

accompany the ring would undergo interference and diffraction, and the rings would tend to follow the waves, so that the probability of a ring reaching a given point would depend upon the amplitude of the wave at this point. Thus interference and diffraction fringes would be statistical effects.

### SEISMOLOGY IN CANADA

A SIXTH seismograph station, which will assist in the work of those maintained at Saskatoon, Halifax, and Ottawa, by the Dominion Observatory and at Victoria and Toronto by the Meteorological Service, has been established at Ste. Anne de la Pocatière, Quebec, by the Department of the Interior. The new station is situated near the center of the area affected by the earthquake of February 28. The Dominion Observatory does not anticipate any further serious shocks, and the object of the installation is to study better the slight tremors which may occur from time to time in this area as a natural consequence of the more intense quake, as well as to secure a seismological record for this part of Canada.

The major disturbance of February is still under investigation by the seismologist of the Dominion Observatory. In reply to a query in the House of Commons recently, the Honorable Charles Stewart, Minister of the Interior, presented an interim report on the earthquake investigations, which in part was as follows:

The data given in this preliminary report were gathered during a trip of investigation covering the north shore of the St. Lawrence between Quebec and Murray Bay, the south shore from Lévis to Trois Pistoles, and the Lake St. John region as far east as Ha Ha Bay. The two chief objects were the listing of evidence indicating the epicenter, or origin, and an examination into the truth of the reports of damage sustained. The first object has been attained in a tentative way, and the second fairly definitely for the area concerned.

Without going into details it may be said that at present it is thought that the epicenter is in the mountainous region near the eastern boundary of the Laurentides Park. However, that section of the country is practically inaccessible at this season, and data can be better gathered there later, if promised reports from lumbering companies, together with other information already accumulated or still to come should not serve to settle the question definitely.

The fact must be recognized that considerable serious damage was done at several points; on the other hand, many of the reports were exaggerated and some were pure inventions. The damage was not so much a function of the distance from the epicenter as of the nature of the ground and the character of the buildings. The major damages were at Quebec, Shawinigan Falls, Malbaie, St. Urbain and the district near Rivière Quella. They were in no case widespread or general, and applied in most

cases to massive stone structures, without steel reinforcement, such as churches. Minor damages, such as falling of chimneys and breaking of windows, were somewhat more common. As the character of the ground was more rocky or the distance from the epicenter was greater the minor damages were limited to those caused by falling pictures, statues, bottles, etc. Where the damage was relatively serious the ground was found in every case to be sand or clay, usually on the side of a hill.

As in the case of all earthquakes of any considerable intensity, the main shock has been followed by a series of minor ones which are still felt at intervals. Earthquakes have occurred before in this region, the last severe one about half a century ago. Now that the accumulated stresses have, in all probability, been relieved, there is no occasion to anticipate further serious disturbances during the present generation. As an insurance for posterity, however, it would be well to pay some attention to location and methods of construction of new buildings. Where these are massive, and of stone or concrete construction without reinforcement by steel girders, it is preferable to have the foundation on rock or other solid substratum. Wooden or steel reinforced buildings are safe.

### THE UNVEILING OF A TABLET IN HONOR OF THOMAS ALVA EDISON<sup>1</sup>

ON the scene where he conceived many of his great inventions and carried on the experiments which resulted in the perfection of his greatest work, at Menlo Park, N. J., a bronze tablet, commemorating these achievements, was unveiled in honor of Thomas Alva Edison on May 16. The tablet was the gift to the State of New Jersey of the Edison Pioneers, men who worked side by side with the inventor in the old days, and it was unveiled by Mrs. Edison, the inventor's wife, while prominent speakers related the tremendous effect his inventions had had upon the progress of mankind.

The inventor himself did not take an active part in the proceedings, but happy as a schoolboy sat on the platform and strained his ear to catch what was being said about him. He heard the affair being broadcast by a process which he had a share in perfecting and posed for the moving pictures which was among his many inventions. The tablet, set in a huge granite boulder with a base of concrete containing bricks from the foundation of the first Edison home in Menlo Park, is on the Lincoln Highway close by the original Edison laboratories and workshops. Participating in the affair were about six hundred of Mr. Edison's friends and former associates, who sat in chairs placed directly on the highway, the traffic over which had been diverted for the occasion. The tablet bears this inscription:

<sup>1</sup> *The Times*, New York.

