

The

# OPPI.



Vol. VI.

Tuesday, July 8, 1890.

No. 4.

## COMMENCEMENT NUMBER.

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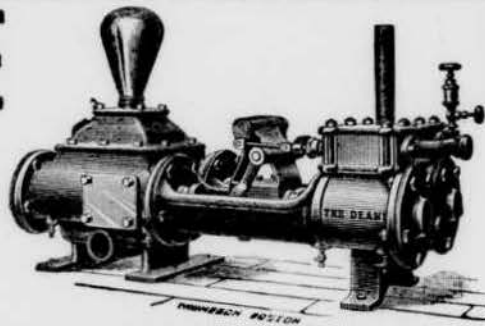
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# THE W P I

Vol. VI.

WORCESTER, JULY 8, 1890.

No. 4.

## THE W P I.

Published on the 15th of each Month, during the School Year, and devoted to the interests of the Worcester Polytechnic Institute.

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Single Copies, 15 Cents

Remittances should be made to the Business Manager. Exchanges should be addressed: The W P I, Worcester Polytechnic Institute, Worcester, Mass. Communications with regard to all other matters should be directed to the Editor-in-Chief. Address during vacation, 7 BISMARCK STREET.

Entered at the Post-Office at Worcester, Mass., as second-class matter.

CHAS. HAMILTON, PRINTER, 311 MAIN ST., WORCESTER, MASS.

Bewildered by the excitement of three eventful days, the class of '90, W. P. I., has just passed through the most momentous transformation in its history, with scarcely a possibility of being able to realize its full meaning. For three long years its members have each been but a part of a great whole whose interests they shared in common; now they have separated, united only by friendship's bond; the group of school-boys are now men of the world starting out severally to test the skill and judgment they acquired in common. What the result will be is beyond the power of human knowledge to foresee, but if the stream of human pleasure is shunned for a few years longer, the W P I dares predict a brilliant future for each and every man in the class.

## GONE FROM ALMA MATER.

THE TWENTIETH CLASS SUCCESSFULLY LAUNCHED.

NINETY SCORES A HIGHLY SUCCESSFUL CLASS DAY.

WELCOMED TO THE RANKS OF THE ALUMNI IN A ROUSING BANQUET.

COMMENCEMENT EXERCISES AND ALUMNI REUNIONS.

OTHER MATTERS OF INTEREST.

### *Gone from Alma Mater.*

It is the old, old story, told every year at hundreds of colleges,—told in almost the same words,—yet once in a lifetime having an absorbing interest for every student.

Lowell had a long head when he challenged his readers to find something "so rare as a day in June." All through that month of months, while the farmer was gathering in his crop of clover, and the ingenuous swain and his buxom spouse were gathering in their crop of wedding presents, a mighty army of students, big enough to require the destruction of all the poor sheep in the world (were those alleged "sheepskins" genuine), a noble array of foot-ball players, tennis cranks, base-ball enthusiasts, and athletes of every

description, was standing up and having pronounced over its ponderous head the encomium, "Well done, good and faithful servant."

The Institute indeed increases this host of college alumni with but an insignificant fraction—a widow's mite—yet this school has a reputation for turning out *men*, not *dudes*, and its pride in its graduates is pardonable. This country is deluged every year with a legion of college graduates who cannot use their education to immediate advantage. It is said that in Germany a first-class brewer commands a better salary than can a student who has received the finest classical education to be obtained. This is not because "beer is king" in Germany but because the demand for men with phenomenal educations along classical lines, is much less than the supply. The present age demands men of a different stamp,—men who have learned to *do*, as well as to *acquire*. In this fact lies the signal advantage that the graduates of this and like institutions have over their brethren in the colleges.

June 28 saw the largest class in the history of the Institute leave its school-days forever behind—a finished product as far as the school is concerned. Yet, your record, Ninety, is by no means ended; scarcely begun. The honorable future of the class depends now on your individual members. The alumni will watch you with the critical eye of an older brother. The Faculty will scan the foreign periodicals for news of each one's success. The undergraduate especially will note your progress very carefully, for he depends on you to solve for him the problem whether or no the game is worth the candle. Your record is still before you. You have youth, health, abundant good spirits, and you are good looking. Under such conditions nothing but a miracle can spoil the favorable impression that you have created.

## CLASS DAY.

### The Exercises on the Campus.

The Class of Ninety may well feel proud of its class-day exercises, for it is the general verdict that they surpassed any that have preceded them. The weather, the great essential for successful class-days, was all that could be desired; the intense heat of the sun allowing the large and brilliant looking audience ample opportunity for the full appreciation of the refreshing breezes that played through the little grove overlooking the speakers' platform.

At two o'clock the exercises opened with an overture by the Worcester Brass Band, immediately followed by Ninety's class yell from the north side of the hill, proclaiming that they had formally planted their elm.

Under the leadership of grand marshal Harry L. Dadmun, they now marched down the broad driveway and took places in the front seats facing the speakers' platform, the officers of the class and the speakers taking seats provided for them on the platform.

President Treadway, after extending a hearty welcome to the friends of the class, introduced Elmer Cook Rice, the class orator.

## CLASS ORATION.

### THE INDEPENDENT NEWSPAPER.

MR. PRESIDENT, CLASSMATES AND FRIENDS:

Within the past twenty-five years, no feature of American civilization has passed through a greater and more important series of changes than the newspaper which now comes to our homes as an almost indispensable adjunct to our well-being and happiness. It is interesting to note these changes and it is fascinating to speculate upon the possibilities of such an influential factor in American life. The average Yankee is very fond of giving advice, especially to the editor of the paper for which he pays his yearly subscription. He goes into the *sanc-tum* of the country editor fortified with a jug of cider, or a turnip of extraordinary size, and boldly outlines the only policy which the meek and humble individual at

the desk before him can follow consistently or with any surety of holding his subscribers. He writes letters to the managing editor of the city daily, signed, "One Who Knows," or "Pro Bono Publico," stating in vivid language the best course of action to be pursued. In exceptional cases, he makes a personal visit, accompanied by a large club or other weapon.

In noting these changes and speculating on these possibilities, there is no intention of formulating rules which shall guide newspaper publishers for all future time. Our friends of the professional press are so strongly wedded to their idols that they will laugh at the unprofessional views of the ignorant, but, possibly, well-meaning outsider. But the topic is a live one and can be discussed profitably by even the most humble layman.

In questioning the aims and motives of the newspaper, we run the whole gamut of human passions and weaknesses. In debating whether The Independent Newspaper is, or is not, worthy of long life and happiness, the very heart of what is intended to be purely an ethical discussion seems to be reached.

The American daily stands unique as the only newspaper in the world. Europe has most excellent journals of its own, but its newspapers are the product of American thought and American enterprise. The best features of its journals have been borrowed, in a great measure, from American sources. The "Thunderer of the English People," although now furnishing only a very innocuous quality of that commodity, has been, in the eyes of the average Englishman, the highest type of a great and powerful journal. But a nation that laughs at the humor of *Punch* must, of necessity, be constructed along mental lines totally different from those of the American people. The Londoner is inclined to look for the following-out of old customs and traditions in his journal. The New Yorker wants his news fresh and hot, and he wants his newspaper to inaugurate a new reform, or exhibit some new phase of striking individuality, with the rising sun of every day.

How important, then, in view of the fact that our country leads in everything that is bright and enterprising in the journalism of to-day, that the fountain head be kept pure

and unsullied,—that our newspapers be conducted with the highest aims and loftiest purposes, to carry on and on the march of human progress!

The truly independent newspaper is a beautiful thing to think about. It is the incarnation of right, of justice, of high-minded purpose and lofty ambition. It is almost too good for this earth. In its perfected state, it deserves to put on wings and quit this abode of sin and wickedness forever. But there are intermediate stages,—stages in which a condition of things, different from that now existing in the great majority of cases, will be applauded as an important step in advance.

A newspaper thoroughly independent is subject to the demands of no political party or religious sect. It is free as the winds of Heaven to criticize men and things. It is dependent on no human passion or passing fancy, for its support. It serves a constituency intelligent enough to understand that right and truth are the only standards by which human conduct should be judged. It is far enough removed from the influence of the counting-room to estimate men and measures for their true worth, not for their business relations to the management. It is clean and decent in presenting its facts. Above all, it prints the news, no matter with whom it conflicts or whom it injures or benefits.

This is an exacting state of things, truly, and it is needless to say that it defines the policy of but few of the newspapers of to-day. But the process of evolution is continually going on,—if the next twenty-five years show as great a change as the past, we can hope to find almost anything at the close of that period.

Let us take the New York newspapers for a passing illustration, for they typify American newspaper work. There are some forty dailies, of which the *Sun*, the *Times*, the *Herald*, the *Tribune* and the *World* are the most noteworthy.

The *Sun* is as bright as its namesake. It is dazzlingly eccentric. It publishes the news, and all the news, and it does it in the best English. Although thoroughly popular in its treatment of baseball, prize fights, bear stories and other sporting matter of surpassing interest, its editorial columns bristle with learned discussions on theologi-



cal, historical and linguistic topics. It caters to no special class. It is sarcastic and cynical to the last degree, and in politics it is very peculiar and extremely radical. It is liable to shift its position on certain political subjects several times in the course of a political campaign. It has the most thoroughly able staff, if not the largest, of any New York daily. If the *Sun* leans toward independence, it does so not as a matter of principle, but because it wishes to be eccentric.

The *Times* is a thoroughly good newspaper. It is pure in tone and caters to the best tastes and the highest classes. It gives special attention to the topics most closely connected with the life of the business and the professional man. I think it can be said to be the most independent, in the best sense of the word, of New York newspapers. It is honest and true in its editorial columns, and often, in its desire to be thought wholly independent, becomes overzealous in championing the truth, and drifts toward partisanship. But, as a rule, it is clear-headed enough to see both sides of a story and to present the whole to its readers. It is neither so newsy as the *Sun*, nor so brilliant. But it is conservative, and maintains its dignity at all times.

The *Herald* has the best foreign news, and its local matter is served up in a more readable manner than any of its contemporaries. Its headlines are veritable works of art. It is weak in its editorial department, which is lifeless and vacillating. It is rich enough and great enough to be a better and a stronger paper, and it probably would, were its owner not so constantly away from the helm. The evening issue of the *Herald*, the *Telegram*, is much brighter and more piquant, and is, consequently, more readable.

The *Tribune* is offensively partisan. A Democrat, in its eyes, is forever damned. It can, in no sense, be termed independent. The *Sunday Tribune* is the only redeeming issue of the week. In literary value, that issue is unsurpassed by any newspaper, and its literary features, in a great measure, atone for its wretched political spirit.

