



MISSOURI BOTANICAL GARDEN
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BOTANICAL NOTEBOOKS

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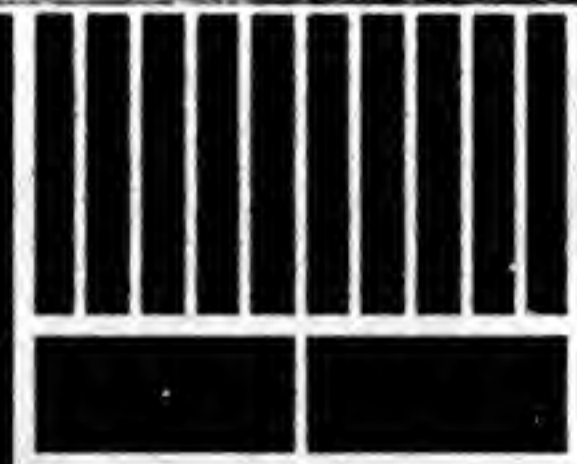
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II Graminifolii

3 Gramineae

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

297-369



0 1 2 3 4 5 6 7 8 9 10

cm

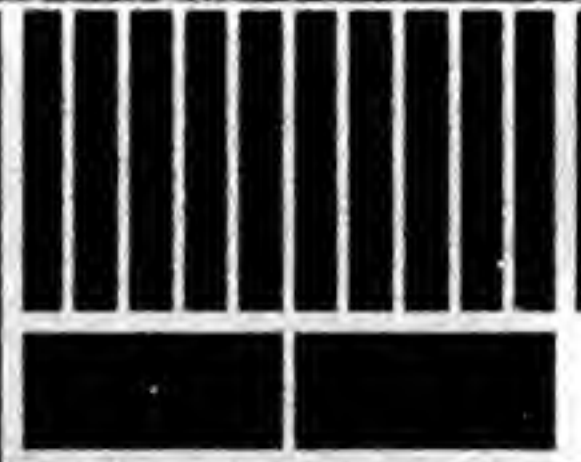
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MISSOURI
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GARDEN

9254A

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cm

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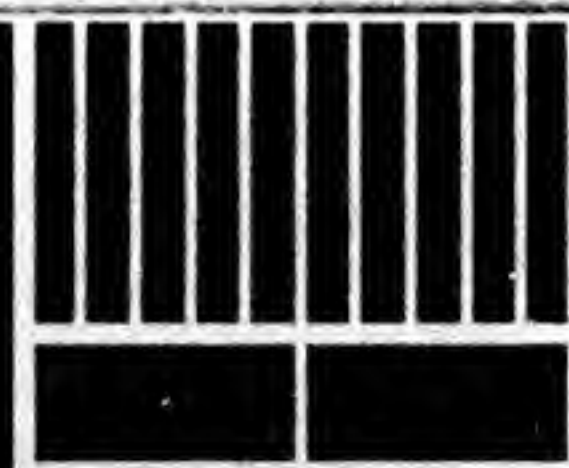


MISSOURI
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GARDEN

9254B

MISSOURI BOTANICAL GARDEN
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DC bank
T. G. I. 313



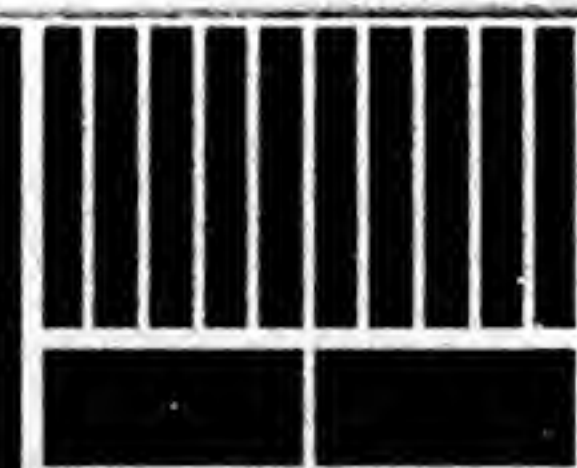
0 1 2 3 4 5 6 7 8 9 10

cm

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GARDEN



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

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MISSOURI
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GARDEN

J. obtusatus

309-11



0 1 2 3 4 5 6 7 8 9 10

cm

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GARDEN

Amer bor

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0 1 2 3 4 5 6 7 8 9 10

cm

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H. B. Fr 1825

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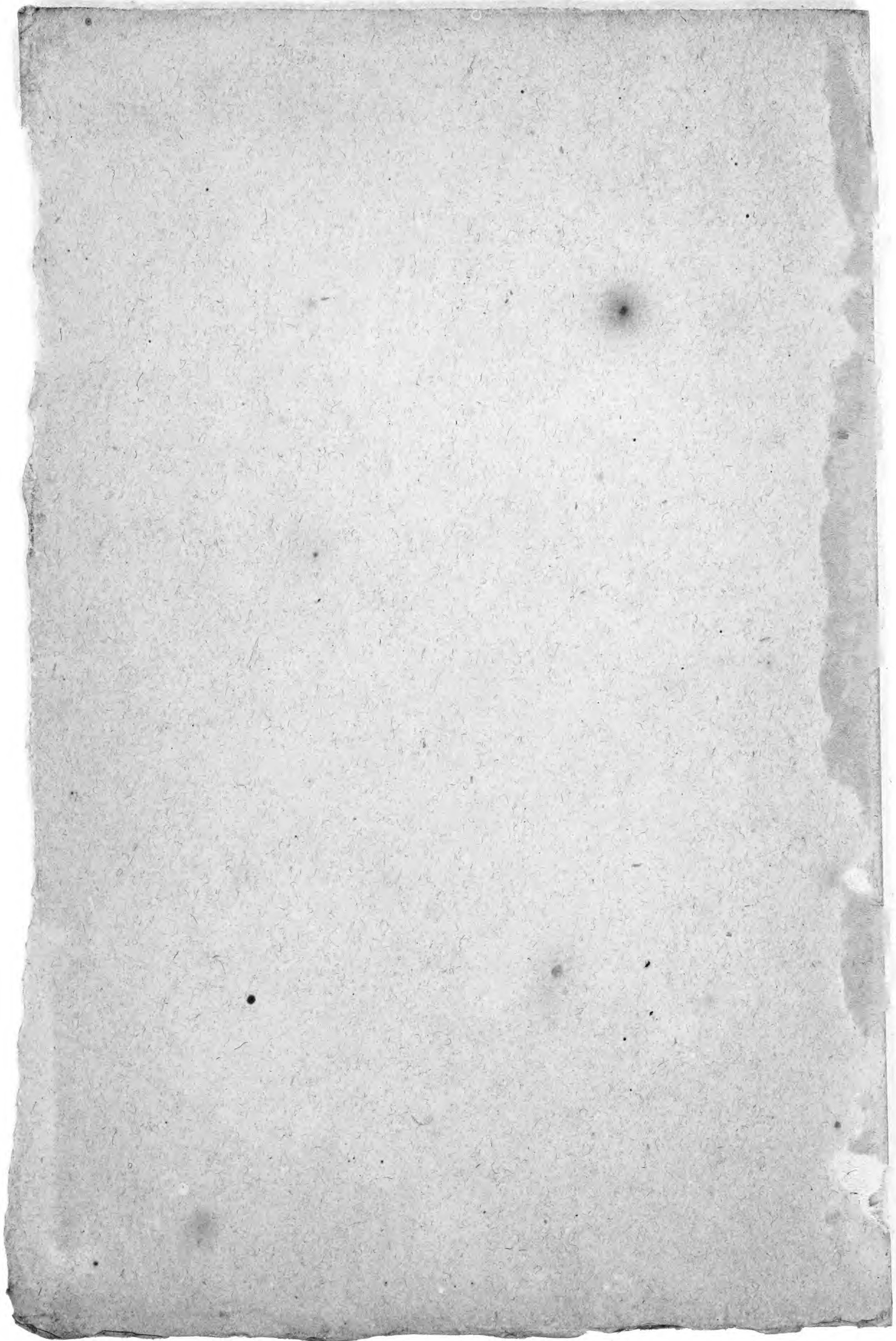


0 1 2 3 4 5 6 7 8 9 10
cm

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cm

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MISSOURI
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6028

Juncus longistylis
~~var~~ *obtusatus* n. sp.

