

institutions, a member and fellow of many scientific and honorary societies in this country and abroad. He served at some time as president of a number of these societies, on the council of the National Academy of Sciences and on the executive board of the National Research Council.

One of the founders of the International Union for the Scientific Investigation of Population Problems, Dr. Pearl served as its first president. He gave a great impetus to a movement that has turned serious thought to problems of the utmost importance to students of social trends.

Dr. Pearl was a very wide reader, and the enjoyment and profit which he found in his general reading was evidenced in his book "To Begin With" (1927) in which he made an appeal, particularly to graduate students in science, to discover for themselves the satisfactions to be gained through reading.

In music, also, Dr. Pearl found especial satisfaction, devoting much of his meager leisure to it. Brought up in a musical family, he had at one time or another played most of the wind instruments, and after coming to Baltimore in 1918, he undertook to master the difficulties of the French horn. He became very proficient and for many years had played in two amateur musical clubs of which he was a member.

For a person of Dr. Pearl's enormous activity, it is perhaps fitting that he should stop in the midst of things. His work, however, has not come to an end, for within the university which he served, to the students whose minds he stimulated and in the scientific world to which he made such vast contributions, his influence will continue indefinitely.

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## SCIENTIFIC EVENTS

### DAMAGE FROM BOMBS TO THE ROYAL BOTANICAL GARDENS AT KEW<sup>1</sup>

It is so long since I have heard anything from you, or you from me, that I know you will be very grieved to hear how greatly Kew has suffered from enemy action.

Several high explosive bombs have dropped in the Gardens, as well as oil bombs and incendiary ones. Until recently we had not suffered very much damage, as the big bombs which fell were in the far parts of the Gardens. One fell at the north end of the Rhododendron Dell, where it only rooted up a few ordinary Rhododendrons and, of course, made a huge crater. The others fell in grassy spots in the Queens Cottage Grounds and made craters some 25 feet across, but did no damage otherwise, and the oil and incendiary bombs fell on lawns in various places and did no particular harm. A few days later some 6 smaller bombs were dropped near the Isleworth Gate and some were also dropped in the Sion House Meadows across the river. These damaged a good many trees. Some three weeks ago, however, a bomb fell on a house in the Kew Road, close to the Cumberland Gate, and very much glass was broken in Museum No. 1 and in the Orchid Houses, the Sherman-Hoyt House and other places. A bomb which fell on the other side of the river, at Brentford, caused a good deal of damage to the Herbarium, as the blast broke about 100 panes of glass in the middle wing, and a bomb which fell at

the foot of Kew Bridge, on our side, broke much glass in No. 4 Museum and in most of our houses along the Kew Road.

Our worst damage unfortunately took place about a week ago when a bomb fell in the early morning in front of a house in the Kew Road, near the North Gallery. The blast from this blew down some 60 yards of our boundary wall and did much damage to the North Gallery and the two adjoining houses in the Gardens. The pictures in the North Gallery, however, had all been removed some time previously to a place of safety. The blast from this bomb also smashed thousands of panes of glass on the east side of the Temperate House, and I fear it will be impossible to repair the damage and should there be a bad winter, no doubt many of the fine specimens will perish. About the same time another bomb fell between the Palm House and the Azalea Garden and destroyed a number of interesting trees in the Ash collection and the blast smashed many hundred panes of glass in the Palm House itself and in the Water Lily House. Here again it will be very difficult to effect repairs and save some of our unique plants, but I am hoping that we shall be able to make sound the southern end of the Palm House, where magnificent Cycad specimens are housed. On the evening of the same day, three bombs fell again near the Temperate House, one in the Heath Garden to the West of King William's Temple, where many interesting Chinese Rhododendrons, Arbutus and other plants were smashed to atoms, and the blast from this bomb broke much more glass in the northern end of the Temperate House. An oil bomb fell close to the Temperate House, but as this smashed a water main, no particular damage was

<sup>1</sup> Dr. E. D. Merrill, Director of the Arnold Arboretum, submits this private letter, recently received from London, indicating the extent of damage to the Royal Botanic Gardens at Kew from indiscriminate bombings. The Director of the Royal Botanic Gardens is Sir Arthur Hill, recently honored by being awarded the George Robert White Medal of the Massachusetts Horticultural Society.

done. The third bomb was a delayed action one, and this I am glad to say has been safely removed before it exploded. It was found to be some 16 feet down and was about 500 pounds in weight. Since then I am glad to say we have not suffered, though several bombs have fallen to the south of us in the Old Deer Park.

