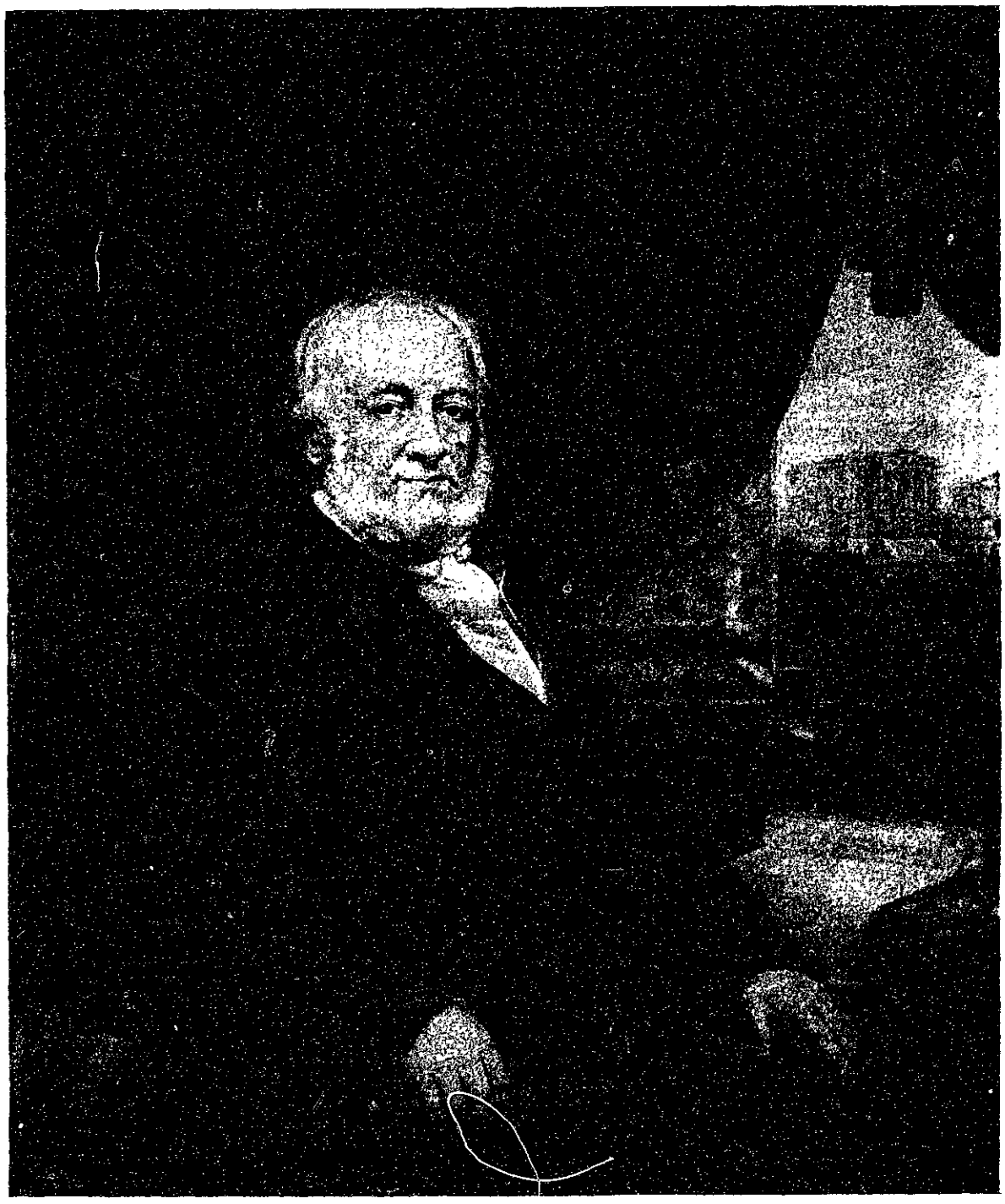


The Tech.

No. 1. BOSTON, OCTOBER 11, 1882. Vol. II.

THE TECH.

Published on alternate Wednesdays, during the school year, by the students of the Massachusetts Institute of Technology.

TERMS:

Subscription, $2.00 per year in advance.
Single copies, fifteen cents each.

Communications requested on matters of general interest.
Copies for sale by A. Williams & Co.

Alfred Mudge & Son, Printers, 34 School Street, Boston.

WITH this issue The Tech begins the second year of its existence. One year has been successfully completed, and many of the difficulties naturally encountered in starting a new paper and establishing a reputation have been overcome.

The year was one of experiment, for the work was entirely new to those who undertook it, and only when experience disclosed our mistakes could they be corrected and guarded against in the future. Throughout the year there was continual improvement, and the work, begun in much uncertainty, was left with every promise of success to those who were to continue it.

