

The third origin of exceptions is of critical interest. It concerns the apices of the fingers. On the thumb especially, the ridges do not lie exactly parallel to the hyponychia, and in normal hands occasionally a small loop is actually present towards the ulnar side (Fig. 11). In abnormal circumstances, when the nail is diminished or absent, as in onychia, the dermal ridges may extend over the area normally covered by the nail. In such instances, as might be expected on topological grounds, there are two loops without accompanying triradii (Fig. 12). The reason for this pattern is that the ridges have trespassed on to the dorsal surface of the hand, where the same rules apply independently as on the palmar surface. The presence of the normal nail indeed is a substitute for two loops, and, from the topological point of view, one belongs to the dorsal and the other to the ventral surface of the digit.

The topological analysis of dermal ridges, besides leading to searches for new configurations, may throw

light on the developmental background. The fact that the ridges run predominantly at right angles to the long axes of the limbs and the digits suggests that they take the shortest courses possible. The symmetrical form of most triradii, with angles of nearly 120°, is also compatible with this view. Observations on the ridge formations on palms and soles of both New World and Old World monkeys indicate that whorls occur on the volar pads¹. In the human foetus the pattern of ridges is determined at an early stage in the development of the limb when the proportional sizes of digits and pads are different from those in the adult. The permanent configuration is the result of laying a carpet of parallel lines, in some way as economically as possible, over the contours presented by the foetal hand.

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¹ Cummins, H., and Midlo, C., *Fingerprints, Palms and Soles* (Philadelphia: The Blakiston Company, 1943).

NEWS and VIEWS

The Council for National Academic Awards

H.R.H. PRINCE PHILIP, Duke of Edinburgh, has accepted an invitation to be president of the Council for National Academic Awards. The Council for National Academic Awards is an autonomous body which was established by Royal Charter in September 1964, with powers to award degrees, diplomas, certificates and other academic awards to persons who have successfully pursued courses of study approved by the Council at educational establishments other than universities or who have successfully carried out research work under the supervision of an educational or research establishment other than a university. The Council will award degrees and other academic distinctions, comparable in standard with awards granted and conferred by universities, to students who pursue their higher education in establishments for further education which do not have the power to award their own degrees. The Council will deal with Scottish colleges as well as colleges in England and Wales. Sir Harold Roxbee Cox is chairman of the Council (see *Nature*, 201, 975; 1964).

The Geological Society of London: Awards

THE following awards for 1964 have been made by the Geological Society of London: *Wollaston Medal*, to Prof. D. M. S. Watson, emeritus professor of zoology and comparative anatomy, University College, London, for his distinguished researches in the field of vertebrate palaeontology; *Murchison Medal*, to Prof. W. F. Whittard, Channing Wills professor of geology, University of Bristol, in recognition of his researches on the stratigraphy and palaeontology of the Silurian and his direction of marine geological investigations; *Lyell Medal*, to Prof. C. F. Davidson, University of St. Andrews, for his petrological work on the rocks of the Hebrides and his mineralogical and economic researches on atomic minerals; *Biggsby Medal*, to Prof. J. Sutton and Dr. Janet Watson (Mrs. J. Sutton), Department of Geology, Imperial College of Science and Technology, for their fundamental contributions to the stratigraphy, structure and metamorphism of the Scottish Highlands; *Wollaston Fund*, to Dr. H. W. Ball, Department of Palaeontology, British Museum (Natural History), for his stratigraphical and palaeontological researches, especially on the Old Red Sandstone and fossil fish; *Murchison Fund*, to Dr. I. Strachan, lecturer, Department of Geology, University of Birmingham, for his work on graptolites and Pleistocene palynology; *Lyell Fund*, a moiety to Mr. S. W. Hester, Geological Survey and Museum, London, for his palaeontological and stratigraphical work on the Upper Carbon-

iferous, and another moiety to Mr. R. Stoneley, geologist, British Petroleum Development, Ltd., in recognition of his work in Antarctica, and for stratigraphical and structural studies in East Africa, New Zealand and Alaska in connexion with exploration for petroleum.

Biology in the Massachusetts Institute of Technology : Dr. S. E. Luria

IN recognition of the work in bacteriology and public health of the late Dr. W. T. Sedgwick, the William Thompson Sedgwick professorship in biology has been established by the Massachusetts Institute of Technology. Dr. S. E. Luria has been named as the first Sedgwick professor. Dr. Luria received his medical degree at the University of Turin in 1935. He pursued his research in microbiology at the Institute of Radium, Paris, and at various universities in the United States before joining the faculty of the Massachusetts Institute of Technology in 1958, where he established a new programme of microbiological research and teaching within the Department of Biology. Dr. Luria is probably best known for his research on the genetics of bacteria and on the genetic influences exerted by viruses over the bacterial cells they invade. He is the author of more than one hundred technical papers.

Ministry of Technology

IN a written answer in the House of Commons on January 21 the Prime Minister stated that the branch of the Department of Education and Science concerned with policy for nuclear energy, and a small section of the Ministry of Aviation responsible for sponsoring the electronics industry, had been incorporated within the Ministry of Technology. The greater part of the existing headquarters of the Department of Scientific and Industrial Research, together with most of its stations, and the branch of the Board of Trade concerned with policy for the National Research Development Corporation would also be transferred to the Ministry of Technology when the necessary legislation and Statutory Instrument took effect. In all, rather more than 5,000 staff, including industrial workers, were involved.

Manpower Resources for Science and Technology

IN answer to a question in the House of Commons on January 21, the then Secretary of State for Education and Science, Mr. M. Stewart, said that a new survey of scientific manpower was now being undertaken. The results of this would probably be available by about the middle of this year and could then be interpreted by the new Committee on Manpower Resources for Science and Technology. In a written answer, also on January 21,