

February 18,
1886.
Vol. V. No. 9

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THIS school is devoted to the teaching of science, as applied to the various engineering professions; viz., civil, mechanical, mining, and electrical engineering, as well as to architecture, chemistry, metallurgy, physics, and natural history.

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 on all regular courses, and may be further pursued as optional studies.

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

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Graduates of colleges conferring degrees, who have the necessary qualifications for entering the third year class in any of the regular courses of the Institute, will be so admitted, provisionally, on the presentation of their diplomas, and will be given opportunity to make up all deficiencies in professional subjects.

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.

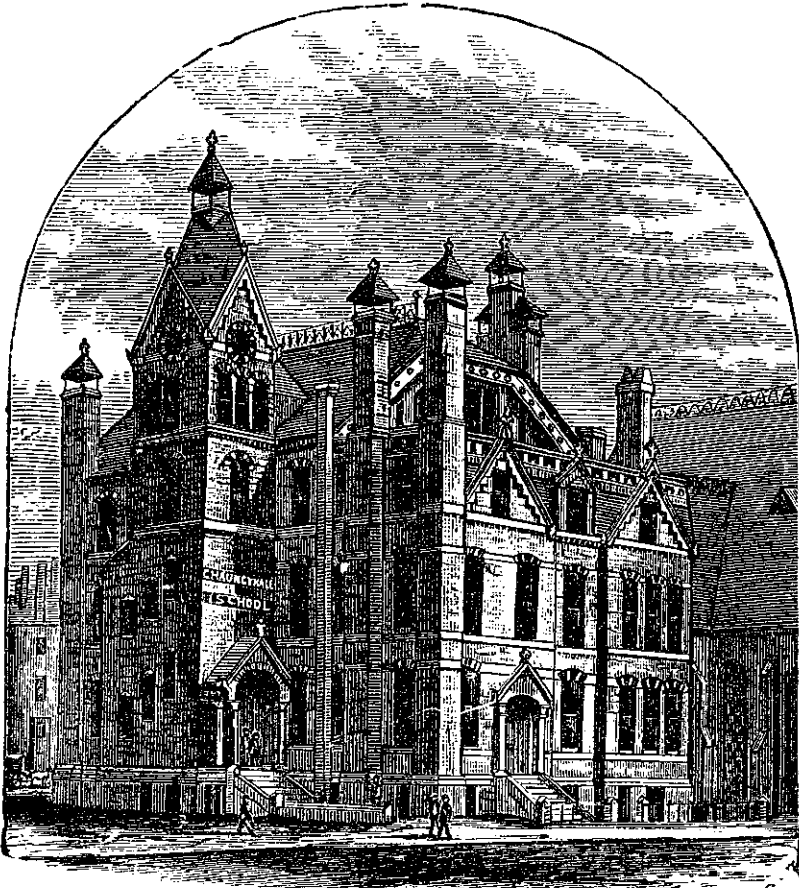
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The Tech.

VOL. V.

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THE TECH.

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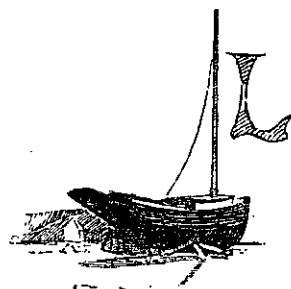
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LOCATED, as we are, in the midst of that portion of the city which is occupied by public buildings and fine residences, with not wholly sufficient accommodations as it is, and no chance for expansion here, the Institute, like other city colleges, labors under the disadvantage of having no dormitory system. We say "disadvantage," for such we consider it. We are perfectly aware, however, that this is not the view held by our Faculty. It is not our intention to discuss this matter here, but merely to state that the question of providing accommodations for students here is one to which the Faculty or the Corporation must soon give some attention.

Students at the Institute may be divided into three classes: there are those whose home is in Boston; those who reside out of town, and come into the city every day; and those who come from a distance, and are obliged to board here. A glance at the President's report will show that this class includes about one half of the whole body of students, and the number is

constantly increasing. Now, it is becoming a very difficult matter for these men to find suitable boarding-places convenient to our buildings, and at a reasonable price. Boarding near the Institute is very expensive; and as the necessary expenses of a student here are probably more than at any other college in the country, with the possible exception of Columbia, which is similarly situated, it is not desirable to increase these.

We think this is a matter in which the Faculty should take some interest, and we take this occasion of drawing their attention to it, making no attempt to suggest any plan for improvement. As the Corporation would probably be opposed to the building of dormitories themselves, they might induce some private party to erect one, in which he could let rooms to students here. Doubtless it would prove a good investment.

THE result of the radical and sweeping changes which have been recently made in the whole system of instruction in the analytical laboratory, will be awaited with interest. For the benefit of students who do not take chemistry, we will state that prior to the present term all chemists and miners, after performing between twenty and thirty qualitative analyses, have been expected to determine the amounts of the principal constituents in a similar number of substances of a composition known to the instructor. When the student's results agreed with those of the instructor within a limit varying with the character of the substance, they received a red mark; if otherwise, a blue mark—except when just on the limit, when a red and blue mark notified the analyst that his work was sufficiently accurate to obviate the necessity of a repetition. The number and kind of marks received fixed the standing of the stu-

dent, who, as a general thing, followed the modes of analysis laid down by the former professor in his analytical notes, and worked independently of other students.

Following are the principal features of the new regime stated by Prof. Drown in an address to the Junior chemists during the first week of the term, and explained in detail to the students in classes: 1. Students will hereafter work in classes on the same substance. No one will be allowed to get ahead so as to complete his work earlier than the others, as hitherto, but will be given, if necessary, extra work in the same line with the rest of the class. 2. The substance assigned each class will be of unknown composition. Each student will be required to make a duplicate analysis in each method he employs, and thus check his own results and those of the other members of the class. 3. Instead of adhering to any one system of analysis, every student will work out for himself, by consultation of all the leading authorities, the best method or methods for the substance in hand; and new modes of analysis will be assigned certain students for trial when deemed advantageous. 4. The old marking system will be practically abolished; but standings will be largely determined by an examination at the close of the term. 5. Special stress will hereafter be laid on sampling the substance to be analyzed. 6. In future, the student will be expected to be at work in the laboratory during the hours so assigned in the tabular view, whether present other hours or not, and attendance will be marked accordingly.

It is alleged, in favor of the foregoing changes, that students will learn much more by reading up a determination and discussing it in the class, and acquire more confidence in their own results by making duplicate analyses, than by repeating an analysis after a given method until it agrees with certain results; and that as it is impossible for a student to learn more than a comparatively small number of methods while at the Institute, greater attention should be paid to training him to formulate for himself, from the latest authorities, a method for any determina-

tion which may become necessary. It is also urged that by relating his work in the class, the student will learn how to describe such researches as he may make in after life.

The professor proposes to have the analytical work ultimately systematized, as follows: Sophomores: first term, qualitative analysis; second term, analysis of simple, natural, and artificial compounds. Juniors: first term, analysis of ores, etc.; second term, analysis of slags and more difficult substances.

WE are sure that no one who has examined the first number of *Technique* can fail to realize the immense amount of time and energy that must have been given by the editors to produce such a volume. And any one who has compared the book with the annuals of other colleges, must acknowledge that it reflects most creditably upon the body of students which it represents. We are sorry to be obliged to refer to the matter again in this way, but the fact is that the students of the Institute have not by any means fulfilled the expectations of the editors in their financial support. We hesitate to name the ridiculously small number of copies already sold, but will say that *at least one hundred more* must be sold in order to meet the actual expenses of publication.

There are literally *hundreds* of students in the Institute who have not taken a single copy, and we feel sure that after this plain statement of facts the majority of this number will appreciate the duty they owe to their fellow-students, and take at least one copy each.

Technique is on sale at THE TECH office whenever THE TECH is on delivery, and any orders left in the letter-rack addressed to H. C. Spaulding, with the amount (fifty cents) inclosed, will be promptly filled.

