

Feb. 11,
1885.
Vol. IV. No. 9.

ENGLISH AND AMERICAN

IN CHOICE SHADES.



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The Tech.

VOL. IV.

BOSTON, FEB. 11, 1885.

No. 9.

THE TECH.

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

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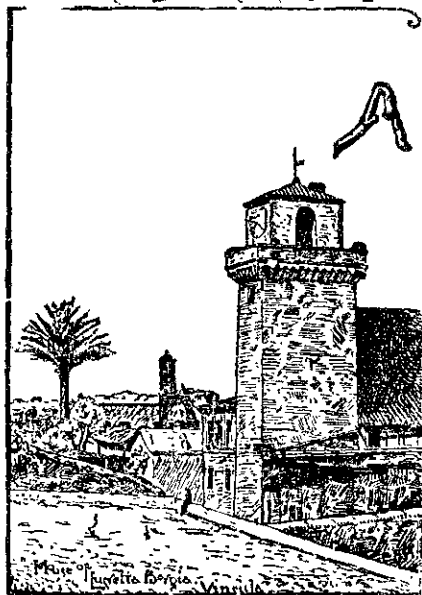
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T an institution of so many students as the Massachusetts Institute, it seems a little strange that there should be so small a number of secret societies, while in many colleges of one third the size there are six or more. Here we have but three—the 2 G, a chapter of ΣX , and $\Gamma \Sigma \Upsilon$.

The 2 G, whose membership is limited exclusively to students of mining, is the oldest, largest, and most active of these. Conducted as it is upon a sound basis, from present indications it bids fair to continue at the head of Institute societies.

The Chapter of Sigma Chi—a fraternity which flourishes chiefly among colleges in the South and West—is very quiet and shows little activity at the Institute, and the same may

be said of $\Gamma \Sigma \Upsilon$, the society of the civil engineers. In addition to these may be mentioned, the new society of the Mechanicals, and the class society of the Sophomore Class, both of which are non-secret. As in each of the three first-named societies the membership is not over fifteen, we are safe in saying that, out of five hundred and seventy-nine students in the School of Industrial Science, but fifty are members of secret societies.

Strange to say, that since $\Sigma M E$, a most worthy organization, died with the class of '83, there have been not even any scientific or engineering societies here. Probably, however, students of the Institute find the meetings of the Society of Arts, and the frequent lectures of the Lowell Institute, in addition to their studies, a sufficient outlet for their energies in this direction. Nevertheless we think it would be well to revive $\Sigma M E$.

What is needed is more societies of a social nature. From the nature of our studies, the classes being subdivided into departments, the men in those departments being constantly associated with one another, become very well acquainted, while they are entirely ignorant of what is going on in other departments. A man may reside here for four years and then graduate without knowing men in his own class. Of course this last would be rather an extraordinary occurrence, but then such cases have been known. Perhaps the best solution to this problem is that presented by the Senior Class, which holds regular meetings at some one of the hotels, when literary, musical, and gastronomical entertainments are provided.

And yet, withal, it may be that there is as much class feeling here as at other large institutions. Anyway, the time of the class dinners is approaching, and then class enthusiasm always runs high.

THERE is one feature of life at the Institute common in a greater or less degree to all scientific and industrial schools, in proportion as they purport to fit students more or less completely for their future occupation in life. It is a feeling, not conspicuous, though none the less real, which generally confines itself to afflicting those who, not having a strong predilection for any particular line of work, have allowed themselves to drift into the course where such slight preferences as they may have, or the nature of the credits obtained at the close of the first year, may take them. Students who, on the contrary, have always been especially interested in one branch, or have had cherished "hobbies" which could be conveniently developed into life professions, are not troubled by a malady which consists in a morbid fear that the chosen course is not the right one and that the student would find a more congenial pursuit by following some other. This feeling is particularly lively when its victim is wrestling with some of the characteristic difficulties of his chosen study, or has made a failure in an important branch of his course. If he then sees students in other courses whom he considers inferior to himself in general ability or industry, and of whose special aptitude he knows nothing, apparently getting smoothly along with a good share of H's and C's, he is often inclined to wonder if he has not made some radical error in his choice of work. He may have once hesitated a long time between two courses equally attractive, and have been finally influenced in his selection by the lack of a single relatively unimportant but theoretically necessary credit. In such a case doubts with regard to the wisdom of his choice become still more plausible.

There certainly can be nothing more disheartening than to feel one's self thus handicapped, — struggling along for life in a line to which we are not adapted. When we consider the modern theory that every man should follow his natural instincts in the choice of an occupation, if he wishes to make a success in life, and then turn to the position of a youth of seventeen or eighteen, who has perhaps never made any

careful study of his capabilities, but is called upon to make arbitrarily a decision which will often determine whether his future career is to be a success or failure,—in such cases we can but wonder that this aspect of elective scientific instruction has not attracted more thorough and careful investigation.

WE regret to announce the resignation of Mr. John G. Howard, '86, from the board of editors. Mr. Howard felt that it was impossible to continue upon the board and at the same time do justice to his school work, and so was reluctantly compelled to resign. Mr. Howard's valuable services have been of great assistance to THE TECH, and in him it suffers a great loss.

Members of the Junior Class are invited to hand in contributions as soon as possible, to compete for the vacancy on the editorial board.

The First Day in the Rockies.

OUR traveller in search of the promised land whose very rocks are golden, had left Pueblo on the preceding evening by a train bound south. When he awoke in the morning he found the train running through a desert apparently bounded on all sides by high snow-covered peaks. By the time he had gathered his scattered possessions together, the train stopped at his station. On leaving the cars he found himself in a foreign land.

The city, so called, consisted of a straggling army of unpainted wooden buildings, with ugly square fronts and wide board awnings. Scattered among these at irregular intervals were the brown adobe buildings of the first settlers, their low thick walls, small windows, and flat roofs contrasting with the tall, flimsy buildings of the new-comers. Lounging around the railroad station, stretched out on the platform or leaning against the building, staring indifferently at the strangers, were groups of idlers whose

faces, naturally dark, were rendered still more so by dirt. Their broad-brimmed felt hats, once white, trimmed with tarnished gilt braid, their short jackets and the heavy whip handles with long lash trailing on the ground, showed that they were Mexican teamsters, typical "Greasers." Differing from these more in activity than in dress or color were the Yankee runners for the various hotels, each man shouting at the top of his lungs the superiority of the house he represented, and pouncing upon the "gripsacks" of the strangers.

