

Institution in Washington, visited 15 European zoos in six countries during a six-week trip to Europe. But the pair of dormice, which are included in the group of animals he brought back, were not spotted in a zoo.

While visiting in an English home, Dr. Mann heard a noise in the rafters of the house. He was told that it was a dormouse.

Dr. Mann remarked to his English host, a fellow zoo director, that the zoo here

had no dormice, so an exchange of animals was arranged.

A dormouse, it seems, is a small animal with a bushy tail. It looks more like a squirrel than a common mouse.

Another gift from the British zoo is the perodicticus potto shown on the cover of this week's SCIENCE NEWS LETTER. It is a beady-eyed lemur celebrated in West African folklore.

Science News Letter, September 11, 1948

MEDICINE

New Clubfoot Technique

A cohesive bandage binding the leg and foot of a newborn infant with this deformity has proved highly successful in correcting the condition.

➤ CLUBFOOTED INFANTS are being treated with a high degree of success by a new technique with cohesive bandage which is akin to the Chinese custom of binding the feet of their baby girls.

The advantage of this treatment is that it can be begun the day after birth while the newborn infant is still in the hospital under the care of the physician, Dr. Emil D. W. Hauser of Chicago pointed out.

Moreover, the cohesive bandage does not adhere to or irritate the skin. It is wound firmly around the foot beginning just below the knee with emphasis placed on overcorrecting the deformity. The entire foot and leg are covered with only the very tips of the toes left visible. Over this is placed a stirrup type of bandaging to force the foot into a knock-kneed position. Then an encircling bandage, wound all the way down to the ankle, holds this in place.

The foot needs further support against the constantly contracting muscles so adhesive tape is superimposed in like fashion to prevent the foot from returning to its abnormal position.

Dr. Hauser emphasized that this treatment must be begun immediately after birth. The earlier treatment of clubfoot is begun, the better the correction, for the

younger the child the more rapid is the growth and the softer and more easily changed are structures of the foot, he said. With former methods, such as the use of plaster casts and splints, treatment could not be begun until a baby was from one to three months old.

If treatment begins while the baby is still in the hospital, the bandage is reinforced daily, with more correction in each treatment. At the end of a week a new encasement must be applied because the other usually becomes ill-fitting. The procedure is then repeated at each visit to the doctor.

This corrective bandage must be kept on until the child begins to walk, otherwise the deformity may reoccur, he declared.

Results in 70 patients treated over a period of six years with this technique were highly successful, Dr. Hauser reported to the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION (Sept. 4). Although in some cases a tight tendon in the foot did not allow a full correction with the bandage alone, it was possible to lengthen it with surgery. In only a few of these cases did a child fail to develop a normal foot.

Science News Letter, September 11, 1948

CHEMISTRY

Weed-Killers Aid Crops

➤ CHEMICALS now being investigated at the Army's wartime biological warfare laboratories hold the possibility of increasing the food production of the world so that a population suicide of civilization can be averted.

The same kind of growth-regulating chemicals that make lawns and fields weedless (2,4-D is the common one) can be developed to:

- Produce crops of higher yields per acre.
- Bring speedier maturity to a crop, either

to foil a late season or grow the plants farther north.

Eliminate the necessity of crop rotation to combat weeds.

Yield seedless, larger and more delicious fruits.

A report presented to the American Chemical Society meeting in Washington, by two chemists from the famous Camp Detrick, Md., R. L. Weintraub and A. G. Norman, gave a glowing forecast of the increased usefulness of plant growth regulators,

Some of these chemicals would have been used to wipe out enemy crops if the war had continued longer.

While the chemical plant regulators have been applied mostly to flowers and fruits, the government chemists predicted that they can be made to have profound effects upon the major food and fiber crops of the world. Field crops as well as specialized crops might be so influenced chemically that they can be grown in climates and upon soils where they cannot now be harvested profitably.

Plants might be modified by chemical treatment to give more resistance to insects and plant diseases.

Earlier flowering and maturity of plants, possible by chemical treatment, would make many crops possible for northern latitudes where the growing season is short.

"A diversity of chemical compounds possess growth regulatory activity," the chemists reported. "There appears to exist a close correlation between activity and molecular structure. Information as to the mechanism of action is as yet scanty."

Science News Letter, September 11, 1948

CHEMISTRY

New Pain-Killing Drug Coming Out of Laboratory

➤ A NEW pain-killing drug more potent than cocaine and chemicals that give temporary relief from high blood pressure may emerge from the chemical laboratory shortly. These developments reported to the American Chemical Society meeting in Washington need successful use upon human patients before they can be made generally available.

Best of all chemicals tested in a five-year search for local anesthetics, the new pain-killer is known as SKF 538-a and is a complex quinoline synthesized by a new method. Its pain-killing effect in animal experiments lasted much longer than cocaine, procaine, or dibucaine.

Four chemists collaborated in research on the new compound at the Smith, Kline & French Laboratories in Philadelphia: Drs. James W. Wilson, Glenn E. Ulliot, Norman D. Dawson and Walter Brooks.

The new drugs that cause prolonged drop in blood pressure were discovered by another chemical group. They were impurities in synthetic chemicals that were spotted as blood-pressure depressants during routine tests.

If the new drugs prove satisfactory for use on human patients, they may be valuable for periodic treatment of hypertension or for reduction of dangerously elevated blood pressure in preparation for surgical operations. Very small doses in dogs cause a fall in blood pressure that lasts for as much as two hours. These new depressors are comparable in potency to the most powerful known drugs.