MESSRS. Solomon Sturges, '87, and A. S. Warren, '88, have been elected editors of THE TECH, and begin their duties with this number. This makes the editorial board complete, with the exception of a member from the Freshman class.

The Cruise of the Arethusa.

FIFTH PAPER.

FROM THE BRADORE HILLS THROUGH THE BRAS D'OR LAKES.

WE bade farewell to Cape Norman, August 2d, and started on our trip southward. One stop was to be made in Labrador, so after running a few miles down the Newfoundland coast we headed across the strait. During the early part of the day the breeze was favorable, but by afternoon it had died out completely; and when evening came the wind was "dead ahead." About nine o'clock in the evening we ran into Loup Bay, and anchored. The harbor is small, and not very well protected from the wind. The land round about is very much higher than it is on the Newfoundland coast opposite. On the northern side of the bay is a high hill whose sides are marked by three well-defined terraces. Back some distance stand the Bradore Hills, the highest land in this neighborhood. On the southern side of the harbor the hills are not as high.

Near the entrance of the bay is a small bight known as Schooner Cove and it is at this point that the settlement is situated. The inhabitants are mostly in the employment of a large London fishing firm having quite an extensive place here, and employing something like two hundred men. This same firm have other establishments in Labrador and Newfoundland.

Blanc Sablon, situated about fifteen miles west of Loup Bay, is the only post-office in this neighborhood; and as we had received no mail since the middle of June, we were naturally anxious to reach that place. On going on deck one morning we saw a small steamer at one of the wharves; on making inquiry, we found that

she was bound for Blanc Sablon that morning, and would be back the next night. Permission was readily given us to send a man along to get our mail. South of Loup Bay along the shore the rocks lie in a nearly horizontal position, and the action of the waves has produced some very pretty effects.

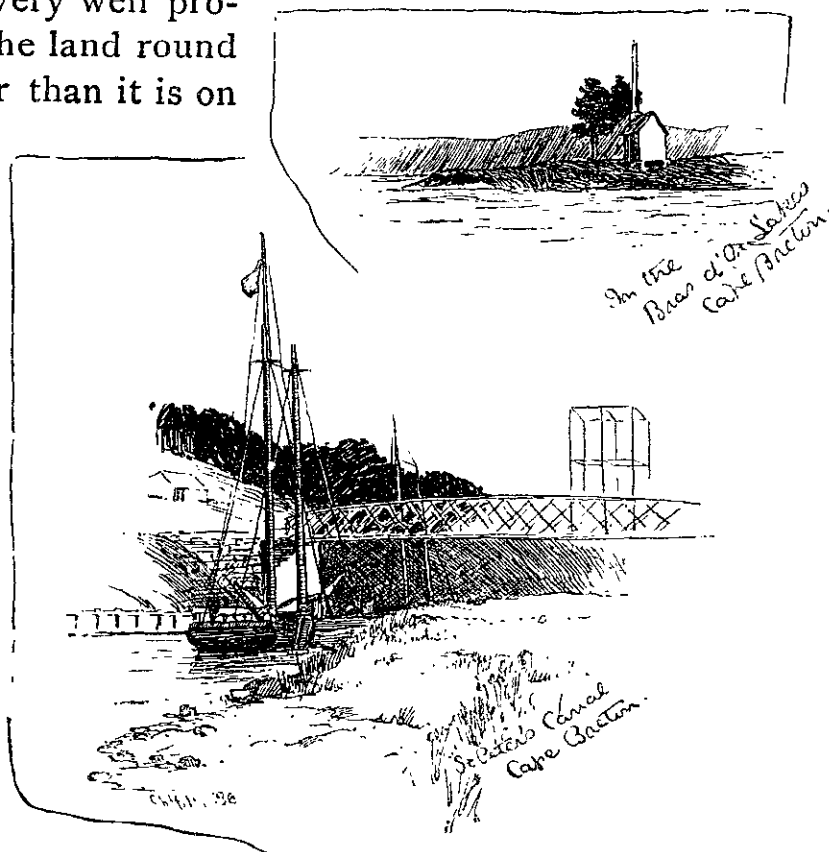
There is a graveyard here, situated under one of the cliffs, and it is certainly a curiosity, with its rough pine slabs for head-stones, upon which are carved inscriptions, the spelling of which has to be deciphered with considerable care in order to make anything out of it. True to agreement, the next evening the small steamer

brought our man back with the mail, and for a time the yacht's cabin presented a lively scene as the numerous letters and packages of papers were opened, to find out what had happened in the two months we had been shut off from the world, and the cheerfulness of things was increased by the thought that the next day would find us homeward bound.

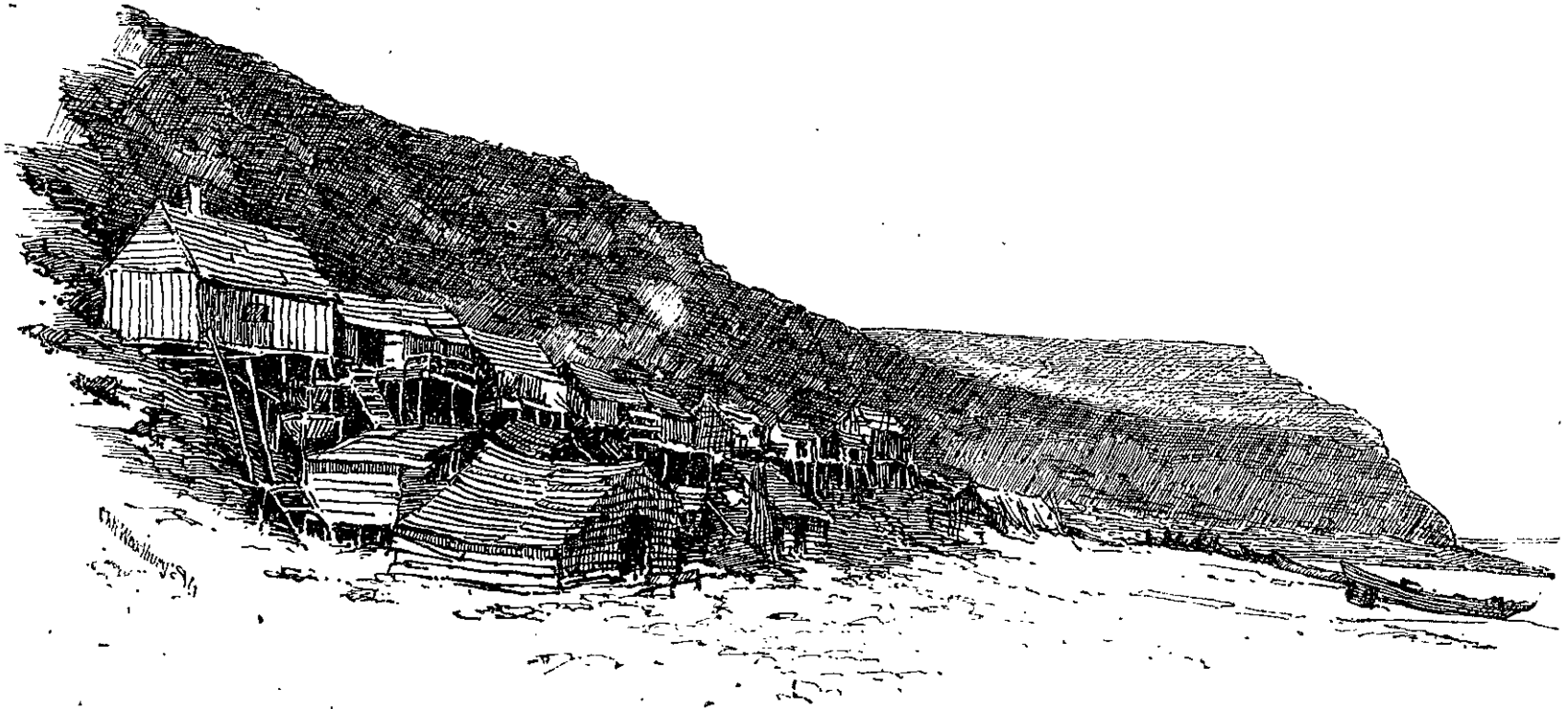
The breeze that greeted us next morning more than surpassed our fondest hopes. We ran directly across to the Newfoundland coast,—

a distance of about twenty miles,—when the log was set, and our course changed more to the south. All day long our breeze lasted, and we rapidly passed the familiar scenes of our up trip; and when we came to anchor that night, off Cow Head, our log registered one hundred and six miles, making our total run for that day about one hundred and twenty-five miles.

