

an aluminized surface and are oriented so that the vibration directions of the two layers are crossed relative to one another. The light and shade of the 'left' image is controlled by the number of sub-microscopic crystals in one of the layers, and that of the 'right' image by the crystal distribution in the other layer. The 'left' image is seen by the left eye through a 'Polaroid' filter placed in front of the eye to act as analyser, the vibration direction of the analyser being crossed with respect to that of the 'left' image. The white areas of the image are thus represented by regions where the polaroid crystals are absent, and the blacks by areas of maximum concentration; further, since the left-eye analyser is parallel relative to the vibration direction of the 'right' image, the presence or absence of crystals in the latter have no effect on the appearance of the 'left' image. A similar viewing arrangement is used to enable the right eye to see the 'right' image.

The result is startlingly effective. The simplicity of the viewing equipment and the approximate superposition of the two images make fusion a matter of no difficulty whatever. When the original photographs are taken from an aircraft, the distance apart at which they are taken can be made large to give the effect of an exaggerated interocular distance. This leads to a greatly enhanced stereoscopic effect which can obviously have very important applications.

### Chemical Laboratory Planning

THE design of modern industrial chemical laboratories has been dealt with recently by E. D. Mills (*J. Roy. Inst. Brit. Architects*, 51, No. 2, 27; Dec. 1943). The article, although short, contains some useful details and illustrations, with a short bibliography, and should be useful to those responsible for the erection and equipment of chemical laboratories. Further information about such matters as ventilation (which is quite different from that for normal buildings) would have made it more informative and practical. Many architects have very little idea of what is required, and actual figures are not easy to find.

### Ancient Astronomy

A SERIES of articles entitled "Man and His Expanding Universe" is appearing in *Sky and Telescope*, the first of which, in the December issue, deals with Egyptian astronomy. As the life of the Egyptians depended on the overflowing of the Nile, the beginning of which occurred near the time of the summer solstice, the priest-astronomers held a very high position because they knew that the solstice took place about the time of the helical risings of certain stars. Owing to the precession of the equinoxes, the same star could not be used indefinitely, and it is possible to correlate the times of the buildings of some of their temples with our modern calendar, by calculating the times of the helical risings of some of the principal stars. The solar temple of Amen-Ra at Karnak was so oriented that at the summer solstice the setting sun was able to shine through the entire length of the temple and illuminate a golden image in the sanctuary, and the worshippers saw, not the image itself, but "the presence of the god Ra himself in the sanctuary".

The subject is continued in an article in the January issue of *Sky and Telescope* which deals with Chinese and Babylonian astronomy, in so far as a knowledge of the subject was applied to the orienta-

tion of temples. Reference is also made to Solomon's Temple, which was so oriented that the rays of the rising sun at the spring and autumn equinoxes penetrated to the Holy of Holies and were reflected by the jewels of the high priest. The basilica of St. Peter's, Rome, is placed due east and west, so that the rays of the rising sun at the vernal equinox can illuminate the high altar at the end of the nave. These articles present many interesting features and explain the orientation of public buildings thousands of years ago when astronomical knowledge was often deliberately concealed from the people, thus enhancing the prestige of the priest-astronomers.

### Poliomyelitis in Chile

ACCORDING to a recent official report, only 99 cases of poliomyelitis were observed in Chile during the period 1937-41. 84 of the cases occurred in children less than two years of age, and only one in the age group 5-10 years. No case was observed in persons above ten years of age. Of the 99 cases, 98 showed motor weakness of the lower extremities, and in 11 the paralysis involved the upper extremities also; in one third of the cases the paralysis was bilateral.

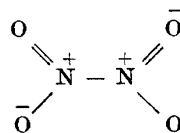
### Institute of Physics: Australian Branch

PROF. A. D. ROSS, professor of physics in the University of Western Australia, has been elected president of the Australian Branch of the Institute of Physics. The previous presidents have been Prof. T. H. Laby of Melbourne and Prof. Kerr Grant of Adelaide. Dr. Ross has been local honorary secretary of the Institute in Australia for some twenty years, and he was the first to suggest the formation of a branch of the Institute in Australia. The Branch now includes more than 120 fellows and associates, apart from subscribers and students, and active divisions meet regularly during the year in Melbourne, Perth and Sydney.

### Pharmaceutical Scholarships for Chinese Students

THE Pharmaceutical Society of Great Britain announces that five pharmaceutical manufacturers have each agreed to give scholarships to enable pharmaceutical graduates from China to take a two years course at the University of London. They would then return to China to help to train the 50,000 pharmacists required for General Chiang Kai-shek's ten-year plan for public health services. The donors of the scholarships are Messrs. Allen and Hanburys, Ltd., London; Messrs. Boots Pure Drug Co., Ltd., Nottingham; Messrs. Evans, Sons, Lescher and Webb, Ltd., Speke, Liverpool; The Wellcome Foundation, Ltd., London; and Messrs. May and Baker, Ltd., Dagenham. The suggestion for such scholarships came from Mr. A. H. Bentley, a pharmacist who escaped from the Japanese in Hong Kong. It is expected that the cost of each scholarship will be £1,400.

ERRATUM. In the communication by H. C. Longuet-Higgins in *NATURE* of April 1, p. 408, formula (iii) should read



The term "nitrogen tetroxide" should have been used throughout, instead of "nitrogen peroxide".