It is the intention of the present editors that during the coming year this improvement shall continue, and that the experience gained in the past shall help to make the paper a fuller and truer representative of the life and work at our Alma Mater. Our paper was not established as a money-making concern for the benefit of its editors; but being founded and supported by the whole school, it is the intention to publish it in the interests of all the students, and not those of any clique or department.

The question of financial success, beyond paying the actual expenses, is of no moment to the management, though it is hoped that a sufficient amount may be raised this year to provide better accommodations for the editors, and to sustain a new reading-room, — a project that will be spoken of more fully hereafter.

The aim in founding the paper was to afford a means of more general intercourse among the students, the need of which had been long felt. Our students, as they are without the usual dormitory life of college, see but little of one another outside their work in the buildings, and this work in one department is oftentimes nearly independent of that in others, so that classmates in different courses may be almost strangers. It was principally to overcome this difficulty, and bring the students more together, that the paper was established; and once started, many reasons have appeared for continuing and improving it.

THIS being the first number of the new volume, we think it fitting to give our readers a somewhat definite idea of the plan of work for the coming year.

The general appearance and arrangement of the paper in the first volume have proved satisfactory, and will not be greatly modified. Smaller type may, however, be used in some of the columns, and the department notes will be

somewhat differently arranged. Besides these changes, the editors intend to introduce several new features, which, if found interesting, will be continued through the year.

One of these departures is the establishment of an alumni column of personal items, which we hope to make of special interest to all alumni of the institution. A circular has been sent to each alumnus, stating the plan for such a column, and inviting him to send us any items in connection with his life or work which would be of interest to his classmates, or which might prove of assistance to those students who are preparing themselves for the same profession or department which he has already entered. The experience of those who have gone before and encountered the practical difficulties in the path, if put within reach of the student, may have considerable influence in his choice of a profession, and be of no little help in his preparation for real work.

A further statement of the aims of this department will be found at the head of the column in another part of the paper.

Another new feature will be the column of the publications of members of the school and alumni, which will be issued occasionally.

We hope also to give, in connection with Science Notes, short accounts of the original work done in the school by the professors or students.

During the year we intend to publish a series of short sketches of the lives of the founders and benefactors of the Institute, each article to be accompanied by a full-page portrait. This series, it is hoped, will be found of considerable interest to all friends of the institution, and will provide our readers with a complete set of valuable memoirs.

As the paper is published principally for the students, the major part of its columns are to be filled with matters relating to the every-day work in the buildings, with articles and serials contributed by the students, communications, athletic and social matters, reports of meetings, local items, and all matters of importance and interest to each in his connection with the school.

We are aware that the programme laid out involves no little work for the editors, which must be done without interference with regular duties in the school; but we think we have reason for believing that the work will be done, and that the present editors earnestly desire to make THE TECH as complete a success in its own province as the other departments of our honored institution have become in theirs.

IT is essential to the literary success of THE TECH that the students should take a wholesome interest in its welfare, and should contribute articles from time to time; but as the experience of the past year has demonstrated that such will not be the case unless there are some incentives offered, the board of directors, in view of the brilliant financial outlook of the paper, have decided to offer the following prizes during the present year: —

One subscription to THE TECH to the person sending in the best contribution for each number; to subscribers, this prize will be $2.00.

Twenty-five dollars and a $10 gold medal to the SUBSCRIBER doing the most to further the interests of THE TECH by contributing cartoons for the present volume.

Forty dollars and a $10 gold medal to the SUBSCRIBER doing the most to further the interests of THE TECH by literary efforts during the present year.

A prize of $25 is offered for the song which, in the judgment of the directors, shall be most suitable for the "Institute Song." All songs to be handed in before Feb. 1, 1883. The management may reject any or all contributions.

In addition to the exchanges of last year, the following periodicals will be placed in the reading-room: *Puck*, *Punch*, *Harper's Weekly*, *Harper's Monthly*, *Century*, *Atlantic Monthly*, *Nature*, *Chemical News*, *Spirit of the Times*, New York *Herald*, and one or more of the Boston daily papers.

THE first of the series of sketches of the benefactors of the Institute will appear in the second number. The subject will be Dr. William J. Walker, in whose memory the Walker professorship of mathematics was established, and whose generous bequest contributed in no small degree to the successful founding of our institution.

Contributions.

The Fair.

THE Fair of the Manufacturers and Mechanics' Institute, now in progress in their building on Huntington Avenue, is fully equal to previous exhibitions, and well worth a visit. Besides the usual display of manufactured articles, the inevitable cataract, soda fountains, candy stands, etc., the Fair presents several new features, the most noticeable being the large exhibits from the South, most of which were shown at the Atlanta Exposition. Prominent among these are the fine displays of cedar ware and tobacco from Richmond. A number of Southern railroad companies also show large collections of ores, minerals, woods, etc., illustrating the resources of the sections of country through which their lines pass.