Next day we ran into the harbor of Cow Head, and anchored, in order to finish up some work that had been too rapidly passed over on our previous visit. Our stay here was limited to



IN THE BRAS D'OR.



FISHERMEN'S HUTS AT RED ISLAND.

one day; and when we started again the fates seemed to be against us, for it took us two days and a night to reach the entrance of Port au Port, only sixty-five miles from Cow Head. Our stop at Port au Port was, as at Cow Head, for one day only.

The wind had shifted around so that it was nearly dead ahead, and the idea of trying to beat to any of the Cape Breton harbors was not a pleasant one, so we made still another stop before leaving the Newfoundland coast for good. This time our anchorage was at Red Island, situated off the southwest coast of Newfoundland. This island is a small one, and is occupied by the French as a fishing station, under the charge of Capt. Dameron, who also has control of the other French stations along the west coast.

The fishermen are from Brittany and are of the most ignorant class, though the officers are fairly well educated. They live in little huts perched up on the side of a cliff. These huts are taken down when they leave in the fall, as the severe storms of winter cause the waves to wash well up against the cliff.

Formerly there were two beaches available for landing their fishing-boats; but last winter

one of them was entirely washed away, rendering useless the incline that ran from it to the top of the cliff. At the other beach there is also an incline, used for hauling up their dories and fishing-boats when the men are ready to leave for the season. Quite a number of boys are employed in spreading out the fish, and they receive the munificent sum of 100 francs a year for their work. To say the least, the fishermen are not pleasantly situated as regards some of their domestic necessities, for they are obliged to bring all their wood and water from the mainland; but they evidently got along very well without the latter, as they rarely drink it, and did not seem to think that it might be put to any other use. During our stay of a day and a half at Red Island, we wondered much at the ringing of a bell which we heard every little while; and upon going ashore to investigate, we found that it meant for one crowd or another of the men or boys to come and get a drink of very bad brandy, which was dealt out in a tin measure by a meek-looking young Frenchman, who very kindly offered to give us some; but desiring to reach our native land again we declined his offer with many thanks.

Some years ago the island was heavily wooded, but by some means or other all the trees were burnt off; and now, where the woods formerly stood have sprung up large patches of wild strawberry plants. Here, on the 13th of August, we picked the most delicious large berries, and in sufficient quantity to abundantly supply our table. From Cow Head along down we saw various large forest fires, and were told that they had been started in order to clear the land by some enterprising native, who simply started them; and if they only cleared off his place, it was of no concern to him whether any other's property was destroyed or not.

A run of a day and half brought us off the Cape Breton coast, near Cape North. The wind blew directly ahead for us on each coast, and so we anchored, and waited for a change.

The coast along here is high and well-wooded, presenting a beautiful appearance from the water.

When we got the desired breeze, we started down the eastern coast of Cape Breton for the famous Bras d'Or Lakes. This side of the island has not the wildness of the northern coast, and has many more harbors than the latter.

By evening we had reached the entrance of the Great Bras d'Or, where we anchored for the night.

The physical conformation of Cape Breton Island is peculiar, being divided into two portions, of very nearly equal size, by an arm of the sea, about seventy miles long, the two parts being united at the western end by a neck scarcely a mile wide. Several years ago this neck was cut by a canal, making the lakes a favorite route for trading-schooners and yachtsmen.

Next morning a short run brought us to Kelly Cove, as it is called, where we tried to find some person to take us through, as our own pilot was not familiar with the channel. We soon found a man willing to guide us. A fine easterly breeze drove us along as rapidly as we could desire.

The approach to the smaller, or Little Bras

d'Or, is exceedingly beautiful. The hills on either side are of graceful outline; on the lower slopes, here and there, are farm-houses and clearings, while the tops are covered with tuft-like forests. The scenery is very much like that of the Hudson, and the resemblance is much enhanced by the numbers of small islands with their little white lighthouses. As we opened the lake, palisade-like gypsum cliffs began to appear, adding greatly to the beauty of the scenery.

These gypsum cliffs are a prominent feature of the Cape Breton scenery. When the rock is first broken it has a rich creamy tint, but the action of the weather gradually tones it down to a light gray. By one o'clock we had reached Baddeck, the capital of Cape Breton Islands. On either side of the entrance of the harbor are lighthouses, and there, against a background of rolling green hills, lay Baddeck, a miniature seaport in a miniature sea. The city is complete, and has its ship-yards, wharves, custom-house, jail, suburbs, hotels, and all, yet it numbers only about one hundred houses, and a population of five hundred. We stopped here only a short time, in order to land our pilot, and then we continued.

The Little Bras d'Or is about ten miles square. It is connected with the Great Bras d'Or by Barra Strait, better known, perhaps, by the name of Grand Narrows.

The large lake is about fifteen miles in width. The northern side is dotted with picturesque little islands, while the southern side is lined with vertical gypsum cliffs. Taken altogether, a more beautiful and attractive place than the Bras d'Or for summer cruising would be hard to find.

After leaving the Great Bras d'Or we enter one of the most enjoyable portions of the lakes. The channel is narrow and tortuous, and the whole is filled with little islands, and the shores are indented with small coves. In going through this portion, short tacks and the greatest care are necessary to avoid getting aground.

By five o'clock in the evening we had reached the canal at St. Peters, but as it was Sunday

there was no chance of getting through that night, so we were obliged to wait until next morning.

We spent that evening strolling around in the vicinity, and when we had tired of walking, we sat on the bridge and listened to a vocal concert by some of the natives, though I regret to say the music was not exactly of an order best fitted for the Sabbath. Early Monday morning we went through the locks, and having paid our two cents a ton toll, left for Port Hawkesbury, where we were to obtain some necessary supplies. Our trip back down the Nova Scotia shore was uninteresting unless one takes pleasure in storms and head-winds.

Wednesday morning, August 26th, we passed Cape Sable, the southernmost point of Nova Scotia, and we were soon out of sight of the Cape Shore. Late in the afternoon the wind increased to a regular gale, compelling us to run under greatly reduced sail. By midnight the sea was tremendous, and many of the waves threw their spray entirely over the yacht, while some washed up enough to fill our standing-room completely. However, the full moon gave us light enough to enable us to continue; otherwise we should have been obliged to lay to, on account of the heavy sea and wind.

The next forenoon was a repetition of the past night, but by evening the breeze had abated considerably, and the sea was rapidly dying down.

That we had made considerable leeway we were aware, but our surprise was great when, at ten o'clock that evening, we made the Highland Light and the Nauset Beacons on the outside of Cape Cod. And now the breeze went to just the other extreme in a most exasperating manner, and left us all that night and until noon the following day in a calm. Along in the afternoon a light wind sprang up, and increased gradually, and by ten o'clock Friday night, August 28th, we were safely anchored in Annisquam harbor. Early Saturday morning we packed up our things and bade farewell to the yacht that had carried us in safety over so many waters.

B.

Banjo Mine.

Now the gloom of a mist-laden evening,
As the day's busy callings depart,
Turns my thought, unconstrain'd, into brooding
On the things that lie close to my heart.