The *World* has immense resources, and presents more exclusive news than half its contemporaries combined. It is, by far, the most enterprising of the metropolitan news-

papers, and has the largest circulation of all. Its specialty is the defence of the weak and defenceless and in this line it does very commendable work. It is not especially dignified in its editorial columns, and is reported to be considerably under the influence of its counting-room. It has an immense staff of news-gatherers, and it works them very hard indeed. A greatly overworked department is that in which the circulation affidavits are prepared.

If any newspaper can afford to be independent, these newspapers, and those in other large cities, certainly can. When the star-eyed goddess of reform begins her onward march of triumph, a beginning must be made in this quarter. And, indeed, the question of independence in journalism is purely a financial one. The great dailies of the large cities, of assured financial success, are allied to some special political party only to increase, to a greater degree, the power and influence which they have over their constituencies. To have a power like the *Tribune* in the days of Horace Greeley,—that is the one ambition of a newspaper after it is put on a paying basis. And, too, every man likes to be on the winning side,—this seems to be the object of some of our so-called independent papers,—they wait until the usual signal lights are run up on high before declaring their policy.

The question of expense is the only thing that troubles a young and struggling journal. Its editor starts with the highest minded purposes. He is to reform his district, weighing everything by the standard of right and wrong, always deciding in favor of the right. After a few months floundering in a sea of uncertainty, subscribers dropping off one by one and the paper gradually getting into a most ridiculous and humiliating attitude on the fence, a political leader comes into the editorial room some day, writes a check for \$5,000 or so, and the paper blossoms out in the morning with a definite purpose and a candidate for Congress. Then a new lease of life begins. The candidate sends out immense numbers of sample copies, and members of the opposing party buy the paper to see what is going on in the camp of the enemy. It is a temptation which a young and struggling journal cannot hold out against. It is not thought business-like, in these days, to start



an independent newspaper. It simply does not pay, as a rule. In the case of not a few "journals," it pays to be independent until the largest financial inducement comes into view. Then it pays, again, several times over, to jump in the direction of the largest inducement.

But when a newspaper is put on a financial basis as solid as a rock; when it owes nothing financially or in the line of personal favors; when its conductors look for no rewards or distribution of party spoils at the hands of the men whom it helps to elect to office; when it can take a certain side of a question as a matter of principle, not of patronage,—then, and then only, can it look forward to its greatest and best development. Should this great American people, the most enlightened nation on the face of the globe, in a country of freedom the very air of which tingles with the spirit of independence, be guided in its affairs of home and State by a press which cringes under the demand of a party boss as the slave cringed under the lash before the war? Let the spirit of '76 assert itself as it should, in the breast of every American citizen. Shades of Horace Greeley! Would the *Tribune* under his leadership have countenanced the subsidizing of the Republican press of the country, including itself, and indorsed a general family and editorial administration?

On purely ethical grounds, none but the independent newspaper has any reason for existence. The great newspaper of to-day wields a great influence. The thought that the news which its hundred or more reporters bring in must be colored and distorted to meet the views of one man who presides at the head of the financial department, is enough to shatter all high ideals of right and justice. Oh, for that day when might shall not dominate right! That sentence is repeated at many commencement exercises about this time. Will it come soon? Assuredly, no. But when it does, there will come with it a spirit of love and good-will, so fraternal in its nature that the Recording Angel can clip from the Republican press and paste in the Judgment Book,—due credit being given,—the absolutely true life history of the most ultra Democratic leader who has gone before.

## RESUME OF THE CLASS HISTORY.

Mr. Nutt, the class historian, traced his class from its advent to the Institute to its formal farewell. He spoke of the brilliant leaves of Tech history turned in its presence,—the change of the Institute's name; the accession of the Salisbury Laboratories; the announcement in the catalogue that "tuition will continue to be free to a limited number of students who are not over twenty-one years of age;" the admission of the Institute to the Intercollegiate Athletic Association through the instrumentality of a member of the class of '90, and the boom which this action gave to athletics; the decline of foot-ball, etc.

With the allusion to foot-ball, he said, one of the darkest pages of the Class History is presented to our view. In vain were our earnest appeals for the re-instatement of foot-ball. Silent witnesses of many a manly contest, the goal-posts stand decaying monuments of a restricted game.

Perhaps, after all, this action by the Faculty reverted to our good, for little did we dream when we were arguing for foot-ball of the many pilgrimages we would have to make to Dr. Smith's Shrine, the Public Library.

The change in the marking system, whereby the custom of giving each student only his rank in the class, was abolished, and the system of letters substituted, met the hearty approval of the whole class, being especially welcome to those whose ranks had approached the "fifties."

It is a tradition that the Middle Class is generally responsible for all the pranks which are played at the Tech, but Ninety was an exception, for her evil spirit manifested itself in her Junior year. During her first half, fun was at a discount, except, perhaps, in the free-hand drawing room, but when the Spring Field-day came around, a brilliant opportunity was presented.

On the morning of that memorable day, Division B had shop practice, and as the members arrived, it was noticed that Ninety-One, who then constituted the Prep Class, was unduly excited over something. They kept coming down stairs in groups and going to the door, whence they cast proud glances in the direction of the Fair Grounds. Ninety looked also, and were

not a little surprised to see a mammoth standard, bearing the figures "91," floating over the scene of the coming sports. This would never do, so two Ninety men at once repaired to the Fair Grounds, and, although detected once, succeeded in escaping with the coveted flag, which was carefully hidden until it was wanted as a decoration for the hall on the night of the half-way supper.

This episode placed Ninety in a light of suspicion which was increased to a glow when she attended the Musee on the night after the half-way examinations. The other classes were well represented, but, when the performance closed and it remained for the police to select the "first six," Ninety, alone, was considered. After a spirited interview with the irate manager of the troupe, the boys were let off on terms which seemed more favorable under the peculiar circumstances that evening than they have at any time since.

The next evening we partook of our half-way supper. An occasion for the recollection of past exploits, the supper itself must not be forgotten. Our speakers, fired with enthusiasm at sight of the captured standard of "91," which adorned a large part of the wall, handled their subjects to the delight of all.

Our toast master, so anxious to merit the honor bestowed on him that he scorned to put the pink lemonade to his lips, surpassed the expectations of the class and confirmed the excellency of its choice. 'Twas at this time, too, that the General delivered his maiden speech. What other class can boast of a real General? Selections by the class orchestra and Ninety's representation in the Banjo and Guitar Club contributed largely to the success of the supper, which must ever hold a prominent place in our recollections.

We were now the traditional Middlers, and every piece of mischief perpetrated from this time on, was promptly laid at our door. Our reputation, which preceded us in the Junior extended through the Senior year,—if the Doctor's pumpkins disappeared, we were the cause; if his hitching-post was sawed off, we had done it. One night, a carriage belonging to a member of the Faculty took a ramble in the field of Bliss, and was there disintegrated. Although we were Seniors, and in spite of the fact

that one wheel was impaled on a goal-post and a Middler was seen walking the next day with a painful limp, the President treated us to a confidential talk. The approaching final examination and the exit of two of our number sobered us so that nothing could induce a Ninety man to lay aside his dignity, even for a moment,—unless, perhaps, we except the class suppers.

The various organizations at the Tech are greatly indebted to the Class of Ninety, some for the impetus which led to their formation, and others for a large proportion of their membership.

The Banjo and Guitar Club, the idea of which was conceived and successfully carried out by a Ninety man, was one of the most flourishing clubs that the Institute has had, and gave every indication of becoming a permanent organization. The success of the Banjo Club was followed by the formation of a Class Orchestra, which enjoyed a happy life of more than a year. The rehearsals and public appearances of these two musical associations afforded a most pleasant diversion from the monotony of almost constant study, and the clubs bade fair to outgrow the local fame which they soon acquired, when the President confronted them with the paragraph in the catalogue which allows a Tech one night in the week for recreation. This accomplished the death of the Orchestra, and the retirement of the Banjo Club to a life of more modest pretensions.

It would be an injustice to some of the members of the class not to mention that association of shy and retiring dispositions known among the students as the Sons of Rest. The information which the historian has at his disposal concerning this society is of a vague and disconnected character. Immediately after initiation, the members receive new names, by which they are forever afterward known to each other. During the Prep year, he who was known as Jigger was the controlling spirit, and after he left the Institute, the partnership of Sweeny & Seal interpreted the Constitution and By-Laws,—if they had any.

The history of the Class, as written beforehand by the Faculty, is exactly similar to that of other classes, and may be found in the study and recitation plans of any catalogue. It has often seemed to us that

work has been crowded in with too little regard for recreation, but a retrospective view shows that we have had many a good time, in one way or another, and that our self-denial in the constant application of our minds to study has so much the better fitted us to hold our own in the race of life.

The time has now come for us to leave the Institute, and, laying aside any unpleasant recollections and treasuring those of lasting joy, it is not without a sigh of sadness that Ninety closes this chapter of her history. A farewell tear for old associations, a parting tribute to those whose wise instruction has guided our efforts in the acquisition of knowledge,—and we are gone. May the Tech never have a less loyal class than the Class of Ninety!

### STATISTICS.

#### Mr. Prince gives a Composite View of his Class.

Nearly three years and a half ago twenty-five young men through force of an entrance examination and the kindness of the Faculty were admitted to a share in the concentrated benefits of the Worcester Polytechnic Institute. These few pioneers, with some few recruits at the end of the first half year and an occasional volunteer at later stages, have united to form the class of '90, W. P. I.

Actuated by a common feeling of loyalty to the school, and bound together by the strongest ties of friendship and brotherly love, the class of '90 may properly be said to have existed not as a collection of individuals, but as an individual, and it is some of the characteristics and peculiarities of this individual to which I would like to call your attention.

With regard to the figures herein set down I would say that, like other statistics which we have heard of, they are true as far as they go, and lest the underclass men and friends of the Institute should conclude from some of the facts mentioned that they have been entertaining angels unawares, it would be well to state that the ground covered by the figures has been carefully chosen.

The class numbers 37 members, of which number 20 belong to the Mechanical Engineering Department, 9 to the Department of Civil Engineering, and 8 to the Department of Chemistry.

Molecularly considered, we are yet young and charming, showing an average age of

21 years, 7 months, 6 days; but as a whole we have attained an age of 799 years, 11 months and 2 days, and are correspondingly gifted with wisdom.

It is an undisputed statement, although not found in the school catalogue, that a house divided against itself cannot stand; the class of '90 being firmly united has stood and now stands 209 feet and 3 inches high, with an average contribution from its members of 5 feet 8 inches.

This makes us about the tallest kind of a good thing in town, and it has enabled us to overlook with proper Christian spirit many of the slights and persecutions of the past three years.

