morse, Jr., '95, for this year. The income of this fund, founded by the historian whose name it bears, amounts to $400 annually and is awarded yearly to some student who is studying at a higher institution of learning and whose home is in Worcester.

President Fuller and Dr. Conant attended the annual reunion of the Central Mass. Dartmouth Alumni Association, held last Friday evening at the Bay State House. Dr. Fuller was elected a member of the executive committee, and Dr. Conant chosen a member of the nominating committee. Dr. Fuller was also one of the speakers.

President W. J. Tucker of Dartmouth was the guest of Dr. Fuller last Friday.

Fred E. Knight who has been head bookkeeper in the shop for several years has left for a time. Mr. Knight has never fully recovered from a serious attack of pneumonia which he had three years ago and it is by his physician's orders that he now goes to Colorado and California for a change of climate. Mr. Knight expects to be gone about ten weeks and we trust he will return to his accustomed desk much improved in health.

During his absence Mr. Dodge, recently with the Norton Emery Wheel Co., will have charge of the office work. By the way, Mr. Dodge is easily the best billiard player in central Mass. and in fact has few equals in New England.

TECHNICALITIES.

Abbot, '95, was present at shop last Thursday.

Edmund M. Chapman, associate pastor of Central Church, conducted exercises in Chapel, Monday morning, March 5th. There was a large attendance.

The base-ball team has a phenomenal pitcher, whose ability was recently demonstrated to the satisfaction of all when three broken panes of glass resulted from one of his mystifying curves.

Professor — I owe this division an apology for being detained from the quiz yesterday.

Student in back row, — Are you not very near your limit of cuts?

During the past week several changes have been made in the shops. The big engine lathe has been moved into the new shop and the upright drills have been placed together at the upper end of the shop. Two new speed-lathes have been put in place.

The subjects for the next two Y. M. C. A. meetings are: Joy from Winning Souls, March 21st, and What is most Worth Seeking, March 27th.

Monday, March 5th, is a day which will long be remembered by '95. On that day F—rw—ll cut all day in order to go home and vote. Consternation reigned supreme when, for the first time during his course at the Institute, this gentleman did not answer to his name when the roll calls were read.
GO TO: RICHARDSON'S
--- 35 Main Street.
SHAVING AND HAIR-CUTTING.
First Shop from Lincoln Square.

WHEN YOU
Want another pair of Rubber Shoes remember and get a pair of the "Gold Seal" ones. They will outwear three pairs of any other rubber on the market.
Every shoe bears the above Trade-Mark. For sale at

P. L. RIDER'S Rubber Store,
370 MAIN ST., WORCESTER.
Also the largest and best line of MACKINTOSHES in the city.

THE FISK TEACHERS' AGENCIES.
EVERETT O. FISK & CO., Proprietors.
4 Ashburtton Place, Boston, Mass.; 70 Fifth Avenue, New York, N.Y.; 108 Wabash Avenue, Chicago, Ill.; Room 3, 133 Third Street, Portland, Ore.; 1203 South Sprague Street, Los Angeles, Cal.; 32 Church Street, Toronto, Can.

STOP AT THE COMMONWEALTH HOTEL,
F. G. MARDEN & Co., Proprietors.
Two Minutes from Union Depot. Rates, $2.50 and $2.20 per day.

C. W. CLAFLIN & CO.,
DEALERS IN ALL KINDS OF
Anthracite and Bituminous Coal.
Also, all kinds of Wood and Kindlings.

Offices, No. 375 Main Street and at Yards, Shrewsbury Street and Union Street, cor. Central.

TELEPHONE, No. 617-3.

DANCING.
Prof. Fortier's Dancing Academy, 425 Main St., Cor. Front.

Special rooms for private lessons. Elegant Reception Room. Beginners' class Monday and Wednesday evenings; advanced class Friday evenings; children's class Wednesday and Saturday at 2 P. M.

Waltz Taught in Two Lessons.
OPEN FROM 9 A. M. TO 11 P. M.

THE RAPID WRITER FOUNTAIN PEN.

Double Feeder in one piece prevents flooding. Our unconditional Guarantee accompanies each pen. Circulars free. Agents wanted.

FOUNTAIN PEN CO., Washington, D. C.
C. G. HARRIS, '84, Agent.
The Richmond Straight Cut No. 1

CIGARETTES

are made from the brightest, most delicately flavored, and highest cost GOLD LEAF grown in Virginia. This is the OLD AND ORIGINAL BRAND OF STRAIGHT CUT Cigarettes, and was brought out by us in the year 1875. Beware of Imitations, and observe that the firm name ALLEN & GINTER, Manuf., RICHMOND, VIRGINIA.

H. F. A. LANGE

→ Floral Decorator, ←

294 Main St. Worcester, Mass.

Keeps constantly in Stock

FANCY ROSES AND FINEST ASSORTMENT OF CUT FLOWERS,

Which he will arrange in Designs of any kind.

Decorating Parlors and Halls a Specialty.

OUTING SHIRTS AND CAPS.

FINE QUALITY.

LOW PRICES.

New York Hat House, 14 FRONT STREET.

LOUIS W. SOUTHGATE,

Late Examiner U. S. Patent Office, formerly head draftsman Pond Machine Tool Co.,

COUNSELLOR-AT-LAW AND SOLICITOR OF PATENTS,

W. P. I. Class, ‘85.

Burnside Building, 339 Main St., Worcester, Mass.