I am hoping it may be possible to find accommodation for some of our rarer plants from the Palm House and Temperate House in some place of safety. We are also taking steps to move some of the Herbarium specimens, but with the indiscriminate bombing which is taking place, it is very difficult to find any place which may be safe from enemy attack.

I know that you and other kind friends in America will be very much distressed to hear how Kew has suffered from enemy action, and I much hope that we may be left in peace and that we shall suffer no further damage, as there is no sort of military objective anywhere in this part of the world.

Your sympathy and help are very much appreciated by all of us.

#### ENGINEERING DEFENSE TRAINING

DEAN S. C. HOLLISTER, of the College of Engineering, Cornell University, has been appointed regional adviser for the State of New York outside New York City on the new national program for Engineering Defense Training. Congress recently appropriated \$9,000,000 for special engineering courses at the college level, to be given at government expense. The objective is to train 30,000 students with technical backgrounds to meet future needs of both industry and government in carrying out the defense program.

According to the statement from the Office of Education in Washington, "Courses of study will be given by the colleges both for those able to devote their entire time to preparation for future defense jobs and for workers now employed who desire to fit themselves for more responsible assignments. All instruction will be of college grade equivalent to that given regular candidates for a degree, but the special courses, which will require from two to eight months of study, will concentrate upon training of immediate practical application to specific defense jobs. Classes will be held both at the engineering schools and in or near industrial plants for the benefit of part-time and evening students. The regular college teaching staffs will be supplemented by additional teachers including specially qualified men from the industries to be served."

Dean Hollister for several weeks has been in constant touch with state schools involved: Clarkson College of Technology, Rensselaer Polytechnic Institute, Union College, Syracuse University, the University of Rochester and the New York State College of Ceramics at Alfred, in addition to Cornell University. In this program, he acts as a liaison officer maintaining con-

tinual contact with defense industries, Army and Navy district offices, employment services and other sources of information on personnel needs, as well as with local engineering schools equipped to meet demands for training courses as they arise. He is keeping the Washington headquarters continually informed so that deficiencies in any one region may be met, if necessary, by training students in other places where facilities are available.

A survey of the needs of industries in Southern Tier counties of New York State, where courses might be offered by Cornell University, has been made by the College of Engineering. Courses will be set up as rapidly as possible.

#### THE SCIENCE CARAVANS OF THE GENERAL MOTORS CORPORATION

ALFRED P. SLOAN, JR., chairman of General Motors Corporation, has announced the dedication of two science caravans "to the vital task of arousing the nation to the necessity of intensifying its research activities." He points out that "the hope of America, in time of emergency as in time of peace, lies in the retorts and test tubes of its laboratories." Both caravans will start within the next few weeks.

Mr. Sloan, in his announcement, writes:

Our decision to send forth the "New Parade of Progress" and the "New Previews of Progress" to spread the gospel of research is, we are convinced, eminently sound. Only a cursory glance at what is taking place in the world to-day is needed to impress on one the importance of constant search for new products and processes.

And new products and processes will be equally important to take up the slack of men, money and materials when our present emergency shall have ended. As a nation we should be spending ten—even one hundred times as much as we do for research.

The two General Motors shows, presented without charge to the public, will demonstrate not only what industrial research and engineering have accomplished, but also what may be expected from the laboratories of the future if America takes advantage of its opportunities.

The Parade of Progress will be presented out-of-doors, while the Previews of Progress is designed for indoor performances. Both will reproduce the highlights of the General Motors exhibits at the New York and San Francisco World's Fairs. They were designed and constructed under the general supervision of Dr. Charles F. Kettering, vice-president in charge of research, and will be sponsored by the Department of Public Relations, which is in charge of Vice-president Paul Garrett.

The Parade, with fifty young technicians, will go to the larger cities of the south; Previews of Progress, with a personnel of seven trained young men and de-