

open water, and if oceanic ice intervenes, it would be traversed as rapidly as possible, and a return made to the farthest north point on solid land, where winter-quarters could be established; but should this be impracticable, the retreat would be continued to the base, where the second winter would be spent. In the spring of 1896 the party would turn northward again, the chain of depôts accelerating their progress. In the summer of 1896 the ship will return with additional stores and men, and to obtain news; but it does not appear to be Mr. Jackson's intention to return, unless he is satisfied that his work is final, until 1897. This expedition ought certainly to extend our knowledge of the most northerly land known, and if fortune favours it, the advances made may be great. Its equipment is of the very best, and no excuse of bad material can be brought forward to explain unsatisfactory results.

The expedition for the exploration of Ellesmere Land, to which reference has several times been made in NATURE, planned by Mr. Robert Stein, of the U.S. Geological Survey, has been postponed; we hope only until next season. Still efforts will be made this summer to clear up the fate of the unfortunate young Swedish naturalists, Björling and Kalstennius, with their mate, Gilbert Dunn, and cook, Herbert MacDonal, of whom the last news received was that they intended to seek shelter with the reported Eskimo of Ellesmere Land. Mr. Elis Nilson has been sent out by the Swedish Anthropological and Geographical Societies, on the Dundee whaler *Eclipse*, to visit the Carey Islands and Clarence Head, if the ice permits, and search for any relics of the missing party, whose fate, after two years without supplies, can scarcely be considered doubtful. Baron Norden-skjöld has interested himself particularly in the search, and will probably arrange for other whalers to deviate from their course in order to obtain information.

Dr. F. A. Cook, the ethnologist on Peary's former expedition, has issued a prospectus of a pleasure trip which he is to conduct up Baffin's Bay to Smith Sound, with the opportunity of a slight change of route should any of the passengers desire it. This would, if the state of the ice permitted, render it possible to call at Clarence Head and the Carey Islands, and make at least a hasty search for the missing party; but a pleasure trip scarcely lends itself to serious Arctic exploration.

Prophecy with regard to the results of geographical exploration is too uncertain to be indulged in by modern critics, and in Arctic exploration particularly the conditions are so difficult to predict that success may attend the most inexperienced and worst equipped, while experience and all the resources of wealth and science would struggle in vain against adverse conditions. There are certain remarkable features about the new expeditions which distinguish them from most of the earlier efforts. Each has been planned and is being carried out by a man who is thoroughly in earnest, and whose reputation rests on his success. This is widely different from the case of a commander "ordered" to carry out the plans of others. Each expedition is small; Nansen's, which is the largest, comprises only thirteen men. Two of those which have already faced the awful monotony of the Arctic night, have appliances for dissipating the darkness by the electric light, an advantage which can hardly be over-estimated in its effect on the spirits of the men. Provisions and equipments have been greatly improved, even since the time of the *Alert* and *Discovery* and of the *Jeannette*. Most important of all, three of the expeditions are free from the responsibility of a ship. In all these ways the four serious attempts of this year have elements of success never combined previously. Their results will not be known for some time. News of Mr. Peary will certainly be received this autumn by the vessel to be sent up to Inglesfield Gulf to bring him home if he considers his work satisfactorily finished. It is

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probable that Mr. Wellman also will return; but unless he should by some scarcely credible good fortune meet the crew of the *Fram* at his farthest north, we cannot hope to hear of Nansen for another year at least; and Mr. Jackson's scheme provides for a possible absence on his part for four years, though progress should be reported before the end of next year.

HUGH ROBERT MILL.

#### THE CRINOIDEA OF GOTLAND.<sup>1</sup>

THIS is the first instalment of a memoir based on a revision of the specimens of crinoids in the Angelin collection at Stockholm. It is published in English, and is illustrated by Mr. G. Liljevall, who has produced 382 remarkably beautiful figures upon ten quarto plates. Their accuracy may be relied on by those who know Mr. Bather's own scrupulous carefulness as an artist.

The author commences by pointing out the need for a thorough re-examination of the Stockholm specimens, the drawings in Angelin's "Iconographia Crinoideorum" being so frequently misleading, and having been in many cases produced by a union of several distinct individuals. The older palæontologists certainly had not that reverence for type-specimens which now very justly prevails among curators; they brought out, as they thought, the salient points of their specimens, filled in a sort of fancy groundwork of rock around the drawing, and left students to search in vain in the collection for the exact object that had thus been honoured above the others.

The classification of the Crinoidea undergoes considerable changes with each new descriptive paper, and Mr. Bather's works are a healthy example of receptivity and indifference to precedent. We read each in the light of the glossary appended to it, ridding our minds as far as possible of the technicalities that we have previously learned. We must confess that such changes in nomenclature are based on observation and on additions to our knowledge, and we need only quarrel with the terminology when it is reduced to algebraic symbols.