That we all may have clearly in mind the class whose virtues we are discussing, let me exhibit to you its composite photograph. Imagine to yourself an individual of commanding presence, 209 feet tall and weighing about 5366 pounds. A noble head 789 inches in circumference is covered with hair 75 inches long, which varies in color from white to black, and is surrounded by a stylish hat of an average size of  $7\frac{1}{4}$ . The complexion is a compound composed of  $\frac{1}{3}\frac{2}{7}$  dark and  $\frac{1}{3}\frac{2}{7}$  light. The eyes, varying from light blue through all the changes of hazel and cat-yellow to black, light up a countenance which is of a pleasing and manly cast. The mouth is slightly shaded by a blonde mustache 11 inches long, and the chin *was* covered with a light beard. A pair of shoulders 52 feet broad, and arms 34 feet in circumference and 102 feet long, give evidence of a muscular power which has regularly secured the victory in athletic contests. Such is the class of '90 as existing to-day, such the superior physical development with mental attainments of just as superior a quality.

In a three years and a half course, allowing 40 weeks to the year and making a proper allowance for sleeping time, out of a possible 12,600 hours 8916, or considerably more than two-thirds, have been taken up in recitation and practice. In the whole course 2176 hours have been spent in practice, 1920 in Language, and 2310 in Mathematics. Chemistry and Physics have occupied 1020 hours, and Geology, Mineralogy, Metallurgy, and Thesis work 380.

To give a better idea of the work done, if an estimate be made of the area of printed



matter in every text-book which we have used during the course, we find as an actual fact that we have covered 233,100 square feet of text, making an average of 6300 square feet per man.

Early in the middle year our attention was called to the great cost of lead pencils and the expensive wear and tear on shoe leather, which has led me to make an estimate of the distance traveled by the members of the class in search of an education. Allowing that each man goes to the Institute once each morning and afternoon, and estimating the distance of the separate rooms from the school, it will be found roughly that the class has travelled somewhat over 100,000 miles, or more than four times around the world, and on the supposition that a tap one-half inch thick is good for a walk of 500 miles, we arrive at the astonishing result that over eight feet of solid shoe leather have been destroyed in the struggle for learning.

Strong as are the bonds of union between us, in many directions they are forced to endure the most severe strains, as there are several points on which, although not coming to open rupture, still the fibres of brotherly love are somewhat twisted and distorted. For instance, 23 out of the 37 refusing to be guided by the riper wisdom and clearer judgment of the remaining 14, still persist in shouting loudly for a protective tariff, and up to this date have resisted all the efforts made by the free-traders to induce them to shake off their protective verdancy and return within the bounds of civilization.

Returns on the temperance question show that 28 say "No" when asked to take a nip of the ardent, while 9 listen to the voice of the growler.

At this time it would be difficult to say just how a vote on prohibition would stand, as it is evident that such a vote is very susceptible to outside influences, but as the number of mayors, governors and presidents, to be immediately selected from the class this year, is small, a proper result might be approximated, although no authentic returns could probably be secured while the "original package" still continues to get in its work.

Speaking of original packages calls to mind another kind of package which is also full of inspiration, and concerning which

there is much more authentic information. Cupid has smiled upon '90, and 23 of its members are supposing that they have found their souls' companion in the shape of a best girl, while the remainder, having passed through the mill, are now keeping company with their mothers. Recent advices from the seat of war maintain, however, on good authority, that at least six men have become dizzy at a critical moment, and falling, have bumped against something solid in the way of matrimonial prospects, and are now watching the fluctuations in the diamond market.

Nineteen of us can show permits from our parents allowing us to smoke, and there are two more men who use the other fellows' permits. With the exception of three, we all play cards, with little or no preference as to the game played or what it is played for.

We are all musical, to a greater or less degree, and with Hymn 44 or "Homeward Bound" before us, we can give pointers to many of the leading soloists of the day.

Having all enjoyed a course in American politics we are well up in history, and can furnish information concerning George Washington, and very few opportunities have been lost in trying to impart this information to the under-class men. There are five men, however, who are not in this. Retired without a degree, they stand silent, restrained from giving vent to their feelings by the moral bond of a promise "to make an attempt to try, to remember not to forget not to do it again."

Twenty go to church regularly, and in religious belief we cover nearly the whole ground, with a majority of Congregationalists. Eleven go regularly to Sunday-school—five because they want instruction, five because there is a girls' class next to theirs, and one because his teacher pays his fare home in the horse cars.

In politics the class is strongly republican, 29 favoring the present administration, with six democrats, and two still as fence ornaments. May they fall off on the right side.

Much else might be said which could properly be included under the head of statistics, but in general we are 37 fellows who, just like the majority of people, have done those things which we ought not to have done, and have not done many of those things which we ought to have done, and

the mere fact that we are human assures us that we shall keep right on doing the same way. But, looking back, our final advice to the undergraduates is to try to do as well as we have, if you can.

The statistics of the class of '90, W. P. I., end here. The record of the time in which we have filled our place at the Institute is a fair one. Let us take care that it be as good a one after we have taken our places in the world, and set anyone who may be looking on a good example of an honest citizen and a patriotic American.

### TREE ORATION.

(J. H. DEVLIN.)

*Ladies, Gentlemen, and Classmates:* In accordance with a prescribed custom established by noble hearts in time past, the Class of Ninety before it departs plants its class-tree as a memorial of the existence of the class, and as a tribute to its Alma Mater.

After our course at the Institute requiring the closest application to scientific study, it is refreshing to indulge in an exercise from which all considerations of interest and utility are eliminated,—an exercise which appeals to sentiment.

Contemplation of the good and beautiful exalts man, and fits him for communion with the higher world. Overhead, the azure sky bedecked with fleecy clouds; below, nature clothed in all the loveliness of this fair June day; and around, happy friends with sympathetic thought make this sylvan scene a charm to the beholder, and turn his thoughts to the contemplation of ideal things.

Oh fair Alma Mater! When shall the recollection of scenes such as this, ever be forgotten by the manly sons who have gone before us? Dimmed, it may be, by the lapse of time, yet never shall it perish in the hearts of thy Sons of Ninety.

Oh Memory of the mighty Past! Who shall fathom the depth of thy beneficent working? Thou, with thy sister, Hope for the Future, hast tempered the fiercest passions of man, and hast led him ever upward to nobler spheres of action. The man of care with hurrying step and anxious brow may feel memories of happy days once enjoyed steal like sweet music upon him. Ennobled, refreshed, though with a tinge of sadness, he responds to duty's call.

The soldier, that wearied by the day's march, sits at night by the flickering camp-fire, may see in the curling smoke visions of home far away beneath the tall tree by the door-yard. His bosom may heave, and his eye grow moist; but on the morrow when the time of action comes, he is the peer of his comrades.

Napoleon perceived the power of memories of the past, when he inspired his soldiers with the pyramids' presence. His appeal touched a sympathetic chord in the heart of the Frenchman,—love for Glory.

Ah, Classmates! The pyramids were but the work of man. Conquest was the object for which the invaders fought. Consider the monument that we have to-day erected; slender, graceful, yet above the works of man. Endowed with life and possessed of the mystic powers of growth, it is more sublime than that before which the French invaders fought; the end which we would attain is higher than was theirs; our victory shall be incomparably nobler.

Nelson, at Trafalgar, called in duty's name upon his men; all the world knows how well they responded. Oh Glory, for whose sake the French waged war! Oh Consciousness of Duty done, so sweet to the English! We experience you both to-day. Glory in victories won. Approval of Duty, in the consciousness of work well done.

In this mathematical age some men may not perceive the purpose of this custom. Such men forget the records of the past. They should consider in brief retrospection a page of ancient history. When the laurel wreath constituted the sole prize of the Olympic victor; when the simplicity and purity of the trophy called forth his mightiest efforts; when a prize of intrinsic worth would have been regarded with contempt, Greece was the light of antiquity, the pride of the age. But when the effort was measured by the reward, the glory of Greece had become a tradition, and Diogenes needed his lantern. Just as to-day, that association best accomplishes its purpose, which pursues a contest for recreation's sake, and feels the joy of triumph unmingled with selfish glee at a rival's defeat.

Men that see in exercises such as this, only empty ceremony, must have forgotten that the renown of Socrates and Plato, ideal-

ists both, shall survive the adamant pyramids; that a simple song has set a nation's brain on fire. This force of idealism, though unfelt by the sordid materialists of every age, has left its mark upon the pages of history, and has shaped the career of many a nation.

Now Classmates, with the consciousness that the deed we have done to-day, is beautiful and enduring; with the knowledge that the tree shall survive us all, we have planted the class tree. Watered by the dews of heaven, bathed in the golden sunlight, kissed by every wandering zephyr, it shall flourish in this pure air. Growing ever higher, may it truly symbolize the direction of our aspirations. Year by year as it grows in strength, may the strength of our character and manhood accompany its growth. When in the distant future, tall and majestic, the tree shall have reached its maturity, the few of us still left shall gather round it and give Ninety's rhythmic rah!

May the story of our lives enhance the beauty of our Alma Mater, as yonder tree shall then adorn her grounds. But while yet we are the shapers of our own careers, when upon the diverse paths of life, we encounter discouragements, let us pause and look back; there is our Alma Mater, more beautiful than now, when seen from the lofty point to which we shall have climbed; beyond her the ruddy western skies; in the vale below her, the tree in the purple haze; encouraged, inspired, we shall respond to duty's call, and press on, with feet that never falter, with hearts that never faint.

### THE CLASS RECEPTION.

From a commencement so replete with brilliant events, it would be hard to choose the most successful. Yet if a choice were to be made, the reception in the Salisbury Laboratories would perhaps be given the post of honor as the happiest effort of the week. Such an innovation was naturally attended with some doubt as to the possibility of making it everything that a class reception ought to be; now no one questions the wisdom of the class in making a colossal effort in this direction.

Since the reception could not be held in the evening, the remainder of class-day afternoon was utilized, and on the whole, the time chosen was very satisfactory.

Indeed, for such sordid, unsentimental natures as could think with indifference of the ravishing moon that, a few hours later, would float its seductive light Worcesterward, and would witness some eminently idiotic diversions around shaded corners not provided for in the programme, the afternoon was quite as enjoyable as the evening would have been. Still, the evening is the time for the class reception, and now that the success of this venture is assured, another century may witness the holding of the class reception at a more witching hour.

Those who received invitations were careful to use them, and as a consequence, the reception was more largely attended than was any other feature of the week's programme. The Laboratories themselves were quite instrumental in making the reception enjoyable, and on all sides were heard comments upon their exceptional advantages for receiving a large company of people. The guests wandered about at will through such rooms on the second and third floors as were opened. The orchestra, stationed in the corridor, furnished music for dancing in the Mechanical Model Room, and the Draughting Room opposite was used as a sort of resting place. In this room was exhibited a group of pictures of the members of the class, handsomely framed and presented to the class by its photographer, F. H. Rice.