The exhibit of the Massachusetts Institute of Technology, which is of course interesting to students, is in the same secluded corner as last year, at the extreme right of the main entrance. The best thing in it is undoubtedly the small steam engine built in our shops by Mr. M. P. Barnard, which makes a very creditable appearance. Some architectural thesis drawings are also displayed, and specimens of the metal work done in the shops; a new feature being the fancy castings in bronze, which are quite good for students' work. The greater part of the space, however, is occupied by specimens of work done at the Imperial Technical School at Moscow, to which are added, for some occult reason, some colored plates illustrating botanical subjects.

It is to be charitably supposed that these things are exhibited in order to show what kind of work the Institute aspires to produce in the future; but as the whole collection is labelled in large letters "Massachusetts Institute of Technology," the stranger is not apt to get from it a more correct idea of the work really done here than he would by perusing some of the long words in our catalogue.

If the models presented to us by Russia must be brought forth whenever the Institute makes an exhibit, we would respectfully inquire why they are not shown for what they are.

Not far from our own exhibit is the "marine bicycle," a light double boat driven and steered like a bicycle; and near by is the free-lunch counter, easily recognized by the crowd around it, where an individual is dealing out "Hecker's self-raising griddle cakes, circular with each cake explaining the cake."

On the left of the main entrance the process of printing heliotypes may be seen, together with some good specimens of the work.

About half the space on the main floor is occupied by machinery, mostly in operation. An unusually large number of steam engines are displayed; among which may be mentioned, as possessing special interest on account of novelty, the Westinghouse and the Lawrence high-speed engines, the latter being the motor preferred by Mr. Edison for running his dynamo machines. The Brayton petroleum engine is the most novel motor exhibited, and will repay a careful study. The Porter-Allen engine makes the first display of its class, the parts of the machine being shown separately, as well as an engine set up and running at two hundred and thirty revolutions per minute. By this means the excellence of the design and workmanship of this engine can be fully seen and appreciated.

The exhibit of weaving machinery, etc., is very extensive and interesting. Among things deserving special mention are an electric stop motion for looms, spinning frames, etc., the button-hole loom for weaving suspender straps, the weaving of silk handerchiefs, and the Brussels carpet loom.

Architectural students may be interested in examining Rendle's patent system of glazing; and all lovers of ingenious mechanism will like to look at the machine for winding twine balls (using coiled wire belts), the Lockwood leather scouring machine, the Campbell and other sewing machines for making a lock stitch with waxed thread, etc.

The art galleries contain about six hundred pictures of all grades of merit and demerit. The most conspicuous picture is the large "Battle of Lexington," by A. H. Bicknell.

Music is furnished in the afternoon and evening by Reeves's American band of Providence.

In the evening the large hall, brilliantly lighted by electricity, presents a pretty sight. Four systems of lighting are employed, — the Edison, Weston, Maxim, and American, — making the finest display of electric lights ever seen in the United States. It is the first public exhibition which Mr. Edison has yet made of his system, with the exception of that at Paris. G.

Football.

MR. EDITOR: The time has again come for fall sports, and the most prominent upon the list, and the one in which most interest centres, is foot-ball.

In nearly all our sports we find ourselves heavily handicapped in competition with other colleges: our spring term is too short for base-ball, and we have no suitable practice ground; our opportunities for indoor athletics, never sufficient or satisfactory, are now entirely cut off for a time by the loss of the gymnasium; our tennis courts are demolished: and foot-ball remains as our only resource.

In our opportunities for practising and playing this most beneficial and exciting game, we stand more nearly on par with other colleges. We can have sufficient practice and a respectable practice ground. As our duties in the Institute are lighter than later in the year, we can afford more time for exercise. We have a large number of interested men from whom the team can be chosen, and we can find many college teams at no great distance with whom games can be arranged.

For some years there has been among us a growing interest in the game, and in the establishment of a representative Institute eleven which should be able to convince other colleges that in at least one branch of athletics the Institute can do herself credit. All our athletic performances, with the exception of the tug-of-war team's record, have been disappointing and disheartening; and if we intend ever to make a reputation for physical prowess, it is fully time to begin in earnest.

With pluck and perseverance there is no doubt that we can this year raise a foot-ball team which shall leave a satisfactory record. Let all who are in the least interested in the success of our eleven prove that interest and encourage the team by their presence on the practice ground and at regular games; not forgetting, when more substantial assistance is required, that an eleven which would produce good results must have a good backing and a firm pecuniary foundation. '83.

Athletics.

THE annual meeting of the M. I. T. A. C. for the election of officers of the club for the ensuing year took place Friday, Sept. 29.

The meeting was well attended, many Freshmen having accepted the invitation of the secretary to be present; and after adjournment the books were opened, and a good number of the new-comers were enrolled as members of the club.

The meeting was called to order by Leonard, '83, and proceeded to election of officers, with the following result: —

President. — H. Ward Leonard, '83.

Vice-President. — F. O. Harriman, '83.

Before the election of secretary and treasurer, an amendment was moved to the constitution to make these offices devolve upon two members instead of one, as was then constitutional;

also an amendment making the executive committee to consist of seven members instead of six, the additional member to be the treasurer of the club. These amendments were put and carried, and the balloting for these officers proceeded with.