The abolition of the *Fistulata* and the *Larviformia* as sub-orders of the *Inadunata* (p. 8), and the substitution—quite temporarily—of divisions based on the presence or absence of infrabasals, may be hailed as a simplification, allowing more latitude in the association of the several genera. But the value of such close and detailed work as that of the present memoir will depend in no way upon the stability of the classification utilised. Mr. Bather (p. 19) can thus treat even the *Inadunata* as a convenient portmanteau, soon to be worn out; and specialists will turn with pleasure to the critical descriptions of individual specimens in the collections.

A fine example of how the collation of specimens, year after year, will add profoundly to our knowledge of ancient life upon the earth, is to be found in the story of *Herpetocrinus* (pp. 36-45). The crown of this genus was detected in certain Dudley specimens by Mr. Bather himself, Salter's opinion being thus amply verified; and the coiled stem, often supposed to be an arm, is now shown to have had a permanent tendency (p. 45), by its very structure, to bend round in one direction, while it could probably be uncoiled "by the simple contraction of the large muscles on the outer part of the articular surface." With a quaintness of expression now familiar to us, our author proceeds: "It is very probable that the animals usually broke off any rooted attachment they may have formed, and that they clung to corals or other submarine objects by their cirri." It is further suggested that they could move from one spot to another,

<sup>1</sup> "The Crinoidea of Gotland." Part i. *The Crinoidea Inadunata*. By F. A. Bather, M.A., F.G.S. (Stockholm: Kongl. Svenska Vet.-Akad. Handl. Bt. 25. 1893.)

The extraordinary difficulties surrounding this genus are illustrated by the fact that Mr. Bather himself at one time described the arm of a *Streptocrinus* as the stem of *Herpeticrinus* (p. 176).

Controversial matters are treated in this paper with the delicacy of the duellist rather than with the tactics of the football-field; and Mr. Bather may be congratulated on the position he has gained among the exponents of intricate research. We look forward with keen interest to the completion of this handsome memoir.

G. A. J. C.

A DEDICATORY NUMBER OF THE  
QUARTERLY JOURNAL OF MICROSCOPICAL  
SCIENCE.

A SPECIAL complimentary number of *The Quarterly Journal of Microscopical Science* has been issued, dedicated by his colleagues to Prof. E. Ray Lankester, F.R.S., in celebration of the completion of twenty-five years of editorship. The *Journal* contains contributions by Dr. E. Klein, F.R.S., Prof. A. G. Bourne, Mr. Adam Sedgwick, F.R.S., Mr. W. C. McIntosh, and Prof. A. A. W. Hubrecht, of Utrecht University. It is prefaced by the subjoined historical sketch, signed by Mr. Sedgwick and Prof. Weldon.

It is now five-and-twenty years since Prof. Lankester first undertook the task of editing the *Quarterly Journal of Microscopical Science*, and by issuing the present number his colleagues desire to mark the occasion, and at the same time to take the opportunity of offering to him their hearty congratulations on the success which has attended this quarter of a century of effort on his part.

The *Journal* was founded in the year 1853 by the publisher, Mr. S. Highley, and was edited by Dr. Edwin Lankester and Mr. George Busk. In 1856 the publisher's business was transferred to Mr. John Churchill, with which firm it has remained ever since. Up to 1868 the *Journal* published the "Transactions of the Royal Microscopical Society of London," but in 1869 the Society started its own publication, and a new editorial arrangement of the *Journal* was made. Mr. George Busk retired, and Mr. Ray Lankester, who had lately taken his degree at Oxford, joined his father in the editorship.

Mr. Ray Lankester's connection with the *Journal* began in 1863 with the publication of a paper on "Our Present Knowledge of the Gregarinæ," followed in 1864-5 by a memoir, in three parts, on "The Anatomy of the Earthworm." In 1865 he suggested the publication of a quarterly chronicle of the progress of histology and microscopic investigation, and joined Mr. Busk in its preparation. Curiously enough, this feature has been abandoned since 1872, whilst the Royal Microscopical Society has taken the task in hand, and produces an admirable and extensive record.

In 1872 Ray Lankester's father ceased to take part in editing the *Journal*, and was succeeded by Dr. J. Frank Payne. Lankester and Payne added Mr. Thiselton Dyer (now Director of Kew Gardens), to their editorial body in 1873, and he was succeeded in 1876 by Mr. Archer, of Dublin, the Secretary of the Dublin Microscopical Club, and the author of so many interesting discoveries among freshwater Rhizopoda. In 1877 Dr. Payne retired, and Dr. Klein joined the editorial staff.

