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The Tech.

VOL. IV.

BOSTON, JAN. 14, 1885.

No. 7.

THE TECH.

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

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OUR college exchanges have sometimes remarked that THE TECH devotes very little space to editorials. It seems hardly to be understood by them that it is chiefly abuses that call for notice in editorials, and that the lack of such matter in THE TECH is a tacit proof of the small number of the things we have to grumble about here. In many college papers several columns are devoted in each issue to complaints, — the Faculty is too strict in some things, or too lenient in others; unjust or unreasonable in their action on athletics; behind the times in still continuing morning chapel. Not that we, either, are without our grievances; there are many honey-pots which we can see upon the shelf, and wish they were not too high for us to get a taste; and there is still a little flavoring of gall in some of our daily food; but "*Was ist das leichteste Ding in der Welt?*" The Faculty's attitude towards us is so liberal that when we do complain we scarcely feel it as a complaint, but rather offer it as a suggestion.

The voice from the miners grows louder and louder for less chemical work and more geology. There really seems to be a great deal of earnest

feeling in regard to the matter. They say they have more quantitative analysis than they can do. The attention of the Faculty was called to the subject by an editorial in our last issue, and a letter from a correspondent in this still further expresses the feelings of the miners. The matter is one which cannot fail to command investigation, and we have confidence that if there is an abuse here, it will be removed.

WHAT will become of us when we leave the Institute, is a question which we all ask ourselves during the course of our connection with the Massachusetts Institute of Technology. This question is indeed an important one, since on it depends much of our future success. A graduate of a four years' course finds himself, at its completion, with the world before him, and a commencement to be made. What the Institute aims to do, and what she really does do, is not to turn out full-fledged professional men, ready to direct and carry through any work belonging to their particular calling, but to give to each man a thorough groundwork or foundation on which he can build, and which will place him in a position where he can understandingly and intelligently acquire such information and details as are only given by practice. With a majority of young men there comes, at the age of manhood, a strong desire to be doing something, to be making their own way in the world, and they find it difficult to let seemingly good chances go by, while they plod on with their studies. This feeling is felt by many in the Institute, and it should be remembered by them that nowhere in actual practice will they have so good a chance for learning those subjects which are most difficult to acquire, as where they are taught especially. In other words, the knowledge on which we must base

our future practice, and on which largely depends our future success, can be acquired with a minimum of expense and labor, and with a much greater degree of thoroughness, at an institution especially fitted for this purpose, than in any ordinary practice. This basis gained, if there is any inclination to continue in the chosen subject, the best method is to secure, as soon as possible, a position in which an opportunity for study and observation is given. The most favorable opening for the graduate or special is not always that which at first offers the largest compensation.

The knowledge gained at the Institute is somewhat similar to the framework of a building, which, though the most essential part, needs something more to make it useful. If one is in earnest in his chosen profession, and has ambition, the best thing to do is to find a position which, while it does not, perhaps, afford him a very liberal allowance, gives him a chance to learn, by actual experience and observation, what he lacks. Add to this, patience, perseverance, thoroughness, and supplementary study and inquiry, for scientific knowledge is always on the advance, and the life of a professional man must be one of continual study and observation, and these will, sooner or later, surely produce the desired end.

PRESIDENT WALKER'S report, recently published, gives an encouraging statement of the condition of the Institute at the present time, and, by many suggestive tables and comparisons, sketches its rise from small beginnings. Not only is the number of students nearly one third larger than last year, representing a larger geographical territory, but the examinations for admission have shown a marked improvement in the preparation of candidates, due to a better understanding of the requirements for entering, and a better method of teaching them in preparatory schools.

The presence of thirty-three students from eleven Southern States is especially noticed, as indicating the future increased development of

Southern industries. Many interesting facts are shown in the tables of the number of instructors and students at the Institute now and in years past, and the different lines of work adopted. The improvements in the mining and metallurgical laboratories are described, together with those in other directions, which, though small compared with the enormous changes of the previous year, result beneficially.

The report closes with an appeal for additional endowments which shall place the Institute of Technology on an assured basis, providing against financial embarrassments; reducing the large tuition fee and the dangerously large proportion (now five sixths) which the revenue from this source bears to the entire income of the Institute; establishing a number of greatly needed scholarships; permitting an increase in the compensation of the professors and other instructors, to correspond with the incomes of successful practitioners in scientific professions, or, at least, of professors and instructors in the leading classical colleges; and enabling future progressive demands of industrial education to be promptly and fully met, while permitting original research and investigation on the part of the corporation and Faculty.

The report will be read with interest, as it contains much valuable information condensed from the catalogue, together with a great deal not to be found there.

In the editorial on chemistry in the mining course, in No. 6, there was a mistake, which, if not corrected, might prove misleading to those not familiar with our chemical work. "The determinations, if not correct within three per cent, have to be repeated," should have read, "If not correct within three tenths per cent."

The next TECH will be published Wednesday, February 4. The editors hope that a goodly number of contributions on matters of general interest, scientific or literary, will be prepared during vacation.

Lines to a Calendar.

(Written Dec. 31, 1884.)

Old friend, you've done well. Full many a day
 You have hung calm and stately while time glided by,
 And as slowly but surely I tore you away,
 'T was ever responsive you seemed to my eye.

Thro' summer's glad smiles, thro' days full of sorrow,
 To stranger and friend have you proved good and true;
 Yet in spite of it all, you will see by to-morrow
 You're no longer of use, — we prefer something new.

H. C. S.

N O :

2

OR

The Key of my Friend's Cabinet.

I WAS feeling rather tired that afternoon, in fact quite worn out; but not with work so much as from want of sleep; for I had run up to a German given by a friend of mine in a neighboring town the night before, and besides dancing well into the small hours I had been up bright and early to take the first express back to Boston, so as to be at the "Tech" in time for my nine-o'clock recitation. All this, combined with a day spent in hard work, had made me, as I remarked before, rather tired, so it was with no light step that I climbed the flights of stairs which led to the chemical laboratory. But before I go on with my story I must give a few details, although I know they are always dull to the reader. However, in order to make my story plain it will be necessary to give them, so if any one thinks he will be bored by reading them, he had best drop this story right here.

