
Validation of the Name *Parodia leninghausii* (Cactaceae), with a Note on the Lectotypification and Orthography of the Name

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ABSTRACT. The name *Parodia leninghausii* (F. Haage) F. H. Brandt (Cactaceae) is in common use for a widespread and easily grown plant, but no valid combination has ever been published. The missing combination *P. leninghausii* (F. Haage) F. H. Brandt ex Eggli & Hofacker is published here, together with the designation of a lectotype and a note on the orthography of the name.

Key words: Cactaceae, *Parodia*.

Parodia leninghausii (F. Haage) F. H. Brandt (Cactaceae) is among the most widely cultivated cacti, both because of its stately appearance and because of its generally easy cultivation. Even though the taxon, which is native to Rio Grande do Sul in southern Brazil, is generally still encountered under the name *Notocactus leninghausii* (K. Schum.) A. Berger, there is substantial agreement (Anderson, 2001, 2005; Hunt et al., 2006) now that *Notocactus* (K. Schum.) Frič is a taxonomic synonym of *Parodia* Speg., and the correct name would therefore be *P. leninghausii*. A recent look at the nomenclatural details showed, however, that this name has so far remained invalid. A short history of the nomenclature and taxonomy of the taxon, presented here, elucidates the reasons for this omission and stresses the importance of a careful interpretation of the original sources for basionym and combinations. This evaluation also shows that the customary spelling “*leninghausii*” is erroneous and must be corrected to “*leninghausii*.”

OUTLINE OF THE NOMENCLATRURAL HISTORY

The taxon is mentioned for the first time as *Pilocereus leninghausii* (note spelling) (nom. inval., *International Code of Botanical Nomenclature* [ICBN], Art. 32.1d; nom. incorr., Art. 11.4; McNeill et al., 2006) by Schumann (1895: 147), ascribing the name to F. Haage. In the same paragraph, Schumann suspects that it is a species of *Echinocactus* Link & Otto and uses the provisional name *E. leninghausii*

(note spelling) (nom. inval., Art. 34.1b; McNeill et al., 2006). The name “*Echinocactus leninghausii* K. Schumann” was again used (Schumann in Hirscht, 1895: 189) in a report of a meeting of the German Cactus Society, but without descriptive matter.

In the following year, the name *Pilocereus leninghausii* (note spelling) “Haage jr.” was published with a short but unambiguously acceptable diagnosis, accompanied by an illustration, in the German edition of the 1896 catalogue of the world-renowned nursery of Friedrich Adolph Haage Jr., Erfurt, Germany (Haage, 1896: 14). This is the first valid publication of the name, which is properly cited as *Pilocereus leninghausii* F. Haage, even though it is incorrect under Article 11.4 (McNeill et al., 2006) since *Pilocereus* K. Schum. (Schumann, 1894) (established indirectly by including the type of the *Pilocereus* Lem. [Lemaire, 1839]) is illegitimate (Art. 53.1) versus *Pilocereus* Lem. (Lemaire, 1839), which is itself illegitimate (Art. 52.1) versus *Cephalocereus* Pfeiff. (Pfeiffer, 1838) (Index Nominorum Genericorum, accessed May 2008 at <<http://botany.si.edu/ing/ingForm.cfm>>).

In 1897, the name *Pilocereus leninghausii* (note spelling) “Haage jr.” also appears with a short but unambiguously acceptable diagnosis, and with the same illustration as 1896, in the English edition of a Haage catalogue (Haage, 1897a: 25). The name (with the same spelling) and illustration (but not the description) also appear in the German edition of this catalogue (Haage, 1897b).

In 1898, the name *Echinocactus leninghausii* (note spelling) K. Schum. is used by Schumann (1897–1898: 382–383), referring to the 1895 note published by Schumann (Schumann, 1895), and an (unspecified) catalogue of “Ferd. Haage sen.” *Echinocactus leninghausii* could either be interpreted as the name of a new taxon (the name is attributed to K. Schumann, and is accompanied by a Latin diagnosis and German description), or (under Art. 33.2; McNeill et al., 2006) as combination for *Pilocereus leninghausii* F. Haage

(Haage, 1896). Unfortunately, Schumann (1897–1898) did not make a typographical distinction between new taxa (e.g., *Echinocactus chrysacanthion* K. Schum. [Schumann, 1897–1898: 396–397]) and names published previously, or combinations for such names. The only hint in these latter cases are the references cited after the German description. On the basis of these references, we can safely conclude that the name was intended as combination. The correct citation is, therefore, *Echinocactus lenninghausii* (F. Haage) K. Schum. (as “*lenninghausii*”), *Gesamtbeschr. Kakt.*, 382–383, 1898 (basionym: *Pilocereus lenninghausii* F. Haage, 1896). IPNI (accessed April 2009 at <<http://www.ipni.org/ipni/plantnamesearch-page.do>>) incorrectly attributes the name to Schumann (1900: 134).

