two tubercles on each side. Length without spines 64-68μ, with spines 78-84μ: breadth without spines 50-53μ, with spines 66-68μ. Breadth of isthmus 20μ. Tubercles diameter 3μ, distance apart 9-11μ.

No cells were observed with a large central tubercle such as is found in the type, and no other varieties were seen. It was not quite as numerous as the preceding species.

Xanthidium fasciculatum Ehrenb.

This species was about as frequent as *X. antilopaeum*. Most of the plants were slightly below average size.

Arthrodesmus Ehrenb.

Arthrodesmus Incus (Bréb.) Hass. var. **Ralfsii** W. & G. S. West forma **subhexagona** W. & G. S. West (Plate III, fig. 14)

This was the only representative of the genus. It is a world-wide species with a considerable variation. It was fairly common in the collection from the *Hippuris* swamp at Herschel island, and all specimens seen were small, short spined, sub-hexagonal forms characteristic of the forma *subhexagona* of the var. *Ralfsii*.

Staurastrum Meyen.

Staurastrum Avicula Bréb. (Plate IV, fig. 13)

This species was frequent in a mixed collection of plankton and bottom deposits from the tundra pond at Teller.

Staurastrum Brébissonii Archer (Plate IV, fig. 12)

A form of this species was not infrequent in the lake at Teller. It differed from the type in having the spines at the angles shorter than usual.

Staurastrum brevispinum Bail.

This species was rather rare and was found only in the plankton from the big lake at Bernard harbour.

Staurastrum brevispinum Bail. var. **inerme** Wille

I was uncertain at first as to the exact determination of this desmid, so I submitted some drawings to the late Professor G. S. West, and he identified it as this variety. It was fairly abundant in the lake at Teller. Previous records are known from Nova Zembla, England, and the United States of America.

Staurastrum denticulatum Archer

This species was also fairly abundant at Teller, in the lagoon lake, along with other algae. It was also found a few times in the plankton. Although a fairly common species it was not found in any other locality.

Staurastrum furcigerum Bréb. (Plate IV, fig. 9)

Only a few empty semi-cells of this species were observed, and they were all in the material from the *Hippuris* swamp, Herschel island. With one exception they were all triangular forms and true to type. One semi-cell was abnormal, bearing, in addition to the usual pair of arms at each angle, a seventh arm or process arising in the middle of one side. The species is not uncommon in arctic regions.