Refreshments were served in the General Physical Laboratory, an immense room on the third floor, Mr. Rebboli catering. All the rooms were more or less decorated, either with flowers and evergreens, or with drapings of the class and school colors. The guests seemed thoroughly to enjoy themselves, and all too soon were obliged to tear themselves away to give the boys a chance to attend the banquet of the Alumni Association in the evening.

### ALUMNI REUNION.

The Association to be Incorporated under State Laws.

Soon after six o'clock the little knots of old-time Tech students making their way through the Bay State corridors gave evidence that the annual reunion of the W. P. I. Alumni Association was at hand. At



6.30, every available seat in parlor A was occupied. Mr. C. G. Washburn, president of the Association, called the business meeting to order, and after a few words of greeting, called for the secretary's report. This was accepted. The treasurer then made the following report which was also accepted.

The report showed the balance of cash on hand June, 1889, to have been \$1165.86, the receipts \$710, the expenditures \$211.83, leaving a balance of \$1664.03. \$1726 must be credited to the Thompson memorial fund, leaving a deficiency in the treasury of \$61.97. During the year \$703 has been pledged toward the memorial fund, of which amount now due all but \$249 has been paid in. Only two years more remain in which to make up the fund, and unless it takes a sudden start, it will amount to only \$3000 or \$3500.

The president then introduced the matter of having the Association incorporated in accordance with the State laws, showing the benefits that would be derived from such an action. He outlined the way in which the desired end could be attained and submitted a set of by-laws that would make clear all matters that the present constitution with its amendments tended to confuse. The by-laws were acted upon separately and accepted with a few amendments. A vote was then taken on the question of incorporation under the laws of the State and was unanimously in favor of such action.

Further business was then deferred until after the banquet which was awaiting them in the large dining-hall.

### THE ALUMNI BANQUET.

#### Old Friendships Renewed Over the Festive Board.

It required a big room and a bigger aggregation of Worcester's colored gentry to do justice to the company of alumni that streamed into the dining-hall of the Bay State House for the annual banquet. Down through the long room were three rows of tables, about which the members of the Association found places. At the head table, which ran across the room, were seated the president of the association, Charles G. Washburn, and the guests. At Mr. Washburn's left were Prof. Woodrow Wilson of Wesleyan University, President

Fuller, Professors Kimball and Higgins of the Institute, F. O. Whitney, '71, and Samuel E. Mann, '72.

On his right were Judge P. Emory Aldrich, president of the Board of Trustees, Professors Eaton, Kinnicutt and Gladwin of the Institute, Herbert Nichols, '71, of Clark University, John F. Kyes, '76, Edward K. Hill, '71, and E. H. Whitney, '71.

The following is the list of the alumni present at the banquet:

'71, Herbert Nichols, Edward K. Hill, Edward F. Tolman; '73, Fred. H. Daniels, Walter Metcalf, Russell S. Penniman; '75, Charles E. Davis, Leroy Cook; '76, Lowell M. Muzzy, William B. Medlicott, James G. Shackley, John F. Kyes, George H. White, John C. Woodbury; '77, Joseph H. Wight, J. Fred Wilson, William L. Chase; '78, Frank T. Fay; '79, Charles D. Parker; '80, Thomas H. Clark; '81, Alpheus B. Slater, Jr.; '82, Oscar L. Owen, George A. Marsh, Herman F. Kinglee; '83, James D. Hunter, Sanford D. Leland, Hugo P. Frear, W. Frank Cole, Charles A. Clough, Victor E. Edwards, Allen H. Foster; '84, James N. Heald, William W. Estes, Roscoe H. Aldrich, James H. Churchill, Alden H. Wheeler; '85, Frank N. Sanderson, Ralph Woodward; '86, Walter G. Wesson, Clinton Alvord, Henry W. Carter; '87, William W. Bird, George A. Ward; '88, J. Brace Chittenden, Frederick J. Doon, Harry E. Rice; '89, Harry V. Baldwin, Arthur J. Bean, Ernest W. Desper, Myron J. Bigelow, Albert W. Gilbert, William E. Hartwell, Edwin G. Penniman, Isaac L. Rheutan.

The members of the graduating class were also present as guests of the association.

Divine blessing was invoked, after which the company seated itself and tackled the following menu:

Little Neck Clams  
Lemon  
Soup—Consonme  
Sliced Tomatoes  
Vienna Rolls  
Baked Connecticut River Shad a la Maitre d'Hotel  
Potatoes a la Hollandaise  
Radishes Cucumbers  
Fillet of Beef with Champignons  
String Beans Mashed Potatoes, Browned  
Chicken Croquettes  
Green Peas  
Mayonaise—Chicken Salad

Lemon Water Ice		
Roast Spring Lamb—Mint Sauce		
Baked Sweet Potatoes	Asparagus	
Cottage Pudding—Wine Sauce		
Angel Cake	Nut Cake	Fig Cake
Charlotte Russe		
Ice Cream, Vanilla and Coffee Mixed		
Strawberries and Cream		
Fruit	Nuts	Raisins
Edam, Young America and Domestic Cheese		
Bent's Water Crackers		
Coffee		

Cigars were not on the bill of fare, but they were in somebody's pockets to an unlimited extent, and while the air was still translucent, Mr. Washburn, president of the association, arose and said:

"In behalf of the Alumni Association of the Worcester Polytechnic Institute, I take pleasure in extending a hearty greeting to the Trustees, Faculty, Prof. Woodrow Wilson, and the members of the class of '90. When John Boynton in Templeton first sought out this plan, how little he thought of the results. Could John Boynton, Seth Sweetser and Ichabod Washburn come back to the land of the living, they would see that they had builded better than they knew." Continuing, he called attention to the wonderful progress of the Institute during the past year, in the opening of the Salisbury Laboratories to the students, the renovation of Boynton Hall, the enlargement of the Prep room, and the addition and improvements to the grounds. In speaking of this progress, the mention of the names of its chief promoters, Stephen Salisbury and G. Henry Whitecomb, was received with great applause. "But the progress," said the speaker, "does not end with the improvements of buildings and grounds. The courses themselves are being greatly enlarged to meet the more diversified demands of the students. Last year the course in Electrical Engineering was begun. Next September a new course, the course in Physical and Political Science, will be open to students for the first time. These signs of progress give us abundant cause to rejoice in the continued success of the Institute. It gives me great pleasure to now introduce Judge P. Emory Aldrich, president of the Board of Trustees, who has not been with us for several years."

Judge Aldrich began by speaking of the

pleasure he had taken in listening to the class-tree exercises of the afternoon. He was impressed with the beauty of the spot chosen by the class for their exercises, and was glad to see the young men seem to enjoy anything so thoroughly. "It is a great pleasure to me," said the speaker, "to meet with so many who have been students, especially as my own school days seem like a chapter in ancient history. I wish to impress upon you the duty devolving upon you as graduates of the school, to promote the development of the school. I do not believe there is another school in the country whose alumni presents so young an appearance, for there is not a gray-haired man among you. You are all young. There are immense possibilities for a young man who has entered upon life with a good character and a determined purpose, which, with youth, are the most valuable treasures that can be possessed." The speaker closed his remarks by saying that the school has not yet attained the position that it is destined to hold. He described a school in Zurich, similar to the Polytechnic Institute, which, however, has nearly 600 students, while the Institute has less than 200. He hoped the progress in the school would be as marked as it has been during the past year.

Professor Wilson, who gave the commencement oration, was next called upon to speak. Although evidently called to account without much warning, he replied in one of the happiest speeches of the evening. He said he had left Middletown sooner than he at first intended, to escape a similar banquet where he would be expected to speak, and now he had been taken in here in Worcester. "I was a stranger and ye have taken me in" he said would about size up his case. His speech abounded in happy allusions, and closing in a more serious vein, he said,—"I am very glad to learn that the new course in physical and political science has been established. I have been much interested in watching the growth of economic science. Formerly political economy was limited to what might be found within the covers of text-books; now it is loosed. It was demented, now it is becoming sane. It is a grand subject and I hope the school may realize the connection between school affairs and political economy."

President Fuller was next introduced by

the words, "By their fruits ye shall know them." Dr. Fuller spoke at some length of the ever increasing demand for graduates, the increase being especially marked in the chemistry and civil engineering departments. "The present graduating class," he said, "had not only done 'some things,' as the class statistician of the afternoon in his extreme modesty had said, but had done many things well. Four years ago, one graduate went to a large manufacturing company. Last year eight went to the same company, and now they want two more. Some of the students are already at work for their employers, as the latter did not wish to wait until after commencement." In conclusion, the speaker said he hoped the Alumni Association would soon be represented on the Board of Trustees, not only by three members (as had been suggested), but by three times three. Nearly every member of the present board has materially assisted the school with donations. The school is too dependent on a few. Not only its chief benefactors, and the alumni who have been directly benefited by the school, but also business men, who are indirectly benefited, ought to be interested to the extent of contributing to the funds of the school.

The president of the association then extended a welcome to the graduating class, and its president, F. W. Treadway, responded. After thanking the association for its hearty welcome, Mr. Treadway spoke of the three years course, dwelling particularly on the subject of athletics, over which there has been so much feeling. He spoke of the efforts made to get a general advisory board of athletic government, and hoped that such a board, on which students and alumni should be represented, would prevail in the near future.

Professor Kimball was given an ovation when he rose to speak. He addressed the company briefly on the new course in electrical engineering, which has been opened to graduates of the mechanical department during the past year. While much has been accomplished, more, in fact, than was expected, the course would be better next year and more ground would undoubtedly be covered. He said in closing that he hoped to have a 300-light dynamo ready for use by fall, and also a 500-light alternating current machine at the same time.

Dr. Kinnicutt was the next speaker. He said he had given up being called upon and was consequently congratulating himself on his escape, as it had always been the custom to call on the president of the class for the last speech. "Don't you ever call up the men in your classes out of order?" asked the toast-master. "*Never!!*" replied the speaker. "A has the first part, B the second, and so on through the class; there is no variation whatever,—absolutely no deception." Dr. Kinnicutt spoke briefly of the interest shown by the students in their work, saying that when at Cambridge he found it necessary to constantly urge the students, while here he was obliged to hustle to prepare enough work for his classes.

Professor Gladwin next spoke in his characteristic manner of his pleasure at seeing again the old faces and renewing old acquaintances. He was given a hearty welcome by the alumni, who always remember him as the "friend of the boys."

