

The Technology Review

VOL. VIII.

APRIL, 1906

No. 2.

TECHNOLOGY

The Spirit of Technology speaks:

I am young among my sisters, I am young, but I am fair.
I am young among my sisters, but in strength I do and dare.
I march at the head of my sturdy sons, an army thousands strong.
We do the right, we trust our might, and we sing aloud this song:

Chorus:

It is march, march, march
With level and rod and chain;
And it's march, march, march
On valley and hill and plain.
It is clang, clang, clang
At anvil and bench and forge;

And even the bosom of Mother Earth its treasure shall disgorge.

The Spirit again speaks:

I was little, I was weak, when he who long since passed away
Awoke me from enchanted sleep, and bade me look on day;
For at my birth my elder kin, with necromantic art,
Consigned me to oblivion, that they might play their part.
Full well they knew, if once I grew to womanhood, that grace
I had within and strength to win the Atalantine race.
But he came from the virgin land, and kissed me on the brow,
And took me by the hand, and, "Daughter, rise," he said, "for now

The time arrives when thou and I must join us hand in hand.
 Our souls must wed, and procreate a bold and hardy band
 To journey with the rising sun and drive the mists away
 Which Pedantry for ages long has cast upon the day.
 The ghosts of mediæval learning's vain and flitting crew
 Must vanish, yielding place to men who make and act and do."
 So I arose, and bound my feet with sandals, and my hair
 I gathered in a golden crown, with arms and shoulders bare.
 And he and I in unison, in beauty debonair,
 Stepped out to meet the world;—

Alas! his journey soon was done.

Immortal I, but mortal he. The good and faithful one
 Was gathered to his fathers, and another took his place,
 Of manly mould, of energy, of fighting patriotic race;
 A man to win the hearts of men, a man to love and trust,
 Who gat me children. He in turn was gathered unto dust.
 And other faithful helpmeets came, but I have sturdy grown;
 Attended by my thousand sons, I now can walk alone;
 In full, perfected womanhood, immortal, bold, and free,
 I stand erect. The world's elect are not a match for me.
 I am young among my sisters, I am young, but I am fair.
 I am young among my sisters, but in strength I do and dare.
 I march at the head of my sturdy sons, an army thousands strong.
 We do the right, we trust our might, and we sing aloud this song:

Chorus:

It is march, march, march
 With level and rod and chain;
 And it's march, march, march
 Over valley and hill and plain.
 We span the chasm, we bridge the stream,
 And we fill the earth with the hiss of steam.

It is search, search, search
 In the heavens and in the deep;

And it's search, search, search
In the mine and the rubbish heap.
We delve for the metal that brings man ease,
And we conquer the filth that breeds disease.

It is clang, clang, clang
Of iron and steel on steel;
And it's clang, clang, clang
For cog and rivet and wheel.
Till bolt on bolt, and thole on thole,
The engine grows to a wondrous whole.

It is work, work, work
With hand and eye and brain;
And it's work, work, work
With cheerful might and main.
It is clang, clang, clang;
Each man in his chosen place
Beats out on the anvil of human toil the good of the human race.

L. MAGRUDER PASSANO.

EDWARD ATKINSON.

1827-1905.

In the death of Edward Atkinson, which occurred on Dec. 11, 1905, in the seventy-ninth year of his age, the Massachusetts Institute of Technology has lost not only one of its founders, but one of its firmest friends. While Mr. Atkinson has not been directly connected with Tech for many years, yet he has always taken the liveliest interest in its affairs, and has given its students freely both advice and financial assistance. He had such a firm belief in the excellent work done by the Institute that he had about him a large corps of its graduates. In former years his face was a familiar one in and about the Rogers Building, but of late years he had been seen but little there. He took an active interest in the recent discussion as regards the future of Tech, and, while he was a firm believer and friend of both the Institute and Harvard, yet he believed it best for Tech to stand in the future as it had in the past,—squarely on its own feet; and he wrote several very able articles advocating its independence.

Mr. Atkinson was of an old New England family, and was educated in the public schools. He was not a graduate of a college or other higher school of education, but yet was one of the best educated of men. He was what might be termed a “self-educated” man, although he himself had a great dislike for that term. He had a keen mind and an excellent memory,—two qualities which are necessary for the making of a successful man. He kept closely in touch with all scientific questions, and, while he termed himself a “duffer in science,” he was very far from being one.



