

APRIL 18,
1883.
Vol. II. No. 14.

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The Tech.

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BOSTON, APRIL 18, 1883.

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THE TECH.

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

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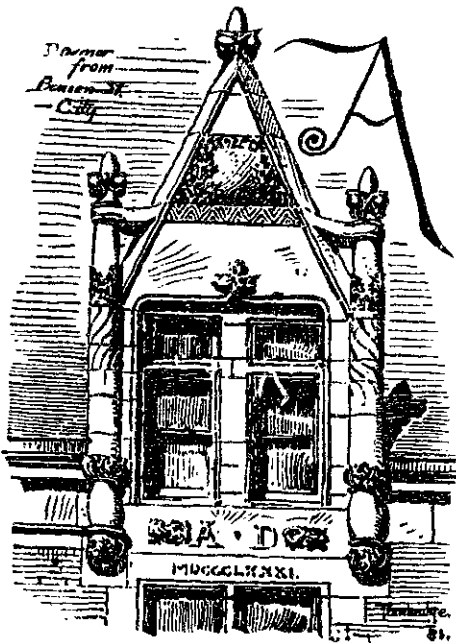
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It requires considerable damming before a turbulent, roaring brook can be converted into a placid mill-pond, so in the case of the recent disturbance there seems to have been necessitated the expression of a considerable amount of ill-feeling and a mild vituperation of '86 in general, and her recent doings in particular, before the injured dignity of various upper-class men could be appeased and the usual quiet restored. It may be that both '86 and the gymnasium committee have learned a little something, and, that being sufficient, the whole matter will be dropped, which we sincerely hope will be done. '86 has certainly been waked up, and although she may not have been *punished* exactly as has been desired, yet she must be conscious of the

error of her previous ways, and will be glad to promise better for the future. Punishment amounts to little unless it reforms the culprit, which in this case appears to have been done, and upper-class wrath should thereby be appeased.

As the class is desirous of making up, she should certainly be admitted to partnership in the annual ball, and be given this opportunity to prove herself to be made of the true metal, and not merely of brass, as some would have us believe.

WE are glad to be able to announce that preparations for the annual ball are begun. The committees from '84, '85, and '86 have been appointed, and they are now at work. From the experience of preceding years we think the earlier part of April the best time for the ball, but it appears that this year the date must fall in May. We should earnestly advise that preparations be made as hurriedly as may be consistent with a successful ball.

THE action of certain men who dropped pepper upon the floor of the gymnasium during the Freshman dance was as contemptible as it was ungentlemanly, doubly so by being perpetrated in the presence of so many ladies. The affair is particularly unfortunate, inasmuch as it lays open to suspicion a number of men who, however zealously they may support the decision of the recent mass-meeting, would be incapable of so small an act.

WE are sorry that '83 has slid off the sublime pinnacle of morality to which it had attained upon the subject of a class supper. The extreme dryness of the moral atmosphere at this altitude appears to have been too much for the average Senior.

The Providence Water Works.

AMONG the number of excursions made during the past winter by the civil engineering department, the last is thought to have been the most successful. On this occasion the trip was to Providence to examine the extensive water works of which that city is justly proud.

The Corliss engine works were first visited, where was seen the famous sewer pump capable of pumping twenty-five million gallons daily. After looking over the works carefully, the visitors made their way to the City Hall, where, by letter of introduction, they made themselves and their object known to Mr. Weston, of the city civil engineers' department, and it was through him that the excursion was made a success. Mr. Weston produced charts of the city, showing the district division and plan of distributing pipes, tracings, and blue copies of the numberless details, and explained the principal points of each as far as time would allow; thus a thorough insight of the system was obtained before the out-door investigation began.

Providence has a population of 117,000, and has a water supply of 25,000,000 gallons per diem. The water is received from the Pawtuxet River, which has a drainage area of about two hundred and eighty square miles, and is thence pumped into two large reservoirs, from which the city is supplied by the gravitation system.

Of these two reservoirs, the Hope, or high-service reservoir, is situated at the north end of the city, and, by a head of one hundred and seventy-two feet, supplies the high districts, or those more than eighty-five feet above high water. The Sockanossett, or low-service reservoir, lies about eight and one half miles south of Providence, and, with a head of one hundred and eighty feet, supplies the lower districts.

The pumping station at Hope reservoir is supplied with two large pumps, — the Nagle, with a capacity of about 87,000,000, and the Corliss, with a capacity of 25,000,000, the latter being the one then in use. Cuts showing the front and side elevation of the Nagle may

be seen in "Fanning's Treatise on Hydraulics," pages 377 and 573. The Hope reservoir is so connected with the main pipe as to act as a sort of stand-pipe, regulating the flow.

The Sockanossett pumping stations are three in number, situated at Petaconsett, about one half mile below the reservoir, on the banks of the river. The only engine now used is the new Corliss, which has a capacity of about 20,000,000. It has four large pumps suspended directly in the river, a fly-wheel twenty-five feet in diameter, and now pumps about 9,000,000 gallons daily. The Worthington engine, at the old station, pumps about the same amount as the Corliss, but at a greater expense.

