



MISSOURI BOTANICAL GARDEN
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GEORGE ENGELMANN
BOTANICAL NOTEBOOKS

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C. J. marginatus

Wentworth: Wright. 11 May 1851 & 1923 - part

TEMPERATURE.

	Jan.	Feb.	Mar.	Ap'l.	May.	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Mean of Year.
1861...	32.2	40.4	44.8	58.1	64.1	76.9	77.5	78.6	69.1	57.9	46.0	39.7	57.1°F.
1862...	28.9	30.2	43.2	55.0	69.7	75.1	81.2	80.7	72.1	57.3	42.6	41.3	56.4°F.

RELATIVE HUMIDITY.

	Jan.	Feb.	Mar.	Ap'l.	May.	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Mean of Year.
1861...	72.2	63.3	64.5	61.5	66.3	70.8	66.3	69.6	77.3	76.6	69.0	74.3	69.5
1862...	85.3	73.9	70.8	67.0	57.3	67.0	66.8	64.3	74.2	67.2	69.5	74.6	69.8

III. Yearly mean of Positive Electricity of Temperature, and of Relative Humidity of the Atmosphere, at the hours of 6, 9, 12, 3, 6 and 9, from morning till night, based upon daily observations at these hours through the years 1861 and 1862, at St. Louis, Mo.

ELECTRICITY.

	At 6 A. M.	At 9 A. M.	At 12 M.	At 3 P. M.	At 6 P. M.	At 9 P. M.
1861	8.6	10.0	9.2	7.9	8.7	6.9
1862	8.9	10.0	9.1	7.3	8.1	6.8

TEMPERATURE.

1861	48.9° F.	54.9	61.6	63.6	59.3	54.3
1862	48.9	55.0	60.9	62.3	58.0	53.6

RELATIVE HUMIDITY.

1861	86.4	71.3	60.3	57.2	65.1	77.3
1862	85.3	70.6	60.0	57.5	67.6	78.0

312-325



9272

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112 | 191 | 211 | 230 | 259 | 265 | 351 | 550 | S.E. | 50

V. Positive or Negative Electricity in the Observations of '61 & '62.

	Positive Electricity.		Negative Electricity.		No Electricity, or 0.		Highest Positive Electricity.	
	1861.	1862.	1861.	1862.	1861.	1862.	1861.	1862.
Jan.....	179	179	3	5		2	40°	40°
Feb.....	162	166	6	2			34	33
March...	168	179	15	8			30	48
April....	157	157	12	22	1	1	33	52
May.....	171	180	17	5	1	3	25	32
June....	162	143	5	2	8	20	16	21
July.....	183	153	3	8	1	24	14	11
August..	176	143	5	4	6	40	15	19
Sept.....	169	117	1	1	10	61	18	23
Oct.....	162	143	4	3	20	41	33	35
Nov.....	172	157	2	7	6	16	42	42
Dec.....	175	166	5	0	6	17	37	35
	2046	1883	78	67	59	225	42°	52°