Aug 31 1866

HG norm 42

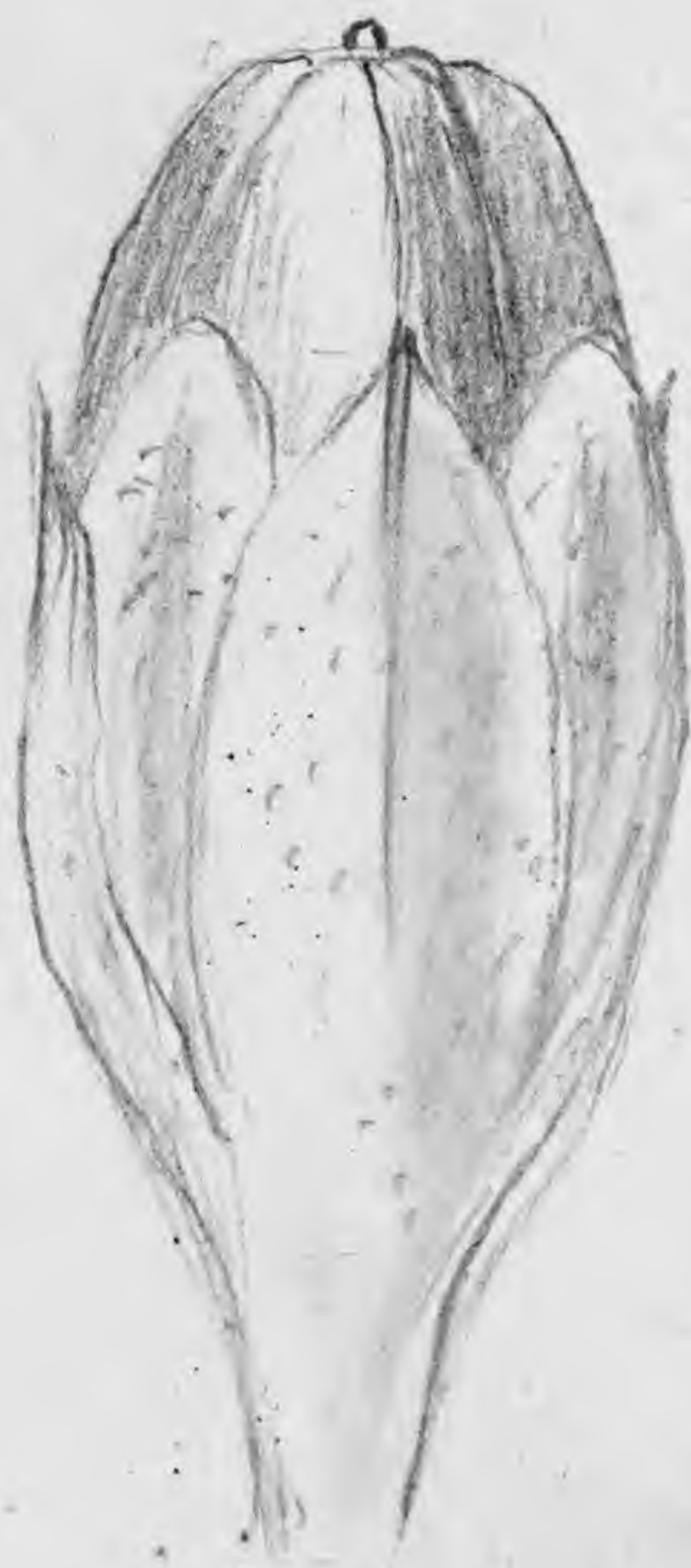
Big Creek, Mariposa,

July 25 1866

H. Bolander



Seed quite
unripe



Large plant

sepals
obtusiusculis
plenque mucronatis



0 1 2 3 4 5 6 7 8 9 10

cm

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APOTHECARY & CHEMIST,

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cm

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6028

Tobleria

July 29 1867

Yosemite valley



about 8 ribs
visible
seed not ripe,
reticulate,
areae apparently
smooth

leaves as long as stem

no annular stipule



0 1 2 3 4 5 6 7 8 9 10

cm

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6/15
0.25

