

Mr. Oskar Barnack

THE optical industry is peculiarly one in which development seems to take place around individuals of special genius. We have only to think of names like Dollond, Fraunhofer, Abbe, and many others of later times to realise that this is so. Even to-day there are few optical firms without some one or two special persons around whom the whole activity seems to centre.

The firm of Leitz mourns the death, on January 16 at the age of fifty-seven years, of a technical leader in Oskar Barnack, probably best known to the world as the inventor of the Leica camera. He appears to have been a man of this type. Beginning his serious work in connexion with the design and improvement of cinematograph apparatus, he realised before the Great War that if a camera were made small and precise, pictures might be obtained which would bear a great deal of enlargement. An experimental model of the Leica was produced in 1913.

One advantage of such small cameras is that since the depth of focus for the object-space is dependent solely on the diameter of the lens, one can obtain a great depth of focus by the use of a small camera

using a lens of small actual aperture and small stop number, and the enlarged pictures have thus some advantages even over those made from cameras of larger size. Certainly the Leica has been a very popular camera since it first appeared on the market in 1924. Barnack was responsible for the design of a number of useful accessories.

Somewhat delicate in physique, Barnack was at once a firm disciplinarian, and a kindly leader of those employed under him. In this age of mass-production, it is worth while to remember how much any living industry must always owe to such individuals.

L. C. M.

WE regret to announce the following deaths :

Prof. P. F. Kendall, F.R.S., emeritus professor of geology in the University of Leeds, on March 19, aged seventy-nine years.

Mr. C. R. Richards, formerly director of the Department of Science and Technology of the Pratt Institute and a founder of the New York Museum of Science and Industry, on February 21, aged seventy years.

News and Views

Report of the Broadcasting Committee

THE Broadcasting Committee was appointed last year by Sir Kingsley Wood to consider the constitution, control and finance of the broadcasting service in Great Britain, and has now presented its report (Cmd. 5091. London : H.M. Stationery Office, 1936. 1s. 3d. net). The Committee states that it was impressed by the influence of broadcasting upon the mind and spirit of the nation and the immense issues involved. Its recommendations are directed towards the strengthening and securing of the position the B.B.C. has happily attained. It recommends that from the end of this year its charter should be extended for a term of ten years. The large measure of freedom from direct Parliamentary control makes it necessary to have some form of staff representation, and it suggests the constitution of one or more internal associations. It is difficult to give protection to those who are engaged to broadcast for remuneration. The B.B.C. should make it clear, therefore, that it welcomes criticism and that it would not exclude any person from an engagement merely because he had expressed adverse opinions on its activities. Most people will agree that the Exchequer should not retain any part of the net revenue collected from listeners until the Corporation has received an income sufficient to ensure the full and adequate maintenance and development of the service. The estimates show that during the next few years the necessary amount will be about 75 per cent of the licence revenue remaining after the deduction of the proportion required to cover Post

Office costs. The avowed policy of the B.B.C. is to hold the scales even between the various political parties, and on the whole this has been done successfully. As the broadcaster who has the last word during an electoral contest is at a great advantage because there can be no adequate reply to whatever he may say, it has been agreed that political broadcast should cease for three days before a poll.

THE published lists show that music takes up two thirds of the total time for all the programmes, and only half as much serious music is given as light music. The Committee looks forward to the time when every school will have wireless receiving apparatus as part of its normal equipment. At the present time, there are more than 3,500 schools in Great Britain regularly listening. Relay exchanges are organisations for receiving broadcast programmes and distributing them to subscribers over a local wire network. If the subscriber supplies his own loud speaker, the charge made is usually 1s. 6d. a week, but he must take out a licence. This method has the great advantage of requiring in the subscriber's premises nothing more than a switch and a loud speaker. In Germany, a standardised receiver has been designed and is sold at a low fixed price. A similar procedure in Great Britain might well be of benefit to the poorer classes, and should be considered by the B.B.C. and the wireless trade. Although direct advertisement should remain excluded from the broadcast service, 'sponsored' items, that is items provided gratuitously by any person with or

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