

show specific differences in some of them, but the resemblance in any event is marvelous.

The Converse County collections of which I have spoken include more or less numerous representatives of *Chamops*, *Iguanavus*, *Coniophis* and *Cimolopteryx*, originally described by Marsh from these regions, together with others that are yet new, and the following which have been recorded from other deposits only:

*Myledaphus bipartitus* Cope.—This species, originally described from the Montana beds, is common in the Wyoming deposits. The teeth are variable in size, and seem to agree well with that figured by Lambe from the Belly River deposits by Lambe. It is of interest to add that the genus is closely allied to, possibly identical with, *Rhombodus* Dames, from the uppermost Cretaceous of Europe. Jaekel shows clearly that *Rhombodus* belongs among the Trygonidæ.

*Accipenser albertensis* Lambe.—The keeled and ornamented shield figured by Lambe from the Belly River appears to be identical with others in the Baur collection from Wyoming. I suspect that they belong with a fish different from *Accipenser*.

*Lepidosteus occidentalis* Leidy.—Numerous scutes, associated with opisthocœlous vertebræ, from Converse County can not be distinguished from this species, originally described from the Judith River and recognized by Lambe from the Belly River.

*Crocodylus humilis* Leidy.—This species was described from the Judith River beds, and is identified by Lambe from the Belly River. Numerous teeth, scutes and vertebræ from the Converse County beds can not be distinguished.

*Scapherpeton tecton* Cope.—The four known species of this genus are typically from the Judith River beds. Lambe has identified the above species from the Belly River. Numerous vertebræ and fragments of the mandible are in the Wyoming collections, among which I recognize this species.

*Champsosaurus*.—This genus is well represented in the Laramie collections.

*Aublysodon* (*Deinodon*, preac.).—Teeth of carnivorous dinosaurs are not at all rare in

the Converse beds, some of which agree well with the figure of *A. explanatus* Cope given by Lambe.

*Paleoscincus*.—Teeth of three or four species from the Wyoming deposits are referred to this genus (evidently a composite one) among which there is one that seems identical with *P. asper*, described by Lambe from the Belly River.

*Baëna* is well represented in the collections, doubtless including *B. Hatcheri* among them, which is also known from the Belly River.

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#### BOTANICAL NOTES.

##### AIR HUMIDITY.

STUDIES made on the humidity of the air in an office in Lincoln, Nebr., by G. A. Loveland, and reported to the Nebraska Academy of Sciences, January, 1902, show that the air is much drier in the winter than is commonly supposed. Thus in an office in Nebraska Hall on the campus of the University of Nebraska the following results were obtained for the winter of 1899-1900.

	Mean Exterior Temperature.	Mean Relative Humidity.
December .....	22.6°	18.6 per cent.
January .....	26.8°	21.0 " "
February .....	19.2°	15.3 " "

The office in which these observations were made is on the main floor of a large brick building which is heated by steam, using ordinary pipe radiators. On the same floor a few feet away are the rooms of the Botanical Department, one of which is used for physiological experiments. It will be seen very readily that experiments upon ordinary plants must be made in such a dry air with considerable difficulty, and these results may help some students to understand why their work has been unsatisfactory. The air in such rooms is drier than in the driest climates in the world, and the effect on plants under observation can not be otherwise than most trying. Plants for study are taken from the

plant-houses, where the relative humidity is quite high, and are suddenly brought into an atmosphere as dry as that of the Sahara. What wonder that the plants do not behave properly!

#### POLYPORUS OFFICINALIS IN AMERICA.

SEVERAL years ago a correspondent in the Northwest sent me a fine specimen of a polypore which he found on the trunk of a tall tree in northern Idaho or western Montana. It was so inaccessible that he *shot* it from its resting place, bringing it down but little injured beyond the destruction of the attachment at the base of the fungus. As received it measured thirty centimeters in length and about thirteen centimeters in diameter, and was almost cylindrical in shape. This cylindrical mass evidently depended from a curved stipe at its upper end, but this had been destroyed as indicated above. The exterior was quite white, and was covered with a mealy coating derived apparently from the disintegration of the tissues of the fungus.

A year or two later another specimen was brought to me from the vicinity of the Yellowstone National Park (southward, I think), which agreed with the first one in all particulars excepting that it was much smaller, being not more than half the length and width of the first one. Both specimens are very certainly the *Polyporus officinalis* of the German Pharmacopœia, and like that species ours is very heavily loaded with a pungent resinous matter, to which doubtless its alleged medicinal properties are due. These specimens were reported as occurring on 'larch' trees, by which I suppose the correspondents meant some *Abies* or *Picea*. There can be no question as to the coniferous nature of the host trees, but I can not identify them further. As this species has not been reported as occurring in America, it is desirable that collectors should be on the lookout for it when botanizing in the Northwest.

#### BOTANY IN THE WASHINGTON MEETINGS.

BOTANISTS should plan if possible to attend the meetings of the American Association for the Advancement of Science, and the affil-

ated societies in Washington during the holidays. This is the first time that these meetings are to be held in the winter, and no doubt the future policy of the association (and of the affiliated societies, also) will depend largely upon the success of the present meeting. According to the program as already announced, there will be meetings of interest to botanists as follows: The Section of Botany of the American Association for the Advancement of Science, American Microscopical Society, Botanical Society of America, Botanists of the Central and Western States, Society of American Bacteriologists, Society of Plant Morphologists, and Society for the Promotion of Agricultural Science. Doubtless, also, there will be meetings of the Botanical Club of the Association, as has been the practice for many years. When we add to all these the many botanical divisions and sections of the United States Department of Agriculture, with their laboratories, libraries, herbaria and plant-houses, and the great National Herbarium, the attraction should prove strong enough to bring out a large number of botanists.

#### TWO BOOKS ON FORESTRY.

SEVERAL months ago Professor Gifford brought out a book with the title 'Practical Forestry,' intended for beginning students of forestry in school and out, as well as for the general reader who wishes to get some knowledge of the subject. To this end the author has made his book as practical as possible, 'so that the owner of a large tract of woodland, and the farmer with his wood-lot, or the owner of a country place, or those interested in the various industries connected with forests and forest products, may glean hints of value.' A pretty careful examination of the book shows that Professor Gifford has succeeded in making such a book as he describes, and without question it will do much good in the country at large. It consists of four parts, as follows: Part I., which is introductory, dealing with the generalities of the subject; Part II., 'The Formation and Tending of Forests'; Part III., 'The Industrial Importance of Forests'; Part IV., 'Sup-

plementary,' including a description of the principal federal and state reservations, and a descriptive list of fifty of the principal forest trees of North America. The text is clearly written, and the publishers (Appletons) have done their duty in the way of type, paper and illustrations.

The second book, by Professor Roth, is entitled 'First Book of Forestry.' In it the author has attempted 'to present in simple, non-technical language some of the general principles underlying the science, and to state the methods which are employed and the objects to be attained in the practice of forestry.' As indicated, the treatment is very simple, and a perusal of its pages shows that the book might easily be used in the public schools. The present writer would suggest this book as one to be used for supplementary reading in connection with work in reading and nature study. A citation of a few of the topics will show the simple style of the book, as follows: 'What Light and Shade do for the Woods'; 'What Different Soils do for the Woods'; 'What Moisture does for the Woods'; 'Care and Protection of the Forest'; 'Use of the Forest'; 'Forest Plantations on the Prairies.' The publishers (Ginn) have made a pretty book of the text and illustrations so well supplied by the author.

### THREE FORESTRY JOURNALS.

WITH the increased interest in forestry in this country have come several journals devoted to this subject. The oldest of these is *Forestry and Irrigation* (published in Washington, D. C.), which began in 1895 under the name of *The Forester*, and after seven years enlarged its scope and changed its name. In addition to forestry it now devotes a good deal of attention to irrigation, which in many portions of the country is so intimately associated with the growth of trees. This journal is the official organ of the American Forestry Association, and because of the support given it by the staff of the United States Bureau of Forestry it is, to a certain extent, the organ of this government bureau. Beginning in a modest way, it has improved year by year until it has become a journal which is of in-

terest to scientific botanists, as well as the practical men to whom it is supposed to particularly appeal. This journal illustrates very well the fact that science and its practical applications are coming to be more and more closely associated. The botanist can no longer overlook many of the papers which are published in a journal of this kind. Among recent papers may be mentioned the following: 'The Mesquite, a Desert Study'; 'The Beetle Pest in the Black Hills Forest Reserve'; 'Recent Progress in Dendro-chemistry'; 'The Jack Pine Plains of Michigan'; 'The Climate of the White Pine Belt'; 'Notes on a Northwestern Fir'; 'The Red Cedar in Nebraska'; '*Pinus attenuata* as a Water Conservator'; 'Forestry and Plant Ecology'; etc.

In September of the present year a second journal of forestry appeared in Chicago, under the name of *Arboriculture*. It is quite distinctly a popular journal, and, since it is illustrated with good 'half-tones,' it is likely to appeal to a large constituency and do much toward creating and stimulating an interest in forestry.

A third journal devoted to forestry has come to us from Cornell University within the last few weeks, under the name of the *Forestry Quarterly*. It is published under the direction of the faculty of the College of Forestry, and is considerably more technical in nature than either of the preceding. In addition to a number of valuable general papers there is one feature which will commend itself to most botanical readers, viz: the full account of the current forestry literature, much of which is of immediate interest. This journal must find a place in every botanical library.

CHARLES E. BESSEY.

### THE VIRCHOW MEMORIAL.

A MEETING was held in London on November 21 to forward the movement to take part in the erection of a statue to Rudolf Virchow in Berlin. Lord Lister presided and addresses were made by a number of leading men of science. An influential committee was formed with Lord Lister as chairman, Lord Avebury as treasurer and Sir Felix Semon as secretary.