Our traveller, letting himself become the prey of the cleanest looking, was lead to the hotel bus. This had once been a handsome vehicle, but now, with its few remaining cushions torn, lining tattered, and decorated with large cloth sign, did duty as conveyance for the Palace Hotel. It was drawn by two large mules hitched tandem, by harnesses whose leather was gradually being replaced by bits of rope and bale wire. When the driver had secured a load he wedged in his passengers by piling in and around them their baggage and sundry supplies for the hotel, then mounted the lead mule and joined the procession of freighters' wagons and jack trains, slowly moving through the sandy road into town. Arriving at the Palace Hotel, it was found to be a good hotel for a mining town. It was built during one of those bursts of prosperity which suddenly sweep through the mining country and as soon die out. Its stone-trimmed brick walls were the pride of the citizens of this "the most lively city in the West." Having had his breakfast, and while waiting for the mountain stage, our traveller entered into conversation with the people about him. All were eager to tell of the rich strikes which were being made in the mountains, and described the country as destined to be the richest in the world. Each man had a number of good claims which he felt that he must sell, even at an enormous sacrifice, one man even going so far as to offer, in strict confidence, to sell a half-interest in his mine, which was a real bonanza, for five dollars.

Soon the stage which was to convey our traveller to a neighboring mining town drew up to the hotel door. On account of the snow, which, though now late in June, still lay deep in the mountains, a light open wagon was used instead of the heavy coaches, which run only when no snow is in sight. The wagon had three double seats and was drawn by four strong horses.

After leaving the town, the stage sped along over the dusty plain, the only thing apparently marking the road being a line of telephone poles leading to the mines. On all sides stretched the nearly bare ground, once probably a lake bottom, destitute of vegetation excepting an occasional patch of sage brush or Spanish bayonet. Here and there prairie dogs were seen sitting on their little mounds, attentively watching the wagon. On nearing the foot-hills ranches were passed, and irrigation ditches, leading the water from some mountain torrent down into town, were crossed. Beyond these the road began to climb one of the spurs of the mountain range, and ran for a long way on its crest, on each side gulches hundreds of feet deep, in places approaching so close that the divide was only wide enough for the roadway. Soon the stage passed into the timber belt; but the woods were very different from those in the Eastern States, very dark and gloomy, the trees being mostly tall evergreens.

Pointing to a little grassy opening the driver said that there the down stage had been stopped not long before, by road agents, and a large lot of bullion taken. Since then the large companies had not sent the bullion down by stage, but had a bullion guard who travelled between the mines and railroad station, every few days, none but the superintendent knowing when the precious metal was to be sent.

Before the stage had gone far the tramping of horses was heard, and the guard came in sight, eight young active fellows, well mounted, and carrying repeating rifles, besides the usual supply of smaller arms. In their midst was a light carriage, under the seat of which the bullion was placed.

The conversation naturally turned on highwaymen, and our traveller having noticed that each man carried one or two revolvers usually in a belt stuck full of cartridges, inquired about their necessity. The opinion of the driver, to which all assented, was that "now a man seldom had any use for a shooting-iron, but when he did he wanted it powerfully bad." Since the last "necktie party," things had been pretty quiet.

The main facts of this affair, as told by one of the passengers, was that Black Bill and his gang having stopped the stage several times, and killed a few men without exciting much comment, had begun to think they could terrorize the district, and accordingly had descended to that greatest of crimes, running off cattle. But this was too much, and a vigilance committee, after several days' chase, caught two of the thieves, whom they left swinging from a cottonwood tree, and brought back most of the cattle. In the mean time the sheriff had caught another of the gang, hiding in town, and had lodged him in jail. On the return of the vigilants it was decided that this fellow must follow the other two, as the jail was not safe and the law uncertain. Accordingly a small but select party had called on the jailer, but he, not liking the prospect of losing future fees and board bills, was so unkind as to say that he would "start a lead mine in the first man that came in." Despite his vigorous objections, the prisoner was gotten out, and soon ornamented the telegraph pole by the depot.

One of the passengers, an old miner, said that unless a man was pretty quick and a sure shot, he better not show his gun, and a "tenderfoot" would be safer without one, as he would be more apt to keep out of trouble. He told of a man from the East, who for the first time coming into a mining camp, wore a beautiful pair of revolvers in full sight. The "boys" thought they would have some fun with him and get his guns away. One of them entered into conversation with him, and finally began to tell of an ugly customer who had just arrived in camp, noted as the best shot in the region and a bad man to provoke. After he had given the

Easterner a vivid description of the blood-thirstiness of the man, he suddenly started, saying "There he comes, and he looks full." Just then a small, determined-looking man came up to the group and invited the new-comer to take a drink. The latter tried to excuse himself, when the man pulled out a big revolver and told him to be careful whom he insulted. The Easterner was so startled that he forgot his pistols, and the small man quietly pulled them out of his belt and put them in his own pocket, then making a very polite bow, presented the frightened stranger with the dangerous weapon which had threatened his life. A second glance showed that it not only was empty, but did not have cartridge chamber or lock.

In telling such stories the morning passed rapidly. About four o'clock the stage had got up to the first snow banks, rapidly melting and sending little torrents down along the ruts. By the ice, alternating with mud and running water, the road was so impassible that the travellers walked up the steeper slopes. Soon they reached the highest pass and found themselves apparently in the Arctic regions. On each side vast fields of snow and ice stretched up over the summits, broken only by lines of black cliffs. Behind, down on the flanks of the mountain, was the dark forest through which they had just passed. In front the road wound across a dreary snow-covered plain.

They passed a few carcasses of oxen and mules and occasionally the wreck of a freighter's wagon.

In a hollow was a little group trying to keep alive a smouldering fire by the twigs of *chaparral* which they dug out of the snow. It was a miner's family. Their wagon, through whose torn curtain a woman and child could be seen, was stuck in a big drift. It had been pulled that far by an ox and mule. The ox lay still on the ground, evidently overcome by cold and the light air, while the mule was trying to get nourishment out of the frozen soil.