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0 1 2 3 4 5 6 7 8 9 10

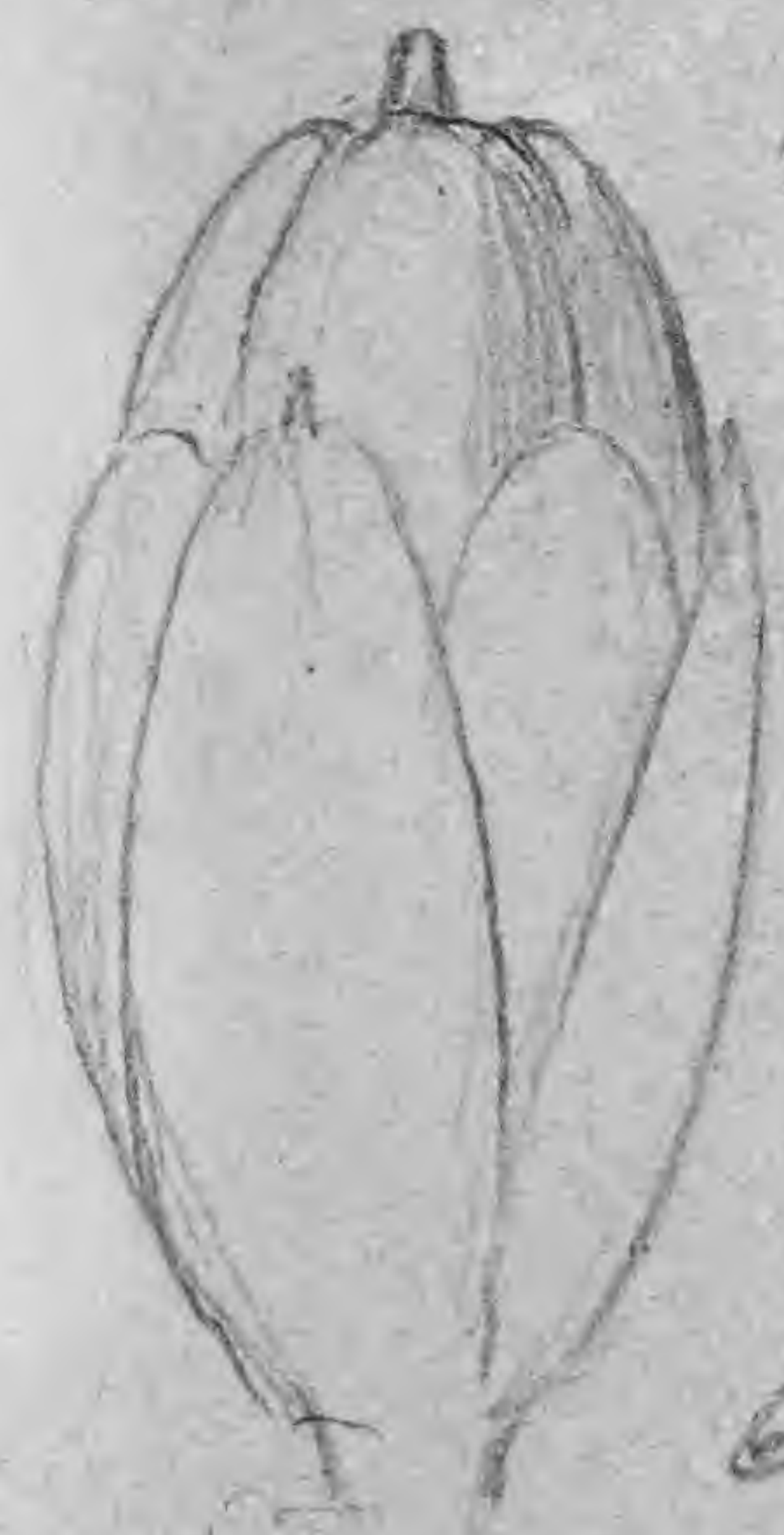
cm

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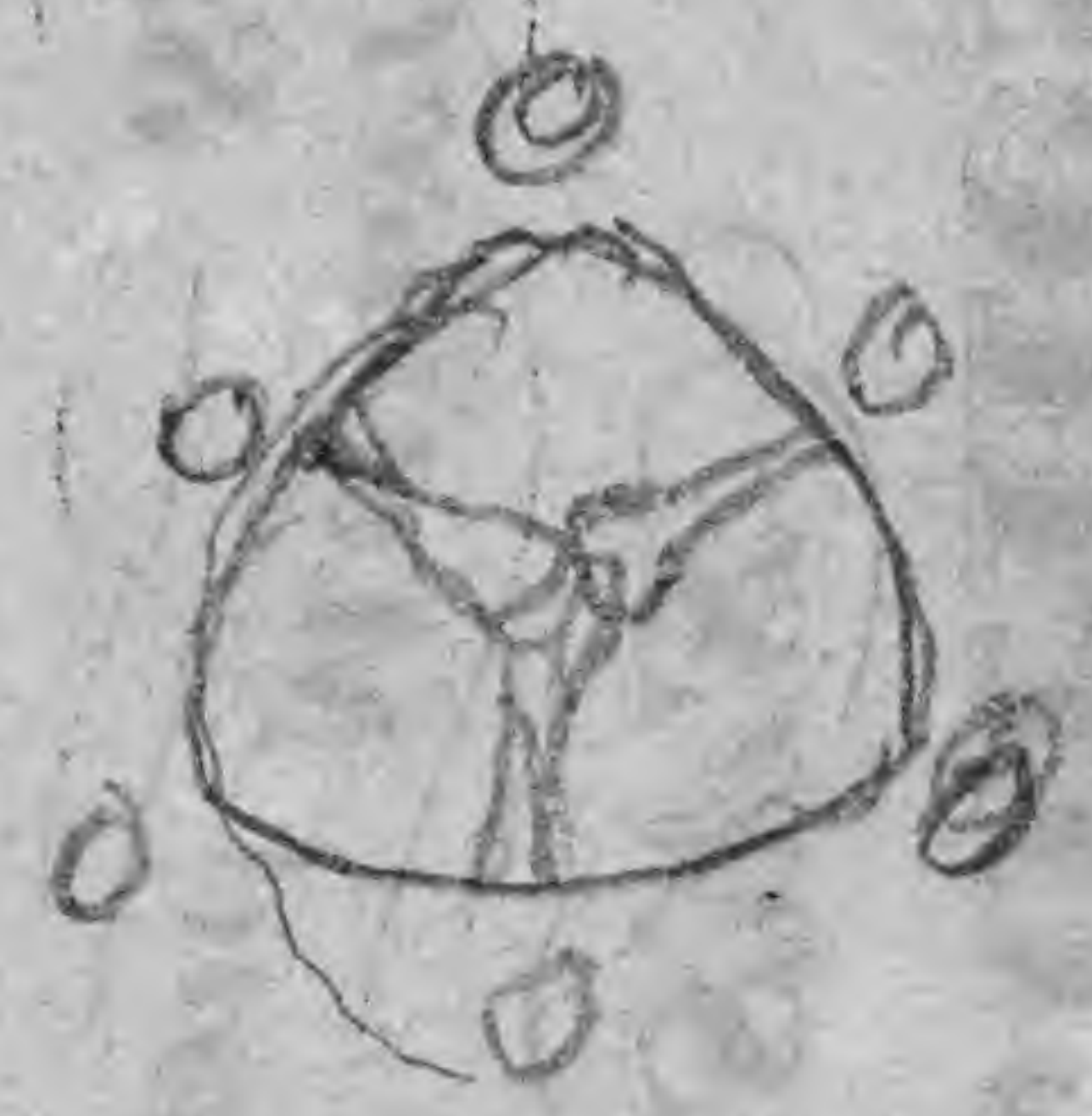


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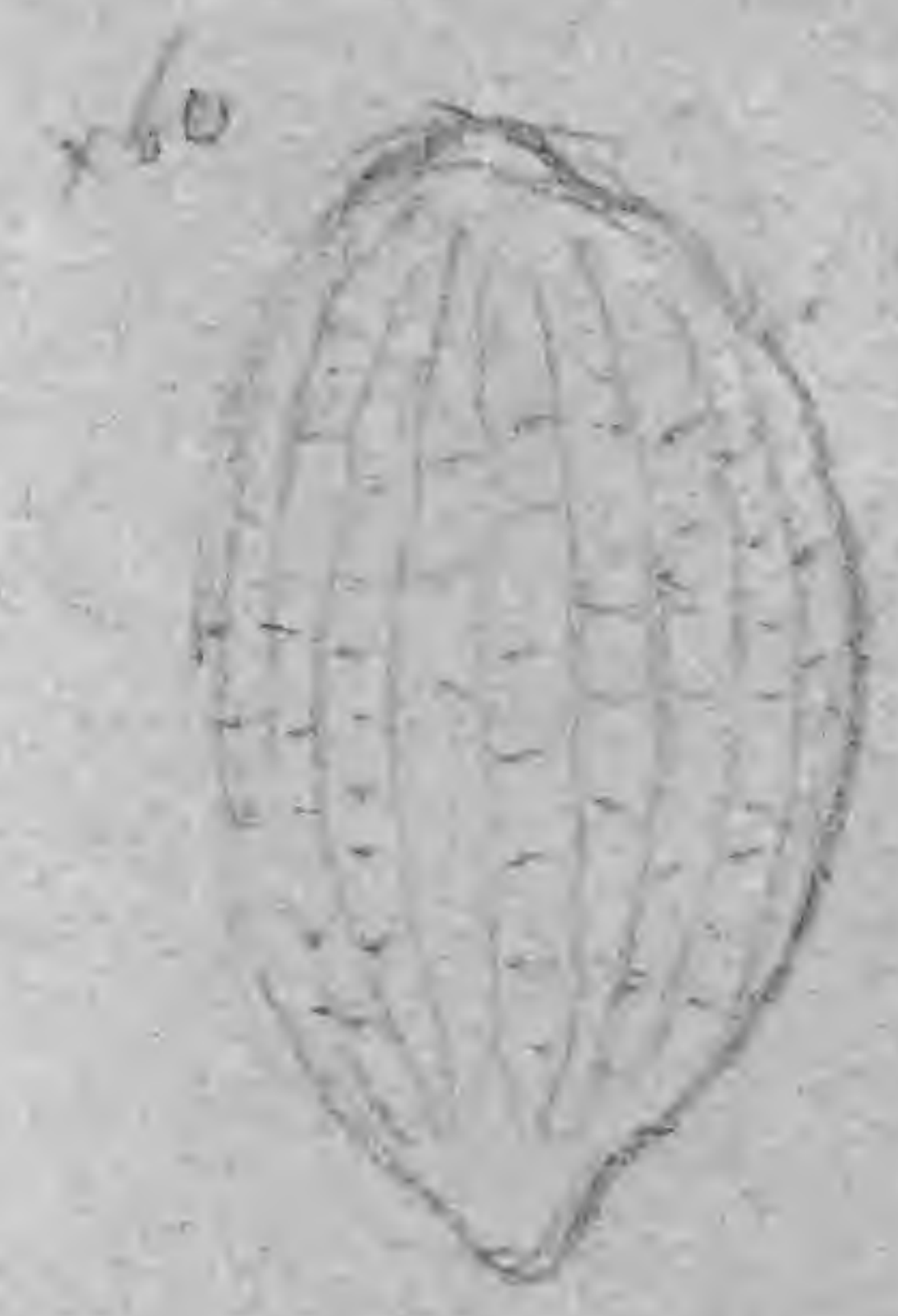
Juncus blussetii Nov 7 1881
San Bernardino Mts.
J. B. Parrish Aug. 1881



x10



6 stamens



x60

x150



transverse
ridges incomplete



0 1 2 3 4 5 6 7 8 9 10

cm

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Leitch & Corlies
CORRIEUX'S
South West Fifth
Corner Fifth and Market
Streets

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J. longistylis Torr Bot Soc
J. Meyersii var *californica*?
 Gray - H. P.

