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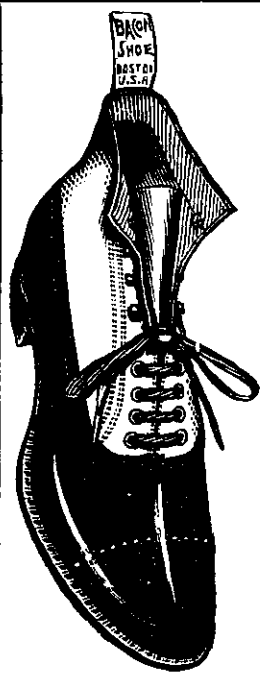
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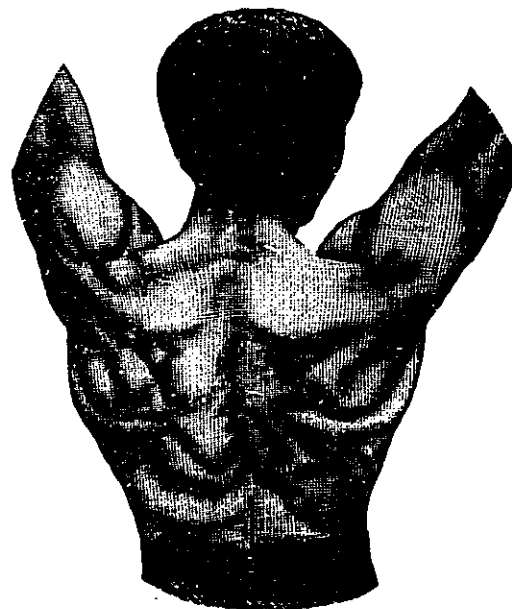
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THE TECH

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THE TECH

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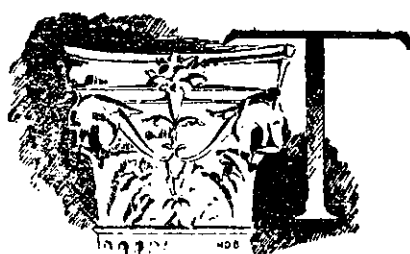
For the benefit of students THE TECH will be pleased to answer all questions and obtain all possible information pertaining to any department of the College.

Contributions are requested from all undergraduates, alumni, and officers of instruction. No anonymous manuscript can be accepted.

Subscription, \$2.50 per year, in advance. Single copies, 10 cts. each.

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THE past year has been an eventful one for Technology in many ways, and the outlook for the New Year is significant in its promise of a continuation of the conditions of our present growth and prosperity. Without enumerating the many additions to the funds of the Institute, and the changes made possible by these accessions to our resources, 1898 may be said to mark an epoch in the history of Technology.

Among the probabilities for 1899 may be counted the acquirement of the Franklin

Fund, an increased interest of our Alumni in the affairs of our undergraduate body, owing to the influence that *The Technology Review* is sure to exert, and substantial progress toward a new gymnasium.



FOR several years Technology has been hoping for a new gymnasium. The finances of the Institute, however, did not permit of the expenditure of the necessary sum, and we have been obliged to content ourselves with a few improvements in the present building. But our hopes are to be realized in the near future. There is now a movement on foot among Technology alumni to raise the necessary money by subscription, and to build a gymnasium as a memorial to General Walker. No more fitting memorial could be erected to the man who believed so thoroughly in the systematic development of the body as well as the mind. The scheme deserves the hearty support of every Technology alumnus, and THE TECH hopes to see the plans carried to a speedy and successful completion.



IT is with pleasure that THE TECH welcomes the advent of *The Technology Review*, a periodical which fills a long-felt want among Technology publications. The editors of the magazine have spared no pains to make the publication thoroughly attractive in binding, type, and arrangement, and of unusual interest to all Technology graduates and students.

The departments devoted to general Institute news on the one hand, and to alumni

notes and graduate class news on the other, form the connecting link between students and graduates which goes so far toward developing college spirit and love for Alma Mater.

In the articles devoted to accomplishments of representative Tech. men, *The Review* sets before the students examples of successful lives, which are powerful incentives to more earnest and conscientious work.

Subscriptions to *The Review* may be made with the business management of THE TECH.



HAT Technology is, unfortunately, not yet rid of that selfish, thoughtless sort of man, the poster thief, has been evidenced by the disappearance from Rogers corridor of two posters, one belonging to "Technique," the other to the Debating Society. The posters in the different boards form a very pleas-

ing contrast to the severe plainness of the decoration of the Institute buildings, and many are of considerable artistic value. As an instance of this, it may be noted that one of the posters advertising THE TECH was sold in New York, not long since, for fifty dollars. Circumstances connected with the loss of these posters is particularly exasperating; not only were the drawings themselves stolen, but the frames were taken as well.

In view of the action taken by the Faculty, in the case of a student, some time ago, we can safely assert that if anyone is again detected in a similar act the punishment will be such, that in the future those societies owning posters in the corridor will be amply protected from this form of annoyance.

They asked "And what is space?"

The trembling Freshman said:

"I can't think of it at present,

But I have it in my head."—*Ex.*

The Technology Alumni Association.

THE annual meeting and dinner of the Technology Association was held at the Exchange Club Friday evening.