To our traveller it appeared a desperate situation to be thus stranded in a high mountain pass, miles from camp, but the man made no

complaint and perhaps had been in as bad straits before.

Before long the stage began to descend, and soon the distant mines and mills could be seen. The ground here was so marshy that the coach sank nearly to the hubs. In the worst places corduroy roads had been built, and as the stage began to bounce from log to log the passengers were seized with a sudden desire to walk again. Finally, at dusk, the stage stopped before the huge log hotel, and our traveller, tired as by a hard day's work, was glad to seek its shelter.

Over the Way.

Over the way, when the shadows are falling,
Bright gleams a window just opposite mine;
Thence — all my senses with pleasure entralling —
Warbles a voice that is almost divine.

Over the way, though it be but an alley
Fenced in by long yards prosaic and plain,
Often I gaze, while with text-books I dally,
Waiting to catch — through that mystical pane

Over the way — one more glimpse of a vision
Queenly, yet graciously smiling on me,
Framed in lace curtains — a picture elysian,
Cheering the heart of the student to see.

Over the way, oh tuneful piano,
Shall thy fair mistress my Loreley be?
While for her song I 'm neglecting my Ganot,
Annuals, harder than rocks, wait for me.

G. M., '87.

A Trip to Waltham.

THE Chemist, the Dude, the Major, and your humble servant the writer were the factors of a party which, during vacation, sought instruction and pleasure combined in a visit to the American Watch Company's works at Waltham, Mass.

After a run of about half an hour over the Fitchburg Railroad, the Major and the Scribe were greeted with open arms and a few minutes' delay by the other two members of the party, which, after a short walk, entered the main entrance of the watch factory. The works are

pleasantly situated on the banks of the Charles River, and are surrounded by parks maintained at the company's expense. The building is of brick, with numerous wings extending back toward the river, and has a frontage of over seven hundred feet, contains three and one sixth miles of work benches, averaging two feet in width, and has nearly five acres of floor space. The machinery, which includes 10,600 feet of main shafting, 4,700 pulleys, and 39,000 feet of belting, is driven by a 125 H. P. Corliss engine.

Since the American Watch Company acquired the property in 1858, over 2,500,000 watches have been turned out of the factory, the present rate of production being about 1,250 watches daily.

By the courtesy of Mr. G. H. Shirley, assistant superintendent, the party was admitted and shown over the works, beginning with the first steps in the construction of the movement, and following the processes until the works were ready to go into the case. The first entered was the *plate room*, where the brass disks on the bottom and top of the movement, technically called *pillar* and *top plates*, are punched, faced, bored, turned, polished, numbered, etc. In the *press room* are made the regulators, lever spings, winding and train wheels, balances, hands, and, in short, every part of a watch movement which can be made by punching. The first operation in the *pinion room* is to cut the wires to lengths of eighteen inches. Then the exact lengths for the pinions are cut automatically and pointed. After several turnings the leaves (or teeth) are cut to the true epicycloidal form, which it was found impossible to get with exactness by the old system of cutting by hand. The *screw room* averages about 100,000 steel, brass, and gold screws per day. The machines for making these screws, some of which are so small that it requires 247,000 to weigh a pound, are most interesting. The same machine takes the round wire, turns the end down to a certain size, makes the thread, cuts off the requisite length, and after making the groove in the head, turns out the screw ready for polishing. The *jewel room* was very interesting, though it was doubtful

to the writer whether some of the party were more interested in the precious stones or in the bright eyes of the young lady operatives. The *dial room* revealed the fact, new to many, that the numbering and lettering on the dials is done entirely by hand. The copper blanks are first covered on both sides with a white enamel, and twice subjected to the heat of a blast furnace, then, after the lettering and numbering is completed, they are fired again, and polished. The *case room* turns out only silver cases, the gold ones being all made at the company's New York factory.

The rooms are lighted principally by gas, though the incandescent electric system is used to some extent. The works were comfortably warmed, well lighted and ventilated, and the operatives all looked contented and happy, especially when we left.

After a brief visit to the Waltham Gas Works, the return trip was accomplished without accident.

The thanks of the party, and of the writer especially, are due to Mr. Shirley for interesting and valuable information, of which advantage has been taken in this article.

H. C. S.

Skating.

Her skates upon her dainty feet
I bound both fast and tight,
Then helped her rise from off the seat,
Equipped, prepared for flight.

I took her hands, and off we went,
Both feet and tongues in motion;
Our thoughts were more on pleasure bent
Than on our locomotion.

Our eyes spoke words, as eyes oft do,
In language known to lovers,
Which is all Greek and Latin too
To each and all the others.

But 'twixt us two (just then some wood
We struck, our skates were jumbled),
I am quite sure *I understood*,
I also know *she tumbled*.

F. W. H.

A Midnight Adventure.

JACK is my chum, or I am Jack's chum, whichever way you choose to put it. Jack and I believe that one of the best ways of enjoying life for a season is to get out of the way of everybody else and become a species of hermits, as it were. So my story finds us alone in a little trapper's log hut, way off in the backwoods, in the northern part of New England, very near the Canada line. The region through which we had just passed was wild and picturesque in the extreme and full of big game. Within six months of our arrival, two large moose had been killed there and several deer and caribou. The only way of reaching the camp was by pushing a flat bottom boat for five miles up a creek overgrown with alders and bridged by fallen trees, making the five miles seem fifteen.

The last visitors to the spot had big stories which to relate, about a mysterious visitor had entered the camp at night, thrown down the tin dishes, bent them up and raised a rumpus generally, scaring them out of their wits. They unhesitatingly pronounced it a "long claws," as bruin is known in that vicinity. So Jack and I were ripe for something to turn up and prepared ourselves accordingly. The camp was a log hut about fifteen by ten feet with a little low open doorway, which had no means provided for closing. Within, the furniture consisted of a stove and bed. The bed was raised about a foot from the floor and was made of poles, covered with hemlock boughs. The general impression to one lying on it was a plate of corrugated iron, no matter how thick the boughs. Over this was a canopy of mosquito netting to keep out the black flies which swarmed around. To keep these pests off in the daytime we were compelled to besmear ourselves with fly "medicine."

When it came time to retire, we decided, in view of the experience of our predecessors, to barricade the door. There was nothing except some slabs of thick hemlock bark to be had, but we covered up the opening with these, and decorated the whole with tin plates and pickle jars;

which formed the kitchen ware. The idea was, as Jack expressed it, that "anything that knocked that down would raise an infernal racket"

Thus fortified we took off our boots and retired, with our guns at our sides. Soon the peaceful snore beside me told that the god of sleep had got the better of the corrugated mattress and Jack, and shortly after I fell in also. Just how long we had been asleep I don't know, but we were suddenly awakened by the crash of the tin pans and pickle bottles. Up we both started and sitting bolt upright could distinguish a faint shadowy outline in the doorway. Without a moment's hesitation Jack put two charges of buck-shot through the opening. With startling clearness the reports rang out on the solemn stillness of the woods, and then all was still again. I could feel Jack tremble as he fumbled for more cartridges. "Why don't you fire?" he whispered. "Jack, do you know what it was?" said I in reply. "Bear," said he. "I'll tell you what it was," I replied, "just your old boot which I threw at the door to see if the old thing would work." I can feel the same old feeling now that I felt then, when Jack tried to wipe the knots and bunches off the corrugated bed with me for a jack plane. After he had exhausted himself and his German, I quietly said, "Don't you think you had better mend the mosquito netting?"

M. I. T. '84.

The Secretary wishes to state, that in response to his circular, enough names have been obtained to warrant the holding of the Annual Dinner. The dinner will therefore be served, after the business meeting, at Young's Hotel, Saturday evening, Feb. 21.

A. LAWRENCE ROTCH,
Secretary.

COLD WAVE FLAG.

In co-operation with the United States Signal Service and the New England Meteorological Society, a Cold Wave Flag (white with a black centre) will be displayed henceforth from the summit of Great Blue Hill, Milton, as a warning of the probable approach of decidedly colder weather.

A. LAWRENCE ROTCH,
Proprietor of the Blue Hill Meteorological Observatory
Readville, Mass., Feb. 1, 1885.

Noticeable Articles.

The *Atlantic* for February has a paper on "Winter Birds about Boston," which will be interesting to readers who have a taste for natural history, and a love of wholesome exercise that sometimes takes them into the beautiful woods and fields, which extend in so many directions round our city.

Miss Harriet Preston writes of "Vernon Lee," the clever author of "Belcaro," "Studies of the Eighteenth Century in Italy," etc. "Vernon Lee" is a young English lady, Violet Paget, born and brought up in Italy. There is an appreciative notice of Parkman's last volumes. "Montcalm and Wolfe." "There is a pleasure," says the writer, "in taking up one of Mr. Parkman's histories, for the reader knows that he will be invited to a share in the results of the historian's patient labors without being made a partner in the labor itself." There is also a criticism of the much-to-be-criticised Life of Hawthorne, by his son, a book which will not add much to the fame, either of the writer or the subject.

The *North American* for February gives the views of five different writers, among them Senator Dawes and Mr. Roger A. Pryor, on "How to Elect our President." It has a complimentary notice of Dr. Holmes's "Life of Emerson," by our octogenarian historian, Bancroft. This book, the *New York Nation* wickedly and wittily says, is the life of a wood-thrush by a canary-bird. Prof. Stanley Hall writes on "New Departures in Education," and the Rev. Dr. W. T. G. Shedd writes a grim defence of the theological dogma of everlasting damnation.

Harper's for February opens with an illustrated account of "Hatfield House," the magnificent seat of the Marquis of Salisbury, built in the time of James I., which contains an excellent portrait of the redoubtable Tory leader. There is another fully illustrated paper on "New and Old Yucatan," and another on "Pullman," that curious Western town, ten miles from Chicago, now containing eight thousand inhabitants, built and entirely controlled by the Pullman Palace Car Company. Then there is a curious paper on "Guardian Birds," another on "Art Students in Ecouen," and another on "The Lick Observatory in California," all illustrated.

Lovers of the noble game of whist, among whom I reckon myself, will be instructed and entertained by a paper entitled "Whist Chat," by Mr. R. A. Proctor, the astronomer, in *Longman's Magazine* for February. Mr. Proctor's estimate is shown when he says, "It may sound like exaggeration to say that whist is far better calculated to develop the mind than many things taught at school, yet many a man can perceive a real gain to his mental qualities from whist practice, who would find it hard to recognize any good which he has obtained from learning how to write Latin verses with due attention to the niceties of the *cæsura*." Some of Mr. Proctor's mathematical calculations are curious. There are no less than 635,013,559,600 ways in which a hand can be made. That

all the cards in hand may be trumps, the chance is but one in 158,753,389,900; yet, a few years ago, two cases of the kind were recorded.

Students of constitutional history will be interested in an article in the first number of the new *English Law Quarterly*, if they meet with it, on the "United States Constitution," by Prof. Dicey, and it is worth mentioning in this connection, that the article on the same subject in the *Quarterly Review* for January, 1884, is by Sir Henry Maine.

W. P. A.

Communications.

[The editors do not hold themselves responsible for opinions expressed by correspondents.]

TO THE EDITOR OF THE TECH:

The beginning of a new term seems to me a good, and in this case a very needful time to call the attention of instructors to the rule so wisely made by the Faculty, that recitations should be closed and the classes dismissed at five minutes before the hour. Some instructors who are very particular to begin recitations promptly at five minutes past the hour, and to mark students late who come in after that time, are as negligent in dismissing their classes, thus making them late to the next recitation. The physical effect of rapidly ascending and descending several flights of stairs several times a day cannot but be injurious, not to speak of the liability to accident. A little thoughtfulness on the part of instructors will promptly remedy this evil, and be appreciated by others as well as '87.