118

297-308

TRANS. OF THE ACAD. OF SCIENCE.

interrupted descent and ascent took place from January to December, we find in 1862 some interruptions in the steps of that ladder. The electricity in February, 1862, is about four degrees higher than that of January, April somewhat higher than March, and July is the lowest instead of September in 1861. These trifling irregularities may be accounted for by differences in temperature and relative humidity, and by a greater number of thunderstorms in 1862. January of 1862, for instance, was so unusually rainy, that its relative humidity too was unusually high, diminishing thus electricity. But the general features of distribution of electricity throughout the year are apparent in both years, and we may in that respect divide the twelve months of each year into two or three groups. Computing the months which give the highest electricity and those which give the lowest in each year, we find that in both years the months of January, February, March, April, November and December exhibit the highest, and the months of May, June, July, August, September and October the lowest electricity. The first group gives

The aggregate monthly mean of 71.5 degrees of electricity in 1861	and 74.6	"	"	"	"	1862
While the second group gives 29.0	"	"	"	"	"	1861
and 25.7	"	"	"	"	"	1862

The second group prevailed therefore in 1861, and the in 1862

leaves much shorter than stem



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WISLIZENUS—ATMOSPHERIC ELECTRICITY. 117

VI. The appearance of negative electricity was connected in

1861. No. times.	1862. No. times.	
30	32	with thunderstorms.
23	28	with rains without thunder and lightning.
20	4	with dry storms (without rain and without thunder and lightning).
4	3	with snow.
1	0	with fog.
78	67	

VII. *Relation of Rain and Snow to Electricity.*

Rain without thunderstorm was accompanied

	By Positive Electricity.	By Negative Electricity.	By no Electricity.
In 1861			



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cm

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Isomon longistylis

Terr

Aug 16 1865

Bot Burd 223

Wright 1924

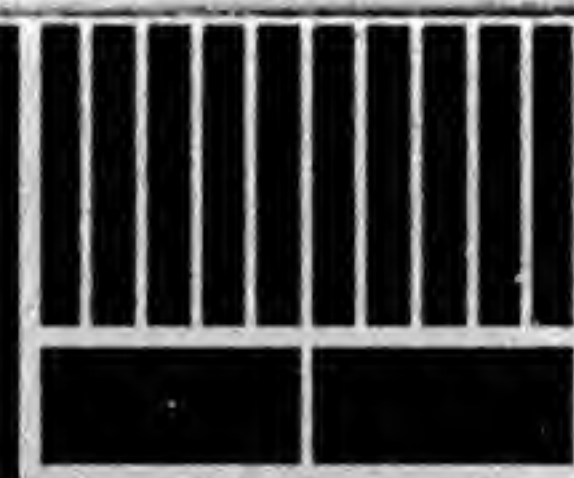
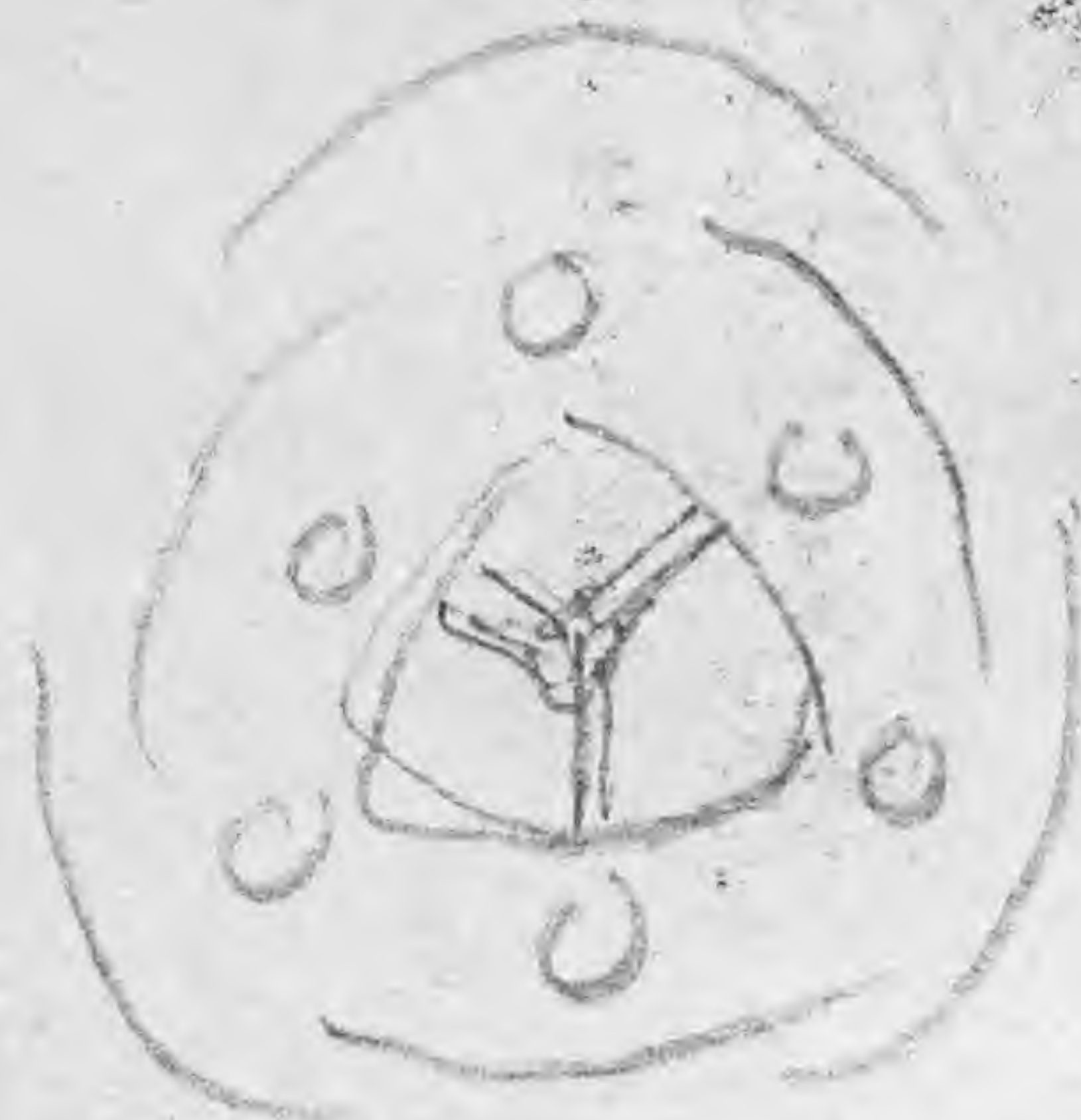
x60



not ripe



x10



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cm

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cm

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Transverse section of stem x10

Fendler 857

Trigonostemon *Neogyne* *Alb.*
var *Californicus*

Aug 19 1865

Halls' & Parry's the same
566 361

x60

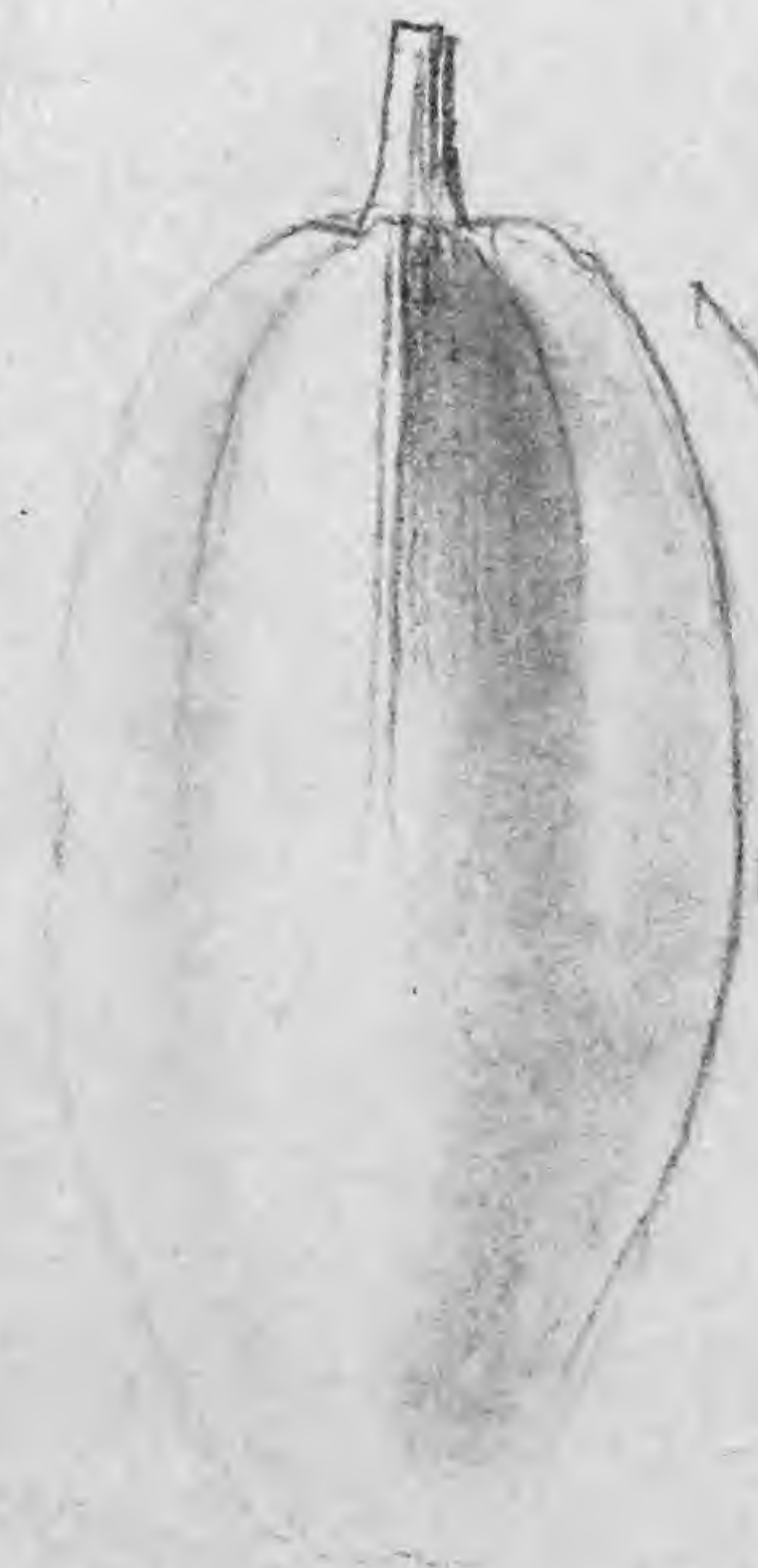


March 1866
lower end

8-9 slight
ribs
no cross bars
striation
minutest!