The work was done by Drs. Richard Baltzly and Edwin J. de Beer of Wellcome

Laboratories, Tuckahoe, N. Y., Dr. Johannes S. Buck of Sterling-Winthrop Research Institute, Rensselaer, N. Y., and Dr. Fred-

erick J. Webb of Firestone Tire and Rubber Co., Akron, O.

Science News Letter, September 11, 1948

GENERAL SCIENCE

Research Center in Congo

A \$9,000,000 institute for scientific work will study human, animal, and vegetable life in the Belgian Congo. Research in field has already begun.

► THE CREATION in the Belgian Congo of a new \$9,000,000 institute for general scientific research was announced in a preliminary report released through Dr. Harlow Shapley, Director of the Harvard College Observatory.

It will be open to the scientists from all parts of the world and it will specialize on problems of the tropics. Its initial endowment of \$9,000,000 will be supplemented by an annual subsidy of more than half a million dollars.

The international character of the new institute is emphasized through the appointment by the Belgian government of Dr. Shapley, Dr. E. B. Worthington, British biologist, and Prof. A. Chevalier, French botanist, to the Board of Administrators. The director of the new scientific foundation is Dr. Louis van den Berghe, Professor at the Institute of Tropical Medicine in Antwerp and Visiting Professor of Tropical Medicine at Tulane University.

The purpose of IRSAC (Institut pour la Recherche Scientifique en Afrique Centrale), according to a statement submitted by Dr. van den Berghe, is the fundamental study of the tropical environment, human, zoological, and botanical.

Several research stations will be erected in the Congo during the next two years. The main one will probably be on the high plateau region between Lake Kivu and Lake Tanganyika. A second station will be erected before the end of this year in the Province of the Equator, not far from the mouth of the Congo. A third will be in southeastern Katanga. Two additional stations, one in the east and another in the west, are planned for seismologic and ionospheric measurements.

Field work has been started already on social and physical anthropology, climatology, nutrition, hydrobiology, geology, plant and animal ecology. A party is in the field searching for a most suitable site for a high altitude astronomical observatory.

IRSAC will provide fellowships and subsidies to the scientists for work in the Congo, Dr. Shapley explained. Its aim is to coordinate and inspire the various scientific institutions and services in the Congo. It will also have its own scientific and technical staff, and will act as an agency of information for visiting scientists to the Congo and provide them with material help and various facilities for their explorations and researches. Work tables and other

facilities will be kept at the disposal of Belgian and foreign scientific institutions in the different stations of IRSAC.

The institution will assemble an important and appropriate library at its main station. American scientific institutions able to contribute current and past publications to the library are being asked to address them to IRSAC, Costermansville, Belgian Congo.

Dr. van den Berghe, director of IRSAC, is already established at Costermansville, on Lake Kivu in the high mountainous region of the Eastern Congo. In 1946 he was for three months a Visiting Lecturer with the Harvard Medical School. In 1935 he had been an Advanced Fellow at Harvard under the Belgian-American Foundation.

The Belgian Congo offers much virgin territory for explorations by scientists and affords also a wide variety of conditions, varying from equatorial jungles to mountains that rise above the tree line. On the high plateaus in the regions of the great lakes and the Kivu Mountains, Europeans can live with comfort, even though but a few degrees south of the equator. Around Lake Kivu there are extensive agriculture developments, with coffee, grain, pyrethrum, and cotton among the products.

The Belgian Congo is especially suited to new researches in anthropology. Among the native tribes of the region are the pygmies, as well as the "giants" that live east of Lake Kivu, near Tanganyika.

The Congo is famous for its radium deposits, and it is one of the most important sources of uranium ores.

The president of the board of administrators of IRSAC is Prof. E. deBruyne of the University of Ghent. He was formerly Minister of Colonies in the Belgian Government. Among the administrators are many of the most distinguished scientists and educators of Belgium, representing among other fields, geology, biochemistry, astronomy, mining, engineering, ethnology, sociology, veterinary medicine, physics, agronomy and paleontology.

Although no scientific journal will be maintained by IRSAC, a scientific report, with abstracts of the papers published elsewhere by the members and guests of IRSAC, will appear annually and will be distributed widely among scientific institutions of the world.

Science News Letter, September 11, 1948



ELECTRONIC BALL PARK—This is a "photoelectric tube" designed to measure the speed of electrons knocked loose from an element of invisible ultraviolet light. Using a beam of ultraviolet light as a "bat," General Electric scientists knock electrons from an element suspended in the sphere's center, and measure the speed with which they hit the "outfield," the sphere's inner surface. As few as 6,000 electrons per second can be detected hitting the "outfield."

PLANT PHYSIOLOGY

2,4-D Makes Roots Grow From Leaves of Bean Plant

► A WEED-KILLING CHEMICAL can make roots grow out of garden beans, from a part of the bean which usually produces leaves instead of roots.

The weed-killer, 2,4-D, can cause roots to grow from the infant leaves inside the bean, Ernest K. Akamine of the University of Hawaii reports in the journal, *SCIENCE* (Aug. 27). He believes that this is the first reported instance of such growth.

The cotyledon part in the bean that forms the first leaves on the plant, may survive the effect of 2,4-D which kills the rest of the bean. When it does it puts out roots. However, when the rooted cotyledon is transferred to normal soil without any 2,4-D in it, no shoots develop.

Experiments in which beans were put in glass dishes instead of in soil showed that many different concentrations of 2,4-D will make roots grow from the cotyledon. Only one case was found of a cotyledon which sprouted roots without 2,4-D.

Previous research has shown that 2,4-D can also produce unusual root growths in corn.

Science News Letter, September 11, 1948