A business meeting was held late in the afternoon, at which reports of the various officers and committees of the Association were presented. The following officers were elected for 1899: President, Edwin C. Miller, '79; Vice President, Charles T. Main, '76; Secretary, Augustus H. Gill, '84; Members of the Executive Committee, Frederick H. Fay, '93 (two years), J. P. B. Fiske, '89 (one year); Alumni Committee on the School, Horace B. Gale, '83 (three years); Trustee of the Alumni Fund, W. S. Hadaway, Jr., '87; Committee on Associate Membership, C. F. Allen, '72, R. A. Hale, '77, W. B. Snow, '82 (three years), H. W. Tyler, '84, W. Z. Ripley, '90 (two years), A. F. Bemis, '93, A. D. Fuller, '95 (one year); Members of the Advisory Council on Athletics, Thomas Hibbard, '75 (three years), Frank H. Briggs, '81 (two years), John A. Rockwell, Jr., '96 (one year).

Copies of the first number of *The Technology Review* were scattered about the tables of the reading room. The magazine elicited from all the most favorable criticism.

At the dinner there were present about a hundred and forty Technology men. The postprandial exercises were opened by President Freeman of the Association, who introduced as the first speaker President Crafts.

President Crafts said that the past year had been a very remarkable one for Institute men, both as citizens and members of Technology, not only on account of its events, but in its promise for the future. In speaking of the war he dwelt on the conscientious love of duty which had led sixty-one alumni and seventeen undergraduates to take part in the war with Spain. Special mention was made of Edward Dexter Brown, '90, who died at Camp Meade of typhoid.

In naval matters the President spoke of the

merchant marine and navy that the nation's new imperial policy would call into existence. In this connection the work done at the Institute in Marine Engineering was mentioned, and the proposed transfer of the course at the Naval Academy at Annapolis to Technology was explained. It is of interest to note that one of the objections brought forward was that the Institute had no efficient means of enforcing discipline and compelling men to study.

President Crafts told of the splendid financial condition of the Institute, and of the struggles of the late Gen. Francis A. Walker to provide for the school in a financial way, and the speaker's only regret was that General Walker was not living to-day to see the results of the plans he had made.

The recent death of John Cummings of the Corporation was alluded to. The future disposition of the Franklin Fund was discussed, and the hope expressed that it might be devoted to the Institute.

Samuel J. Elder, in speaking of "Athletics," called to mind the speech made by General Walker in 1893. Continuing, he said: "The same love of courage and endurance that makes us prize the athlete makes us revere the lads who climbed up San Juan hill, and who won the victory at Manilla. There is in the life of every sterling people an enormous adoration for physical courage and physical strength, and it is that which school athletics nourishes. It was no idle word that Wellington spoke when he said that Waterloo had been won at Rugby and on the football fields at Eton. The subject of athletics is a great American problem."

Captain Zalinski spoke for the regular army, and declared himself as heartily in favor of enlarging it. "I think the chance of being embroiled in a foreign war," he said, "is greater to-day than twenty years ago. The optimism of our people will lead us to take a position we cannot maintain, and sooner or later we will have an enemy who will not give us time to prepare."

Charles H. Manning, U. S. N., told again the story of the Oregon.

A telegram was read from the Rev. E. E. Hale, stating his inability to be present, and wishing the company a happy new year.

Frank H. Briggs outlined the history and policy of the Advisory Council on Athletics. He stated plainly how little the alumni do for athletics at Technology. He described the attempts of the Council to interest the alumni in athletics at Technology, and the discouraging, if not disgraceful, way in which they responded to what concerns so closely the honor of Alma Mater.

Dr. Tyler presented the report of the Committee on the Walker memorial. This report is printed in full in another column.

Mr. Freeman then introduced the new President of the Association, Mr. E. C. Miller. Mr. Miller in entering upon the duties of his office thanked the association for the honor conferred upon him. He paid a high tribute to the retiring president, Mr. Freeman, for the able way in which he had served the association during the past two years.

The Walker Memorial Gymnasium.

THE following report of the Walker Memorial Committee was presented by Dr. H. W. Tyler, '84, at the annual dinner of the Alumni Association on December 30th. The report was accepted, and the motion it embodied was passed unanimously.

"Mr. President and Gentlemen:—

"Year after year we have looked forward to the time when the Institute should have a better gymnasium,—not as a luxury for a few, but as an essential means of health for the great body of our students. I count it a privilege to say to the Alumni to-night that I believe the time has come for action.

"Two short years ago President Walker met us here, and we little realized how nearly spent was the vitality that had endured so

much—so much for ourselves, so much for many a great cause since '61. It is not for me to eulogize him. Eloquent words are still in our memory. The bronze bust in the Rogers Hall attests the devotion of his last four classes. The Alumni Association has withheld voice and action until now, rightly judging that for it words would not suffice, and that action to be adequate must be deliberate. There can surely be none to doubt our duty as Alumni. Is there a graduate of the seventeen hundred from '82 to '98 who does not owe to President Walker a share, not only of his technical education, but of things greater and better—his ideals of manliness, of good citizenship, of all that belongs to character? Do we not, then, also owe it both to ourselves and to the Institute—so great a part of which he was—to give fitting embodiment to our gratitude; to make the name of Walker mean to all future students something of what it means to us?

“I take it, gentlemen, that thus far my thesis needs no argument; that whatever question remains can relate only to form, and to ways and means. What shall be our Walker Memorial? Some months ago the Association of Class Secretaries—that incarnation of Alumni zeal—appointed a Committee, of which I have the honor to be chairman, to consider this question, with the hope of eventual cooperation with this Association. The Committee has been asked by your Executive Committee to report at this meeting.

