SCOLOCYSTIS, ECHINOCYSTIS, AND LYSOCYSTIS: DISCOCYSTIS, ECHINODISCUS, AND AGELACRINIDÆ.

SIR,—In his valuable paper "On Echinocystis and Palæodiscus" (Quart. Journ. Geol. Soc., liii, 123-36, pl. vii, February, 1897), Dr. J. W. Gregory has a footnote (p. 133) that may, if not emended, give others as much trouble as it has given me. "To save further confusion" Dr. Gregory proposes the name Scolocystis for an obscure cystid to which the preoccupied name Echinocystis was given by Hall. We are not told what Hall, what species, or in what publication, although a mysterious thing called "Hall's date" is discussed. My friend Dr. Gregory kindly allows me to say that the reference is to Echinocystites nodosus, James Hall, "Account of some new or little-known species of fossils from . . . . the Niagara group," 20th Rep. N.Y. State Cab. Nat. Hist., p. 316, 1867, also published in advance as part of 18th Rep., December, 1864, and January, 1865, as well as on p. 360 of Revised Edition, 1870.

Having this information, it is easy to see that the acute Mr. S. A. Miller, in his most useful work, "North American Geology and Palæontology" (1889), to which it is the duty of every writer on American fossils to refer, has anticipated Dr. Gregory, and has there

proposed the name Lysocystites for the genus of E. nodosus.

There is another generic name proposed by Dr. Gregory on p. 131 of his paper, viz. Discocystis: this, too, requires some comment. Dr. Gregory argues that Palæodiscus and Echinocystis are true echinoids, having no connection with the Agelacrinidæ. "There is, however," he says, "one genus which, if correctly described by Worthen and Miller, may be a Carboniferous representative of either Palæodiscus or Echinocystis [and therefore an echinoid]. According to the description of its authors, this remarkable form has an irregular, sac-like body; above the mouth there is a series of plates which may represent jaws [i.e. echinoid jaws]. The name Echinodiscus was given to this fossil by Worthen and Miller, but this term having been preoccupied by Agassiz for an echinid, for which it is still in use, the name of the cystid may be changed to Discocystis."

If Dr. Gregory considers Echinodiscus optatus (for that is the species to which he is referring) to be an echinoid, perhaps he will explain why he calls it a cystid and Discocystis. That it is a cystid and no echinoid at all, is my firm belief; and had Dr. Gregory been better acquainted with the writings of Mr. S. A. Miller, we should probably have had neither the above enigmatic paragraph nor the name Discocystis. At all events no one has any business to fling names about in this reckless way without considering all the facts and possibilities of the case. Three species have been referred to this genus, and should all have been reckoned with by my onomatopæic friend. They are: E. optatus, Worthen and Miller (1883), the typespecies; Agelacrinus kaskaskiensis, Hall ("Geol. Iowa," i (2), 696, 1858), referred to Echinodiscus by S. A. Miller ("N. Amer. Geol."); and E. Sampsoni, S. A. Miller (17th Rep. Geol. Surv. Indiana, p. 76, 1891). Comparison of these shows plainly that they belong to the Agelacrinidæ. The "mouth," which Dr. Gregory innocently quotes,

is the anus, which in 1883 and even later was thought to be the mouth by many American writers. The supposed jaws are presumably the anal pyramid, which Dr. Gregory suggests came to be

part of the apical system, i.e. at the aboral pole.

The species, in short, though perhaps not referable to the Carboniferous genus, Lepidodiscus, do not depart from the plan of the Agelacrinidæ, and anyone who wishes to maintain them in a separate genus should be asked to show the differences between them and Agelacrinus, Haplocystis, and one or two other of their allies.

Dr. Gregory appears to accept Haeckel's view that the ambulacra of the Agelacrinidæ bore pinnules. This may have been the case with one or two of the genera placed by Haeckel in his Agelacystidæ; but it can scarcely have been the case with any of the genera mentioned by Dr. Gregory.

It seems as well to indicate these minor lapses, which none will regard as detracting from the interest or value of my friend's long-looked-for paper.

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## OBITUARY.

## THE REV. ROBERT HUNTER, M.A., LL.D., F.G.S. BORN 1823. DIED FEBRUARY 25, 1897.

ROBERT HUNTER was born at Newburgh in 1823, and was the son of Mr. John Mackenzie Hunter, a Scotsman from Portpatrick, in Wigtownshire, his mother being (née Agnes Strickland) an Englishwoman from Ulverston, in Lancashire. In 1826 his father, with his family, removed to Aberdeen. There Robert Hunter, after attending the leading academy, entered the Grammar School, then under the celebrated rector, Dr. Melvin. Here he took the first prize in the third, fourth, and fifth classes of the school, and afterwards, when still only fourteen, he came out at the head of seventy-nine competitors in the open examination for University bursaries. He thus obtained the first, and entered Marischal College in the University of Aberdeen. There, a few months later, he was first in Latin and first in Greek, and in the third year first also in Mathematics. Among secular studies, however, Natural Science had supreme attractions for him. This subject was conducted by Dr. John Shier, and in his second year Robert Hunter gained the first prize, the second being awarded to Hugh Mitchell, afterwards Minister of the Free Church, Ferryden, who proved in later years a most excellent geologist and palæontologist. [The Rev. Hugh Mitchell, M.A., LL.D., passed away on November 10, 1894, and his obituary, written by Dr. Robert Hunter, his friend and former classmate (now, alas! also lost to us) appeared in the Geol. Mag. for 1894, p. 575.] Robert Hunter and Hugh Mitchell, with an ardour prophetic of future eminence, roamed the country for many miles around the granite city making Natural History collections. But, as the result of prosecuting researches in spite of wind and weather, Hunter was laid up for three months with a serious illness. The day of