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wards in the fish. It was altogether, therefore, an armature of defence, and not partly of offence, as hinted at in the text. Of this Mr. Miller had long been quite aware, and, in consequence, had expressed himself approvingly of the restoration figured in Plate x. An Arbroath specimen, in the possession of Mr. Powrie of Reswallie, which shows the head in profile, has the cephalic shield bent round in the manner described. In the large majority of instances, however, the fish being found lying on its belly, the curvature of the shield has yielded to the pressure of the overlying stone, and the appearance of the head is consequently that of a perfectly flat crescent, as represented in Plate xiii. fig. 1.

## NOTE G, PAGES 129 AND 137, - "Middle Empire."

Here, and elsewhere in these pages, the Forfarshire gray beds are spoken of as constituting the middle portion of the formation.

BALRUDDERY SPINES.



In "The Testimony of the Rocks," however, pages 452-455, Mr. Miller remarks, that "the evidence on the point is certainly not so conclusive as I deemed it fifteen years ago" (p. 452); and again (p. 455), "It must, however, be stated, on the other hand, that the crustaceans of the gray tilestones of Forfar and Kincardine not a little resemble those of the upper Silurian and red tilestone beds of England; and that, judging from the ichthyodorulites found in both, their fishes must have been at least generically allied. The crustaceans of the upper Silurian of Lesmahagow, too, seem certainly much akin to those of the Forfarshire tilestones." The spines figured in the accompany-

ing cut, when compared with those in Sir R. Murchison's "Siluria," may help the scientific reader to determine the question.

ADDITIONAL NOTE, BY REV. W. S. SYMONDS. - In Worcester-