x10



anther



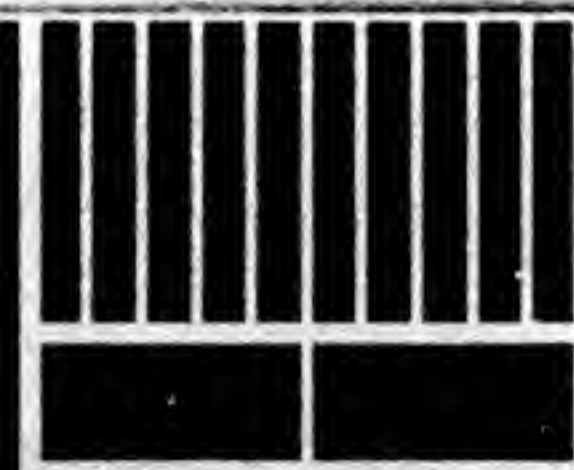
Interior sepals
shorter & more obtuse

Seed striated or ribbed

cross network
scarcely visible



obtuse mucronate capsule
as long or a little shorter
than cuspidate sepals



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cm

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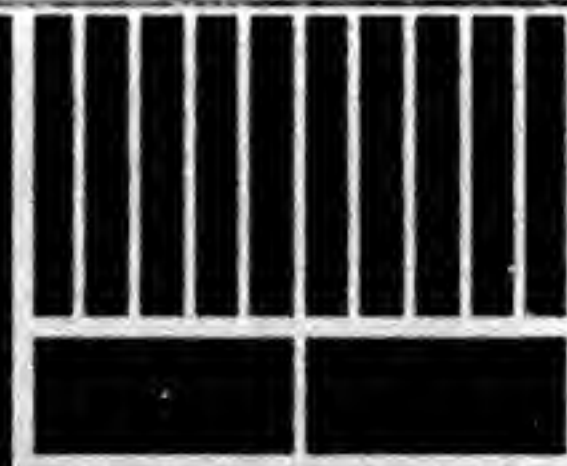
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cm

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Juncus longistylis

Nov 23 1865

sub nom *J. Castaneus*

Saskatoon on F. Durango 1855

H. C. Gray

x60



x150

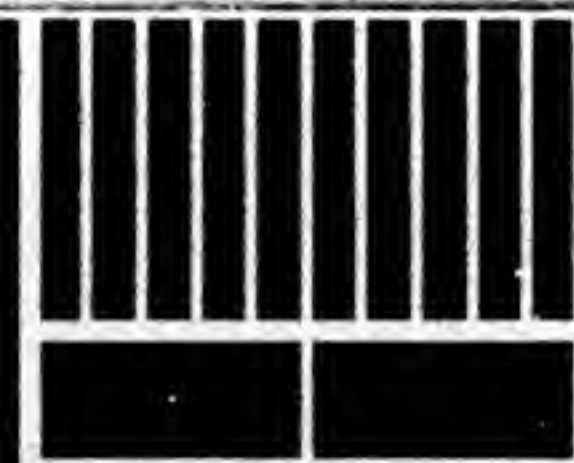


2

not fully ripe

F. L. Colville

F. Lyall
1861



0 1 2 3 4 5 6 7 8 9 10

cm

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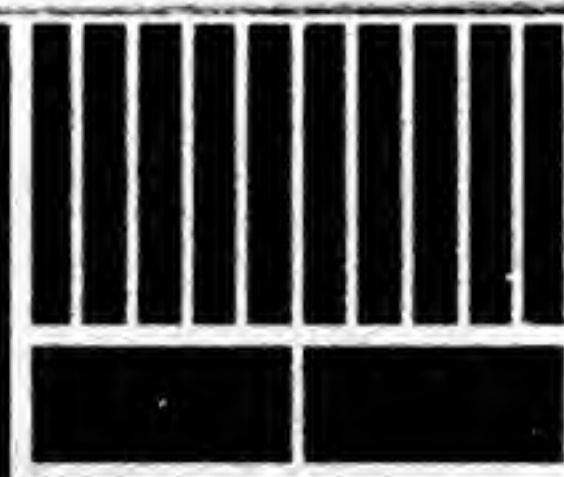
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cm

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J. Mayrissii var
Hall. 566

Sept 2^d 1865

x 10



sect of stem



base



middle

sect of leaf



sect of a leaf of
Fendler's



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cm

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cm

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8035?

Hb. nom 44 *Junonia longistylis*
var *latifolia*
Yosemite Valley Cal.

Aug 6 1866

H. Bolander
July 4 1866

x60



7-8 ribs



x150



larger seed
are more
scarcely

lineolate



inner sepals rarely obtuse
shorter



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6029

Juncus longistylis

July 31 1867

(Hb. norm 43)

Banks of Mono Lake

Sept 1866

J. H. Bolander

seed perfectly ripe

x60



reticulation
8-9 ribs, very
delicate, more so
than in most other
species

unripe seed
strongly
ribbed!

lower smooth
lower appendage and shape
whitish

large plant



0 1 2 3 4 5 6 7 8 9 10

cm

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6035-

Juncus longistylis

July 31 1867

var. *latifolius*

sepals asperis

Yosemite valley

#6 Bolander
1866

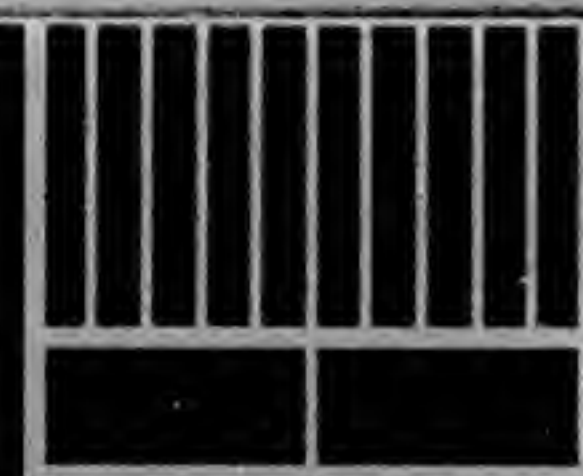
HB norm 44



about 8 ribs
very distinct
but cross bars
faint, areae
almost smooth.



no accessory
St. puber.



