News of Science

Suprasternal Ossicles

Over the years, the supposed anatomical peculiarities of man among the primates, such as the extensor pollicis brevis and peroneus tertius muscles, the genial tubercles, the styloid process, and the appearance of cervical ribs, have disappeared one by one. For some of these spurious human distinctions have been found in other living primates, sometimes as unusual occurrences, sometimes in moderate frequency. Now another once-supposed human peculiarity, the presence of suprasternal ossicles, has been found to be more widespread in the order Primates than was once thought.

Ossicles located at the upper border of the manubrium at the sides of the interclavicular notch are not normal structures in man, but they are by no means rare. Cobb [*J. Anat.* **71**, 245 (1937)], who regarded such ossicles as rudimentary homologs of the epicoracoids of the primitive vertebrate shoulder girdle, found them in 6.8 percent of 544 adult white Americans and in 2.2 percent of 466 adult American Negroes. He did not find a single ossicle, however, in the great-ape series of 61 gorillas, 38 chimpanzees, and eight orang-utans that he examined. Following Cobb's comprehensive study, the general belief seems to have prevailed that man was the only primate in which such ossicles had been found.

There seems little doubt, however, according to data gathered by Cobb from the literature, that ossa suprasternalia or their definite homologs had already been noted in several other primate genera, namely, a great ape (orang-utan), an Old World monkey (*Cercocebus*), a New World monkey (*Alouatta*), and the tarsier. In 1944, Schultz [*Am. J. Phys. Anthropol.* n.s. **2**, 1 (1944)] recorded the presence of separate suprasternal ossicles in two (= 0.7 percent) of the gibbons that he examined. Recently, the occurrence of similar ossicles has been reported by G. T. Ashley [*Nature* **176**, 608 (24 Sept. 1955)] in one chimpanzee (of 101 studied) and one gorilla (of 110 studied), and by D. V. Davies [*Nature* **176**, 1130 (10 Dec. 1955)] in a lorisine lemur (*Perodicticus*).

Thus, distinct ossa suprasternalia, or their homologs, have now been found in representatives of all the living suborders of Primates, namely, in Lemuroidea, Tarsioidea, and Pithecoidea. For the last suborder, moreover, their presence has been recorded in all of the major groups—New World monkeys, Old World monkeys, anthropoid apes, and man. The seeming rarity of these ossicles in primates, as with cervical ribs, can probably be attributed to the fact that, being small, they can easily be lost during preparation of a skeleton.—W.L.S., JR.

G.E. Gas Turbine Division

On 9 Feb. the General Electric Company conducted a special tour of its Aircraft Gas Turbine Division in Evendale, Ohio, for industrialists and civil and military authorities. The division, which is headed by J. S. Parker, is valued at $100 million dollars. The visitors were shown the company's new $650,000 building, probably the first building in American industry especially designed to house computing equipment. By June, the second of two IBM 704 machines will have been installed. The IBM 704 has an 8192-word "memory"; it can execute 70 percent of its internal operations at the rate of 41,700 per second, and can make about 10,000 arithmetical operations a second while automatically keeping track of the decimal point.

Although more than half of the company's present investment in the division is exclusively in research, development, and test facilities, a $20 million supersonic test unit is being planned and is expected to be completed in 1958. In announcing the new facility, Parker stated that it would be able to "simulate the same conditions a large jet engine would encounter flying at 2300 miles per hour, or three and a half times the speed of sound at 60,000 feet."

At present the Aircraft Gas Turbine Division develops aircraft propulsion systems, including turbojet engines, rocket motors, new types of gas turbine engines, combinations of these power plants, and other units. The division is also conducting basic research in high-energy fuels, metals, and scores of other subjects pertinent to its business. Some 2000 technical people are engaged in this work. Parker pointed out that the new J79 engine is one of the division's major developments. Since 1948, G.E. has produced 30,000 turbojet engines; many more thousands have been produced by other manufacturers from the company's basic designs.

WHO and Nuclear Energy

The executive board of the World Health Organization has unanimously endorsed a comprehensive program of research and study for protection against the effects of nuclear radiation. Included will be studies under WHO auspices on the effect of radiation on human heredity, the protection of health against radiation, the standardization of radiation units and radiation doses to encourage the adoption of uniform codes of practice, and the improvement of pharmaceutical standards for radioisotopes for medical use.

This action was one of the principal decisions taken by the board in the course of its seventeenth session, which concluded on 2 Feb. at Geneva. The recommendations of the board will be submitted to the next World Health Assembly, which is scheduled to open in Geneva on 8 May.

WHO work in the nuclear field, according to the plan approved by the board, will also include the training of health personnel, the provision of fellowships and training facilities for a study of the problem of radioactive waste disposal, and the collection and distribution of information on the medical problems of nuclear energy and on the medical uses of radioisotopes.

News Briefs

■ The Atomic Energy Commission has opened a document room where records relating to the licensing program administered by the commission's Division of Civilian Application may be examined. The document room is located in the AEC building at 1717 H St. NW, Washington, D.C. Except for classified material and material for which "business confidential" treatment has been asked, the document room file will contain records of license and access permit applications and issuances, comments from interested persons on proposed regulations, and records of licensing hearings.

■ Harold E. Edgerton of Massachusetts Institute of Technology has developed an undersea camera capable of with-

standing pressures greater than those at the greatest known ocean depth. The camera was tested for the National Geographic Society, which has sponsored research on the instrument. Edgerton also has tested successfully a braided nylon line for lowering the 100-pound camera and electronic lights.

