

have already been noticed in *SCIENCE*, and equally good results may be expected from the work of the field party sent out early this year. The number of visitors during the current year is estimated at 350,000. Special effort has been made to put the Museum in touch with the public schools by issuing loan collections and by the 'Prize Essay Contest.' In the separate report on this it is interesting to note that the subjects most frequently chosen were those objects that appealed most strikingly to the eye. While this is only natural, yet it calls attention to the fact that while a museum may be a collection of labels illustrated by specimens, there is considerable danger that the label will be overlooked by the average visitor unless there is something about the object itself, or the manner in which it is shown, to attract attention.

SOMETHING of glamor hangs over the white cattle of Chillingham and Cadzow; they have been sung by poets and engraved by Bewick, the Chillingham herd has literally been within one of extinction and finally some authorities have considered these cattle as direct descendants of the vanished Urus. The last writer to discuss them is R. Hedger Wallace, who has undertaken an exhaustive inquiry into their origin and history, whose results are published in the *Transactions of the Natural History Society of Glasgow*. While Mr. Wallace explicitly states that his paper must not be considered as final, he yet states as his opinion that the white cattle are simply the descendants of Roman cattle imported into England during the Roman occupation. An extensive, though confessedly incomplete, bibliography of works and articles relating to the 'Bovidæ,' wild and domesticated, living and extinct, is appended.

F. A. L.

#### BOTANICAL NOTES.

##### THE BIG TREES OF CALIFORNIA.

NOT long ago the staff of the Division of Forestry of the United States Department of Agriculture prepared a most valuable and suggestive report on the big trees of California, which was issued as a Senate document, and afterwards published as a separate paper by the Department. The purpose of the report is

to call attention to the groves of these great trees, and to enlist sufficient interest in them to secure their preservation. Their fine wood has tempted the lumberman, and in spite of their unwieldy size they are felled and split and sawed into lumber to such an extent as to threaten the utter destruction of many of the groves.

There are ten main groups of groves of the big trees scattered along the west side of the Sierra Nevada range, 'from the middle fork of the American River to the head of Deer Creek, a distance of two hundred and sixty miles.' Probably not more than five hundred trees in these groups are remarkable for their size.

The only grove thus far safe from destruction is the Mariposa, while 'the finest of all, the Calaveras Grove, with the biggest and tallest trees' has recently (April, 1900) come into the possession of a lumberman who quite certainly intends to cut the trees into lumber.

The report should be read by every lover of trees, and every effort should be made to have Congress take steps to preserve several of the finest of these groves. The excellent half-tone plates from photographs add interest and value to the paper.

##### THE AGE OF THE BIG TREES OF CALIFORNIA.

IN the report issued by the Division of Forestry in the United States Department of Agriculture referred to above, a discussion is made of the age of the Big Trees. The conclusion is reached that their age runs far up into the thousands, the great age of five thousand years being mentioned, apparently with approval. The writer of this note once counted with much care the rings of growth of a tree which was felled in 1853, and whose stump constitutes the floor of the so-called dancing pavilion. This count was made from circumference to center, and every ring in all that distance was counted, no 'estimates' or guesses being made. The result was that eleven hundred and forty-seven (1,147) rings were counted, and accordingly it is safe to say that this tree, which was fully twenty-four or twenty-five feet in diameter, and considerably more than three hundred feet in height, acquired these dimensions in eleven hundred and forty-seven years. The writer entertains grave doubts whether any of the ex-

isting trees approach the age of two thousand years.

#### LOCAL DESCRIPTIVE FLORAS.

It is a good sign of the progress of systematic botany in North America that there is an increase in the number of floras of restricted regions in preparation by local botanists. Of course the authors of such floras usually succeed in adding something to the burden of botanical synonymy, but this is more than balanced by the additions made to our knowledge of the particular distribution of the species, and the geographical variations which some of them show. The 'Flora of Northwest America,' by Thomas Howell, and the 'Manual of the Flowering Plants of Iowa,' by T. J. Fitzpatrick, now publishing in parts, are good illustrations of systematic work. Of the former three parts, and of the latter two parts have appeared.

Mr. Howell's publication is more radical in its treatment of species, many being recognized as distinct which are usually not separated by botanists. In his preface he says: "Believing that if a plant has one constant character that is different from any of its congeners it is sufficient for a species; and if that plant is sufficiently distinct from others to deserve a name it is better to have it described as a distinct species than as a variety of some other species. I have, therefore, raised nearly all published varieties of the region embraced in this work to specific rank."

Mr. Fitzpatrick is more conservative, and follows more closely the common usage in this regard. In one particular he is quite abreast of the most radical of botanical writers, namely, in decapitalizing all specific names, and the omission of the comma before the authority.

In both books the descriptions are well drawn, and good keys serve to guide the student. One or two more parts of each should finish these useful books.

#### THE MRS. CURTISS MEMORIAL.

MANY botanists remember with pleasure the dainty specimens of marine algæ collected by Mrs. Floretta A. Curtiss, for many years a resident of Jacksonville, Florida. Year after year the little fascicles of exquisitely prepared

specimens were offered to those who were interested in algæ, and who wished them for their herbaria. On March 3, 1899, she died in the seventy-seventh year of her life. Her son, A. H. Curtiss, the well-known botanical collector, has prepared a memorial, including a biographical sketch, and an index to her collections of algæ. This is in the form of a twenty-page folio pamphlet printed on heavy paper and illustrated with half-tone reproductions of photographs of the places where she lived while in pursuit of her favorite plants.

Mrs. Curtiss was born in 1822, in what was then the wilderness of central New York, not far from the present city of Syracuse. She came from New England stock, both parents being natives of Massachusetts. Immediately after the Civil War she removed with her husband to Virginia, and in 1875 with her son she took up her residence in Florida. Here she soon began the work of collecting algæ,—which she continued to the close of her life. Science owes her a debt of gratitude for the years of painstaking labor which she gave to the gathering and preservation of specimens, which have enriched the botanical collections of the World's great herbaria.

CHARLES E. BESSEY.

THE UNIVERSITY OF NEBRASKA.

#### THE AMERICAN PUBLIC HEALTH ASSOCIATION.

THIS Association will meet at Indianapolis from October 22d to 26th, under the presidency of Dr. Peter H. Bryce. There is a special section of bacteriology and chemistry, of which Professor Theobald Smith is Chairman. The subjects on which special committees have been appointed to make reports are:

1. 'The Pollution of Public Water Supplies';
2. 'The Disposal of Refuse Material';
3. Animal Diseases and Animal Food';
4. 'Car Sanitation';
5. 'Etiology of Yellow Fever';
6. 'Steamship and Steamboat Sanitation';
7. 'Relation of Forestry to the Public Health';
8. 'Demography and Statistics in their Sanitary Relation';
9. 'Cause and Prevention of Infectious Diseases';
10. Public Health Legislation';
11. The Duration of Infectious Diseases';
12. 'Cause and Prevention of Infant Mortality';
13. 'Disinfectants';
14. 'Municipal Sanitary Adminis-