The Cornish station is a most elaborate building, intended for three engines, each of 25,000,000 capacity. This piece of machinery is gigantic, its piston being about six and one half feet in diameter. Of the \$8,000,000 appropriated for the complete system, this one engine consumed \$250,000, while the whole Corliss station, where twice the work is done, was put up at a less price.

The water is pumped directly from the river, passing through fine strainers to take out the coarser material held in suspension into 36-inch pipes, and thence into the reservoir, one hundred and eighty feet above; from this it flows through the mains into the city.

The main pipes vary in diameter from sixteen inches to six inches, according to the population of the districts in which they are to be placed. The service pipes are of lead, and are put in by licensed plumbers. Hydrants are situated about five hundred feet apart.

The two important questions in water supply are quantity and quality. As to quantity it is very evident that there is sufficient to supply the city for years to come, and, as the works are most complete in condition and management, there is no fear in that direction. As to the latter question, there remains some doubt in the minds of the visitors. When the river is low the clearness and taste are remarkable, but when swollen by the heavy rains it would seem

that some process of filtration, or at least sub-
sidiation, would be necessary.

The city has little faith in the filtration system, and does not wish to undergo the great expense unless it should obtain better results than those reached by some of our other larger cities where this system has been adopted. It is also claimed that the reservoirs act as settling basins.

Providence consumes only about thirty gallons *per capita* per day, while Boston is not satisfied with three times that amount. Mr. Weston claims that this great saving is due to the extensive use of house meters. Perhaps if Boston would adopt the use of meters, at least district meters, the city might be saved from the many contentions which have arisen with surrounding towns. Mr. Weston is soon to publish a complete work on the Providence water works. c.

Mechanical Wood Carving.

MR. EDITOR, — Thinking that a few notes about a new mechanical process of wood carving might interest some of your readers, I made some inquiries concerning it.

The process has been in operation for some time, by which designs are stamped upon wood by means of hydraulic pressure on dies applied to the end of the grain. The results of this process are unsatisfactory, — the size of the pieces being very limited and the end of the grain taking a different finish from the rest of the work. In the present process, the design is "carved" on the surface of wood so prepared that the fibre is not injured by the pressure on it.

With some difficulty I gained admission to the works in which the operation is carried on. As the proprietors are unwilling for details to be known, I give a mere outline of the process.

The wood is first heated for thirty hours; it is then treated with a preparation, which, without staining, renders it capable of receiving the design without injury to the fibre. It is then reheated for twelve hours, when it is ready for

the operation. The designs are cut on cylinders made of a peculiar preparation resembling bell metal; these cylinders vary in diameter according to the length of the design. The prepared wood is passed between the cut roll, which is heated, and a plain one, being at the same time subjected to considerable pressure, applied by means of a foot-lever. The gentleman who accompanied me through the establishment assured me that the prepared wood had no tendency to return to its original form.

The depth of the designs do not generally exceed an eighth of an inch; they can, however, be made three sixteenths. The carvings thus made are very numerous, and, at a short distance, cannot be distinguished from hand-carving. Many of them are pretty. The surface carved may be flat, convex, concave, or at any angle; the width and thickness being limited only by the size of the machine. Panels of various sizes can also be made. The process works equally well with any wood, one kind requiring more pressure than another. The machine and various preparations used are covered by patents under the control of the New England Decorating Machine Company, to whose kindness I am indebted for most of my information.

This invention will probably reduce the cost to less than one tenth of that paid for hand-work of this class.

The work made is as yet chiefly mouldings for the interior decoration of houses and cars; ornaments for furniture, and such work as embossed picture frames, book covers, etc., may also be made by this process. c. w.

A diner-out, who has had more than his share of the wine, is carefully feeling his way home at night, when he unfortunately stumbles against the circular railing which surrounds a statue. After having gone around it seven times, the hopelessness of his situation flashes upon him with vividness, and he sinks down upon the pavement outside with a despairing shriek. "The scoundrels; they shut me in here!" — *Ex.*

'86 Class Supper.*

AT about 7.30 o'clock on the evening of April 4, the members of '86 began to assemble in one of the private reception rooms at Young's Hotel.

A few minutes past eight, after having duly organized and prepared the mode of attack, and headed by the committee, fifty-two members of the class wended their way toward the capacious dining-hall.

After a few remarks from the president, Mr. Gamwell, '86 sat down to its first class supper and its first lesson in hotel French. For two hours the determined men kept up their attack on the *removes, entrés, sweets, etc., etc.*, but the supply seemed inexhaustible, and they were compelled to give up.

After the dessert had been disposed of, the president rose, and in a few choice words introduced Mr. C. C. Peirce as toast-master of the evening. Mr. Peirce, after a few remarks on the life, character, and deeds of the founder of the Institute, called upon all to drink to the memory of their friend and benefactor, Prof. William B. Rogers.

