

GEORGE ENGELMANN
BOTANICAL NOTEBOOKS

Pagination Note:

Since many of the items lack a specific page number, the page number displayed online refers to the sequentially created number each item was given upon cataloging the materials.

Cereus flagelliformis

July 6 1870

Cult at Ebersdorff, Paris 1868

1698

x 8



chalazal larger
hilum near middle

testa brown thin

the only embryo examined
was nearly parallel (or incumbent)
cotyledons - slightly oblique



Surface of side
of seed. x 60
reticulate - tuberculate



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN



ALEX. LEITCH,

APOTHECARY & CHEMIST,

Cor. 4th and Olive Sts., St. Louis.



GEORGE ENGELMANN PAPERS



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

Cereus

Amer austr etc

132

584-9

BOTANICAL GAZETTE.

The area which Pursh's Flora covered was, we may say, the United States east of the Mississippi, with Canada to Labrador, to which was added a couple of hundred of species known to him outside these limits northward.

Torrey and Gray's Flora took the initiative in annexing Texas ten years before its political incorporation into the Union; although the only plants we then possessed from it were certain portions of Drummond's collections. California was also annexed at the same time, on account of Douglas's collections, and those of Nuttall, who had just returned from his visit to the western coast, which he reached by a tedious journey across the continent over ground in good part new to the botanist. Douglas had already made remarkably full collections along a more northern line. The British arctic explorers, both by sea and land, had well developed the botany of the boreal regions, and Sir Wm. Hooker was bringing out the results in his Flora of British America. Of course our knowledge of the whole interior and western region was small indeed, compared with the present; and the botany of a vast region from the western part of Texas to the Californian coast was absolutely unknown, and so remained until after the publication of the Flora was suspended.

As to the number of species which Torrey and Gray had to deal with, I can only say that a rapid count gives us for the first

1698A



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

BOTANICAL GAZETTE.

131

of the ensuing year to the examination of the principal herbaria, which I need not here specify, in Scotland (where the important one of Sir Wm. Hooker still remained), England, France, Switzerland and Germany, namely those which contained the specimens upon which most of the then-published North American species had been directly or indirectly founded, especially those of Linnæus and Gronovius, of Walter, of Aiton's Hortus Kewensis, Michaux, Willdenow, Pursh, and the later ones of DeCandolle and Hooker.

After my return the work made good progress; the remaining half of the first volume was brought out in the spring of the year 1840, and by the spring of 1843 the 500 pages of the second volume, mostly occupied by the vast order Compositæ, had been issued. But meanwhile I had in my turn to assume professorial duties and incident engagements,—with the result that, although the study of North American plants was at no time pretermitted, either by Dr. Torrey while he lived, or by myself, we were unable to continue the publication during my associate's life-time; and it was only recently, in the spring of 1878, that I succeeded in bringing out, in a changed form, another instalment of the work, completing the *Gamopetalæ*.

In the interval I had made two year-long visits to Europe for botanical investigation, the first partly relating to the botany of the South Pacific, the second to North America.



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

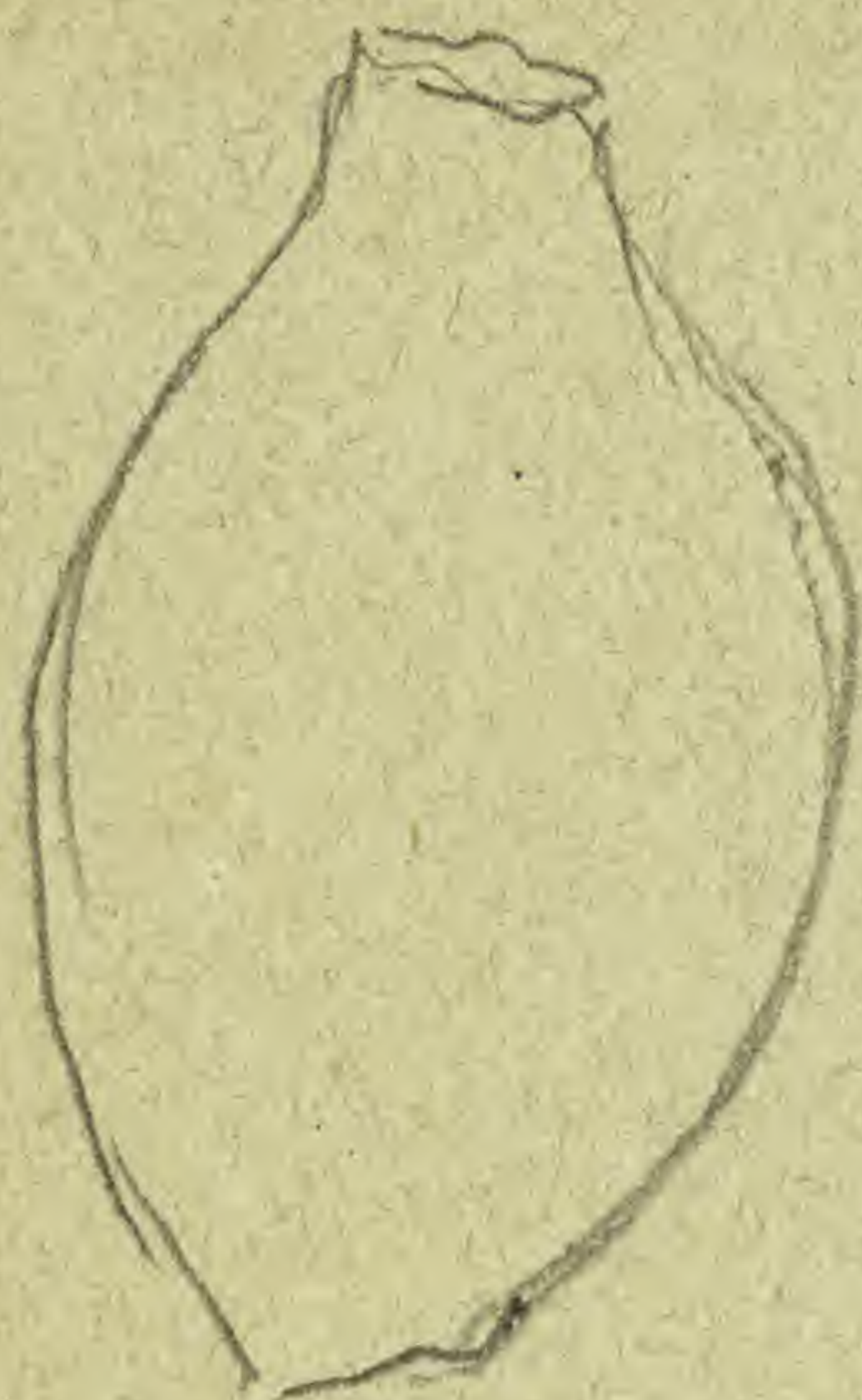
Cereus Seidelii

June 26 1870

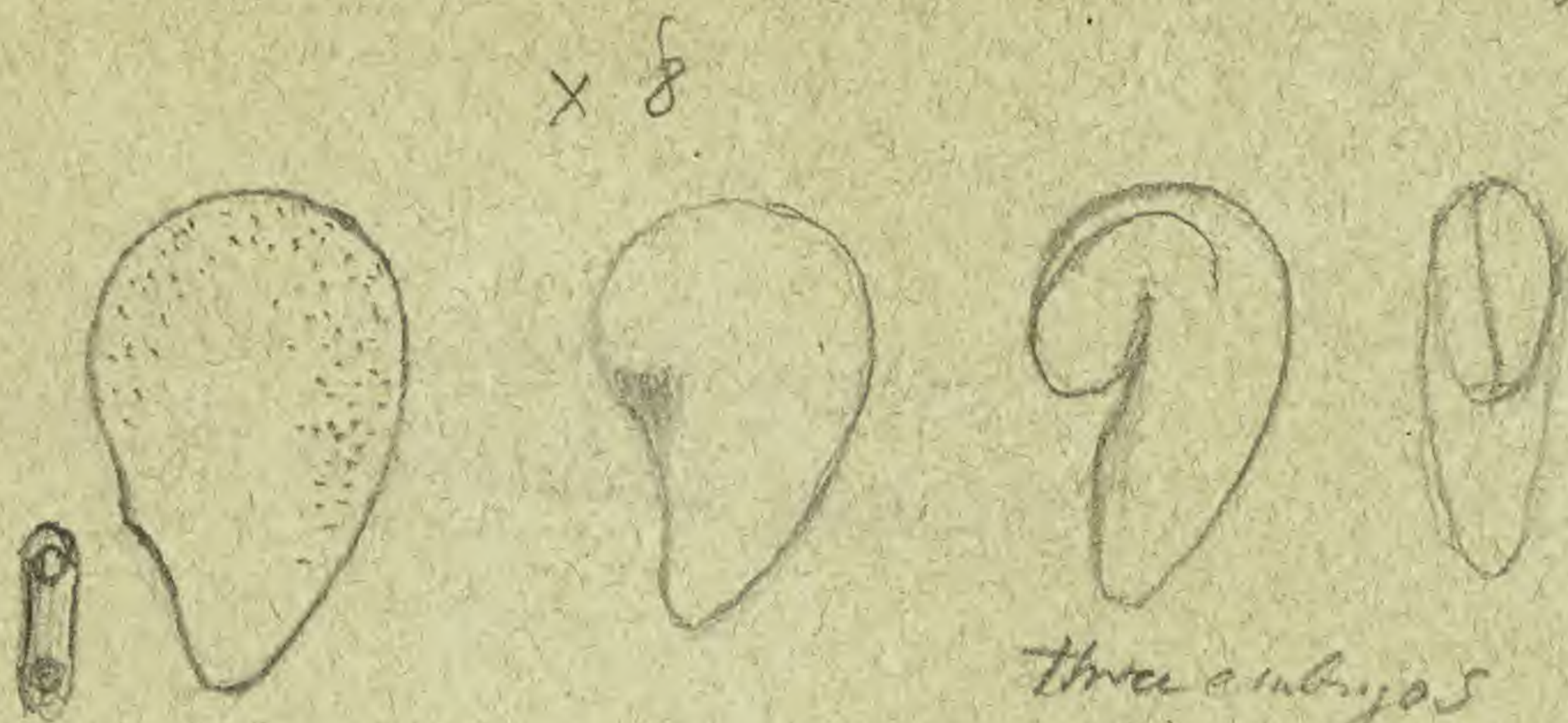
Cult. in Berlin - Dr. Poselger Det. 1857