C. C. LOWELL,

(Successor to J. C. White.)

HEADQUARTERS FOR

Mathematical Instruments

And ARTIST MATERIALS.

ALSO, FULL LINE OF

PAINTS, OILS, GLASS, and VARNISHES.

12 PEARL ST., opp. Post-Office.

COBURN’S BOAT LIVERY.

...TO LET...

OVER 100 BOATS AND CANOES,

All of the Latest Model,

Light and Easy Rowing, Fitted with Korns Patent Oarlocks, and Spoon Oars.

SPECIAL RATES

BY SEASON, DAY OR WEEK, AND TO PICNIC PARTIES.

L. W. PENNINGTON,

Designer, Manufacturing Jeweler, and DIAMOND SETTER.

Badges and Emblems Made to Order.

Gilding, Acid Coloring and Oxidizing, Repairing, Etc.

Old Gold and Silver Purchased.

81 MECHANIC ST., WORCESTER, MASS.

WM. S. SMITH & CO., DEALERS IN

Hardware and Building Materials,

Carpenters’ and Machinists’ Tools,

ALSO DRAWING INSTRUMENTS,

171 Main St., Worcester, Mass.

"WHITTIER'S"

ELECTRIC LINTER MENT,

SYR. TAR, HONEY AND WILD CHERRY,

IMPROVED HEADACHE TABLETS,

SPECIFIC "No. 49,"

ALMOND AND HAMAMELIS LOTION,

COD LIVER OIL EMULSION.

49 MAIN STREET.
FRED. W. WELLINGTON & CO.,
Wholesale and Retail Dealers in
COAL.
General Office,
416 MAIN ST., WORCESTER, MASS.
Branch Office, 600 MAIN STREET.
Coal Pockets,
NORWICH, - CONN.
Retail Yard,

1839. Established. 1839.

LARGEST STOCK AND LOWEST PRICES
AT
S. R. LELAND & SON'S,
446 Main St., Worcester.
All goods are fully warranted and exchanged if not satisfactory.

— HIRE YOUR —

HACKS AND TEAMS
AT
HARRINGTON & BRO.'S,
35 CENTRAL STREET.

A. F. BRAGG,
TEMPERANCE DRINKS,
CIGARS AND TOBACCO,
322 Main Street, - - Worcester, Mass.

E. A. DICKIE,
Baggage Express.
ORDER SLAVE,
9 Pleasant Street.

UMBRELLAS
MADE, REPAIRED AND COVERED
BY
GEO. E. KIRBY,
397 MAIN STREET,
WORCESTER, MASS.
Over Moulton's Jewelry Store.

L. M. ALEXANDER,
Formerly with HILL & TOLMAN,
DEALER IN
Bicycles, & Safeties.
Repairs of all kinds a specialty.
Machines Remodeled with Pneumatic or Cushion Tires.
Brazing, Enameling & Nickeling Done
In the best manner at short Notice.
Agency for the Hickory.
191 Front Street, ground floor, Worcester, Mass.
LEWIS & EMERSON,
Successors to C. B. EATON & CO.,
Wholesale and Retail STATIONERS, BLANK BOOK AND PAPER Dealers. All kinds of PRINTING, BLANK BOOKS made to order, also complete line of TEACHERS' and SCHOOL SUPPLIES.
No. 505 MAIN STREET, WORCESTER, MASS. Telephone 278-4.
DRAWING PAPER IN SHEETS AND ROLLS.

“Always Ready, Day or Night.” BAY STATE STABLES, Rear of Bay State House, L. E. SPOONER & CO., WORCESTER, Mass.

BAY STATE HOUSE.

Ranking with best of First-Class Hotels of New England, reorganized and will be conducted on a

First-Class Basis

In every particular. Passenger Elevator, Well-Furnished Rooms and all heated by Steam.

FRANK P. DOUGLASS,
Proprietor.

Barnard, Sumner & Putnam Co.,

DRIY GOODS AND CARPETS.

The largest house devoted to legitimate Dry Goods in New England. It grows with the growth of Worcester County, because it is the acknowledged Shopping Home of the Ladies, and because all things are here that ought to be here, and at the Fairest Prices.

Barnard, Sumner & Putnam Co.

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.
“DISCOUNT TO TECHS!”

SEND FIVE 2-CENT STAMPS FOR 50 PAGE CATALOGUE.

THEO. ALTENEDER & SONS,
PHILADELPHIA.

PATENT ADJUSTABLE STAND.

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 and Pool Room,
27 Pearl Street, Worcester, Mass. Hours for Ladies: 9 A.M. to 4 P.M.
TOM WALTERS, JR.

There are no flies on our dollar shirts.

Try our full dress.

My underwear will outwear all others.

Black sox that are clean.

Party bows that do not part.

Suspenders that hang on.

I say, boys, save your personals, you need a new dress suit for the shop, call and get fitted. Jump-over-all-us in stock and to order—rare and well done.

Our laundry is the best.

Prices on the bottom.

Tom Walters, Jr., 175 Main St.

Crayon portraits and pastel portraits at

High grade photos only.

Groups and large work a specialty.

Engage your sittings.

25 per cent. discount to tech students.

326 Main Street,

Opp. Mechanics Hall.