The *Institute* was then proposed, and responded to by Mr. Wood.

Then followed *Our Instructors*, responded to by Mr. Leach. He congratulated the students on their instructors, and recalled many pleasant reminiscences of school life.

At this point the toast-master was guilty of making the first pun. It was something about '86 being poor but still having *Nichols*, — but our pen refuses to write it.

Mr. Richardson was then called to respond to the *Class of '86*.

The remaining toasts were proposed and responded to as follows: —

The Tech. — Mr. Gamwell.

C. C. M. I. T., — Mr. Locke.

The Upper Classes, — Mr. Chase.

Our Lady Friends, — Mr. S. R. Bartlett.

* [We consider this a model account. It is not too long, it is correctly spelled, and there are some nice jokes. We invite the careful attention of '87. — Eds.]

The Athletic Club, — Mr. Winsor.

Our Next Year Mechanicals, — Mr. Tilton.

Our Next Year Civils, — Mr. Ricker.

Our Next Year Chemists, — Mr. Low.

Sigma Chi, — Mr. Boss.

The president then remarked that, as we had already toasted the *C. C. M. I. T.*, he would propose the toast *C. C. Peirce*.

The toasts were responded to in a very pleasing manner, many of the responses being quite witty, and all received with enthusiasm.

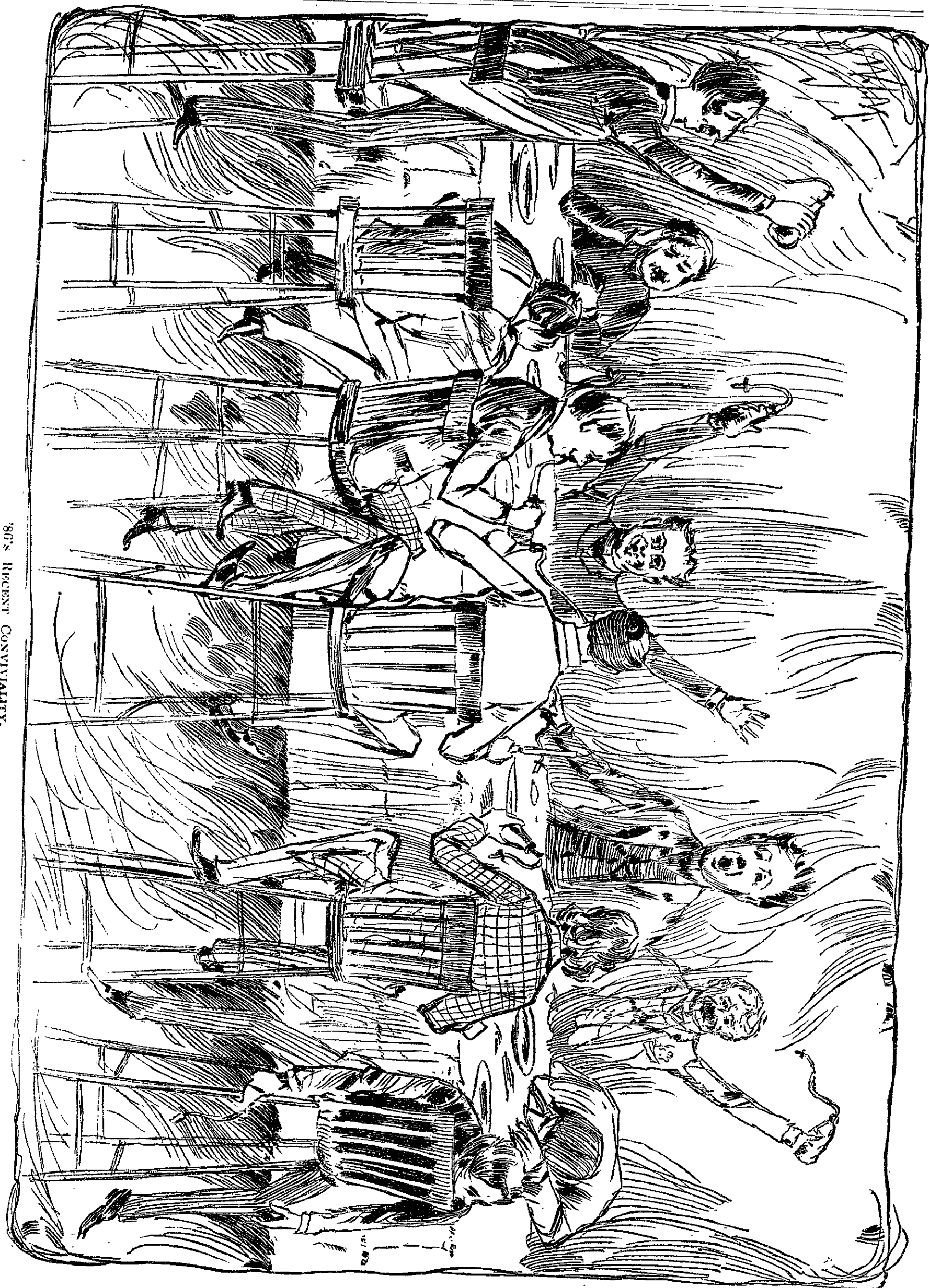
The remainder of the evening was devoted to music and conversation, and, as the clock struck twelve, the revellers dispersed, all pronouncing the first class supper a first-class one and a decided success.