Mr. Pratt, '85, was chosen secretary, and Mr. Bennett, '84, treasurer.

By the loss of the gymnasium, all athletic meetings and regular work must be postponed until the new gymnasium is finished. Aside from this drawback the prospects of the club are very cheering; with a new building and apparatus, a very large Freshman class, and a thoroughly alive management at the head of the affairs of the club, the winter's work should be entirely satisfactory, and the regular games a considerable improvement over former years.

The first Tennis Club meeting of the fall was held Tuesday, Oct. 3.

By the occupation of the old courts by the new building, the club finds itself without courts.

Three alternatives were brought up: To obtain permission to use the space between the Institute and the Natural History building, and lay out four or more courts; to make temporary courts on the Ross field; or to hire space in the Mechanics' Fair building, and make arrangements so that the courts there laid out could be used throughout the winter.

A committee was appointed to investigate and report to the club as soon as possible.

The question, considerably agitated last year, of forming a foot-ball association independent of the Athletic Club, has been definitely settled.

At a general meeting of men interested in the movement, a constitution was adopted, and officers for such an association chosen: —

President. — Haines, '84.

Vice-President. — Pratt, '85.

Secretary and Treasurer. — Fiske, '85.

The team is to consist of fifteen men chosen from the competitors by a committee appointed for the purpose.

The association now numbers some forty members, and is rapidly increasing.

Children's Department.

To the Fresh-men.

THE TECH, hav-ing in mind the unfledged con-di-tion of the Fresh-men, took up-on it-self, in its in-i-tial number, the of-fice of pro-tect-or to them; and now, in or-der that they may grad-u-al-ly learn to pro-tect them-selves, it of-fers a few sal-u-ta-ry hints on their fu-ture conduct. First of all, dear chil-dren, you should sub-scribe to THE TECH. For two dol-lars you will re-ceive full re-ports of all Fac-ul-ty meet-ings, and if ne-go-tia-tions are suc-cess-ful, a sup-ple-ment with a list of the un-knowns in the First year Lab-o-ra-to-ry. Then, to in-sure com-plete pop-u-lar-i-ty, join the Ten-nis Club and the Ath-let-ic As-so-cia-tion. They don't need your mon-ey, but they would like your so-cial in-flu-ence. These things, how-ev-er, need-ful though they be, suf-fice for noth-ing un-less, in ac-cord-ance with a cus-tom hon-ored by time if not by the Fac-ul-ty, you be-gin to pe-ti-tion for brass but-tons on your lit-tle mil-i-ta-ry coats. You won't get the but-tons, but the brass may come in time. But the print-ers' hy-phens are al-most gone, so we can only say that we all are glad to see you, and to see that you are so man-y, and that your mus-tach-es are look-ing so well. It is a good plan to tie knots in them be-fore you go to bed; it keeps them from slid-ing back. We trust, in clos-ing, that the up-per class-men will bear in mind your ten-der age and feed you lib-er-al-ly with the milk of hu-man kind-ness. And so, re-mind-ing you that this place is called THE TECH, and not the Mas-sa-chu-setts In-sti-tute of Tech-nol-.—[*Continued in our next.*]

Department Notes.

TWENTY-FOUR regulars and sixteen specials have this year entered the course in mechanical engineering, making the largest class ever entering that department. We hope the class will be divided, as neither the drawing-room nor the shops can properly accommodate them together. The drawing-room, at present, is a near approach to the famous Black Hole of Calcutta, in point of crowding and lack of ventilation. Another instructor is required by this department, and we understand that steps have been taken to secure one for the third-year class. Prof. Whitaker has placed the entire charge of the Seniors in the hands of Mr. Hollerith, who is a graduate of the Columbia School of Mines, and has lately been employed by the Census Bureau.

The Senior Mechanical Engineers last week visited the Fair, for the purpose of making some tests with a Silver & Gay dynamometer upon the power required to run a spinning frame, under the direction of their new instructor, Mr. Hollerith, who is beginning his work in an energetic and practical way which bids fair to win for him the respect and esteem of the students.

Germany and Russia are experimenting on flying machines for war use. The principle is that of the boy's kite, an inclined plane pressed against the air, the pressure being given by an engine and rotating fans. The difficulty is the weight of engines and fuel.

The South Boston Iron Works have built for their own use two ninety-foot lathes, said to be the largest and heaviest in the world. They are designed for boring out cannon, but are adapted for any heavy work. They were cast in sections of thirty feet each. The head stocks, face plates, and bed sections each weigh ten tons.