The friend at whose house I had spent the night before is something of a bric-a-brac collector, and after dinner, before we started for the German, he had shown me his collection of rare coins and precious stones, which he keeps, together with a number of other valuable things, in a large safe or cabinet, fastened by means of a curious contrivance of his own invention, which is unlocked as follows: First, a small and oddly shaped key is inserted, then a knob is turned a certain number of times in different directions, and at the end of five minutes the

mechanism of the lock turns the key and the door swings open. So you see that in order to open the cabinet it is not only necessary to have the key, but also to know the combination of the knob, and the trick of the key turning by itself; for if one tried to turn the key, even if he had performed all the rest of the action rightly, the mechanism is so arranged that the door will not open.

I had often seen my friend's collection of jewels before, but he had lately picked up a very large and curiously colored ruby which he now wished to show me. While I was looking at this stone a servant entered, and said that some one wished to see Mr. Brown, so my friend left me and went to see what was wanted, remarking that he would return in a moment. I finished my inspection of his collection, and then turned to the window to examine the ruby in a better light. I have forgotten to mention that a small brother of my friend, about five years of age, was in the room at the time. I finished examining the ruby, and turned back to the safe, noticing at the same time that the child had disappeared; however, I thought nothing of it at the time, believing he had left the room while my back was turned. I replaced the ruby in its drawer and went upstairs, expecting that my friend would return and lock the cabinet. On arriving at my room I found Charlie at the glass engaged in the delightful occupation of shaving, we occupying the same room, as the house was very full of company that night. He asked me if I had locked the cabinet, and I replied that I had not, as I did not know exactly how to do so, and thought he would return and lock it. Charlie replied that all I had to do was to shut the door and take out the key, and as he was partly undressed I offered to go down and lock it for him. This I did, and then returned to the room and dressed for the German.

The next morning I left the house at five o'clock, and of course no one was up at that early hour, but the servants. I caught the train all right, and had not more than got well settled in my seat and the train well in motion, than I put my hand in my vest pocket to get a match

to light my cigar, and you can picture my surprise and mortification when I found I had carelessly carried off the key of the cabinet in my pocket. But as Charlie was coming to town the following day, I resolved to keep the key and give it to him then instead of sending it to him, so I wrote a note saying I had his key and would return it to him when I saw him, and mailed it at the next station. As an extra precaution against losing the key I put it upon my key ring.

Well, now, I think I have given all the details necessary, and so will return to my story. I reached the laboratory, and unlocking my desk, commenced my experiments. The first thing I had to do was to make some nitrous oxide, and as I was tired, I arranged my apparatus in a slovenly way, so that there were a good many leaks; however, as good luck would have it, they seemed to make no difference, and I soon had enough of the nitrous oxide to answer my purpose, so I leaned over my desk with my head very near the bottle containing the gas, and proceeded to write out my notes, thinking all the time what Charlie would say to my having carried off his key. I had written but little when some one touched me on the back and said a man wished to see me in the hall. I went out and found Sam, Mr. Brown's colored coachman, awaiting me. As soon as he saw me he burst out with "Quick, Mr. T., get your hat and coat and come with me." Seeing by his expression that the fellow was in earnest, I did so, and we entered a carriage at the door of the new building, and were soon whirling toward the Boston and Albany station, which we reached just in time to catch the three-thirty train for M——.

As soon as we were once seated I asked Sam what was the matter, and he told me as follows: It seems that the little boy who was in the room with me the evening before had been sent to bed, and was supposed to have gone there; but in the morning his bed was empty, and he could be found nowhere. The house was entirely ransacked, but there was no trace of him. At last a slight noise was heard in the cabinet in which my friend's collection was kept, and in a mo-

ment the whole thing flashed into their minds. The little boy had not gone to bed, but had come down stairs into this room, and while my back was turned had entered the safe, and when I had locked it I had imprisoned him. They had looked everywhere for the key, but of course with no avail; just then my note of explanation arrived, and he had been sent off by the next train to bring me to unlock the cabinet. You can imagine the state of my mind when I thought that my carelessness might be the cause of an innocent child's death.

As soon as the train reached M—— we rushed out and, jumping into the carriage awaiting us, were driven as quickly as possible to the house. When we arrived there we found everything in confusion; I hurried to the room where the cabinet stood, and put my hand into my pocket for my bunch of keys, — *it was not there!* In a second all was clear to me; I had left it, in my hurry, in the lock of my laboratory desk. When this was told Mrs. Brown, she fainted away, and the scene was something terrible. What could be done? The child could not live much longer in the cabinet, even if it was still alive. Everything had been tried to open it, but with no avail. Another effort must be made. I seized an iron bar, Charlie another, and we tried to pry off the door; at last it gave way, and with a crash. . . .

I came to myself and found all this had been a dream; that I had breathed the escaping nitrous oxide, and had been insensible. The crash I had heard when I came to was caused by my knocking off some of the apparatus on the desk in the excitement of the horrible dream. The other students in the laboratory had simply thought I was deep in my notes, whereas in reality I had been insensible. It is needless to say that when I returned the key to Charlie the next day, and told him the tale, he burst out laughing, and assured me that his little brother was all right. And you may be sure that in the future, when making nitrous oxide, I shall be careful to have my apparatus tight, so that the terrible experience of that Friday afternoon will never happen again. F. H., '88.

The Inevitable.*(Suggested by a Summer incident.)*

HIGH I stand above the village,
On the rocky top of Hayes,
While a scene of wondrous beauty
Stretches out before my gaze.

I can see the tranquil river,
Threading onward through the vale,
And the clouds, whose cool, dark shadows
Slowly drift o'er hill and dale.

Rising far above the pastures,
Dotted with the feeding kine,
Far above the rounded foot-hills
Clothed with bristling fir and pine,

Reach the rugged tops of mountains
On whose shoulders, bare and gray,
Deep ravines are cut, like furrows,
Shutting out the light of day.

Pain and toil of noonday climbing,
Loss of breath and heat of sun,
Vanish like the mist of morning,
Are forgotten, every one.

I am held in close communion
With our mother Nature now;
Down before her mighty altars
With a reverent air I bow.

All my thoughts I cannot fathom,
Nor what's deep within me utter;
When a harsh voice breaks the silence —
"Say! Please pass the bread and butter!"

A. T. C.

By a Hair's Breadth.