The Exhibition Drill and Dance.

THE Cadets gave their first exhibition drill and dance Saturday afternoon, April 7, at the gymnasium. In spite of the unpropitious weather a large number of the friends of the Cadets were present.

The drill consisted wholly of battalion movements, company drill being left out altogether. A very pleasant feature was the loadings and firings, which were finely executed throughout. The drill concluded with a dress parade, after which ranks were broken, and, at about 2.30 dancing began, Edmands's orchestra furnishing the music.

Maj. C. R. Richards acted as floor manager, with the following aids: Capt. F. L. Locke, Sergt. J. C. Duff, Lieut. C. C. Doe, Lieut. E. J. Wilson, Corp. F. E. Wetherbee, Lieut. A. E. Leach, Musician C. F. Richardson, and Adj. A. H. Brown. The reception committee consisted of Capt. N. G. Robertson and Lieut. J. G. Howard. Four policemen were in attendance to prevent any disturbances which it was feared might arise. In spite of the endeavors of a few — who, it is presumed, style themselves *gentlemen* — to break up the dancing by scattering red pepper on the floor, and by previously attempting to cancel the contract with Mr. Edmands, the affair was a complete success.



86'S RECENT CONVIVIALTY.

An Heroic Defence.

IT was a wild, tempestuous night; the inky blackness of the cloud-daubed firmament was broken only by the blinding flash of the lightning, which, with the deafening roll and crash of the thunder, seemed at each discharge to rend the pall of the heavens as though it were of stone, and through the fissures thus torn by the fury of the elements there was given for an instant a glimpse as of some terrible and infernal region filled with liquid fire.

The rain fell in torrents, the wind, almost a hurricane, howling and tearing across a dark stretch of inland waters, then rushing across the bleak land that was gradually pushing itself out into the watery waste, beat and roared with demoniac glee around a long, low building that reared itself across its path. Well might the awful battle of the elements inspire terror in the inhabitants of this building; but let us enter and look about us.

The blackness inside is intense. We grope our way to one corner, and about a dying fire in a tall stove we see a number of forms with blanched faces, yet withal possessing a determined expression, which tells of firm and high resolves and noble natures framed for daring deeds. Little they care for the elemental strife without; though the building shake and rock at every blast they fear not, they have but one thought: 't is of their duty.

We approach nearer, and perceive that these bold hearts are soldiers, veterans of many wars they must be, to preserve in such a crisis so dauntless a demeanor. We see their arms stacked near them, with bayonets glancing in the lightning's flash; their drawn swords lie beside them; around them are conical heaps of bullets, piles of shot, flasks of powder, cartridges, torpedoes, packages of dynamite, bales of gun-cotton, and near by we dimly see the black muzzles of guns, mounted pieces, howitzers, mortars, Gatling guns. All seems prepared for a terrific strife.

Do these unconquerable heroes expect to be attacked? Have they the fear of human strength

and hatred added to the terrors of nature without? Can heart be found that will not quail before all these? Brave men indeed, worthy they to be ranked among the world's heroes! Let us honor them. But why are they here? Whom do they fear? For what reason do they prepare to defend this building to the death? Let us await in patience.

They sit in silence, listening in the lulls of the blast for the sound of their approaching foes. Now they start and whisper, glance towards their arms, but in a moment sink back reassured, — a false alarm.

We wait in the darkness. Hour after hour passes, but still the valiant sentinel hold their posts. At last the wished-for light of morning breaks in upon the scene, the storm abates, the wind sinks, and the weary night is passed. We watch intently, and gradually make out the forms before us. We see the silver ornaments upon their caps, their dark, finely fitting uniforms, their dark buttons that give no glitter to warn their foes. Do we recognize them? But, before we have a chance to speak, one of the heroes rises, lifts his arms towards heaven, and, fetching a yawn that would do credit to an alligator, says: "Fellows, the gymnasium is safe! The dance can now go on! No Soph. or Senior has dared disturb us! They are cowards! We have conquered! Here comes the janitor!"

ALL HAIL.

In days of old, when knights were bold,
The brave Horatius fought for Rome;
In days of new, when knights are few,
We find as bold a deed near home.

'T was bold, no doubt, the foes to flout,
And from the Tiber be fished out;
But bolder yet, on night so wet,
To guard the gym. from such a set.

All honor be to such as he,
Who saved old Rome, but soused his pants;
And honor him who kept the gym.
The night before the Freshman dance.

Considerable interest is being developed on the subject of an Institute base-ball team for this year.

Athletics.

