

without an acknowledgment of such provision, by means of the broadcasting service, might be permitted. This would be especially useful in the earliest stages of television broadcasting. We are glad that the Committee has recommended that the Empire service should receive express authorisation and should be fostered and developed, and that the appropriate use of languages other than English should be encouraged. In conclusion, the technical investigation of interference with broadcast reception should be expedited, and compulsory limiting powers sought if necessary.

#### New Northern Ireland Broadcasting Station

THE new Northern Ireland Regional Station of the British Broadcasting Corporation was opened on March 20 by the Duke of Abercorn, Governor of Northern Ireland. This new transmitting station is situated at Lisburn, about nine miles south-west of Belfast. An illustrated technical description of the station given in *World Radio* of March 20 shows that the design is based upon the experience obtained by the B.B.C. in the erection and operation of the other regional stations. The total power output of the new transmitter is 100 kw., and its electrical circuit is very similar in general design to that of the long-wave national transmitter at Droitwich. In normal circumstances the power supply for the station is obtained from the system of the Electricity Board for Northern Ireland, which has installed duplicate overhead feeders connected to its 33,000 volt ring main. An emergency supply has, however, been installed, in the form of a 600 horse-power Diesel engine driving a 400 kw. three-phase alternator. In addition to the transmitter hall and machine room, the station building contains a control room and office and studio accommodation.

A FEATURE of great technical interest in the Northern Ireland station is the use of a steel mast about half a wave-length high as the actual aerial, the object of which is to reduce fading as much as possible on the outskirts of the service area. This mast is a cigar-shaped lattice steel structure, 475 feet in height, supported by two sets of stays. The base of the mast rests on a ball-and-socket carried on a heavy plate which is insulated from the concrete foundation by porcelain cylinders. The mast is surmounted by a sliding top-mast, consisting of a steel tube with a horizontal ring at the top. The maximum height of this top-mast is 75 feet, but the electrical length in use has been adjusted to suit the operating wave-length of the station. The aerial tuning circuits are contained in a building at the foot of the mast, and concentric feeders connect these circuits to the output end of the transmitter.

#### Dr. H. H. Poole: Award of the Boyle Medal

THE Council of the Royal Dublin Society, on the unanimous recommendation of the Science Committee, decided at its meeting on February 13 to award the Boyle Medal to Dr. H. H. Poole. Dr. Poole, in his capacity as registrar of the Society, has

charge of the Society's scientific publications and of its stock of radium, from which originates almost the whole supply of emanation for the Dublin hospitals. The method of preparation is that originally worked out by Joly and since improved by Dr. Poole, a number of whose papers relate to radium therapy. Dr. Poole's first work, beginning in 1910, was done in the geological field under Joly's inspiration, and a series of papers was published on the thermal conductivity and specific heat of minerals in their relation to the general question of continental displacement. At a later date, Dr. Poole became interested in the measurement of daylight, characteristically because his colleagues in the biological field required help. He has now made the subject of photo-electric cells and light measurement peculiarly his own, and the practical application to the measurement of diurnal and season variation in daylight and the penetration of light waves into woods and especially into the sea have been valuable. The stream of work on this subject is still in full progress, and a total of some twenty-eight papers have appeared in the last ten years, many in collaboration with Dr. W. R. G. Atkins, of the Marine Biological Laboratory, Plymouth.

#### American Flood Devastation

EVERY now and again, Nature seems to take an impish delight in playing havoc with man's efforts to control her vagaries, flinging aside his puny restraints and sweeping both him and his works into a common destruction. One of her most potent agencies is water, and the catastrophic visitation which, following sudden heavy rains and melting snows, descended on fourteen highly industrialised and commercial States in the eastern part of the North American continent during the past week or ten days is the latest example of her indiscriminate violence. On March 18, with little or no warning, the Pennsylvanian towns of Johnstown and Pittsburgh, notable centres of the steelwork industry, found their streets submerged to depths of 10-15 ft., and in places considerably more, so that the unfortunate inhabitants were speedily reduced to dire straits from shortage of food and drinking water. Many were compelled to spend a night of terror perched on the roofs of their houses, scantily clothed, while a number of them, approaching one hundred, regrettably lost their lives in the darkness and confusion. Johnstown was the scene of a terrible disaster in May 1889, when a reservoir above the city collapsed, causing the loss of 3,000 lives. Pittsburgh, too, had a serious flood in 1913. On the present occasion, the estimates of damage to property run to 40 million pounds sterling at Pittsburgh and to 7 millions at Johnstown, at which latter place some 8,000 persons are said to be homeless. The whole countryside, in fact, in eastern Pennsylvania has been more or less under water.