The mining laboratories have opened with the largest class ever entered, sixteen students being at work, eleven of whom have had special subjects assigned them mainly for thesis work. Students were allowed to choose their work, and in cases of conflicting choice, lots were drawn, resulting in the following assignments: Capen, jewellers' residue smelted for gold and silver; Richards, Calumet and Hecla sand washed for copper; Tenny, same (new process); Stebbins, Vershire copper ore; Hardon, amalgamation and chlorination of gold ore; Tompkins, blende and galena ore worked for silver; Gustin and Leonard, pig-iron smelt; Willicutt, copper residue worked for gold, silver, and lead; Morse, Colorado silver ore worked by washing; Mansfield, refuse copper products of laboratory worked for refined copper. The first two students have already begun on their ores.

The Civils already miss Julia!

Come and see the new drawing tables.

All of the Civils of '84 have come back, with the exception of last year's class president Jarvis.

The civil engineers now have two large comfortable drawing-rooms; one of them being occupied by '83 and '84, and the other by '85. The total number of students in this department is thirty-three.

The drawing board belonging to Hayes, '83, was found in the C. E. room. Shall we send it to his farm in Ohio, or bequeath it to Cornell?

The senior Civils have been given the privilege of riding free over the Boston and Albany Railroad at any time to see the engineering works on the road.

By the acquisition of the services of Mr. Burton as instructor in topographical engineering, the civil engineers are provided with a complete corps of instructors. The course when first laid out was designed to embrace both civil and topographical engineering; but until now there has been no regular instructor in the latter branch, which is constantly growing in importance.

The Architectural Association of M. I. T. will hold their annual meeting for election of officers on Wednesday, Oct. 18. Members will meet in their new room in the Museum of Fine Arts. Owing to some misunderstanding, no prizes were awarded in the Architectural Department in the spring.

A new feature of the Architectural Department is a course in surveying by Prof. Vose.

Mr. Woodbridge will give a course of lectures on ventilation and heating later in the year.

The Lowell School of Design has been moved into the Mechanics' Fair Building, and the Architects have taken possession of their old room. The architectural library and museum will be placed in it, and though the books and casts will be crowded very much, our brother architects will have no longer cause to complain about running down two flights in order to "consult" Croquis.

The chemists of '83, after some discussion, have decided to take course B as was advised by some of the professors.

In the quantitative laboratory Mr. Allen has taken Mr. Robbins's place as chief assistant; the latter having accepted a situation as chemist at the Amoskeag Mills, Manchester, N. H. In the first-year laboratory Mr. Norton supplies Mr. Lindsay's place.

The Society of Arts will meet at the Institute on Thursday, Oct. 12, at 7.30 P. M. It has been deemed fitting that at its first meeting of this season the society should formally recognize the loss of its honored and beloved founder, Prof. William Barton Rogers, and it therefore will be held as a memorial meeting.

LIST OF PUBLICATIONS, M. I. T.

[In order to make this record as complete as possible, professors, alumni, and students of the Institute are requested to send us the titles of any books, pamphlets, or periodical articles published since the appearance of Prof. Nichols's "list," and also the titles of forthcoming articles, promptly as they appear.]

Mass. Institute of Technology. — Seventeenth Annual Catalogue, 1881-82. Pph. 8vo, pp. 94. Boston, 1881.

—— Circular with reference to Course VIII. B, — Physics with special reference to Electrical Engineering. 8vo, pp. 3.

Society of Arts. — Abstract of Proceedings for the Twentieth Year, 1881-82. Pph. 8vo, pp. 88 (with two appended pamphlets by Prof. Lanza, pp. 50 and 8). Boston, 1882.

Alumni Association. — Constitution, list of officers, etc. Pph. 8vo, pp. 8. Boston, 1882.

Class of '77. — Class Directory. Three-page circular, 1882.

Cross, Charles R. ('70). — On the Beats of Consonances of the Form h:1. Abstract of articles by R. Bosaquet. *Am. Journ. Otology*, January, 1882.

—— Electric Lighting. Abstract. *Proc. Soc. Arts, M. I. T.*, 1881-82, 78-81.

—— Underground Telephone Lines. A Report to the American Bell Telephone Company. Pph. 8vo, pp. 22. Boston, 1882.

Holman, S. W. ('76). — Simple Method of Calibrating Thermometers. *Proc. Am. Acad.*, XVII. 157-162; *Am. Journ. Sci.* [3], XXIII. (1882), 278-283.

—— Hypsometric Measurements of Some Points about Williamstown, Mass. *Appalachia*, III. 50-53.

Hyatt, Alpheus (Prof.). — Report as Curator of Boston Society of Natural History. In *Reports of Boston Soc. Nat. Hist.*, 1881-82, 1-13.

Jacques, W. W. ('76). — Acoustic Architecture. *Pop. Sci. Monthly*, XXI. (1882), 454-462.

Kinnicutt, L. P. ('75). — An Indirect Determination of Chlorine and Bromine by Electrolysis. *Am. Chem. Journ.*, IV. (1882), 22-25. [Same as in *Proc. Am. Acad.*, XVII. 91-93.]

—— The Decomposition of Phenyltribrompropionic Acid by Water. *Am. Chem. Journ.*, IV. (1882), 25-27.

Lanza, Gaetano (Prof.) — Report of certain tests on full size wooden mill-columns made for the Boston Manufacturers' Mutual Fire Insurance Company. Reprinted from *Boston Journ. of Commerce*. Pph. 8vo, pp. 50. Boston, 1882.

—— Transverse Strength of large Spruce Beams. Reprinted from *Boston Journ. of Commerce*, June 24, 1882. Pph. 8vo, pp. 8. Boston, 1882.

Nichols, W. R. ('69) — Natural Filtration at Berlin. *Journ. Frank. Inst.*, March, 1882.

Pickering, W. H. ('79). — Concerning the Gas-Flame, Electric and Solar Spectra and their Effects on the Eye. *Nature*, XXV., 340-341.

Richards, Ellen H. ('73). — The Chemistry of Cooking and Cleaning. A manual for housekeepers. 12mo, pp. 90. Boston, 1882.

Richards, R. H. ('68). — Battery and Copper-plate Amalgamation. *Sci. Am. Supp.*, Aug. 19, 1882.

Runkle, John D. (Prof.). — The Manual Element in Education. From the Forty-Fifth Annual Report of the Massachusetts State Board of Education. Pph. 8vo, pp. 72. Boston, 1882.

Smith, Chas. A. ('68). — A Theorem of Statics, with some Graphic Applications. *Journ. Assoc. Eng. Societies*, I. (1882), 217-222.

—— Experimental Study comparing the Influence of Expansion in Simple and Compound Engines. Translated from papers by M. O. Hollauer. *Id.*, I. (1882), 298-311, 329-335, 345-349.

Swain, Geo. F. ('77). — Water-Power of the Southern Atlantic Slope. Abstract. *Proc. Soc. Arts, M. I. T.*, 1881-82, 62-64.

—— Water-Power of the Southern Atlantic Water-Shed of the United States. U. S. Census Report. Pph. 4to, pp. 164. Washington, 1881.

Vose, Geo. L. (Prof.). — Inspection of Public Works. *Proc. Soc. Arts, M. I. T.*, 1881-82, 36-47.

—— Bridge Disasters in America: The Cause and Remedy. Pph. 8vo. New York, 1882.

—— Safety in Railway Travel. *North American Review*, September, 1882.

Walker, Francis A. (President). — American Agriculture. *Agricultural Review*, August, 1882.

—— The Growth of the United States. *The Century*, October, 1882.

Whitaker, Channing ('69). — Best Material for Steam Boilers. *Proc. Soc. Arts, M. I. T.*, 1881-82, 73-78.

—— Apparatus for Printing by the Blue Process. *Journ. Assoc. Eng. Societies*, I. 349-360.

Williams, F. H., M. D. ('73). — A Study of the Action of Iron. *Boston Med. and Surg. Journ.*, Aug. 3, 1882.

An important volume has been recently published on the "Fire Protection of Mills and Construction of Mill Floors" by C. J. H. Woodbury. Mr. Woodbury is a former student of the Institute.

Locals.

FAREWELL to the gym.

'86 comes out strong this year with ninety-one men in the drawing-room.

No free-hand drawing for the Freshman class this year.

The débris consequent to the tearing down of the gym. will prevent the enthusiasts in tennis from exercising their skill this fall.

No drill for '86 until the new gym. on Boylston Street is completed.

The fourth-year students in mechanics begin on the testing machine next week.

The old architectural library and museum have had desks put in, and will be used for recitation rooms.

The Freshman drawing-room occupies the entire front of the building on the fourth, the partition between Prof. Vose's room and that of the mechanic arts having been taken down.

S. M. A. students have rooms in the Mechanics' Fair building.

New floors have been laid in the Civil and Mechanical rooms. The former room has also been fitted out with new desks, rather higher and smaller than the old tables.

The third and fourth year Civils have been assigned to the old Freshman drawing-rooms, while the second year Civils and Miners still occupy their old room.

It looks as though the dances in the gym. this year would come under the head of lawn parties.

According to indications in the first-year laboratory, brown overalls will be worn this year with the tag on.

The hen man of '83 has returned to his old quarters, and all questions concerning the raising of poultry, etc., will be cheerfully answered.

There may be off years for apples, but there is never a year that is n't the current one.

Six pounds of sodium had been stored in the old cannon in the gym. and almost forgotten. Gentlemen will please expectorate with caution: we don't know where the rest may be.

Four of '82's men have found situations as assistants in the Institute.

The Sophs have chosen professions as follows: Mechanical Engineers, 40; Miners and Chemists, 38; Civils, 24; Architects, 2.

Tight pantaloons, big hats, and silver-headed canes may be tolerated; but when a newly made Sophomore attempts to introduce a fashion by appearing with a light-blue ribbon, ornamented with highly colored letters, dangling from the rear end of his hat, we consider him obnoxious, and demand that he be summarily dealt with.

