TWO VIEWS OF A PLASTER CAST OF A MODEL RECONSTRUCTION
OF *PELONEUSTES PHILARCHUS*.

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an allied Lower Devonian species under the name *P. hercynica*. Our Meadfoot shell may belong to this genus.

P.S.—The recent paper by Dr. Asselberghs (GEOL. MAG., Vol. LVIII, 1921, pp. 165-9) on the correlation of the Lower Devonian beds of South Devon with those of the Ardennes and Rhine is of special interest in connexion with the revision of part of the fauna in my three articles.—F.R.C.R.

A Model of *Peloneustes philarchus*.

By the Rev. H. NEVILLE HUTCHINSON, M.A., F.G.S., F.Z.S.

(PLATE XIV.)

PLATE XIV shows two photographs of a model I have recently made in order to show the outward aspect of *Peloneustes philarchus*, a pliosaur from the Oxford Clay. It is based on the complete mounted skeleton now in the British Museum (Natural History), Cromwell Road, a part of the well-known Leeds collection.¹ This skeleton has a length of 10 ft. 6 in., and my model is 23 in. long, so the scale is roughly about 1 : 5. No other museum possesses a mounted skeleton of this genus, the nearest thing to which is the *Trinacromerum*, described as a Cretaceous plesiosaur by Dr. S. W. Williston in his work on *Water Reptiles of the Past and Present*, Chicago, 1915, where a restoration is shown on p. 89, fig. 42. The specimen is in the Museum of the University of Kansas. This same Leeds collection has given us two fine mounted skeletons of the genus *Cryptoclidus*, of the family Elasmosauridae, and now we have also this fine mounted skeleton of *Peloneustes*, which belongs to the Pliosauridae. Hence it is now possible for geologists to see at a glance the chief characteristics of these two families, and my hope is that this model may be of some use to students of Palæontology. In making the model I have had the advantage of much valuable assistance from my friend, Mr. E. Godwin, an accomplished sculptor, without whose assistance I doubt if it could ever have been completed; for when I attempted to model the head I found a task that was beyond my power to accomplish properly, not having had any training in the art of sculpture. We have made many measurements and calculations in our endeavour to restore this most interesting marine reptile, the leading features of which can be summed up in a few words. Instead of the familiar long neck and small head of the plesiosaur we have here a short thick neck supporting a large and long head. Notice the powerful jaws armed with big teeth which get larger towards the end or middle of the snout. There is evidence to show that *Peloneustes* fed largely on cephalopods, but doubtless pursued larger prey at times—probably fishes. The hind paddle is larger than the fore paddle, and

¹ For a full description see *Catalogue of Marine Reptiles from the Oxford Clay*, part ii, by Dr. C. W. Andrews, F.R.S., published by the Trustees of the British Museum, 1913.

Dr. Andrews concludes that this reptile swam in deep water instead of merely paddling along on the surface like the plesiosaurs. In conclusion, I will only add that we have tried to follow out the idea of "stream-lines", so important to those who design ships, submarines, and air-ships, etc. The teeth are rather too conspicuous, but this was done with a purpose, because otherwise they would hardly be visible, for in life they would be largely hidden by the flesh surrounding the bone of the jaws.

Similar casts have been presented to the British Museum (Natural History), to the New Museum, Oxford, and to the Geological Society.

Notes on the Ordovician Lavas of the Mynydd Prescelly, N. Pembrokeshire.

By GERALD M. PART, M.A., F.G.S.

PEMBROKESHIRE is, on the whole—for Wales—a comparatively low-lying county, a somewhat dissected peneplain not usually rising much above four or five hundred feet above sea-level. Apart from the ragged stacks which rise up above the level of this peneplain in the northern part of the county—Carn Llidi and Pen-berry near St. Davids and the Strumble Head masses near Fishguard, for example—there is only one really prominent feature in the whole Pembrokeshire landscape, the Mynydd Prescelly, which rises near the western end of their ridge above Rosebush to a height of 1,760 feet.

It is therefore somewhat surprising to find a great scarcity of geological literature dealing with this part of the county, and the only work of note which I have been able to discover is a paper by J. Parkinson.¹ The bulk of this is concerned with the spherulitic rhyolites which occur on Carn Alw and Foel Trigarn at the north-east end of the hills, though Parkinson briefly mentions "certain more basic rocks" which he describes as being "of somewhat uniform and monotonous appearance", and also the gabbroid dolerites which form many of the prominent "Carns" along the summit of the ridge.

These have recently added interest to the problems of Stonehenge, Dr. H. H. Thomas having identified the "blue stones" of this monument with the peculiar spotted dolerite which forms Carn Meini and other "Carns" at the eastern end of the Prescellys.²

It is to be regretted that even the glamour of Stonehenge can hardly make up for all the epidote, chlorite, and other decomposition products with which these rocks are affected. Hitherto there has been some doubt as to their exact age, though it is probable that, like the other dolerites of North Pembrokeshire, these intrusions are older than the main folding which is of Valentinian or

¹ *Q.J.G.S.*, vol. liii, 1897, p. 465.

² *Geol. Survey—Summary of Progress*, 1920, p. 56.