

span of 6½ in., which was discovered by Dr. R. A. Wallace in Borneo. The sex ratio is such that the female is about one to every thousand males. The long-tailed blue butterfly of the English list also occurs here, and there are many skippers. There is also the giant atlas moth. Reptiles are not quite so evident as in India and Australia, but crocodiles are numerous, and Russell's viper and other deadly Indian snakes are found here too; also the largest living snake, the king cobra or hamadryad, with a recorded length of 18 ft. 6 in. There are many lizards, turtles and tortoises, including the flying lizard. There are some three hundred fishes in the rivers, including catfish and carp.

The flora of Malaya has been written up by H. N. Ridley, while from a horticultural point of view, the Western world has sent many collectors for its orchids. There are twenty-eight *Vitis* plants, sixteen *Vacciniums* and some seven hundred orchids and wild forms of many Western garden favourites like *Canna orientalis*. There are twenty-one *Dracænes*, thirteen *Carex*, five *Scirpus*, three *Lemna* and the tiny *Waffia*'s microscopic flowers in the ditches and wells. Some plants familiar to British botanists include the common reed *Phragmites communis* on river banks, the chickweed, *Stellaria media*, as a weed of cultivation and the dandelion *Taraxacum Dens-Leonis*, an 'escape' on the Penang Hill. The Malayan flora totals some nine thousand species, and of more than three hundred trees in which the tall *Dipterocarpaceæ* predominate, some half are peculiar to the Peninsula. Lianas, rhododendrons, epiphytes and small palms are characteristic.

Television in Colour and Stereoscopic Relief

HITHERTO, television has been confined to flat pictures. In a press demonstration on December 18, Mr. J. L. Baird demonstrated stereoscopic relief in combination with television in colour. Mr. Baird states that his first experiment in this direction was applied to his 600-line two-colour apparatus. The red image was made to 'view' the scene from a slightly different angle from the blue, so that the red and blue images constituted a stereoscopic pair, the receiving screen being viewed through glasses fitted with red and blue filters as in the anaglyph process. This, while simple, had the disadvantage that it was necessary to wear glasses and that, as the colour phenomenon was used to effect the change over from the right to the left eye, neither the colours nor the stereoscopy could ever be properly rendered. So far the object in mind had been to produce a system capable of being transmitted through the existing channels available to the B.B.C., but in an endeavour to produce as perfect a result as possible, it was decided to produce an entirely experimental apparatus regardless of existing practical limitations.

In the apparatus now demonstrated by Mr. Baird, the frame frequency has been increased from 50/sec. to 150/sec., the scanning altered to a field of 100 lines interlaced five times to give a 500-line picture, successive 100-line frames being coloured green, red and blue. At the transmitter a cathode ray tube is

used in conjunction with photo-electric cells, the moving light spot being projected upon the scene transmitted. In front of the projecting lens a mirror device consisting of four mirrors at right angles splits the emerging light beam into two paths separated by a space equal to the separation of the human eye. By means of a revolving shutter the scene is scanned by each beam alternately, so that images corresponding to the right and left eye are transmitted in rapid sequence. Before passing through the shutter disk the light passes through a rotating disk with blue, red and green filters. Thus superimposed red, blue and green pictures blending to give a picture with full natural colours are transmitted for left and right eye alternately. At the receiver the coloured stereoscopic pairs of images are reproduced in sequence and projected upon a field lens, alternate halves of the projecting lens being exposed by means of a rotating shutter, the image of the shutter being projected upon the eye of the viewer so that his left and right eyes are presented alternately with the left and right images, the combined effect being a stereoscopic image in full natural colours.

Poverty and Malnutrition in South Africa

EVIDENCE given to the Industrial and Agricultural Requirements Commission by Dr. T. W. B. Osborn on March 17, 1941, has now been published under the title "Remedies for Poverty and Malnutrition in South Africa". (Pp. iii+22. Johannesburg: Central News Agency, Ltd., 1941. 2s. 6d.). Dr. Osborn, pointing out that the mines managements of the Rand have already convinced themselves that it pays to put their native labour force on a well-balanced ration, emphasizes the significance of the prevention of malnutrition in regard to infantile mortality and general physique among the Bantu. The potential production of foodstuffs in South Africa is considered more than sufficient to give each member of the community an ample balanced diet. Distribution is the major problem—getting the right food to the people, by increasing their purchasing power, subsidizing consumption, or free distribution. He criticizes milling practice in the cereal industry and asserts that it is essential that the germ of the wheat should go back into refined flour and mealie meal. The conversion of more skim milk into food for human consumption, development of the margarine industry on the grounds of price, in spite of the butter surplus, encouragement of soya bean growing, of the consumption of meat, fish and peanuts by the poorer sections of the community, and of the use of vegetables and fruit rich in vitamin C, such as guavas and red peppers, are also advocated.

The consumption of these foods so as to eliminate malnutrition should be encouraged within the present economic framework by a system of subsidies, preferably a combination of free distribution, subsidy to the consumer and subsidy to commerce. Dr. Osborn cites for example a scheme to encourage the use of mealie meal containing 5 per cent of soya bean meal, and then discusses the long-term solution of the problem of removing poverty in the midst of