“A few years since it would have seemed idle for the Alumni even to consider a subscription for a gymnasium for so great a body of students in a section where land values are so high. Now, however, the Institute finds itself occupying a gymnasium on land owned by the Boston & Albany Railroad, with a tenure apparently more and more precarious as time passes and railroads change. Because of this uncertainty, no radical changes of equipment can be made. At any time the Institute is liable to find itself with no gym-

nasium; a situation on which I will not dwell. This present difficulty, liable to become at any time more acute, must be met, and it can be best met only by beginning early with plans for a new gymnasium. I do not doubt that, if the wealth of our Alumni were proportionate to their enthusiasm, funds for a gymnasium would be forthcoming to-night. I am sure that by extending our efforts over a series of years a liberal sum may be obtained, and I venture to express a confident hope that such a gift will not be refused by the Corporation, which has land available on Garrison Street, even if some draft upon the Institute treasury proves ultimately necessary.

“How much can we hope to do? A few figures will suffice. In 1885 the Association, numbering about three hundred and fifty members, undertook to raise a scholarship fund of \$5,000 in memory of President Rogers within a period of five years. In nine years the fund reached \$10,000.

“Now we have nineteen hundred graduates; more than five times as many as in 1885. Let us, then, undertake to secure \$25,000 in five years, and let us make it \$50,000. This should meet half the cost.

“We desire to commemorate President Walker; the Institute needs a gymnasium; no memorial could be more fitting. Himself an athlete in a broad sense, mentally as well as physically, he never failed to emphasize the proper limitations, as well as the high value, of physical exercise. However far the academic student may sacrifice the cultivation of the mind to the development of bodily excellence, the Institute student, already devoted to his profession, must keep play in due subordination to work. Yet the Institute student, most of all, needs to keep his body always in vigorous health to sustain his mental activity at its best. Nor does this mean mere gymnastic routine. The man of active brain needs better exercise than an endless round of mechanical movements, which may well suffice for the athlete, whose only object is to

enlarge and harden his muscles. He needs variety, new forms of mental and nervous activity,—running, rowing, swimming, games. Some of these the gymnasium will provide; for all it will be a center and support. We must strive by it to educate something more than the body faculties, teaching courage and courtesy, energy and self-command. The competitive element of class and college rivalry is a stimulus to be restrained, but also to be utilized.

“Such, I believe, was President Walker’s conception of what a gymnasium should be to the Institute. By such a gymnasium he would have rejoiced to expand the Institute education. What, then, can be more fitting than for us to attest our appreciation of his ideals by associating his name with the realization of this one, which shall lead to a new and rational development of athletic interests at the Institute, which shall not weaken, but strengthen it as ‘a place for men to work, and not for boys to play?’

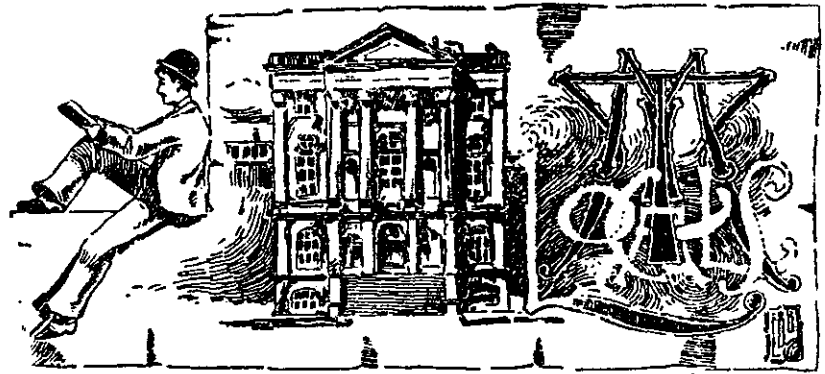
“Mr. President, your Committee offers in conclusion this motion:—

“That the Executive Committee of the Alumni Association appoint a Walker Memorial Committee of nine members, which shall undertake by a subscription the collection of a Walker Memorial Gymnasium Fund, to be applied by future agreement with the Corporation of the Massachusetts Institute of Technology toward the cost of erecting and equipping a gymnasium, as soon as may, in the judgment of the Corporation, be practicable.

“That the Walker Memorial Committee have authority to associate with itself for the collection of funds, representatives of the several Alumni classes and of the local associations.

“That the Committee have authority to arrange as it may deem best for the custody of the funds received, pending their ultimate appropriation by the Alumni Association.

“That the Committee report progress annually to the Association.”



Professor Hough attended the meetings of the American Societies of Naturalists and Physiologists held at Columbia University.

At the meeting of the Freshman Class on Thursday a manager and captain for the Baseball team will be elected, and some action will be taken in regard to the proposition of Captain Boardman to have an exhibition drill once every two months.

At a recent meeting of the Architectural Society, it was voted to offer a prize of \$10 for the best design for the page of the Society in “Technique,” the competition to close on February 8th. The following were elected to membership in the Society: A. H. Birks, '00, C. T. Bilyea, '01, W. R. Kattelle, '00, and F. I. Merrick, '00.

The Senior Class assembled at the Technology Club on Saturday night, December 31st, preparatory to watching the old year out. About seventy-five members of the Class were present. The President, Mr. A. L. Hamilton, made a short address, and refreshments were served. At five minutes before twelve the Class proceeded to Rogers steps, and welcomed the New Year in with class and Technology yells.

The new room for the Mathematical Library will be finished in about a week. The library consists of a very good collection of models, together with some one thousand volumes, comprising a complete set of textbooks, a large number of old prints, and many treatises on historical mathematics. A complete file of the best periodicals and papers constantly being received will be accessible to students taking advanced mathematics.

The Junior Class picture will be taken Friday at one o'clock, on the steps of the Natural History Building.

