

The fossil plants described by Mr. Knowlton were collected by A. J. Collier, a geologist of the Survey, while engaged in the study of the coal resources of the Cape Lisburne region. The coal deposits are extensive and are the only mineral resources of the region known to be of commercial importance. A little mining has been done by vessels short of fuel, which occasionally lie off shore and load on a few sacks of coal. This, however, is a rather dangerous practise, as there is no harbor. Cape Lisburne is the bold headland which marks the northwestern extremity of a land mass projecting into the Arctic Ocean from the western coast of Alaska between latitudes 68° and 69°. It lies 160 miles north of the Arctic Circle, about 300 miles directly north of Nome, and is the only point in Alaska north of Bering Strait where hills above 1,000 feet in height approach the sea. The Jurassic section to which the name Corwin formation has been given is said by Collier to consist of shales, sandstones, conglomerates and coal beds. Fossil plants occur in the shale beds wherever they have been examined. This formation reaches the enormous thickness of over 15,000 feet and contains 40 to 50 coal beds which range in thickness from 1 or 2 to over 30 feet, ten of them being 4 feet thick and suitable for mining. The various beds aggregate at least 150 feet of coal. Mr. Knowlton correlates the Jurassic flora of Alaska with that of eastern Siberia and concludes that the land connection between North America and Asia at this early period of the world must have been practically continuous. In reviewing the character and geographic range of Jurassic floras, especially as developed in Arctic and Antarctic regions, he states that the wide areal distribution of Middle and Upper Jurassic floras has long been one of the marvels of plant distribution. The living flora of to-day, of course, affords many individual examples of wide distribution, such as those found throughout the tropics of both hemispheres, and others, chiefly weeds, that have, largely through human agencies, spread widely over temperate lands, but altogether these plants form but an insignificant part of

the whole flora, whereas in Jurassic time a large percentage of the whole flora was practically world-wide in its range. Even Cape Lisburne is by no means the northern limit of this nearly tropical vegetation; it has been found, preserved in the rocks, 180 miles northeast of Cape Lisburne.

#### UNIVERSITY AND EDUCATIONAL NEWS

MRS. HELEN H. LE FEVRE has made to New York University a gift of \$10,000 in memory of her husband, the late Dean Egbert Le Fevre. The gift is in the form of a trust to be known as the Dr. Egbert Le Fevre Dean-ship Fund.

THE trustees of the University of Chicago have announced the appointment of a committee to decide on the date and character of the celebration of the twenty-fifth anniversary of the founding of the University. The University of Chicago was incorporated on September 10, 1890.

THE New York State College of Forestry has announced plans for the establishment of a course in paper and pulp making.

It is stated in *Nature* that the British chancellor of the exchequer in explaining his budget proposals said that the education grant is to be reconstituted on the principle of making a distinction between the richer and the poorer areas, and between the areas that spend much and those that spend little on education. The increased cost of the exchequer of the education grant will be £2,750,000, but this year the grant will be confined to the necessitous school areas. The government is to contribute one half of the cost of the feeding of hungry school children, and also to make grants for physical training, open-air schools, maternity centers and technical, secondary and higher education. Referring to these grants, Mr. Lloyd George said: "The grants for technical, secondary and higher education are to make it more accessible to the masses of the children, and to extend its sphere of influence where children show any aptitude to take advantage of it. We compare very unfavorably with Germany and the United States of America in this respect.

There there is adequate provision for technical training, secondary and higher training for every child who shows any special gift for taking advantage of it, and I consider that this fact is a greater menace to our trade than any arrangements of tariffs."

AT Cornell University Assistant Professors O. A. Johnson and M. F. Barrus have been promoted to full professorships in the department of entomology and the extension department of plant pathology, respectively.

AT Hamilton College Professor Nelson Clark Dale, assistant professor of geology at Princeton University, will succeed Professor W. J. Miller, who goes to Smith College.

MR. C. G. DARWIN, eldest son of the late Sir George Darwin, has been appointed mathematical lecturer at Christ's College, Cambridge.

#### DISCUSSION AND CORRESPONDENCE

##### TWO UNDESCRIBED SPECIMENS OF *CASTOROIDES OHIOENSIS* FOSTER FROM MICHIGAN

THERE are two specimens of *Castoroides ohioensis* in the collection of the museum of geology, University of Michigan, that were found in the state and have not been recorded. One of these was discovered near Owosso, Shiawassee County, in December, 1892, by A. G. Williams. It is represented by the base and upper part of the right mandible with the incisor and all of the molar teeth in position, the base of the left mandible, and the left incisor tooth. The incisors are well preserved and show the longitudinal striæ and cutting edge, but the tip and base of each are broken. The row of molar teeth is 75 mm. long.

The second specimen, a skull without the mandibular bones, was exhumed in a tamarack swamp in Pittsfield township, Washtenaw county, by J. B. Steere, in 1902. It was lying on a bed of gravelly marl and beneath three feet of peaty soil. The skull is hard, of a rich dark brown color, and is little damaged. The left zygomatic arch is broken, and the teeth, with the exception of the last molar on the left

side and the right incisor tooth, are missing. Nearly the full length of the right incisor is represented, the only damage to the tooth being an injury to the outer surface and the loss of a few millimeters from the base. The double nature of the internal nasal orifices is well shown. The measurements are as follows:

	Mm.
Length of skull from occipital angle to forward end of nasals .....	280
Length of skull from occipital angle to forward end of maxillaries .....	293
Width of skull across occiput .....	168
Width of skull across zygomatic arches.	230
Height of skull at occiput .....	68
Height of skull at last molars .....	98
Length of nasals .....	116
Greatest dimensions of zygomatic arch..	67 × 115
Width of occipital foramen .....	36
Length of molar tooth row .....	73

The writer is indebted to Professor E. C. Case, of the department of geology, University of Michigan, for permission to publish these records.

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#### SCIENTIFIC BOOKS

*Outlines of Chordate Development.* By WM. E. KELLICOTT. New York: Henry Holt & Co. 1913.

In this volume Professor Kellicott endeavors to give a compact though comprehensive account of the development of the Chordates, such as will be suitable for the student of general embryology. For this purpose the frog is taken as representing the type, or rather, one should say, the mean, of chordate development, and a full and connected account is given of its early development and organogeny. This account is, however, preceded by an excellent statement of the embryology of *Amphioxus*, the author believing that whether or not this represents a truly primitive type of development, "it affords, in simple diagrammatic style, the essentials of early Chordate development," while its specialized later stages "may serve to put the student upon his guard