EDWARD ATKINSON

1827—1905

His business education began at the age of fifteen, when he entered the employment of one of our Boston commission houses, where he began at the bottom of the ladder. By hard work he gradually pushed his way up, until he became treasurer and general manager of several of our large New England cotton mills. While treasurer of these mills, he was elected, in 1865, a director in the Boston Manufacturers Mutual Fire Insurance Company, and in 1878 became its president. In this position he did, perhaps, the greatest work of his life in developing the "Science of Prevention of Loss by Fire,"—a work which has saved many millions of dollars to the country and also many lives.

To assist him in this work, he called upon Professors Ordway, Lanza, Mrs. Richards, Dr. Gill, Dr. Norton, and other members of the Institute Faculty for advice and research work. In the more direct work of carrying out his plans, he brought about him such men as John R. Freeman, Waldo E. Buck, the writer, Mr. French, Mr. Kunhardt, and many others, graduates of Tech. With these men to assist him he entered upon the work of meeting and handling the many hazards surrounding our manufacturing operations with the great energy which he possessed. The result has been that the fire loss in the two thousand or more manufacturing establishments which were under his direction has been reduced over four-fifths, so that to-day it averages four cents per hundred dollars insured. This great reduction has been accomplished in the face of the fact that there are many more hazards attending manufacturing operations to-day than formerly, such as larger areas, increased speed of machinery, and the use of highly volatile oils. Mr. Atkinson's work in developing the science is so well known the world over that little more need be said on the subject. He was an authority on all matters of mill construction and protection.

In social and economic matters Mr. Atkinson took a very prominent part, not only in this country, but in Europe. He was a member of many scientific societies, and was always a prominent figure at their annual meetings. He was a prolific writer on many subjects, contributing frequently to the prominent newspapers and magazines of not only this country, but of Europe. His writings were devoted almost wholly to subjects which were intended to benefit humanity. He was always found on the side of the weak. Previous to the Civil War he was a prominent anti-slavery man. Since then he has been a great friend of the negro, and in his latter days every one knows he was found on the side of the Filipino. He was also a great friend of the proscribed race.

During his lifetime he was constantly endeavoring to promote methods which would be for the direct benefit of the world. The Aladdin Oven, which was one of his inventions, was primarily designed for the purpose of assisting the working-woman and student in taking care of themselves. While ridiculed by many, it is generally acknowledged that the oven has been of direct benefit in many cases. One of his latest undertakings with the same object in view was that of the development of mud and peat fuel for domestic and manufacturing purposes. At the time of the last coal strike, while walking in the woods and over the marshes near his summer home, his mind was attracted by the black peat or mud under his feet. He immediately saw the possibilities contained in it, and with his characteristic energy began to push the question of mud or peat fuel. In all his undertakings he had the public good fully in his mind, and in no case did he ever derive any financial return from his efforts.

By many Mr. Atkinson was considered to be egotistical. This may have been so. He at least was a man who, having perfect faith in himself and in his opinions, as all successful

men must have, did not hesitate to express himself forcibly. He was never discouraged, although the whole world might be against him. He was an optimist, in the true sense of the word. He had great faith in human nature, and believed that no wrong could endure for any length of time. Most men of independent views are inclined to think that the world is on its way to destruction because the majority of men do not always agree with them. On the contrary, Mr. Atkinson thoroughly believed that all men were well-intentioned and must come to his way of thinking sooner or later. He was usually found on the unpopular side, but this fact never discouraged him nor made him think less of the world. This trait was clearly shown in his writings on the Philippine question, with which so many people disagreed. At that time, with practically the whole country against him, he still went calmly on his way in the full faith that he was right and that time would settle the question according to his way of thinking.

Mr. Atkinson was in great demand at social, literary, and society meetings, not only for his ability to speak entertainingly, but for his own sake. He was the life of all such meetings. He also had a wonderful capacity for work, and was a firm believer in the necessity of work in all stages of life. He could not conceive of even a hereafter without work, as was shown by his last words as he lay dying in the corridor of his office building:—

“This is the end—what is there for me in the hereafter?—There must be work to do, as every one must work.”

