

of the fact that no Bantu gallery existed in South Africa, threw his collection open to the public, maintaining the gallery at his own expense. After twelve years, however, it was offered as a gift to the town of Kimberley, subject to the provision of suitable housing. The gift was accepted and the collection was officially declared open in 1938 as the Duggan-Cronin Bantu Gallery by Sir Ernest Oppenheimer, chairman of De Beers Company, in premises, formerly the guest house, generously provided by that company, together with £150 per annum towards the cost of upkeep.

The unique character of many of these photographs as records from the cultural, as well as the racial point of view, was the subject of commendatory reference at an exhibition which was held at a recent joint meeting of the Rhodesia Scientific Association with the newly formed Rhodesia Photographic Society at Salisbury (*Transactions*, 37; 1939), when attention was directed to, among others, the complete series illustrating the smelting of iron ore among the Mashona, and the initiation ceremony of the Bomvana Kwetas. In the Bantu Gallery at Kimberley the photographs are supplemented and further illustrated by objects of the tribal culture collected by Mr. Duggan-Cronin.

THE EARTH'S INTERIOR

K. E. BULLEN has examined the recent developments in knowledge of the earth's interior (*Acta Astronomica*, 4, April 1939). The most recent estimate of Gutenberg and Richter shows a radius of the core of 2,920 km., and work on near earthquakes suggests the existence of various crustal layers extending to a depth of the order of 30 km. from the surface of the earth. According to Bullen, if the variation of density between the earth's crustal layers and the central core were continuous, the moment of inertia of the central core would have to be $0.57 Ma^2$, where M is mass of core and a is radius of core. This, being in excess of the value $0.40 Ma^2$ which would hold for a homogeneous sphere, would appear to indicate a virtually impossible distribution of matter inside the central core. Thus some assumption made in obtaining these estimates appeared to need amendment. The amendment suggested by Bullen is that there is a change of material at a depth of the order of several hundred kilometres.

On account of the 20° discontinuity in the travel time graph of P waves from earthquakes which appears to be fairly well established, Jeffreys has suggested either an abrupt change at a depth of 474 km. (uncertainty 20 km.) or an appreciable variation from 300 to 700 km. below the earth's surface. Incidentally, 700 km. gives the depth of focus of the deepest focus earthquake yet recorded. Price and Lahiri have recently suggested a change of material at a depth of approximately 700 km. in the earth on the evidence of variation of electrical conductivity. Following work by Olczak, Jeffreys, Bernal, Benfield and himself, Bullen suggests the following distribution of matter within the earth:

| | Depth | Density range |
|----------------------|---------------|---------------------------------|
| Normal olivine layer | 30-474 km. | 3.32-3.69 gm. cm. ⁻³ |
| Cubic olivine layer | 474-2920 km. | 4.24-5.57 " |
| Central core | 2920-6371 km. | 9.77-12.29 " |

Concerning further density changes within the earth, Gutenberg and Richter have recently directed attention to the possibility of variation within the core itself.

SEVENTY YEARS AGO

NATURE, vol. 1, April 14, 1870

Left-handedness

"J. S." in a letter to the Editor concludes: "Left-handedness is very mysterious; it seems quite against physiological deductions and the whole tendency of arts and fashion. Prof. Buchanan, of Glasgow, who wrote an able memoir on right-handedness in 1862, thinks that left-handedness may be due to transposition of the viscera, and tells me that his friend Dr. Aitken found such a case. But surely transposition of the viscera must be far rarer than obstinate left-handedness. In cases of left-handed persons which I have examined, the links of the left side were proportionally larger, just as those of the right side are in normal cases. I have also found that left-handedness is hereditary".

Heat Units

THOMAS MUIR, writing from College Hall, St. Andrews, refers, in a letter to the Editor under this title, to the cumbersome terminology used to describe "units of heat", and makes the following comments.

"Define, first, as follows:—A *therm* is the quantity of heat necessary to raise the temperature of 1 gramme of water from 0° C to 1° C. Secondly 1 kilotherm = 10 hectotherms = 1000 therms = . . . , thus having kilotherm, hectotherm, &c., suggestively corresponding to kilogramme, hectogramme, &c., in name as well as in nature.

"Therms and kilotherms, which would probably alone be required in practice, would thus take the place of 'thermal units, centigrade', 'gramme-water-units', 'kilogramme units of heat', and others more or less lengthy and inexact at present to be found in writing, on Heat and Energy."

Postage on Printed Matter

THE Budget contains an announcement "of the greatest importance to men of science. The postage on printed matter not exceeding 2 oz., and on newspapers not exceeding 6 oz., is to be reduced to one halfpenny. We have waited a long time for this change: not too long, however, to welcome it warmly now it has come, for the tax on all authors of the postage of the scientific papers, copies of which they wish to distribute, has been very great."

At the anniversary meeting of the Chemical Society held on March 30, the president, Dr. A. W. Williamson, announced in his address that Messrs. Johnstone and Matthey had offered the Society a donation of palladium to be used for the preparation of the first ten Faraday Medals.

THE honour of knighthood has been conferred on Mr. Ronalds for his early researches in telegraphy.

UNIVERSITY EVENTS

ABERDEEN.—On April 4, the honorary degree of LL.D. was conferred on Sir William Jameson, professor of public health, University of London, and Prof. F. A. Lindemann, professor of experimental philosophy, University of Oxford.