flowers long, dirty white,
nothurnal

Salon p. 200



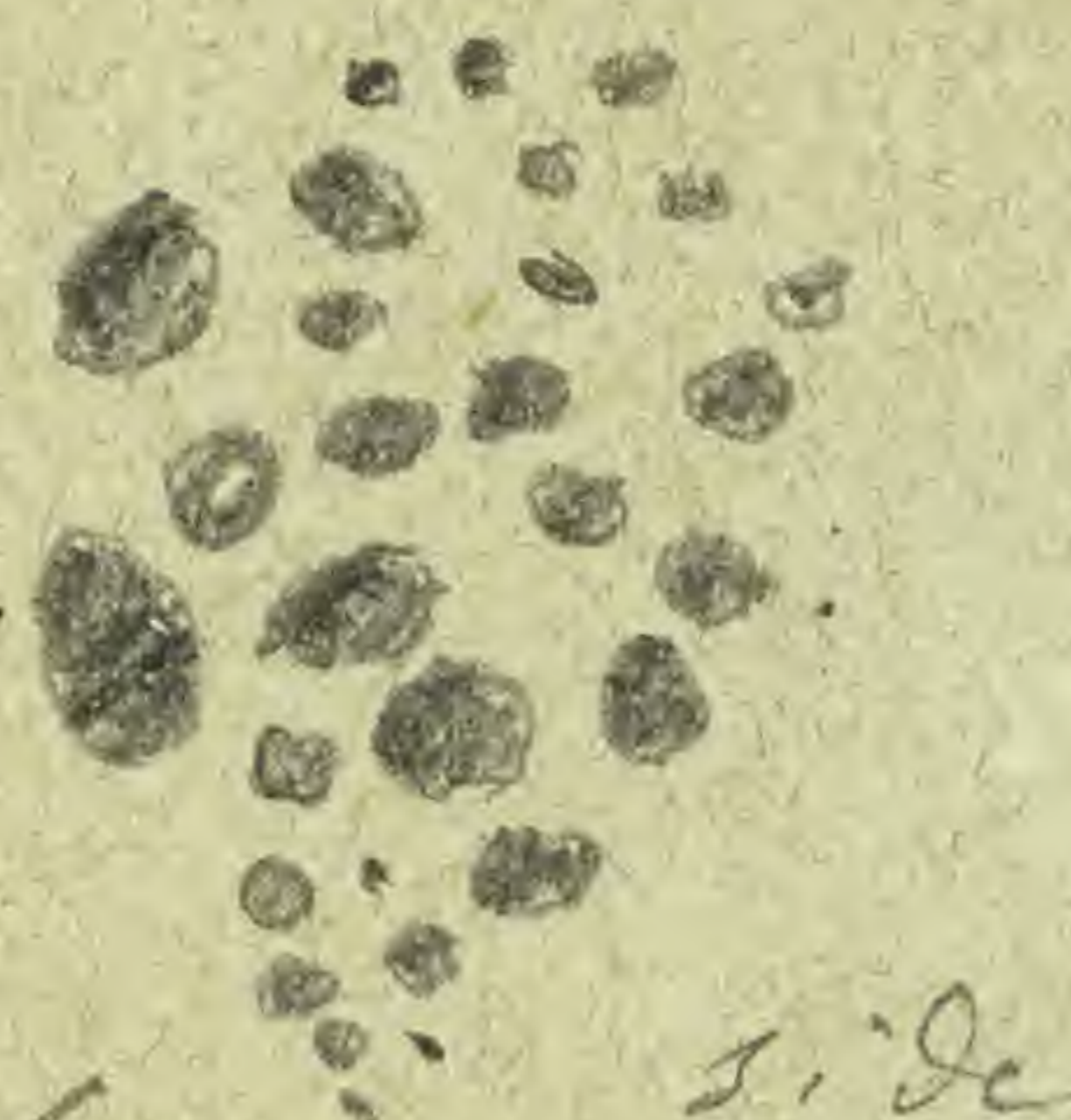
Form of fruit



three embryos
examined were
oblique or
accumbent
(parallel)



top
surface x 60



side

1699



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

CHEMIST



ALEX. LEITCH,
APOTHECARY & CHEMIST,
Cor. 4th and Olive Sts., St. Louis.

ALL THE NEW REMEDIES
CONSTANTLY ON HAND

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

Cereus serpentinus

March 16 1870

fide A. Weber

Cult in Mexico, & Weber

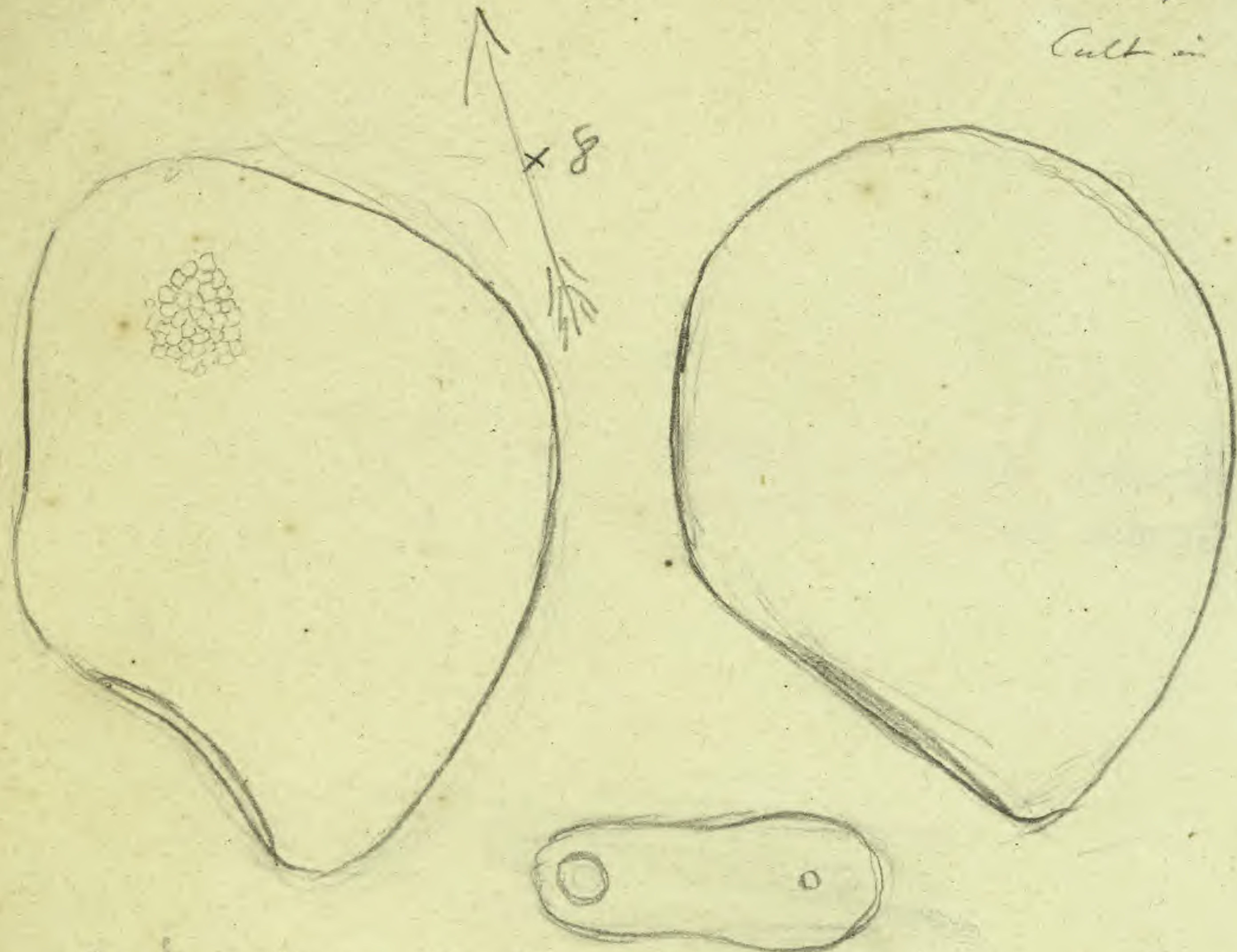
unripe, empty

Largest *Cereus* seed thus far seen
about 7 mm in length & diameter

Surface X60 July 5 1870

seed delicately reticulate
areae rough

(only in unripe
seeds ??)



Seeds 5 mm x 7 mm

hilum

1700



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

M. W. ALEXANDER,

SOUTH-EAST CORNER FOURTH AND MARKET STREETS,

ST. LOUIS.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS



0
cm

1

2

3

4

5

6

7

8

9

10

copyright reserved



MISSOURI
BOTANICAL
GARDEN

(*Eulychnia*)

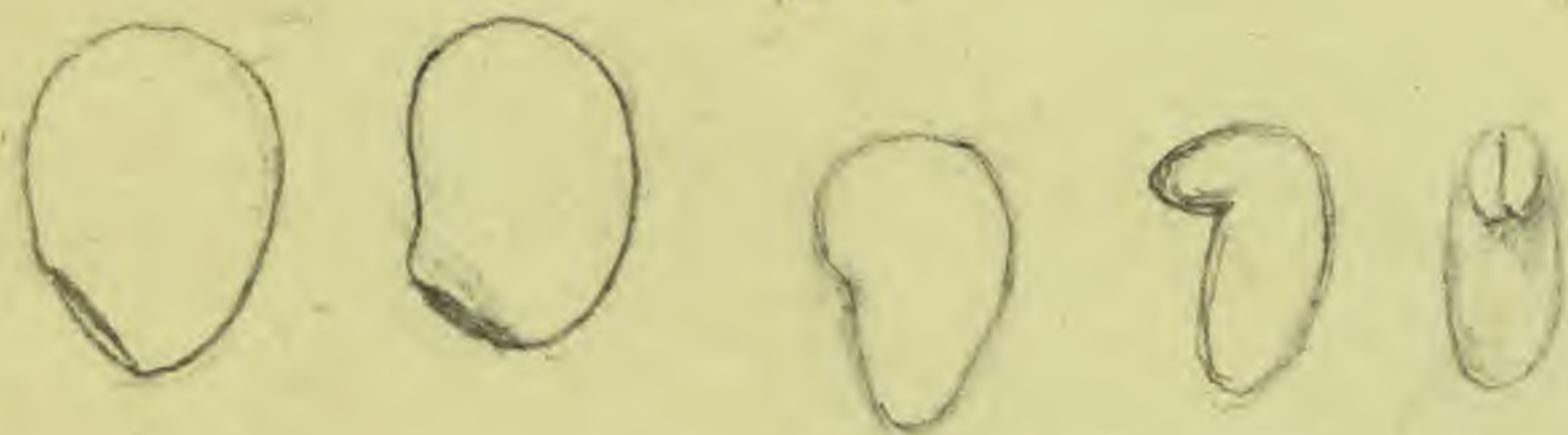
June 24

1870

Cactus A.

Gillies, Mendoza

ex. Hb. Kew 1869.