Then come out of your leathern case, Banjo,
And, while resting your head on my knee,
Tune your strings to respond to my dreamings,
Let quick sympathy touch you through me.

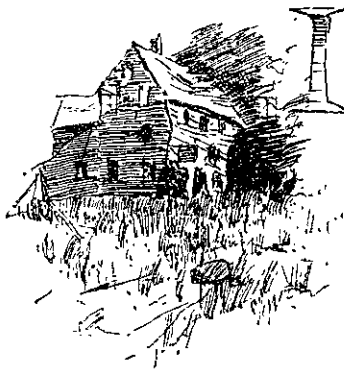
There are so many things I would tell you,
As you whisper your low, plaintive strain,—
Disappointments, and great, throbbing longings,
In a mingling of joy and of pain.

There are deeper and sweeter chords, Banjo,
Never finding expression in you;
It is only humanity's heart-strings
That will answer their vibrating true.

So I'll play with you till softer fancies
Lead the way to my innermost soul,—
Then go back to your leathern case, Banjo,
While my thought goes beyond your control.

G. K.

The Ghost of the "Old Turnpike."



HAVE a great liking for old roads — those abandoned highways which one finds so often in New England. From my boyhood I have always felt an uncontrollable impulse to explore everything in the semblance of a path, which chanced to attract my attention. Now, in maturer years, I find no more pleasant relaxation from the cares of stock-broking, than to stroll along some narrow path where the grass and bushes creep up lovingly, as if to hide this last trace of former noise and bustle.

Such a road as this I discovered in a little New Hampshire town, where I was spending a summer vacation several years ago. The "Old Turnpike," as it was called, was a part of the old stage-road, and in its earlier days had seen a great deal of busy, active life. But ten or twelve years before, the brook which flowed harmlessly beside the road had been turned by a great freshet into a raging torrent. Overflowing its banks, and tearing its way down the hills, it had cut out deep gullies, and tossed about

great boulders in wild confusion. Repair was hopeless, and the road had been abandoned to blackberry bushes and alders.

I discovered the path late one August afternoon, and set out joyfully on an exploring expedition. The anxious speculation which I had been making in regard to the troubles of the X. Y. & Z. Mining Company faded out of my mind, and the charm of the time and place gained complete possession of me. I picked my way carefully along the side of the deep gorge, where grass and wild vines had done their best to hide the ravages of the freshet. A little brook trickled along the bottom of the gorge, and I could smell the peppermint that grew upon its borders. Presently I came to higher ground, and the brook disappeared.

I strolled slowly along, now between tall pines, which grew up close to the walls on either side of the moss-grown road; now pushing my way through the birches, which had crowded up sociably, till there was nothing left of the highway but a narrow foot-path trodden occasionally by cows, or perhaps by boys on blackberry and fishing expeditions. Here the bushes disappeared, and a meadow, softly green in the afternoon sunlight, stretched away to the south and west. The brook, crossing the road leisurely, with a sublime indifference to the ruined culvert, flowed silently through the deep grass, its borders marked here and there by tall flags. Farther on, the road widened a little, and on a slight eminence, with an outlook over the meadow, stood an old, weather-beaten house. It had evidently been a tavern in old times, for it was quite an extensive establishment, but much of it was now in ruins. Lilacs were growing near the door, and "bouncing bets," blossomed under the windows.

I sat down upon the wall at a little distance, and gave myself up to fanciful speculation. Yes, I, a man of business, with a reputation among business men for keenness and practical sagacity, sat upon a wall, after the sun had gone down, and wove romances about the ruined tavern. The birds grew sociable, and a rabbit, which chanced to wander that way, after looking at

me a moment with indignant surprise, pursued his course, disdainful of any fear. I pictured the stage, with its four galloping horses, drawing up before the tavern door; the landlord bustling out to receive his guests and hear the latest news from the city; while the hostler watered the steaming horses. I saw the tavern-keeper's daughter stand in the doorway, and, shading her eyes with her hand, look eagerly down the road. I fancied her lover had been haying in the meadow, and she was watching for him to come to supper.

I was growing quite sentimental over the pretty daughter of the tavern-keeper (I was sure she was pretty, with yellow hair and a yellow dress), when suddenly I saw in a path a little way from my feet a small, leather-covered quarto. Stepping down from the wall, I picked it up cautiously. There was something witching about such a discovery in that lonely place, with the weird light of the setting sun and the rising moon falling upon the meadow and the ruined tavern.

It was a small manuscript book bound in alligator skin. I looked at it in a dazed kind of way for a moment; then, with the methodical habit of a business man, I turned mechanically to the fly-leaf for a name and address. The name was there—Millicent Armstrong—but nothing else. I turned the leaves. The book was filled with verses written in a clear, graceful hand. I read the first one, straining my eyes in the twilight. If I remember correctly, these were some of the verses:—

"The same sun rose each day last year,
The same earth smiled back her delight;
But since you watched it with me, dear,
The dawn has seemed more bright.

* * * * *

"The wild rose bloomed upon the wall last year,
And shed its fragrance thro' the summer air;
But since you plucked and gave one to me, dear,
All roses seemed more fair.

"My life was very glad and sweet last year,
And earth was lovely, friends were good and true;
But earth seems fairer, friends more true, my dear,
Since knowing, loving you."

There was more of it, which I cannot recall, and there were other poems following, which I read as long as I could see. It was not very good poetry, to be sure, but I thought it was remarkable for the tavern-keeper's daughter to write. I had no question whatever as to its having been written by any one else. It suddenly occurred to me that I had been reading what I had no business to read, and I began to be ashamed of myself. The girl who wrote the verses, whether she belonged to this century or the last, had spoken right out of her warm, unguarded heart, and I had been coolly listening. A whip-poor-will paused on the fence behind the lilacs, and sang persistently, "Shame on you! shame on you!"

I glanced up at the old house, and there, in the ruined doorway, stood the figure of a girl, tall and slender, with a crown of yellow hair, and yellow draperies floating around her. A shiver ran over me, and I stood rooted to the ground, gazing at the apparition. She shaded her eyes a moment and looked anxiously down the road, till, seeing me, she stepped over the door-stone and came toward me hesitatingly.

"Excuse me," she said, and her voice sounded clear and sweet as a bell-note, — "Excuse me, but I have lost a book, this afternoon. Have you seen anything in the road?"

With a mighty effort I collected my wits, and holding out the little yellow quarto, asked her if that was the one she had lost. She took it eagerly.

"Oh, I am so glad to find it! It is something which I value very highly. I thank you very much."

She was evidently not a ghost. She blushed in a very human manner when she spoke, and her hand, which touched mine as she took the book, was soft and warm.

"Isn't it late for you to be out alone in this deserted place?" I asked. "I thought you were a ghost."

She gave a queer little laugh, and looked at me without smiling.

"How do you know that I am not a ghost? The old house is said to be haunted."

"How interesting! Won't you tell me the story?"

The girl looked at me a moment somewhat scornfully. She was a beautiful creature, ghost or not.

"Aren't you afraid of ghost stories?" she asked.

"Oh, yes; but I like them all the better for that," I replied, without removing my fascinated gaze. She began, with a slightly malicious expression on her face: —

"The story goes, that the man who kept the tavern, seventy years ago, had a beautiful daughter, for whose marriage he had ambitious plans. But she gave her heart to a young man who worked on her father's farm. When the attachment was discovered, the irate parent turned the young man out of his house, and kept the daughter under strict surveillance. After wasting away in tears for some months, she finally escaped from her window by night, and was never heard of afterward. No trace of her was ever found, except a little yellow scarf, which was discovered on the borders of a pond a few miles from here. Whether she lost her way in the night and fell into the pond, or in despair drowned herself, no one ever knew."

The narrator paused, to see what was the effect of the story. I was listening unmoved, except by her beauty and her audacity, being convinced that she was extemporizing for my benefit.

"And the ghost?" I questioned, lost in admiration of a young woman who could stand at night, in such a lonely place, and regale a stranger with stories of supernatural visitations.

"It is said," she proceeded, "that the girl may be seen, on certain nights, standing in the doorway watching for her lover to come up from the meadow; and a sound of sobbing is sometimes heard from the chamber where she was confined by her cruel parent. This was the chamber up here," she explained, pointing to the nearest corner of the house.

"It is an exceedingly interesting story," said I, as she paused, "and I thank you very much for telling it. Now, unless you are the ghost

yourself, you must let me see you safely home. I think it isn't safe for you to be out alone so late in this lonely road."

"Thank you," said the lady, drawing herself up; "I am not at all afraid, and I prefer to go alone."

She drew her light wrap more closely about her and was moving away, when a strange noise, like a succession of gasping sobs, issued from the haunted chamber. The color fled from the haughty maiden's face, and with a scream of terror she clung trembling to my arm. I took her hand, which was cold with fright, and tried to comfort her, with the assurance that the noise was only the hooting of an owl. But it was some time before she regained her composure. Then she meekly submitted when I drew her hand through my arm, and pointed out the direction in which she wished to go.

I felt very triumphant, and exerted myself to be entertaining as we walked on through the woods, but my companion was very silent. The charm of her presence, however, was enough for me, and the light touch of her little hand upon my arm thrilled me with delight. Suddenly she paused, and withdrew her hand.

"Thank you for your protection," she said. "Good-night;" and turning away from me, she vanished in the hazel copse on the right of the path.

I stood petrified with astonishment for a moment. Had I been the subject of an hallucination, or the victim of a practical joke? A whip-poor-will called out mockingly from a distant wall, "Where is she now? where is she now?" I searched the copse for traces of a path, but the thick growth of bushes and the increasing darkness baffled all my efforts, and I had to give up the quest, and turned my steps unwillingly homeward.

At the hotel, that night, I made inquiries in regard to the guests staying in town. No Miss Armstrong had been heard of, and my landlady said she knew the names of every one who lived in the place. Judging from the interest which she took in my investigations, I thought it quite likely that she did.

During the week that followed I was like one distraught. I could think of nothing but my yellow-haired ghost, and pondered deeply over the mystery that invested her. Every day I made pilgrimages down the turnpike; I visited the old tavern at morning, noon, and night. I searched carefully for the path by which the girl had disappeared, but was unable ever to discover the hazel copse. I lost my appetite, was unable to sleep, and was so absent-minded that my friends remarked upon my altered demeanor.

One afternoon, in a melancholy and discouraged frame of mind, I wandered down the old road, still with the faint hope that the ghost would appear to me again. All was silent in and around the ruin. A few more bricks had fallen from one of the toppling chimneys, but there was no trace of ghostly or human visitant.

As I stood looking into one of the dismantled rooms, my attention was attracted by a pewee's nest, built above the door. Impelled by the old boyish spirit of discovery, I piled up some bricks, and climbed up to look into the nest. My footing was insecure, and I slipped, falling back heavily upon the floor. The rotten planks gave way, and there was a sudden crash and sinking. When I came to myself, I was lying in the cellar of the tavern with two heavy beams across my ankle, which was aching horribly. I tried to move the rubbish, but my wrist had been injured by the fall, so that I could not help myself in the least. The outlook was frightful. The pain grew worse every moment, and the chances of any one coming to my rescue were very few. How long I lay in this agony of body and mind I do not know. Sunset was fast coming on, when I heard a light step and a clear, flute-like whistle just outside the door. I thought it was some farmer's boy after the cows, but the whistle charmed me into silence, and I listened spellbound as the sounds came nearer. I heard a step on the door-stone; then a shadow darkened the entrance, and I looked up to see my ghost standing there, her hat in her hand, the last rays of the setting sun shining on her crown of golden hair, and the pale draperies floating around her like a mist.

I could not speak, and she did not see me at first, but seemed to be regarding with interest the fallen floor. Presently she gave a little cry of surprise, and leaned forward. I moved then, and spoke.

"Do you suppose you can help me out?" I asked. The girl who was not afraid to tell ghost stories by moonlight, was true to her character in this crisis. She climbed cautiously down over the *débris*, and, with a little effort on my part, succeeded in liberating me. To get out of the cellar was a much more difficult feat, for my sprained ankle and wrist rendered me almost helpless; and when at last I found myself on the grass outside the door, the pain overcame me, and I fainted again.

The vision which met my eyes with returning consciousness was very agreeable. The beautiful face bending over mine was full of solicitude, and the hand laid lightly on my wrist was very soft and white.

"Do you think you can walk a little way, with my assistance?" she asked kindly. "I hate to leave you here alone, while I go for more help."

I thought I could walk to the ends of the earth with such a divine support, and so we started out. Progressing slowly, with frequent stopping to rest, we came presently to the hazel copse, where we paused, and the lady remarked:

"There is a short cut here which leads to our house. It is a narrow path, but perhaps we can manage to get along. It is only a few steps."

We turned into the bushes, and after following an imperceptible track for a few minutes, we came into an open field, on the farther side of which stood a farm-house, and very soon I was resting on a sofa in the cool, pleasant parlor.

Even the experience of being carried ignominiously home in the farmer's wagon, and the prospect of two weeks, confinement with a sprained ankle, failed to dampen my delight at having unraveled the mystery of the ghost, and discovering her hiding-place. Once or twice during the ten days while I was recovering from my injuries, there came a message of

kindly inquiry from the farm-house, and when I was again able to go out, I turned my face thitherward.

The lady was sitting on the piazza, and received me most cordially. We talked about my accident, and the ruin, and she confessed to a romantic fondness for the place; "Else I shouldn't have been there that night when I first met you," she added, laughing.

"I have a confession to make about that night," I said.

"A confession!" and she smiled encouragingly. "What can it be?"

"You remember how I found your little book?" I began, plunging in desperately. "Well, I picked it up in the road, and read it half through before you came. Can you ever forgive the impertinence?"

She smiled again brightly and kindly.

"That is an offense easily forgiven. There was no harm done. I value the little book very highly, because—" she hesitated a little, and a beautiful color spread over her face—"because my husband wrote the verses when he was a boy in college, and gave them to me in the early days of our courtship."

I took my leave presently and hobbled home. There was a letter from my partner on the table, saying there was pressing need of my immediate return. New complications had arisen in regard to the X. Y. & Z. mining stock, and it might be necessary for me to make a Western trip at once.

I have never visited the "turnpike" again, though I still have a liking for the old roads.

L. E. T.

The class of '87 have elected Messrs. Kirkham, Shortall, and Sprague as their committee for the Senior Ball.

During the recent rain-storm, the ore-vault and furnace-room of the mining laboratory bore a strong resemblance to the streets of Boston.

During the winter months citizens living on North Avenue are annoyed by Harvard athletes, who use the avenue for a running-track.—*Cambridge Tribune.*

Love vs. Philosophy.

'Tis true that I have flirted
 With many a pretty girl,
 And praised each golden ringlet,
 And kissed each flowing curl.
 'Tis true that I have told them,
 As I gazed, with deep-drawn sigh,
 That with them life was heaven—
 Without them—I must die.
 But when they proved unfaithful,
 Perchance I may have sighed;
 But, really, 'pon my honor,
 I never really died.

God bless the dear, sweet creatures,
 They are my life—my pride;
 And I am only happy
 When sitting by their side;
 But then, they won't believe me,
 Whatever I may say;
 They tell me that my blarney
 Comes in a natural way.
 And though this conduct cruel
 May fill my soul with pain,
 I find that when I lose my heart,
 It soon comes back again.

A. S. W.

Noticeable Articles.

