

CHAPTER XII

THE SEISMOLOGICAL OBSERVATORY OF LOYOLA UNIVERSITY OF THE SOUTH, NEW ORLEANS, LOUISIANA

By James B. Macelwane, S. J.

In the spring of 1909 correspondence with the Reverend Frederick L. Odenbach, S. J., of Saint Ignatius College (now John Carroll University) in Cleveland, Ohio, resulted in the purchase of two seismographs from the firm of Spindler and Hoyer in Goettingen, Germany. These two seismographs were a horizontal component and a vertical component instrument, both of the eighty kilogram type.

Through the generosity of Mr. Nicholas D. Burke, a special building was erected on the campus in 1911 at a cost of approximately \$5,000.

The Nicholas D. Burke building is an octagonal structure with an outer compartment and an inner instrument room with shallow piers and a glazed partition. The great thickness of unconsolidated sediments and the approach of the water table to the surface of the ground in New Orleans seemed to preclude isolation.

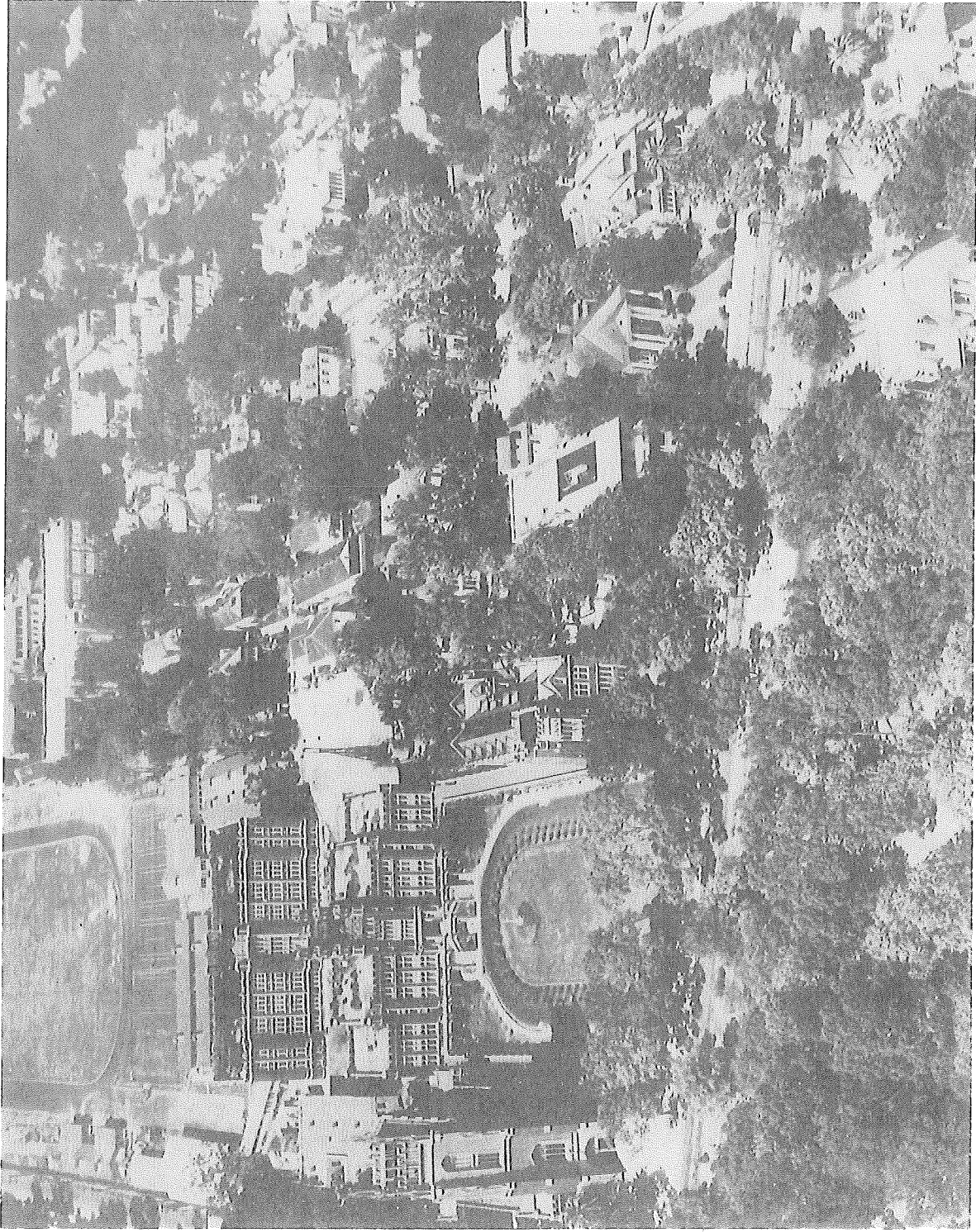
When the seismographs arrived they were set up and adjusted by Fathers Joseph B. Franckhauser, S. J., and Anthony L. Kunkel, S. J. The latter was appointed eventually as



Reverend Karl A. Maring, S. J.
Present Director of the Loyola University
Seismological Observatory



Reverend Francis A. Benedetto, S. J.
Assistant to the Director



Loyola University from the Air - The campus extends to the street at the right; the white patch back of the crane in the middle ground is the new library under construction (1949); the Nicholas D. Burke Station is beyond the library; Bobet Hall is to the left and the Physics Building stands further to the left in the background.



Bobet Hall - The seismograph station is located in the basement.