"I would like very much to call up Professor Eaton," said Mr. Washburn. "I said I wouldn't, however, and I won't. But," he added, with a significant grin, "there is nothing to prevent some one else from calling upon him to speak." An ovation brought Professor Eaton to his feet and he spoke entertainingly of his travels during his year's "furlough" and of the graduates he came across at several places.

Superintendent Higgins was next made conspicuous in the same heartless manner, and after a brief word, was allowed to go on his own recognizances with the other guests.

It was now twelve o'clock and the association immediately took up the unfinished business of the meeting held before the banquet. The constitution as amended was adopted by the association. Impromptu speeches were made by several of the members, an assessment of one dollar was levied to pay current expenses, and letters from the visiting committee to the various departments of the school read before the association. This finished the business and the meeting adjourned after one of the most successful banquets in the history of the association.



**COMMENCEMENT DAY.****Theses Read at Boynton Hall.**

At 9.30 A. M., on this day of days, the work of winding up began in earnest. From early morn the class pennant floating proudly out over Boynton Hall announced that the time had come, and now the first thesis reader stood, with pointer in hand, before the body of sage examiners, ready to demonstrate to them and his multitude of assembled friends that he was master of the subject on which he was about to speak.

The examining committee consisted of Samuel M. Gray, C. E., Providence, R. I.; Thomas H. White, Esq., Cleveland, O.; Francis H. Williams, M. D., Boston; Fred H. Daniels, S. B., Worcester; William B. Medlicott, S. B., Springfield; Alpheus B. Slater, Jr., S. B., Providence, R. I.

Upon the platform were Mayor Harrington, Superintendent A. P. Marble, President H. T. Fuller, Dr. Eaton, Prof. White and Prof. Gladwin.

Those who read abstracts were, H. E. Austin, E. J. Lake, W. E. Mumford, J. A. Anderson, A. P. Smith, W. L. Smith, H. P. Wires, D. R. Collier, F. A. Gardner, G. H. Nutt, S. H. Rood and W. T. White. Three of these were from the chemical department, four from the civil and five from the mechanical.

The diagram accompanying Collier's abstract was especially noticeable. The parts of the triple expansion engine, shown in elevation, were made to move by means of gearing at the back, so that the working of the engine was illustrated to the spectators as the speaker described it. This was the first thing of the kind ever exhibited at the school.

**PRES. FULLER'S RECEPTION.****Dr. and Mrs. Fuller Receive the Graduating Class.**

A most enjoyable part of the week's programme was the reception at the President's residence on Boynton street, from four to six o'clock Thursday afternoon. Ices and refreshments were served and the time thoroughly enjoyed. Nearly all the members of the Faculty were present, besides Rev. Dr. Merriman, Rev. Charles H. Pendleton, Stephen Salisbury and Hon. W. W. Rice of the trustees.

**DEGREES CONFERRED.****Association Hall Resounds With Words from an Orator's Tongue.**

On Thursday evening at 8 o'clock began the long to be remembered exercises. On the platform were seated Hon. P. Emory Aldrich, Hon. George F. Hoar, Hon. Edward L. Davis, Stephen Salisbury, Hon. W. W. Rice, P. L. Moen, Charles H. Morgan, G. Henry Whitcomb, Charles G. Washburn, Mayor Harrington and Prof. White, Dr. Eaton, Dr. Kinnicutt, Dr. Fuller, Prof. Higgins, Dr. Smith, Dr. Kimball, Prof. Gladwin, Prof. Alden, Dr. Moore, W. W. Bird and Robert C. Sweetzer, besides Rev. Dr. Mears and Prof. Woodrow Wilson, Ph. D., the orator of the evening.

The exercises were opened with prayer by Rev. Dr. Mears, after which Hon. P. Emory Aldrich spoke of the progress of the school during the past year and its great need of funds at the present time. He then introduced Prof. Wilson, who delivered a most able and interesting address on "Modern City Government."

The subject is a practical one, and was handled by a master. Owing to the vastness of the subject, only a framework of it was attempted, but so deftly did he handle it that at the close a finished story was in the minds of each one of his hearers. Following the address came the valedictory of Alton L. Smith.

**The Valedictory.***Ladies and Gentlemen:*

Thirty years ago our country was on the eve of a great crisis. A gigantic struggle was about to take place, and doubtless the events following are still fresh in the minds of many of you. For that contest the young men of the country were needed. You had an interest in those men, for they were your acquaintances, your friends, your kin, and it was with mingled pain and pride that you bade them farewell as they marched to the strife.

If the assertions of our great thinkers are to be credited, our country is to-day on the verge of another crisis. It may not involve bloodshed, but it will, in its results on our national life and prosperity, be of as great importance as the late civil war. Social and economic evils surround us on every hand and threaten our national existence.

They must be grappled with and destroyed ere they gain such immense growth as to overwhelm us.

Who are to be the volunteers in this struggle?

Every year, at about this time, the colleges and other higher institutions are sending out companies of young men, trained in the arts of peace, trained above all to think. Youths they are, but they will soon be men, and as such become our voters, our legislators, our leaders and molders of public opinion. And here to-night you have gathered to witness the giving of our commissions, and to say farewell to this company, which is about to go into the battle of life to do service with hand and pen and voice.

*Citizens of Worcester:* Representing as you do the "Heart of the Commonwealth," it is but natural to expect that your words and deeds should be cordial to all who tarry within your gates. That they are so, we can gladly testify. You have opened your libraries, your churches, your homes to us, and for your hospitality to us, who are mostly foster children, we wish to express our gratitude. As Worcester continues to develop as an educational centre, you will be called upon to entertain an increasing number of strangers, and to you will be entrusted to a large degree the fostering care of these institutions. In the distribution of your bounty you surely will not overlook your northern outpost, which is, perhaps, accomplishing more, though in a quiet way, than many another institution whose name is blazoned abroad. Having shown in the past your faith in it, we hope you will be influential in enlarging its facilities.

While our advantages have been good in the matter of libraries, they are much enhanced by the one recently founded at Boynton Hall, and we would like all book-lovers to keep in mind that not all its shelves are filled. As some one has said, empty shelves are quite as eloquent in their appeals as empty stomachs, so I trust it may be the grateful duty of my successor another year to thank you for the gifts by which those shelves have been filled.

*Mr. President and Gentlemen of the Board of Trustees:*

The growth of the Institute during the past three years has been phenomenal.

This is more apparent to us as students than to the general public. It has been a transition period during which most important changes have occurred, and from which great results are justly expected. During this time a more appropriate name has been assumed and the equipment vastly increased. The Salisbury Laboratories rear their imposing front to the rising sun. Boynton Hall of the past is not the Boynton Hall of the present with its many interior alterations and improvements. The grounds, with the charming Magnetic Observatory in the foreground, are beginning to take on the beauty of a park.

Two new and important departments have been added to the curriculum. That of Physical and Political Science will attract hither many students who may wish to prepare to teach or engage in business, while that of Electrical Engineering with its practical facilities, will accommodate those whose tastes are in the direction of the new motive force.

While all these changes have been for the direct benefit of ourselves and those who follow us, we cannot but feel that great pleasure must accrue to those whose efforts have brought about this advanced condition. To you we offer our tribute of gratitude, feeling that it pales, in significance, beside the brilliant reflection which such an institution is sure to cast on those whose benevolence and wisdom have been so potent in its establishment.

*Gentlemen of the Faculty:*

If there is in this broad land a school or college which assumes a high standard of scholarship and maintains it, that institution is the Worcester Polytechnic, and it goes without saying that to your efforts, this result is chiefly due.

As Emerson has said, "Our knowledge is the amassed thoughts and experience of innumerable minds." What you have done for us is invaluable, for what gift so rare as that which can be given, yet retained?

You have shown us in what mines to delve, what caves to explore for the wealth of learning; you have placed at our disposal the treasures, which you have accumulated in years of search; you have guided us through some of the fields of Science and History, where in our haste, we could gather only a few herbs and blos-

soms and mark the locality; you have led us by easy paths up the difficult steep and directed our eager gaze to those broad and fertile tracts, some virgin, some already under cultivation, all needful of laborers, in which we may work. And as we look with longing eyes, the value of your service has come upon us, so that words seem but a frail vehicle in which to convey our thoughts of gratitude.

You have exerted a most important influence on our lives at a time when habits are crystallizing into the character which is to determine our future, and in that future you must read with what force your personality has impressed us. In taking leave we would say, that by imparting to others what we have received from you, we hope to keep in action the potent force, which you have developed in us and so merit your approval, as well as indicate our appreciation of your services.

*Undergraduates:*

With us rests the privilege, as it will some time with you, of saying certain specific words which embody the idea of advice. It would be impossible to pursue a course of discipline without making note of failures and successes and their causes, and now as we look back at them, view them with the aid of distance in their true perspective, we truly feel qualified to offer suggestions. But advice is plentiful, and in this respect all people are benevolent, so we feel that other words are more appropriate.

Your opportunities for more thorough work, and that of a wider range, are excellent. You have every convenience and can feel unhampered in your studies. Changes have been wrought by which athletic matters are harmoniously and carefully arranged. Everything seems to be in a quiet condition, without liability of immediate change, and so, with no great questions to confront you, we leave to you our share in the legacy of former classes, which involves the duty of building up the various societies, the promotion of good fellowship, and the championship of the school at all times. I said there were no great questions to confront you. There are none so far as school interests are concerned. There is one that forever confronts the individual student. It is one dependent on his individual choice.

Choice seems a thing indifferent:

Thus or so, what matters it?

The Fates with mocking face

Look on inexorable, nor seem to know

Where the lot lurks that gives life's foremost place.

Yet Duty's leaden casket holds it still,

And but two ways are offered to our will.

Toil with rare triumph, ease with safe disgrace,

The problem still for us, and all of human race.

*Classmates:*

There are periods in life when it is not only natural but appropriate to pause and survey for a moment the past through which we have been hastening, before we continue pressing onward with eager footstep. Standing as we do nearly at the summit of the nineteenth century, we have a vantage ground for observation from which we can look far into the hazy vistas of other times, and see there the monuments left by civilization in its rapid progress, some of the wrecks, some of the memorial tablets with which the centuries are filled. And then turning, we can with our mind's eye peer into the limitless expanse of the future and catch some glimpses, flashes, of that which is to be. The age of steam is merging into the age of electricity, with its vast possibilities, which may in the next quarter century completely revolutionize our mode of life and action, our foreign and domestic relations and environment.

But with all this change, whether accompanied or not by commotion, the fundamental principles of life will remain unshaken, abiding forever. Human nature to-day is scarcely different from that of 3000 years ago, and we cannot expect it to alter in our time. As we launch out into the great ocean of human life, we must bear this in mind, and in our endeavor to escape Charybdis, beware of Scylla.