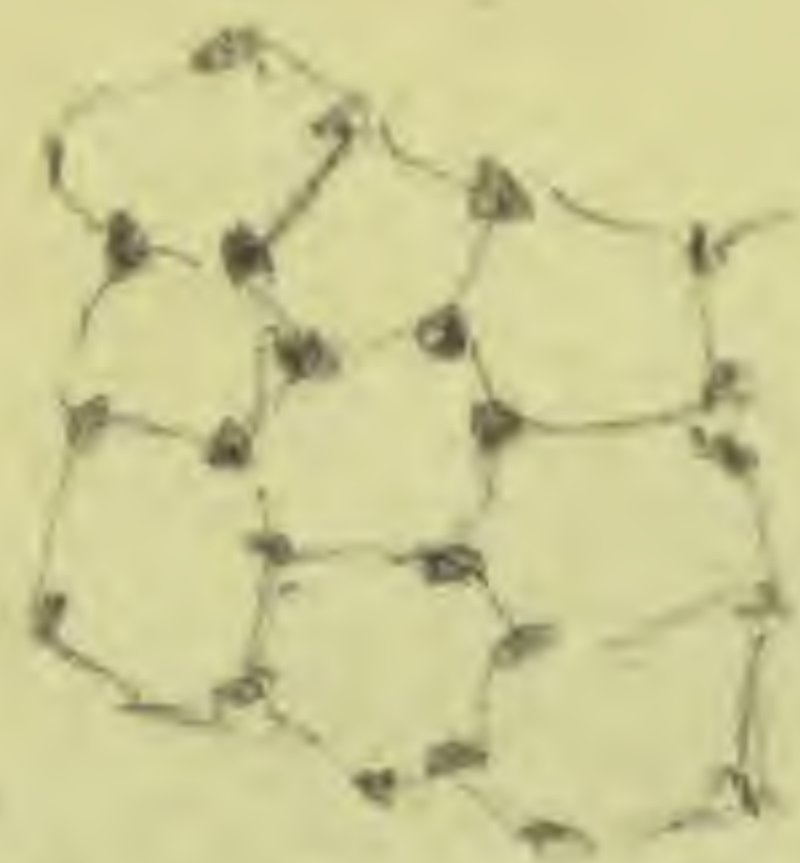


x 8

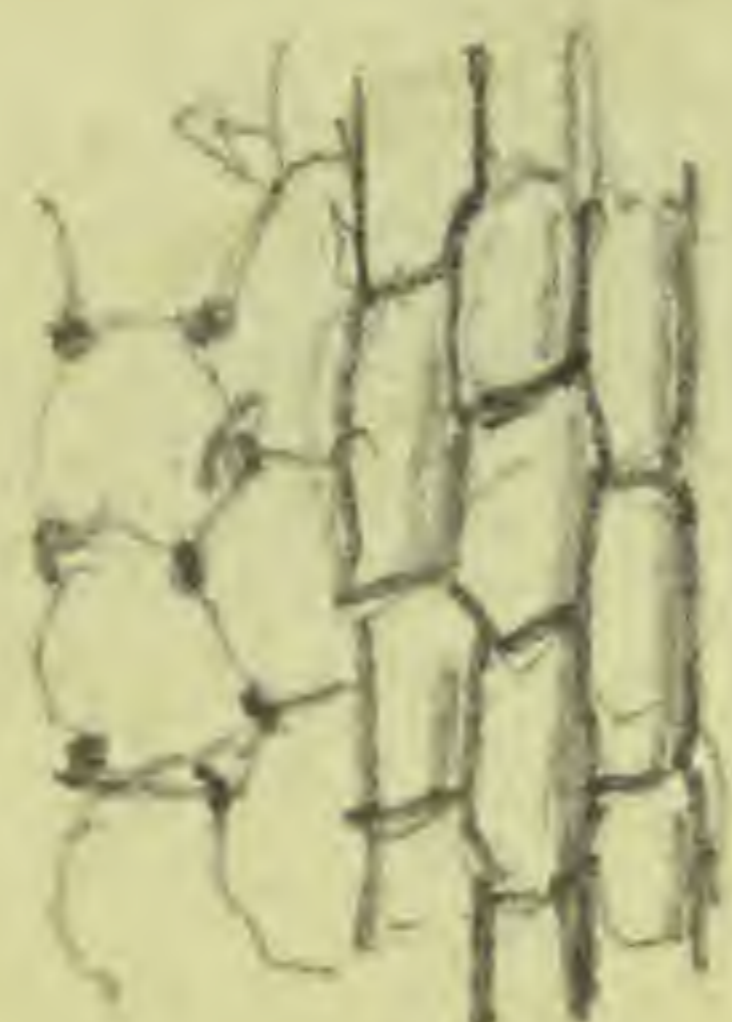
one embryo seen
parallel

Seed black, shining, testa very
minutely reticulate, more
so towards the dorsal carina
and slightly tuberculate - minute
pits on edges of cells
and where the walls join.

(as in some Mexican
Cereals of Jacquin's 1233)



testa outside



cells of testa
near carina
a little convex
narrower,
no dots

1701



x 8

sepal of fruit 1.5 mm long
K. Arnold
works better 10th by



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

CHAS. HABICHT & CO.,
Successors to

Enno Sander & Co.,

PHARMACEUTISTS,

Walnut & Fourth Sts.,

SOUTHERN HOTEL,

Walnut & Second Sts.,

BARNUM'S HOTEL,

ST LOUIS, MO.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

Cereus

July 6 1870

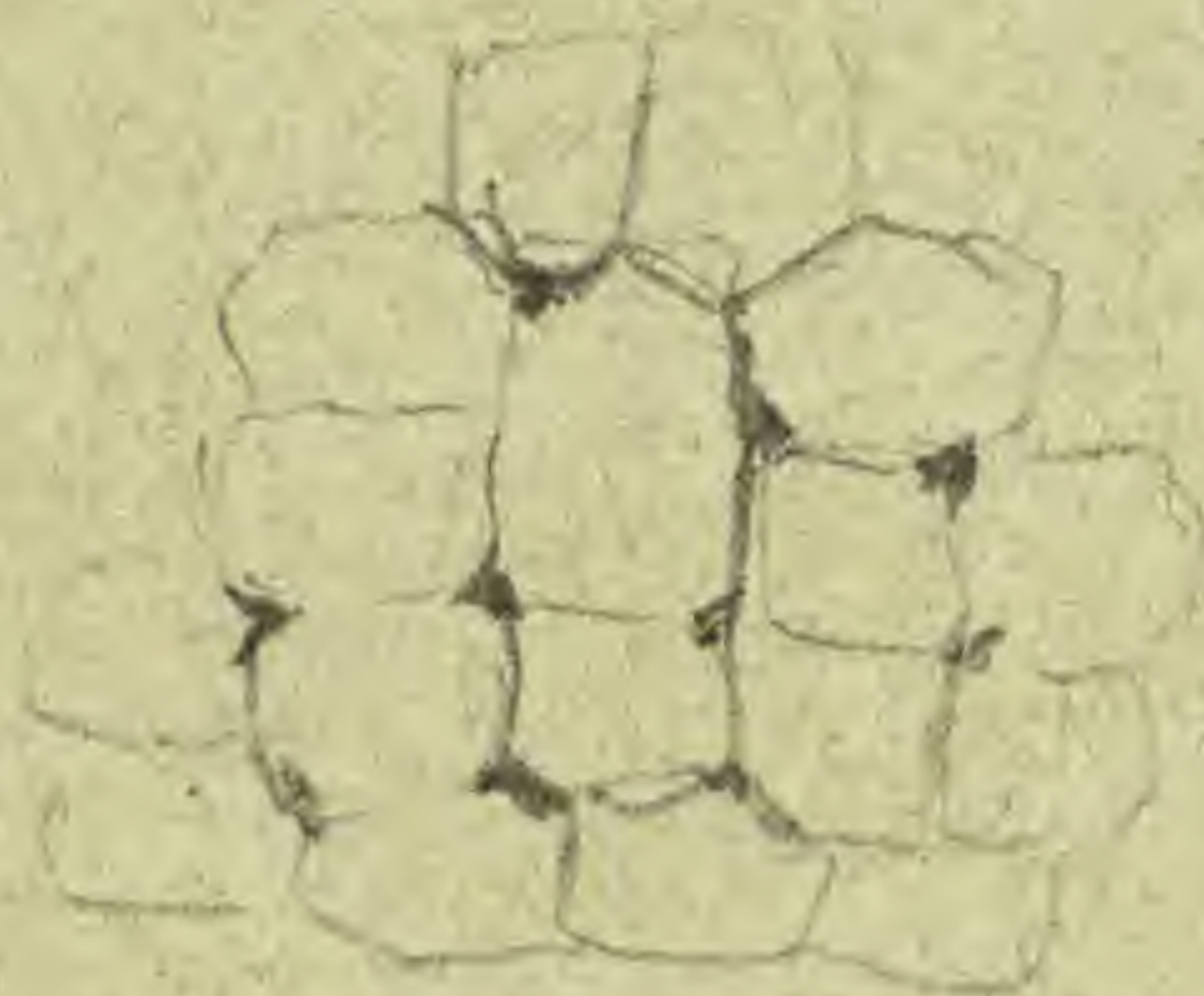
(*semina immaturna*)

Rio de Janeiro, Gaudichaud N^o 916 - Hb. Berlin 1869

x 8



1702



surface x 60
near top



surface x 60
on side



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

CHEMIST



ALEX. LEITCH,
APOTHECARY & CHEMIST,
Cor. 4th and Olive Sts., St. Louis.

ALL THE NEW REMEDIES
CONSTANTLY ON HAND



MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

Cornus triangularis

July 6 1870

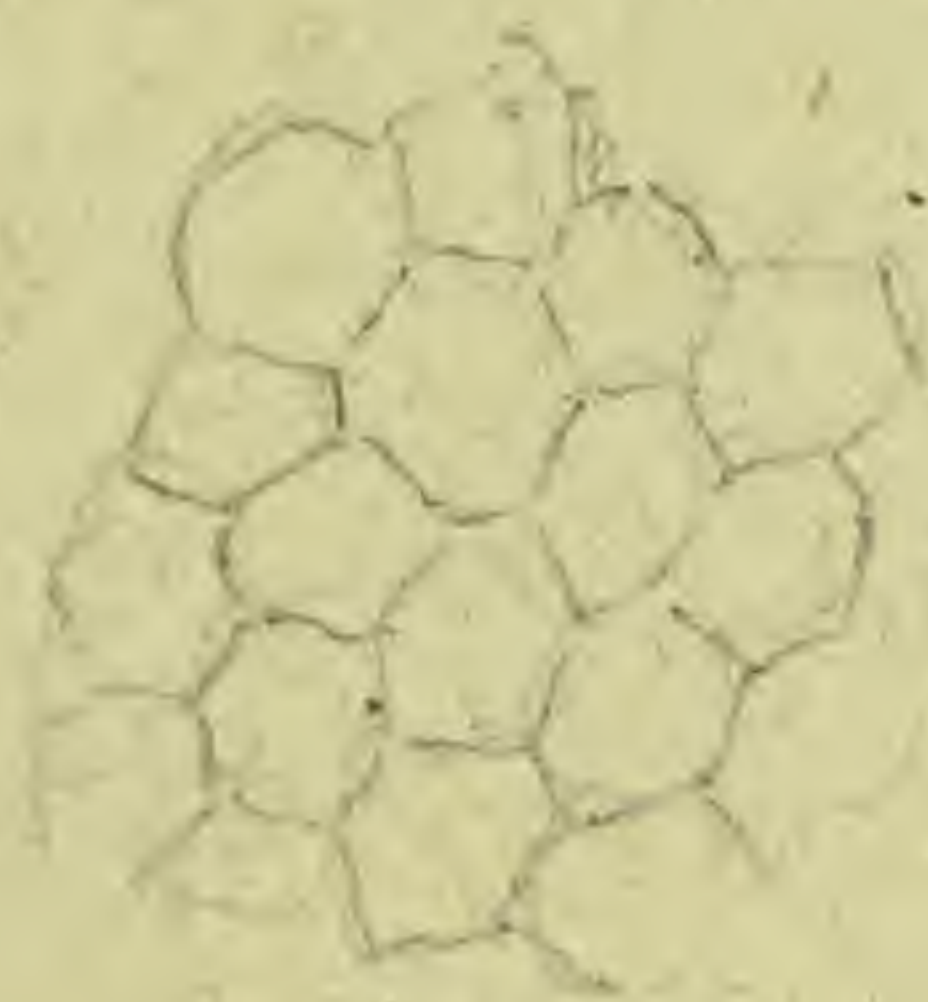
fructu folioso.

Orizaba Mexico, sent to Dr. Weber 1868. Det 1869

x8



seed black shining, testa thin but brittle



surface x60
faintly and
delicately
reticulated



surface x60
towards the inferior
posterior part
delicately tuberculate, small pits between

1703



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

CHEMIST



ALEX. LEITCH,
APOTHECARY & CHEMIST,
Cor. 4th and Olive Sts., St. Louis.

ALL THE NEW REMEDIES
CONSTANTLY ON HAND

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

by extend
the article under a head of "selections, extracts," is not an excuse, not even if the heading be re-enforced by a Latin motto ("*carpere et colligere*," for instance). Nor is it less culpable to set aside the civility of giving credit in case of copying an article from the "extract" columns of another journal. Two of the articles referred to above, though "extracts," were nevertheless original with us: the one, an original translation from the *Union Medicale*, for which we are under *obligations* to the translator,—the other an original abridged translation from the *D. Archiv f. klin. Medicin.*

If the *Detroit Review of Medicine and Pharmacy*, as it kindly informs us in its facetious reply, contained in the April number, claims nothing as original which appears in *its* pages as a "selection," it does not prove that *we* bestow no labor upon our extract columns, nor that we are particularly anxious to perform this labor *incognito* for the benefit of the readers of the *Review*.