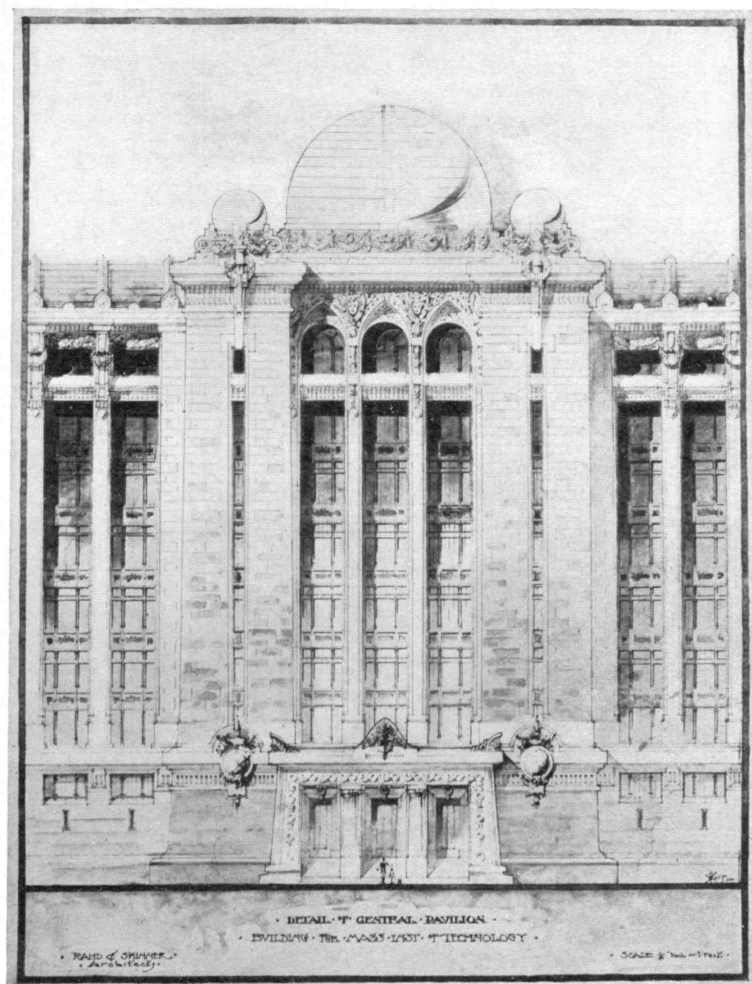
JOSEPH P. GRAY, '77.

A SUGGESTED PLAN FOR A LARGER UTILIZATION OF THE PRESENT PROPERTY OF THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Technology being a school of Applied Science, it is interesting to consider the problem of additional space from an engineering standpoint, and to give some study to the property already owned with a view to its more nearly complete utilization. The possibility and advantage of carrying the foundations of high buildings into the ground has been demonstrated; and of late the basement stories of office buildings and hotels have been carried to greater depths below than formerly their superstructures rose above the surface. Their architects have located halls, kitchens and store-rooms, with complete refrigeration and filtration plants, laundries, electric power stations, etc., all in well-ventilated, uniformly lighted apartments four and five stories below the street level.

Human laws limit the height to which we may build upward, but only economic laws limit the height to which we may build downward; and, as we look into the future, may we not imagine glowing rows of laboratories with vaulted ceilings and walls of glazed tiles and glass, soft and uniform light permeating all corners, dissipating all shadow and all thought of subterranean caverns, and see Research finding therein new strength and inspiration? To realize that this is not a vision, one has only to visit the subways, the Times Building, and the Hotel Belmont in New York City, where they may be seen in fact.

Modern architectural practice in office building construction secures only an average of about 66 per cent. rentable area per floor of the gross area of the lot; for about 15 per cent. is taken up by walls and partitions, and 19 per cent. by corridors, toilets, elevators, etc. Technology has increased this per cent. of utilized area somewhat at the expense of public spaces and by leaving large areas



• DETAIL "T" GENTRAL PAVILION •
• EVILUATE THE VAST LAST "TECHNOLOGY" •

• RAND. G. SHAW •
• ARCHT. •

• SCALE 1/2" = 1' •