cannot be said to apply to fig. 4. In fact the suture-line fig. 7 belongs to that group of shells of which the specimen of *H. elegans* (figs. 1, 2, 3 on the same plate) is characteristic, and that by some means or other an oversight has occurred and the suture-line of this specimen (*Harp. elegans*) has been figured in mistake for the one of *H. ovatum*. That it is no fault of delineation I feel positive, because fig. 4 is characteristic of the group to which *Harp. ovatum* would belong, while fig. 7 is characteristic of the group to which *Harp. elegans* belongs. Compare for confirmation of this opinion the suture-line, fig. 7, with the suture-line given by D'Orbigny (Pal. franç. Terr. jurass. plate 62) to *Am. primordialis*—otherwise *Am. opalinus* (Reinecke),—a very near ally of *Am. elegans*, or compare it with the suture-line of a specimen of *Am. concavus*, Sow. These shells belong to a group having a practically identical suture-line not at all like that of *Harp. radians*. Now turn to plate 80, and at first sight the evidence appears against me. Here we have in fig. 3 a suture-line which I consider is of the *opalinus* type, called the suture-line of *Harp. aalense*, and in fig. 5 the suture-line of apparently the *radians* type called the suture-line of *Harp. opalinus*; but let us now look at his description of the suture-line of *Harp. aalense*, page 459, and *Harp. opalinus*, p. 464, and we see that the descriptions *do not in any way agree with the figures*. It is in figure 3, not 5, as stated, that we find the siphonal saddle divided into two unequal portions, and the auxiliary lobes large and two smaller auxiliaries, because there are no auxiliary lobes in fig. 5. The fact is Wright has correctly described the lobe-lines belonging to the two species, but has never noticed that they were wrongly numbered, whilst on page 446 (plate 63) he has described as the suture-line of *Harp. ovatum* a suture-line belonging to a different group of species altogether. I have proceeded no further at present, as I only happened to notice these suture-lines because they were necessary to me in my own work. But having noticed the errors mentioned, I have penned these remarks, not with the intention of detracting in the least from the excellence of Wright's monograph, but to call attention to the subject, so that it may not mislead others or be the unsound basis of argument should any discussion arise concerning the validity of suture-lines as a means of identification.

IV.—ON SOME NEW OR IMPERFECTLY KNOWN MADREPORARIA FROM THE INFERIOR OOLITE OF OXFORDSHIRE, GLOUCESTERSHIRE AND DORSETSHIRE.

By ROBERT F. TOMES, Esq.

(Continued from p. 398.)

ADELASTRÆA CONSOBRINA, Edw. and Haime, sp.
(not *Synastræa consobrina*, d'Orb., Prodrômus).

WE are informed by M. Ferry that d'Orbigny was supplied with the greater part of the Corals of his Bajocien by M. Eugene Beabeau, of Langres, who has stated of the present species that it was first named *Calamophyllia glomerata* by d'Orbigny, and afterwards by an error *Synastræa consobrina*, and further, that he at the same time

described in his *Prodromus* another species under the same name. MM. Milne Edwards and Haime, it appears, were misled by this error, and referred the Coral sent by M. E. Beabeau, to the *Synastræa consobrina* of the *Prodromus*. This in brief is the statement of M. Ferry, and it is obvious that the *Synastræa consobrina* of the *Prodromus*, and the *Clausastræa consobrina* of MM. Milne Edwards and Haime are not the same, and that the latter is the Coral forwarded by M. E. Beabeau from Langres.

As *Confusastræa* had been proposed as a generic name as long ago as 1849 by M. d'Orbigny, and several species placed in it by him in 1850, and recognized by Milne Edwards and Haime, M. Ferry appears to have entertained no doubt about the generic relationship of the present species, and he therefore unhesitatingly places it in the genus *Confusastræa*. An allied species *C. ornata* occurs also at Langres, which differs only from *C. consobrina* in having larger calices. Of this M. Ferry gives a description, in which mention is made of some peculiarities which may here be noticed. The corallum, he informs us, is formed of a successive aggregation of corallites, with lateral and marginal buds, joined with one another by a rudimentary wall. He further observes that the corallites are often superposed, the young calices frequently implanted in the old ones, and that they start from a common base, formed sometimes of a single individual.

No description is given of *C. consobrina*, but it is said to resemble the last species, but with calices which are constantly of smaller diameter.