*"The Pathology of Paralysis with Muscular Degeneration," this Journal, No. 5, p. 438;
"A Modification of the Clinical Thermometer," *ib.*, p. 435; and "Case Illustrating the Nature of Epilepsy," p. 437;—the last two, as well as a note appended to the first, characterized by larger type as original with us.

Car tri angulami & allies

590-2

1703A



0 1 2 3 4 5 6 7 8 9 10
cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

BOOKS AND PAMPHLETS RECEIVED.

HODGE, On Diseases peculiar to Women, including Displacements of the Uterus. Second edition, revised. Philad.: H. C. Lea, 1868. 8vo., pp. 550.

HAWLEY, The Use of Pepsine in the Diarrhœa of Infants. 8vo. pamphlet, pp. 12.

FREKE, Reflections on Organization; or Suggestions for the Construction of an Organic Atomic Theory. Dublin, 1848. 8vo., pp. 80.—From the author.

—, On the Origin of Species by means of Organic Affinity. London, 1861. 8vo., pp. 135.—From the author.

—, An Appeal to Pyhysiologists and the Press. Dublin, 1862. 8vo. pamphlet, pp. 34.—From the author.

SUTTON, Report on Cholera to the Indiana State Medical Society, 1868, 8vo. pamphlet, pp. 16. S. l. & a.

Illustrated Catalogue of Medical, Surgical, and Scientific Publications published by Henry C. Lea (late Lea & Blanchard), Philadelphia, 1868. 8vo., pp. 64.

ELMER, Physicians' Handbook of Ptactice for 1869. New York: Townsend & Adams.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

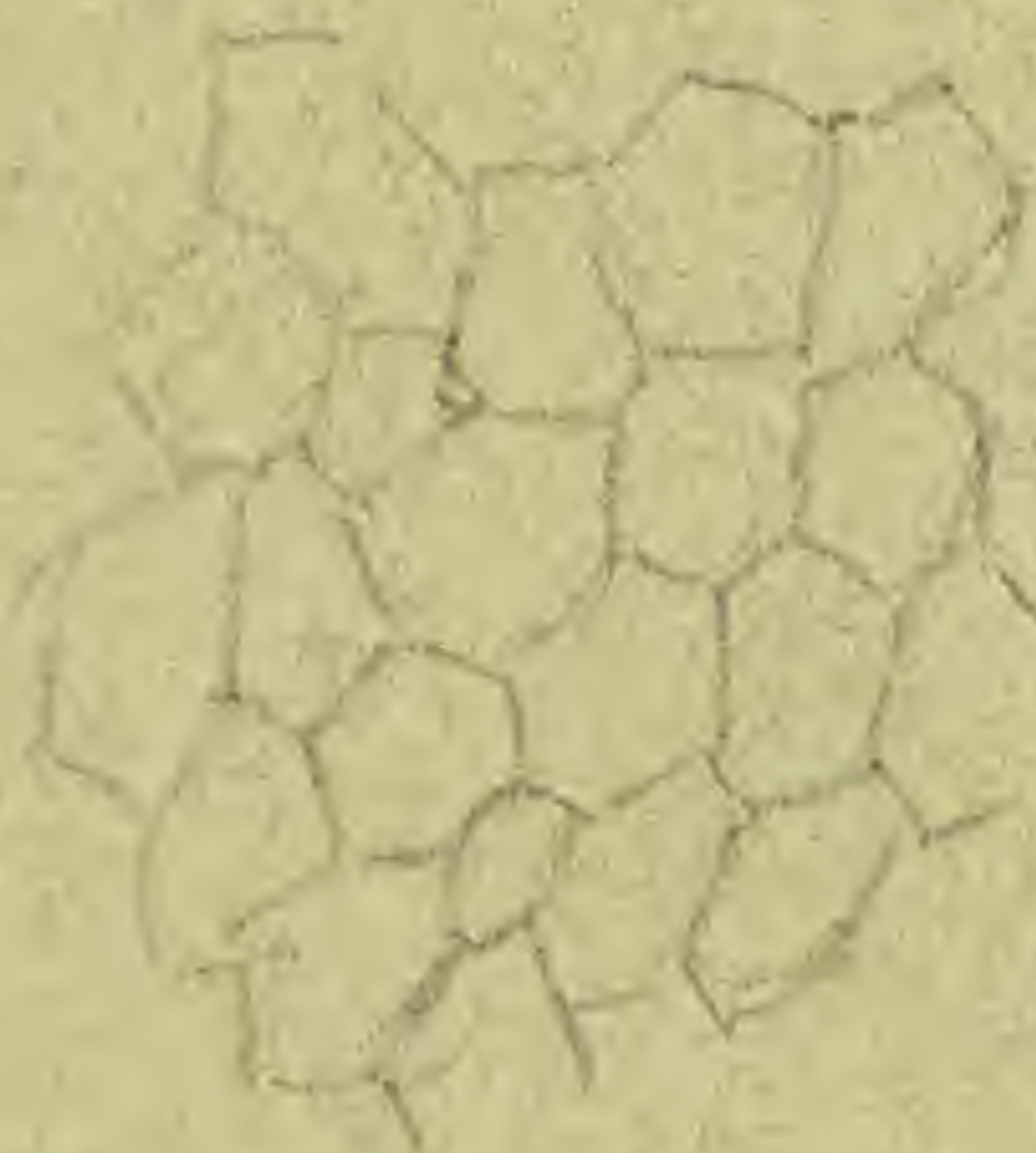
"*Cereus triangularis*" "

July 9 1870

Hort. Col. Venet. Jan 1858



1704



surface of seed x60
shining, very delicately
reticulated



towards the base
especially posterior
part pitted in rows



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

CHEMIST



ALEX. LEITCH,
APOTHECARY & CHEMIST,
Cor. 4th and Olive Sts., St. Louis.

ALL THE NEW REMEDIES
CONSTANTLY ON HAND



MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

"*Cereus Napoleonis* ?"

June 27 1870

Tampico

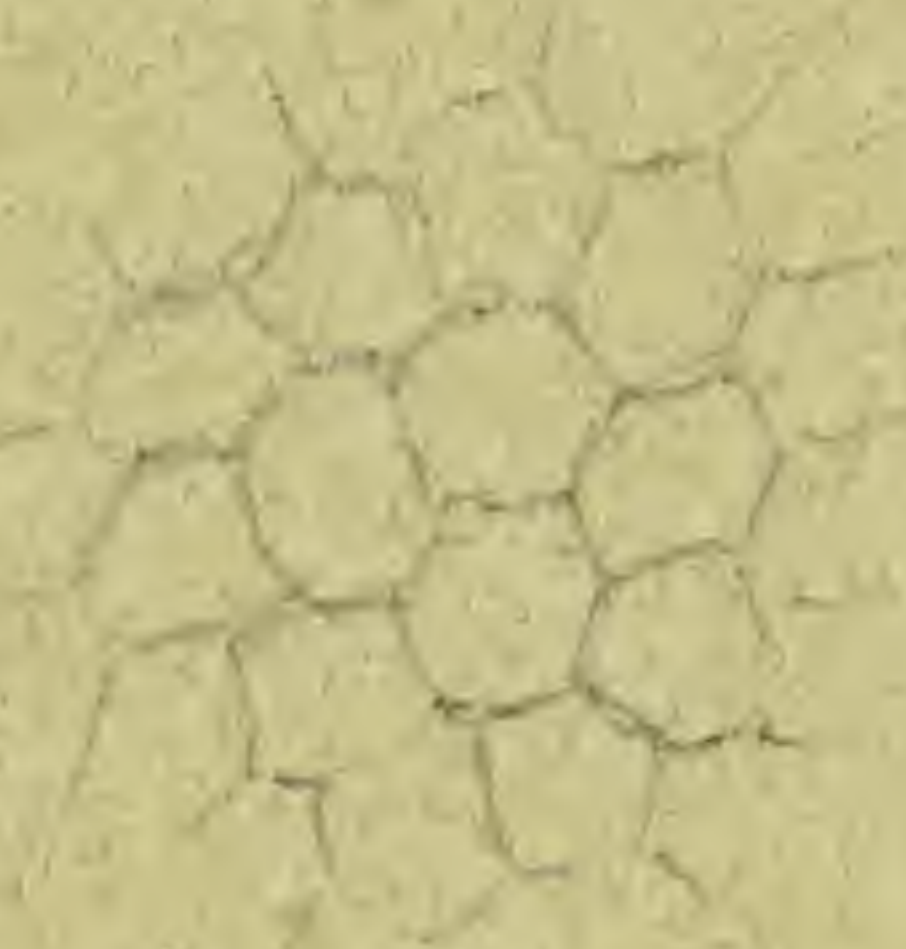
Dr Poselger Aug 1850



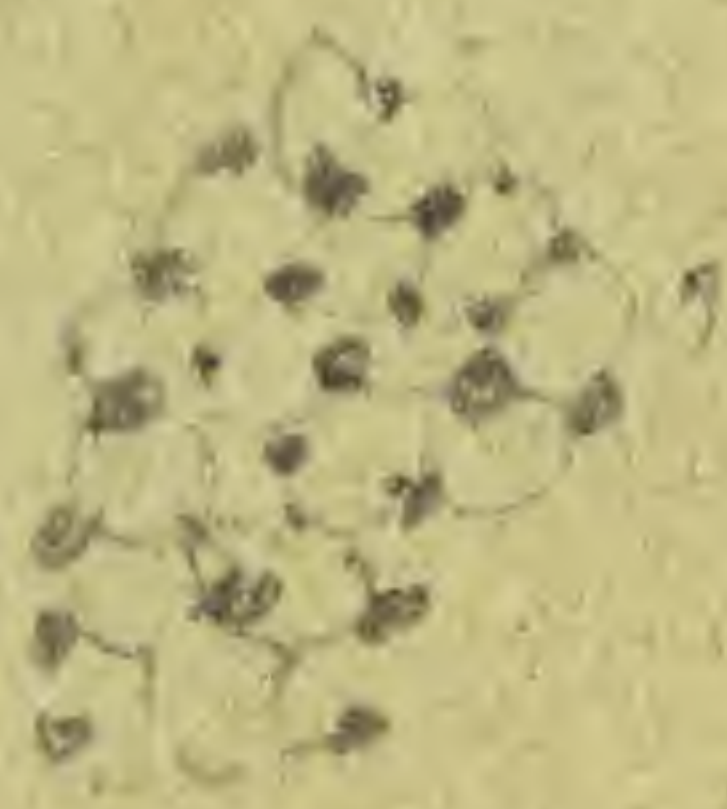
hilum

chalazae

hilum curved around
base of seed



surface x 60
smooth, shining
very delicately
reticulate



surface of seed towards the base, pitted

1705



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN



ALEX. LEITCH,
APOTHECARY & CHEMIST,
Cor. 4th and Olive Sts., St. Louis.



MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

2622 *Cereus assurgens* Wright

July 24 1870

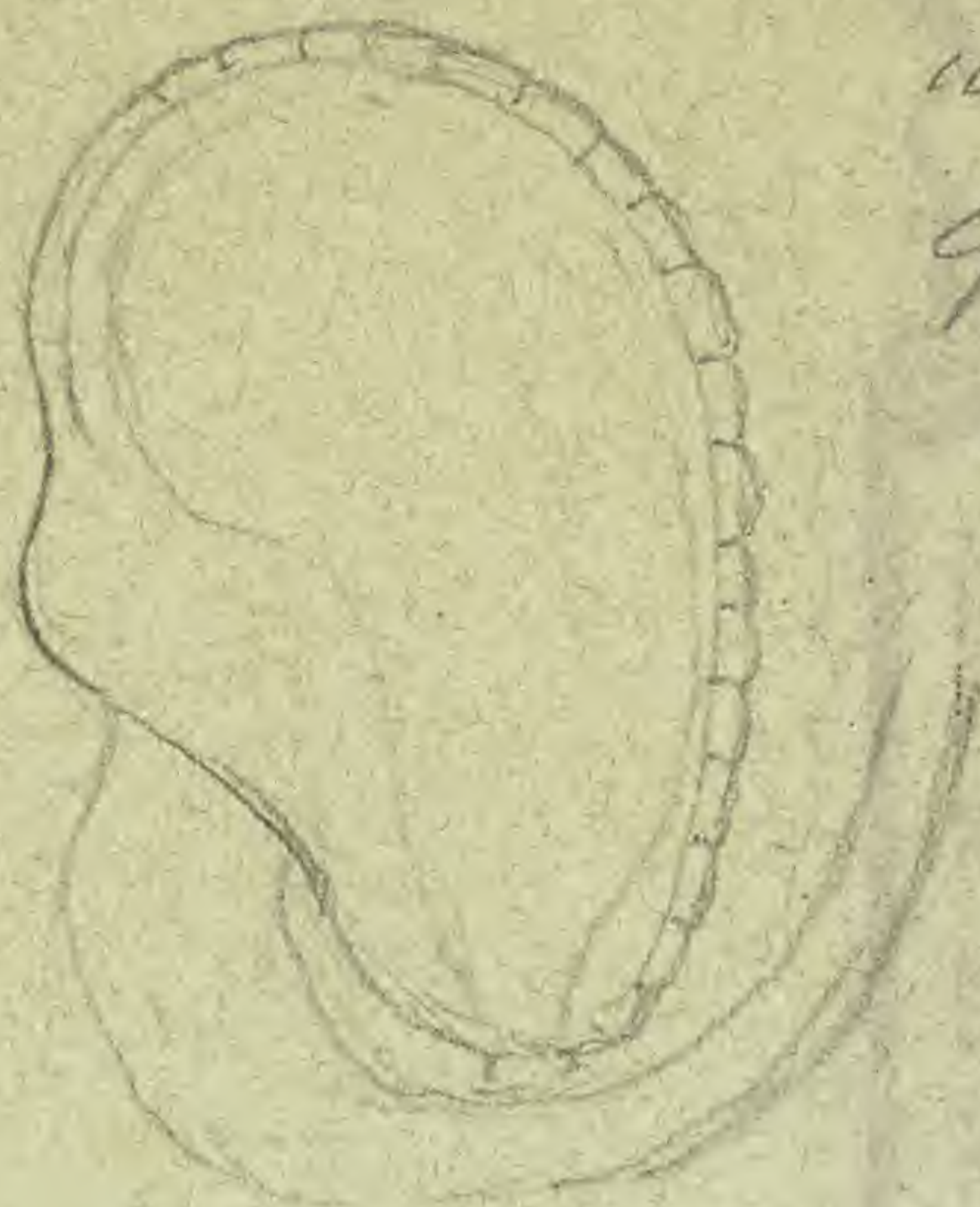
Cuba

seed soft and immature
but probably full grown

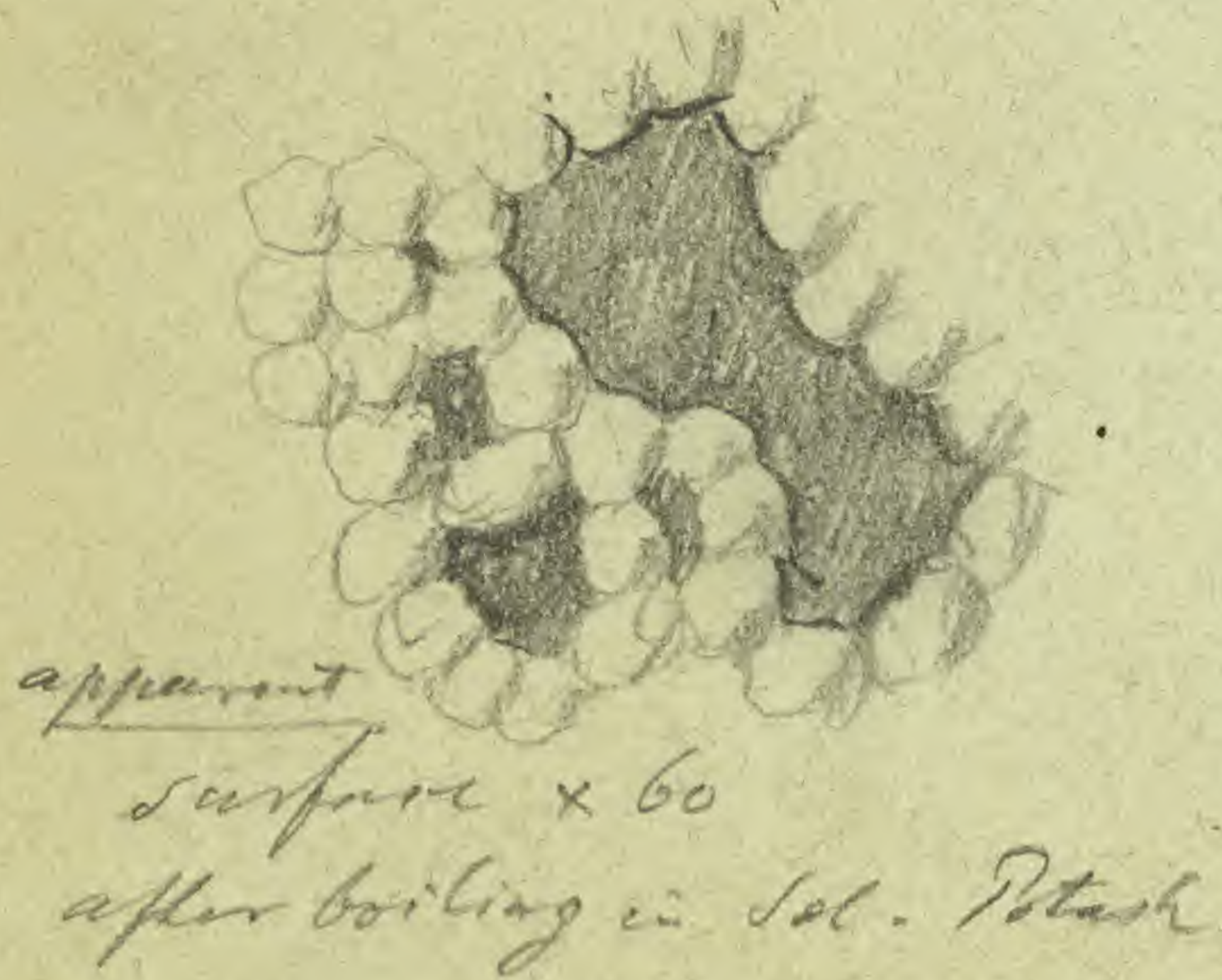
x8



x10



undeveloped ovule
of same young
fruit x60
boiled in
Potash



apparent

surface x60

after boiling in sol. Potash

fruit 6-8 lines long, with about 25
spines, areoles large truncate
umbilicus
flower remnant separating from
fruit by articulation
as in *Opuntia*

1706



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

CHEMIST



ALEX. LEITCH,
APOTHECARY & CHEMIST,
Cor. 4th and Olive Sts., St. Louis.

ALL THE NEW REMEDIES
CONSTANTLY ON HAND



MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

months of February, March, and April of last year, the average specific gravity of the urine was 1036, and the mean average of sugar eight grains to the ounce. The treatment was continued uninterruptedly. During May a notable increase in the proportion of uric acid became apparent, without any diminution in the proportion of sugar. As the summer advanced and the heat increased, the specific gravity rose to an average of 1040, with considerable increase in the sugar, which rose on several occasions to twenty grains to the ounce. The heat very much oppressed him. In September, the following form was substituted for the carbonate of ammonia and potash in lemon-juice: Phosphate of ammonia and carbonate of ammonia, each ten grains; and aromatic spirit of ammonia, half a drachm; in an ounce of water, added to the juice of a fresh lemon, and taken three times a day. This remedy was continued without intermission for the following four months, and with the most favorable results.

	Mean sp. gr.	Sugar per oz.
September (began the phosphatic salts)	1037	18 grs.
October	1040	18 grs.
November (great increase of urates)	1036	6 grs.
December 4th (large proportion of urea and urates)	1018	$\frac{1}{2}$ gr.
December 28th (urea and urates in excess; a large crop of crystals of oxalate of lime after cooling)	1024	Nil.
January 26th, 1869 (same as above as regards the urea, urates, and oxalate of lime)	1026	Nil.

I am reluctant to swell this communication beyond reasonable limits; but I cannot forbear to add that this principle of treatment by alkalies, especially by ammonia and its phosphatic salt, has been successfully em-

593-6

Cerrey

Cuba

1706A



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

it is the same patient to whom I administered the ozon
observing any beneficial effect, and whose case, in reference to this agent,
I mentioned in the *Lancet* a few weeks ago. The man, a middle-aged
person, was passing, under a restricted diet, about six pints of urine, con-
taining upwards of three thousand grains of sugar, in the twenty-four
hours. At first, after the ozonic ether had been discontinued, morphia
was administered in gradually increasing doses, beginning with half a
grain three times a day. The quantity of urine and sugar from day to
day declined, and, in the space of about three weeks, disappeared alto-
gether; the quantity of morphia administered at this time being a grain
and three-quarters three times a day. After a little while, the morphia
was taken off; and in a week's time the sugar began to reappear, and
went on from day to day increasing. This state of things was allowed to
continue for about a fortnight, when opium was given; and, under its in-
fluence, the sugar has again disappeared. I merely here allude to this
case; the patient, being still in the hospital, may be seen by any one
desirous of doing so.

Of what service as a curative agent, opium, in larger doses than it has
been customarily given, may prove in cases in general, I do not at present
pretend to say. Much more extended observation is required before this
point can be determined. Whatever may happen to be disclosed by sub-
sequent experience, it cannot be denied, I think, that we have before us
an important therapeutic fact.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

2620 *Cerius*

July 21 1870

Wright, Cuba

Cerium aculeata

x 8

seed
[near *Gemmatus*]

C. eburneus Schum
fide Griseb



1707



seed not cristate
testa thick and brittle

surface
of seed
x 60

surface
near base
of seed



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN



ALEX. LEITCH,

APOTHECARY & CHEMIST,

Cor. 4th and Olive Sts., St. Louis.



MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

Cereus quinquealatus
low flats near the seaside, Havana

July 22 1870

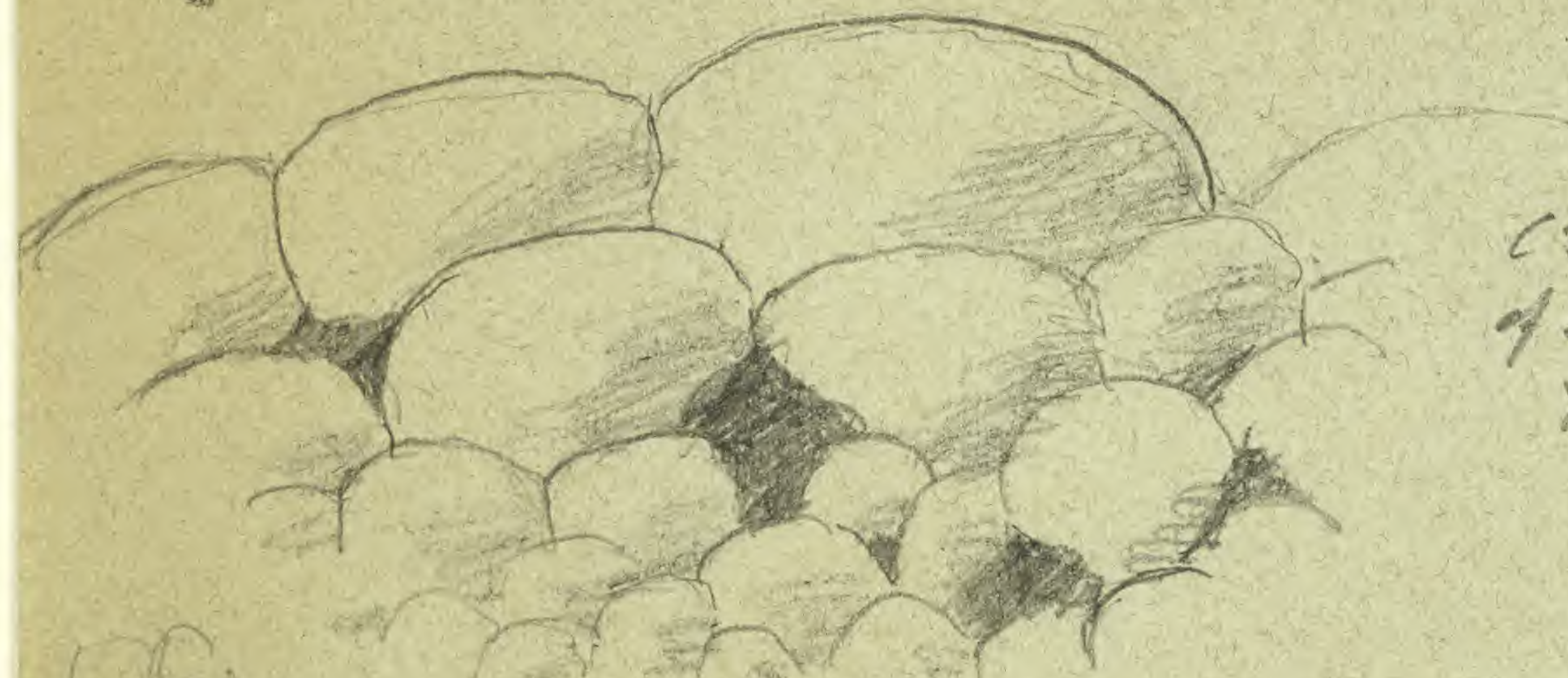
Ch. Wright, August
186...

fruit spiny



4 seeds examined
three with transverse
cotyledon
one with deliquescence

Crest
of seed
x60



Lower part of seed

1708



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

CHEMIST



ALEX. LEITCH,
APOTHECARY & CHEMIST,
Cor. 4th and Olive Sts., St. Louis.

ALL THE NEW REMEDIES
CONSTANTLY ON HAND



MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

2621. *Cerium*

July 21 1870

Wright, Cuba

1709



fruit



all embryos examined
with contrary cotyledons

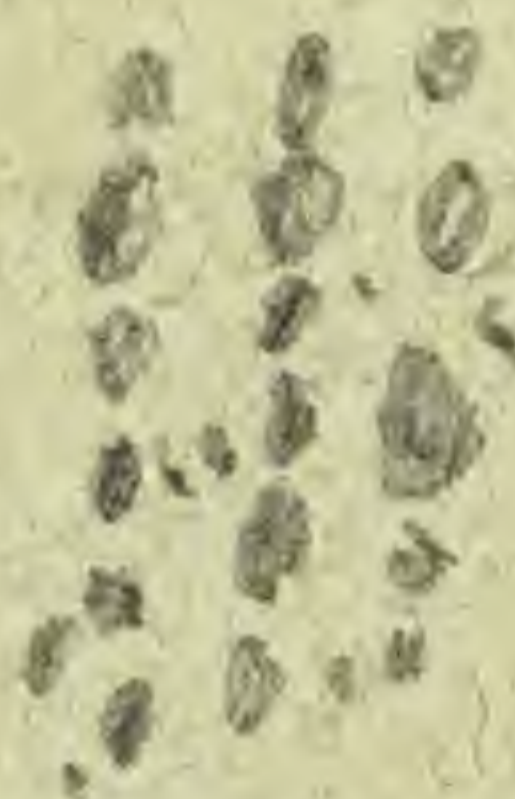
upper part of seed



not fully ripe
rown



ripe, black



towards base

surface of seed x 60



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN



ALEX. LEITCH,

APOTHECARY & CHEMIST,

Cor. 4th and Olive Sts., St. Louis.



MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved

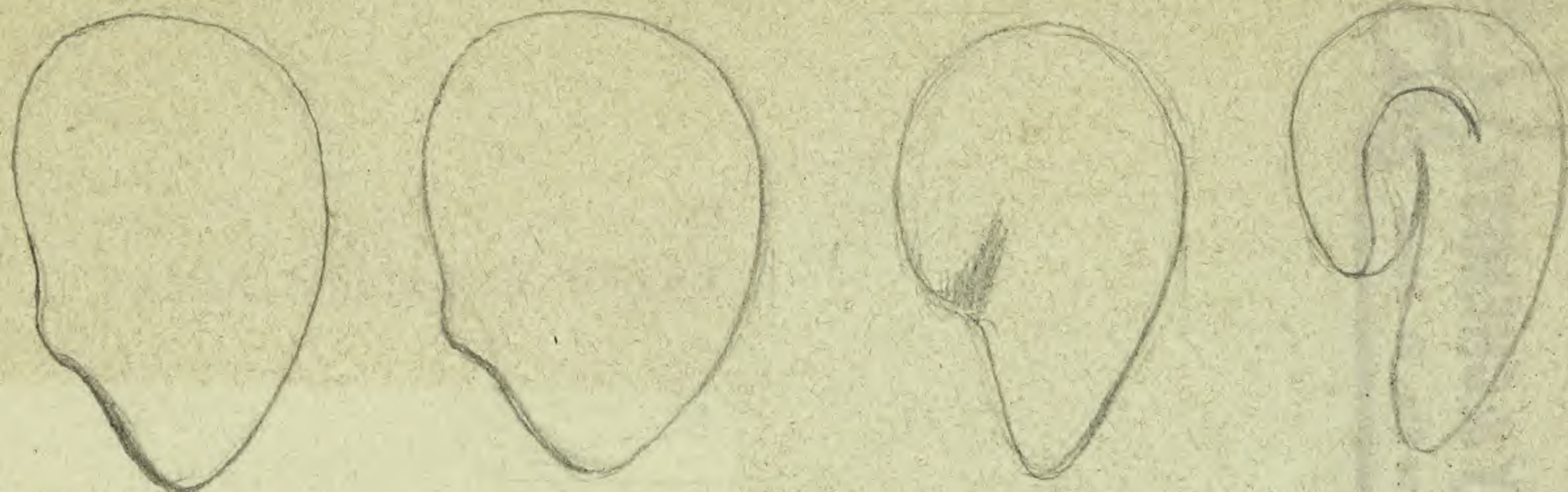


MISSOURI
BOTANICAL
GARDEN

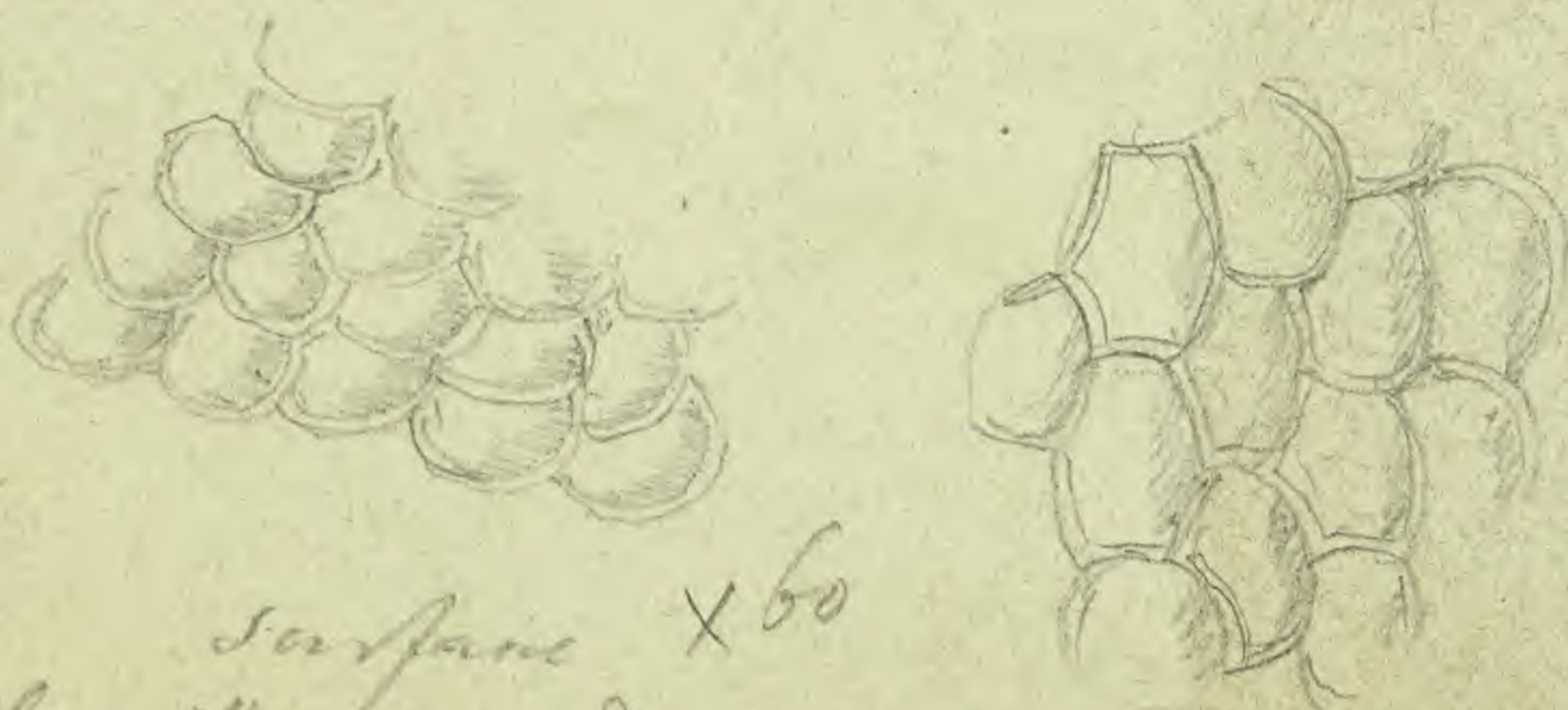
"*Cereus princeps*"

July 13 1870

Dr Poselger, Tampico, Aug 1850



seed shining, black,
very glossy



Surface $\times 60$
Cells with curved margins, thick
areae slightly convex

1710



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN



ALEX. LEITCH,

APOTHECARY & CHEMIST,

Cor. 4th and Olive Sts., St. Louis.



MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

other ways it affects the rate of progress of the Flora. The incoming of additional specimens may at a glance settle doubts as to the validity of a species; but new specimens are as apt to raise questions as to settle them, more commonly they raise the question as to the limitation and right definition of the species concerned, not rarely, also, that of their validity. When one has only single specimens of related species, the case may seem clear and the definition easy. The acquisition of a few more, from a different region or other conditions, almost always calls for some re-consideration, not rarely for re-construction. People generally suppose that species, and even genera, are like coin from the mint, or bank notes from the printing press, each with its fixed marks and signature, which he that runs may read, or the practiced eye infallibly determine. But in fact species are judgments—judgments of variable value, and often very fallible judgments, as we botanists well know. And genera are more obviously judgments, and more and more liable to be effected by new discoveries. Judgments formed to-day—perhaps with full confidence, perhaps with misgiving—may to-morrow, with the discovery of new materials or the detection of some before unobserved point of structure, have to be weighed and decided anew. You see

* I say "unhappily," for they adulterate the natural character of our flora, and raise difficult questions as to how much of introduction and settlement should give to these denizens the rights of adopted citizens.