THE college base-ball season has fairly opened, and despite the many prophecies of the downfall of our national game from the college lists that arose from the decision of some of the college faculties in prohibiting professional coaching and games with professional clubs, the prospects for the season of 1883 are fully as bright as those of former years. Of the college league, Amherst will have about the same nine as that of last year, the position of catcher being the only important change.

At Brown there is, to say the least, a hopeful feeling among base-ball men, and, if we may judge from present appearances, she will make a hard struggle for the championship this year.

Harvard, though handicapped by the late law forbidding playing with professionals, has been able to arrange a number of practice games with neighboring amateur clubs, and will undoubtedly put a strong team in the field.

Princeton labors under the same disadvantage, and has no amateur nines accessible to offset this drawback. Nevertheless, she has a number of good men on her nine, and will in all probability stand well in the coming contest.

Yale has lost five of her men, and will probably not present as good a team as last year. It is, however, rather early yet to prophecy.

Dartmouth, Cornell, and Columbia, though not in the league, will also be represented in the diamond field.

The Institute will have no regular team this year, our lack of gymnasium room and early intermission making the practice requisite for a good team impossible.

Although there will be no regular Institute team, arrangements are being made for a series of games among teams from the different classes. These, of course, must be played with but little previous practice, but may be made interesting, at least.

Our recent adversaries, the Lynn Crescent tug-of-war team, a short time since met and

pretty effectually pulled the South Boston Athletic tug-of-war team, thus winning the New England light-weight tug-of-war championship.

Department Notes.

A VERY pleasant excursion was made by the entire Architectural Department last Saturday, to North Easton, where, under the direction of Mr. Turner, color sketches were made of several of Mr. Richardson's buildings, which are situated there.

The first-year men are hard at work upon the loggia problem.

One of the students photographed the frontispiece designs last week, and obtained very good negatives.

All the drawings which have been done this year by the department are now on exhibition in the library.

We are glad to hear that Mr. Turner will continue to give instruction in water-color sketching for the rest of the term.

The department was honored last week by a visit from some young ladies from Wellesley, who seemed very much interested in affairs of the Institute in general.

The miles of railroad reported built this year is less than in any year since 1879.

The *Engineering News*, April 7, has an interesting account of the oldest iron bridge in the United States.

The death of Peter Cooper removes one of the American railroad pioneers. He was the first locomotive builder in America.

The longest continuous trip ever made in Europe, by rail, was between Calais and Rome, a distance of 1,400 miles, made last month.

The third-year Civils this spring frequently spend Saturday afternoons at work in the field. When so near the annuals it is pretty hard not to have one afternoon in the week for other purposes.

The *Railroad Gazette*, of March 30, contains an editorial on "The Card Catalogue as an Index for Notes, Memoranda, etc.," which students will find it worth while to read.

The *American Machinist*, of April 7, contains much which should interest our mechanical students. "Southern Competition in Cotton Goods," "Creep in Machine Belts," "Methods of Holding Eccentrics" (in "shop kinks"), and "Forced vs. Natural Draught," are some of the articles deserving notice; and, in the issue of April 21, a description of "Melvin's Compound High-Speed Steam Engine" will be found worthy of perusal.

We clip the following from the *Commercial Bulletin*: "The extraordinary interest which is now being excited on the subject of fancy and original designs for American woollen goods, and the extent to which overseers, and designers, and ambitious students everywhere are practising upon new weaves, gives promise of the eventual formation of an American school of design which shall surpass anything of the kind in Europe. At the Institute of Technology, in this city, several of the pupils in the department of designing and weaving are sons of practical woollen manufacturers, among them being Messrs. Cushman, of Monson, Mass.; Dillon, of Springfield, Vt.; and Appleyard, of Guilford, Me. Among next year's pupils will be a son of Mr. Grant, of the Plymouth (Mass.) Woollen Mills. The interest which other practical manufacturers and machinery men take in this school is indicated by recent gifts of 48 harnesses, 10,000 heddles, and 14 reeds by Messrs. J. H. & N. A. Williams, of Utica, N. Y.; and one of Knowles's latest 25-harness looms, with all necessary equipments, donated by Messrs. L. J. Knowles & Bro., of Worcester, Mass. The weave-room of the Institute now contains looms adapted for all the leading kinds of cotton, wool, or worsted fabrics, and the weaving is in charge of Mr. John Scott, Jr."

In a recent discussion of the question of technical education, a gentleman, who is now the head of a large machine shop, remarked that

nothing which he ever learned was as useful to him as drawing, both before and since he had become a manager of engineering works. During the days that he was an employé he found it a resource that could always be turned to account, and, since then, his success as a constructor of machinery had been largely due to his knowledge of drawing. Considering its usefulness, it is somewhat surprising how few mechanics in this country know anything about it. Within the last few years the demand for good mechanical draughtsmen has been in excess of the supply, and any man of fair skill could command good wages. It is safe to say that a large majority of the engineering and mechanical draughtsmen in this country are foreigners, principally Germans, Swedes, and English. Very few American mechanics ever learn to draw, and, in fact, there are very few opportunities afforded to mechanics in most places in this country to learn drawing. — *Railroad Gazette*.