The specimens from the Cheltenham district correspond with great accuracy with the description given of *C. ornata* by M. Ferry, except that the calices are smaller, and their diameter agrees very well with that given of those of *Clausastræa consobrina* by MM. Milne Edwards and Haime, which is undoubtedly the same species as the *Confusastræa consobrina* of M. Ferry. Budding occurs laterally and in the depressions between the calices of these Cheltenham examples, and the growth of one calice within another (rejuvenescence) is not unfrequent in them. This Coral appears to be plentiful in the Lower Coral-bed in the Sheepscombe valley, near Painswick, and I have seen a specimen taken from the Oolite marl at Leckhampton Hill.

Of *Adelastræa tenuistriata* I may remark that although when unworn it is quite unlike an *Isastræa*, yet when the septa are worn down, it is difficult to distinguish from *Isastræa tenuistriata*. With the latter it has often been confounded. The marginal budding will, however, always identify it. Its relationship to the fissiparous genus *Cladophyllia*, suggested by Professor Duncan, is entirely unsupported by evidence.

ISASTRÆA TENUISTRIATA, Edw. and Haime.

Since the appearance of my former paper I have examined a number of specimens of this species from the Lower Coral-bed at Crickley Hill and Birdlip Hill, from the Lower Trigonion Grit at Juniper Hill near Painswick, and from other localities in the

Cheltenham district. I have also obtained it from the Upper Coral-bed in the Slad Valley near Stroud. It is now therefore obvious that it has a considerable vertical range in the Inferior Oolite. A specimen from Birdlip shows its method of gemmation very clearly. It takes place either on the exposed margin of the wall between the calices or a very little within the calice, as even when still very small it is impossible to say from which calice the young one proceeded.

ISASTRÆA DEPRESSA, Tomes.

Besides the localities already mentioned in my communication on Inferior Oolite Corals, I have now seen examples from the Lower Coral-bed at Birdlip, and at Juniper Hill in the Painswick valley. I have also a specimen which was given to me by the late Dr. Bowerbank, with the information that it had come from Dundry Hill. Another specimen from the same locality is in the Northampton Museum. There is also one in the Museum at Oxford, which was taken from the Inferior Oolite in the Hook Norton cutting of the Banbury and Cheltenham Railway. The presence of this species at the latter place might lead to the conclusion that the lower beds of the Inferior Oolite are not unrepresented there.

CHORISASTRÆA GREGARIA and C. OBTUSA.

I enter with some reluctance into a repetition of what I have already insisted on respecting some corals which I placed in the genus *Chorisastræa*. So far as the two English species, *C. gregaria* and *C. obtusa*, are concerned, everything depends upon their mode of increase. If it is by fissiparity, then are these species simply Thecosmilians, but if accomplished by means of gemmation, some other genus than *Thecosmilia* must be chosen for their reception. Now, Professor Duncan himself, speaking of these same corals (Quart. Journ. Geol. Soc. vol. xlii. p. 128), says, "An attempt was made to include the well-known species of *Thecosmilia*, which at first increase by gemmation and then by fissiparity" (i.e. to include them in *Chorisastræa*). The words have been given in italics by me. A few pages further on (p. 113), he refers to one of my own figures in proof of fissiparity in *Chorisastræa gregaria*. That figure represents the earliest period when increase takes place, just at the time when the corallum ceases to be simple and becomes compound. This, according to Professor Duncan's own words, should be the period for gemmation, instead of fissiparity. The two statements are of course inconsistent with each other. The real fact is, gemmation and nothing else takes place, and we have exactly the same process which is represented by the figures of *Chorisastræa corallina*, From., *C. neocomiensis*, From., and *C. dubia*, Becker. One of the figures of the latter species (from the Corallien of Nattheim) bears a strong resemblance to some of the more simple examples of *C. gregaria*, and answers to the descriptive words of MM. Milne Edwards and Haime which they applied to their *Thecosmilia gregaria*. They say that the corallites of that species differ from those of *Thecosmilia* by "remaining in general grouped in fasciculi to a considerable distance

from the parent calice." This is precisely what takes place in the various species of *Chorisastræa*, and had those celebrated palæontologists seen and examined young examples at various ages, I do not for a moment believe that they would have placed *C. gregaria* in the genus *Thecosmilia*.

Chorisastræa obtusa from the Great Oolite differs chiefly from the preceding in being smaller. But some of the dwarfed examples of *C. gregaria* very closely resemble it. However, *C. gregaria* may at all ages be known by the greater thickness of its septa outwardly, that is, near the mural region. This peculiarity is observable in individuals, the corallum of which is so young that it has only the thickness and size of a small coin. The specimen of *C. obtusa* figured by Prof. Duncan is not very characteristic, one of that height would commonly have four or five calices, or even more.¹ Such examples as the one figured are however common in the Fairford Coral-bed.