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cm

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J. longistylis

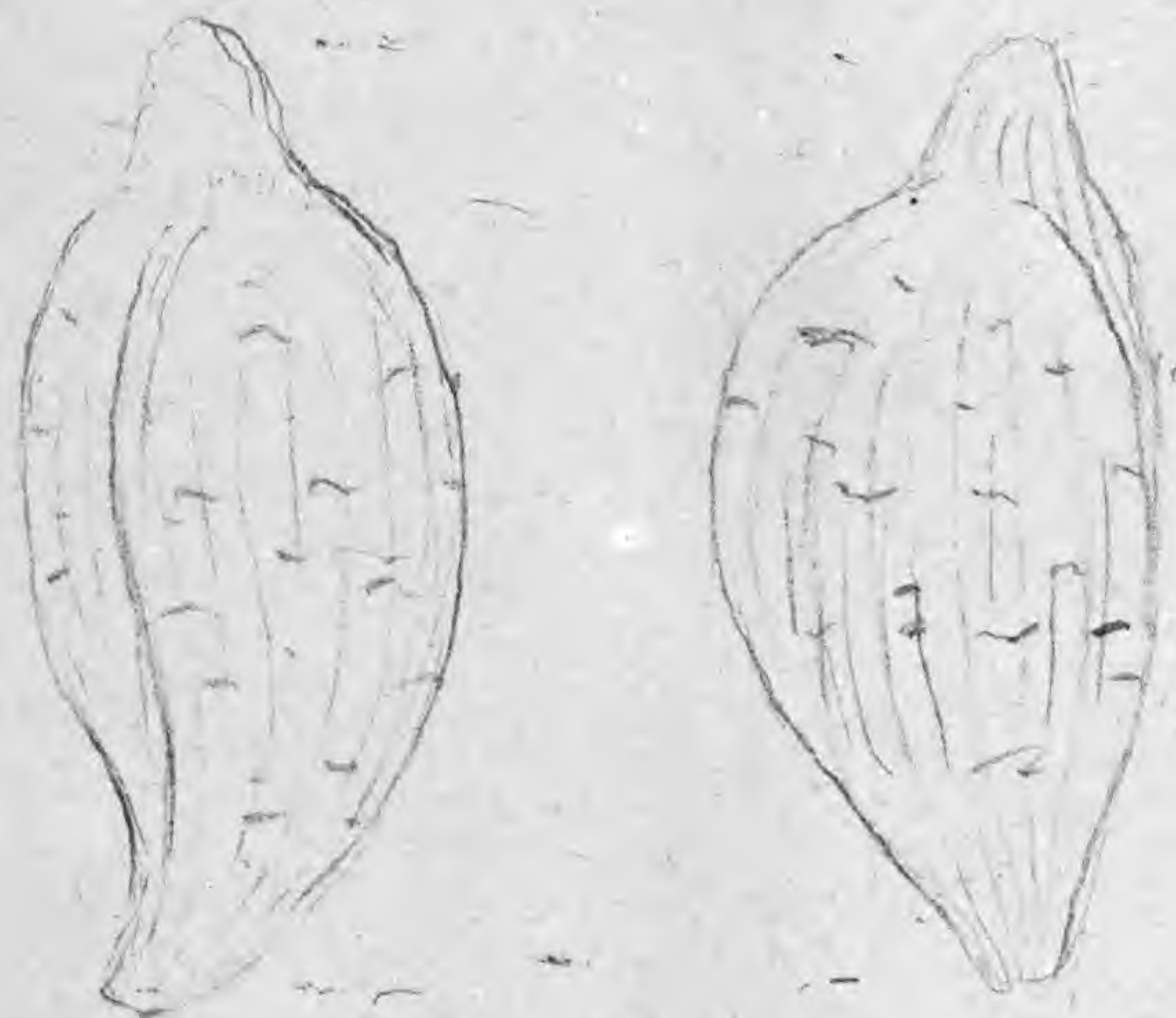
Oct 2 1967

Huerfano Valley

Dr Parry

Aug 1967

x60



very large placenta

semina apiculata
striata vix rugis
transversis indistincte
reticulata



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Juncus longistylis

He Philad.

Gray Engelm.

Saskatchewan
Fort Edwille to R.M.

Bourgeau (B)
Lyell

N Mex 1924

Wright 1924

" 857

Fendler 857

Colorado 631

Parry 631

" 566

Hall 566

Fort Whipple.

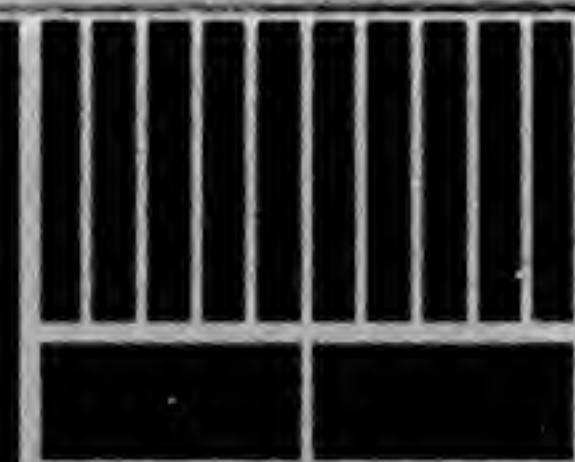
Coues

Red River of the North

48
(Hubbard

Yosemite Valley, Calif

Lapham)
Dolan



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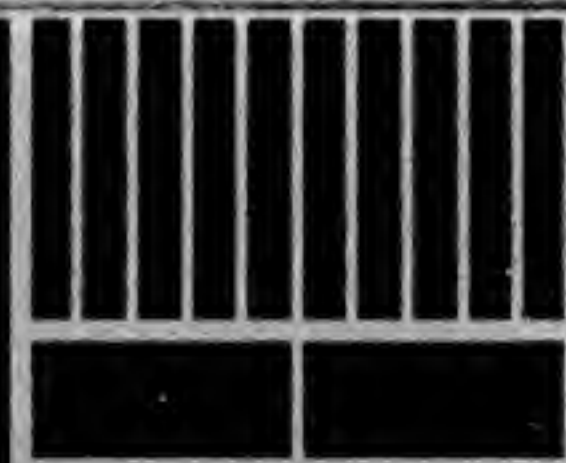
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Sept 24 Taylor & LaPraix Sanmill 4300' alt

Juncus longistylis

San Bernardino Mts

densely caespitose, stems
foliaceous, leaves concave

panicled lax, heads 3-5 fl

sepals lanceolate very acute

green broadly, membran

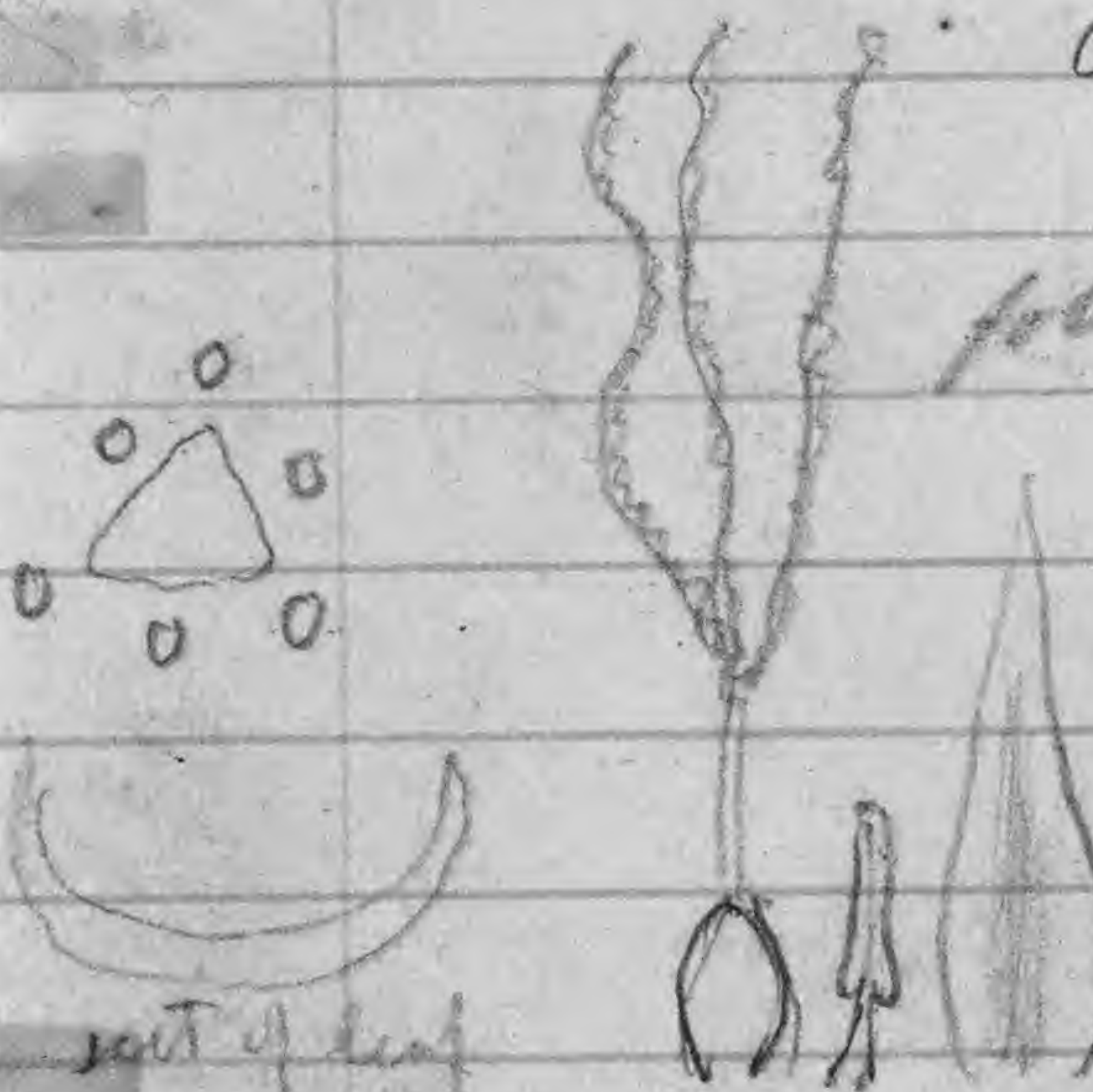
arous, on margin

6 stamens, anthers linear

glomerules 3-5 fl long as filaments, style

longer than 3 ang to ovary stigma insertion

twice as long as tube



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

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Albom-lute ~~the same~~
Zeit & Ort ~~von~~ ~~der~~ ~~ersten~~ ~~Erfindung~~
No 22 ~~der~~ ~~ersten~~ ~~Erfindung~~ ~~in~~ ~~Paris~~ ~~1840~~
Brief - ~~an~~ ~~Tricht~~ - ~~dem~~ ~~Reich!~~ ~~Die~~
Worth, ~~Kunst~~ ~~und~~ ~~Verfahren~~

