

centres contain more than their proportionate share. There is a preponderance among them of older and unskilled men. Mr. Dale directed attention to local contrasts in the quality of unemployment. In a depressed coal-mining town the registered unemployment was recently 3,700, or 47 per cent, while in a comparatively prosperous place of the same size it was 1,400, or 11·3 per cent; but the number of men who had been out of work for more than a year was 2,500 in the coal-mining town and only 117 in the other district. Cotton and coal are the industries in which short time is most common.

The Indian Statistical Institute

"A SCHEME for the Organisation of Statistical Researches in India," which was submitted for consideration to the Government of Bengal in August last, is largely concerned with a report on statistical researches which have been carried out since 1923. Prof. P. C. Mahalanobis, of the Presidency College, Calcutta, has been actively engaged during the past ten years in preparing reports for various Government departments, building up a laboratory for the application of modern statistical methods to a variety of problems and encouraging such studies in other ways. His labours in this direction have been receiving growing recognition and a plea is made for official support of the small institution which was created by individual initiative. The Indian Statistical Institute was founded in December 1931, for the purpose of promoting "the study of statistics both pure and applied and allied subjects", and the first part of *Sankhya: The Indian Journal of Statistics*, edited by Prof. Mahalanobis, was issued last June. This part contains original researches dealing with the theory of statistics and applications to particular economic, medical, anthropometric and psychological problems. There is obviously an enormous scope for useful work of this kind in India, and it is to be hoped that those who have proved themselves willing and capable of prosecuting it will receive all possible encouragement.

The Christmas World-Wide Broadcasts

FOR the second time, the Christmas Day programmes of all the British Broadcasting stations included a special hour, during which greetings were exchanged with various parts of the British Isles and the Empire, and terminating with a personal message from His Majesty the King delivered from his home at Sandringham. In addition, and for the first time, the special arrangements included a broadcast transmission of the chimes of the bells from the Church of the Nativity, Bethlehem, on Christmas Eve, December 24. A brief description of the technical arrangements by means of which these programmes were effected was given in the issue of the *Wireless World* for December 8. The communication with the different parts of the Empire took place through the Post Office beam transmitting stations at Rugby, the various circuits being operated from the switchboards in the Faraday Building, London, which was connected by a special line to the control room at Broadcasting House. The suggestion for a broadcast

of the bells of Bethlehem actually came from the National Broadcasting Company of America last year, but the idea could not then be put into practice. This year, however, thanks to the co-operation of the Colonial Office and the High Commissioner for Palestine, the chimes were relayed by overhead line to Cairo and thence to the Post Office beam station at Abu Zabal, which transmitted the signals direct to the Post Office receiving station at Baldoek, England.

These special Christmas programmes were not only broadcast through all stations of the B.B.C. including the Empire station at Daventry; they were also sent direct over the normal Post Office radio telephone routes to the Colonies and Dominions for local re-broadcasting; finally, and by no means least, arrangements were made for the signals and messages to be picked up by the American trans-Atlantic telephony station at Houlton, Maine. This last station was connected to the New York radio terminal switch-board and to the control rooms of the American National Broadcasting Company and the Columbia Broadcasting System, which together operate two great networks of several hundred stations scattered over the United States of America. It was a fitting conclusion to such Christmas programmes that His Majesty the King should broadcast his message from his study to the largest audience ever within the reach of one voice.

Opening of Radio City, New York

AN illustrated description of Radio City, the new headquarters of the National Broadcasting Company of America, in a seventy-story building at Rockefeller Centre, New York, appears in *World Radio* of December 8. This company operates, from the main control desk at Radio City, a network of 85 broadcasting stations stretching right across the United States. The new central building has provision for thirty-five studios, of which sixteen have been put into operation since the opening of Radio City on November 15. The main studio is 78 ft. × 132 ft., and it extends vertically through three stories of the building. A massed orchestra of four hundred instrumentalists were comfortably accommodated in the auditorium studio during the special programmes broadcast in the week following the inauguration. In view of developments in television, the most interesting of the new arrangements is perhaps the so-called 'clover-leaf' group of four studios on the ninth floor. These are built around a circular central control room, the floor of which can turn mechanically so as to face any one of the studios. This device enables four complete scenes to be prepared simultaneously and independently, and should considerably facilitate 'scene-shifting' in television programmes. All the studios have floors, walls and ceilings separated and insulated from the main building. As the provision of windows was impracticable, a large air-conditioning plant has been installed and it is claimed that this completely changes the air in the building every eight minutes. In addition to attention to the acoustical properties of the studios, technical improvements have been