A new departure in cabinet work is the production by machinery of designs in relief upon wood, which can hardly be distinguished from the results of good hand-carving. The process consists in softening the fibre of the wood by a chemical preparation, and stamping the required designs upon its surface by means of heated dies. By this process veneered work can be carved, and by regulating the pressure the harder woods, such as maple, will receive as clear an impression as that imparted to soft walnut. A series of engravings published in the *Manufacturers' Gazette*, for March 17, will give an idea of the ordinary forms of mouldings that can be produced in this way. It is said that a rosette which would cost \$1.25 to cut by hand can be turned out by the machine for ten cents; and a panel twelve inches long, which would take a carver ten hours to work, and which would cost \$3.00, can be furnished for twenty cents. Several of these machines are now in operation at No. 682 Harrison Avenue.

[See account by a correspondent in another column. — Eds.]

Noticeable Articles.

NINETEENTH CENTURY, for March. — "A few Words about the Eighteenth Century," by Frederic Harrison, — a lively defence of the century against the abuse of Carlyle. "The stormy antipathies of Thomas Carlyle have to answer for many a miscarriage of historical justice, but for none more unfounded than for the superior air with which he teaches the nineteenth century to sit in judgment on the eighteenth."

"Wagner and Wagnerism," by Edmund Gurney, — a refreshing protest.

CONTEMPORARY, for March. — "Miss Burney's (Madame D'Arblay) Own Story," by Mary E. Christie, — a pleasant paper on the earliest of modern female novelists, whose "Evelina" is still worth reading as a picture of the manners of the Johnsonian period. Compare Macaulay's paper about her.

"Siena," by James Capper, — a description of one of the famous North Italian cities as it was and as it is.

"The Limits of Science," by George Edmundston, — a short paper which will give the student of science a good deal to think about.

FORTNIGHTLY, for March. — "A Democrat on the Coming Democracy," by H. Labouchère, M. P., — interesting, as expressing the views and objects of the English Radical party.

"The Future of English Universities," by Prof. James Bryce, — a bitter complaint of the shortcomings of English university reform, by the very able author of "The Holy Roman Empire."

"Brazil and her Railways," by Charles Waring, — a very interesting account of the magnificent country which is, *perhaps*, destined to be the seat of a great nation when Macaulay's famous New Zealander is musing on that broken arch of London Bridge.

THE CENTURY, for April. — "Emerson," by E. C. Stedman, — a critical paper, with an engraving of the best photograph of Emerson ever taken.

THE CORNHILL, for March. — "Boys." "As an humble student of savage life, I have found it necessary to make researches into the manners and customs of boys."

THE ATLANTIC, for April. — "Pillow-Smoothing Authors," by Dr. O. W. Holmes.

"An Early Humanist" (*Pico della Mirandola*), by Harriet Preston.

"The Bacon-Shakespeare Craze," by Richard Grant White.

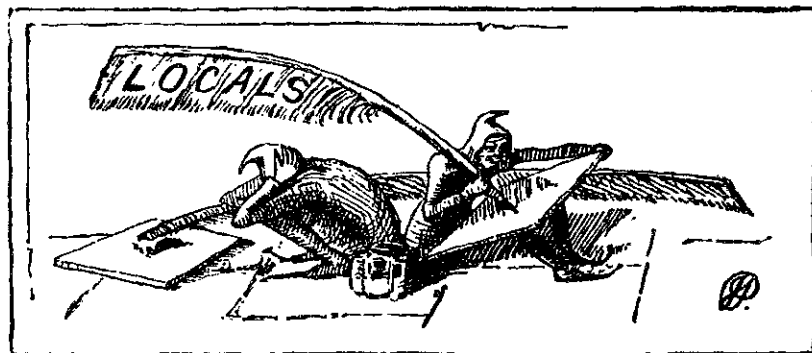
"Carlyle and Emerson."

W. P. A.

Two interesting works on applications of electricity have recently been published, viz., "*L'électricité comme force motrice*," by Du Marcel and Gerald, and "*Die elektrische Kraftübertragung*," by Japing.

A series of lectures on "Electric Lighting and Locomotion," by Prof. W. E. Ayrton, will be found in several numbers of the *Electrical Review*, beginning Feb. 24, 1883. They are also published in the *Electrician*, beginning Feb. 24, 1883.

C. R. C.



THE Architects will as usual be represented at the carnival at the rink to-morrow night. We hope that the participants from the department will be as successful this time as formerly, and take at least the first and second prizes.

Have you any red pepper about you?

The Miners have finished their short course in forging.

The work on the new building is advancing rapidly.

The Seniors are to be photographed *en masse* on the front steps.

It has been whispered that the Freshmen's milk at their supper had a stick in it.

Ex-President Diaz and suite made a short visit to the mining laboratory last week.

Mr. J. Pierce was admitted as a regular member of '83 at the class meeting, April 10.

The minstrel entertainment will probably be given on the evening of May 2.