On this site—1876–1882—Thomas Alva Edison began his work of service for the world to illumine the path of progress and lighten labor for mankind. This tablet is placed by the Edison Pioneers to attest the gratitude of the industries he did so much to create.

As a state monument, the tablet was formally given into the custody of Governor George S. Silzer by John W. Lieb, vice-president of the New York Edison Company and first electrician of the original power generating station built by Edison in New York in 1882, who presided over the ceremonies. In accepting the tablet, Governor Silzer said in part:

This is historic ground, for it marks a step in the progress of the world.

Here, in enduring bronze, is recorded for all time the fact that on this spot Thomas Alva Edison, by his genius, his industry and his ability, made some of the greatest discoveries the world has ever known, and thus made this a better world and a happier place in which to live.

It is especially gratifying that this should take place in the lifetime of him whom we honor to-day, and that the inspiration should have come from those who here labored with him and who shared with him the thrill of discovery and achievement.

In an address following the dedication of the tablet Dr. John Grier Hibben, president of Princeton University, recalled a visit he had made to the first Edison laboratory when he was a student at Princeton.

In my memory there is a permanent deposit of awe and reverence, as I think of the new light that came into the world. . . . This new discovery of light led inevitably to the revolution of power as well, and a new source of energy became available for man.

This illustrates one of the general tendencies of nature, that light is in some mysterious manner invariably connected with power. And this is true not only of nature, and particularly of the interaction of the forces of electricity and magnetism, but it applies as well to the activities of the mind and the moral and spiritual strivings and ambitions of man. Wherever we find light there is also the potential of power.

Pointing to the scene of the first Edison laboratory, a few feet from the tablet, Mr. Lieb in his dedication address declared:

It was here that the master dreamed great dreams and saw great visions, and with courage undaunted and constant faith, with perseverance and determination, he pursued not "the tenor of his way," but the uphill road of the climb of an Alpine peak, overcoming obstacles and disappointments at every hand in order to bring his bold conceptions to a practical fruition.

On this spot many inventions were made, many attempts launched to wrest from nature her secrets and many ingenious combinations were devised to bring the new agent—electricity—into subjection and make it the

docile servant of man. From the beginning Edison saw that this new force would introduce a revolutionary economic factor into our lives. More than forty years ago he realized that the mere pressing of a button would place every man, woman and child in a new relation to their environment, vastly increasing the productive capacity, diminishing the drudgery and manual labor required in the home, lightening the way and lifting the load of mankind everywhere. The supreme confidence and indomitable spirit with which the goal was relentlessly pursued must remain for all time a cause for wonder and admiration.

Charles L. Clarke, president of the Edison Pioneers, spoke of the men who had worked so long with Edison and shared in his triumphs. Edwin W. Rice, Jr., chairman of the General Electric Company, declared that the discovery of the so-called "Edison effect" by Edison in his work on the incandescent lamp in 1883 together with other early Edison inventions paved the way for the modern radio art. Mr. Rice confessed that in the early years at Menlo Park he was "among the skeptics" but came to appreciate the inventor's genius. After reviewing the benefits which had come to mankind through a few of Edison's more important inventions outside of the electrical field, such as the telegraph instruments, the stock ticker, the typewriter, the electric pen, the mimeograph, the phonograph, the alkaline storage battery, the motion picture camera, and his contributions to the telephone and to the process of manufacturing portland cement, Mr. Rice said of his work in the electrical field:

Viewed from the standpoint of to-day, Edison's achievements of that early period appear almost miraculous. They have stood the test of forty years of the most extensive and intensive technical and commercial development of the electrical industry.

Samuel Insull, president of the Commonwealth Edison Company of Chicago, closed the addresses. He was intimately associated with Mr. Edison for many years, first as his private secretary and confidential adviser and later directing his manufacturing enterprises.

#### THE NAPLES ZOOLOGICAL STATION AND THE AMERICAN ASSOCIATION

THE American Association for the Advancement of Science has continued for another year its support of the American Association table at the Naples Zoological Station. The sum of five hundred dollars was appropriated for the station for the year 1925 and a like sum has now been appropriated for 1926. Members of the association who desire to occupy the table should make application to the permanent secretary's office as soon as they make their decision and can