It has been said that faults are but deformed virtues, and so while learning to be self-reliant, we must avoid over-confidence. We must acquire the power of searching ourselves, looking at our actions through the eyes of others, yet not become egotistical. If we would avoid the criticism of others, we must be our own keenest critics. Each of us has an ideal which we ever approach as a limit, yet never reach, and the plane of our lives will be determined largely by this. Let us place it high, for we shall fall far short of it at the best.



Of our success in life we can have now not the faintest idea. We have the tools with which to work, but we cannot tell what we shall produce. Whatever we build we shall be responsible for, and let us hope that not one of our structures will be condemned. Let it rise from broad foundations, based on eternal truths, stable as the mountains; with strong walls, beams and arches; with a beautiful interior marred by no careless workmanship; and the whole crowned by the dome which shall complete and give a rounded fulness to all that supports it, while it reflects to all beholders the pure light of the glorious sun.

After a pleasant speech by Dr. Fuller, the thirty-nine diplomas were awarded by Hon. P. Emory Aldrich.

Mr. A. J. Reinbold, the non-graduate member, will return to the Institute next year, take a special course in Chemistry and graduate with '91.

The triumph of the faithful ones was now at hand: the giving out of the \$75 prizes to the six men who had averaged highest during the three years' course. They were: F. A. Gardner, S. H. Rood, G. H. Nutt, A. B. Larcher, A. L. Smith and J. H. Devlin.

A benediction by Dr. Mears closed the exercises.

### THE CLASS BANQUET.

#### They Will Long Remember Their Farewell Meeting.

One hour after the closing of the exercises the boys began to assemble in the corridors of the Bay State House. The majority had been home, changed their best clothes for rigs in which flannel shirts and baggy pants played a large part. Fish-horns of all sorts and sizes, from a vest-pocket affair to the one which Mumford stood by, and over which he could look by a clean two inches.

At about half-past eleven, all of the late Seniors being on hand, they proceeded to the private dining-room on the first floor on the Exchange-street side. The long table, extending the full length of the room was in readiness for them and they started in immediately to discuss one of Douglass and

Brown's best dinners. After they had slowly wended their way through the long and varied *menu* the tables were cleared and as soon as the din of the horns could be quelled, the toast-master, P. B. Morgan, called upon F. A. Treadway to respond to the "Orange and Black." Mr. Treadway had even less success than the following speakers in making himself heard, for quite a number of the class had arrived at that point where they thought they held first mortgage on the moon and that the time was now ripe to say a little something. Mr. Larcher spoke on "Our Alma Mater" and handled the subject in a bright manner, ending by offering the toast, "May its glory ever brighten and may the Class of Ninety ever honor it."

Toast-master Morgan then said, "There has been considerable fault found on account of the excess of study at the Institute." "That's the stuff," came the hearty response. "But far from taking away a study, I am going to advocate a new one, that of astronomy, and Mr. Prince will now make the first recitation on the 'Fixed stars and lesser lights of the Polytechnic Institute.'"

Mr. Prince in a happy and witty manner, showed the analogy of the formation of the universe to the make-up of the Institute, its Faculty, etc.

Mr. Rice arose at the call of his name to toast the "Ladies." He said: "Well, gentlemen, we have got here at last. I am sorry that Bob. Barnard or 'Davy' are not here to speak to you on the ladies. They could give you some pointers worth knowing, but I am out of it; I know nothing about the ladies (laughter), so I will speak to you on 'Ethics, evolution and education.'" Cries of "Here we don't want it, we know all about it. Give us something fresh." "Well I will speak on the Faculty of the W. P. I." His remarks on this subject were received with rounds of applause, supplemented with the sweet music of the fish horns.

Mr. Farnum spoke on "The Past," saying that he felt that the subject had been well covered by the class historian who had taken them back further than he was able to, the

historian having entered the school six months in advance of him. The past record, however, was one to be proud of and one which might pleasantly be talked over, if the thoughts of visiting Boynton street before daylight did not intervene.

The last speaker was Mr. Rood, with the toast of "Our Future." "I am not loaded to the muzzle," said Stanley, "At least not with facts regarding our future. You are very safe in tapping me on that topic, for I have but very little to say, not exactly too full for utterance, but there is but one thing that could be said for the future of such a class as this and that is that our future will be a brilliant one, bright even as the sun."

President Treadway now called for attention, and requested all horns to be laid aside until after the business meeting.

The treasurer, H. P. Wires, read his report which showed that after settling all the bills, there was a deficit of only about \$10. To settle this little bill without levying an assessment, the president suggested that the class property be auctioned off. This was agreed to, and the sale commenced with Pres. Treadway as auctioneer. The fun waxed loud and long over this sport, but it paid well, for at the end it was announced that the treasury contained \$10 as a nucleus to a class fund. Among the articles sold was an "original package" with an unbroken seal. It had the required shape and was warranted to draw flies. Reinbold's curiosity led him to bid higher than anybody else and he found himself the possessor of a pint of "Rum and Arnica." Morgan raised his own bid three times on a catcher's mask which was next offered, under the impression that Seal, who had not bid at all, was trying to outbid him.

The "Original package" made its appearance for a second time, wrapped in a different kind of paper. Charlie Cook didn't think there was any more arnica in the property and quickly made himself the proprietor of the outside wash. Gloves, balls, bats and twenty-five souvenirs, the latter bringing nearly 50 cents apiece were sold and the auction closed. At this point the class of '83, who had been holding a reunion at the Lincoln House, passed down Exchange street and cheered in turn for '90, '86 and '88, each of whom responded with their respective class yells.

A letter from Photographer Rice, accompanying the presentation of the class picture was read by the president, and it was voted to have it published in local papers.

The class then showed their appreciation of W. T. White's work for the class and school, by giving him a hearty round of cheers. They also extended a vote of thanks to H. P. Wires for his efforts as treasurer of the class.

The following officers were then elected to serve for a term of two years, or until the first reunion of the class.

President—E. J. Lake.

1st Vice-President—J. P. Anderson.

2nd Vice-President—A. B. Larcher.

Sec. and Treas.—A. L. Smith.

Executive Com.—A. L. Smith, chairman, H. P. Davis, S. H. Rood, L. N. Farnum and C. K. Prince.

A vote of thanks was extended to the Faculty for the courtesies shown the class within the past few weeks and especially to Dr. Kimball, for the use of his rooms for the reception.

Voted to give a silver cup to first male child born to the class. It was moved that a life-size wax doll be given the first girl baby, but the verdict was an almost unanimous "no." No use for girls.

It was evident that the mischief-loving spirits could not be restrained much longer, so the meeting was adjourned, and the cry "To Boynton Street" filled the air. A final 'rah was given to the classes who were still holding forth in the Bay State. Lines were formed and the whole party started down Main Street to the tune of "Auld Lang Syne," with variations executed by the fish-hornists. At the corner of Thomas Street a lunch cart has been wont to hold its lonely vigil through the long hours of the night, and frequently the weary ninety man has been refreshed at this same cart when making his way to his room after an evening out. It was impossible for some of the men to pass an old friend coldly by, so they decided to carry it along with them. In a moment the cart, man, sandwiches and all, started for Boynton Street. It was a poorly engineered piece of work, however, for the protruding step soon came in contact with a stone post, and the cart had to be abandoned for repairs. The payment of \$2.50 for the broken

step much relieved the frightened vender of lunches, and he looked well satisfied as he heard the sound of the *music* grow fainter and fainter as the breeze from the west bore it to his ears.

At Prof. Gladwin's, on Harvard Street, the cheering began, and the "regular Tech yell" had a chance to echo and re-echo many times before the last of the Faculty, M. P. Higgins, had been roused from his slumbers. On rounding the corner of West Street, a cloud of smoke was seen ascending in the morning air, and the brilliant glare of a fire at the west side of Boynton Hall made it appear as though the Institute was in flames. On nearer approach it was seen that a couple of cords of pine wood were fast being converted into ashes. It was also apparent that two small spruce trees, one of which was already dead, would also be the victims of the flames. A few of the members of ninety immediately organized themselves into a fire company with the purpose of preventing the spread of the fire, but the majority of the boys laid down in Dewey's field and wondered "how the thing started."

The firemen ran round the fire four or five times, stirred up the embers a little, making a decided improvement in the fire, and finally bethought themselves of the Babcock extinguishers in Boynton Hall. An excellent chance to see how good they really could squirt. Allen opened the door and the fizzers were brought out. In less than ten minutes one of the machines was started, and the stream sent over near the fire. This looked like sport, so the rest of the fellows came over to help get the other one started. The fire actually seemed to thrive on this diet, for it burned more merrily than ever. Seal didn't "think they had the right stuff in the old machines, they must have kerosene or some such stuff in by mistake." A blue-coated official, who had seen the reflection of the fire from the Wire Mill, now appeared on the scene. The boys were glad to see him, and even thought he was looking unusually well. He wasn't at all afraid, however, and staid around with the boys until Prof. Higgins came out. The fellows didn't feel like tearing themselves away, but it was almost five o'clock, so they gave a rousing cheer for old "Alma Mater," and started for home.

## EIGHTY-THREE'S REUNION.

### Hot Debate Over the Charms of Rival Babies.

Thursday afternoon the Class Boy held a reception on Dix Street. Before attending this reception, several of the proud fathers of the class had been expounding on the unrivalled excellence of their individual offspring, but when they met around the "Class Boy" all agreed that James Sanford Leland was unquestionably the finest baby ever seen. In the evening the class met at the Lincoln House for its second reunion. About two-thirds of the class were present, as follows:—

C. A. Clough, W. F. Cole, N. E. Craig, V. E. Edwards, A. H. Foster, H. P. Frear, J. E. Gallagher, J. D. Hunter, S. D. Leland, F. M. Parker, R. C. Sweetser, Alfred Thomas, J. P. Tucker.

Thomas and Frear had not been east since their graduation seven years ago. Several hours were spent in happy greetings, congratulations, and revival of old time experiences. After partaking of the best supper ever set before the class, they withdrew to the parlors and arranged business matters. The next reunion will be held in '95.

The old board of class officers was re-elected as follows:—

President, J. D. Hunter; Vice-Presidents, W. B. Easton, W. H. Hobbs; Secretary and Treasurer, V. E. Edwards.

## EIGHTY-SIX'S REUNION.

### Fifteen Loyal Members of '86 Renew Old Times.

The second reunion of the class of '86 was held at the Bay State House, Thursday evening. Fifteen members of the class and one guest of '87, did full justice to a bountiful repast. Letters were read from the absent members, after which many of those present made short, bright speeches.

The election of officers showed the following:

Pres. L. A. Whitney, 1st Vice-Pres. E. G. Watkins, 2nd Vice-Pres. A. F. Walker, Secretary H. W. Carter, Treas. F. Fay.