Professor Richards delivered an address at the opening of the Macdonald Chemistry and Mining Building, of McGill University, Montreal, Canada, on December 20th.

The first meet of the Technology Bowling Club will take place in the Allen Gymnasium Saturday evening, January 7th, at 7.30 o'clock. The rates have been made extremely low. If a sufficient number of men are interested a tournament will be held later in the season. Men wishing to become members of the Association should leave their names with Hilken, or, Cage.

Last Thursday night was the most enjoyable the musical clubs have spent this season. A concert in High School Hall, eminently successful in itself, was followed by a delightful dance given by the young people, under the direction of Major Roger Babson, of the Gloucester High School Cadets, which lasted until long after one o'clock. The members of the clubs were entertained over night by the young people and their friends, and enjoyed oyster stews and rarebits in profusion before retiring. The men straggled into Boston next day, one even paying a visit to Eastern Point and the Cape before he could tear himself away, and the station held many girls who came down to see their guests off that morning.

The eleventh annual meeting of the Geological Society of America was held, in connection with the meetings of other scientific societies, in Schermerhon Hall, Columbia University, from December 28th to December 30th, inclusive. About one hundred geologists, representing the best investigators in this important branch of scientific knowledge, and coming from all parts of the country, gathered at the several meetings, when, besides the transaction of other business, forty-three papers were read. Prof. W. O. Crosby,

as delegate from the Geological Department of the Institute, read two papers, each thirty minutes long, the first being entitled "The Archæan-Potsdam Contact in the Vicinity of Manitou, Colorado," the second, "The Nashua Valley Glacial Lake."

WHEREAS it has pleased Almighty God to remove from among us our classmate, William Henry Smith, be it

Resolved, that we, the members of the Class of 1900, Massachusetts Institute of Technology, extend our heartfelt sympathy to his family; and be it further

Resolved, that a copy of these resolutions be sent to the family of the deceased, and that it be published in THE TECH.

FRANK D. CHASE,

CLIFFORD M. LEONARD,

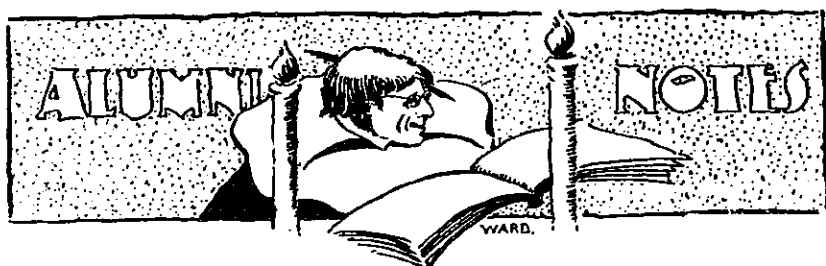
Committee.

The Solar Condenser.

M. MOUCHOT, Professor of Physics at the Tours Lyceum, France, has recently perfected his invention of an apparatus by means of which the heat of the sun's rays may be utilized for industrial purposes to a degree hitherto hardly dreamed of.

In experiments conducted in Tours, M. Mouchot grilled cutlets and cooked soup by means of his solar condenser. Although the apparatus is not made for France, as the inventor explains in *Le Mond Scientifique*, it is admirably suited to the deserts of Africa, where the sun shines uninterruptedly through dry air.

Ericsson has demonstrated that heat enough to develop one-horse power may be developed from one square yard when the sun's rays fall perpendicularly through a dry atmosphere. Therefore the amount of power theoretically available from this source is almost incalculable, and if future results bear out the present possibilities, we may expect to hear of the reclaiming of the deserts by means of irrigation from artesian wells sunk by power from the solar condenser.



'90. The Second Reunion of the Class of '90 was held at the Technology Club, Thursday evening, December 29th. Twenty-eight members were present, and a jolly evening was passed. Mr. Charles Hayden was re-elected class president. It was voted that the next reunion should be held at the Technology Club in 1900.

'96. Mr. E. A. Baldwin, VI., has just announced his engagement to Miss Amy Higgins, of Dorchester. THE TECH extends hearty congratulations to the young people.

'98. Mr. Z. H. Long was a corporal in the First Volunteer Engineers during the late war. His name was inadvertently left out of the list in the "Review" of the Tech. men who have seen military service.

'94. Mr. S. H. Brockunier is one of the most fortunate of Tech. men, as shown by a clipping from the *Manitoba Free Press*, of Winnipeg. Last May he located a gold-quartz mining property on Elizabeth Lake, and last October was able to bring out specimens of ore to be assayed, which showed the wonderful richness of \$20,000 a ton, almost pure gold. The workings so far on the mine, named the "Virginia," consist of a tunnel forty feet long, which taps the vein fifty feet below the surface. A shaft was then sunk in the head of the tunnel, which is now down about thirty-five feet. The one great drawback is the way of getting to the property, which is seventy miles from Rat Portage, in an entirely new district; but the unlimited capital behind the company which Mr. Brockunier has formed will soon overcome that. A complete set of hoisting and pumping machinery is now on its way out.



Captain Baxter, 1901, will compete in the running high jump at the B. A. A. meet.

Haley, 1901, is showing very good form in the distance runs. He will enter with Pray, '99, the coming B. A. A. cross-country run.

It is rumored that men from the two upper classes will form a baseball team in the spring. Games will be arranged with the Sophomore and Freshman teams.

Walworth, 1900, played a star game of hockey for a picked team against the crack Newtowne A. C. team last Tuesday, on Spy Pond. Goodnow, the old '99 tackle, also played well on the same team.

Technology Calendar.

January 5.—Meeting Freshman Class, 11 Rogers, at 1 P. M.

January 6.—Junior Class Picture, 1.15 P. M. Meeting Y. M. C. A., 11 Rogers, 4.10 P. M.

January 7.—Concert of the Musical Clubs at Wellesley Town Hall. Meeting of the Technology Bowling Club, Allen Gymnasium, at 7 30 P. M. Yacht Club Dinner, Young's Hotel, at 7 P. M.

January 10.—Concert of the Musical Clubs at Mount Holyoke College.

January 11.—Meeting L'Avenir, 26 Walker, 4.15 P. M.

"THE GIRLS ARE FOND OF THESE."

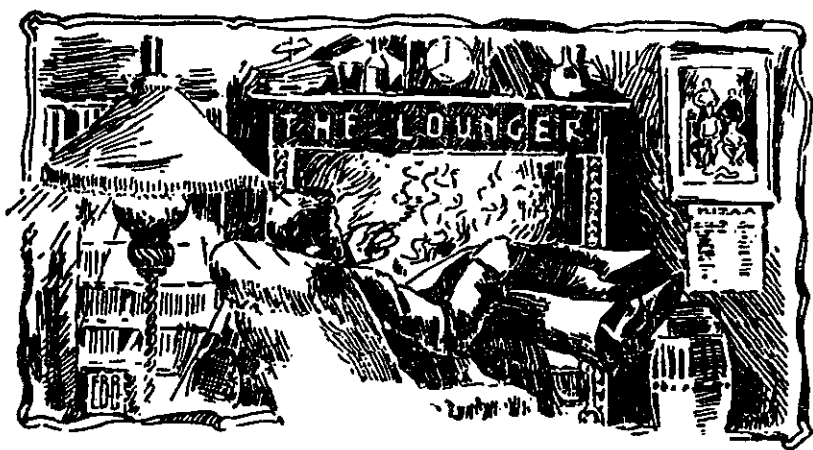


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WITH the dawning of the new year the Lounger is pleased to greet a welcome addition to the list of Technology publications,—the *Technology Review*,—and he hastens to extend to the said publication the right hand of good fellowship. Already, in the short time which has elapsed since the appearance of the first number of the same, the Lounger has whiled away many enjoyable hours perusing its columns, and has acquired no inconsiderable amount of valuable information therefrom. By no means the least of this was the importance so kindly attributed to himself and his colleagues in the eyes of the world. Second only to this comes another announcement, which will be of vital importance to the Lounger's friends, the Freshmen of next year. Freehand Charlie has in preparation a book of text to accompany his improved, kindergarten methods of learning the alphabet. Doubtless it will soon be on sale "at the usual place" (and the usual rates).

Far more startling than the above, however, is the touching tale of tender pathos and romance, which the Lounger can readily imagine from the announcement of the engagement of two prominent members of the recent graduating class to each other. Imagine the joys of the Biologists! Fellow members of Course VII., four years of daily associations proved all too short. Four years of carving of frogs and turtles together will probably prove but the beginning of similar joint operations upon roast beef and turkey. The Lounger offers his hearty congratulations, and has no hesitation in predicting a largely increased enrollment in the said course.

Although modesty is one of the essential elements of the Lounger's retiring character, nevertheless it is but natural that he should feel pleased at the celerity with which his suggestions are followed, and the scientific accuracy with which his predictions are fulfilled; and it is only by the exercise of his unusual

powers of self-control that refrains from saying, "I told you so." In which connection the Lounger begs to recall his remarks upon the offering of individual excellence cups, to "bring out" the members of the Advisory Council, and at the same time points with pride to the speech of his friend the secretary, as set forth in another column. A hundred-thousand-dollar gymnasium to be built by the alumni is a truly Utopian idea, toward which the Lounger himself would be delighted to contribute if the gentleman in question would only consent, by the conferring of the coveted sheepskin, to make him an alumnus.

Actuated by motives of equity, and a desire to honor all of his friends, the editors, equally, the Lounger, not having space to include all, is, as a rule, extremely reticent in regard to the many interesting doings of the members of the Board. A recent experience of the genial alumni editor, however, is so in keeping with the making of the laudable resolutions now in season, that the Lounger feels it were worse than burglary to deprive his readers of so forcible a warning. As the time began to draw near for the annual alumni banquet held last week, the gentleman in question began to make vigorous plans for the benefit and furtherance of his department, and for several days his inner man was sadly neglected.

The date of the banquet finally arrived, however, and with it returned the editor's appetite. A powerful thirst seemed also to demand satisfaction, and soon bottles of cider began to appear at the plate of the gentleman. Here the Lounger has decided to kindly draw a veil over the rest of the matter, and in conclusion will merely quote from a note received by the Editor in Chief on Monday. ". . . Could not get work done sooner as have been sick since the dinner. . . . Yours."

The Lounger has recently noticed a most unusual dull and quiet air about all the many buildings. The Chapel seems almost deserted. The attendance in Physics is something phenomenal, and the lecturer commands an attention previously unknown. No longer do little groups linger talking on the steps and in the corridor; the libraries are closely crowded. Old examination papers are studied with diligent interest. Even the lordly architect has lost his usual benign smile and talks sorrowfully of "two exams." Surely the Lounger could never mistake these signs which all point so unmistakably to single conclusion, the "semies" are at hand.

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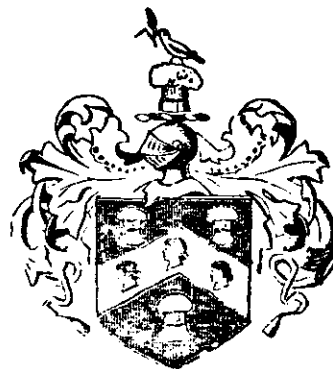
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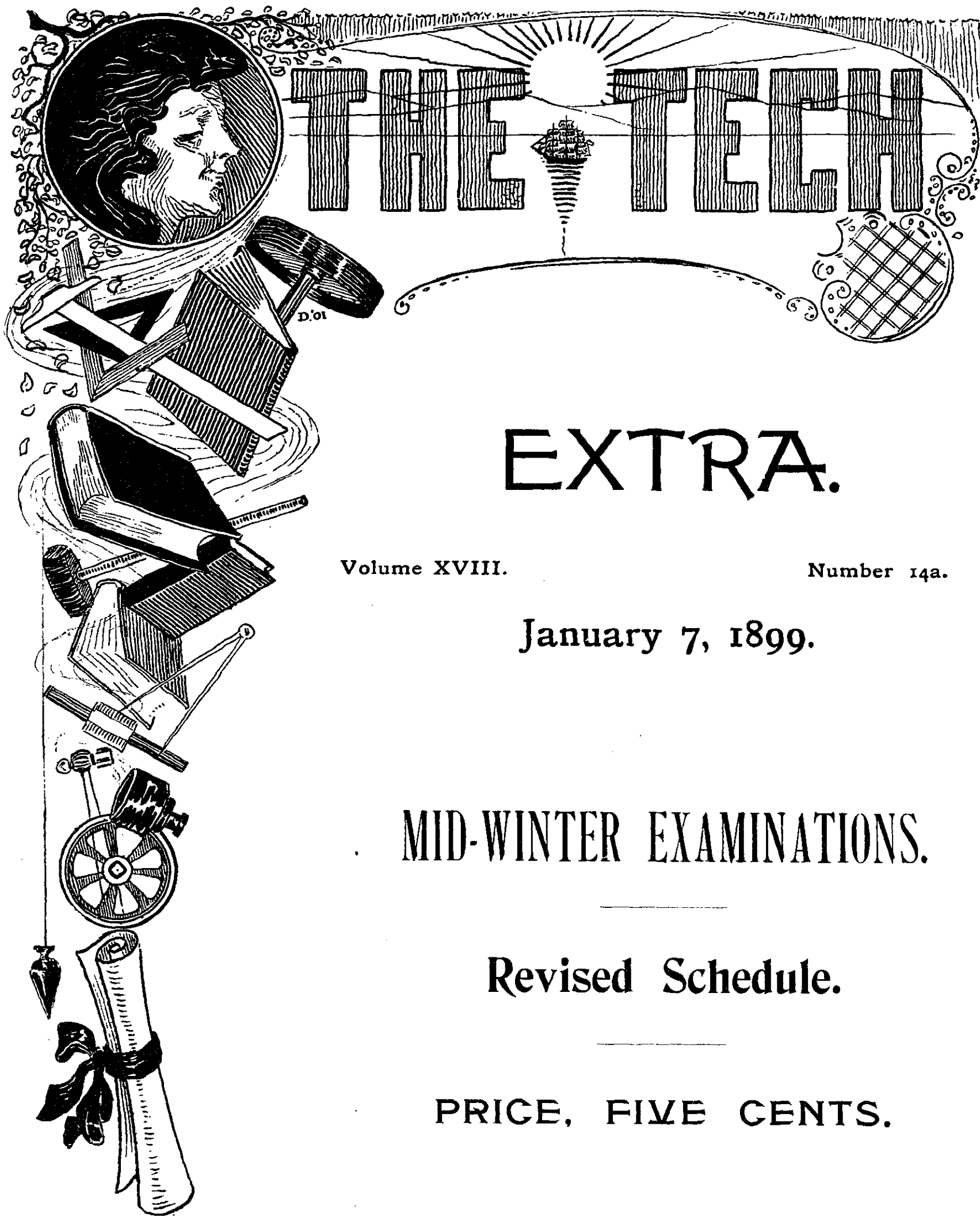
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Volume XVIII.

Number 14a.

January 7, 1899.

MID-WINTER EXAMINATIONS.

Revised Schedule.

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THE TECH

EXTRA.

VOL. XVIII.

BOSTON, JANUARY 7, 1899.

NO. 14a.

THE TECH

Published every Thursday, during the college year, by students of the Massachusetts Institute of Technology.

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SEMI-ANNUAL EXAMINATIONS, 1899,

OF THE

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PROVISIONAL SCHEDULE.

Subject to Correction by Official Schedule and by Bulletin.

Exercises will be suspended for the first year on and after Monday, January 23d; for the second year on and after Friday, January 20th; for the third and fourth years on and after Monday, January 16th.

Special Examinations. Conflicts.—All special examinations granted by the Faculty, and all examinations postponed from September, are to be taken at this time, unless otherwise specifically authorized. Students desiring such examinations (not on this schedule), and those having two examinations on the same day, should hand in complete schedules checked

for all their examinations not later than January 11th. New assignments will be sent by mail to such students on Saturday, January 14th. None can be arranged later.

Reports will be mailed February 4th to students of age and to the parents of others. None can be given out verbally. Requests for duplicates will be received until January 18th.

H. W. TYLER.

Tuesday, Jan. 17.

YEAR.	SUBJECT AND EXAMINER.	TIME.	
		A. M.	P. M.
4.	Electrical Eng. Cross	9.00	
4.	Micros. Anatomy. Weyssse		1.30
4.	Structures. Swain	9.00	
3.	Physics, Heat. Clifford	9.00	

Wednesday, Jan. 18.

4.	Dyn. Test. Photometry. Puffer—Clifford	9.00	
4.	Metallurgy, 64 and 65. Hoffman	9.00	
3, 4.	Political Economy. Dewey—Ripley		1.30
4.	History of Induct. Sci. Sedgwick		1.30
4.	Bridge Design. Swain	9.00	

Thursday, Jan. 19.

4.	Applied Mechanics. Lanza	9.00	
4.	Energetics. Goodwin	9.00	
4.	Steam Eng. I. Peabody	9.00	
3.	English Literature. Bates	9.00	
3.	Geol. Hist. Niles	9.00	
2.	Physical Meas.* Goodwin	9.00	

Friday, Jan. 20.

4.	Metallurgy of Iron. Richards	1.30	
3.	Applied Mechanics. Sondericker	9.00	
1.	Mech. Drawing.* Faunce		1.30
4.	Theoret. Biol. Bigelow	9.00	

Saturday, Jan. 21.

YEAR.	SUBJECT AND EXAMINER.	TIME.	
		A. M.	P. M.
4.	Anal. Mechanics. Lanza	9.00	
4.	Hydraulics. Porter	9.00	
4.	Indust. Biology. Prescott	9.00	
4.	Proximate Analysis. Whitney		1.30
4.	Physiol. and Hygiene. Hough	9.00	
3.	Arch. History. Homer	9.00	
3.	Diff. Equa. VI., VIII. Osborne		1.30
3.	Industrial Chemistry. Thorp	9.00	
3.	Mining Engineering. Hofman	9.00	
2.	Int. Calc.* Osborne		1.30
2.	Physics. Cross	9.00	

Monday, Jan. 23.

4.	Const. Design. Lawrence	9.00	
4.	Dyn. of Mach. Lanza	9.00	
4.	Elect. Meas. Inst. Laws	9.00	
4.	Oil and Gas Analysis. Gill		1.30
4.	Org. Anal., Org. Prep. Mulliken—Norris	9.00	
4.	San. and Hyd. Eng. Porter	9.00	
3, 4.	Quant. Anal. Talbot	9.00	
3.	Quaternions. Bailey	9.00	
3.	Valve Gears. Peabody—Miller	9.00	
3.	Volumetric Anal. Moore	9.00	
2, 3.	European History. Currier		1.30

Tuesday, Jan. 24.

4.	Climatol. Niles		1.30
4.	Periodic Currents. Clifford	9.00	
3, 4.	Indus. Elect. Telegraphy. Cross—Derr	9.00	
3.	Anthropology. Ripley		1.30
3.	R. R. Engineering. Allen	9.00	
2, 3.	English Literature. Bates	9.00	
1.	Military Science. Bordman		1.30

Wednesday, Jan. 25.

4.	Hydraulics, I., XI. Porter	9.00	
3, 4.	Class. Civ. and Art. Sumner	9.00	
3.	Sugar Analysis. Rolfe		1.30
3.	Dyn. Elect. Meas. Puffer	9.00	
3.	Surveying. Burton	9.00	
2, 3.	Organic Chemistry. Noyes	9.00	
2.	Design. Gardner	9.00	
2.	Mechanism.* Merrill		1.30
2.	Microscopy. Sedgwick	9.00	
1.	Solid Geometry. Wells	9.00	
1.	Trigonom.* Wells		1.30
2.	Blowpipe Anal. Barton	9.00	
4.	Heat Meas. Norton	9.00	

Thursday, Jan. 26.

