

(7) *Amathia semispiralis*, Kirchenpauer (sp.) (Pl. VIII. fig. 3).*Serialaria semispiralis*, Kirchenpauer, Cat. Mus. Godeffroy, vol. iv. p. xxxiv., 1869.

*Character*.—Zoarium filamentous, dichotomous; stem brownish, about 0·3 mm. in diameter. Zoœcia disposed in short series, composed of four to eight pairs of cells; series distant, placed obliquely, three or four in each internode; zoœcia slender, cylindrical or somewhat quadrangular in form, about 0·6 to 0·7 × 0·15 mm., obtuse and strongly wrinkled transversely at the closed end; neck very short, and setæ short.

*Habitat*.—Station 188, lat. 9° 59' S., long. 139° 42' E., 28 fathoms, green mud.

[Samoa, Kirchenpauer.]

It may be doubtful whether this form is really that intended by Kirchenpauer, who (*loc. cit.*) describes the zoarium as "dichotomously branched. The cells dispersed in biserial groups, at certain distances apart, and spirally round the stem; each spiral, however, extending only about one-half round the axis. From *Serialaria semiconvoluta*, Lamk., it differs in the character that in that species the tubular cells form much longer rows, whilst it also has an entirely different habit." How M. Kirchenpauer can bring it at all in comparison with the *Serialaria continhii*, which in habit more resembles a *Mimosella*, is more than I can imagine. No two things would appear to be more distinct.

2. *Vesicularia*, Thompson.*Vesicularia*, J. V. Thompson (pars); Farre, Johnst. Busk, Engl. Cyclop.; Hincks, Brit. Mar. Polyz., p. 512, &c.*Sertularia* (pars), Linné, Pallas, &c.*Laomedea* (pars), Lamx., Blainville.*Valkeria* (pars), Fleming.

*Character*.—Zoarium erect, radicate, or rooted by a fibrous base. Zoœcia distinct, usually distant, disposed in a single row or alternately in two rows on one face only of the stems. (Polypides with a gizzard, Hincks).

(1) *Vesicularia papuensis*, n. sp. (Pl. VIII. fig. 1).

*Character*.—Zoarium about  $\frac{3}{4}$  inch high, very delicate, branching dichotomously in one plane, at an acute angle, rooted by short radical fibres. Branches composed of three or four internodes, about 0·15 mm. in diameter, and each supporting on one face a double row of zoœcia disposed alternately on each side. Zoœcia ovate, 0·5 × 0·15 mm. (with the neck retracted); neck thick and rather bulbous; surface generally smooth. No gizzard.

*Habitat*.—Station 188, lat. 9° 59' S., long. 139° 42' E., 28 fathoms, green mud.