This is the first known record of its occurrence in North America. It is possible that the species has been introduced on some migratory bird.

C. B. PHILIP

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PROTECTIVE AMPUTATION OF LIMBS BY STAGOMANTIS CAROLINA

(Devil's Walking Stick, Darning Needle or Horse)

An adult form was observed in Columbia, Missouri, in July, 1932, on a sugar pear tree, in a state of quiescence with his feelers shielded by the fore legs. An attempt was made to move it to another place by grasping the fore limbs with thumb and finger, but they at touch, were shed—the two points of separation exuding droplets of greenish liquid. Acting upon humanitarian impulses, the insect was decapitated with a sharp knife. Then carrying out the in-

tention of moving it from the tree—the right hind limb was lightly grasped by thumb and finger, and this too was shed as in the case of the fore limbs. The procedure was then repeated with the left middle leg with identical results, and likewise with the left hind leg. The right middle leg, the only one remaining, was then grasped and notwithstanding the vigorous struggling of the trunk, the limb remained attached to the body. From this it would seem that: 1. A mechanism independent of the head controls the reactions and, 2. That the reaction does not occur when only one leg remains, the minimum for any kind of limb locomotion. Similar studies were conducted on undecapitated less mature forms-in the green stage—without like results, that is, in less mature stages the insect could be handled by any of its limbs without their being detached. Like negative results were obtained with undecapitated Mantis religiosa.

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SPECIAL CORRESPONDENCE

THE RACES OF MANKIND

In presenting the Hall of Races of Mankind (Chauncey Keep Memorial Hall) to the public in June, 1933, Field Museum of Natural History, Chicago, has departed boldly from all precedence for anthropological exhibits. The hall contains 87 lifesize bronze sculptures (30 full-length figures, heads and busts) representing typical members of the more important divisions of the human race. This gigantic task was accomplished by a great artist and a great humanist, Malvina Hoffman, an American sculptor of international repute. Her work proceeded with the enthusiastic cooperation and under the close supervision of eminent scientists.

In 1915 plans for a new anthropological exhibit were prepared by Dr. Berthold Laufer, curator of anthropology in Field Museum since that time. During the past six years the writer has studied exhibits in the foremost museums of America and Europe, and in this project the cooperation and advice of leading scientists of the world has been generously given. It was felt that a display of skulls, charts, casts and photographs, extensive and accurate as they might be, would nevertheless fail to make a clear and lasting impression on the mind of the varying forms and characters which distinguish one race from another. A new and a more satisfactory solution to the problem was sought—and a great artist was called upon.

Malvina Hoffman, a favorite pupil of the great French sculptor, Rodin, has for twenty years enjoyed a notable reputation for her portrayals of the human face and form; and her sculptures are exhibited in some of the great museums and art galleries on both sides of the Atlantic.

Since her appointment by the museum, Miss Hoffman has spent nearly five years in studying, photographing and modeling typical members of the various human races. In addition to the technical advice rendered by the museum's department of anthropology, Sir Arthur Keith was indeed most generous with his advice and his letters of introduction, which, together with those from Dr. Laufer, opened every door to her. She traveled around the world in search of material, and in each country visited, leading anthropologists offered her every assistance and gave her aid in choosing her models. Field Museum's requirements for scientific accuracy above all else have been most satisfactorily fulfilled.

Miss Hoffman, having employed the precise methods of the anthropologist, has, in addition, achieved something far greater than the accuracy afforded by calipers and camera. She has immortalized in bronze the spirit and character, as well as the bodily form of each of her subjects. Not a single type has been idealized or subjected to racial prejudice; each model is portrayed in a natural pose, with sympathy and appreciation of his individuality. The Hall of Races of Mankind offers a unique and unprecedented opportunity for studying and comparing the many divergent forms and the striking similarities of the various branches of the human family.

The center of the spacious hall is dominated by a symbolic group of heroic size, the Unity of Mankind,

representing the three main branches of the human species—a black, a white and a yellow man. In alcoves around the hall are displayed racial types geographically arranged by continent.