■ A new clotting factor in human blood, factor X, has been discovered by Francois Duckert, P. Fluckinger, and Fritz Koller of the University of Zurich, Zurich, Switzerland. It is considered significant that patients with the two liver diseases, hepatitis and cirrhosis, have blood deficient in the newly found factor.

■ Discovery of a strain of mice with hereditary muscular dystrophy has been announced by the Roscoe B. Jackson Memorial Laboratory, Bar Harbor, Me. Although diseases arising primarily in striated muscle have frequently been found in human beings, spontaneous diseases of muscle appear to be very rare in experimental animals. This newly reported mutation in mice is apparently the first recorded instance of primary pathological involvement of muscular tissue in an experimental animal of known genetic background. Ann M. Michelson, Elizabeth S. Russell, and Pinckney J. Harman describe the work in a paper that appeared in a recent issue of the *Proceedings of the National Academy of Sciences.*

■ A bank of antiserums to be used in identifying major virus diseases that attack cereal crops is being built by the U.S. Department of Agriculture and cooperating research groups at the Nebraska Experiment Station in Lincoln. Rabbits are being used in this bank as living sources of antibodies. With these antibodies, tests can be made to determine the presence of barley-stripe mosaic, brome-mosaic virus, and other similar diseases that cause heavy losses to growers of small grain in this country each year. This method of virus identification will speed up breeding for resistance to disease because it will enable breeders to rid stock of infected material before the plants have matured.

■ The shoreline at Point Barrow, Alaska, is receding southward at a rate of about 7 feet a year. It is probable that the land extended at least 500 feet farther north 75 years ago, an assumption borne out by the disappearance of a recorded Eskimo village. According to G. E. MacGinitie of California Institute of Technology in a report published recently by the Smithsonian Institution, the recession is caused by very low land and by ocean currents and wind tides that sweep northeastward. MacGinitie was director for a year at the Navy's Arctic Research Laboratory at Point Barrow.

■ Rolls Royce, Ltd., London, England, disclosed on 10 Feb. that it had been working for 18 months to develop an atomic airplane engine. A spokesman would not predict when such an engine might be tested. A nuclear research laboratory devoted exclusively to light-engine research will be put in operation by Rolls-Royce within 2 months.

■ The median starting salary for chemists and chemical engineers with the bachelor's degree in the Delaware Valley area has reached a record high of $390 a month, according to B. R. Stanerson, assistant secretary of the American Chemical Society. On 16 Feb. he reported at the society's first Delaware Valley regional meeting that the chemist who is being graduated from college this year can look forward to a starting salary some 16 percent higher than the $335 rate that prevailed 4 years ago. The median starting figures for persons with master's and doctor's degrees are $450 and $590, respectively, also an increase of approximately 16 percent over the comparable 1952 rates.

Scientists in the News

JAMES BRYANT CONANT, chemist and president of Harvard University who is now U.S. Ambassador to the Federal Republic of Germany, has been chosen to receive the American Chemical Society's Charles Lathrop Parsons award for outstanding public service. The award, which cannot be given more frequently that once every 3 years, consists of a scroll and the privilege of choosing the recipient of a $2000 scholarship for graduate study in chemistry, chemical engineering, or some related field. Presentation of the award to Conant will be made at a ceremony in Columbus, Ohio, during a meeting of the ACS board there next June.

JACQUES OUDIN, immunochemist at the Pasteur Institute, Paris, France, has completed a 3-month appointment as visiting scientist in the Laboratory of Biochemistry of the National Cancer Institute, Bethesda, Md. He has been invited to visit and lecture at a number of laboratories in the United States and Canada.

F. S. SPRING of the Royal Technical College, Glasgow, Scotland, will deliver the final lecture of Wayne University's "Frontiers in Chemistry" series on 23 Apr. when he will discuss "Some triterpenoid studies."

CLAUDE E. SHANNON, research mathematician at the Bell Telephone Laboratories, Murray Hill, N.J., has been appointed visiting professor of electrical communications at the Massachusetts Institute of Technology. While at M.I.T. during the spring term, Shannon will continue as an active member of the Bell staff.

MILDRED TROTTER, professor of gross anatomy at Washington University, was honored as one of the ten "Women of Achievement" in St. Louis, Mo., by the *St. Louis Globe-Democrat* for work as a physical anthropologist. Last spring Trotter was elected president of the American Association of Physical Anthropologists, the first woman to hold this office.

CONSTANTINE J. ALEXOPOULOS, professor of botany at Michigan State University, will resign in June to become professor and head of the department of botany at the State University of Iowa.

RODERICK MURRAY, deputy director of the division of biologics standards at the National Institute of Health, has been appointed director. CARL L. LARSON, who has been acting director since the division was established in June 1955, will return to his former duties as director of the Public Health Service's Rocky Mountain Laboratory, Hamilton, Mont.

MACFARLANE BURNET of Melbourne, Australia, delivered the 1956 annual John Wyckoff lecture at the New York University College of Medicine on 28 Feb. Burnet, a well-known immunologist and virologist, is director of the Walter and Eliza Hall Institute of Medical Research and professor of experimental medicine at the University of Melbourne.

PAUL SCHWARZKOPF, president of the Schwarzkopf Development Corporation, the American Electro Metal Corporation, and the Metallwerk Plansee in Reuttee, Tyrol, Austria, has received the Wilhelm Exner medal, one of Austria's highest decorations in the field of technical science.

SIDNEY R. ELSDEN is serving until 15 Aug. as visiting professor in the department of bacteriology at the University of Illinois, Urbana. He is senior lecturer in charge of the department of microbiology at Sheffield University, England, and honorary director of the Agricultural Research Council's Unit of Microbiology. During his stay at Illinois, Elsden will give a series of lectures in microbial metabolism.