Some of the fourth-year Mechanicals have petitioned for more physical laboratory.

Civil, mechanical, and mining engineering seem to be the most popular courses with '85. Several have signified their intention to take up the course in electrical engineering.

Mr. Hadley, of the third-year laboratory, having with characteristic generosity offered reduced rates to Freshmen wishing to visit the Institute Fair, a number of applications were made, including that of an "alleged" Freshman who attempted to con-Fisk-ate a ticket.

Mr. S. Williams, '85, is about with a broken collar bone, the result of last Thursday's work at foot-ball. We all wish him a speedy recovery.

'86 has furnished several good men for the foot-ball team.

The many friends of C. F. Lufkin regret his non-appearance.

Who knows the whereabouts of "Chip"? We miss the patter of his little feet.

A Freshman was noticed in the laboratory to be at work with a knotted handkerchief on his head. In response to a demand for an explanation, he said that he had been told to carry on his experiment under a hood, but that he had n't one and so was using his handkerchief.

The annual meeting of the Sophomore class occurred on Monday the 2d. The officers for the ensuing year are as follows: —

President, Mr. H. G. Pratt.
Vice-President, Mr. W. H. Dawes.
Secretary and Treasurer, I. W. Litchfield.

The following men, for the present, will comprise the foot-ball team of the Massachusetts Institute of Technology: Harriman, Baldwin, du Pont, Richards, Park, Haughton, Haughton, Peirce, Pratt, Windsor, Haines, and Steel.

The following letter was found in the rack on Monday: —

BOSTON, Oct. 7, 1882.

MR. J. G. HADLEY:

Dear Sir, — Passes bearing your name, "on account of Hadley's contract for M. I. T. Freshmen," are being presented. No officers of this corporation are aware of any contract with you. We therefore have declined to honor these passes, and await your explanation.

Yours truly,

J. T. WOOD,

Sec'y and Gen. Manager, Institute Fair.

The steamer "Alaska," of the Guion line, lately made the fastest trip ever made between America and Europe, — viz., six days, fifteen hours, and nineteen minutes, from New York to Queenstown.

Clippings.

PROFESSOR: "What is the technical name for the eclipse of Venus by Jupiter?" *Rough-and-ready Student:* "Osculation, sir." He probably meant occultation. — *Ex.*

Professor to Sleepy Student: "If you wish, I will send out for a bed."— *Sleepy Student*, with great *sang froid:* "Don't go to that trouble sir, I have a crib with me." — *Yale Record.*

Out of two hundred students recently examined at Columbia, sixty-nine, or thirty-five per cent, were found to be near-sighted. — *Herald.*

Alumni Column.

[*This department can be made complete only by continued contributions of items of general interest in connection with the lives and occupations of alumni, graduates, and former members of the Institute. We invite the co-operation of each alumnus, and ask for full and frequent contributions to the column.*]

'73. Mr. Wells has returned from Germany and resumed his duties as Instructor in Mathematics at the Institute. He also takes Mr. Tappen's place as Bursar.

'81. Mr. Lindsay, former assistant in the First-Year Laboratory, has a position as chemist with H. A. Gould & Co., in the city.

'81. C. M. Wilkes is employed in the engineering department of the Back Bay Park.

'81. Mr. H. A. Young soon leaves for the West, to take a position on the Lavenworth, Topeka and Southwestern Railroad.

'81. E. G. Lewis is draughtsman with Peabody & Stearns, in town.

'81. Mr. John Duff, Jr., has returned to the Institute, and is Prof. Richards's assistant in the mining laboratory.

'81. Mr. Theodore Parker is engineer on the western division of the Chicago, Burlington and Quincy Railroad.

'82. Geo. Faunce, Jr., has been employed since July 1 as assistant superintendent of the Pennsylvania Lead Company's works, where lead is dissolved by Parker's process at the rate of 15,000 tons per year.

'82. G. T. Snelling is private assistant to Prof. Ware in Columbia College.

'82. W. B. Snow has taken the place of Mr. Beeching as assistant to Prof. Whittaker.

'82. G. L. Heins is architectural draughtsman in an office in Minneapolis.

'82. Mr. Hall and Mr. Frost are assistants in the First-Year Laboratory.

'82. Mr. E. F. Ely is private assistant to Prof. Lanza, in Mechanics.

'82. Mr. H. G. Manning is with George H. Barnes, expert steam engineer, Boston.

'82. Mr. G. W. Mansfield is chemist at the works of the Daft Electric Light Company, Greenville, N. J.

'82. Mr. Walker has a situation with the Walker & Pratt Manufacturing Company, Watertown, Mass.

'81. Mr. Cheong Mon Cham is employed by the Chinese government at Hong Kong, China.

'81. G. F. Shepley, H. W. Jones, D. Hale, special architects, are all employed as draughtsmen in Mr. Richardson's office, in Brookline.

'83. Mr. John G. Litch, formerly a special in '83, and now in the Harvard Medical School, was married this summer to a Boston young lady.