Cor prints

Mexican

x

Gregg's
Mex

597-601

1710A



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

of those that have passed and, using their explorations over the remotest parts of the land, and into districts where there is most to be discovered. All can help on the work, and all are doing so, by the communication of specimens and of observations. Those within the range of the published manuals and floras get on—or should get on—with only occasional help from us. They should send us notes and specimens to any amount; but they should not ask us to stop to examine and name their plants, except in special cases, which we are always ready enough to take up. Those who collect in regions as yet destitute of such advantages may claim more aid, and we take great pains to render it; partly on our own account, that we may assort their contributions into their proper places, partly for the encouragement of such correspondents, who otherwise would not know what they have obtained, and who naturally like to know when they have made interesting discoveries.

But the scattered piecemeal study of plants is neither very satisfactory nor safe. And it involves great loss of time, besides interrupting that continuity and concentration of attention which the proper study of any group of plants demands. As respects the orders of plants which are yet to be elaborated for the Flora, and as to plants which require critical study or minute examination, necessarily consuming much time, it is better to defer their complete determination until the groups to which they severally belong are regularly taken in hand.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



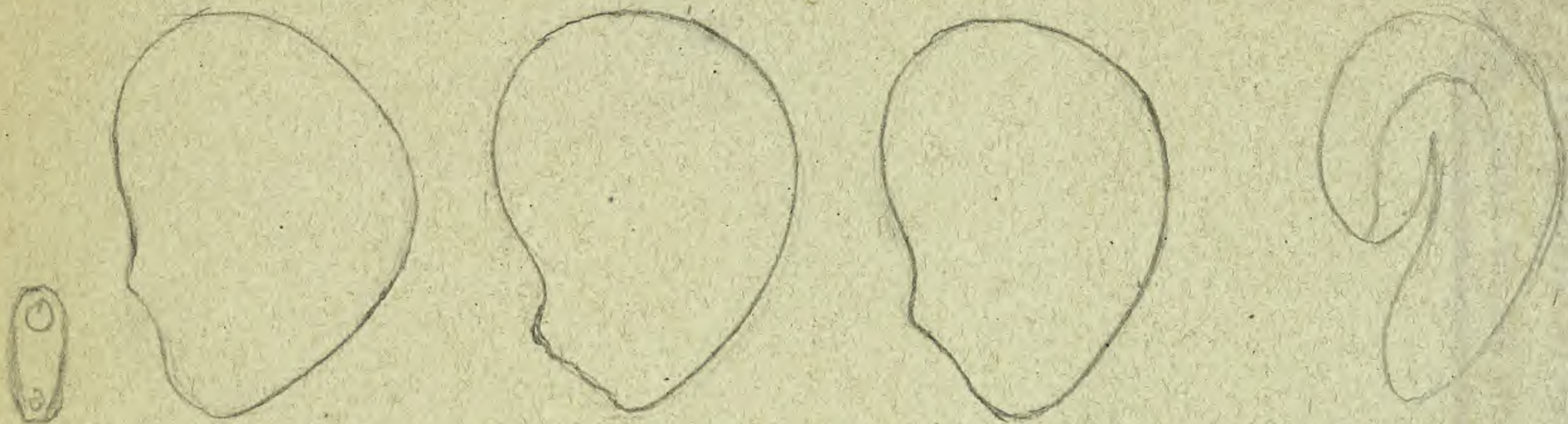
MISSOURI
BOTANICAL
GARDEN

Cereus pinnatus

July 13 1870

Matamoros, St Louis Volunteers 1846

1711



testa x 60 reticulated
areolar plane, rarely
somewhat convex or even concave



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN



ALEX. LEITCH,

APOTHECARY & CHEMIST,

Cor. 4th and Olive Sts., St. Louis.



MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

Dr. J. Gregg, No. 1239

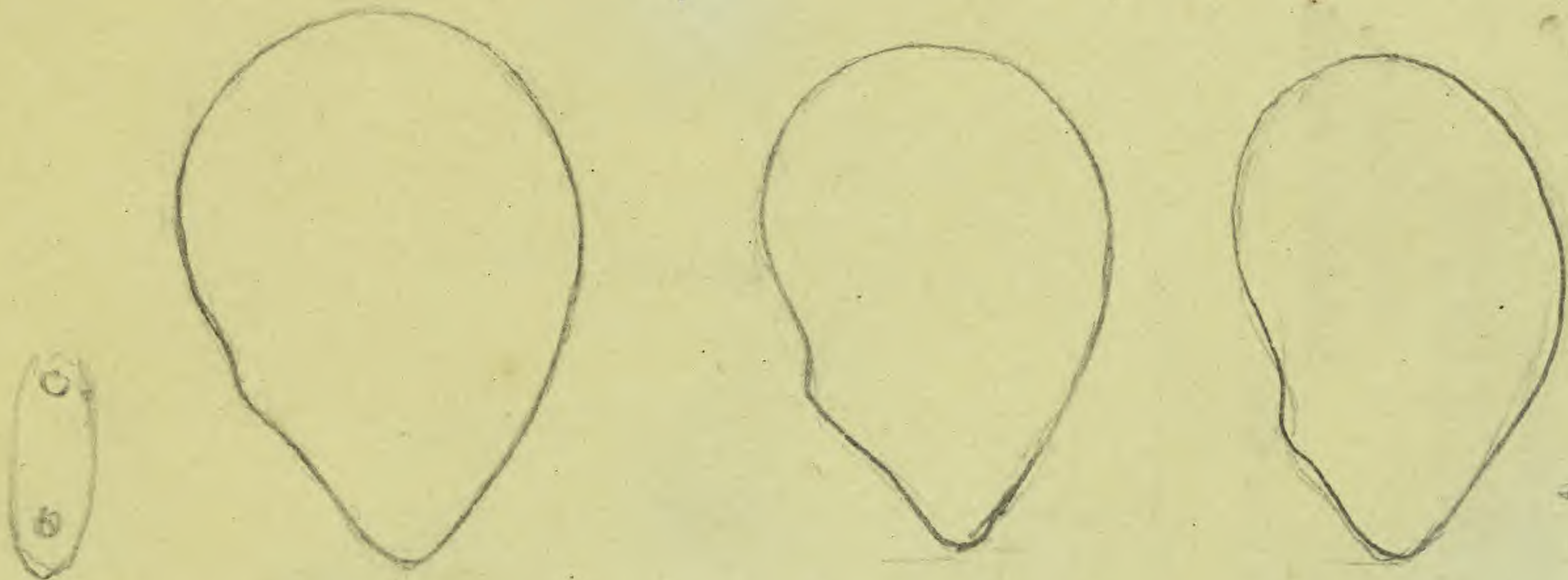
Cereus

June 23 1870

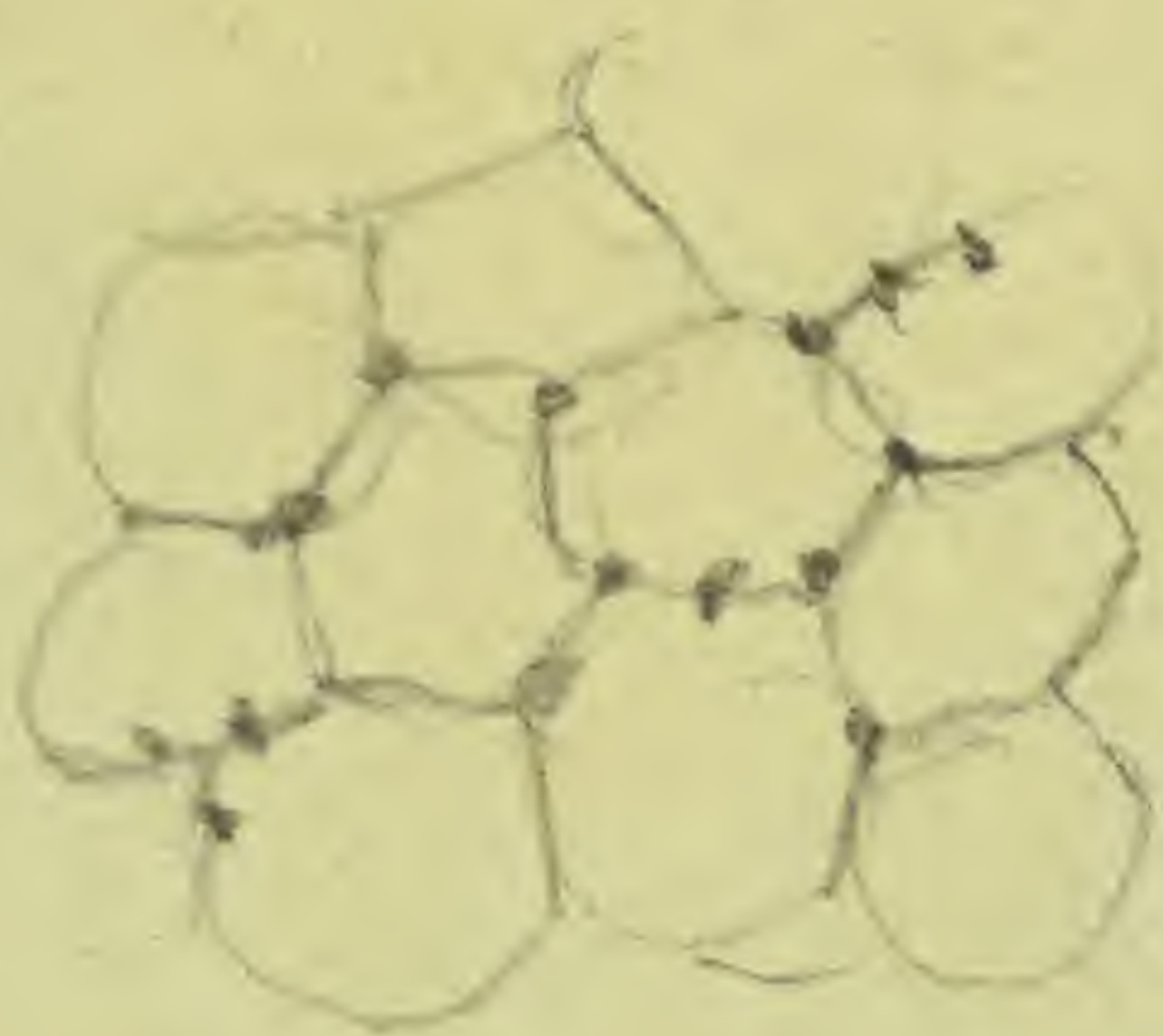
"Organo" Mazatlan, 10-30' high

Dr. Gregg, June 1849

x 5



seed not ripe



1712



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

CHAS. HABICHT & CO.,
Successors to

Enno Sander & Co.,

PHARMACEUTISTS,

Walnut & Fourth Sts.,

SOUTHERN HOTEL,

Walnut & Second Sts.,

BARNUM'S HOTEL,

ST LOUIS, MO.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

Dr J. Gregg No 1233
Hills near Mazatlan, June 22. 1849

Cereus

June 23 1870

x 8

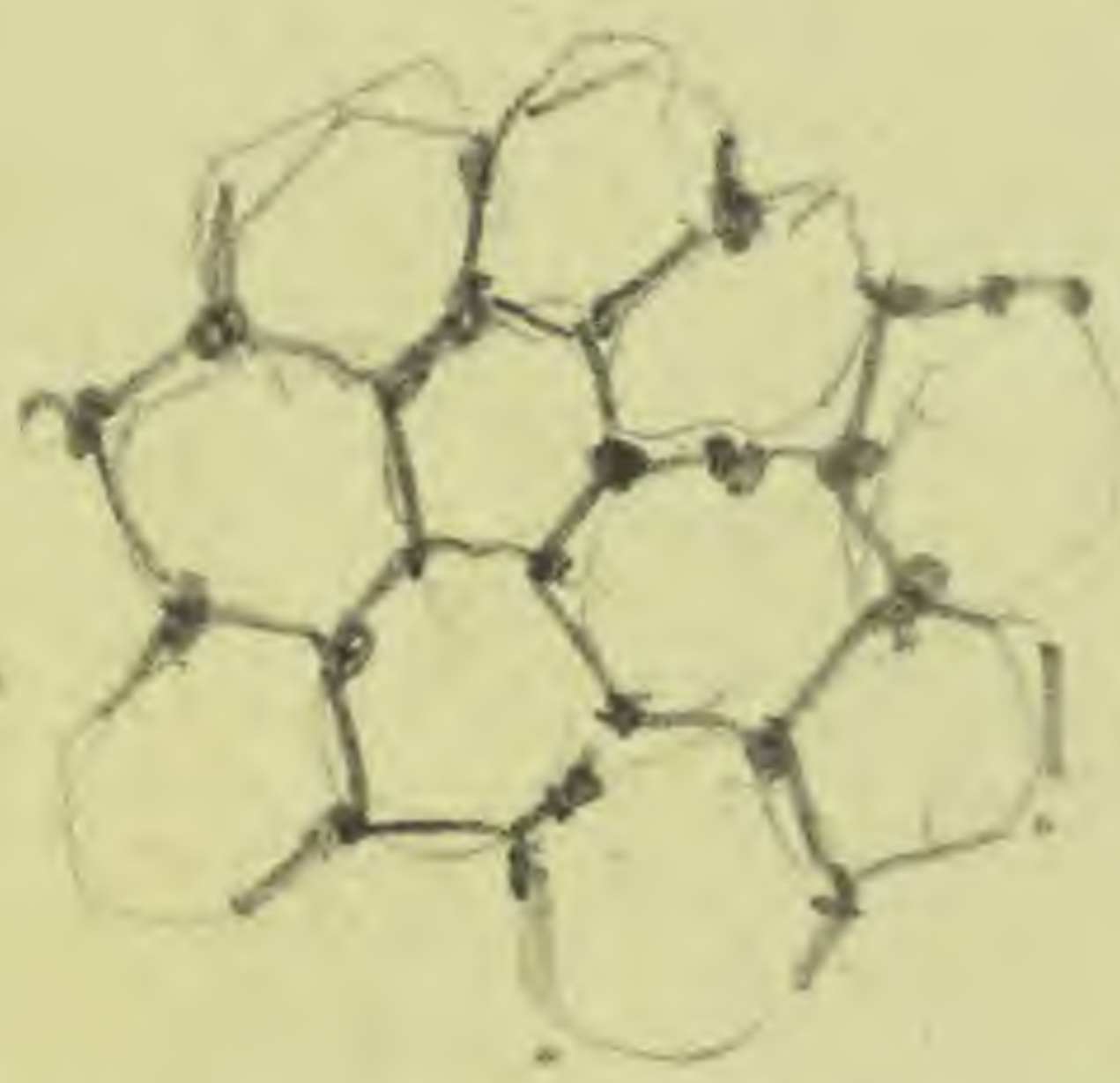
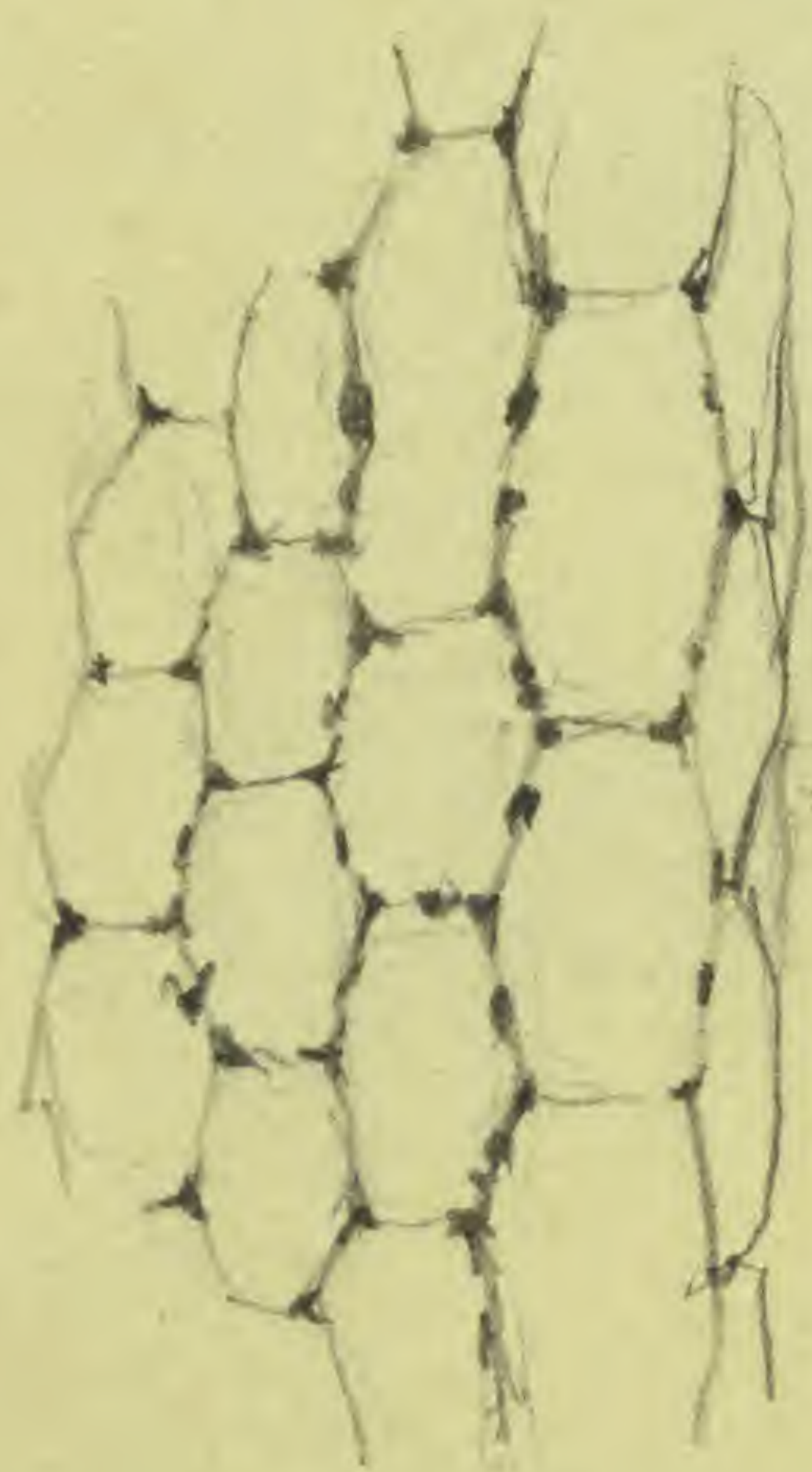


seed black, shining
seed not quite
ripe, embryo
undeveloped

1713

surface of seed, at posterior
Crista

x 60



surface of seed
in middle of side x 60

Surface reticulated, with small impressed
dots on the line of the cell walls (compare
Mendoza, Gil)



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

CHAS. HABICHT & CO.,
Successors to

Enno Sander & Co.,

PHARMACEUTISTS,

Walnut & Fourth Sts.,
SOUTHERN HOTEL,

Walnut & Second Sts.,
BARNUM'S HOTEL,

ST LOUIS, MO.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



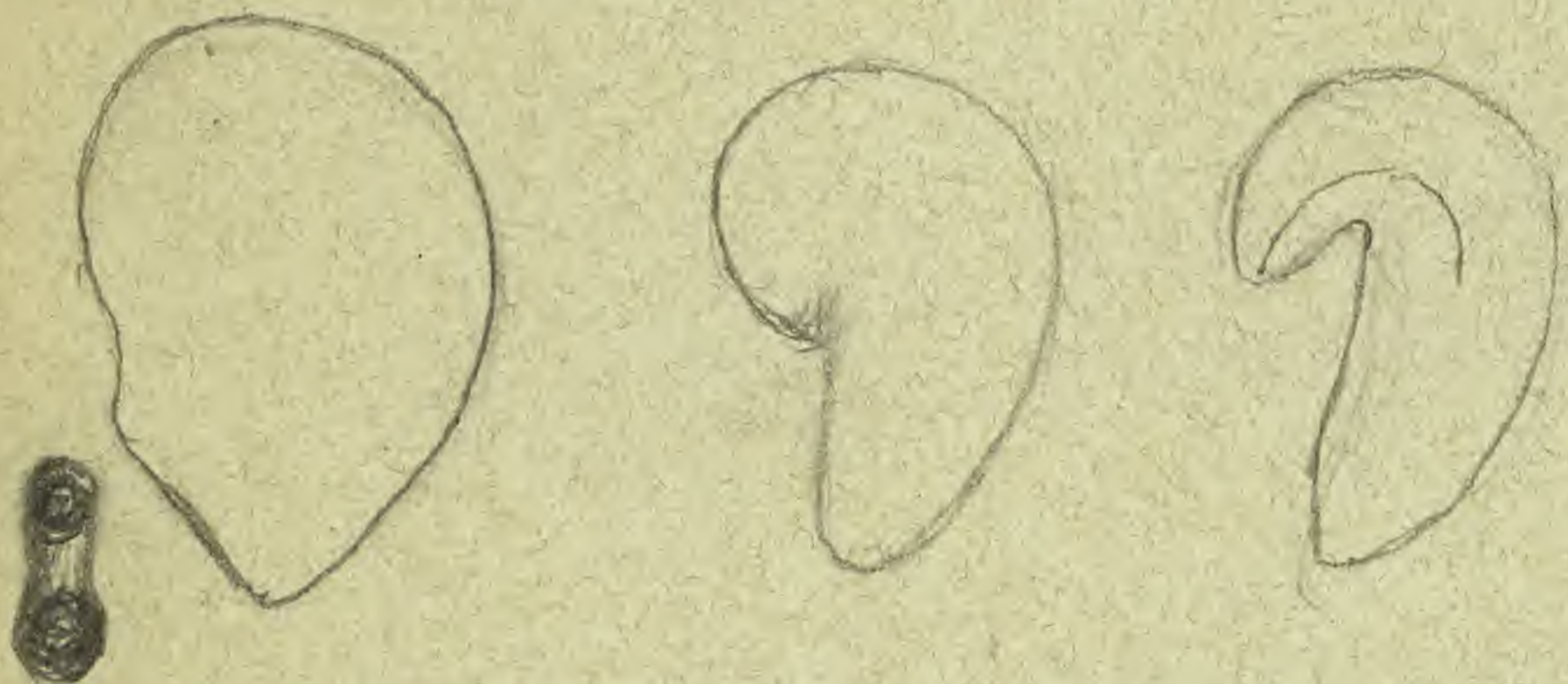
MISSOURI
BOTANICAL
GARDEN

Cereus

June 25 1870

Valley of the Rio Grande, Western Mexico, Dr. Gregg June 1849
stem 10 feet high, 4 angled

x 8



surface x 60
finely reticulated,
areae slightly convex
more towards the crista
beneath them a depressed dot

1714



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

CHEMIST



ALEX. LEITCH,
APOTHECARY & CHEMIST,
Cor. 4th and Olive Sts., St. Louis.

ALL THE NEW REMEDIES
CONSTANTLY ON HAND



MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN