the Chalk, thus also falls to the ground. The absence of this member cuts off *Eurysomus* from the Pycnodonts proper, which are thus restricted to Mesozoic times; for that family is clearly separated from *Eurynotus* and *Mesolepis* by the form of the suprascapular bones, as well as by the different position of the opercular plates, by the structure of the scales, and by the absence of fulcra on the upper caudal lobe.

EXPLANATION OF PLATES XX. & XXI.

PLATE XX.

- Fig. 1. *Amphicentrum granulosum*, one-half the natural size.
2. Maxilla of *A. granulosum*, natural size.
3. Mandible of *A. granulosum*, seen from without.
4. The same seen from above.
5. Outer surface of a scale of *A. granulosum*, natural size.
6. Inner surface of a scale of *A. granulosum*, natural size.
7. Palatine armature of *A. granulosum*, magnified.

PLATE XXI.

- Fig. 1 a. *Mesolepis Wardi*, natural size.
1 b. Outer surface of scales of *M. Wardi*, magnified.
1 c. Inner surface of scales of *M. Wardi*, magnified.
2. Head of *Platysomus parvulus*, twice the natural size.
3. Teeth of *Mesolepis Wardi*, twice the natural size.

5. Note on the SCALES of RHIZODUS, Owen.

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[Abstract.]

ATTENTION was drawn to the fact that, on a slab in the collection of the Royal Society at Edinburgh, the characteristic *Rhizodus* teeth occur along with thick bony scales, whose exposed area is ornamented with coarse tubercles, usually irregularly disposed, while the overlapped anterior area is concentrically striated. These characters confirm the generic distinctness of *Rhizodus* from *Holoptychius*, whose smooth anterior and rugose free surfaces contrast with those described.

March 7, 1866.

Edward Filliter, Esq., Leeds; Myles Kennedy, Esq., Hill House, Ulverston; and Lieut. Charles Warren, R.E., Gibraltar, were elected Fellows.

Dr. Joseph Leidy of Philadelphia was elected a Foreign Member.

Prof. J. P. Lesley, of Philadelphia; and Prof. Reuss, of Vienna, were elected Foreign Correspondents.