EDITOR TECH:

I am sorry to be again obliged to bring up the matter of non-paid debts, to the subscribers to the Foot-Ball Association. I have written each a separate letter, and but little has come from it. I have not the time to keep on writing these letters, and so I take this means of communicating with them. It is now the first of this term, and I have no doubt, or at least I hope, that that worn-out excuse, "Really, you know, I'm dead broke," has not had time yet to be felt. The Association needs money, and you have *promised* to pay and I wish you would do so at the earliest opportunity. You perhaps think it a great pleasure for me to be dunning

you all the time, but I assure you you are greatly mistaken. I only took the position of Treasurer of the Foot-Ball Association to relieve Mr. Spring, and it was not my wish to have the office; but now that I have it, it is my duty to the Association and to the members of the Institute to pay off all debts. I cannot do this without your help, therefore I beg you to aid me and — pay up.

Yours respectfully,

SOLOMON STURGES.

Direct an envelope to me; inclose \$ — and place it in the letter rack. I'll get it.

TO THE EDITOR OF THE TECH:

In order to settle the dispute between the Tufts and Tech Foot-Ball elevens, in regard to the game of Nov. 22, we challenge the Tufts eleven to a game of foot-ball to take place on the Union Grounds, at once. No spectators to be admitted. As the grounds are covered with snow there can be no difficulty about the "base-ball lines." We suggest Mr. J. C. Morse as referee.

P. R. FLETCHER,

Capt. M. I. T. Foot-Ball Team.

Answers to Correspondents.

F-c-lty: We suppose the reason why no boards are put upon the steps of the New Building is because one would not have far to fall if he slipped on them.

Dartmouth: (1) The report that the Tufts eleven were to apply for admission to the Intercollegiate Association is incorrect. (2) Yes, we, also, have played with them.

E. S. D.: Ask Sullivan.

Soph: You say you fell asleep in the barber's chair and the barber cut off your mustache. We really do not know how to advise you in this case. You might bring a suit for damages against him, but then you would have to produce evidence of the mustache, which might be embarrassing.

Rot: The fighting editor has your poem.

Miner: You might get permission to work in the Chemical Laboratory on Sundays. Otherwise we see no hope for you.

Fresh, '88: No, we see no reason why assistants in the Chemical Laboratory should devote the whole of their time to the co-eds. Of course it is unfortunate, but you must get along as best you can.

Department Notes.

The third year miners have begun work in the assay laboratory.

The course in mining has been revised; geology is now a required study for all options.

The third-year mechanicals have finished iron forging and will spend the next five or six weeks in steel forging.

"Le Conte's Elements of Geology" has been adopted as a text-book for Prof. Niles's class in historical geology.

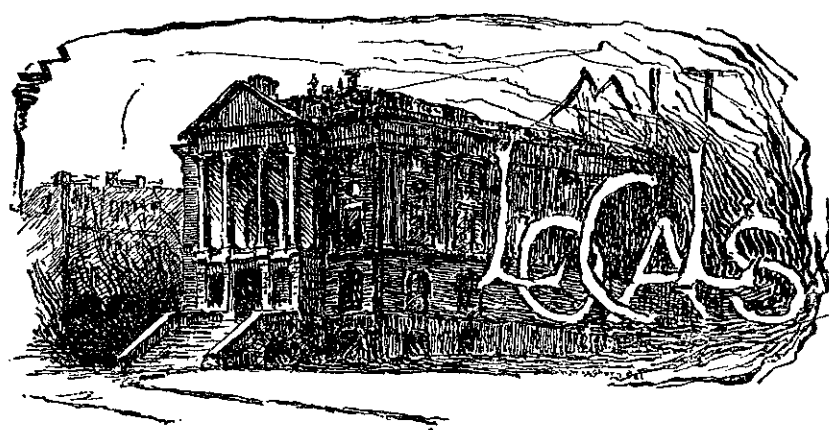
The second-year miners and chemists have begun mineralogy. The blow pipe laboratory is now located in room 41, Rogers.

The most economical man has been discovered in the analytical laboratory. He objected to his neighbor's leaving the suction open when not in use, on the ground that "it wasted so much good air."

Mr. C. H. Fisher, Assistant Professor of Mechanical Engineering, resigned during vacation. His place has not yet been filled, the work formerly attended to by him devolving upon the other instructors of the department, aided by Mr. A. L. Fitch, '84, appointed Assistant in Mechanical Engineering.

A club has been formed among the architects for the purpose of tracing from "Croquis"; the tracings will be reproduced by the blue print process, and in this way each member of the club will have in his possession, at a very trifling expense, a complete set of all the most excellent things in "Croquis." The great convenience of such an arrangement is evident.

The second-year chemists are surprised and disgusted by an increase on the schedule of eight hours per week more work than was assigned them last term. Although many put in as much or more extra work last term than that represented by the increase, the fact of the time being definitely assigned to particular branches, prevents the student from exercising his best judgment in putting it where it will do the most good.



Are you going to the class supper?

Go to the gymnasium party this afternoon.

The orchestra has been invited to assist at a concert in Exeter, N. H.

A good many '87 men don't think history so easy as they did before the semis.

The engagement of Mr. P. S. Morse, '84, and Miss Sarah E. Holden, is announced.

First Student, "Cold day."

Second Student (sadly), "And I'm left."

Pick out the girl you like best at the party this afternoon, and ask her to go to the Senior Ball with you.

The members of the CB₃A Society are wearing crape on their badges for the members who departed this life at the semis.

The 2 G held its regular meeting at Young's last Wednesday evening. Papers were read by Everett Morss, '85, and W. R. Ingalls, '86.

The Senior Ball Committee from the Junior Class is Wood, S. R. Bartlett, and Duff. Class Supper Committee: Wilson, Low, and H. P. Merriam.

A party of some twenty Institute men went on to New York together on the Fall River line. The evening was enlivened by banjo playing and sweet (?) singing.

The Glee Club assisted at the entertainment given at the Y. M. C. A. on Wednesday evening last. Owing to the severity of the weather, there were *some* vacant seats, but the efforts of the Club met with most hearty approval from those present.

President Walker is delivering a course of lectures upon the last census, before the Lowell Institute.

The M. I. T chapter of the Sigma Chi fraternity has elected the following officers: C., Theodore Stebbins, Jr., '86; P., Heywood Cochran, '85; T., Charles Wood, '86; A., Charles H. Vinton, '87.