MY business is to superintend a mine which lies in Idaho Territory. The claim is far from any civilization, snugly stowed away in the lap of wide-sweeping forests. Our settlement straggles along, perched on the rough stumps of the trees which two years ago stood as thick as the spears of grass in a hay-field; now the clearing is like the stubble of some immense growth of grass, which we pygmy men were obliged to mow, spear by spear. The place is comfortable enough; there are two saloons, and half as many houses, not to speak of the clustered huts of the miners. The villagers are rough, uncouth, devilish, but good-natured, on the whole, and as respectable as could reasonably be expected.

A year ago next spring, for reasons of importance, I brought out my wife to Paradise, as we have named our city; and a few words are necessary in regard to the house I had made ready for her reception.

It was built of rough-hewn logs, fitted pretty closely together, and stopped with a clayey mud, which was plentiful in the vicinity. The walls enclosed two rooms of good size, an outer and an inner one. The outer one was somewhat the larger, and had been built for me when I first came to Paradise; the walls were solid and heavy and thick, and the roof was supported by a simple triangular truss. This room alone had sufficed for my solitary housekeeping, but when my wife came to Paradise I was obliged to add to the main building, as I may call it, another room, which should serve as our sitting-room and chamber. The roof of this was arranged as a lean-to, and was very heavy. The fearful winds which come tearing down the mountain intervals in this region at certain times of the year necessitated this great weight; or rather, to be more accurate, necessitated great strength in the building, and I thought that the weight of my roof would guarantee that.

Across, from side to side, I had laid untrimmed spruce logs, on many of which still remained the stumps of the lateral branches, sharp and stiff. On these, completely filling the interstices, were spread the close-needled boughs, then a layer of dry leaves, and then, the chief object of my construction, a layer of the sort of clay of which I have spoken as being used in the walls of the house. I relied on the heat of the sun during the summer to bake the clay to such hardness that it would not, to any great extent, swell by absorbing moisture. Of course, such a roof as this was of tremendous weight; and that was precisely the thing I aimed at; this it was which was to keep the roof in place during the high winds. Having hit upon this way of escaping the havoc repeatedly wrought by the winds, and at the same time the extreme discomfort, and even peril to the health incident upon life in a dug-out, I was

greatly elated in contemplating our future comfort.

The spring I brought my wife to Paradise the season had been very backward; the snow had held on late into May in every sheltered ravine and upon all the higher spurs of the mountains; and the chilly breezes from the white fields prevented vegetation from starting in the valleys below. Finally, however, on the 3d of June, I think, or it may be on the fourth, a warm wind from the south drew up through the cleft in the mountains below us, and spring was begun. A very common and easily explained phenomenon ensued. The rising of the rivers consequent upon the melting of the snows was accompanied by a gentle and continuous fall of rain. It was the first rain we had had. All the snow that had fallen since the addition to my house, I had kept carefully swept from my new roof.

My wife had already been with me several days, and was becoming accustomed to the solitude and strangeness. She had ceased to fear the winds, against which I explained to her I had managed so efficient a protection.

During the whole of that day I had been out in the rain, working with the men to get things into such order that we might begin serious operations as soon as possible. When I got home, about six o'clock, I found my wife as usual. My supper was waiting for me. When we had finished I was surprised at my wife's saying, —

“Let us stay here by the fire this evening, Henry, instead of going into the other room.”

I acceded to her request, of course, though it seemed a little strange, as the sitting-room was much the pleasanter of the two. My wife had arranged there many charming little things, which gave quite an air of refinement to the rough interior. Half an hour afterwards, when some of the men came in to consult me about some work, my wife left us alone, but I noticed that she came back to the kitchen in a few moments. It was still raining outside when I let the men out; and on coming back from the door I said, thoughtlessly, —

“Shall we go into the other room now, where it is cozy?”

“I'd rather stay here, I think,” she answered, with a queer expression, it seemed to me.

“You are not nervous, Emma?” I asked.

“A little, Henry,” she admitted; so we remained in the kitchen. But I was tired and sleepy and soon went off to bed, leaving her sewing in the outer room. I was just losing consciousness when I felt her hand on my shoulder; I roused myself. She turned away as if she had been going to speak, but had thought better of it.

“You'd better not sew any more to-night, Emma,” I said; but she went back, leaving the door open; I could hear her adjusting the cloth on her lap from time to time as I went to sleep.

I suppose it must have been an hour after that that I was again awakened, this time from a sound sleep, by my wife's hand on my shoulder, and her saying, “Henry, Henry.” “Well, what's the matter?” I asked, somewhat irritated, I dare say. “I wish you'd come into the other room, Henry,” she replied; “it's nothing, — only I'm nervous to-night, — a little. It's lighter and larger out there. You might lie on the lounge there.” Not so comfortable as a bed, thought I; but I had not as yet got over feeling that my wife was my guest in Paradise, and was therefore more indulgent to her whims than, if I must confess it, I might otherwise have been.

I wrapped a blanket round me and strode after my wife.

The instant in which I entered the kitchen had not elapsed, when, with a sickening thud, the roof of the room I had left fell in. The green clay which coated the roof a foot in thickness had absorbed an enormous quantity of the rain which had been falling since morning, and without a warning, without a premonitory cracking of the timbers, the heavy mass had collapsed by its own weight. It is frightful to think of the fate that had been so near overtaking us. As I stood dumfounded and felt the cold damp air from the rain outside and smelt

the wet clay of my fallen roof, I felt undefinably as if there had been a waiting of the collapse till we should be safe, — as if the fall had been unaccountably postponed till we should be out from under it.

I can offer no explanation of my wife's uneasiness, nor could she herself. On the contrary, she had all the evening been chiding herself for her groundless and formless apprehensions and her ridiculous nervousness. As I say, I can offer no explanation; I can only query. Was it an accident, a coincidence? Or was there here something like clairvoyance — clair-sentiance, to coin a word?

M. I. T. Glee Club and Orchestra.

THE concert given on the 8th inst. by the Glee Club and Orchestra at Chickering Hall proved an entire success. There was a full house, and the selections were all liberally applauded. Following is the programme: —

PART FIRST.

1. Overture, "R. E. Porter." Orchestra.
2. Rhine Wine Song Glee Club.
3. Gavotte. Du liegst mir im Herzen . . . Orchestra.
4. College Songs { *a.* Song of the Chemist. } Glee Club.
 { *b.* Mary's Little Lamb. }
5. Zither Solo R. E. Richardson.
6. Folk Song Glee Club.
7. Soldier's Dream Glee Club and Orchestra.