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

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MISSOURI
BOTANICAL
GARDEN

J. marginatus

Aug 13 1865

Beardstown, Jeyes

x 60



x 10



Athens Ill
E. Hall



0 1 2 3 4 5 6 7 8 9 10

cm

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J. marginatus

Vermont, Cary

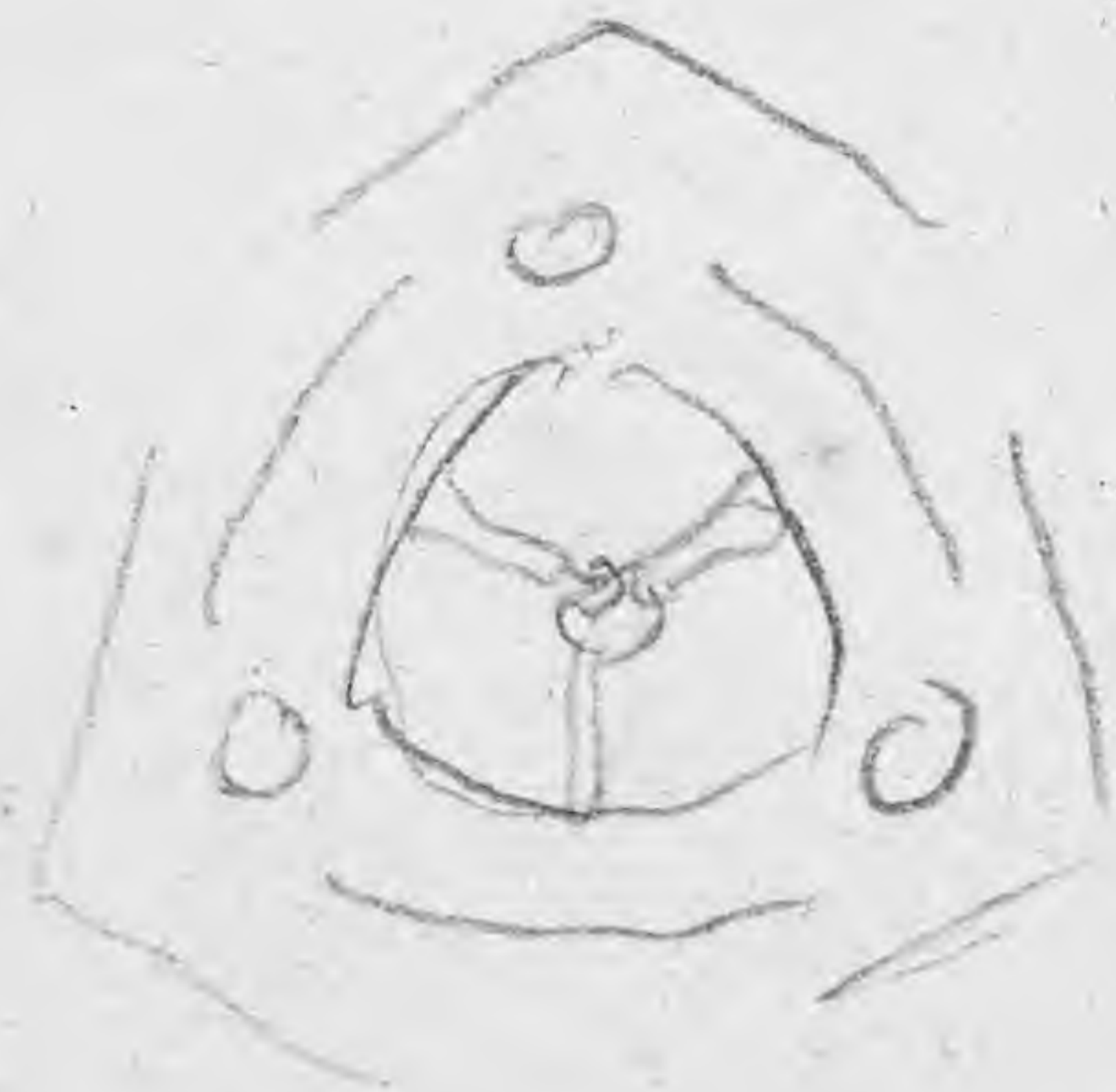
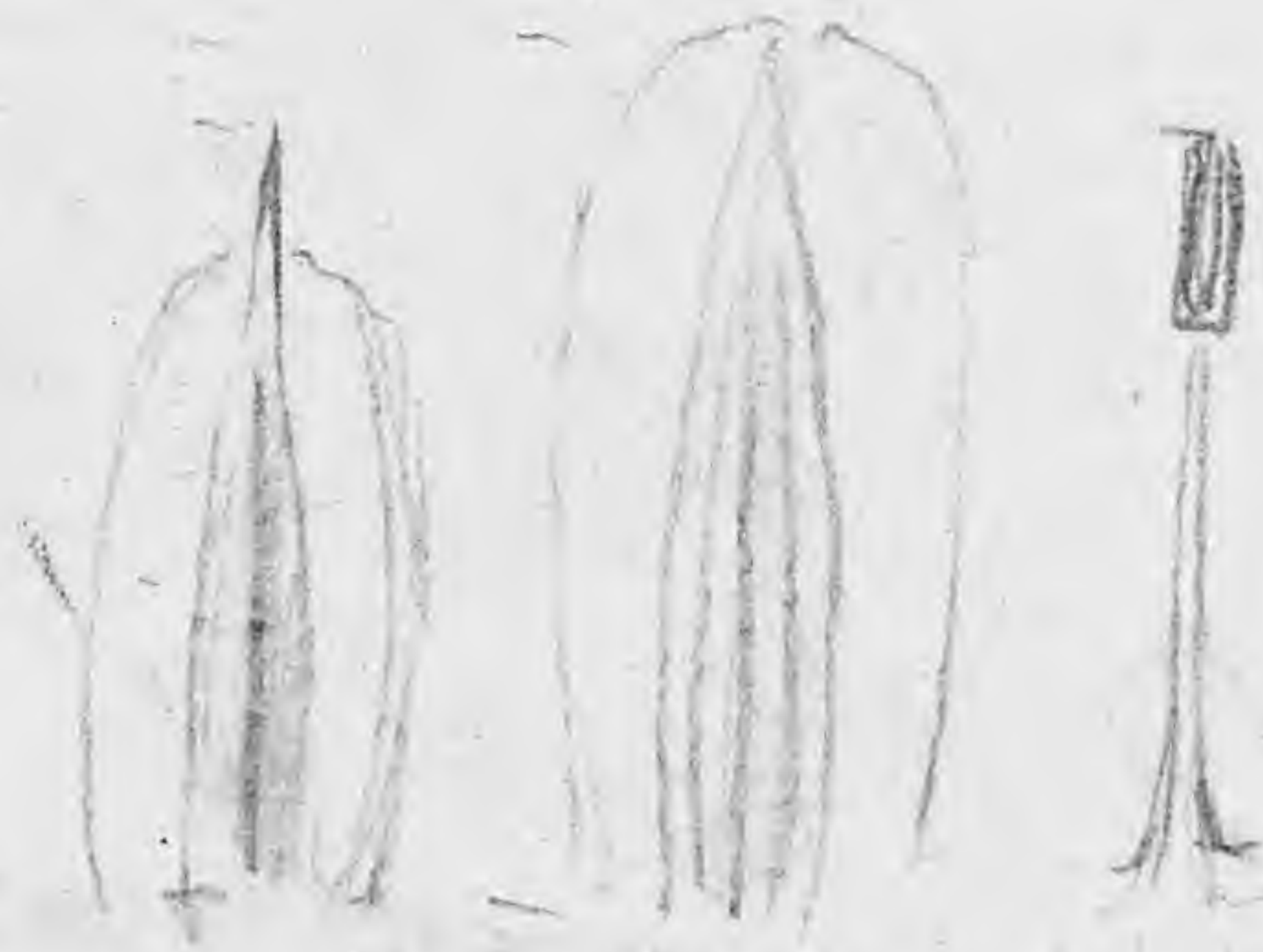
Aug 13 1865