The Mechanicals have begun a boiler and engine test at the Ross Flax Mill, Jamaica Plain.

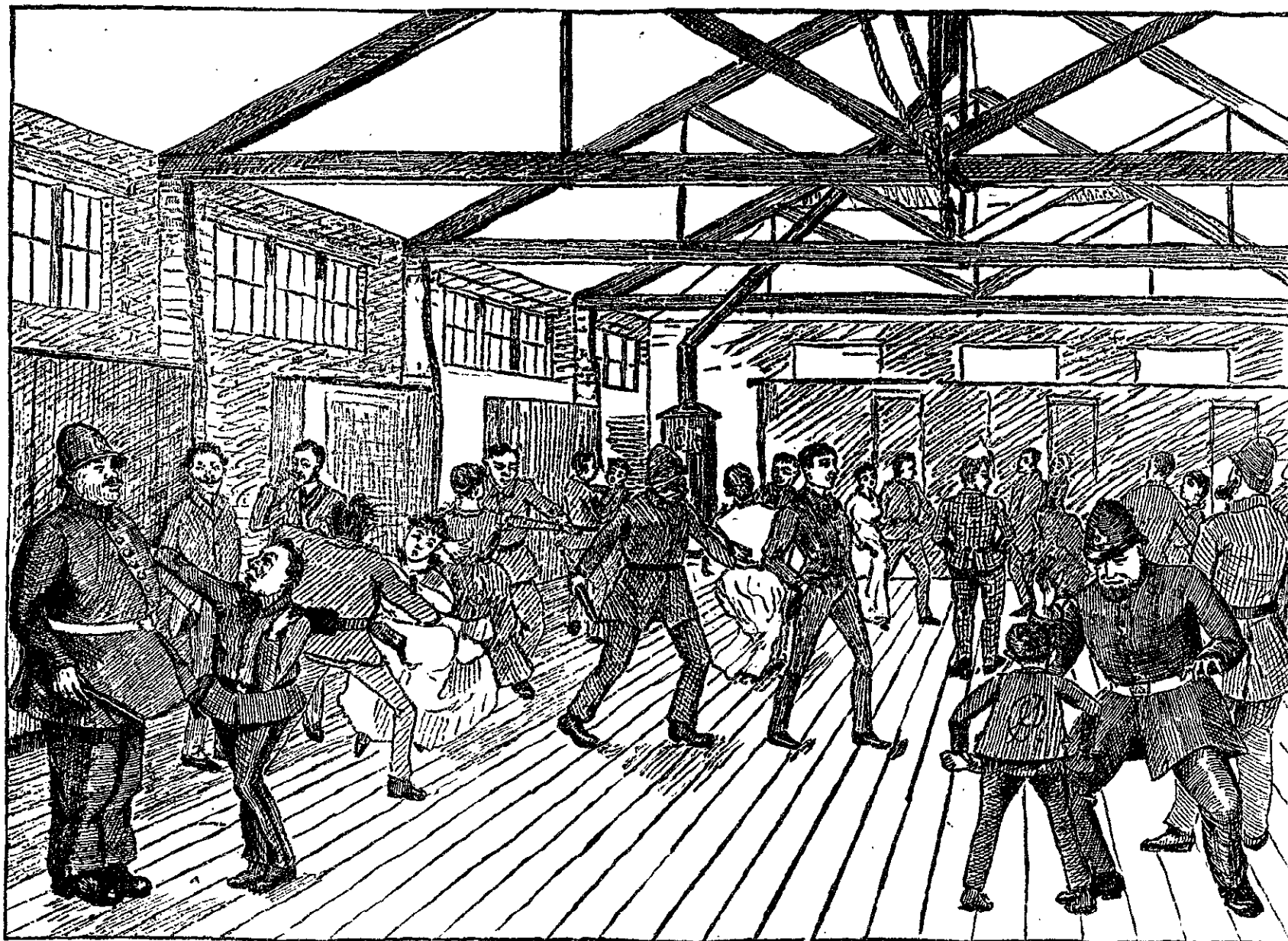
Gen. Diaz is reported to have been much pleased with what he saw at the Institute of Technology.

All the notices for the minstrels will hereafter be posted on the board, at the right of the Institute door going out.

A remark overheard at the exhibition drill: "And do those horrid Freshmen make that poor fellow wear that collar?"

Alas for '86! It has fallen so low that in order to dispose of all the dance tickets it invited several policemen.

Very few were left in the drawing-rooms and laboratories, the other day, when the Berkeley got on fire, a general rush being made for the roof and front steps.



THE PLEASANT FRESHMAN PARTY AND THEIR DISTINGUISHED GUESTS.

Some of the Freshmen are a trifle too enthusiastic in their own behalf. They should be very careful not to see things and report them which did not happen at all.

All but one of the Senior Civils have, within the past three weeks, been obliged to remain at their rooms a number of days on account of sickness. Thesis work must be pretty hard.