PRACTICALLY simultaneously, the rivers in all the New England States, with those in New York, New Jersey, Delaware, Maryland, Virginia, West Virginia

and Ohio, rose to flood heights. The River Connecticut broke down dams and bridges, inundating towns and low-lying districts, and causing factories to close, throughout its entire length from northern New Hampshire to Long Island Sound. In the State of Massachusetts, industry and transport were similarly paralysed. The damage to property in New England is put at more than ten million sterling. Farther south, the River Potomac has been badly swollen and the city of Washington was invaded. Although at the time of going to press the floods are reported to be subsiding in the afflicted districts, apprehensions are entertained as to the creation of new danger areas when the augmented waters of the Ohio reach the Mississippi at Cairo (Illinois). Portsmouth (Ohio) and Cincinnati are threatened, and hurried precautionary measures are being taken. So widespread has been the calamitous visitation that it has extended even into Canada, affecting the provinces of Ontario, Quebec and New Brunswick. Fredericton, the capital of New Brunswick, has been largely under water, in addition to large stretches of the adjoining country.

#### 'Bush' Culture in the New Hebrides

OWING to recent economic developments in the islands of the Pacific, it is becoming increasingly difficult for the anthropologist to find material for observation there in the field of social and cultural anthropology. The sophistication of the native through European contacts has indeed always been a difficulty, but post-War development, especially plantation employment, has led to a rapid disintegration and even a blurring of the memory of tribal institutions. Such, for example, was the experience of Miss Beatrice Blackwood in the Solomon Islands, when she was compelled to seek the remoter islands of the group before she could begin her investigations. A similar experience befell the members of the Oxford University expedition to the New Hebrides. It is noted in the recent report of the Oxford University Exploration Society that it was only in the bush that unspoiled material was to be found. Here, however, conditions are still to a considerable extent unchanged, as was indicated in the account of the natives of Malekula given before the Royal Geographical Society on March 16 by Mr. T. H. Harrison, who resided on this island of the New Hebrides from August 1934 until July 1935, and took a census of the inhabitants of this and the adjacent small islands. He assesses their numbers at approximately 10,000.

THE Malekulans are not entirely unknown to European science. They were studied intensively by the young Cambridge anthropologist J. Deacon, whose recent untimely death when on his return will always be held a heavy loss to science. Mr. Harrison, however, is of the opinion that the natives of Malekula, who have come under scientific observation through their European contacts, are free from the effects of certain psychological elements, which he observed as present among the inhabitants of the northern areas. Here man-hunting is both a sport and an ever-present cause of fear. War, arising out

of inter-village vendettas, is perennial. The people of Amok, a large village of 1,000 inhabitants, are real 'man-bush' and are referred to as such by their neighbours. During the year Mr. Harrison was with the Big Nambas, thirty men were killed and about seven were successfully taken back and eaten. Among the bush people the effect of the impact of the white man has been practically nil. They are still primitive-minded and dangerous in the old New Hebridean way. Notwithstanding this, Mr. Harrison maintains that these peoples are in many ways the most admirable in the Pacific. They have all their old zest and vigour, the will to live and their dogmatic pride. Yet though their mind is unimpaired, civilisation is rotting them away through disease. In 1932 whooping cough carried off six hundred Big Nambas, and in 1934 influenza caused about one hundred deaths.

#### Orthodox and Proselyte in Hinduism

AN interesting sidelight on the interplay of religious and political cross-currents is afforded by the ceremonial admission to Hinduism of proselytes of both sexes and all ages to the number of one hundred and fifty, which took place in an initiation by the Pandit Madan Mohan Malaviya on March 17 at Bombay. This was in part a demonstration against the attitude of the more rigidly orthodox Hindus, and in part a phase of the widespread movement, of long standing, but now of increasing civil importance, of adding to the nominal roll of Hinduism. This policy, which may fairly be regarded as liberal, is at present to some considerable extent influenced by the threatened danger that the Untouchables, irked by their ritual disabilities and the intolerance of the orthodox, may withdraw entirely from Hinduism, with serious political repercussions. An interesting account of the initiation by the venerable septuagenarian Pandit is given by the Bombay correspondent of *The Times* in the issue of March 18. It consisted of a purification ceremony, in which, to the recitation of sacred texts, the converts, with foreheads adorned with the holy red powder, bathed in the river and then bowed before the Pandit Malaviya, who sat under the holy peepal tree. He then gave to each a portion of *Panchgarya*, the sacred compound of the five products of the cow—milk, curd, ghee, urine and dung. When this had been consumed the Pandit whispered in the ear of each the *Nama Shivaya*, which is supposed to open heaven's gateway, and each convert vowed to speak the truth, to observe cleanliness, and to abstain from beef and liquor. To each was then given a petal of the sacred tulsi plant, a rosary card with rules of conduct and a piece of cloth on which were printed incantations. It is hoped by the reformers, it is stated, that these neo-Hindus will be accepted as full members of the community by the orthodox within ten years.

#### Tobacco Disease in Australia

THE tobacco-growing industry in Australia has in recent years suffered heavy losses from the disease commonly known as 'downy mildew' or 'blue-mould' (*Peronospora tabacina*). To raise disease-free seedlings in the principal growing areas by customary methods