x 10

x 60

anthers brown

reversed



E. Hall is same, heads 7-12 flower

Sometimes specimens with single heads. (C. B. Bailey, Maine, Aug 13 1865) ~ H. C. Hall



0 1 2 3 4 5 6 7 8 9 10

cm

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J. marginatus

Nov 4 1865

capitulis paucis 10-12 floris

Pine barrens 11 Jers

Hb Gray



x150



no crossbars

striulation extremely

delicate, perceptible only - good light

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HERBARIUM



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cm

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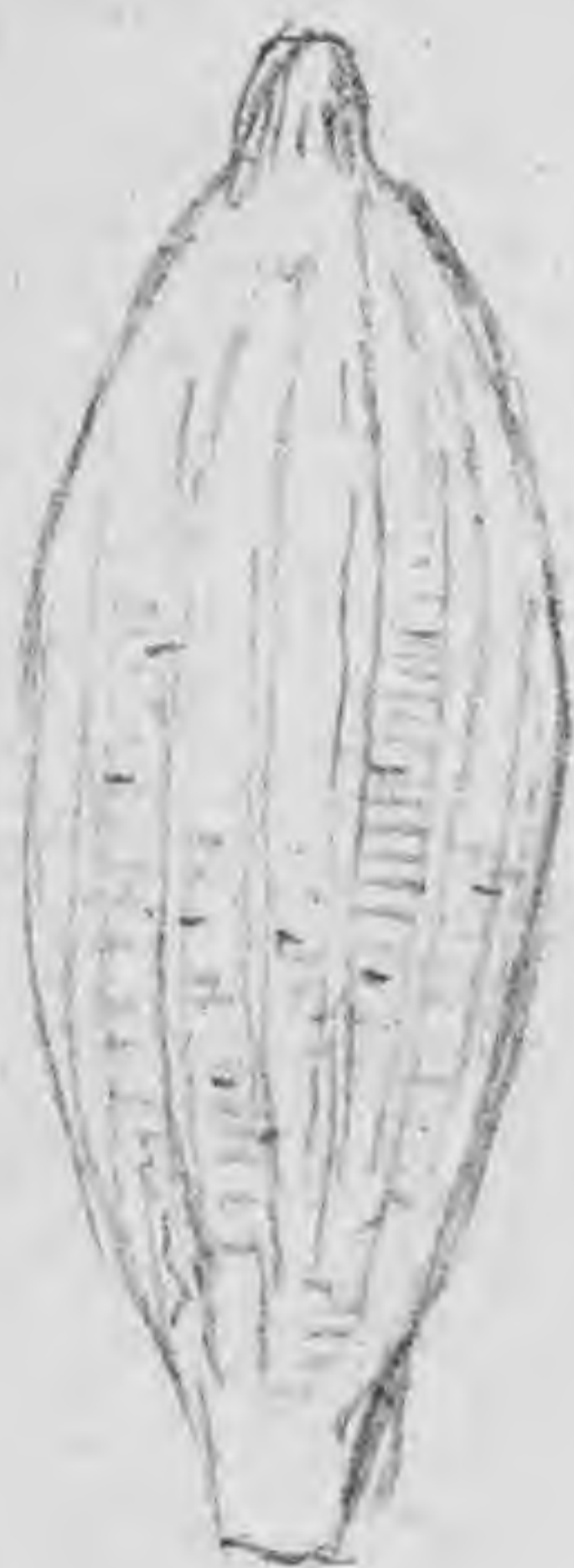
Simons marginatus

Nov 5 1865

Houston Texas, Andhra

in the Gray

x60



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cm

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J. marginatus
exaltatus

Nov 4 1865

3 pedicels
N Jersey, Torrey - Hb Gray



unripe



anther red

capitula 2-4/flower
panicula contracted



x150



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J. marginatus

Nov 5 1865

Louisiana Hale, Hb Gray

x60

pendula paucicapita
capituli 4-5 fl
sepala, vag. longae
virescenti.



anther sper.



fls just before
opening



0 1 2 3 4 5 6 7 8 9 10

cm

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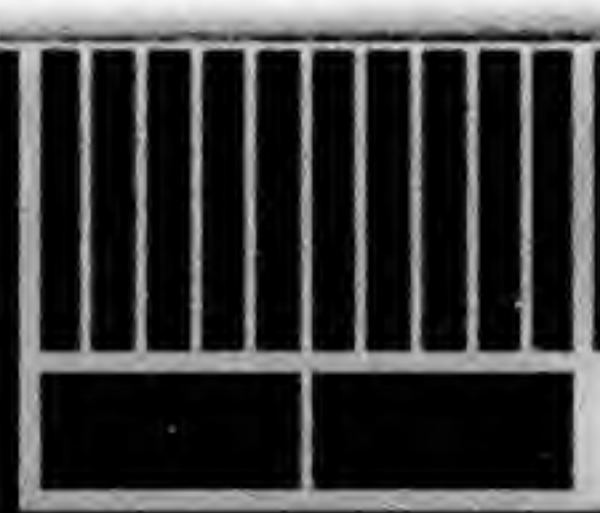
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cm