The latest attractions in the architectural line are the "Oates" and the "Coaster," in their great brother act of leaping through the stained-glass windows. Performances at 4 P. M., every Thursday. Admission tickets can be had of any member of the department.

Who says the Seniors do not have to work hard? One of them, who lives in a suburban town, was obliged to take the last train last week, and, after the labors of the day, thought

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You see that I don't look amused;
I "popped it" to Nellie last evening,
She smiled, hang it all, and — refused.

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[Mr. Editor, — The above is
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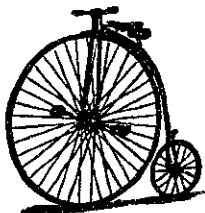
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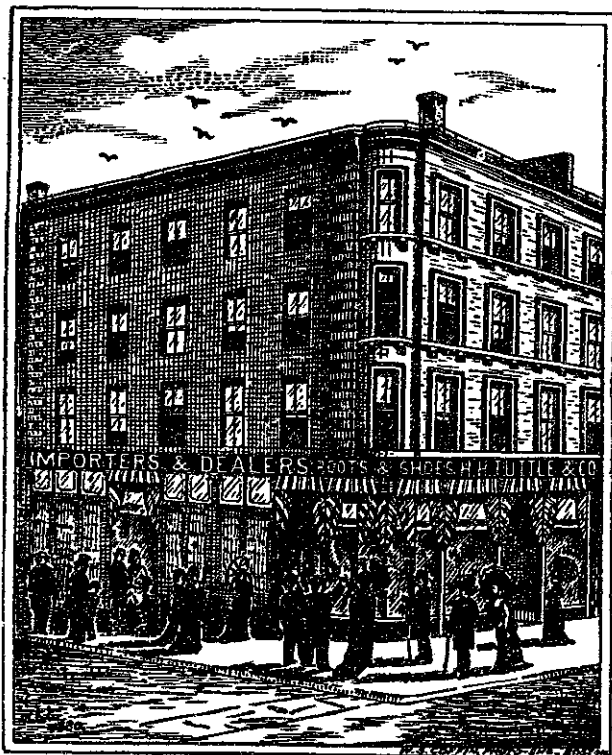
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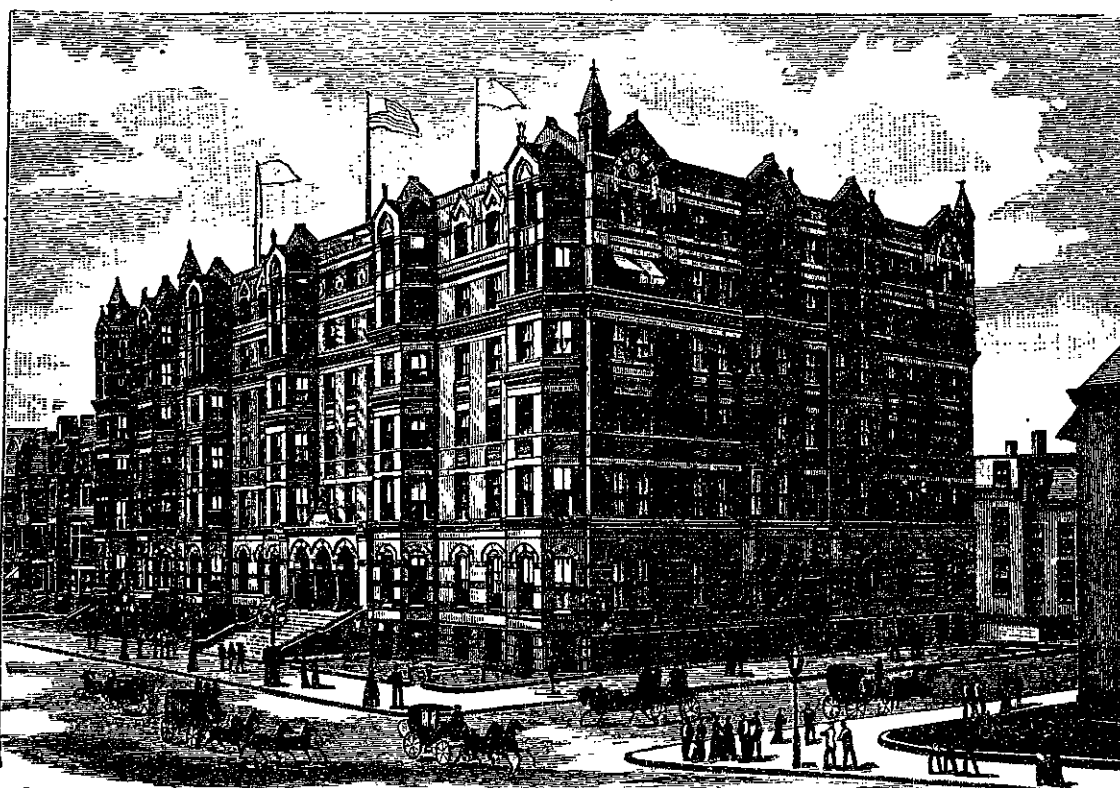
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