Professor to History Class. — "Governor R., to whom I showed some of your last examination papers, thought that many of them could hardly be bettered." (*Class look astonished but complacent.*) "Oh! I beg your pardon, — they were the papers of the other class."

Scene: Steps of Rogers. First Student: "Well, Jack, and how did you come out on the semis?"

Jack: "Semis, — let's see, — one, two, three, yes, three conditions, one deficient, and one pass, but never mind, I'm going to work like a slave this term, and — *come on over and have a game of pool!*"

It seems to be the universal opinion of our students that the college cheer should be this: T-U-F-T-S, rah! rah! rah! st! boom! yah! — *Tuftonian*. Many of our students who witnessed the Tufts Tech foot-ball game, of Nov. 22 are of the opinion that it should be: T-O-U-G-H-S, etc.

One of the questions in fourth-year mechanical engineering at the semis was, "Deduce equation for a differential dynamometer." The writing was n't very plain, and the papyrograph boy had n't improved it; so it was not surprising that a stranger, glancing at the paper, exclaimed, "What's this? 'Deduce equation for a disappointed dynamiter!'"

Mr. B. C. Lane, '87, an associate editor of THE TECH, and formerly of the class of '83, English High School, has been awarded the second prize of twenty-five dollars for an essay on "The Struggle to maintain the Massachusetts Charter," no first prize being given. This was one of "The Old South Prizes," which are open to all graduates of the Boston high schools.

The College World.

HARVARD. — After considerable discussion the Board of Overseers decided that the next quin-quennial catalogue should be printed in Latin, as usual. — The petition in regard to morning prayers has been granted by the Faculty. — The co operative society has been involved in financial troubles. — Two scholarships will be established next year at Harvard, by members of the class of '55, which will each yield \$300 annually. — The subscriptions thus far received by the Tennis Association give promise that the \$1,000 necessary for constructing the proposed new tennis courts can soon be raised.

COLUMBIA. — The accessions to Columbia since Christmas have raised the total number of students to 1,536. Columbia now has the second largest number of students in the country. — Several rushes have taken place in the cloak-room lately, in which '87 seems to have had rather the best of it. — Eighty-seven has not yet received her flags from Harvard; '85 did not get hers until nearly two years after the race. — Columbia possesses facilities for students of the Scandinavian languages possessed by no other college in this country. — The boating debt of '87 amounts to about \$700. — The total number of volumes in the library at present is 65,526. A large consignment of Spanish and Portuguese books has been purchased.

PRINCETON. — Princeton has started a university laundry, thereby throwing out of employment many resident washerwomen. The action was rendered necessary by the prevalence of diphtheria in the place. — A banjo and guitar club has been started, and if successful they will accompany the Glee Club on several occasions — Dr. McCosh's lectures are frequently attended by visitors. — There is some prospect that Princeton will have a daily paper. — An alumnus has given a fund for the training of class glee clubs. — The *Princetonian* has a rather gloomy account of their nine's chances for the

championship this year, which ends up by saying, "Success for the nine is not impossible, but it does not seem probable."

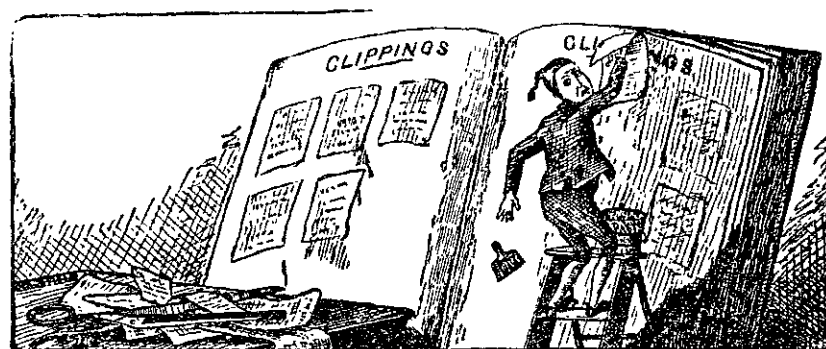
ELSEWHERE. — The regents of the University of Wisconsin have decided to replace the Science Hall, which was lately almost entirely destroyed by fire, by a new building worth about \$150,000, and to build several other new buildings, at a total expense of about \$295,000. — The Intercollegiate Rowing Association has decided to hold its next regatta at Lake Quinsigamond, near Worcester, Mass., July 4. The colleges that will be represented by crews are University of Pennsylvania, Cornell, Columbia, Bowdoin, Brown, and Wesleyan. — A course in advanced electricity has been started in Lehigh University, the laboratories of which college are said to be the finest in the country. — At a meeting of the Yale foot-ball team, Mr. F. G. Peters, '86, was unanimously elected captain for next year.

EXCHANGES. — The *Collegian* is a new monthly published in New York and devoted to the interest of colleges and college graduates. It will be conducted by the aid of an Advisory Committee of fifteen, one from each of the prominent colleges.

A correspondent in the *Columbia Spectator* comments upon a recent editorial in THE TECH concerning the study of quantitative analysis for a mining engineer. We think that the opinions expressed by the *Spectator's* correspondent are held by all the miners at the Institute. Our editorial simply complained of the *amount* of quantitative work required.

At the conclusion of their present volumes the Williams *Argo* and *Athenæum* are to suspend publication, and in their stead there will be started the Williams *Fortnight* and the Williams *Literary Monthly*.

The *Tuftonian* grows sarcastic over foot-ball at the M. I. T. Our eleven last fall certainly did have a large number of substitutes, but then it did not have such an excellent corps of referees as the Tufts team. But, *Tuffy*, isn't it about time to drop this dispute?



I cannot praise the doctor's eyes,
I never saw his glance divine;
For when he prays he shuts *his* eyes,
And when he preaches he shuts *mine*.

Ex.

She. — "What are you thinking of?" He. — "Nothing." She. — "Egotist!" — *Fliegende Blätter*.

"I have neither time nor inclination to pass paregorics on the deceased," remarked a Southern funeral orator. "Panegyrics," corrected a person present. "As you please, sir," remarked the orator stiffly, "the words are anonymous." — Ex.

