

Temperature, 80° and above.		Month.	
April 20	82.8	July 3	83.5
" 21	82.2	" 6	83.5
May 12	80.0	" 7	90.7
June 13	80.4	Aug. 9	86.7
" 15	82.8	" 10	83.0
" 16	82.0	" 12	80.0
" 17	84.3	" 13	86.0
" 18	83.8	" 14	86.5
" 19	88.9	" 15	88.5
July 1	86.0	" 16	83.6
" 2	88.0	" 17	86.0

Most of the rain fell in thunderstorms, but their area was very limited; the amount in that of June 15 within 5 miles of this place is an example:—

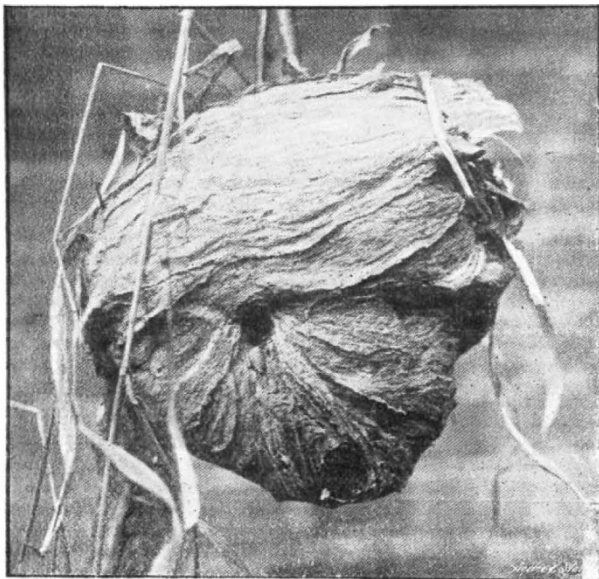
Caldicot Hall	0.04	Itton Court	1.50
Dennel Hill	0.17	Piercefield Park	1.79
Wirewoods Green	0.56	The Mount, Chepstow	1.96
Shirenewton Hall	1.01		

The rainfall in	May	in.	in.
"	June	was 2.6; of this	2.4 fell from 15th to 20th.
"	July	" 1.8	" 1.0 fell on 15th.
"	Aug. (to 17th)	" 2.9	" 1.1 fell from 10th to 15th, and 1.0 on 18th and 19th.
		" 1.8	" 1.0 fell on 1st to 3rd, and 0.6 on 10th.

Thus, of the total rainfall (9.7), 7.1 inches fell on 17 days out of the 170 days. On August 9 there was no rain, but more lightning than I had seen since the memorable storm of August 9, 1843. It commenced at 9 p.m. and lasted five hours. From very frequent counting there could not be less than 10,000 flashes (the estimate was 11,540). For three hours the most number of flashes in a minute was 121, and the least 39. Before the storm of June 15 the ground was dry to the depth of 15 inches, and this 1 inch of rain only penetrated 2 inches. The long intervals of drought have parched the ground, so that we are still suffering from want of rain.

The Drought and Heat of 1893.

The results of an unusual occurrence like the present season show as clearly as instrumental observations the exceptional character. We have a very near copy of the drought of 1868—



1870; *i.e.* Monmouthshire is repeating what in 1868-70 occurred in Nottinghamshire. Flowers and fruit have been a month earlier than usual, their period has been of short duration, and

insect pests have been very great. There has been an extraordinary abundance of apples, pears, plums, cherries, gooseberries, currants, field mushrooms, butterflies, moths, flies, caterpillars, cuckoo-spit aphids, slugs, and wasps. The tree-wasp, which is rare, has had many nests, and, as the structure is not generally known, my son has taken the enclosed photograph, which clearly shows it. The tree-wasp's nest is built much earlier than that of the ordinary wasp, and equally large, a low bush being the situation usually selected. Nightingales and cuckoos have been very numerous. Grass is now being mown for hay, and four to five acres will only yield a ton, whilst the straw of corn is shorter than ever before known. Trees are also very bare of leaves. Water is scarce, as many springs have been dry for some weeks. In June the trees and shrubs were as if varnished from extensive honeydew, which the thunderstorm cleared away. Strawberries are blooming a second time, and there are many plants seeding that do not usually seed here.

E. J. LOWE.

Some Recent Restorations of Dinosaurs.

UNDER the above title, an illustrated article, by Mr. R. Lydekker, appears in NATURE, July 27, 1893, p. 302. This purports to give a summary of what has recently been done in restoring certain remarkable forms of extinct reptiles. Most of the statements made are correct, but with them are a number of serious errors that may mislead readers not familiar with the subject. As the restorations given are, with one exception, my own, and represent indirectly several years' work in the field and museum, I trust you will allow me to call attention to some mistakes in this article, which were perhaps made by Mr. Lydekker through inadvertence, or from his not having seen the specimens described.

In the introduction, the date 1878 is given for the first of my memoirs on Jurassic Dinosaurs; whereas in the previous year I described (1) the earliest of the huge Sauropoda found in America, proposing the family name *Atlantosauridae* for the genera *Atlantosaurus* and *Apatosaurus*; (2) various carnivorous Dinosaurs of the present order Theropoda, including the genera *Allosaurus* and *Dryptosaurus*; (3) the Stegosauria, represented by *Stegosaurus*, the first American genus of the group; and (4) several small forms of true Ornithopoda, including *Nanosaurus*. The family *Atlantosauridae*, the sub-order Stegosauria, and the genera here mentioned, were thus established by me in 1877 in the *American Journal of Science*, vol. xiv.; a small matter in itself, but the beginning of a long investigation.

The first restoration given by Mr. Lydekker, Fig. 1, is that of my *Brontosaurus excelsus*, reduced from an outline sketch published, as stated, in August, 1883; but no reason is assigned for not using, especially in a summary of recent work, my more complete restoration of 1891, which includes the results of much additional study. This figure represents a typical member of the order I have called Sauropoda, but in the text the name used is Sauropsida, a much more comprehensive term.

The second restoration, Fig. 2, called "A Carnivorous Dinosaur," is said to have been reproduced from my figures. This must be a mistake. It is evidently printed from one of my *clichés*, and is certainly used without authority. Moreover, the name I gave to the animal represented (*Ceratosaurus nasicornis*) is not even mentioned, but it is incidentally stated that my genus *Ceratosaurus*, based on this unique specimen, is inseparable from the European *Megalosaurus*. This statement could not be fairly made by anyone familiar with the type specimens of the two genera, or even with the literature. Only a few authentic remains of *Megalosaurus* are known, and I have studied all the important specimens with care. There is no evidence that the skulls are identical in the two forms, and much against it. The plano-concave cervical vertebrae of *Ceratosaurus*, unknown in any other Dinosaur, are radically different from the convexo-concave vertebrae of *Megalosaurus*. The complete co-ossification of all the pelvic elements of *Ceratosaurus* is another distinctive character, and the union of the metatarsals also is important. An elementary knowledge of the structure of Dinosaurs is quite sufficient to show any anatomist that the two belong to genera widely different, and to indicate for them distinct families. Additional remains, obtained since *Ceratosaurus* was described, have in great part removed the objection that the co-ossification mentioned may have been