YEAR.	SUBJECT AND EXAMINER.	TIME.	
		A. M.	P. M.
4.	Elect. Testing. Laws	9.00	
3.	Diff. Equa. II., X, XIII. Osborne		
3.	Theoret. Electricity. Clifford	9.00	
2, 3.	Qual. Anal. Walker—Moore	9.00	
2.	English History. Sumner		1.30
1.	Desc. Geometry.* Faunce	9.00	
1Ent.	Adv. Al. Con. Algebra. Wells	9.00	
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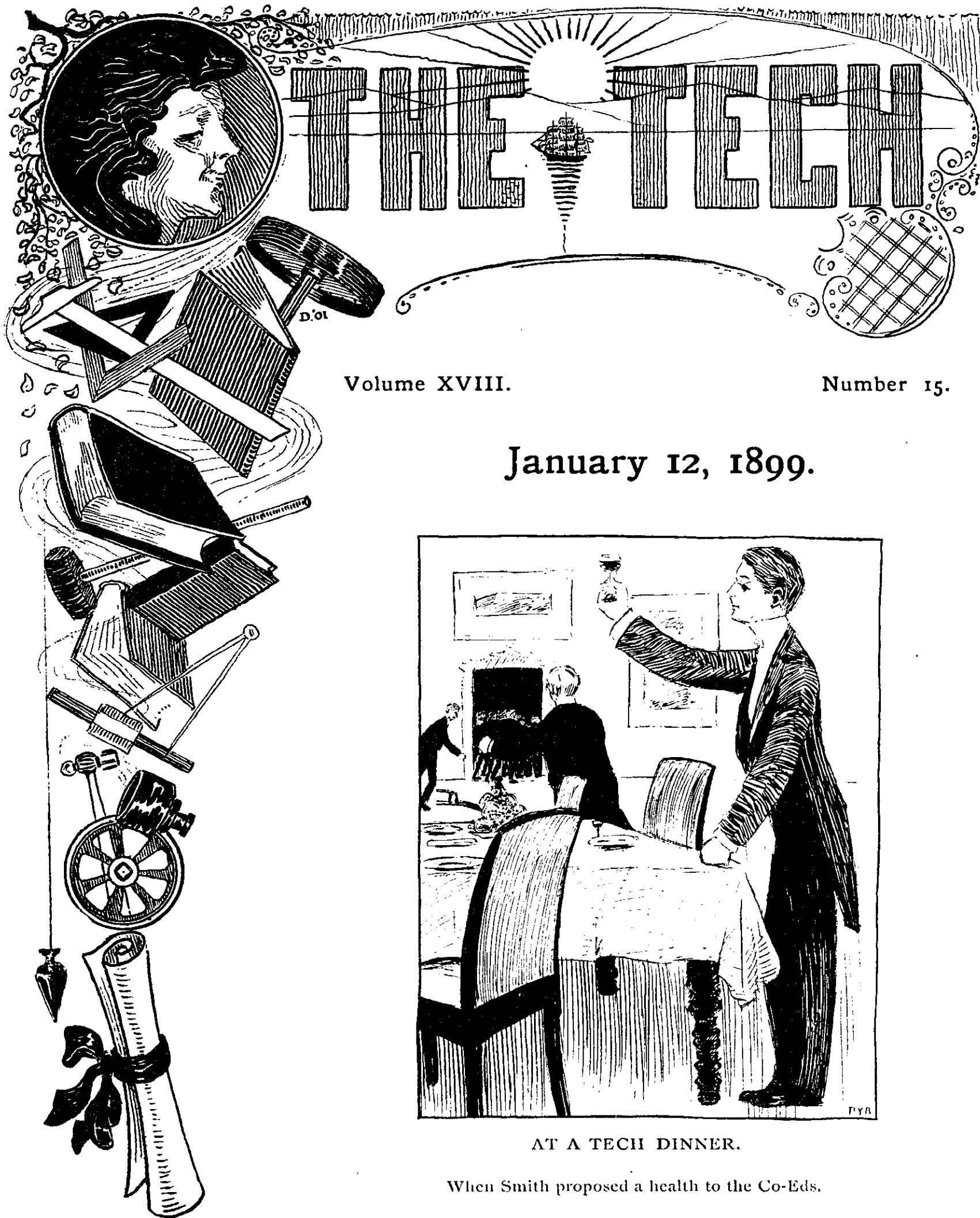
Friday, Jan. 27.

4.	Bacteriol. Prescott		1.30
4.	Least Squares. Bartlett		1.30
4.	Naval Architecture. Peabody	9.00	
4.	R. R. Engineering. Allen	9.00	
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3, 4.	Taxation. Dewey		1.30
3.	Comp. Anatomy. Weyse	0	
3.	Geology (Struct.). Barton		1.30
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3.	Thermo-dynamics. Peabody—Miller	9.00	
2.	Acoustics. Clifford	9.00	
2.	Diff. and Int. Calc. Woods	9.00	
2.	Materials. Chandler		1.30
Ent.	Algebra. Wells	9.00	
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Saturday, Jan. 28.

4.	Comp. Physiology. Hough	9.00	
4.	Fourier's Series. Bailey	9.00	
4.	Air Analysis. Mrs. Richards	9.00	
4.	Geodesy. Burton	9.00	
4.	R. R. Manage. Allen	9.00	
3, 4.	Theoret. Chem. Talbot	9.00	
3.	Assaying. Lodge	9.00	
3.	Naval Architecture. Peabody	9.00	
3.	Sanitary Chemistry. Mrs. Richards	9.00	
2, 3.	Gen. Biology. Sedgwick	9.00	
2.	Determinants. Skinner		1.30
2.	Physics.* Cross	9.00	
1.	Anal. Geometry.* Bartlett		1.30
1.	U. S History.* Currier	9.00	
Ent.	Plane Geometry. Wells	9.00	
Ent.	History. Currier	11.00	
Ent.	German. van Daell		2.00

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Volume XVIII.

Number 15.

January 12, 1899.



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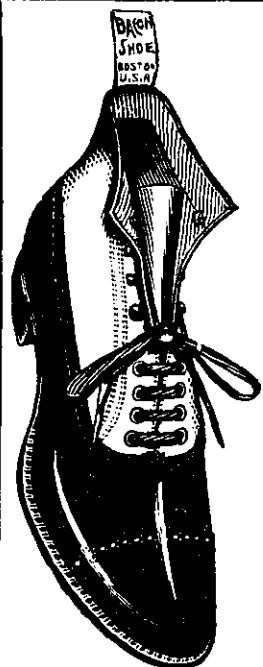
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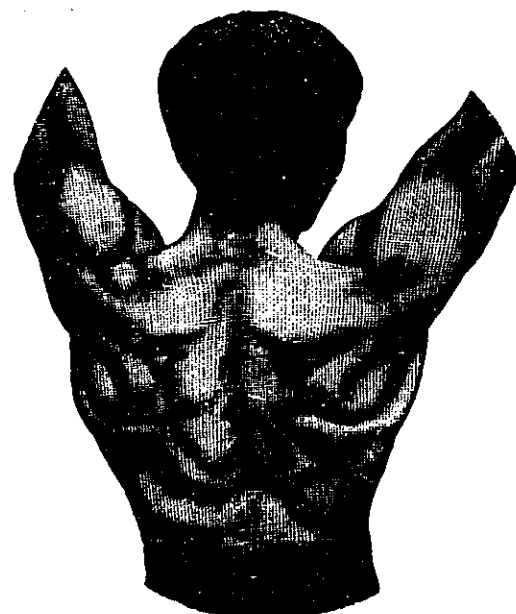
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