One of the best articles in the January magazines is the admirable one on "Darwinism and Democracy," in the *Fortnightly*, by W. S. Lilly. Mr. Lilly draws the line more clearly than I have ever seen it drawn, between true and false Darwinism—between the Darwinism of Darwin and the Darwinism of Hæckel and Paul Bert. "The cell," writes Hæckel "consists of matter called protoplasm, composed chiefly of carbon, with an admixture of hydrogen, nitrogen, and sulphur. These component parts, properly united, produce the soul and body of the animated world, and suitably nursed become man. With this single argument the mystery of the universe is explained, the Deity annulled, and a new era of infinite knowledge ushered in." "Others may occupy themselves," says Mr. Paul Bert, "if they will in seeking a nostrum to destroy the phylloxera; be it mine to find one to destroy the Christian religion." And that nostrum is supposed to have been found in popular Darwinism—the Darwinism, let me say, of Prof. Hæckel.

The difficulty is that this is not Darwinism, as Mr. Lilly, who is a profound believer in the genuine doctrines of Evolution, proceeds to show. "I accept, gratefully," he says, "all that Mr. Darwin can teach me about the facts of natural history. But he cannot

teach me that which he did not himself know, that of which he disclaimed all knowledge. A physicist, not a philosopher, he worked in the sphere of sense-perception. In metaphysics, in mental science, as is evident upon the face of his writings, he was quite unversed. He tells us explicitly that his system "is not concerned with the origin of spiritual or vital forces."

But the chief object of Mr. Lilly's paper is to draw the line between true and false democracy—between that national democracy which should be the faith of every enlightened political thinker, and the mad French democracy of Rousseau and the Jacobins, and to show how the one is the outcome of true Evolution, and finds its support in a genuine political philosophy, while the other tries to find support in what he, perhaps, not too strongly calls the "blasphemy and ferocity" of the medico-atheistic school of Hæckel and Paul Bert; and it is a bad omen for the success of free institutions in France, that the latter figures so prominently among her politicians.

There is not space here to give even the outlines of the argument by which the writer shows that the doctrine of Evolution, rightly understood, is the key to political science, and true philosophy of history. "Assuredly, modern democracy," he says, "if it is not to issue in a solution of the continuity of human progress, will have to ground its doctrine of human right, not upon theories, which depersonalize man, *but upon the primary fact of free-will and moral obligation which constitute him a person*; will have to desert its medico-atheistic teachers, and give ear to Kant, as in prophetic tones he warns this new age that without a God, and without a world invisible to us now, but hoped for, the glorious ideas of ethics may indeed be objects of approbation and admiration, but cannot be the springs of purpose and action." Students in the classes of history and political science will have heard something like this before.

In the same number, under the title of *Æsculapia Victrix*, Mr. R. Wilson gives an interesting account of the triumphant success of English women in securing for themselves equally with men, the privileges of the best and most thorough medical education. Beginning with the bitterest opposition on the part of the majority of masculine practitioners, they are now freely admitted to medical degrees, and have an admirably equipped school in London, and Mrs. Garrett Anderson is one of the best known and most successful of London practitioners.



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Under the title of "Impressions of a Modern Arcadian," Mrs. Nicholl gives an amusing account of the backwardness of our State of Virginia, to which she appears to have emigrated from England. Perhaps the worn-out Old Dominion will be one of the last of the Southern States to feel the great wave of material prosperity which is rapidly lifting them all out of the depression caused by slavery; but she will feel it sooner or later.

From England there comes the first number of a new periodical, *The English Historical Review*, and a remarkably handsome specimen of printing it is. Its purpose is explained in an interesting prefatory note. England, it seems, is the only one of the great countries of Europe that has no periodical exclusively devoted to the subject of history. And yet, "besides the thirty-five millions of the United Kingdom, there is in America and the British colonies and dependencies an English-speaking population of nearly seventy millions, who form, for purposes of literature, learning, and science, virtually one people with the inhabitants of the Old Country." Then follows a sketch of the different views as to the scope of history, and an outline of the plan of the journal, which is to be strictly scientific and non-partisan. The first article is a long one on German Schools of History, by Lord Acton, the learned Roman Catholic editor of the excellent old *British and Foreign Review*, read and respected by all scholars, until that remarkably stupid old Pope Pius IX., at the bidding of his Jesuit governors, put his foot on it as dangerously liberal.

Then follows an article by Prof. Freeman on the dark times which followed the downfall of Rome, and which he is studying and lecturing on at Oxford. The Cambridge History-Prof. Seeley follows, with a paper on the House of Bourbon. There is a department devoted to the notice of publication of historical documents, and another for the review of books, in which may be found an unfavorable comparison between the poor History of the Constitution, recently published by the veteran Bancroft, and the far better one of G. T. Curtis, now so long out of print. The vast extent of historical literature can be estimated by the twenty-three columns of titles of historical books recently published in all parts of the civilized world. The new journal will be indispensable to all serious students of history.

The Century for February has an illustrated account of that remarkable artist, Barye, whose beautiful

bronzes are known all over the civilized world. There is another on city dwellings in America, whose illustrations, and especially the picture of the Somerset Club House, are particularly good. In the "Dance in Place Congo," Mr. George W. Cable gives the music of various negro and creole songs. Mr. Howells begins a new novel, "The Minister's Charge," and Mr. James concludes "The Bostonians." And let no one who likes a good laugh, overlook Mammy Lendy's "scurdgeon" to see "de Smiffsonne Inschute," and her adventures there.

In the *Nineteenth Century* for January, Mr. Andrew Lang has a paper on "Myths and Mythologists," in which he advocates views similar to those in his recently-published interesting volume, "Custom and Myth," as against the extravagances of the solar theory of Max Müller and his disciple, Sir George Cox. Undoubtedly the solar theory has been ridden to death by the latter; but it does not follow that there is not a great deal in it. But Mr. Lang's writings cannot be overlooked by any student of this fascinating subject.

Mr. Frederic Harrison has a lively paper on "A Pedantic Nuisance," the nuisance being the fashion among modern historical writers of attempting to go back to the original form of ancient proper names. Mr. Harrison's temper is sorely tried by Mr. Grote's "Korkyra and Kiwkia," and Mr. Carlyle's "Kurfirst of Köln," and Mr. Freeman's "Cnut and Aelfthryth and Cantwara-byrig." He thinks we shall soon be invited to call Moses, Mōsheh, and Jacob, Ya'gób, and to talk about the Proverbs of Shélômôn, and Darayavush instead of Darius. He has certainly got more outlandish names together than ever were in article before.

The discussion of plans of federation for the widely-scattered members of the great British Empire has never ceased since the publication, in 1883, of Prof. Seeley's interesting little book, "The Expansion of England." Hon. Sir Edward Thwing writes on the *fallacy* of "Imperial Federation."

In *Lippincott's Magazine* for February, Mr. Dorman B. Eaton administers a well-deserved castigation to that pretentious and ill-tempered person, "Gail Hamilton," otherwise Abigail Dodge, for her ridiculous attack on Civil Service Reform.

In the *Atlantic* for February there is a thoughtful and valuable paper by Mr. Abbott Lawrence Lowell, entitled "Ministerial Responsibility and the Constitution," in which he undertakes to show, as against

Mr. Bagehot, the inapplicability of the British form of Cabinet Government to our system; and as against Mr. Wilson, in his recent clever book, "Congressional Government," he maintains that the tendency to centralisation has been by no means so great as Mr. Wilson believes. Whoever will read this paper along with Mr. Wilson's book and Mr. Bagehot's extremely able little book on the English Constitution, and will add to that, Mr. Horace Davis' recent tract in the Johns Hopkins series of "Historical Studies," will know a great deal more about the actual working of the English and American Governments than he did before. W. P. A.

Technics.

In German they say a man "gets the basket" when they mean he "gets the sack."

A LESSON IN FRENCH.

"This *baiser*—now, how would you express it?

I am sure that I never could guess it."

"Why, *to kiss*," he replied,

Sitting down by her side,

"And I wish on your lips to impress it."

G. K.

THINGS ONE WOULD RATHER HAVE LEFT UNSAID.