Jones (to friend who applies for position as letter-carrier). — "Think yer got the persish?" His Friend. — "Got it? No. The first question they axed me was how fur it was from London to Constantinopul; an' I told 'em if that was goin' to be the route, I'd give it up." — Ex.

"You've got my seat, sir," said a man in a train, who had left his seat for a moment. "There is nothing to show that you have retained this seat." "Look up there! There is my hat-box on the rack over this seat." "Well then, you sit up there on your hat-box if that's where you have retained your seat." — *Life*.

A diner at a *table d'hôte* displays signs of irritation just because the waiter happens to have spilled a plate of soup over his coat. "Don't worry, sir, — don't worry," says the head waiter; "it is seven o'clock." "What in thunder has that got to do with it?" yells the victim. "After half past six, sir, our soup doesn't grease; hot water, sir; that is all." — Ex.



Innocent Damsel. Is n't the old elm at Cambridge just splendid?

M. I. T. Soph. (excitedly). What! Is there a branch over there?

I. D. A branch? Why, there's a whole tree, to be sure.

M. I. T. Soph. Oh! er— Oh yes, certainly.

"I'm on the sea! I'm on the sea!" roared a bad singer. "You're not," cried a musical punster in the company. "You would be on the C if you sang in tune, but you are on the B flat."—*Ex.*

A Londoner made a bet that he would invent a question to which fifty people would all give the same answer. He won the bet. The question was, "Have you heard that Smith has committed suicide?" and the answer in every case was, "What Smith?"

THE STUDENT'S ANSWER.

A student undergoing examination in the principles of mechanics, was asked, "Why will not a pin stand on its point?" He returned the following answer: "In the first place, a point is defined by Euclid as that which hath no parts, and no magnitude, and how can a pin stand on that which hath no parts and no magnitude? In the second place a pin will not stand on its head, and much less, therefore, will it stand on its point. Thirdly, and lastly, it will if you stick it in hard enough." — *Tid-Bits.*

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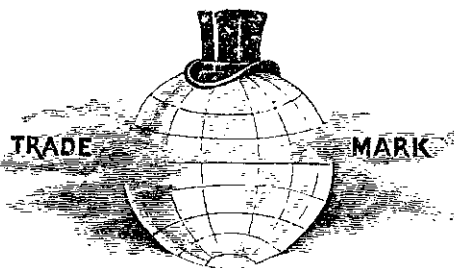
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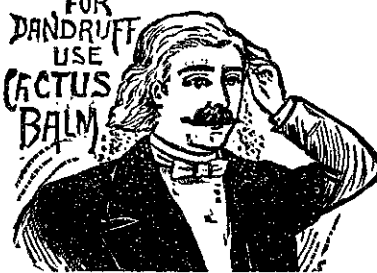
Six Catalogues on Various Subjects.

Students and all others interested invited to call or send for catalogue.

The society of the class of '87 held its monthly meeting, at Parker's, Friday evening, Feb. 6. There was quite a large attendance. In the business meeting it was voted that a sum should be laid, by each year, to purchase a cup to be given to the first born of any member of the society married after June 1, 1887. Among the pleasures which followed the business meeting and the refreshments were solos by Messrs. Sprague and Spaulding, a pot-pourri, by Messrs. Steele, Thompson, Sprague and Shortall, and some very interesting and well-executed sleight-of-hand tricks by Mr. Cornell, which were loudly applauded. The meeting ended with singing college songs, indulged in by all.

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Miss Margaret Mather has a fortnight's engagement at the Boston Theatre. Since her previous engagement here she has scored great successes in other cities over the country. She will be accorded a warm welcome

Boston is to have a new theatre on Hollis Street by next summer. It seems to be an assured fact, notwithstanding all discussion one way or the other.

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Besides the above distinctly professional courses, the Institute offers scientific courses of a less technical character, designed to give students a preparation for business callings. A four years' course in biology, chemistry, and physics has been established, as preparatory to the professional study of medicine.

Modern languages are taught so far as is needed for the ready and accurate reading of scientific works and periodicals, and may be further pursued as a means of general training.

The constitutional and political history of England and the United States, political economy, and international law are taught, in a measure, to the students of all regular courses.

Applicants for admission to the Institute are examined in English grammar, geography, French, arithmetic, algebra, and geometry. A fuller statement of the requirements for admission will be found in the catalogue, which will be sent without charge on application.

A clear admission paper from any college of recognized character will be accepted as evidence of preparation, in place of an examination.

Graduates of colleges conferring degrees are presumed to have the necessary qualifications for entering the third-year class in any of the regular courses of the Institute, and will be so admitted provisionally, on the presentation of their diplomas.

The feature of instruction which has been most largely developed in the school is laboratory training shop-work and field practice, to supplement, to illustrate, and to emphasize the instruction of the recitation and lecture room.

Surveying instruments are provided for field work in civil and topographical engineering. Extensive shops have been fitted up for the use of both hand and machine tools; and a laboratory of steam engineering has been established as a part of the instruction in mechanical engineering. Several steam boilers and steam engines of various types are available for experiments and tests. The department of mining engineering and metallurgy has the use of laboratories in which the milling and smelting of lead, copper, silver, and other ores, in economic quantities, are regularly performed by the students themselves. The classes in architecture supplement the work of the drawing and designing rooms by the examination of structures completed or in course of erection, and by practical experiment in the laboratory of applied mechanics, testing the strength of materials and working out problems in construction. The Kidder Chemical Laboratories, just completed, contain desks for four hundred and twenty-six students, and afford the best modern facilities for the study of general, analytical, and organic chemistry. The Rogers Physical Laboratory has been greatly extended in every department during the past year, especially in respect to facilities for instruction and research in electrical science.

On the successful completion of any one of the four-year courses of the Institute, a degree of bachelor of science will be conferred. The Institute is also empowered to confer the degree of doctor of science. Special students are allowed to enter special divisions of any of the courses, on giving evidence that they are prepared to pursue with advantage the studies selected.

The Institute of Technology, as a recipient of a portion of the United States grant to colleges of agriculture and the mechanic arts, gives instruction in military tactics.

The fee for tuition of students taking the full course is \$200 a year. Besides this, \$25 or \$30 are needed for books and instruments. There are no separate laboratory fees. Only payment of articles broken is required.