'84. Hammett is at the Fair, taking charge of Ashcroft's exhibit.

'84. F. H. Newell is at present secretary of two mining companies in Colorado.

'85. W. D. Fuller is studying for the ministry.

'85. John T. Haines is in the entering class at West Point this year.

Exchanges.

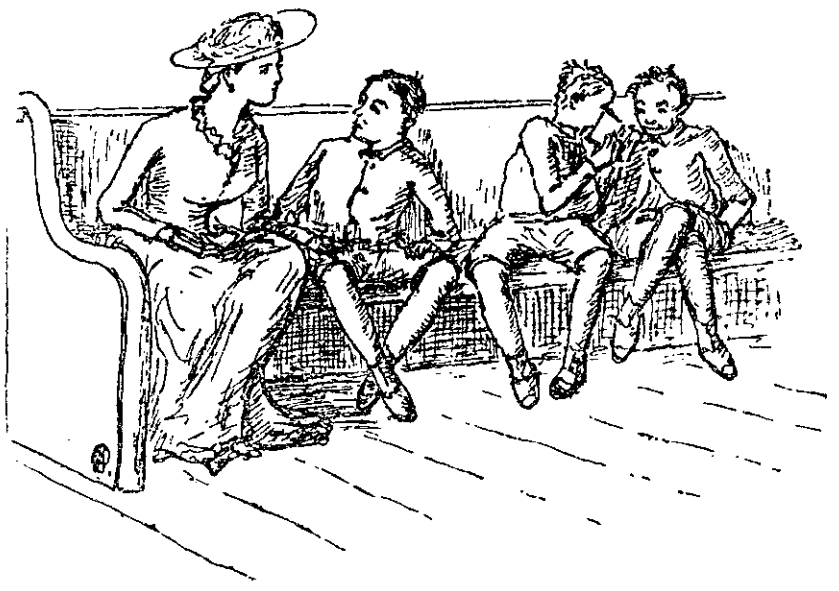
VACATION is over, and we find the editorial pen and scissors again in requisition. Upon our table the familiar faces of many of our exchanges have already appeared, and each day brings additions to the number. To each and all we give a hearty greeting, with our best wishes for their success the coming year.

During the past year there has been considerable discussion in the columns of the college press in regard to the benefit of the usual exchange department.

Some of the best papers have suppressed the column, and declare they have no space nor inclination for bandying compliments, nor do they intend to give opportunity for personal pique or college rivalry to show itself in the denunciatory criticism so often seen in this column. The majority of college papers, on the other hand, retain the department, and claim that if rightly conducted it is always of particular interest to the editors of other papers, and usually is found interesting by the general reader.

In a former issue of our paper the sentiments of the management in regard to this matter were fully expressed, and we need only repeat our opinion that a well-conducted exchange column is an advantage to the college paper, and that it is the intention of the present editors of THE TECH to make this column as much a feature of the paper as any other department.

The *Century* for October contains an article by President Francis A. Walker, upon "The Growth of the United States," starting the statistics of the United States at the time of the first census ninety years ago. President Walker compares the then existing condition of the country with its condition at later periods, as shown by the census statistics at intervals of thirty years. Taking up in succession the fourth census in 1820, the seventh in 1850, and the tenth in 1880, the growth of the republic in territory, population, the arts, and in all directions tending toward the higher civilization, is clearly shown. The article is written in a manner which proves the author's entire familiarity with the subject, and it will be found of particular interest to our students, both on account of its intrinsic value and the intimate connection of President Walker with the Institute.



Enterprising Sunday-School Teacher, — "Frank, have you ever been baptized?"

Frank, — "Yes, 'm, last winter; but they said it did n't take."

The first number of *The Wheelman*, a monthly magazine devoted to bicycling, has come to hand, in a tasteful cover on which appropriately figure Pegasus and flying wheels. The prospectus states that "The year's issue will form a book of nine hundred pages which will be virtually an encyclopædia of historical, scientific, and practical information in regard to the bicycle." So far as one can judge by the first issue, the language of the prospectus seems justified, and we recommend the magazine to all interested in bicycling. The article on "Second Wind" is particularly interesting to college athletes.

No exchange seems complete without "A Vacation Romance." Forthcoming Marriage Probability Sheets will doubtless be interesting.

One '86 man has displayed the most wonderful enterprise, or has, perhaps, supplied his own deficiency in that respect. He has married at the very outset of his course, and has brought his young bride to the University with him. This is the most conclusive solution of the co-education problem yet announced. — *Cornell Sun.*

Asked the stranger: "Where is Genesee Street?" "Genesee quah!" They looked wildly at each other a moment and parted forever. — *Ex.*

A billy-goat,
A field Elysian,
A servant-girl,
A well artesian.

A water-trough,
A thirsty throat,
A stooping girl,
A running goat.

A billy-goat,
A field Elysian,
A servant-girl,
In well artesian.

Berkleyan.