

interest of the individuals and the one which leads most naturally to the other phases with least loss of time or effort? In attempting to interest our English or Spanish or law majors in the more abstract phases of physiology and morphology before they have by actual experience or contact become interested in plants, are we giving them something which can contribute little to their enjoyment of the out-of-doors and their appreciation of the wonder and value of the plant world?

The changes that are now taking place may mean that public support for botanical work will be increasingly difficult to obtain. Long years of patient study necessary to master the technique and to obtain the breadth of view that enable one to monograph one of our larger groups will be increasingly difficult to finance. If private fortunes, which have been the basis of the establishment of many of our foundations, are made more difficult to amass, as now seems probable, we can look less and less to this type of support to carry on the work. Whatever the outcome may be, the best assurance of the continuance of workers and opportunity in the field of botanical research rests on a wide knowledge and interest in plants and a fuller appreciation of the importance of the subject from a cultural as well as a practical viewpoint on the part of the mass population.

It may seem a far cry to one who occupies a protected chair of botany in an old established public or endowed institution to call attention to the necessity of making our subject one of real interest to our high-school and college students, but public support may easily be withdrawn and future endowments dwindle without the broad general interest. Administrators realize the difficulty of defending any line of work during periods of stress such as that of the last year or two. They realize, too, that there must be tangible evidence that each man on the payroll is yielding the proper contribution to cultural or applied science.

The world is dependent on plants, present and geological, for all but a small percentage of its raw material. An organism so stupendously important should be the object of the most thorough and searching scientific investigation. In terms of the industrial civilization we are accustomed to, it is essential to human welfare that pure science and applied science move forward hand in hand. In order that this may be, in a democracy at least, we must bring to the masses an interest in the general subject. We must

make them see, if only vaguely, their dependence on these phases of human development which have made possible our high stage of civilization. To again use Ortega, a liberal democracy and technicism are characteristic features of modern culture, and the vital center of technicism is pure science—the very spirit of progress. Without science the whole superstructure of modern industrialism will fall. It behooves us to support those things which we believe most essential to the human race, and our science stands second to none in its possibilities.

This is a period, as many believe, when we are passing through changes even greater than those which have recently affected many other nations, greater because we are seeking to avoid the revolutionary method of destroying those who oppose change, by attempting to reform the ideas of a large part of our population, and by remaking some of our most cherished principles because they have so signally failed. It involves a sort of spiritual rebirth of a new American ideal. A man can not stand on his reputation but must now justify his very existence by his ability to do. Any activity publicly supported or privately conducted is examined and re-examined by a new standard, that of service to humanity as a whole. There seems little hope in the days to come for the man, be he botanist or business man, who wishes to live in his protected environment and do as he pleases. Endowed institutions are not at all sure of their future support. Public support is very uncertain and may demand production and be unwilling to await the slow and patient progress characteristic of the protected scientific man of the last century. But one who has touched the subject of science can not doubt that it is the greatest single development in the long rise of the human race. A continuance of scientific knowledge, if accompanied by equal social and economic advances, will insure the greatest good to the generations to come. The love of pure science or unbiased search after truth is the very soul and spirit by which can be developed an industrial world with a high standard of living for all, with time and opportunity for mental culture and with poverty and hunger reduced to a minimum. If we wish to aid in developing such a world, it is our responsibility to botanical research in the years to come to bring to the masses of the American people an interest in plants and a realization of the importance of our subject in their future welfare.

## SCIENTIFIC EVENTS

### ACQUISITIONS TO THE COLLECTIONS OF THE BRITISH MUSEUM (NATURAL HISTORY)

THE *London Times* reports that portions of the egg-shell of a dinosaur and some meteoric iron are

among the January acquisitions of the British Museum (Natural History).

The department of zoology has received as a donation from Mrs. Charles Buckley and Mr. Godfrey R. Buckley the mounted head of a cow of the Chartley

breed of cattle. This specimen was presented to Mr. Godfrey Buckley by the late Lord Ferrers, the owner of Chartley Park till 1903. Chartley Park was formed by enclosing about 1,000 acres of the forest of Needwood in the reign of King Henry III, when a number of half-wild cattle, which then roamed throughout the district, were driven in and enclosed in the park. It is proposed to exhibit this head in the North Hall, adjacent to the last pure bred white bull which was killed in 1910 and is now on exhibition in the museum collection.

Colonel H. McMicking has presented a small collection of Ungulate heads from Somaliland, containing some good Oryx (Beisa) skulls, and also two very fine specimens of Soemmerring's Gazelle. There are also two examples of the rare Dibatag or Clarke's Gazelle (*Ammodorcas clarkei*), which species was the subject of sympathetic treatment by the recent International Conference for the Protection of the Fauna and Flora of Africa.

Two important additions have recently been made to the beetle collections in the Department of Entomology—namely, the Donisthorpe collection of British Coleoptera and an Australian collection purchased from Mr. W. du Boulay.

The former contains upwards of 22,000 specimens, and is of special interest in that it is accompanied by the most complete set in existence of the numerous British insects (mainly beetles) and other arthropods that live in association with ants and are known as myrmecophiles. The du Boulay collection, which numbers only 352 specimens, consists, however, entirely of beetles actually found inhabiting ants' nests in various parts of Australia by Mr. du Boulay over a period of 16 years, and is representative of about 60 species many of which were first discovered by the collector, whose family for several generations has actively investigated the insect fauna of Australia.

During the 12 months that have elapsed Mr. R. E. Turner, working in South Africa, has collected and presented to the museum over 8,000 insects of various kinds, principally small bees and wasps, and from the mountains of New Guinea Miss L. E. Cheesman has collected for the museum upwards of 18,000 specimens, a high proportion of which will undoubtedly prove to be of great interest.

The Council of the South Australian School of Mines and Industries has presented an end-slice of a large mass (2,520 lbs.) of meteoric iron found in 1909 at Murnpeowie, South Australia, previously represented in the collection only by a cast of the whole mass.

The King has placed on loan in the department of botany a further 14 specimens of Nepal plants pre-

sented to him by the Maharajah of Nepal. The plants were collected by Professor K. Sharma.

The late Mr. Ashley H. Maude bequeathed to the department his herbarium of about 5,000 sheets of flowering plants. These are chiefly European, but Algeria, Cape Colony and the Canary Islands are also represented.

### PROPOSED ANIMAL BUILDINGS IN THE PARKS OF NEW YORK

ACCORDING to *The Museum News*, architects' plans for new animal buildings to be erected in Central Park, New York, at a cost of more than \$400,000, have been completed by CWA engineers and draughtsmen and transmitted to Robert Moses, park commissioner. The plans include an open square with a seal tank in the center and cages on the four corners for the more active animals. The old arsenal building will be on the east of the square and a new restaurant on the west. Animal houses on the north and south sides will be connected by arcades. Structures included in the plan are a monkey house, lion house, antelope house, bird house, cage for small horned animals, bear pit, garage and comfort station. Work has already been begun on the project.

At Prospect Park in Brooklyn six brick buildings will be constructed around a seal pool. These will house lions, monkeys, birds and horned animals. In addition there will be a large domed building for the hippopotamus and elephants, a large cage for hawks and eagles and a bear's den. A restaurant will occupy one corner of the gardens. The buildings will be situated off Flatbush Avenue on the site of the old duck pond.

In Staten Island buildings will be erected on land bequeathed to the city by Julia Oliver Hardin and known as the Clarence T. Barrett Park. The center building, two stories high and of stone, will contain the curator's office and an aquarium. There will also be a biological laboratory and lecture hall. Two wings on either side will house birds and mammals and a wing at the rear will contain reptiles. Rooms are provided for hobby clubs and for school classes. The project, which will cost \$150,000, will be under the direction of the Staten Island Zoological Society. It is expected to be ready this summer.

### THE FISHERY SURVEY IN PUERTO RICO

AFTER spending two months in conducting a survey of fish cultural possibilities in Puerto Rico, at the request of the Puerto Rican Commissioner of Agriculture and Forestry, Dr. S. F. Hildebrand, senior ichthyologist of the Bureau of Fisheries, returned to Washington on March 25. As a result of the survey, which covered the entire island, Dr. Hildebrand