A memorial was read from those members located in the West, suggesting that the class hold their next reunion in Chicago, during the World's Fair of '92 or '93. After a lively debate, it was on motion, resolved, that a committee of three be



appointed by the chair, including the president as chairman *ex-officio*, the other members representing the East and West respectively, who should canvass the class, and therefrom decide the time and place of the next reunion.

### FIRST REUNION OF THE CLASS OF '88.

The Class of '88 held its first reunion at the Bay State House commencement night. The details of the meeting had been carefully arranged by an efficient committee and the natural result was a complete success. A large number of the class were present at the commencement exercises and disturbed the oppressive dignity of the occasion by vigorously applauding their old Class President, Mr. Lee Russell, who, owing to a long continued illness was prevented from graduating with them, but now takes his diploma as of the Class of '88 by a special vote of the Faculty.

At 10.30 P. M. at a signal from President Rice the following men commenced operations by partaking of an excellent dinner:—G. E. Camp, Jersey City; J. B. Chittenden, Cambridge; A. S. Cushman, Ouray, Col; F. J. Doone, Boston; G. H. Frary, Waterbury, Vt.; C. L. Griffin, Providence, R. I.; F. D. Holdsworth, Providence, R. I.; J. H. Jenkins, Lynn; R. L. Lowell, Boston; W. R. Marden, Patterson, N. J.; H. S. Mulliken, Boston; G. W. Patterson, Newport, R. I.; H. E. Rice, Worcester; G. I. Rockwood, Worcester; Lee Russell, Worcester; J. M. Schofield, Boston; C. B. Smith, Providence, R. I.; F. W. Speirs, Baltimore, Md.; J. F. Temple, Wilmington, Del.; G. M. Warren, Wilmington, Del.

At 11.30 the meeting was called to order, and President Rice called for an experience meeting varied occasionally by a praise service in which the principal thing praised should be the punch.

The experience meeting had hardly begun when the class of "Ninety" in the adjoining room started to prove their existence by the aid of tin horns and judicious yelling. They were greeted however by a package of fire crackers and the Eighty-Eight yell after which the meeting was able to proceed.

Each man was called upon in turn to relate his career of crime since graduation

and in the intervals some twenty songs were sung by the quartette and class. The bachelors were in the majority and showed their envious dispositions by hitting the more fortunate Benedicts on every occasion. Letters were read from every one of the absent members save one and in the course of the evening two telegrams arrived from Montreal and St. Louis.

Each man wrote his salary for the present year on a slip of paper and in the aggregate they showed that those present had earned in their second year \$17,700 making an average for each man of \$984. The greatest amount was \$1800 and the least \$660. In this reckoning the three members who are still students were not included. At the business meeting the following officers were elected:—President, H. E. Rice; Vice-Presidents, J. B. Chittenden, Walter R. Marden; Secretary and Treasurer, F. W. Speirs. It was voted to establish a class fund and to give a vote of thanks to former committees.

The morning sun shone in before the meeting broke up with a parting toast to the absent members.

The next reunion is to be in Worcester in '92.

### FUTURE OCCUPATIONS.

Where Some of Ninety's Bread Winners Will Locate.

Ninety has started out with a rush to gain a place in that race for fame that, in this country at least, is fast resolving itself into a grand stampede. The chemists have been especially fortunate in securing situations in which they can make their education directly useful.

Julius W. Bugbee has already begun work for the Nashua Iron and Steel Company, of Nashua, N. H.

Arthur B. Larchar has a position with the Steel and Nail Works, at Wareham, as analytical chemist.

Warren E. Mumford is with the South Boston American Steel Car Wheel Company as head chemist.

Ellis W. Lazell takes Instructor Desper's place in the department of chemistry at the Salisbury Laboratories.

Herbert E. Austin has offers to teach and to enter a large manufacturing establishment, but has as yet come to no decision.

Everett J. Lake pursues an advanced course of study, entering the junior class at Harvard in the fall. He will doubtless be heard from on the 'Varsity foot-ball team.

Some of the civils, too, have dropped into very desirable positions, while the rest will either

continue studying or else watch for hooks that are baited to their taste.

James P. Anderson begins work, within a short time, for the Edge Moor Iron Bridge Company, of Wilmington, Del. Several '89 men are now with the same firm.

Joseph H. Devlin will probably accept an offer from the same firm, although he has another position in consideration.

Loring N. Farnum has several excellent positions in view, but has not yet decided where he will cast his fortunes.

Edward H. Rockwell is thinking of further study before going into active business life.

Arthur P. Smith goes into the office of the city engineer at Cleveland, Ohio.

Francis W. Treadway intends to study law at Yale, during the next two years, with a view to beginning then the practice of his chosen profession, probably prefacing actual work by a short course of study in some law office.

William L. Smith has accepted a tempting offer from the west and begins work at once for the Union Pacific Railroad Company. He will be located at Denver, Colorado.

The mechanical engineers have made a break and are tempting fate in various unseemly ways. Some of them it may be safely prophesied will never be mechanical engineers again.

Merrill W. Allen contemplates another year at the Institute, in the course of electrical engineering.

Harry P. Davis is in Europe on a sight-seeing tour and will return in September to be Professor Kimball's assistant in the physical laboratory.

Paul B. Morgan and Charles F. Treadway sail immediately for Sweden, to continue their studies. Mr. Morgan goes to Monkfoss first, entering a large iron manufacturing establishment there. Mr. Treadway will be at Domnarfitt, also with a manufacturing firm. In January, both enter the School of Mines attached to the Swedish University at Stockholm. It is considered the best school of its kind in the world.

George H. Nutt sailed for Europe July 3, on the *State of Indiana*, of the State Line. Two months will be occupied in visiting Glasgow, London and Paris. It is a pleasure trip. In September, Mr. Nutt begins work in the machine shop of a large local concern, with the intention of becoming more familiar with the practical details of the profession.

Louis E. Booth has a two months' vacation in mind, and will probably remain in this city with a local manufacturing firm.

Harry P. Crosby will enter the employ of the Thomson-Houston Company at Lynn.

Clarence K. Prince began work July 7 as draughtsman for the H. B. Smith Company of Westfield, manufacturers of boilers and radiators.

Stanley H. Rood will take a vacation, probably returning to the Institute in the fall as assistant to Professor Kimball in the department of physics.

Alton L. Smith will remain at the Institute as assistant to Professor George I. Alden, the head of the mechanical engineering department.

George W. Perry will take up railroad work, probably entering the employ of the bridge department of the New York and New England Railway.

Windsor T. White begins work, about Sept. 1, for the White Sewing Machine Company, of Cleveland, Ohio.

Lee Russell will, as usual, maintain his camping-out school at Lake Winnipiseogee during the summer months and will probably go into teaching in the fall.

Charles H. Jenness will enjoy a long rest at his home in Chicopee with the intention of entering, in October, the draughting room of some manufacturing concern.

Charles H. Faulkner will spend the summer months at his home, probably beginning work in the fall with some Keene or Lowell manufacturing firm.

Elmer C. Rice is at present on the staff of the *Worcester Telegram*.

Three members of the class of '89, who returned last September to take the special course in electrical engineering, received their new degrees.

James A. Baylis enters the employ of the telephone company, of Montreal, Canada.

Albert B. Kimball is undecided where he will go, but will probably join his fortunes with one of the large electric light or power companies.

Albert P. Allen is contemplating an offer from a telephone company in New York city.

Of the 39 men in the class, 14 have actually accepted positions already, and 17 know exactly in what manner they will begin work in September.

The W P I is indebted to *Light* for its data in the above article.

### THE CLASS SOUVENIR.

Ninety has a right to be gratified with the appearance of its class souvenir. From cover to cover it is simply exquisite and deserves a better description than we are able to give.

The leaves of the souvenir are tied in between two plates of heavy bristol of a pale lemon tint, which serve as a cover. On the front cover is the frontispiece, designed by the Pollard Engraving Company of this city. It is a photo-engraving from a water-color drawing, and is very finely designed and engraved. The design includes a picture of the Tech, taken when the trees were bare, showing all four of the buildings. The souvenir has between the covers six beautiful views taken in the vicinity of the school. They include pictures entitled "The Tech," "Washburn Machine Shop"

(a view of the inside of the shop), "Institute Drive, Looking South," "Approach to Boynton Hall," "Institute Park," and the "Tennis Courts."

For printed matter, the souvenir contains the names of the graduates by departments, the Class History, the Class Oration, Class Day Programme, and the Class Officers.

### ATHLETIC NINETY.

To write Ninety's athletic history and do it in a systematic manner, would require the skill of a professional. Ninety's athletic work has been of a much varied nature. At times its work has approached and excelled that of other classes, and while the class leaves the school with the poorest showing of any class for several years past in field and track athletics, its work in base ball and general team work has been the most thorough and successful that any class yet graduated from the Institute has left behind it. Ninety's base ball team has always had the support of the class and for two years won the championship of the school.

That the class of Ninety has not left a more brilliant record behind it in track and field athletics is due entirely to lack of material. Had the class had as many men of individual athletic ability as the two or three classes just before it, its record would have been of a far different nature. Beginning back in that era of Tech life when all classes of the Institute have undoubtedly felt their importance the most and have always realized it the least, we find Ninety like other classes, a firm believer that it is able to organize a base ball team of the most dangerous nature. Its first game is won; the boys from the Highland Military Academy are the victims, and Ninety's joy knows no bounds in spite of the fact that their opponents had made 32 errors. The Academy nine are to be the next victims, but at the end of the fifth inning with the score 18 to 1 against them, the men of Ninety succumb to the change in luck which gives them overwhelming victory and then the most crushing of defeats. At the spring field day of Ninety's Apprentice year, but two men in the class entered the competition. Neither won a prize, and Ninety's record was a blank. In the fall of the same year nothing of special brilliancy was accomplished by the class.

Frery's work in the tennis tournament was praised by the school paper, but Ninety won no honors at tennis. In foot ball the class was beaten by '88, the score being 48 to 0. This was for the class championship, which honor was won by '88.

It was at this time that Ninety administered its defeat to the venturesome High School eleven, the score being 72 to 0. In sports of the fall field day, Ninety won one first and four second prizes and broke a school record. Mathewson was first in the mile bicycle in 3 min.

6 sec. and second in the half mile bicycle in 1 min. 28 sec. Frary was second with the hammer with 55 ft. 8 in. to his credit, and Crosby was second in the high kick and throwing base ball with 7 ft. 9 in. and 282 ft. 10 in. for records in the two events.

The next spring Ninety was more successful. The chances looked pretty slim for the class to win the base ball championship but after some very close games Ninety was able to boast of its first athletic victory. The season opened with that memorable game between Ninety and the then Prep class of '91 which was won by '91, the score being 17 to 14. Ninety was not to be discouraged, however, and in the next game defeated '89 in a finely played game, the score being 7 to 5. A victory over '88 would leave '88 and '90 tied for the championship. The game was won by Ninety and as the Seniors were unable to play off the tie the championship was Ninety's by default. In the spring games, White was the winner of the half mile run, breaking the school record, his time being 2 min. 11½ sec. Crosby was second in throwing base ball with a throw of 270 ft. 5½ in. The fall of '88 gave '90 other honors, its team winning the foot ball championship. Its first victory was over the Seniors, the game being very close and exciting. Ninety finally winning by a score of 4 to 0. The decisive game was with '91 and resulted in a victory for Ninety the score being 16 to 0. The members of the class of '91, however, have never ceased thinking that had Fish put in an appearance at the time that the game would have been much closer. But Ninety won the championship. Owing to the assumed desire of Ninety to help along the foot-ball eleven no field day was held during the fall. Ninety made a number of entries in the tennis tournament and succeeded in securing second place in the doubles, this honor being won by F. W. Treadway and Cook. All this time the school foot-ball eleven was actively at work and Ninety was well represented on the team, White being its captain, and Lake, Allen, Rice and Crosby having prominent positions on the team. In the spring of '89 the base-ball championship was again won by Ninety. A series of two games with each class was played this year and the championship was finally narrowed down to a struggle between Ninety and her old rival the class of '91. The game was won by Ninety by a score of 27 to 20 and the coveted championship was again in the custody of the orange and black. For the second time the result of Ninety's organization and superior team work had been well earned victory in the form of the class base-ball championship. During the field day of this spring Ninety was more successful than ever before, winning 2 first and 7 second prizes, and breaking 1 school record. Lake was the record breaker in putting the shot, winning with a put of 31 ft. 5½ in; Rockwell was the winner of the low hurdle event in 30 2-5 sec., Larcher being second in 31 sec.; Clancy was second in the mile walk in 8 min. 40 3-5 sec.; Rockwell was second in the 100 yards dash in 11 sec; Barnard



was second in the standing and running broad jumps with jumps of 9 ft. 1 in. and 16 ft. 10 in. in the respective events; Wires was second in the two-mile run in 13 min. 1 sec.; and Farnum was second in the hammer event with a throw of 62 ft. 9 in. The fall of '89 found Ninety again at work. The restrictions put upon foot-ball had greatly lessened the interest in the class games and no great effort was made by any of the classes. Ninety won the championship for the second time out of its three chances while in the school. Tennis had taken a great boom, and Frank W. Treadway, as President of the Association, can be credited with conducting the most successful tournament the school has ever seen. There were more entries, more exciting matches and more people interested than there had ever been before at a Tech tennis tournament. Out of 16 entries in the singles Ninety entered 9, including Faulkner, Lake, C. F. Treadway, Morgan, White, Cook, Rice, Rockwell, and Barnard. Rice was winner of second place in the singles. In the doubles Ninety entered 4 out of eight pairs as follows:—Morgan and C. F. Treadway, Rockwell and Faulkner, Cook and F. W. Treadway, and Lake and Barnard, while Rice found a partner in an under-class man. Rice and his partner were winners in the doubles, Cook and F. W. Treadway winning second place. The fall sports were handicap games and Ninety won 4 firsts and 4 seconds besides the tug of war. Lake was second in the 100 yards from 8 yards start in 10½ sec., and also second in the shot, from scratch, with a put of 29 ft. 9 in.; Farnum was first in the pole vault with 1 ft. 6 in. handicap with 9 ft. 3½ in. to his credit, and was second from scratch in the hammer with a throw of 66 ft. 6 in.; Rockwell won the 220 dash in 23½ sec. from the 8 yards mark; Rice was second in the quarter in 60 sec. from the 15 yard mark; Devlin won the mile walk in 8 min. 14½ sec. with a start of 15 sec. and Wires won the two mile run in 11 min. 42½ sec. with 30 sec. start. And now we come to the last ball year of Ninety's stay in the school. Sad as it may seem this half year was the time of the most unexpected defeat of the ball-team for the championship. A victory over the Preps put Ninety's team in a very confident mood and easy victory over '91 was expected. With the score but 9 to 8 and three men on bases with one man out Ninety was not quite so confident, but '91 made several bad mistakes in base running, and Ninety pulled out a victory. This narrow escape puts the team very much in doubt about the '92 game as the Juniors had easily beaten the '91 men. They had need to be anxious for their Waterloo had come. The victory went to '92 and '90 had been defeated for the first time for a class championship in team work since their first victory two years ago. Two base-ball and two foot-ball championships in class games is the record they leave behind. At the field sports last May, Ninety made its best showing, winning 4 firsts, 3 seconds, breaking 2 school records and making a better record in the mile walk than the then N. E. I. A. A. record. Wires was first in the two-mile run breaking the Tech record in 11 min.

28½ sec. and second in the mile in 5 min. 40½ sec.; Farnum was first in throwing the hammer with a throw of 70 ft., and second in the pole vault with a jump of 7 ft. 8 in.; Lake was first in putting the shot with a put of 30 ft. 7 in.; Devlin won the mile walk in 8 min. 4½ sec. breaking the Tech record ½ of a second and bettering the Intercollegiate record 9½ sec., and White was second in the half-mile run in 2 min. 40½ sec. For future reference a table is given below containing the individual records of the class since its connection with the school. This table comprises the record of the class in six field days only, no field day having been held in the fall of '88:—

	Firsts.	Seconds.	Records Broken.
Wires,	2	2	1
Lake,	2	2	1
Farnum,	2	3	0
Devlin,	2	0	1
White,	1	1	1
Rockwell,	2	1	0
Mathewson,	1	1	1
Crosby,	0	3	0
Barnard,	0	2	0
Rice,	0	1	0
Clancy,	0	1	0
Larcher,	0	1	0
Frary,	0	1	0
Totals,	12	19	5

The record of Windsor T. White was made up for four field days only, he having joined the class in the spring of '88. For general excellence White is undoubtedly the leader of the class in an athletic way, being an ardent admirer of all departments of true sport. Since his first connection with the school White has won 3 first prizes 2 seconds and broken 2 school records; has been twice captain of the foot-ball eleven and once its manager and during the last spring was manager of the athletic team of the school. To his work in a great degree is due the excellent standing of the school to-day in college athletic circles. Wires, Lake, Farnum, Devlin, and Rockwell have all done good work for the reputation of Ninety in the field and on the track.

To F. W. Treadway and Rice the base-ball leadership has been given, and with the excellent backing which the class has given them, Ninety's base ball reputation has been made. The last scene in Ninety's athletic career occurred at the Grove Street grounds on the afternoon of June 24, when the whole class joined in the annual game of ball in which everyone is on somebody's side but nobody knows whose side it is. Ninety divided up under the leadership of Lake and Crosby, and it was finally decided by the close score of 15 to 14, that Lake's followers should set up the ice cream for the class. And now Ninety has left the school forever. This is but the athletic record of the class; the real record, the record by which the class will be judged is yet to be made.

Eight columns extra this month.

On account of the press of school duties attendant upon examinations at the time of the last issue of the W P I, a few lines in a certain article were allowed to pass without proper consideration. The lines taken alone, as they appeared in a local paper, were liable to convey a wrong impression of the feeling existing between students and Faculty at the Tech. We should be sorry to assert anything that would show an antagonistic feeling between these two bodies or that would be likely to create the same, and even the article in question when read as a whole would not have that effect, nor was it the writer's intention that it should.

#### A LOOK INTO THE LABORATORIES.

Prof. Arthur Michael, who came to the Institute from Clark University, last fall, for the purpose of carrying on special research, presumably in an organic line, has taken his departure for a year of European life.

If the Middler chemists have not a thorough understanding of the analysis of iron and steel it will not be the fault of the course laid down for them for the last three or four months by Dr. Kinnicutt. Every man has been called upon to make comparisons between the best methods, gravimetric and volumetric, for the determination of the elements found in iron and steel, by actual analytical results.

H. P. Eddy has been examining Worcester sewage in its present condition. F. A. Bigelow has been engaged in the analysis of a recently discovered deposit of clay, from Blandford, Mass., and J. F. Rogers has been finding out what Worcester dealers have been passing out to us in the form of milk and butter.

#### ALUMNI NOTES.

Mr. J. B. Chittenden, '88, is to deliver a

course of ten lectures at Harvard, next year, on the Calculus of Finite Differences.

Among the recent graduates from the law department of the National University, at Washington, D. C., were L. W. Southgate, '85, and J. F. MacNab, '87, who received the degrees of Master and Bachelor of Laws, respectively.

The alumni of the W. P. I. resident in Washington held a supper at Swing and Clarke's dining-rooms, Tuesday evening, June 17. L. W. Southgate, '85, acted as toast-master, and after the supper was disposed of it was voted that a permanent association be formed to be known as "The Washington Branch of the Alumni of the W. P. I." The following officers were elected: H. W. Carter, '86, president; P. W. Southgate, '89, vice-president; J. A. Chamberlin, '87, secretary and treasurer. These three officers were also constituted an executive board to control the affairs of the association, and it was voted to meet at least once a year at the call of this board. The objects of the Association are to co-act as far as possible with the main Alumni Association and to bring the alumni in the vicinity of Washington together so that they may act collectively in making themselves felt in the world.

E. W. Desper, '89, who has been an assistant in the chemical laboratory of the Institute for the past year, has accepted an offer of first assistant in a laboratory of special research.

J. B. Chittenden, '88, received a degree of A. M. from Harvard last Commencement, and was voted a scholarship in mathematics. He wrote three theses for the degree, the subjects being, "The Theory of Envelopes," "The Line and Arcular Points at Infinity," and "A Solution of Laplace's Equations with an application of Bessell's Functions to a problem in Heat."

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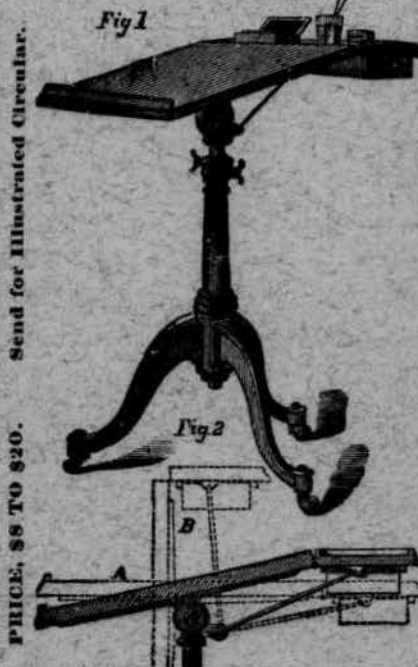
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