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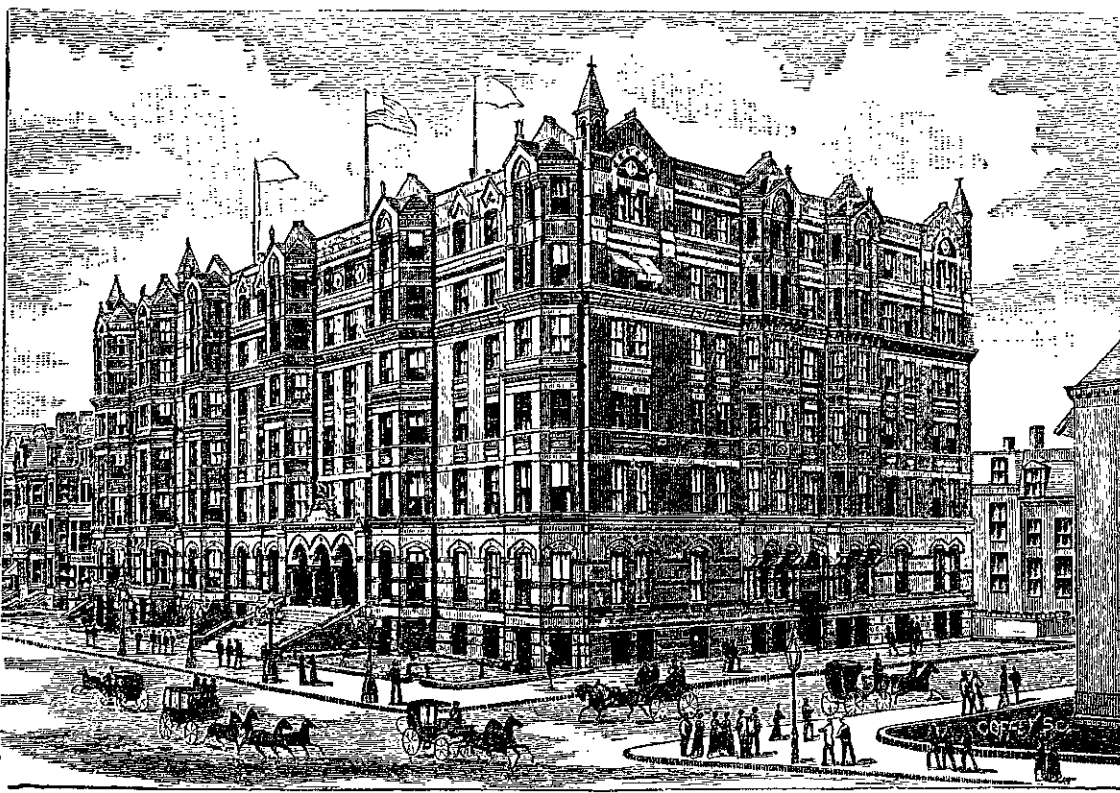
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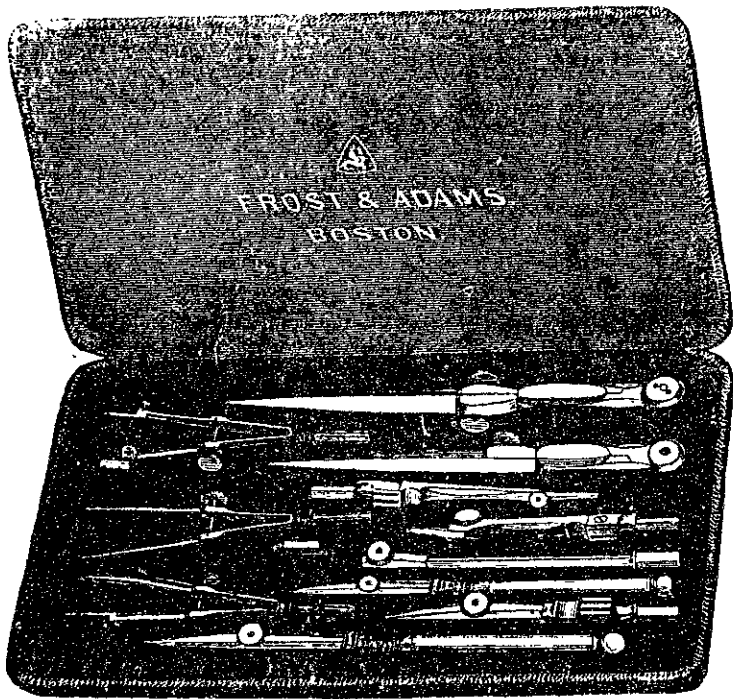
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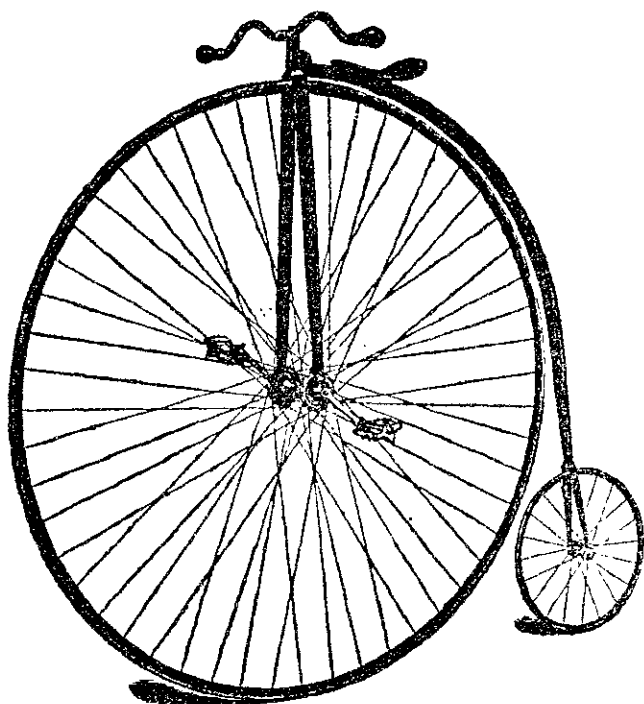
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