Dilgiddy, '89, to *Miss Prudence Peckleigh*, his fiancée: "Well, really, you *do* give the most unsatisfactory kisses of *any girl I ever knew!*"

Physics Lecturer: "We will now have some light."

Obfuscated Soph., despairingly: "We hope so!"

"More madding were his tones in love than strife.

His somber chords would lacerate the gale;

Nightly, mid bootjacks threatening his life,

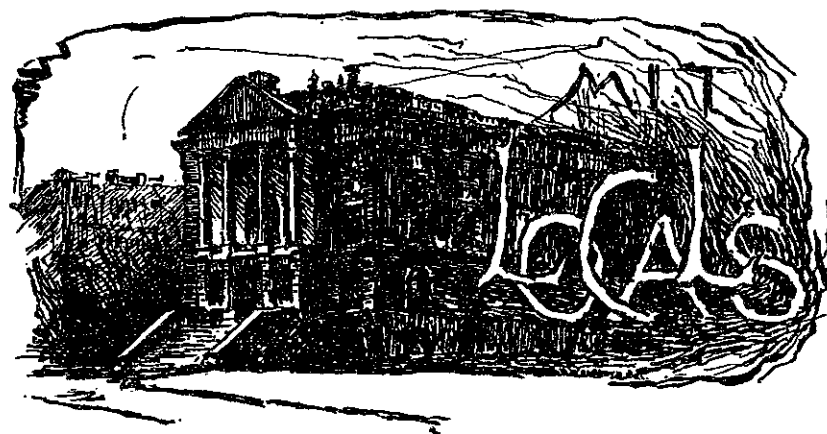
He kept the noiseful tenor of his wail."

—From *A Gray's Yellogy*.

A STOCK JOKE.

Scrubbe (to *Bliffins*, whom he finds industriously packing his trunk): "Hello, old man, what's up?"

Bliffins (the son of a stock-broker, and himself a member of the Brunswick Exchange): "Well, I find on examination that all my stocks are quoted at from 10 to 30 per cent below *pars*, and I can't get any indorsement but *Not Allowed*, so I thought I'd take a flyer for home while I have any margin left."



The "K₂S" will meet on the 19th.

Society of '89 met Saturday, February 13th.

'85 is to have a dinner at Young's, March 6th.

There is now \$128.65 in the treasury of the Athletic Club.

There will be no meeting of the Society of '87 during February.

New hand-fire extinguishers are being placed in Rogers Building.

The mechanical engineering laboratory is now lighted by electricity.

The Hammer and Tongs Club dined at Young's, February 13th.

The Orchestra are practicing steadily. We hope to hear more of them soon.

The Glee Club are planning to give a concert, of entirely college music, early in the term.

The February number of the Fraternity dance series was as great a success as its predecessor.

Prof. Gray, of Harvard, is delivering a course of lectures on "Business Law," before the Senior class.

The Junior Chemists have begun Chemical Philosophy, which is now, for the first time, a part of the regular third-year course.

Many of the Freshmen have become convinced that the Faculty don't regard the "Bright lexicon of youth" as authority.

'89's class-meeting was held on Friday the 12th. Messrs. Hobbs, Gilbert, and H. D. Smith were elected to the Senior Ball committee.

About thirty of the students in the Architectural Department attended a lecture on "Rome,"

at Dorchester, Wednesday the 10th, and "made Rome howl."

We regret to hear that F. A. Thomas has left the Institute. He left a fine record as pitcher, and led the batting in last year's nine, and the base-ball interests will feel his loss heavily.

Already there is quite a list of candidates for the base-ball team, and the interest which is being shown points toward a more successful season than any the Institute has experienced.

Membership tickets to the Athletic Club may be obtained on application to S. Sturges, '87. Members desiring "shingles" can obtain them from George C. Dempsey, '88.

President Walker says that the duty of the instructor in Political Economy is to teach, not to preach, and implies that this holds true for instructors in any science. Professors, please take note.

Prof. Drown is now away, engaged upon his duties in connection with the United States Mint. He will attend the meeting of the American Institute of Mining Engineers, at Pittsburg, before returning.

Several Juniors are planning to organize an Institute Chess Club, and hold an informal tournament before the close of the term. All students who would like to join, are invited to communicate with Mr. Jas. T. Greeley.

Prof. Cross describes certain branches of Optics as "fascinating." Assuming that a fascinating object is one hard to get away from, we believe that about a score of '87 men found Physics very fascinating indeed.

A prominent member of '88 is reported to have mistaken the date of his examination in English, and to have taken that on Constitutional History with the Juniors, supposing from the strange look of the paper, that he had taken insufficient notes. We haven't heard whether he received credit for it or not.

The Athletic Club held a meeting on Friday, February 5th, and elected Sturgis, '87, treasurer, to fill the vacancy caused by the withdrawal from the Institute of P. R. Fletcher. Messrs.

Robbins, '86, Shortall, '87, Dearborn, '88, and Durfee, '89, were appointed to select the tug-of-war team to represent the Institute in the coming open-to-all games.

The outlook for the "gentlemen's indoor meeting" was so dark, that the Athletic Club was compelled to give it up. At present there is no interest in wrestling at the Institute, and good sparrers seem to be scarce; but it is to be hoped that there are "dark horses" in training, who will make it interesting for all comers in the open games.

The Class of '87 held an enthusiastic meeting, February 6th. John L. Shortall, F. W. Sprague, and Guy Kirkham were elected to the Senior Ball Committee, and instructed to confer with the lower classes. Messrs. Todd, Sturges, Harris, Kirkham, and Draper were chosen as the Class Supper Committee, and Mr. Kirkham was elected to be toastmaster on that occasion. The class manifested a preference for Young's, "local option," and a \$2.50 limit.

The open games of the Athletic Club will be held in the Exeter Street Gymnasium, Saturday, February 27th. The following are the events to be contested:—

Open to all: Sparring, Feather, Light, and Middle Weights, Running and Standing High Jumps, Running High Kick, Fence and Pole Vaults, and Putting the Shot. Open to colleges only: Tug-of-war (600 pounds limit). Open to Institute men only: Parallel Bars. Entries may be made to the Treasurer. The entrance fee is 50 cents.

The class of '88 held a meeting on Wednesday, February 10, 1886, to elect committees for the Senior Ball and Class Supper, and to choose editors for the *Technique* of next year. The following men were elected:—Senior Ball Committee: H. J. Horn, J. A. Ferguson, and W. L. Dearborn. Committee on Class Supper: A. S. Bradley, C. A. Stone, G. U. G. Holman, L. B. Newell, and H. C. Moore. Editors of *Technique*: F. L. V. Hoppin, H. J. Horn, A. S. Warren, L. A. Ferguson, G. U. G. Holman, G. E. Claffin, Stejirau Fukuzawa, and H. G. Hodgkins.

THE COLLEGE WORLD.

HARVARD.—The Juniors have now two full eights in training for their class boat.—Thirty-six men took part in the election of captain of the University eleven. Mr. Brooks, '87, a member of the University crew, was elected.—No Freshmen have as yet appeared as candidates for the inter-collegiate team.—A bust of James Russell Lowell, executed by French, the sculptor of the John Harvard statue, has been placed in the west end of Memorial.—Harvard College paid \$28,000 last year as taxes to the city of Boston.

YALE.—The inter-collegiate team is training very carefully. Among the men are Brooks, Yale's champion sprinter, who will re-appear after an absence of over a year, and Ludington, who won the 120-yards hurdle race at the inter-collegiate games last May.—The *Yale News* publishes the total actual saving of two thirds of the members of the Co-operative Society there, placing it at \$2,341.35.—The committee on subscriptions for the new gymnasium have received, up to date, \$1,000 for the Undergraduate Gymnasium Fund, two members of the Senior class having subscribed \$500 each.—During Pres. Porter's term of office, the number of instructors has increased from 71 to 114; of students, from 755 to 1,076. The number of books in libraries, from 90,000 to 173,000. The buildings have doubled, and finally the funds of the college have increased 75 per cent; *i. e.*, over two million and a half have been given to the college in fifteen years.