In 1878 a further change was made. Prof. Lankester became sole editor, with the co-operation of Archer, Francis Balfour, and E. Klein. This arrangement has continued ever since, with various changes in the list of those co-operating. Thiselton Dyer returned for a few years as one of those giving his co-operation; and Moseley and Milnes Marshall have in turn assisted in the conduct of the *Journal*, and have published in it many of their most important papers, inducing their pupils to adopt the same mode of publication.

The number of contributions which this energetic policy attracted to the *Journal* soon made it necessary to enlarge it; and the term of Lankester's editorship has been marked by a continuous increase in the amount of letterpress and in the number and excellence of the plates. This has of necessity been accompanied by a rise in price. The original price was four shillings per number—the numbers being issued quarterly.

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At that time the volume consisted of some eight-and-twenty demy octavo sheets and twenty plates, mostly also octavo. The last volume contained thirty-six royal octavo sheets and forty-two plates, many of which were coloured, while the majority were of quarto size. The change from demy to royal octavo was effected at the commencement of 1883, and in 1890 the strict quarterly publication of the *Journal* was abandoned, so that more than four numbers could be issued in the year. During the eleven years which have elapsed since 1883, sixty-one numbers, divided into fifteen volumes, have been issued; so that the increase in size and price has not only affected the magnitude of each number, but has been accompanied by an increased rapidity of publication.

Every reader will remember that Prof. Lankester's energy has by no means been exhausted in merely editing the *Journal*, for besides his many writings elsewhere, he has published more than sixty memoirs in the pages of this *Journal* alone; and we may, perhaps, be permitted to mention a few of the more prominent of these—such as that on "The Development of the Pond Snail" (1874), which marks the starting-point of his well-known investigation of the development of Mollusca; the "Notes on the Embryology and Classification of the Animal Kingdom" (1877), which exercised so great an influence upon the whole tendency of morphological speculation; the descriptions of *Limnocoelium* (1880); the series of memoirs on *Apus* and *Limulus* (1881-1884), and on *Rhabdopleura* (1884); the first description of the atrio-cœlomic funnels in *Amphioxus* (1875), and the subsequent memoir on the anatomy of the same animal, together with the account, commenced in conjunction with his pupil, Mr. Willey, and continued by Mr. Willey alone, of the later history of its remarkable larva.

It would be useless to enumerate all the naturalists who have contributed to the *Journal* since Prof. Lankester's successful enterprise has made it the chief medium of publication for English morphological work; but it is interesting to notice that the contributors have constantly included foreign naturalists of distinction, including E. van Beneden, Bowditch, Carrière, Claparède, Dollo, Giard, Hubrecht, Iijima, Ischikawa, Kingsley, Mitsukuri, H. F. Osborn, Oudemans, Packard, Patten, Pelseneer, Pouchet, Ranvier, Whitman, and others. Some of these have taken the opportunity, by contributing to the present number, of joining in the hearty congratulation on his past achievement, and sincere good wishes for the future, which Prof. Lankester's associates now offer to their chief.

NOTES.

THE following fifteen candidates were selected on Thursday last by the Council of the Royal Society, to be recommended for election into the Society:—Mr. W. Bateson, Mr. G. A. Boulenger, Dr. J. R. Bradford, Mr. H. L. Callendar, Prof. W. W. Cheyne, Mr. R. E. Froude, Prof. M. J. M. Hill, Prof. J. V. Jones, Mr. A. E. H. Love, Mr. R. Lydekker, Mr. F. C. Penrose, Dr. D. H. Scott, Rev. F. J. Smith, Mr. J. W. Swan, and Mr. V. H. Veley. We print their qualifications in another column.

THE "Ladies' Conversazione" of the Royal Society is announced for Wednesday, June 13.

THE death is announced of Dr. E. H. Vinen, at the age of sixty-nine. He was a Fellow of the Linnean Society, and well known among botanists and geologists.

WE regret to learn of the following deaths among scientific men abroad:—Dr. Louis von Usler, Professor of Pharmacy in the University of Göttingen; Dr. A. Schmidt, Professor of Physiology in the University of Dorpat (or Jurieff); and Prof. Thomas Morong, the well-known botanist.

THE Council of the British Medical Association are prepared to receive applications for grants in aid of researches for the advancement of medicine and the allied sciences. Applications for sums to be granted at the next annual meeting must be made on or before June 15 in writing, addressed to the General Secretary, at the office of the Association, 429, Strand, W.C. They must include details of the precise character and objects of the research which is proposed. Reports of work done by