PART SECOND.

1. Waltzes. "Les Sourires." Orchestra.
2. College Songs { *a.* Fra Diavolo. } Glee Club.
 { *b.* Pocahontas. }
3. { (*a.*) Funeral March } Orchestra.
 { (*b.*) Mazurka }
4. Glee. Flow'rets close at Eve Glee Club.
5. Flute Solo. Favorite de Vienne . . . E. B. Homer.
6. College Songs { *a.* Peter Gray. } Glee Club.
 { *b.* Hi! Fresh. }
7. Jingle Bells Glee Club and Orchestra.

In the first part, number three — the gavotte — was very well played and won hearty applause from the audience. In the succeeding number, the "Song of the Chemist" was feelingly delivered by the Glee Club, and although many of its points were of course lost upon the unscien-

tific audience, it obtained a fair share of that applause which favored nearly all the "college songs." Mr. R. E. Richardson's exceedingly expressive solo on the zither also drew an enthusiastic encore.

In the second part, numbers three and four were noticeably well executed, and Mr. Homer's skilful flute solo gave general satisfaction and was recalled. The inevitable yodel was delivered on an encore, by Messrs. Shortall and Thompson, with its usual success. "Hi! Fresh" was not appreciated by the audience, as it was sung so rapidly and indistinctly that most of the hits were inaudible. The final selection, "Jingle Bells," made a very effective closing piece.

Messrs. E. B. Homer and F. F. Bullard conducted the Glee Club and Orchestra, respectively. Mr. C. D. Underhill officiated as accompanist.

The chief defect in execution of both the Glee Club and Orchestra, particularly the latter, seems to lie in the inability of the performers to appreciate all the finer and more expressive touches of their able conductors. While not deficient as a general thing in either time or force, they frequently fail, on diminuendo passages, to give the requisite delicacy and lightness to their touch. It must be remembered, however, that this is, in a greater or less degree, true of all amateur musicians, and that last week's concert was the first public appearance of our orchestra. Their performance then warrants us, we think, in expecting a constant improvement, which will ultimately enable them to dispense with all outside assistance.

Perhaps, Sometime.

TO H. C. S.

When the stars shine bright, when the moonlight is clear,
I may wet my feet on that slumbering heather. .
If it were not for chilblains, my festive dear,
We might wander some evening together.

Though thy heart swells with love, I pray be retired,
Or there may be a night when you'll lack it;
The stars and the moon may appear wondrous bright,
For the old man is on to the racket.

F. J. R., PER DROMIO

Communications.

(The editors do not hold themselves responsible for opinions expressed by correspondents.)

EDITOR OF THE TECH:

The general sentiment among the students in mining at the school appears to be in entire accord with those expressed in the last number of THE TECH. Realizing the importance of a knowledge of quantitative analysis for a mining engineer, we do not wish that this branch should be abolished, as at Columbia, but simply that the amount required should be reduced. A canvass of the second, third and fourth year classes showed that not a single man among them thought that if he only worked the required time he could accomplish the required amount of work. Some men have even gone so far as to cut recitations in order to gain extra time in the chemical laboratory. We do not learn quantitative analysis at the Institute, for that is the study of a lifetime; at the most we only learn its methods and principles.

Why, then, certain easy and simple analyses are given over and over again, and months are spent in determining certain difficult ones with the required accuracy, is something not apparent to the average

MINER.

TO THE EDITOR OF THE TECH:

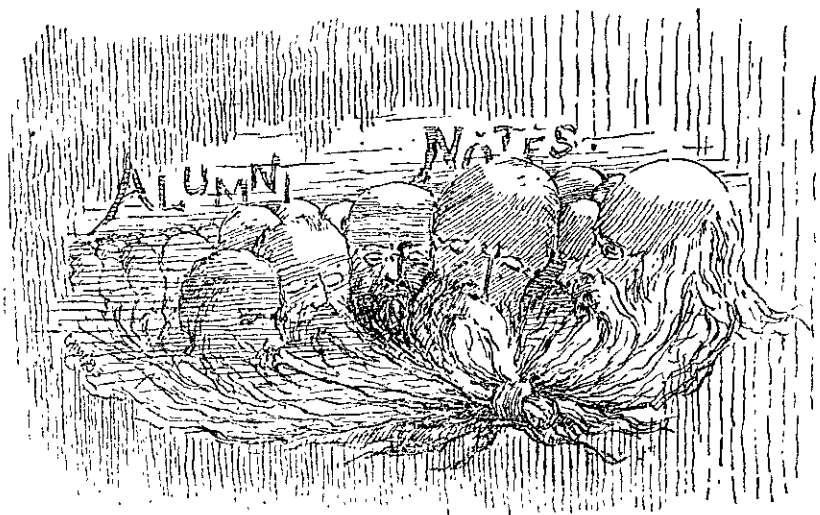
In connection with the account of the winter meeting which appeared in the last TECH, was a criticism of the action of the executive committee of the Athletic Club, in admitting an outsider to the games. Mr. H. B. Duker, the gentleman in question, though his name is not in the catalogue, was a member of the Institute at the time of the games, and still is at the present time. Trusting you will correct this,

I am, respectfully yours,

CHAS. F. SPRING,
Pres. M. I. T. A. C.

M. I. T., BOYLSTON STREET,
Jan. 8, 1885.

[The editors regret that the mistake was made concerning Mr. Duker's attendance at the Institute, and take pleasure in correcting it.]



N. Fred Merrill, Ph. D. ('70), has accepted the professorship of Chemistry and Physics at Denison University, Granville, Ohio.

H. L. Ripley, '73, has received his promotion to a first lieutenantcy in the 24th U. S. Infantry, to date from Nov. 26, 1884.

J. H. Morgan, '78, lately delivered a lecture on "Native Silk-Worms and their Products," before the Springfield (Mass.) Science Association.

Albert F. Schmidt, '83, is with the Nonotuck Silk Company, Chicago, Ill

Robert W. Scott, '83, is working in the machine shops of the Southwark Foundry and Machine Company, Philadelphia, Penn., "learning the trade."

George A. Smith, '83, is in the employ of the North Chicago Rolling Mill Company, as assistant chemist at their South Chicago Works.

A. O. Doane, '84, is now private assistant to Prof. Niles in the Geology Department.

P. C. DuPont, '84, is Superintendent of the Central Coal and Iron Companies' Mines, on the Chesapeake, Ohio and Southwestern Railroad, in the Western Kentucky coal-fields.

George H. Heywood, '84, with Heywood Brothers & Co, manufacturers of rattan and reed furniture, Gardner, Mass.

David Wesson, '83, engaged as chemist, chiefly in connection with the manufacture of soaps, with N. K. Fairbanks & Co., Chicago, Ill.

T. W. and C. S. Robinson, '84, who have been taking a post-graduate course, have left the Institute.

Class of '85.

A MEETING of the class of '85 was held at Young's, Friday evening, Jan. 9. The committee on class exercises reported as follows:—

The committee appointed by the class to consider the advisability of having a "Senior Farewell" the evening preceding Commencement, report that, after considerable discussion upon the subject, both among themselves and among other members of the class, they think that there will be no difficulty in having some rather simple exercises, which will be both a credit to the class and a source of pleasure to it and to its friends. The committee have seen President Walker, who has granted, on behalf of the corporation and Faculty, the use of Huntington Hall for that evening.

In the case of the class deciding to proceed with the project, the committee respectfully submit the following suggestions:—

That all seats be reserved, and all admissions be by ticket. That seats be reserved for the use of the corporation, Faculty, and the class, and that the remainder be divided equally among the members of the class.

That a committee of three, consisting of a chairman and two other members, be elected by ballot by the class, and that this committee shall have entire charge of all arrangements for the evening.

That, besides the committee of arrangements, the following officers of the evening be elected by ballot by the class: HISTORIAN, PROPHEET, POET, CHORISTER.

The committee consider that there is instrumental talent enough in the class to provide for that portion of the evening's entertainment, but would suggest that the Glee Club be invited to assist in furnishing vocal music.

The committee suggest that the election of officers take place at the next regular meeting of the class. The printing of tickets and programmes, together with a small sum for decorations, and a few small incidental expenses, will be the only items of expense, and these will be quite small when divided among the members of the class.

Respectfully submitted,

CHAS. F. SPRING,
E. B. HOMER,
THOMAS W. FRY,
Committee.

This report, which is progressive only, and not final, was generally debated, and after several improvements had been suggested, further action was postponed until the next meeting, when it will be decided whether the plan embodied in it is practicable, and the establishment of the precedent for future similar affairs

advisable; if the project is undertaken, the spirit which '85 has always shown will insure its successful accomplishment.

The committee on photographs reported in favor of J. Notman & Co., 19 Boylston Street.

After further business, interesting papers were read by S. Williams, on "The East River Bridge," and by N. G. Robertson, on "The Bessemer Process"; followed by adjournment.

M. I. Y. Societies.

During the past term, ΣX has initiated three new men, Messrs. Kirkham, '87; M. DuPont, and J. V. Wright, '88.

It is said that the Freshmen have formed a new secret society. It goes by the unique and suggestive name of H₂S.

C B₃ A. Several new members were initiated into this society on Tuesday, Jan. 6. After the initiation exercises, the members partook of a most enjoyable lunch at Young's.

The Junior Class, having had so much difficulty with class meetings, has adopted a monarchical form of government, and referred all routine business to an executive committee of seven.

At two successive meetings the class of '87 has decided by very close votes, of nineteen to sixteen and fifteen to thirteen, not to allow wine on the table at its first dinner, which takes place on the 22d prox.

During the past term the third-year mechanicals and electricals formed a new society. It is for social purposes, is non-secret, and holds monthly meetings. Three meetings have already been held, two at Young's and one at the Quincy House, at which dinners were indulged in. There are fourteen charter members from '86, and nine have already been admitted from '87. The officers of the society are as follows: President, David Rice; Vice-President, J. K. Burgess; Secretary, Chas. E. Richardson; Treasurer, R. P. Borden; Chaplain, W. M. Taylor.

Department Notes.

How about that Sellers shaper at the arsenal?

The regulators recently added to the suction in the analytical laboratory fill a long-felt want.

Chemists of all years are now beginning to pray for C. P. results to their analyses of semi-annual examination papers.

The second-year architects resent the insinuation that the new fountain on the Common is one of their solutions to the six-column problem.

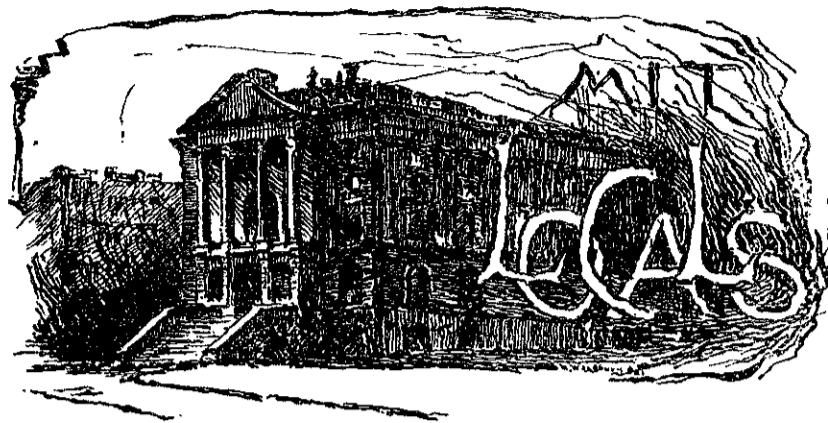
Some of the '86 mechanicals have finished their detail drawings, and have begun erection drawings of the Putnam Tool Company's lathes at the shops.

The first long run of the year in the mining laboratory was an agglomeration beginning at 8 A. M., Tuesday, Dec. 29, and lasting until Wednesday at 6 P. M. At the end of the run the '85 miners looked as if they had been on a carnival spree for a whole week.

Saturday, Jan. 3, the members of the fourth-year applied mechanics classes made an afternoon trip to the Watertown Arsenal, to examine the testing machine. After listening to explanations of the details of the machine—method of applying and weighing the stress, system of improved "knife-edges," etc.—the preparation of a compression member of a bridge for testing in the machine was watched with interest.

The second-year architects have finished their six-column problem, and are working on the problem of a gardener's cottage, which will occupy the time until after the examinations begin. The fourth-year men have finished their international bridge; and next term Mr. Homer and Mr. Benton will begin their theses, after having worked out one or two more of the regular problems.

The second-year men have made several exceedingly interesting trips with Mr. Woodbridge lately, for the purpose of examining the different methods in use for ventilating and heating. Among the buildings thus visited are the Harvard Medical School, the Mason building, and the State House.



Did you go to the Concert?

The semi-annuals begin Friday.

Nine roomfuls of Freshman chemistry examination.

Conditions will be *de rigueur* with Freshmen next term.

Don't forget to write an article for THE TECH during vacation.

An alligator was dissected in the biological laboratory last week.

Examinations in the School of Mechanic Arts begin Monday, Jan. 19.

Class dinners will be the all-absorbing topic of discussion after vacation.

At the winter athletic games, '86 won four events; '87, two; and '88, two.

The miners are grumbling about the amount of chemical work required of them.

Is the "New Building" never to have any other name? Why not call it Kidder Building?

The Freshmen and Sophomores do not finish their examinations until Monday, Jan. 26, much to their disgust.

President Walker is a member of the State commission on the geological and topographical survey of Massachusetts.

A Freshman in the chemical laboratory asked the other day where he could find the *printing press* to make the "*printed calico*" for an SO² experiment.

On account of the vacations at other colleges, and consequent absence of news, we omit the "College World" column this week.

Dr. Wilson has finished his interesting course of lectures on embryology, which he delivered before a class of twenty students in the department of biology.

The ventilation of the new building is so complete that in many of the rooms coats and overshoes are worn in a vain endeavor to keep out the ventilation.

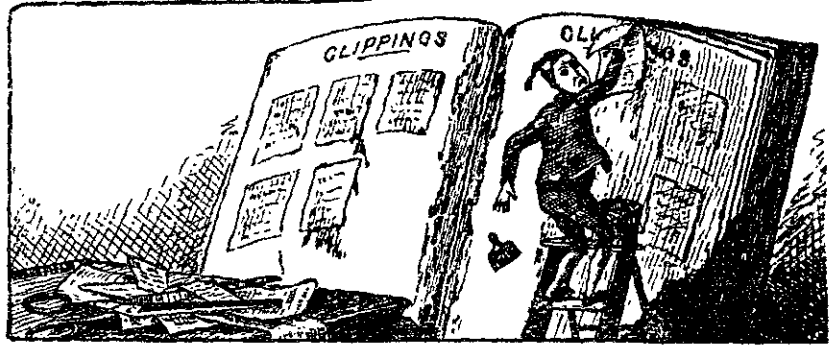
At the last meeting of the Harvard Faculty it was decided, by a large majority, to prohibit the playing of any inter-collegiate game of football hereafter by any Harvard team.

From a second-year civil's field book: "B. M. on a stump 8'-55 hundredths from the nearest tree." The usefulness of the above description is apparent, as stumps and trees were in great abundance in the immediate vicinity.

A bronze tablet, bearing the following inscription, has been placed in the vestibule of the new building: "The Kidder Chemical Laboratory and Lecture Hall in this building were erected and equipped from the bequest of Jerome George Kidder, of Boston."

The '86 tug-of-war team has accepted the challenge of '87, and will pull them some time in the early part of next term. The contest will be for a special prize given by the two classes, and will be only for the satisfaction of the '87 team, the class championship having been decided.

A glance at the scheme for the semi-annual examinations shows a generally good order for all four classes. To suit every one would be, perhaps, an impossibility, unless the examinations were left out entirely, and even then some would be found to raise objections. The first-year examinations seem to be so arranged as to give one day for preparation before each of the hardest subjects, or have, at least, no two consecutive hard examinations. With the second-year, the architects seem to have the lion's share in point of numbers, if not in difficulty. Little can be said with regard to the third and fourth years, since the different courses vary widely, both in number and degree of difficulty. The fourth-year miners, with only three examinations, seem to be the most fortunate, at least with regard to numbers.



Extravagance.

She looks at laces, silks and diamond pins,
At costliest goods the dame doth proudly grumble.
The merchant sweetly smiles as she begins
A wallet holding fifty cents to fumble.

Life.

A promising student — one who does not pay his TECH subscription.

"I must shake off this bad habit," said a tramp, as he gazed at his tattered coat. — *Ex.*

I will now have the nerve to recite tragedy:
"Indolent Student. — Semi-annual examinations. — Feb. 3d, second term. — No indolent student!" '88.

She. — There is no danger of your failing, is there, dear? You have so many friends, and they are so warmly attached to you.

He. — Yes; but the deuce of it is, don't you know, that they will probably transfer their attachment to the house and furniture. — *The Town.*

FIGURATIVE.

Snobberton: "Ah, Dudley, I understand you are to be congratulated. Is the fair one pretty?"

Dudley: "N-n-no; can't say she is."

Snobberton: "Good figure?"

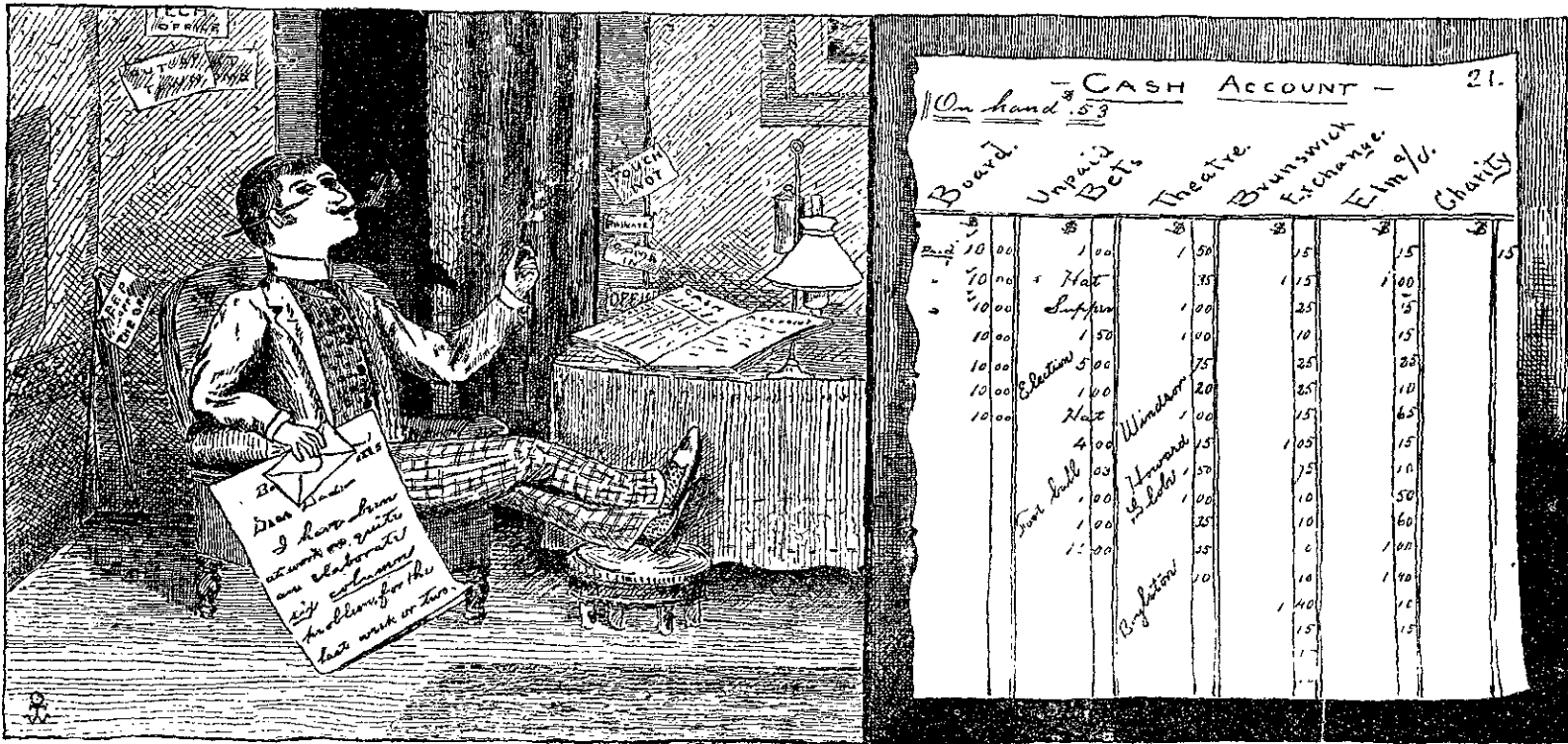
Dudley: "Y-ye-yes! 'Bout a million." — *Life.*

A NOCTURNE. -- TIME, 4 A. M.

Apothecary: "Well, what do you want? What is it?"

Traveller: "Mr. Karr; I'm in a hurry."

Apothecary (furious): "Missed a car! What in thunder do you come to tell me about it for? Don't you know enough to stand still and wait for the next one?" — *Life.*



THE SIX COLUMN PROBLEM AS SOLVED BY ONE OF OUR ARCHITECTS.

At the Ball. — "I do love dress!" exclaimed a young society belle "Then I should think you would wear more of it," replied the cynical bachelor friend of middle age. — *Ex.*

Doctor. — My dear madam, why did you not let me be called before? Your husband already lies in the highest delirium.

Madam. — Yes; but you see, it was not until he lost his understanding that he called for you.

Two little dwarfs were travelling on foot through one of our Western States, and stopped at a farm-house to ask for food. The good woman of the house, supposing them to be only children, after satisfying their hunger, took one of them upon her lap, and asked him his name, which he told her "And how old are you, my dear?" she next inquired. "Forty-two," promptly responded the dwarf. "Goodness gracious!" exclaimed the woman; "get right down!"

Policeman. — Have you a permit to play here?
Organ Grinder. — No; but it amuses the little ones so much.

Policeman. — Then you will have the goodness to accompany me.

Organ Grinder. — Very well, sir; what do you wish to sing? — *Fliegende Blätter.*

IMPRACTICABLE.

Judge to Witness. — Repeat the prisoner's statement to you exactly in his own words. Now, what did he say?

Witness — My lord, he said he stole the pig.

Judge — Impossible! He couldn't have used the third person.

Witness. — My lord, there was no third person!

Judge. — Nonsense! I suppose you mean that he said "I stole the pig."

Witness (shocked). — No, my lord! He never mentioned your lordship's name! (Dismissed ignominiously.) — *London Punch.*

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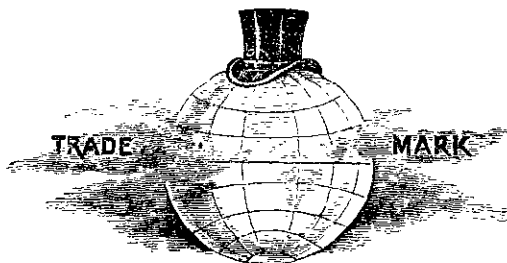
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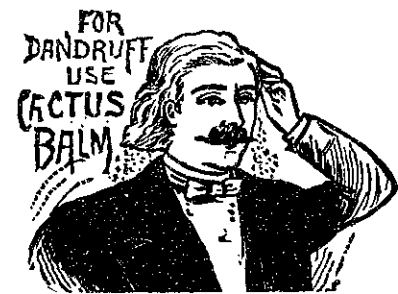
The new advertisements in this issue are those of H. A. Winship, Raymond & Fox, Allen & Ginter, and Smith Bros. The former is one of the longest established and best known of our dealers in trunks and satchels, and has agreed to give M. I. T. students ten per cent discount.

By the courtesy of Mr. D. H. McKay, Manager of the Highland Roller Skating Rink, M. I. T. students will be admitted at reduced rates.

Those desiring tickets may obtain them of Jas. C. Duff, '86, at 25 cents each

Students will be admitted in the afternoon for 15 cents, and have use of skates for 10 cents, on presentation of an "M. I. T." card, which may be obtained at the Secretary's office.

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The well-known star, Mr. Thomas W. Keene, will play leading part in a spectacular production of Richard III., at the Boston Theatre this week. His success in previous engagements insures success in this one.

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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.

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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.

Attached to the Institute are also two special schools: viz., the "School of Mechanic Arts," and the "Lowell School of Industrial Design." The former gives a training in the use of tools, together with elementary mathematics and drawing. English, French, and geography are also taught in this school. The fees for tuition are \$150 a year. The Lowell School teaches the making of designs for prints, carpets, wall-papers, laces, gingham, and other woven goods. A weaving department with a variety of looms is connected with this school. No charge for instruction is made.

