in soft rubber which at great depths is highly compressed. By their use, visibility is quite good at a depth of 400 ft. and photographs have been obtained at this depth. They are also used for salvage operations. Lamps at voltages which give them a life of about an hour only are used for photographic work. At still higher pressures we get the 'photoflash' lamp which is only used for instantaneous flashes. When used in a bulb of special blue-coloured glass, the blinding effect is negligible and the photographic effect is little impaired. In Europe, remarkable progress has been made in developing electric discharge lamps. In the United States, sodium and mercury lamps are used; the latter is the more popular for interior lighting. The Statue of Liberty in New York Harbour is flood-lighted, the intensity of the illumination being 30 foot-candles. Golf courses are now being lighted and playing at night is proving popular. A few courses are lighted by filament lamps, the consumption being 5–10 kilowatts per hole. Steam and sailing yachts are sometimes flood-lighted, the canvas and the funnels being illuminated. As well as being decorative, this adds to their safety. One of the chief uses of ultra-violet energy is for the purification of liquids. By means of a cinema film, the purification of water by killing the bacteria with ultra-violet rays was shown.

Steam Tables

WHEN a conference of American engineers and physicists decided in 1921 on a research programme to produce more accurate data on the properties of steam, investigation of the properties of saturated steam was assigned to the National Bureau of Standards. Recent research both in America and in Great Britain has increased the available data, and in the July issue of the *Journal of Research* of the Bureau, Messrs. N. S. Osborne and C. H. Meyers give the results of their examination of it in the form of tables of the saturation pressure and of its rate of change with temperature in both atmospheres and kilograms per square cm. units for each degree Centigrade and Fahrenheit between −5° C. and 374° C., the critical point being 374·1° C. The results of Holborn, Scheel and Henning of the Reichsanstalt, Egerton and Callendar, Osborne and his colleagues of the Bureau, Keyes and his colleagues of the Massachusetts Institute of Technology have all been utilised. At temperatures below 200° C. they differ very little from each other, and even near the critical temperature the differences are less than 0·1 per cent of the pressure, which is nearly 218 atmospheres. Both saturation pressure and its variation with temperature are expressed in terms of absolute temperature by empirical formulæ modified from those in common use, but it is not intended that for practical purposes the formulæ should replace the tables.

The University in the New Age

MR. MAYCOCK, in a contribution to the *Hibbert Journal* (**32**, No. 4), hopes that the universities may save us from an anarchic and materialistic society "where all will live for the moment in a chaos of pure sensation". This salvation will be possible only if the universities have due reverence for the traditions of their past, and for the value and dignity of learning. A survey of their history shows that they have to-day a great opportunity. They are once more as influential as they were in the Middle Ages; all that is wanting is an equivalent of the medieval synthesis. Mr. Maycock sees hope for this in the present-day pre-occupation with the social sciences, since these lead more readily to integration than the nineteenth century development of physical science. Over-specialisation has put learning out of touch with life, and has endangered our social order, and this the universities can remedy, not by becoming technical schools but by teaching an attitude to knowledge; the new age needs to recover the spiritual values of the Middle Ages, and, like Aquinas, to call those men wise "who control things rightly and set them in order".

Nations and the Public Health

INTERNATIONAL co-operation in public health is assuming much importance at the present time, and formed the subject of Sir George Buchanan's Milroy Lectures, delivered before the Royal College of Physicians, London, in February and March last (reprinted from the *Lancet*, April and May, 1934, pp. 879, 935, and 992). After some introductory remarks respecting the Rockefeller Foundation, the Red Cross and League of Red Cross Societies, he proceeds to survey some of the public health activities of the League of Nations, and of the Office International d'Hygiene Publique, Paris. The former have included health missions to various countries, international regulation of opium and drugs of addiction, statistics and radiological treatment of cancer, standardisation of biological products such as therapeutic sera, and inquiries into the laboratory procedures employed in the Wassermann test for syphilis. At the International Office in Paris, a permanent committee of delegates, representing fifty-one Governments, meets in regular half-yearly sessions, and is concerned with the prevention of plague, cholera and some other communicable diseases. It drafted the International Sanitary Convention, 1926, which deals with quarantine and de-ratisation of ships, it co-ordinates the sanitary control of the Mecca Pilgrimage, and it drew up the International Sanitary Convention for Aerial Navigation, 1933, which has already been signed by many nations. These international meetings also serve to establish a personal relationship with fellow-workers overseas and in foreign countries, and are invaluable as a time-saver when dealing with common problems.

Meteorology of India

IN a lecture delivered to the Royal Society of Arts on April 13, an account of which appears in the *Journal* of the Society (**82**, No. 4256), Mr. J. H. Field discussed the meteorology of India. In his lecture, Mr. Field gave interesting accounts of recent developments, such as the detection of cyclones at sea by the indications of seismographs, a subject developed