On entering the hall from the west, one meets, on the right hand, natives of Africa. A Bushman of the Kalahari Desert, in characteristic posture, is about to release an arrow from his bow, while his wife squats beside him, her small baby strapped to her back. In contrast to these diminutive people, a tall and lithe young girl of the Sara tribe is poised to begin a dance, incomparable grace in her slender limbs and a vivacious smile upon her face. Near her, a Senegalese drummer beats upon his tom-tom, his head thrown back in a rapt and dreamy expression. A Batwa boy from the Belgian Congo grins mischievously, showing his filed teeth. From East Africa an extremely tall young Shilluk warrior of serious mien stands on one leg in the peculiar stork-like posture characteristic of his tribe. Numerous other figures portray the divergent racial types of the African continent.

On the left-hand side, races of the many islands of Oceania and of Australia are shown. A full-length figure of an Australian mother and son and of an Australian man reveal not only the bodily form, but the undeveloped intellect of that primitive race. A muscular Solomon Islander, of fierce expression, is climbing a cocoanut palm. The Polynesian race is represented by a Hawaiian skimming toward the beach on his surf board, every muscle of his fine body tense with life.

In the central section of the hall, European types are represented on the right hand: among them, a Sicilian fisherman of Mediterranean type; the full-length figure of a Nordic man; a woman from Brittany wearing her quaint bonnet. On the left-hand side are American Indians and Eskimo types from the American continent. A prominent place is given to the full-length figure of a rugged middle-aged Ainu, a member of that ancient and fast-disappearing race now confined to the islands of northern Japan.

The east end of the hall is devoted to the many and

varying Asiatic types. The remarkably slender figure of a Vedda from Ceylon is portrayed in the full-length figure of a young man, his long bow in his hand. A Kashmiri sits in the characteristic attitude of meditation. The delicate face of a woman from Jaipur, India, carved in stone, contrasts markedly with the wrinkled countenance of a Rajput woman of the "untouchable" class. Chinese and Mongol types are well represented; and an old Tibetan merchant from Lhasa sits cross-legged on a rug. There is a young Japanese woman with elaborate hair dress, and a fine head of a Japanese man of the upper class.

Only a few of Field Museum's great assemblage of races have been mentioned. Many of the types here represented will probably be extinct within a few decades, but their faces and forms are nowhere as well preserved for posterity as in the Hall of Races of Mankind.

A section at the east end of the hall will be devoted to physical anthropology. The exhibits will include anthropometric instruments with an explanation of the methods employed; growth changes; stature in various races; the use of the hand and foot; hair samples; charts showing variations in eye color; the shape of the nose, the mouth and the ear. The range of variation in skin color will be shown by means of colored transparencies arranged by continent. A section will be devoted to demography, wherein vital statistics, multiple births, growth of populations, racial problems in the United States, immigration questions and longevity in races will be illustrated. There will be an exhibit showing the effects of epidemics and disease on populations. The racial characteristics of the skeleton will be shown, together with a type series of skulls to show racial variations. Skull deformation with appliances and distribution maps showing ancient and modern practises of this custom, as well as examples of trepanning and trephining, will be included. Finally, there will be an exhibit of comparative osteological material showing typical adult male skeletons of man and the anthropoids.

HENRY FIELD

FIELD MUSEUM OF NATURAL HISTORY

REPORTS

THE LONG BEACH EARTHQUAKE1

The first motion recorded at the Seismological Laboratory in Pasadena from the Long Beach earthquake was at 5h. 54m. 19.3s., p. m., on March 10, 1933, with a possible error of one or two tenths of a second; it was also recorded at various times less than

¹ Abstract of reports made to the Los Angeles Section of the American Society of Mechanical Engineers on April 12, 1933.

45s. later, at our six other stations in southern California. Thus guided, the origin of the shock was determined to be a point in the ocean about 17 miles to the southeast of Long Beach and 3 miles to the west of Newport at 33° 34½′ north latitude, 117° 59′ west longitude, with an error of probably not larger than 5 km., perhaps not larger than 2 km. Hundreds and hundreds of after-shocks were also recorded; they