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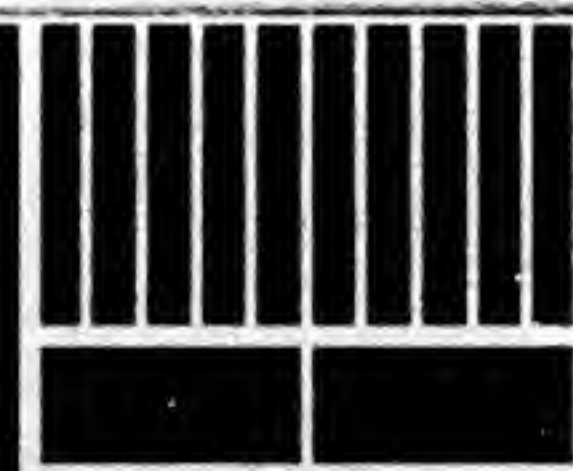
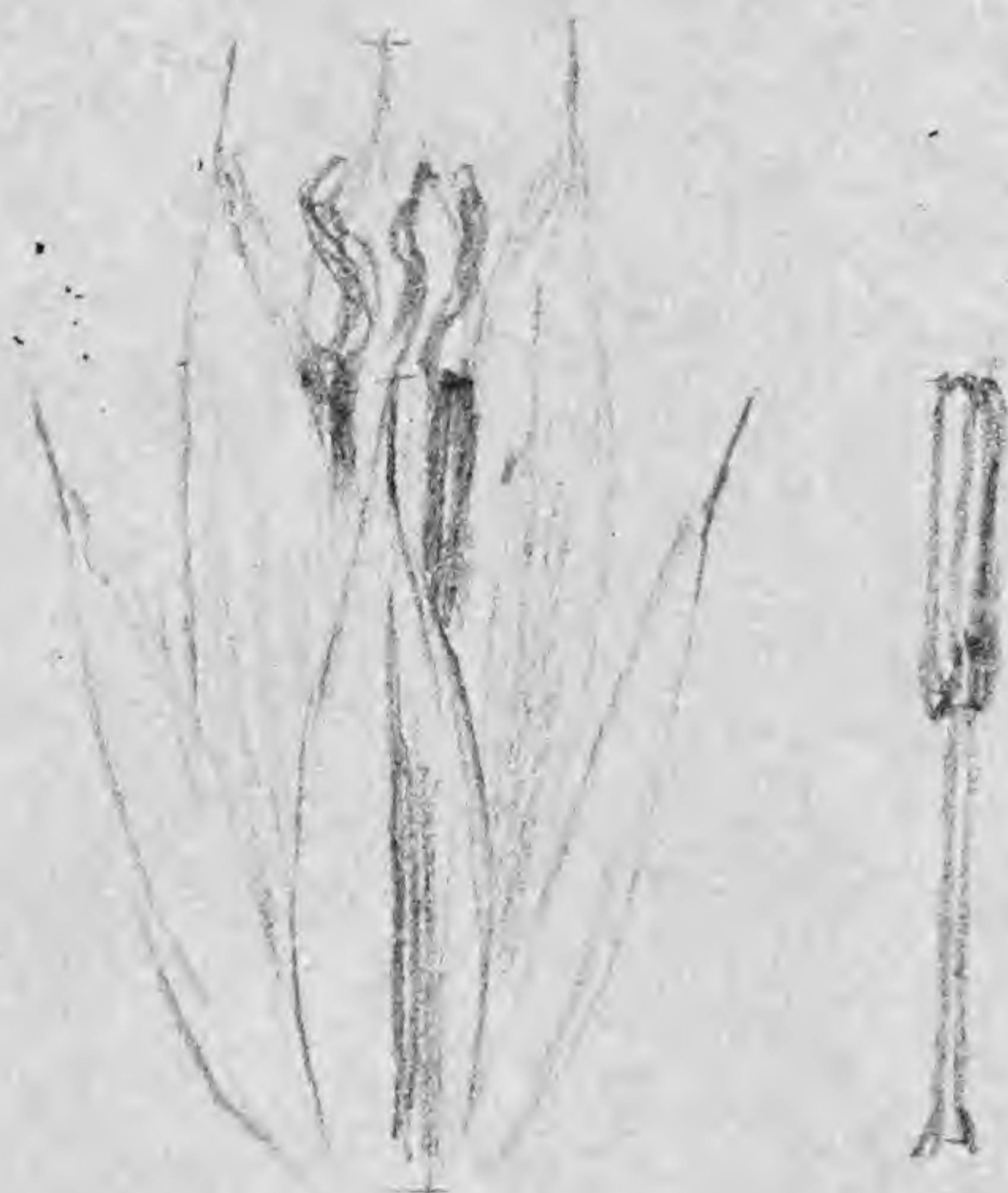
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J. marginata