CORNELL.—The Faculty has issued the following proclamation: "That, for the present, attendance at recitation and lectures shall be made voluntary for students of all classes.—The Trustees have voted to purchase 4,100 volumes as a foundation for the Law Library.—Ex-President White is now in London.

Our interesting series of articles entitled "The Cruise of the *Arethusa*," are by Mr. Charles L. Burlingham, of the Senior class, who was a member of the expedition.



TWO NEGATIVES.

She answered, "No." Tears rose to fill
Her bonny eyes; yet something still
Bade me stay on—perhaps the slight,
Soft pressure of her hand, which might
Have been her heart's own sweet "I will."

But ah! how hope died in the chill
Of that hard word! It dimmed the light
Of moon and stars, as, trembling, white,
She answered, "No."

Then loth to leave my love until
Essayed was all my lover's skill,
Her lily waist encircling quite,
I whispered, "Did I hear aright?"
When, softer than a song-bird's trill,
She answered, "No." *Century.*

SCENE IN RECITATION.

Instructor: "May I take your text-book, Mr. X.?"

Mr. X.: "Certainly, sir."

Instructor: "Mr. X., would you mind if I cut the leaves?"—*Lampoon.*

HER EYES.

Merry eyes, whose fringes
Curtain all their tinges;
Are they sad or are they gay?
Prythee tell me which, I pray.
Faith, there's much that hinges
On what they may say.
If they would but meet me,
Frankly, gaily greet me,
I would feel *distrain*,
Friendly eyes of gray.
But if eyes of gray should grow
Dark, impassioned as the glow
Of the purple in the skies,
Full of all that in them lies,
Blue as is the violet's hue,
Loving, glowing eyes of blue,
Could I know that these were you,
I would straightway tell her true.
—But her lashes hide her eyes,
Lest I should her heart surprise.

—*Yale Record.*



THE CIGARETTE: ITS ADHERENTS AND ITS OPPONENTS.

ROUGH ON THE CREW.

(Alice and Mary, new arrivals, on seeing the crew go by.)

Alice: "See the poor convicts; how young they look."

Mary: "Yes; but how wicked and depraved.—*Lampoon.*

Miss Clara: "Are you familiar with 'Dante's Divine Comedy?'"

Mr. K. (who is a sophomore): "No; I have never seen it. The fact is, Miss Clara, I think this comedy business is overdone. The sooner the stage returns to the legitimate drama, the better it will be for the profession.—*Academica.*

Wife (reading the paper): "Well, I declare, if that isn't the queerest thing I ever heard of"

Husband: "What's that?"

Wife: "Why, here in the paper is an account of a wedding up in Manchester, and among the wedding presents was a bull-terrier, given to the bride by her father."

Husband: "I don't see anything odd about that. She was the old man's youngest daughter, wasn't she?"

Wife: "Yes; but what's that got to do with it?"

Husband: "Why, of course, if she and all the rest were married, he had no further use for the dog."—*Somerville Journal.*

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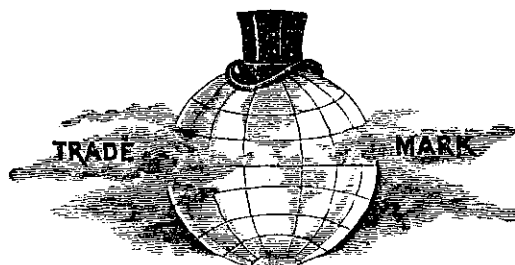
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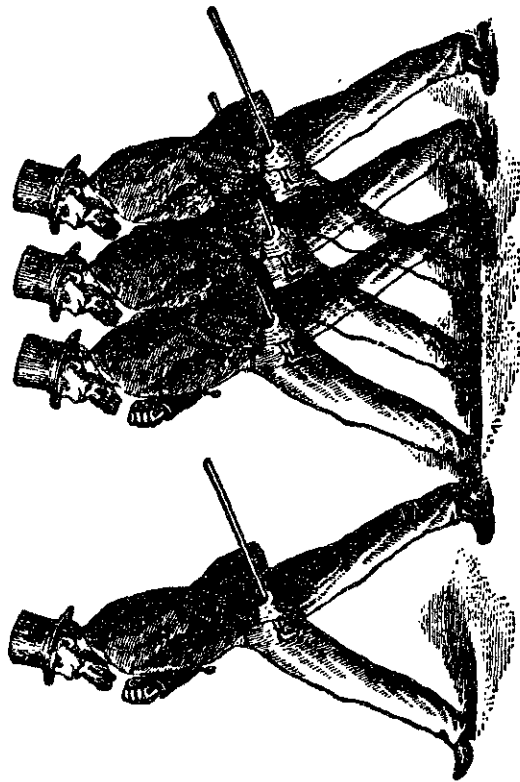
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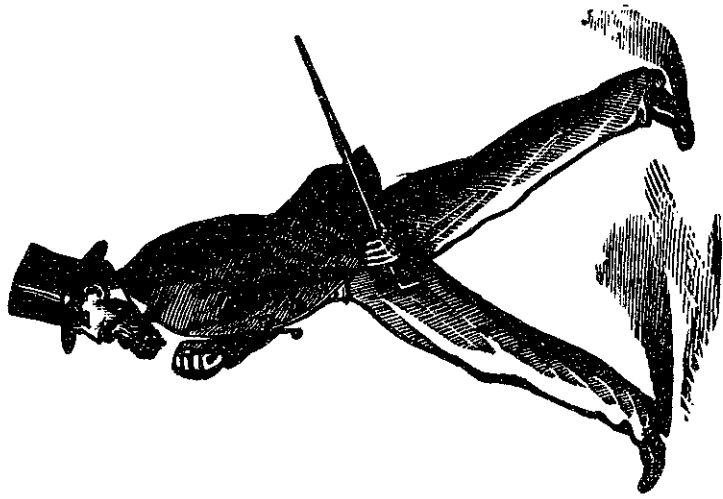
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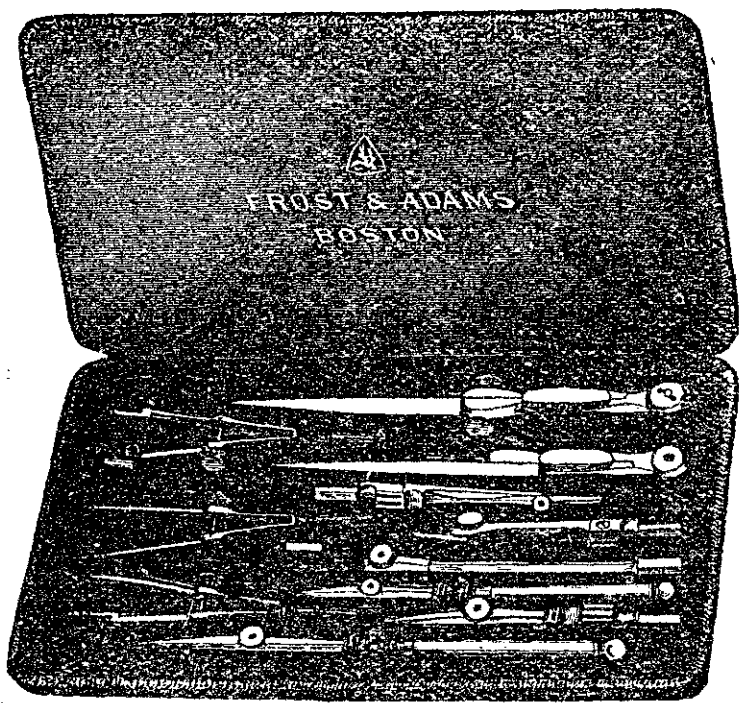
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