In support of *Chorisastræa* as a genus I may only remark that if not Thecosmilian, the species I have here mentioned must be placed either in *Chorisastræa* or *Latimæandra*, and it can hardly be said that they fall properly into the latter.

CHORISASTRÆA, sp.

Peduncular portions of a species of coral referable to this genus have been obtained from the beds under the Pisolite at Crickley Hill, and from a sandy bed overlying the Upper Lias sands at Dover's Hill near Chipping Campden. All the specimens examined have very numerous, thin, and uniform septa, and they are probably attributable to some undescribed species.

Genus PHYLLOGYRA, Tomes, Q. J. Geol. Soc. vol. xxxviii. p. 430.

Since the definition of this genus appeared, I have examined some young examples of *Phyllogyra Etheridgei* from the Trigonias Grit of Leckhampton Hill, which enable me to confirm the characters I have before assigned to the genus. The smallest of these is not more than an inch in diameter. It has a flattened lenticular form, with a central large calice and a thin lobular outer margin, in the lobes of which gemmation is actively taking place, precisely as it does in the margins of small examples of *Chorisastræa gregaria*. Between the marginal lobes are subcristiform ridges, just as in that species, and such as I have figured in plate xviii. illustrating the paper above quoted. It is obviously by gemmation, and not by fissiparity, that increase in this genus takes place, as the central calice is not in any way interfered with by the simultaneous growth of a circle of new calices in the distal ends of the surrounding septal costæ. Gemmation as it takes place in *Phyllogyra* is precisely as in *Latimæandra*, and as it has been figured by Prof. Duncan himself in his Supplement to the British Fossil Corals, plate v. fig. 7 of part ii.

It is by no means improbable that *Phyllogyra Etheridgei* and *Chorisastræa gregaria* may prove to be forms which differ only from each other; the one by having a depressed and expanded growth,

¹ Since writing the above the specimen figured by Prof. Duncan as *Thecosmilia obtusa* has come into my hands. Of it I shall have more to say on a future occasion.

and the other by having a subdendroid form. For the present I leave them where they are, but must enter my earnest protest against there being any near affinity with *Symphyllia* in the Oolitic form now under consideration.

PHYLLOGYRA SINUOSA, Tomes.

I have lately met with several examples of this species in the Lower Trigonon Grit near Cheltenham, but in no instance in the Coral-bed at Crickley. It has not, indeed, been observed in the Lower Coral-bed at any locality, though it most frequently occurs in the Oolite marl, or third Coral layer.

PLATASTRÆA ENDOTHECATA, sp. nov. (Plate X.¹ Figs. 1, 2, 3, 4.)

Clausastræa Conybeari, Tomes, Proc. Geol. Assoc. vol. vi. no. 4.

The present species, the occurrence of which I have already recorded, under the name of *Clausastræa Conybeari*, must, with the allied species from the Great Oolite of Bath, be referred to the new genus *Platastræa*. Specimens from the Inferior Oolite of Hook Norton are for the most part fairly preserved, and sometimes when broken through, show the structure of the septa and the dissepimental tissues very clearly.

The corallum is rudely lenticular, and not very large. The upper surface is moderately convex, sometimes almost flat, and never much elevated, and the outer margin is rather thin, but rounded rather than angular. The under surface is much more prominent than the upper surface, in some specimens almost subpeduncular, with a central point indicating a former attachment. The common or basal wall is rudimentary, and has intermittent and narrow rings of epitheca. The radiating mural costæ are thin, and the spaces between them are wide and filled with dissepiments. The calices have a more or less quadrangular or rounded outline, and are shallow. The septa are all of them continuous with those of other calices, but they often form an angle where they meet and unite between the calices. They are very stout over the mural region, but speedily become thinner as they approach the visceral cavity. The margins of all of them are denticulated, the teeth consisting of rather large, regular, and rounded tubercles, the greater diameter of which is across the septum. There are four cycles of septa in six systems. In some systems the fourth cycle is incomplete, while in others there are a few very rudimentary septa of the fifth cycle.² The primary septa extend to the fossula and meet, the secondary ones are very little shorter than the primary ones, and those of the tertiary cycle are

¹ This Plate was published in the September No. with the first part of this paper.

² I must differ wholly from Prof. Duncan when he says that there are never two rudimentary cycles in the same calice. There are not ever, to the best of my knowledge, two rudimentary cycles in the same system, but there may be, and often are, in the irregularly developed calices of Jurassic Madreporaria, rudimentary septa of quite different ages in different systems. The third cycle may be rudimentary in one and complete in another, in which a fourth may have even commenced its growth. Such irregularities are frequent after recent rejuvenescence, one side of the calice having perhaps the full complement of septa, while the other may have only the earlier developed cycles.

a little more than half the length of those of the primary cycle, while those of the fourth cycle are quite short.

The dissepiments are very numerous; stout, arched, and they completely fill up the loculi. They continue so high up in them that they are seen almost close beneath the denticulations of the septa. The diameter of a large corallum is from three to four inches, and the height about one inch. The diameter of the calices is half an inch. Increase takes place by gemmation in the interval between the calices.

Although allied to *Platastræa Conybeari* from the Great Oolite, the present species may be readily distinguished from it by its much smaller size and regularly lenticular form. Again, the septa of *P. Conybeari* meeting in the centre of the visceral cavity, are much thickened quite low down in it, and these form a mass which, when those parts of the septa which are above it have been worn down, comes in view, and has so much the appearance of a columella as to have led MM. Milne Edwards and Haime to place the species in the genus *Plerastræa*. Nothing of the kind is observable in *Platastræa endothecata*.

I take the present opportunity of making a few remarks on *Platastræa Conybeari*. It is not rare at Coombe Down, from which place the type-specimens were obtained. It is sometimes of great size, and although, generally speaking, of a globose form, is often extremely irregular in its outline, and the calices on some parts have a corresponding irregularity in shape. When these irregular calices are worn down, they present precisely the appearance of those shown in the figure of *Clausastræa Pratti* figured in the History of British Fossil Corals. But the more regular calices of *Isastræa Conybeari*, figured on the same plate, would never by any condition of fossilization or any amount of wear resemble those of the then supposed *Clausastræa*. But indeed no one except Prof. Duncan has suggested such a possibility.

Of the type-specimen of *Clausastræa Pratti* (afterwards *Plerastræa Pratti*) the original describers observe that it is so ill preserved that they could not give a complete description of the species from it. Notwithstanding this, no doubt seems to have crossed Prof. Duncan's mind as to its fitness to furnish a satisfactory description, and he has accordingly entered quite recently into its details.¹ I also have lately examined the type-specimen, and can confirm what has been said of its unfavourable condition by MM. Milne Edwards and Haime. It is a young example and bears a very close resemblance to many of the specimens from Coombe Down. The supposed papillose columella observed in some of the calices is nothing more than the blending of the septa in the centre of the calice, the denticulations of which, resembling in shape those I have figured on the plate accompanying this communication,² are yet traceable in that part of the calice which has been subjected to the least wear—that is to say, in the centre. All other parts of the septa have been worn down quite smooth.

¹ Quart. Journ. Geol. Soc. vol. xlii. p. 138.

² Plate X. Figure 3.

In the description of the so-called *Clausastræa Pratti* by the original describers it is stated that the calices are not separated by a distinct wall; all the Coombe Down specimens I have seen, whatever their condition, accord in this particular with the type. They are equally destitute of surrounding wall, whether they have the irregular form of those of *Clausastræa Pratti*, or the more regularly defined ones of *Isastræa Conybeari*. Turning to the description of the genus *Plerastræa* by MM. Milne Edwards and Haime, M. de Fromentel, and Prof. Duncan, I observe that special mention is made of the presence of walls surrounding the calices. I must therefore still contend that *Platastræa* is generically distinct from *Plerastræa*, which has distinct walls bounding the calices.

Further, I must continue to assert the identity of the two species *Isastræa Conybeari* and *Plerastræa Pratti*, the latter being nothing more than a small specimen having an irregular growth, and a corresponding irregularity in the development of the calices. And I must repeat my assertion that the same specimen of this variable species will on different parts present the appearances represented by the figures given by MM. Milne Edwards and Haime of *Isastræa Conybeari* and *Plerastræa Pratti*.

Genus LEPTOPHYLLIA, Reuss.

The conclusions of M. Pratz respecting the structure of the corallum of the genus *Leptophyllia* were based on the examination of specimens of the very species on which Reuss established the genus. They were obtained from the Cretaceous formation at Gosau, and he observes that proof is yet wanting that these Cretaceous and other subsequently described species from the Oolites are generically identical. At present my knowledge of the Oolitic *Leptophylliæ* is confined to the examination of a few examples of a small species from the Inferior Oolite. In these I observe the same form of pseudo-synapticulæ as in the Gosau *Leptophylliæ*, and in the genus *Thamnastræa*; they therefore, very probably, appertain to the genus *Leptophyllia*. One of these small and malformed Oolitic *Leptophylliæ*, from the Inferior Oolite of Dorsetshire, has been figured and described by Prof. Duncan under the name of *Podoseris constricta*.

LEPTOPHYLLIA FLOURESTI, E. de From.,

Pal. Franc. Terr. Jurass. Corall. p. 93, pl. 27, figs. 1-4, Oct. 1866.

One example of this species has been taken from the Oolitic Marl at Leckhampton by me, and I have another given to me by my friend Mr. W. C. Lucy, which he obtained from a bed of angular oolitic gravel near Painswick. The Painswick specimen is misshapen, and has a curiously close resemblance to figure 3 of the plate above quoted.

Genus THECOSERIS, E. de From.

Palæoseris, Duncan.

Since the publication of my paper in which the description of *Thecoseris polymorpha* appears, I have examined a specimen of that species which had been split through vertically, showing the sides

of the septa with great distinctness. The so-called pseudo-synapticulæ are very clearly shown, and appear as ledges passing continuously across the septa in lines parallel to the septal edge. There is not the slightest indication of perforations between these ledges, but there are well-defined dissepiments low down in the corallum. The genus *Thecoseris* differs wholly from *Leptophyllia* in having imperforate septa and an investing wall with a well-developed epitheca, giving to the calice a clearly-defined and prominent margin. These differences sufficiently characterize *Thecoseris*, and at the same time distinguish it from *Leptophyllia*. They also afford good reasons for declining to accept the position of a subgenus assigned to them by Prof. Duncan.

When I stated my belief that *Palæoseris* would be found to be identical with *Thecoseris*, I did not know that Zittel had already referred it to that genus. That *Thecoseris* should be a Cretaceous, as well as a Jurassic and Tertiary genus, might be anticipated, and accordingly a species has been described in Stoliczka's work on the Cretaceous Corals of Southern India.

THAMNASTRÆA EXPANSA, sp. nov.

I have met with a *Thamnastræa* at Birdlip Hill, Gloucester, in a Coral-bed which is an extension of the one at Crickley Hill, having characters which do not accord with those of any species I am acquainted with, and I therefore describe it under the above name.

The corallum is broad and saucer-shaped, very thin, and has a slight peduncle. The margin is extremely thin and wavy. The epitheca is well developed and concentrically wrinkled. The calicular surface is very slightly concave, and a little deeper in the centre. The calices are extremely small, circular, and regularly distributed, and there is very little disposition in the septal costæ towards the parallel arrangement observable in so many species of *Thamnastræa*. About twenty-four septa enter into and form the calice, twelve of which unite in pairs at the fossula. The others are short. The fossula is small, round, but not very deep. All the septa and septal costæ are very delicately papillated.

Diameter of the corallum, 3 inches; its thickness, $\frac{1}{2}$ inch.

Distance from centre to centre of the calices, 1 line.

THAMNASTRÆA HETEROMORPHA, sp. nov.

The corallum has a very complicated outline, somewhat resembling that of *Dimorphophyllia*, but much more irregular and less compact. Proceeding from a common centre, it expands upwards and outwards into a considerable number of leaf-like and lobular parts, which are in clusters, and have openings through and between them. The calicular surfaces are horizontal and divided; they are numerous, and having their margin turned up, present extremely irregular shallow cavities. All the under parts of these leaf-like lobes have a well-developed and rugose epitheca.

The calices are for the most part in rows corresponding with the outer margin of the lobes. They are shallow, but have a well-defined and rather large fossula. There are from sixteen to eighteen

septa, of which twelve are of equal length and form the fossula. The rows of calices are connected by septal costæ, which are nearly parallel, and run towards the outer margin of the lobe. Very few anastomose, but all, as well as the septa, are regularly papillated. In the fossula is a well-defined columella consisting of about twelve regular styliform papillæ.

Height of the corallum, about $1\frac{1}{2}$ inch, and its greatest diameter about $3\frac{1}{2}$ inches. The calices are distant from each other about one line.

I have met with a few specimens in the Oolite Marl at Leckhampton Hill, but not at any other place.

DIMORPHARÆA EXPANSA, sp. nov.

I possess four specimens of *Dimorpharæa*, from the Inferior Oolite of East Coker, they are very distinct from *Dimorpharæa Oolitica*, which I describe as follows:—

The corallum is very broad and thin, and the upper and under surface have about the same degree of convexity. The largest specimen has a diameter of four inches, while in thickness it does not exceed half an inch. The outer margin of all the specimens is quite thin. In all of them the mural costæ are visible on the under surface, only a very small quantity of epitheca being present. This is distributed in patches. These costæ are straight, uniform in size, and they radiate from a centre.

The middle or parent calice has very little prominence, and is only a little larger than the surrounding ones, which are ranged around it in circles, so irregularly that they look almost scattered. There are, however, three circles of secondary calices, and outside the external one the septal costæ are prolonged to a length exceeding the distance between the circles. From this it might seem that three is the full complement of circles, unless the distance between the circles increases rapidly as the corallum enlarges.

From twelve to sixteen septa enter into and form the calices. In the most regularly formed there are twelve, of nearly equal length and thickness, extending to the fossula, but they do not enter into it. They have perforations, which are not numerous, but are large and distinct. The septal costæ are of equal thickness with the septa, as well as equally thick throughout; they are straight or wavy, rarely curved, and have a radiate arrangement. The breadth of the intervals between them rather exceeds their own thickness.

At present I have been unable to examine specimens having the septal edge complete.

COMOSERIS VERMICULARIS.

A specimen of *Comoseris* which I took from the friable Pisolite at Crickley Hill is obviously specifically identical with the specimen I have already referred to *C. vermicularis* obtained from the overlying Coral-bed at that place.¹ It is a young and worn example, but is very instructive as to the habit of growth of the species. A short

¹ Quart. Journ. Geol. Soc. vol. xxxviii. p. 448.

peduncular foot is surmounted by a tuber-shaped top, which is composed of overlapping leaflets, and where the lateral margins of these meet on the upper surface, they curl up and form ridges having precisely the same sinuosity as the margins of the leaflets. It is only, however, at the outside of the corallum that the outline of the leaflets can be satisfactorily traced. On the whole of the central part they are too much fused together to be followed excepting as sinuous ridges, which being worn down, reveal the hidden wall within.

In 1884, when Prof. Duncan published his Revision of Families and Genera, he did not admit that there was any wall in the collines of *Comoseris*; but in his recently published paper in the Journal of the Geological Society he acknowledges that there is a false wall. This is a step in the right direction. With patience and further research a true mural structure may yet be arrived at.

This is the only species I have met with which is common to the Pisolite and the overlying Coral-bed; but as the specimen from the former deposit was found in the friable or disintegrated part, it may have fallen from above and have been embedded.

PHYLLOSERIS INCRUSTATA, Mich. sp.

Alveopora incrustata, Mich. Icon. Zooph. p. 111, pl. 25, fig. 8, 1840-47.

Microsolina incrustata, M. Edwards, Hist. Nat. Corall., tom. iii. p. 201, 1860.

Phylloseris, sp. Tomes, Q. J. G. S. vol. xxxviii. p. 448, 1882.

The species of *Phylloseris* which I indicated at page 448 of my paper on Inferior Oolite Corals is obviously identical with the *Alveopora incrustata* of Michelin. Although described by that author as a dendroid species, and having the "rameaux" partially covered by an irregular "croute," it is obvious by the figure that it has more of a digitate than a dendroid growth. That it is a second species of *Phylloseris*, differing chiefly from *P. rugosa* in the form of the coral-lites and the size of the calices, I have no doubt. The epitheca extends upward by degrees and obliterates the calices, just as it does in *Phylloseris rugosa*.

LATIMÆANDRARIA CONCENTRICA, Tomes.

Oroseris concentrica, Tomes, Quart. Journ. Geol. Soc. vol. xxxviii. p. 441.

In a paper on the Madreporaria of the Coral Rag (Quart. Journ. Geol. Soc. vol. xxxix.) I suggested that a species of *Oroseris* which I had before described as *Oroseris concentrica*, probably appertained to another genus. I now place it in *Latimæandrarina*, and I do so for the following reasons. As clearly pointed out by me, *Oroseris* may be recognized by its mode of gemmaparous increase, which is calicular or marginal, while in *Latimæandrarina*, *Thamnastræa*, and some other genera, it is intercostal. As it is also intercostal in the present species, I now place it in the former of these genera.

In conclusion I wish to render my very sincere thanks to Mr. Hudleston, Mr. Buckman, and Mr. Jas. Windoes for their liberal assistance in the use of specimens from their several collections.