Nov 12 1865

sepals internally acute

Buckley Texas - Hb. Burd



0 1 2 3 4 5 6 7 8 9 10

cm

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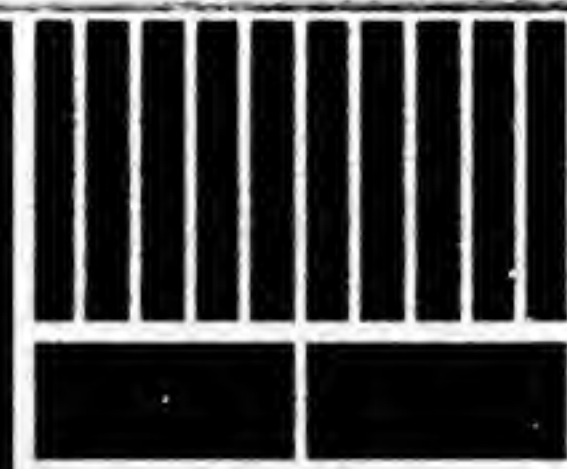
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J. marginata
var *biflorus*

April 16 1866

Wilmington Del.

A. Coe
July 1865



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cm

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I ~~Bowman~~ ^{Bigelow} Oct 2 1866 will send you also Suits of the two varieties
of Marguatus. — I make out the following differences

1. Marguatus. Stem stout erect flattened bulbous at the base
1-3 feet high, leaves broadly linear, ^{minutely scabrous on the margins} 2-5 lines wide 3-5 nerved
panicl decoupennd heads many 2-8 flowered outer sepals
acute slightly awned shorter than the inner ones, inner obtuse
pointless as long as the globular capsule, anthers longer
than the outer sepals

2. Marguatus? Var? Stem slender slightly compressed 1-2^o
high leafy leaves narrowly linear, margins perfectly smooth
1-2 lines wide slightly 3 nerved concaue, cymose panicl
heads few 3-15 flowered outer & inner sepals acute nearly
equal anthers shorter than the outer sepals capsule
oblong obovate.



0
cm

1

2

3

4

5

6

7

8

9

10

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91281B

91281A

and although their appearance & habit are so different
 I think it will be difficult to make a good species of
 the *Megacephales*. — I have good specimens of *Greenii*
infruit and some tolerable ones of *baseyi*. The *Brachycompa*
 is too old to be good but I have collected a few such
 such as these are. — One of the varieties of *pallidum*

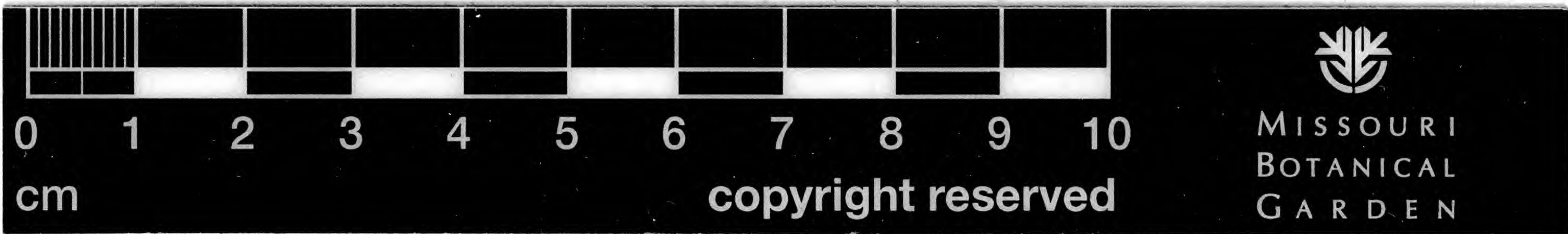
Recd Oct 11th

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Dear Doctor
 Detroit Oct 8th 1866.