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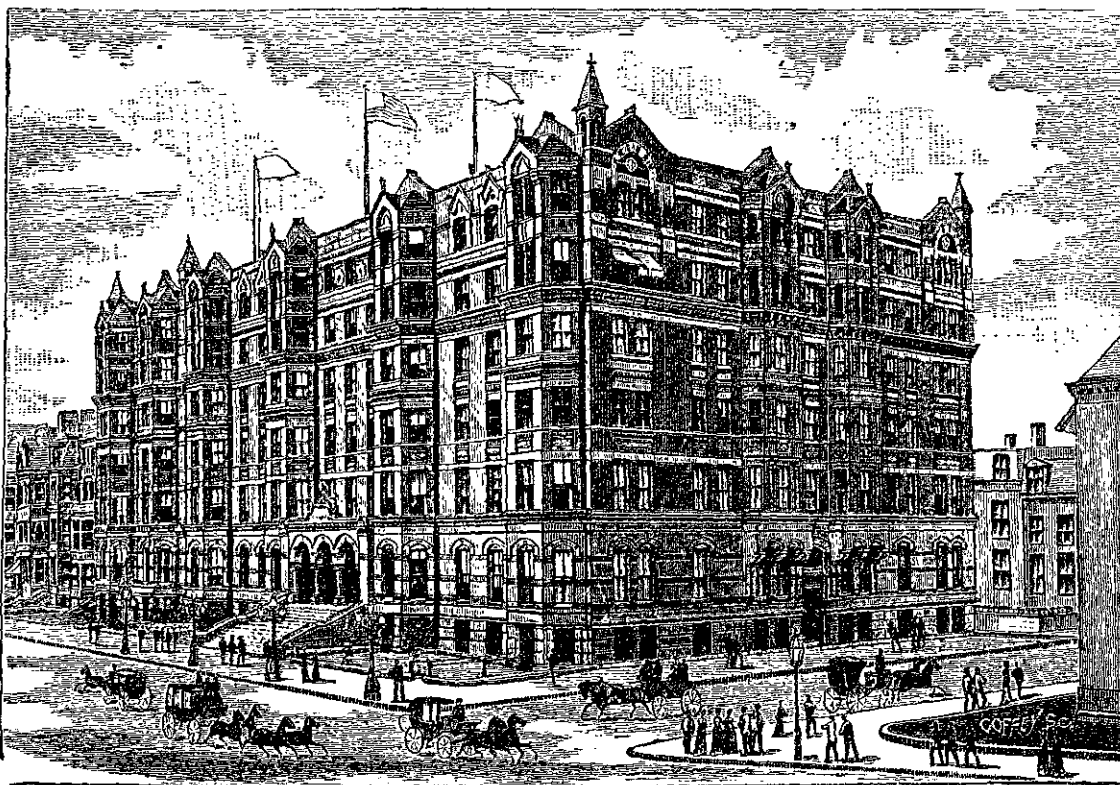
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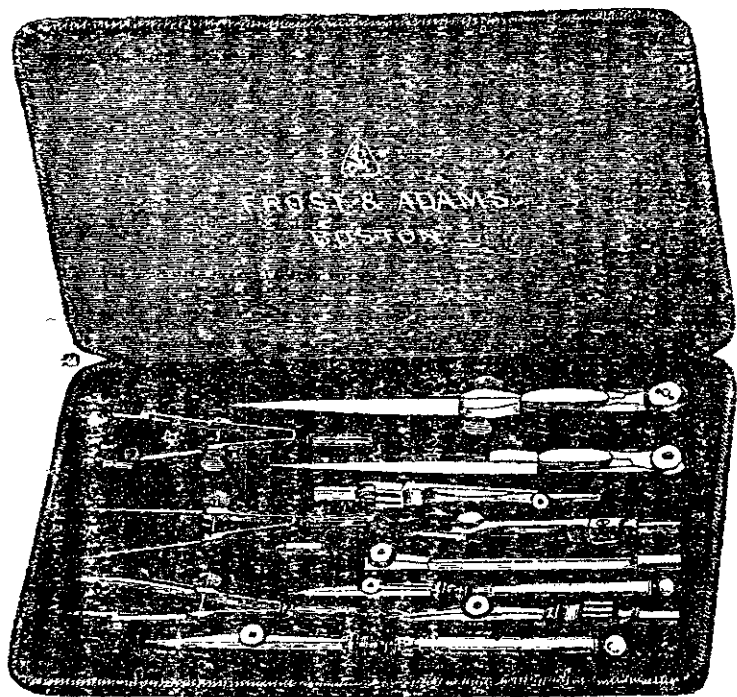
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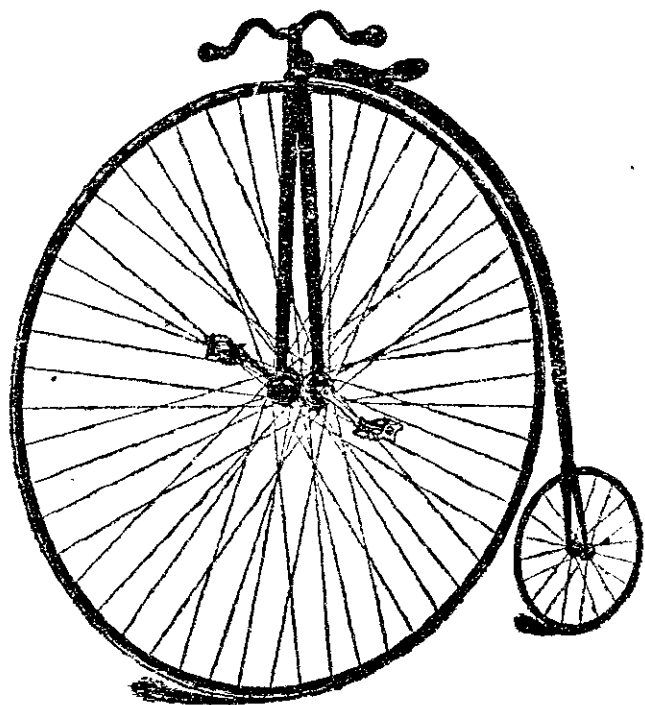
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