Subsequently, combinations were published as *Malacocarpus lenninghausii* (F. Haage) Britton & Rose (as “*lenninghausii*”) (Britton & Rose, 1922), *Notocactus lenninghausii* (F. Haage) A. Berger (as “*lenninghausii*”) (Berger, 1929), *Erioccephala lenninghausii* (F. Haage) Heinrich (Heinrich, 1940) (combination attributed to Backeberg, but Art. 46.4 applies; McNeill et al., 2006), and *Eriocactus lenninghausii* (F. Haage) Backeb. (Backeberg, 1942) (nom. incorr., Art. 11.4, because *Eriocactus* Backeb. is an unnecessary illegitimate nomen novum [Art. 52.1] for *Erioccephala* Backeb.).

Finally, Brandt (1982: 61) published the combination *Parodia lenninghausii* “(F. Hge.) Brandt comb. nov.” (as “*lenninghausii*”), citing the 1895 nomen nudum “*Pilocereus lenninghausii* F. Haage Cat. K. Sch. in *Monatsschrift für Kakteenkunde*, 5: 147.” This is obviously not the correct reference to the basionym name, and the combination at first glance can be dismissed under ICBN Article 33.4 (McNeill et al., 2006). Article 33.5 does not apply, but the provisions of Article 33.7 need to be evaluated carefully: 33.7(a) does not apply, as the name was validly published later than the reference given, and in a different publication; 33.7(b) and (c) do not apply; 33.7(d) is more complicated, as Brandt also cites “*Notocactus lenninghausii* (F. Hge.) Buxb., Krainz, *Die Kakteen* 1.1.1967.” This relates to the entry on *Notocactus lenninghausii* “(F. Haage jun.) Berger” in H. Krainz’s serial publication *Die Kakteen*. The reference, though, is erroneous, and the entry on *Notocactus lenninghausii* was actually published in the part issued 1 July 1968. Since Krainz (1968) reproduces a Latin diagnosis copied from Schumann (1897–1898), and since the erroneous citation can be treated as a correctable error, Article 33.7(d) seems to be applicable. On closer scrutiny, however, not all conditions for the valid publication of a new name are fulfilled since no type

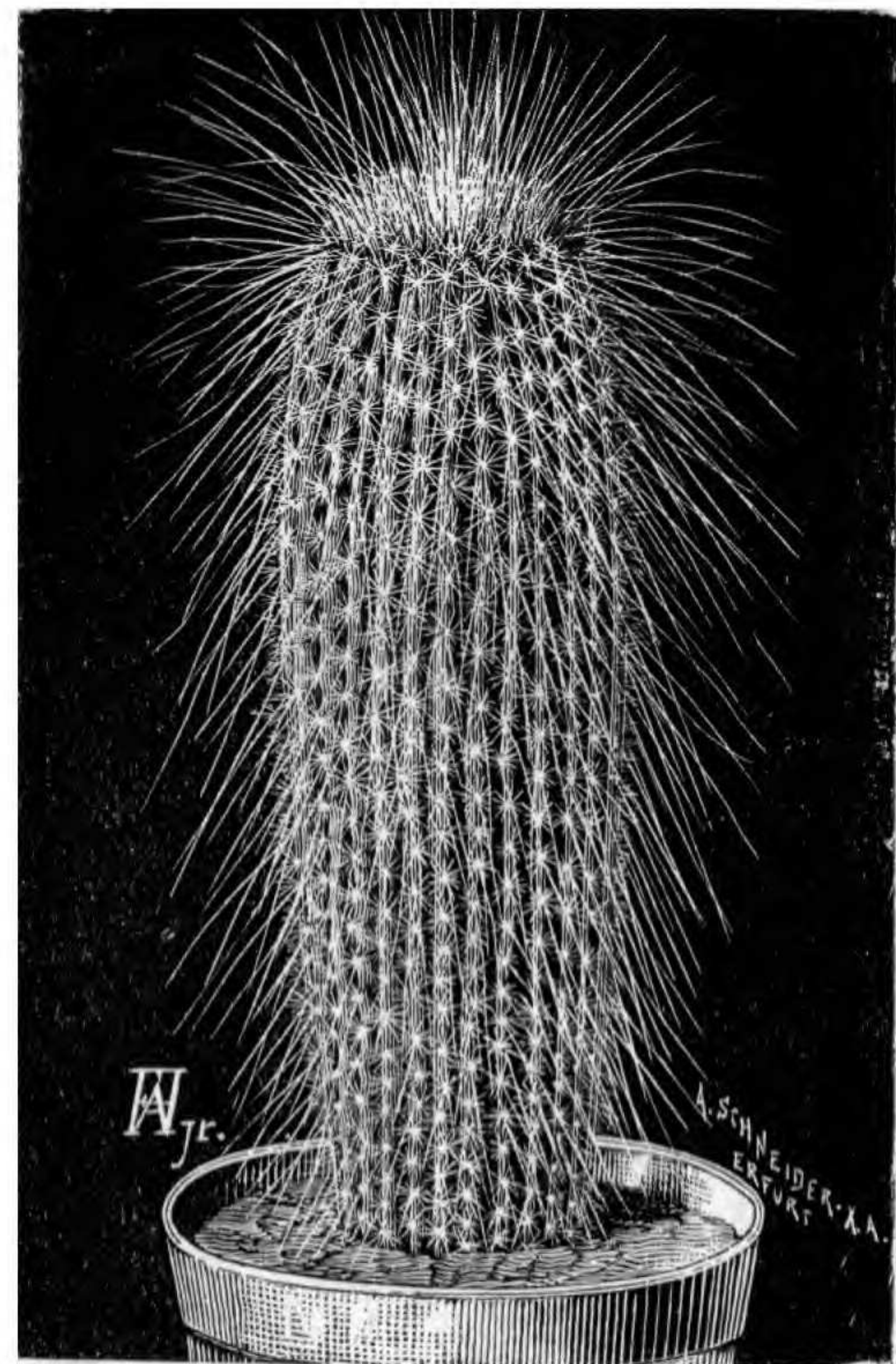


Figure 1. Reproduction of the illustration that accompanied the protologue of *Pilocereus lenninghausii* F. Haage (reproduced from Schelle, 1907: 178).

is indicated in the 1968 publication, and thus Brandt’s 1982 combination is not validly published. As a consequence, there is no valid combination available under *Parodia*, which is remedied here.

Parodia lenninghausii (F. Haage) F. H. Brandt ex Eggl & Hofacker, comb. nov. Basionym: *Pilocereus lenninghausii* F. Haage, 73. Jahrgang. Verzeichniss über Blumenzwiebeln und Knollengewächse nebst...sowie Auszug neuer und empfehlenswerther Cacteen, 1896: 14, cum fig. TYPE: F. Haage, 1896: 14, right-hand column, figure labelled “*Leninghausii* Haage jr.” (lectotype, designated here, fig. in F. Haage, 1896).

The illustration designated here as lectotype is technically (but not formally) identical with the one that Hunt and Taylor (2006) have previously selected as lectotype. Unfortunately, these authors did not state which catalogue edition they referred to, although the page reference they give seems to point to the English edition. The “type element” is thus not clearly indicated by direct citation (McNeill et al., 2006: Art. 7.11), and the Hunt and Taylor lectotypification was therefore not validly published. A reproduction of the illustration can be found in Schelle (1907: 178). The drawing (woodcut) leaves nothing to be desired as to clarity, and no epitype is necessary to fix the application of the name (Fig. 1).

A NOTE ON THE SPELLING OF THE SPECIFIC EPITHET

In all current literature, the spelling “*leninghausii*” is used, while the protologue as well as subsequent Haage catalogues (as well as Heinrich [1940] and Backeberg [1942]) consistently used the spelling “*lenninghausii*.” This spelling has to be retained under Article 60.1 (McNeill et al., 2006), as there is no evidence that a typographical or orthographical error has been made. The epithet is not explained in the protologue, and the only available information was provided by Haage (1981). He believes that the epithet honors “Fred. Guillermo Lenninghaus,” a cactus collector in Porto Alegre, Brazil, who in 1894 sent plants to the Haage nursery at Erfurt.

It could be argued that the spelling “*leninghausii*,” being established by current use, and not having been recently questioned, should be retained for the sake of nomenclatural stability. Since the change only affects the fourth letter of the epithet, the possible confusion associated with the change from current use to the original spelling is not insurmountable. If the continued usage of the customary, but erroneous, spelling is deemed more appropriate, a formal proposal to conserve (McNeill et al., 2006: Art. 14.11) will be needed.

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