Red Rose ~~in~~ ~~Paris~~ ~~(~~ ~~dem~~ ~~ersten~~ ~~Mal)~~
Bill - ~~(~~ ~~Rose~~ ~~)~~ ~~in~~ ~~Paris~~ ~~(~~ ~~dem~~ ~~ersten~~ ~~Mal)~~
Ange ~~von~~ ~~Paris~~
No 22 ~~mit~~ ~~der~~ ~~ersten~~ ~~Erfindung~~ ~~in~~ ~~Paris~~
Vale ~~de~~ ~~Paris~~ - ~~Colorado~~ ~~und~~ ~~Indien~~
Adbe ~~in~~ ~~Paris~~ ~~(~~ ~~dem~~ ~~ersten~~ ~~Mal)~~ ~~20~~

69269



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cm

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MISSOURI
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Juncos

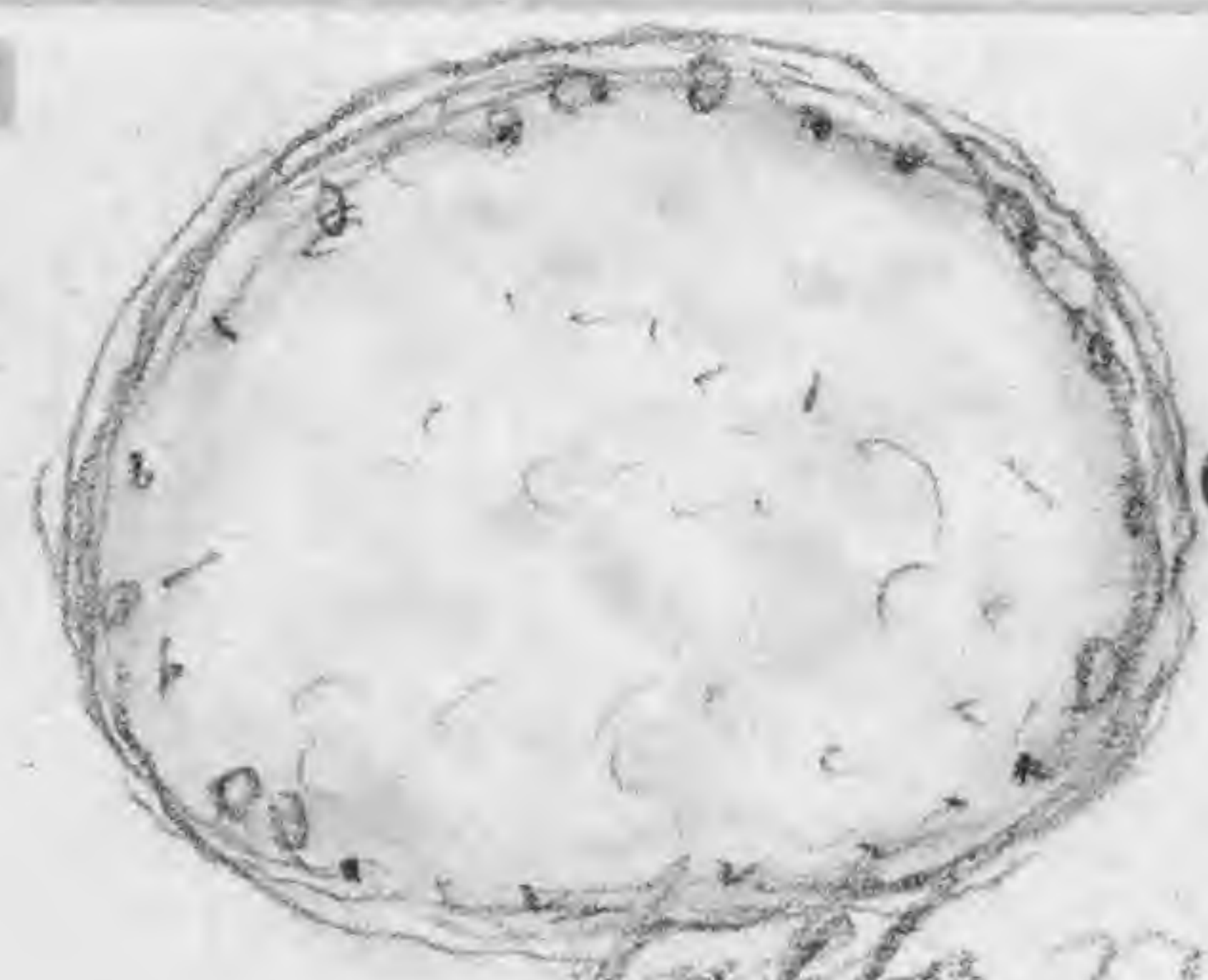
April 24 1866

No 48. Coues & Palmer, Fort Whipple, Arizona

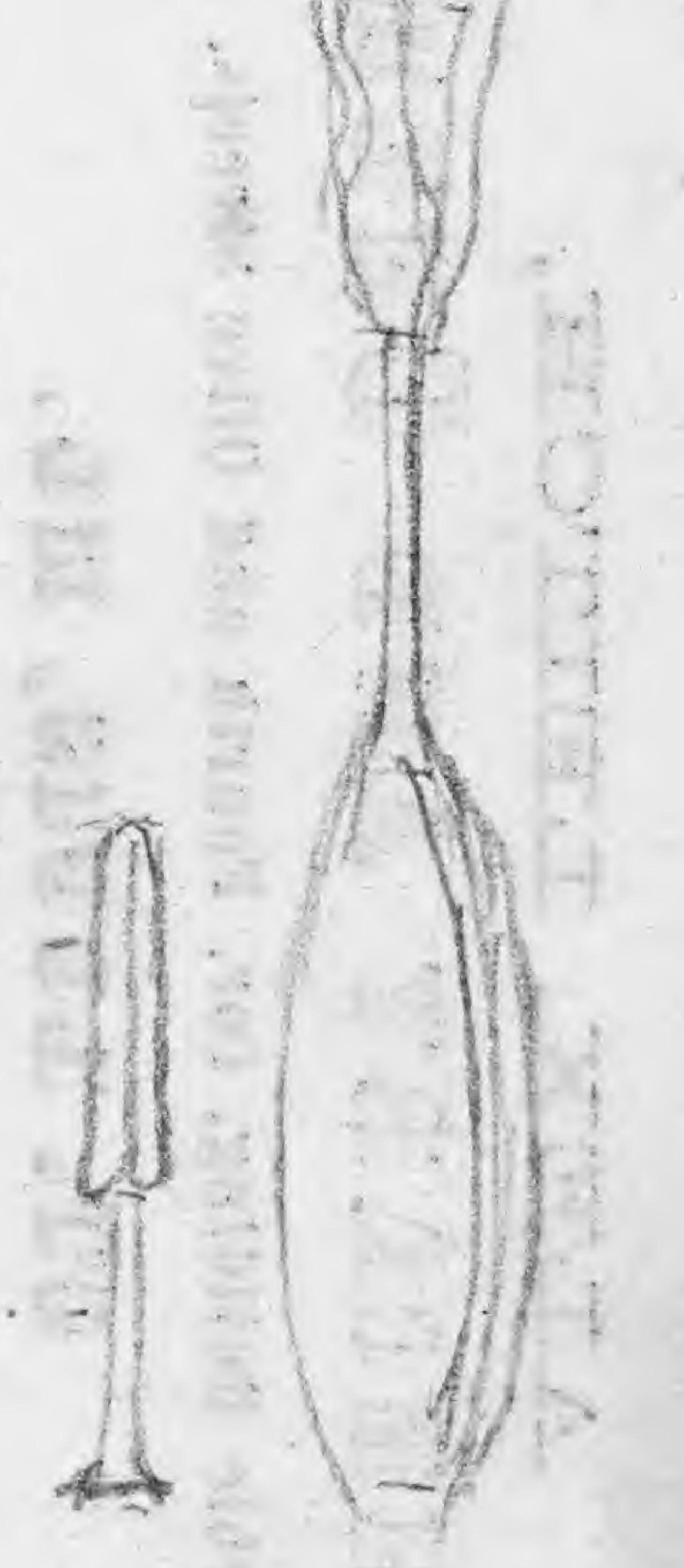
sect of stem x10 - part of

heads 3-5 flowered

1865



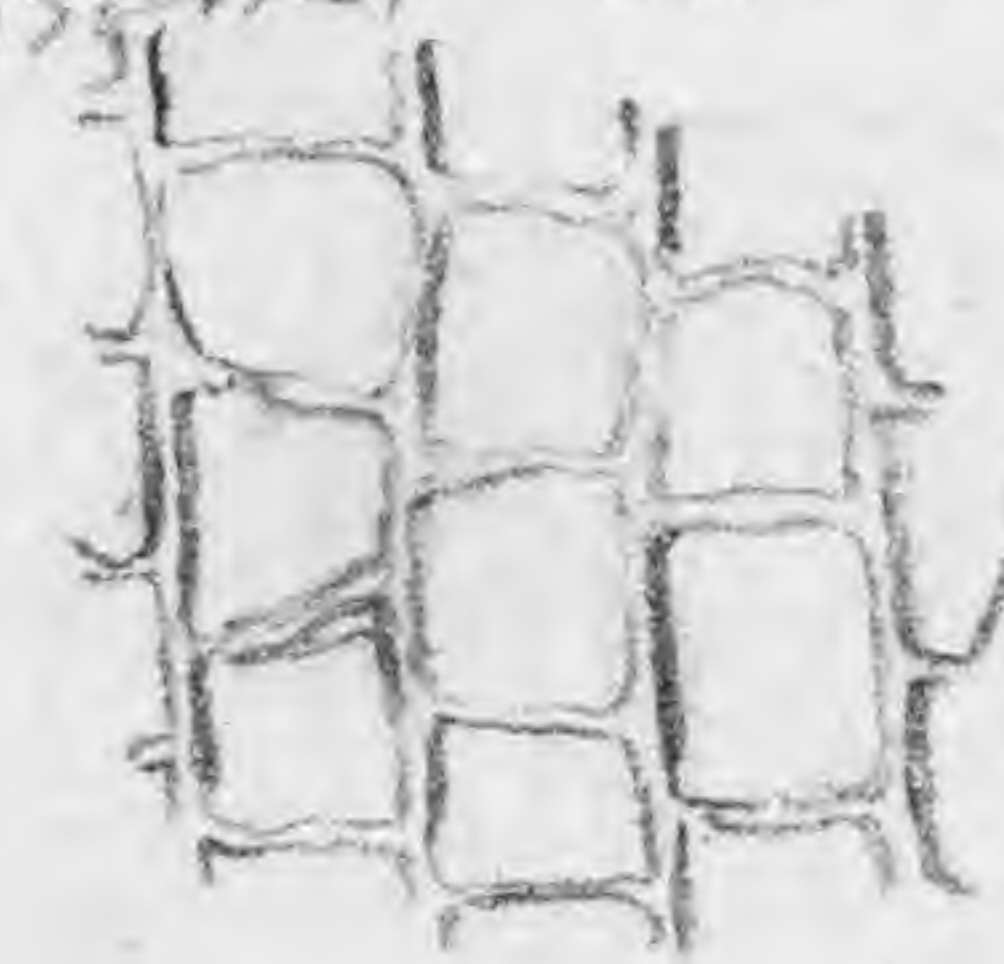
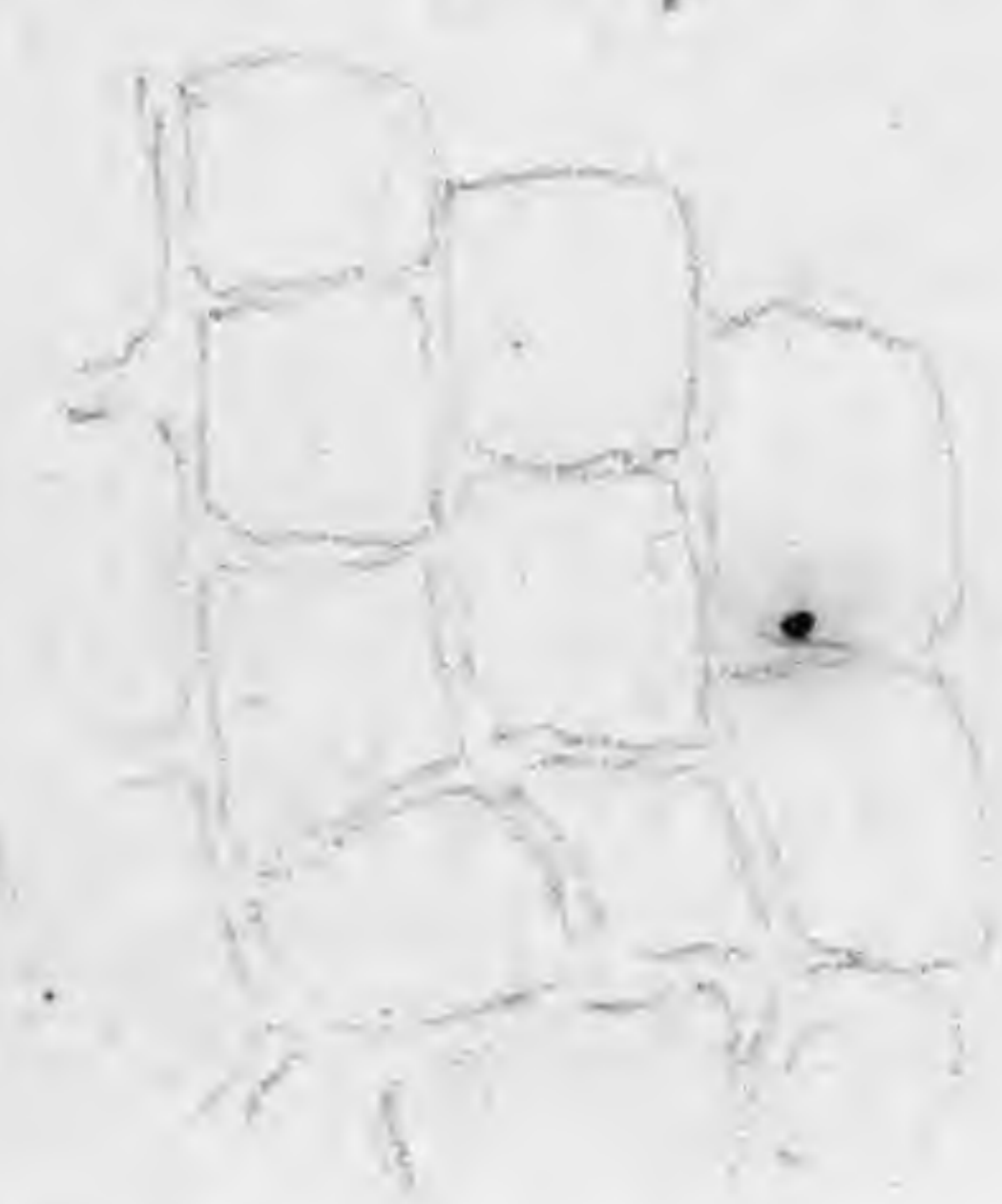
fatty ripe seed



6-8 ribs visible

reticulation very indistinct sometimes

is ripest seeds?



perhaps not so ripe

areal smooth



0 1 2 3 4 5 6 7 8 9 10

cm

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J. Lehmannii, Meyer = *Hb Hook - Castanum*
nulli in

Juncus Lehmannii Fisch.

J. strictus J. M.

Hudsons bay. determ. E. Meyer

This is the label of a plant in Herb
Buchenan, which, he thinks, is
a poor specimen of *J. longistylis*.

Where do these names come from?
Are they published?



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cm

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M. KOVÁCS,
APOTHECARY

Franklin Avenue, bet. 18th & 19th Streets,
ST. LOUIS, MO.

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[Faint, illegible handwritten text, likely bleed-through from the reverse side of the page.]



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cm

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