from its "nucleus." Similar central outgrowths are by no means uncommon, and sometimes show themselves at an early stage, as in the small disk which is represented in Pl. VIII. fig. 1, under a magnifying power of ten diameters. Another curious irregularity in a young disk is shown in Pl. VIII. fig. 3. Whether from accident or from some obstruction to the growth of the disk on its left side, the peripheral additions do not pass completely round the central portion, and the thick vertical crest seems to represent a fold of the peripheral annuli produced by the exuberance of their material. Another small specimen represented under the same power in Pl. VIII. fig. 11, has a very curious "twin" disk, which must have either begun as a "double monster," or (which the distinctness of the "nuclei" seems to render more probable) have been the product of the partial "fusion" of two originally separate disks, attached side by side to contiguous parts of the same surface; the vertical half-disk in either case being the joint product of the two mutually-encroaching horizontal disks, whose continued increase at their line of junction could only take place in this direction. In the large disk, represented in Pl. VII. fig. 2, the peripheral folds are much deeper than are those of fig. 1, but the central semi-discoidal outgrowth is smaller. There are, however, other considerable vertical outgrowths from the surface of the disk, the under side of which shows the same exuberant productiveness. In the large disk represented in fig. 4 the central outgrowth has the form of a small knob; this, however, instead of being a solid mass of shell-substance, has a properly "labyrinthic" interior, as is shown by the distribution of the pores characteristic of that arrangement over the whole of its surface (fig. 4, *b*). One of the peripheral folds extends itself as a vertical crest for some distance inwards, and four other incipient half-disks arise from different parts of the surface, of which two have united themselves together, as shown on a larger scale in fig. 4, *a*. Another large disk, represented in fig. 5, shows a general crumpling of the margin, without the formation of any well-marked vertical fold, with a small central knob and several irregular protuberances from the annuli forming the inner part of the disk. In the large disks represented in figs. 6 and 7, the crumpling of the peripheral annuli is very strongly marked by the production of vertical folds proceeding inwards towards the centre. In both cases the growth of the disk seems to have been regular, up to a certain epoch marked by the concentric elevation of the annuli, after which the crumpling appears to have commenced. Such epochs are often indicated, even in the normal disk, as shown in fig. 3; and it would not seem improbable that they mark some change in the external conditions of the disks, which may have lived attached in their earlier stages, and have been afterwards transferred by the action of the waves into situations more favourable to the production of these outgrowths.[1]

[1] Other examples of this "laciniate" form, with a vertical section showing the divarication of two lamellæ, and the incompleteness of the partitioning of the last-formed annuli, will be found in PL. XVI. of Mr. H. B. Brady's Report on the Foraminifera.