Dear Doctor,

I have been rather at a stand still since
 I received your last (Sept 24th) with the *L. coarctatus* from
 Judge Clinton in consequence of the closing of the year with us
 and preparing & sending off the annual report. That thank



Dimensions.—Length, 0.20 of an inch; width, 0.18.
The *Elaeocrinus Kirkwoodensis* is nearly allied to *E.*
(*Pentremites*) *mele*, from which it is distinguished by its
much smaller size and less deeply excavated base. It also
occupies a higher geological position.

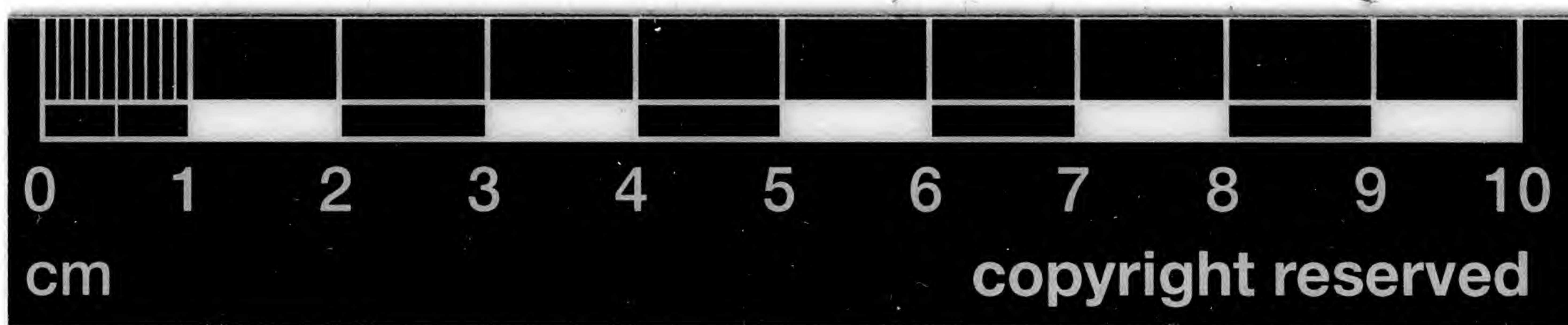
Occurs in the St. Louis Limestone (Carboniferous) on the
Pacific railroad near Kirkwood, St. Louis county, Missouri.

8

J. heteranthos Nutt.
Ann. Trans. Phil. Soc. V. p. 153 Ark. p. 153
var of *J. marginatus*, Gray in Fl. Buckley.
Proc. Phil. Acad. 1862
p. 8.

all the perizonal scuta
acute

312-314



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crystals, which
Smithsonian Institute; a few others are also in the hands of
members of the party. We were travelling at the time by
forced night marches with nearly worn out animals, seeking
to gain a spring of water in a distant range of mountains.
This desert was then entirely unexplored. I have but little
doubt that more interesting materials are to be found at the
same point.

The mountains of the former Territory of Utah promise a
rich yield to the mineralogist. We know already of gold and
silver ores in the east, west and south part of that district;
of copper and lead ores in the south, and I have discovered
the latter also in the centre of it; of specular iron ores and
native sulphur in the Rocky Mountains and near Little Salt
Lake; of rock salt in the mountains south-east of Utah Lake;
of native alum near Salt Lake; of various other salts in the
deserts; and of silicates, composing the granites, porphyries,
diorites, trachytes, and lavas, nearly over the whole area.



0 1 2 3 4 5 6 7 8 9 10

cm

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March 29 1866.