The Long Period Horizontal Component Sprengnether Seismographs on the right and the Short Period Vertical Component Sprengnether Seismograph on the left
(Fathers Macelwane and Maring)

director of the Observatory and remained in charge until 1922 when he was forced by ill health to relinquish the care of the instruments.

Father Kunkel was succeeded for the school year of 1922-1923 by Father Anthony J. Westland, S. J., and he in turn by Father Edward T. Cassidy, S. J., during the year 1923-1924.

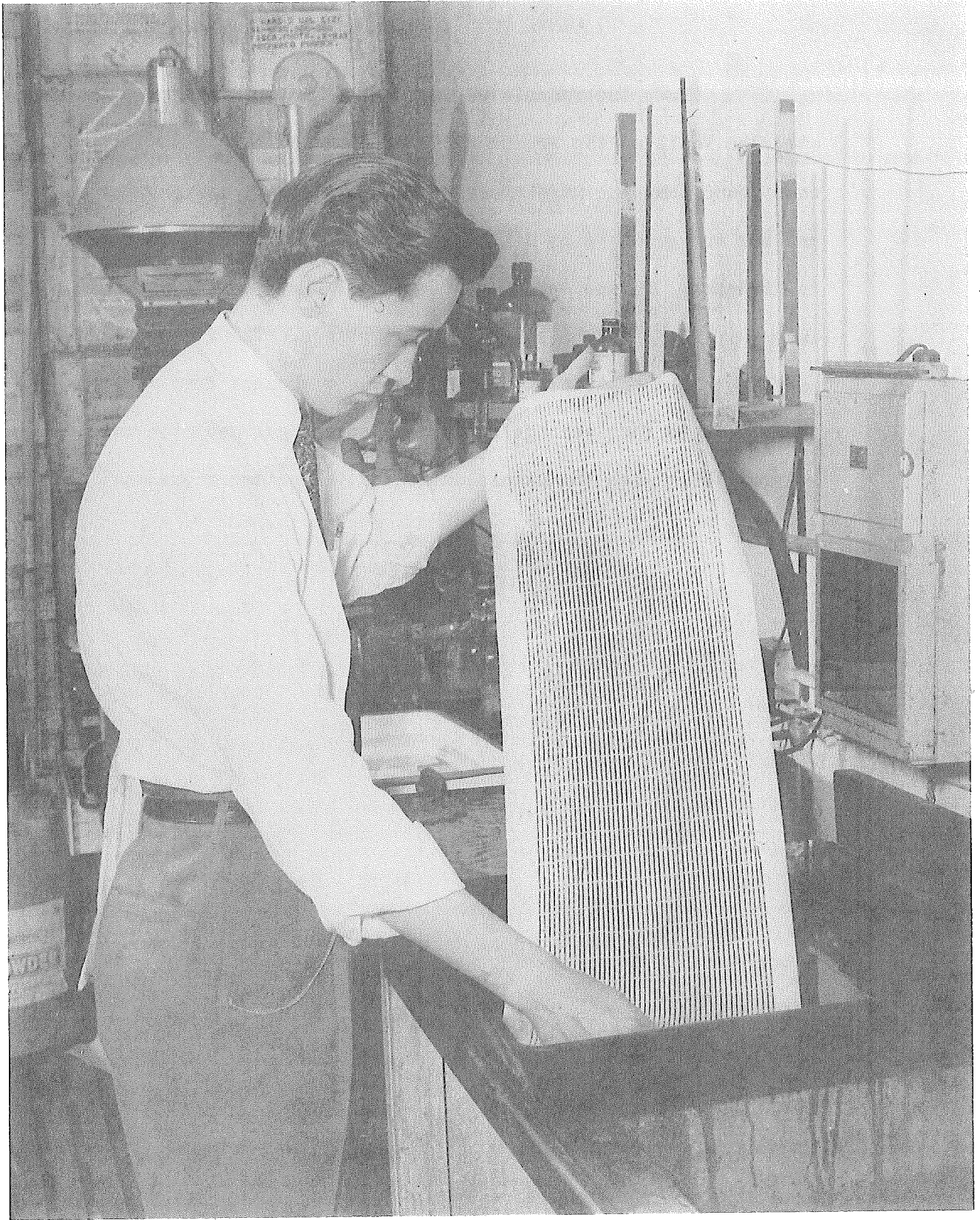
In the autumn of 1924 Father Oris L. Abell, S. J., was appointed director of the meteorological and seismological observatories. He immediately took steps to remove the seismographs to the newly erected Bobet Hall. The performance of the instruments, and particularly that of the vertical seismograph, in the Burke station had left much to be desired because of the moisture and temperature fluctuations to which they were subjected. Father Abell held the position of director for fourteen years, from 1924 to 1938.

In the summer of 1938 Father Abell was transferred from Loyola University and was succeeded by Father Karl A. Maring, S. J., the present director.

As soon as funds could be raised Father Maring set about the purchase of new equipment for the station. In 1946 an order was placed with the Sprengnether Instrument Company of Saint Louis, Missouri, for two long-period horizontal component electromagnetic seismographs, a short-period vertical component electromagnetic seismograph, and a triple recording drum.



Father Maring Checking the Standard Contact Clock with the Invar Pendulum



Mr. R. D. Delattes, Student Assistant, developing a Sprengnether seismograph record

These instruments were installed in a newly constructed vault on the ground floor of Bobet Hall. It was soon found that the magnification of about ten thousand times was far too great to be utilized in the very unquiet ground of New Orleans. During the day the seismographs recorded with large amplitude almost continual disturbance. The free period of the vertical component Sprengnether was changed from about one second to four seconds and a four-second galvanometer was substituted. Also the magnification of the seismographs was reduced.