FIGURE 4—*Nevadella* zone, Early Cambrian, *Nevadia fritzi* n. sp., Poleta Formation, White-Inyo Range, Inyo County, California; *1,* holotype cephalon, dorsal view, LACMIP locality number 6887, LACMIP 26887, ×1.4; *2,* cephalon, dorsal view, LACMIP locality number 6763, LACMIP 7387, ×1.3.

straight, conjoined medially; S2 straight, not conjoined medially; L2 and L3 do not merge distally; line from anterior to posterior edge of ocular lobe forms roughly 10 degree angle relative to sagittal line; S0, S1 straight, contact axial furrows, medial edges declined posteriorly, not conjoined medially; width (tr.) of glabella opposite margins of L1 constricted slightly relative to width at lateral margins of L0; posterior edge of ocular lobe opposite medial margin of L1; ocular lobes weakly elevated from extraocular area; posterior margin of L0 convex posteriorly, with axial node medially; genal spines of length (exsag.) approximately two times length (sag.) of L0, sweeping posterolaterally at roughly 15 degree angle relative to sagittal line; genal spine angle opposite first thoracic segment; intergenal angle developed adjacent to genal spine; extraocular area opposite L1 broad, width (tr.) approximately 150 percent width of glabella at L1; posterior margin of cephalic posterior border between L0 and genal spine flexing posterolaterally.

Etymology.—Named in honor of W. Fritz who has done much important work on Early Cambrian faunas.

Type.—Holotype LACMIP 26887 (Fig. 4.1) from LACMIP locality 6887 in the Early Cambrian *Nevadella* zone, middle part of the Poleta Fm., just north of Daylight Pass, White-Inyo Range, Inyo Co., California.

Other material examined.—LACMIP 7386, 7387 (slab with 2 specimens), 7391 (slab with 7 specimens), 26770, 26886.

Occurrence.—White-Inyo Range, Inyo Co., California: LACMIP localities 6759, 6763, and 6770 in the Early Cambrian *Nevadella* zone, Poleta Fm.; and Montezuma Peak, Esmeralda Co., Nevada, *Nevadella* zone, Campito Fm., LACMIP locality 6886, Montezuma Peak USGS quad. (1970), NW1/4, sec. 31, T2S, R42E, just east of a kiln on road and extending northwest along slope.

Discussion.—This species is very similar to *N. weeksi* and is known from relatively limited material that is not well preserved. Therefore, it was not subjected to phylogenetic analysis herein. It can be consistently distinguished from *N. weeksi* by its relatively slightly shorter ocular lobes (the distal tips are opposite the medial part of L1 instead of S0) and by the condition of its posterior cephalic border (which flexes posteriorly between L0 and the genal spine, rather than being transverse).

Genus NEVADELLA Raw, 1936

Type species.—Raw (1936) did not designate a type species of the genus. This was done subsequently by Whitehouse (1939, p. 191). He suggested that Raw (1936) regarded *Callavia eucharis* Walcott, 1913 as the type of the genus.

Included species.—*Callavia perfecta* Walcott, 1913; *Callavia cartlandi* Raw in Walcott, 1910; *Nevadia addyensis* Okulitch, 1951; *Nevadella mountjoyi* Fritz, 1992; and *Nevadia parvoconica* Fritz, 1992.

Discussion.—Diagnoses of this genus are presented in Palmer and Repina (1993, 1997). Additional characters diagnostic of this genus are evident from Figure 1. Whittington (1989), as discussed in Fritz (1992), suggested that *Nevadella* should be subsumed within *Nevadia* because the two genera could not be consistently differentiated. Fritz (1992) did not follow Whittington (1989) and treated these two genera as distinct. Herein, character evidence was found that allows *Nevadella* and *Nevadia* to be consistently distinguished, matching Fritz's (1992) conclusions. For instance, in *Nevadella* the relative length (sag.) of LA (L4) is consistently greater than it is in *Nevadia*; in *Nevadella* S2 is convex anteriorly whereas in *Nevadia* it is straight (though *N. perfecta* is polymorphic for this character); in *Nevadella* S0 is convex anteriorly whereas in *Nevadia* it is straight; in *Nevadella* (except for *N. cartlandi*) the intergenal ridge medial of the eye is not visible whereas in *Nevadia* it is prominently developed; in *Nevadella* the anterior margin of the medial part of the third thoracic pleural segment is directed anteriorly whereas in *Nevadia* it is transverse; in *Nevadella* the third thoracic pleural segment is macropleural whereas in *Nevadia* it is not; in *Nevadella* the lateral margins of the prothoracic axial rings converge more strongly posteriorly than they do in *Nevadia*; and in *Nevadella* the thoracic pleural furrows at the middle part of the segment are relatively shorter (sag.) than they are in *Nevadia.*

Fritz (1992) also discussed some characters of the cephalon that could consistently be used to distinguish *Nevadia* from *Nevadella.* Based on the analysis conducted herein some but not all of his characters appear to be valid. For example, Fritz (1992) suggested that the glabella of *Nevadia* is relatively shorter (sag.) than that of *Nevadella* and this appears to be true. However, Fritz (1992) suggested that the ocular lobes of *Nevadia* are longer than those of *Nevadella,* but this is not always true. For example, specimens of *Nevadella mountjoyi* and *Nevadella perfecta* can have eyes that are relatively as long (exsag.), judged by their position in relation to the glabella, as those of *N. weeksi.* Also, *Nevadia fritzi,* which was not available to Fritz (1992), has relatively short eyes. Fritz (1992) also suggested that the posterior cephalic border is inclined more strongly posteriorly in *Nevadella* than *Nevadia.* However, this is not true in the case of *Nevadia fritzi,* which has a posterior cephalic border that is inclined posteriorly. Further, the posterior border of *N. perfecta* is fairly transverse, as it is in *N. weeksi.* In