Juncus heteranthus Nutt. & Bk

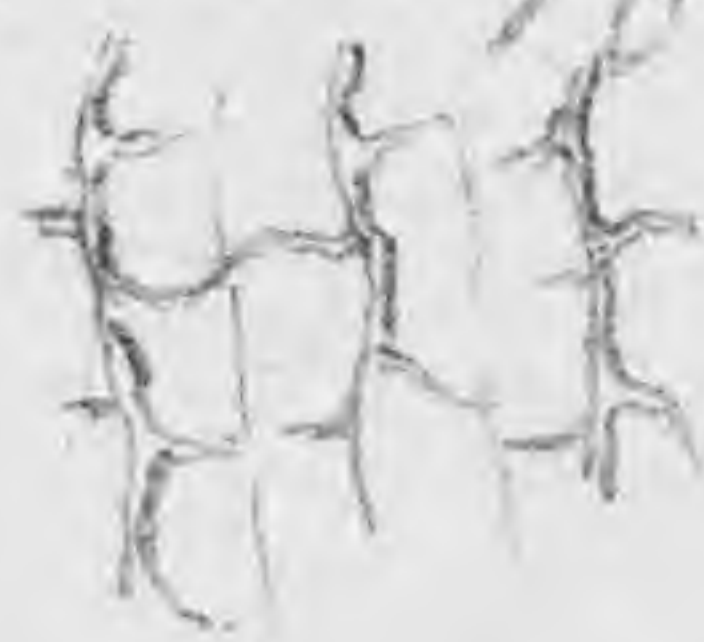
Aug 13 1865

x150



striatalin
extremely fine

Luther No 193



anther x10
seed

x60

low cut



anthers brown

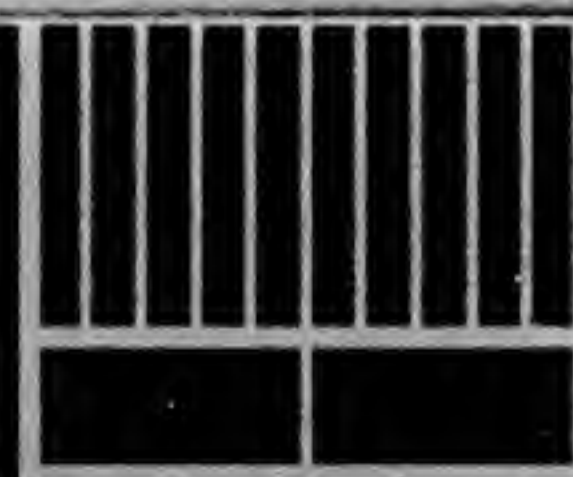
Nov 5th 1865



5-7 ribs
visible



ribs more slender
than in *marginatus*
cross striulation fine
sometimes a few cross
bars
imperfect seeds more slender!
with more prominent ribs!



0 1 2 3 4 5 6 7 8 9 10

cm

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0 1 2 3 4 5 6 7 8 9 10

cm

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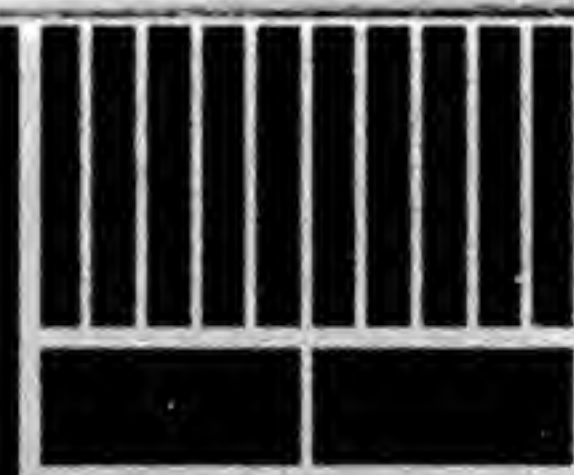
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Amorpha heterantha

Aug 23 1865

Guadalupe Texas

Wright 1850, June



0 1 2 3 4 5 6 7 8 9 10

cm

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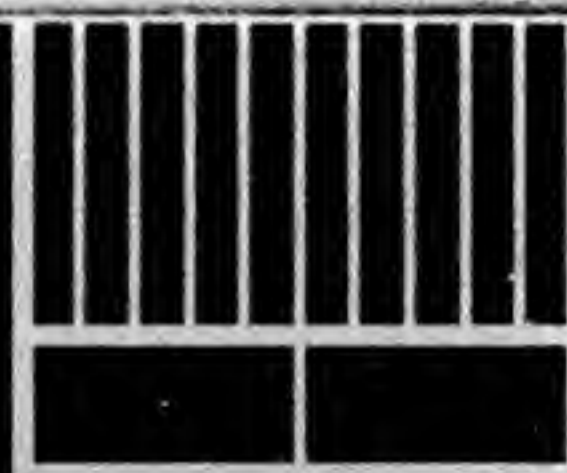
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Juncus cylindricus All. & