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9. The Rebut catalogues and revised taxonomic histories for Rebutia minuscula & Echinopsis schickendantzii

29 Feb 2016

ORIGINAL RESEARCH PAPERS ON A MISCELLANY OF TOPICS ON THE SUBJECT OF SUCCULENT PLANTS AUTHORED AND EDITED BY ROY MOTTRAM

Taxonomy
Botanical History
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The Rebut catalogues and revised taxonomic histories for *Rebutia minuscula & Echinopsis schickendantzii*

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29 Feb 2016

Summary

The discovery of hitherto lost Rebut catalogues in the library of the Royal Botanic Gardens, Edinburgh is revealed. They contain several taxa with brief descriptions that predate others elsewhere. Among the most important are first descriptions of *Rebutia minuscula* and *Echinopsis schickendantzii*. They are re-evaluated here and their taxonomic history revised.

No new taxa are proposed in this paper.

A new epitype is proposed for Rebutia minuscula.

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The Rebut catalogues and revised taxonomic histories for Rebutia minuscula & Echinopsis schickendantzii

The Rebut catalogues

Pierre Rebut (1827-1898) was a French wine-grower and horticulturist (Fig. 1). He was the owner of a substantial collection of succulent plants, and traded as a nurseryman under the trading style *P. Rebut* at Chazay d'Azergues, near Lyon, France. He is commemorated in the generic name *Rebutia* K.Schum. (1895). Rebut's collection and nursery was sold to the Garde brothers in 1898.

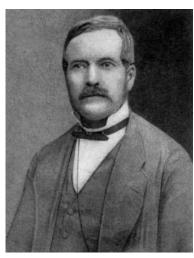


Fig. 1 Pierre Rebut

Between 1886 and 1896 Rebut is now known to have published three catalogues and two supplements in the years 1886, 1893 and 1896. Until recently, only the 1896 catalogue had been available, distributed in facsimile by Gordon Rowley in Jan 2009. However, Edinburgh Botanic Garden possess a bound set of Rebut catalogues in their online library catalogue, and further enquiries yielded a pdf version of this set, which may now be viewed online at

https://www.cactuspro.com/biblio/en:rebut

The Rebut catalogues are largely just lists of plants with prices, but occasionally there are descriptions of novelties, mostly with names credited to Rebut himself but also to other persons who had supplied him with plants or seeds. Foremost among these was Dr. Frédéric Albert Constantin Weber (1830-1903). In particular, Weber had sent Rebut plants of three new species, and first descriptions of these

appeared in the Rebut Catalogue Supplement of 1893. They had been sent to Weber by Friedrich Schickendantz (1837-1896), a German chemist, geologist and natural historian resident in Argentina from 1861.

Schickendantz had first worked for 6 years at a copper mining company in Pilciao, about 17km S of Andalgalá in Prov. Catamarca, and then for the sugar cane industry in Tucumán city, where he established an analytical laboratory at the National University in 1895, called the Tucumán Oficina Química.

Schickendantz had broad interests in all branches of the sciences, including plants. He collected plants from the provinces of Tucumán and Catamarca from 1871 onwards, and his gatherings were distributed to several European and Argentinian gardens, most notably in Berlin, Paris, Geneva, and Córdoba. He collected in Catamarca mainly from 1873-1876 (Hettie Vegter 1986: 838) but also periodically later, undertaking periodic journeys from his home in Tucumán city to Dept. Andalgalá in Catamarca. There is, however, no record of him ever having collected plants in the province of Salta, nor even in the mountains of northern Tucumán, Dept. Trancas.

Schickendantz was not a cactus specialist, so the most unfamiliar plants of his gatherings were forwarded to the then well known cactus expert Dr. Weber in Paris, for identification. Weber published some of them as new to science.

A young Argentinian self-taught scientist, Miguel LILLO (1862-1931), joined Schickendantz at his laboratory in 1892, and they often travelled together.

Lillo eventually succeeded Schickendantz as the Director of the Oficina Química. Lillo also had broad interests, but he became best known as an Argentinian botanist, commemorated in the generic name *Lilloa* Speg. (1897), the botanical journal *Lilloa* (1937+), and in the natural history museum known as the Miguel Lillo Foundation (1933+).

Brief descriptions of *Rebutia minuscula* and *Echinopsis schickendantzii*, attributed to Weber, were published in the Rebut supplementary catalogue of 1893. A third, *Echinopsis catamarcensis* (from Catamarca), was said by Weber himself to be related to *E. formosa*.

Protologues of *Echinopsis minuscula* and *E. schickendantzii*:

Minuscula, Weber, nouveauté également de premier ordre, plante extraordinaire comme forme, à tige déprimée d'un beau vert; aiguillons très courts, très fin blanc jaunâtre. Cette plante remarquable ne présente aucune côte apparente. Les aréoles sont placées en ligne et en quinconce sans côte. Cette plante paraîtrait former un genre nouveau dans les Echinopsis, 12 à 20 fr.

Minuscula, Weber, [another] novelty equally of the first order, a plant of extraordinary form, with depressed stem of a beautiful green; spines very short, very thin, pale yellowish. This remarkable plant has no obvious ribs. The areoles are arranged in line in staggered rows without ribs. This plant would appear to form a new [sub]genus within Echinopsis, 12-20 fr.

Schickendantzii, Weber, nouveauté encore de premier ordre à tige érigée cylindrique, ayant 16 côtes petites, rapprochées les unes des autres. Aiguillons jaune courts et très fins. Plante tout à fait remarquable. Les trois admirables nouveautés vont enrichir le beau genre Echinopsis, 12 à 20 fr.

Schickendantzii, Weber, also a novelty of the first order with erect cylindrical stem, having 16 low ribs, closely set to each other. Spines yellow short and very thin. A quite remarkable plant. The three admirable novelties will enrich the fine genus Echinopsis, 12-20 fr.



Rebutia minuscula K. Sch.

Für die "Monatsschrift für Kakteenkunde" nach der Natur gezeichnet und in Holz geschnitten von P. Berendt.

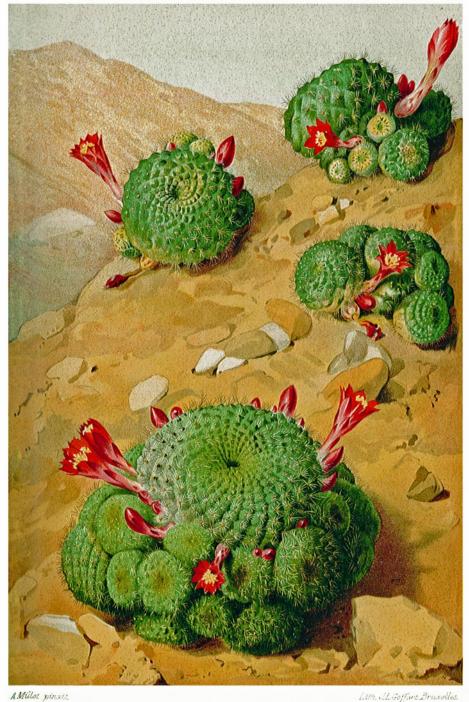
Fig. 2 *Rebutia minuscula* 1895: Schumann illustration by P. Berendt, from *Monatsschrift für Kakteenkunde* **5**(7): 103. (Jul) 1895.



Fig. 3 (above) Rebutia minuscula 1902: T. Gürke, as Echinocactus minusculus, in Schumann & Gürke, Blühende Kakteen (Iconographia Cactacearum) 1(8): t.31 (14 Nov) 1902.

Fig. 4 (right) Rebutia minuscula 1912: A. Millot, as Echinopsis minuscula, in Roland-Gosselin, Revue Horticole 84: opp.84. 1912. Depicting a group of 6-7 yr old plants, possibly grafted, buried in an imaginary landscape.





A.Millot pinnit.

Revised taxonomic history for Rebutia minuscula (F.A.C.Weber ex Rebut) K.Schum.

Echinopsis minuscula F.A.C.Weber ex Rebut, Supplément au catalogue des cactées et plantes grasses diverses de la collection P. Rebut: 2. 1893. [With fuller description by Weber in Bois, Dictionnaire d'Horticulture: 471-472. (Oct) 1896]

Rebutia minuscula (F.A.C.Weber ex Rebut) K.Schum., Eine neue Gattung der Kakteen, Monatsschrift für Kakteenkunde 5(7): 102-105. (Jul) 1895. [With graphic illustration (Fig. 2). The same illustration also appeared in Schumann, K. & Gilg, F. (1896) Das Pflanzenreich. Abteilung V (Band 7), but with habitat erroneously stated to be Chile. Schumann's description was based on plants in cultivation in Berlin, said to have originated from Rebut's nursery.]

Echinocactus Rebutii hort. Paris, in Schumann, Verzeichnis der gegenwärtig in den Sammlungen vorhandenen Kakteen, Monatsschrift für Kakteenkunde 5(7): 107. (Jul) 1895 nom. nud. with name attributed to F.A.C.Weber. [Reprinted as a separate in Schumann, Verzeichnis der gegenwärtig in den Kulturen befindlichen Kakteen: 19. 1897.]

Echinocactus minusculus (F.A.C. Weber ex Rebut) F.A.C. Weber, in Bois, Dictionnaire d'Horticulture 1(15): 467, 471. (Oct) 1896 (pro syn.) nom. inval. (Art. 36.1) [Generic name Echinocactus was not accepted by the author, Echinopsis being preferred.]

Echinocactus minusculus (F.A.C. Weber ex Rebut) K. Schum., Gesamtbeschreibung der Kakteen (6): 380 (25 Feb); (7): 395-396, t.67. (15 Apr). 1898. [This new combination, in Echinocactus subgenus Notocactus (Frič) K. Schum., was adopted by Schumann, abandoning his own new genus Rebutia less than 3 years after publishing it. He considered it as being close to the modern genera Frailea and Parodia.]

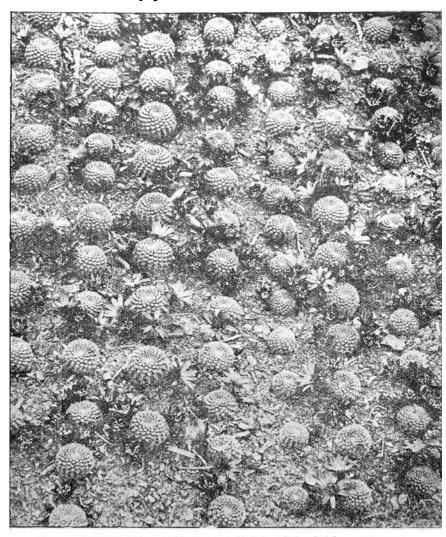
Etym: A Latin adjective, connected with the diminutive of minor, smaller. Rather small Echinopsis.

T: Argentina, Prov. Tucumán, [probably from either the Chicligasta or Monteros departments], 1887 or earlier, Friedrich SCHICKENDANTZ. According to Walter Haage (Kakteen von A-Z: 640. 1981), a letter from Dr. Weber, Paris, to F. A. Haage, indicates that he, Dr. Weber, received this species from Argentina in 1887, and that it was first flowered by Frédéric Schlumberger in Rouen. HT: Not known.

NT: (Hjertson, 2005: 20, as lecto.): Engraved plate by P. Berendt of a flowering plant, in Monatsschrift für Kakteenkunde 5(7): 103. (Jul) 1895 (Fig. 2). Repeated in Schumann & Gilg, Das Pflanzenreich: 677. 1896, Thomas, Kurze Anleitung zur Zimmerkultur der Kakteen, ed.2: 22. 1897, in Schumann, Gesamtbeschreibung der Kakteen (7): 396. (15 Apr) 1898, and in Hirscht, Bilder aus dem Kakteen-Zimmergarten, ed.2: 9. 1903. The earliest known illustration to have been captioned as R. minuscula. It is authentic but not detailed and readily distinguishable from other rebutias, so the following epitype is designated in support of it.

ET (design. here): Colour lithograph plate by A. Millot, as *Echinopsis minuscula*, in Roland-Gosselin, *Revue Horticole* 84: opp.84. 1912 (Fig.4). This excellent rendering depicts a group of 6-7 yr old plants, possibly grafted, buried in an imaginary landscape. Roland-Gosselin was a close friend of Weber, publishing many Weber works posthumously, so will have been familiar with the type material at Paris.

Three other early photos of authentic Rebutia minuscula



REBUTIA minuscula: Herbstaussaat. 11/2 Jahr alt im heizbaren Kasten.

Fig. 5 Rebutia minuscula 1928: Frič photo of 18 month old seedlings, from Kakteenjäger: 1. 1928. Frič's distributions were authentic, raised from seed of original material origin. He selected the largest flowered which he called Rebutia minuscula var. grandiflora nom. nud. This is identical to var. minuscula but larger in all its parts and possibly a polyploid, but should not be confused with Rebutia grandiflora Backeb. which was a short-spined R. senilis. Frič searched for this species and for Echinopsis chamaecereus while he was in Tucumán, but failed to find them.



13 Monate alte Sämlinge des Echinocactus minusculus



Fig. 6 Rebutia minuscula 1916: M. Lobner, Kgl. Botanischen Garten, as Echinocactus minusculus, in Monatschrift für Kakteenkunde 26(10): 152-153. (Oct) 1916.

Top: 13 month old seedlings.

Below: Selection of mature plants.

Early images that are unconnected with *Rebutia minuscula* in the strict sense

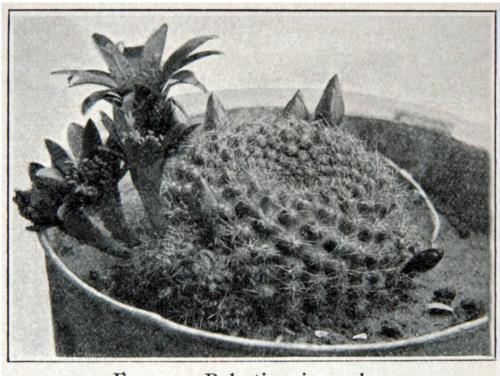


Fig. 57.—Rebutia minuscula.

Fig. 7 (above) Spegazzini photo, from Britton & Rose, *The Cactaceae* **2**: 46. (12 Oct) 1922. A Spegazzini gathering from Salta, Pampa Grande, on 6 Oct 1898, and thus can only be *Rebutia senilis* Backeb.

Fig. 8 Werdermann photo of a plant said to be from Tucumán flowering in Sep 1931 in the Berlin-Dahlem Botanic Gardens, *Blühende Kakteen* **2**(15): t.57 (15 Jun) 1933. Another example of a short-spined *R. senilis* from the north Tucumán mountains.

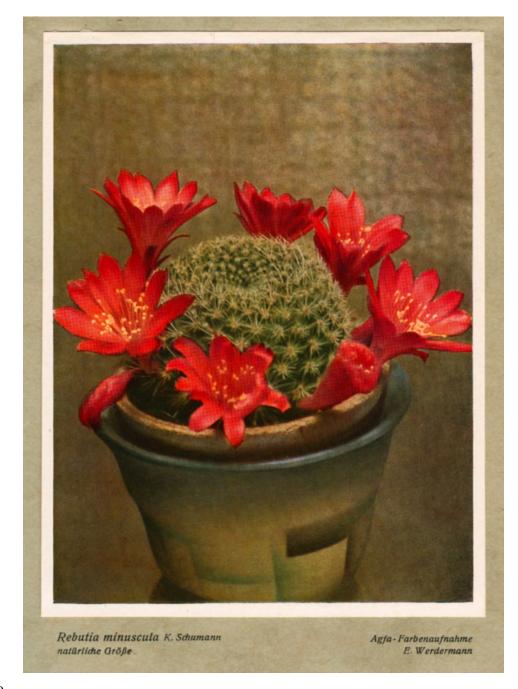




Fig. 9 This early rendering by J. N. Fitch, as *Echinocactus minusculus*, in *Curtis's Botanical Magazine* **140** [Ser. 4 vol.10] (1533): t.8583. (Nov). 1914 is two views of a plant of unknown origin bought in 1913 from an English nurseryman. The high number of spines and their thickness suggest that this was really *Rebutia senilis*, rather than a propagation from the type collection of *R. minuscula*.

The generic name *Rebutia* fell into disuse after Schumann (1898) preferred to regard its type and then only known species as an *Echinocactus*. Britton & Rose, however, restored the genus *Rebutia* in 1922, adding a small selection of other species now known to be aylosteras, and other authors quickly followed.

Gatherings made from the Sierra Candelaria & Sra. Medina in the extreme north of Prov. Tucumán have, for a long time been the only known rebutias in that province. Authors have therefore traditionally made the assumption that the type locality must been in that area. The rebutias growing there are, however, indistinguishable from the populations of *Rebutia senilis* Backbg. growing further north in Prov. Salta, so the two species have in the past been considered as conspecific and united under the older name *Rebutia minuscula*. Schickendantz, however, is not known to have collected plants north of Tucumán city.

Rebutia minuscula may thus have been collected on Schickendantz's route from Tucumán city to Andalgalá Dept. in Catamarca, along with Echinopsis schickendantzii, and perhaps also Echinopsis chamaecereus on some other occasion in the eastern foothills of the Nevados del Aconquija mountain range. Schickendantz would have been travelling on horseback, so might well have used a different route to cross the mountains than that of the present-day well known road between Concepción and Andalgalá. The type localities of all three species has remained unknown since they were first described.

In recent years rebutias have been found to occur in the departments of Tafi del Valle and Chicligasta. The former is on the west side of the range in a rain shadow and therefore with a similar

rainfall pattern to Salta, quite dry, so plants found at Tafí del Valle are likely to equate to *Rebutia senilis*.

The eastern side of this mountain range, on the other hand, has a much wetter and cooler climate than further north in Prov. Salta, with several times the Salta annual rainfall, and it is therefore a not very promising place to look for cacti. This may explain why the type localities for the two species mentioned above have been overlooked for so long, and why they happen to be so cold and wet resistant, remaining for long periods in the fogs that occur when low cloud sits on the hills. The area is 27-28° south of the equator and such cacti that have been found lie above 1500m altitude. It is an area subject to a succession of four or more very wet years during La Niña climatic events, interspersed with 12-18 months of drought.

The rebutias of the cool and wet Nevados del Aconquija may be expected to exhibit different morphological features and physiological behaviour from those in the warmer, dry valleys of Salta. Those from Dept. Chicligasta certainly do, but still do not happen to coincide in appearance with the *Rebutia minuscula* known to Weber and Rebut. The type locality of Schickendantz's *Rebutia minuscula* therefore still remains to be rediscovered.

The true *Rebutia minuscula* of Weber has a lively bright green epidermis as remarked upon by Rebut and accurately depicted by Millot, and weak spination. Its flowers have hardly any or no solid axis, the distinction that mainly led Spegazzini to erect his genus *Aylostera* (from the Greek *aylos*, tube, & *stereos*, solid). He could not have known at the time that *Rebutia minuscula* happens to be more or less unique in having a negligible floral solid axis.

Rebutia senilis does have a short solid axis when compared with the original Rebutia minuscula but nevertheless short enough for Spegazzini to perhaps consider it as absent or nearly so in all true rebutias. However, this is not true for other rebutias discovered later, such as R. wessneriana, which can have long solid tubes like those of Aylostera.

Revised taxonomic history for Echinopsis schickendantzii F.A.C.Weber ex Rebut

Echinopsis schickendantzii F.A.C.Weber ex Rebut, Supplément au catalogue des cactées et plantes grasses diverses de la collection P. Rebut: 2. 1893. [With fuller description by Weber in Bois (ed.), Dictionnaire d'Horticulture: 473. (Oct) 1896, & in Roland-Gosselin (ed.), Oevres posthumes de M. le Dr. Weber, 2. Floraisons inédites de plantes déjà décrites, Bulletin du Muséum d'Histoire Naturelle 10: 395-396. 1904]

Cereus schickendantzii (F.A.C.Weber ex Rebut) F.A.C.Weber, in Bois, Dictionnaire d'Horticulture 1(15): 473. (Oct) 1896 (pro syn.) nom. inval. (Art. 36.1) [generic name Cereus was not accepted by the author, Echinopsis being preferred]

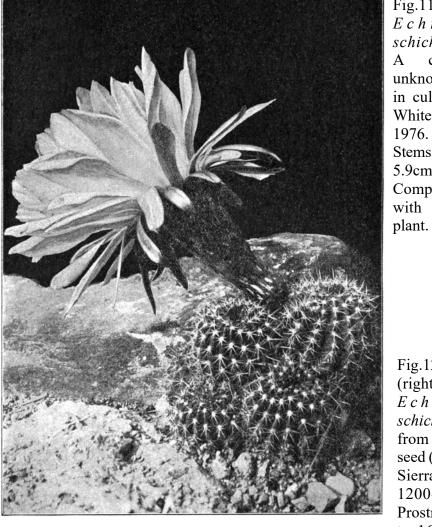
Trichocereus schickendantzii (F.A.C.Weber ex Rebut) Britton & Rose, The Cactaceae 2: 144. (9 Sep) 1920.

Etym: Named for its collector, Friedrich (or Federico) Schickendantz (1837-1896). Schickendantz's Echinopsis.

T: Argentina, Prov. Tucumán, [probably from either the Chicligasta or Monteros departments, but similar plants also occur in the Sierra Medina (Lau 441, Fig.)], 1893 or earlier, Friedrich Schickendantz. The type plant cultivated in the garden at the Paris Museum since 1893 had grown large enough to flower in 1898 (Roland-Gosselin 1904: 396), and by 1901 had stems 1.25m. long and up to 10-12cm diameter. Roland-Gosselin later observed (1904: 397) that the almost prostrate stems had reached up to 1.5m. long and 15cm. diameter, with just the tips turned upwards to about 20cm. high.

HT: Not known.

No original material is known to be extant and typification poses a problem. In the absence of a type designation, the best reference to its identity is the account and illustration (Fig. 10) of Berger (1905: 125-128). Spegazzini (1905: 487) stated that this species is common in the mountains at 1000-2500m altitude in the provinces of La Rioja, Catamarca, Tucumán, Salta, & Jujuy. It is a variable and widespread species, but its type locality is unknown, other than that it is somewhere in the mountains of Prov. Tucumán.



Echinopsis Schickendantzii Web.

Nach einer von Herrn Alwin Berger für die "Monatsschrift für Kakteenkunde" hergestellten Photographie.

Fig.11 (right) Echinopsis schickendantzii clone of unknown origin in cultivation at Whitestone since 1976. Stems 9cm. high, 5.9cm. diameter. Compares well

Berger's

with

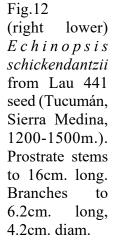






Fig. 10 Echinopsis schickendantzii Berger photo, from Monatsschrift für Kakteenkunde 15(8): 125. (Aug) 1905. The earliest known illustration.

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- ([1893]) *Catalogue des cactées et plantes grasses diverses de la collection P. Rebut.* ii, 21 pp. Privately published, Chazay-d'Azergues (Rhône). [Not dated, but believed to be from 1893]
- (1893) Supplément au catalogue des cactées et plantes grasses diverses de la collection P. Rebut. i, 4 pp. Privately published, Chazay-d'Azergues (Rhône).
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Acknowledgments

To Leonie Paterson, archivist at the Royal Botanic Garden Edinburgh, for supplying copies of their library set of Rebut catalogues 1886-1896.

To Graham Charles, for drawing my attention to the Rebut entry in the Royal Botanic Garden Edinburgh online catalogue of their library.

To Daniel Schweich, for converting the Rebut catalogue scans from RBG Edinburgh into works of art, and for sending the colour plate from *Revue Horticole* supplied by the Botanical Garden library, Lyon.

To Margrit Bischofberger, for translation of Schumann's description.

Appendix 1:

Facsimile of **Rebut**, **P.** (1893) Supplément au catalogue des cactées et plantes grasses diverses de la collection **P.** Rebut. i, 4 pp. Privately published, Chazay-d'Azergues (Rhône).

SUPPLÉMENT

AU

CATALOGUE DES CACTÉES

et Plantes grasses diverses de la Collection

DE

P. REBUT, à Chazay-d'Azergues

(Rhône)



LYON IMPRIMERIE RICHARDIN & DURANTON

18, Rue Paul-Bert 18

1893

SUPPLÉMENT

AU

CATALOGUE DES CACTÉES

et Plantes grasses diverses de la Collection

DE

P. REBUT, à Chazay-d'Azergues

(Rhône)

Cereus	
Pitajaga Weber 3 à 5 fr.	
Belieuli	

Philocereus

Columna Trajani Karw, 15 à 25 fr. tige énorme, superbe.

ECHINOCACTUS

Drœgeanus, Hild, plante superbe très forte 15 à 20 f.

Mathsoni, Berg, — 10 à 15 f.

Tabularis cristatus, Auguin, nouveauté superbe très forte 12 à 15 f.

Rinconensis, nouveauté remarquable, — 12 à 18 f.

ECHINOPSIS

Catamarcensis, Weber, nouveauté de premier ordre, ayant 13 côtes d'un beau vert; 13 aiguillons presque radians arqués du côté de la plante, long de 0,04 centimètres à la partie supérieure des aréoles les aiguillons en naissant sont rose blanc; ensuite, ils deviennent rouge jaune, également les aiguillons inférieurs des aréoles. Ils sont rouge en naissant ensuite d'un blanc d'ivoire. Un d'eux des quatre intérieurs subissent la même transformation. Il y en a qui sont indulés. Plante curieuse d'une beauté extraordinaire 12 à 20 fr.

-2 -

Minuscula, Weber, nouveauté également de premier ordre, plante extraordinaire comme forme, à tige déprimée d'un beau vert; aiguillons très courts, très fin blanc jaunâtre Cette plante remarquable ne présente aucune côte apparente. Les aréoles sont placées en ligne et en quinconce sans côte. Cette plante paraîtrait former un genre nouveau dans les Echinopsis, 12 à 20 fr.

Schickendentzii, Weber, nouveauté encore de premier ordre à tige érigée cylindrique, ayant 16 côtes petites, rapprochées les unes des autres, aiguillons jaune courts et très fins. Plante tout à fait remarquable. Les trois admirables nouveautés vont enrichir le beau genre Echinopsis, 12 à 20 fr.

MAMILLARIA

Donati, Bge, nouveauté 5 à 10 fr., plante forte et superbe.		
Lapaixi, Rebut, nouveauté remarquable avec satige glauque		
un peu pruineuse; ayant constamment quatre aiguillons.	10 à	15 fr
Lorenzii, Bge, nouveauté, plante remarquable, forte	10 à	15 fr
Mazatlensis, nouveauté, — —	5 à	10 fr.
Parkensoni cristata, Rebut, nouveauté	5 à	10 fr.
Perbella, Hild, nouveauté remarquable forte	10 à	12 fr
Saillardi, Rebut, nouveauté très remarquable avec sa		
tige et ses aiguillons couleur de café	12 à	15 fr
Roessingii, Bge, superbe nouveauté		10 fr.

Phyllocactus

Alba grandiflora.
Alba perfecta.
Albert Courant.
Aurore Boréale.
Boule de feu.
Boliviensis (Weber).
Courantii.
Jacques Courant.
Docteur Bois Duval.
Edmond Lemaitre.
M* Delatrey.
Glob.
Grand Monarque.
Grand Monarque.
Grand rose.

Grand soleil. Hébé. Incomparable. Jessy. Jules Simon. Magenta. Mr Daunue. Mr Richardon. Mr Rivière. Mr Talleyrand. Mr Simon. Président Grévy. Rose perfection. Rose splendide. Rose D'Amour. Solférino.

— 3	-
Stapelia	Plante basse, acaule, formant une re-
Burtini 2 »	sette régulière de 8-10 centimètres de hauteur sur 18-22 centimètres de dia-
Biscula	mètre. Feuilles très nombreuses, ser-
Depressa	rées-imbriquées, légèremeutineurvées, de 8-12 centimètres de longueur sur
Courcelli 2 »	3-4 centimètres de largeur à la base,
Geminata 1 50	brièvement atténuées en pointe aigüe, concaves, les bords garnis d'épines
Lentiginosa 3 »	papilleuses d'un vert pâle, glabres aux
Mixta 2 »	deux faces, d'un vert tendre très frais. Fleurs en petite grappe simple, d'un
Orflexa 1 50 Rectiflora 1 50	Fleurs en petite grappe simple, d'un rouge orangé. Plante très jolie et très
Rectiflora 1 50 Nufa 2 »	distincte parmi les congénères. Prix : la pièce, de 8 à 15 fr.,
Muricata 2 »	suivant la force.
Stricta 2 »	Mitroformis commelini 1 50
	 Distans 1 50
Hurnia (Stapelia)	- spinulosa 2 »
Umbillicta 3 »	Simoniana, Deleuil,
Barbata 3 »	nouveaulé
Hystrix 3 »	Aloe Simoniana (Delevil) Hybride du Gasteria disticha par Aloe
Rhipsalis	longiaristata.
Dulwiniagna C A Lind	Plante acaule, légorement caulescente
Pulvinigera, G.A. Lind- berg nouveauté 5à 10 fr.	avec l'âge, de forme conique ayant de 30 à 40 centimètres de hauteur sur au-
Dissimilis, G. A. Lind-	tant de diamètre à sa base. Feuilles
berg nouveauté 5à10fr.	tant de diamètre à sa base. Feuilles nombreuses, très longtemps persis- tantes, droites d'abord puis étalées,
	de 15-20 centimetres de longueur sur
Lepismium	5-6 centimètres de largeur à leur base, trigones, atténuées en pointe aigüe, marginées de blanc sur les angles par
Cavernosum flore albo,	marginées de blanc sur les angles par
G.A. Lindberg nou-	une continuité de papilles serrées, chaque face parseméede macules blan-
veauté 5à10fr.	ches, légèrement en saillie sur un fond vert luisant très foncé. Fleurs er
Cavernosum flore roseo	grande grappe ramifiée, grandes, gas-
G.A. Lindberg, nou-	trues, de couleur rouge tendre saumoné
veauté 5à 10 fr.	Plante d'une beauté hors ligne, que nous sommes heureux de dédier à M. Ch.
Agave	Simon, horticulteur distingué et grand amateur de ces genres de plantes.
Bedinghausi, Rebut, nouveauté	Prix : la pièce, de 8 à 20 fr.,
hybride de Ghiesbreghtii avec	suivant la force.
maculata plante à feuilles	Gasteria
étroites, pendantes, aiguillons	n.l.
courts, rouges, jaunes, plante très distincte.	Pubescens 4 »
ares districte.	Subulata 4 »
Aloe	Subverrucosa
Gracilis 1 »	Apicra
Imbricata, Deleuil, nou-	Pentagona 1 50
veauté	

Haworthia Regis jubce. Macroglypha (vrai)..... 2 » Michali, Rebut, nouveauté. 5 » Sempervivum Verrculata. Euphorbia Caput-Medusce odorata, monscaput-Medusce odorata, mons-truosa, Morin, nouveauté très remarquable, monstruosité se-mée de petites tiges feuillées, plant tout à fait extraordinaire, 15 à 20 fr. Brachiatum 1 » Fournieri, Rebut, nouveauté très remarquable, tige simple, li-gneuse et cylindrique à la base,
 Laggeri
 0 75

 Neibrechii
 0 50

 Piliferum
 0 50
 brusquementcharnueau-dessus de la base à cinq angles saillants et à côtes amincies en lame de couteau garnis très

 Pitoni
 0 75

 Pyrenaicum
 0 50

 Rupestre
 0 50

 régulièrement d'aspérités nombreuses ressemblant assez aux Rubicundum 1 > Soboliferum 1 > crins d'une brosse de chiendent longue d'environ 3 millimètres. Teleboni..... Feuilles disposées alternative-Tomentosum..... 0 50 ment et implantées horizonta-lement autour de la tige, petio-lées, obovales oblongues avec Tristes..... 1 > des nervures parallèles et pen-nées, d'un beau vert en-dessus, Toutes ces variétés sont très rustiques, elles supportent nos hivers les plus rigoureux. Ces plantes sont excellentes pour garnir les rocailles ainsi que les bordures et mosaïques. Toute la cellec-tion pour 15 fr. rembrunis en-dessous, plante extraordinaire, de 10 à 20 fr. Melotormis Corderoyi cristata, Rebut, nouveauté remarquable. Imp. Richardin & Duranton, rue Paul-Bert, 18.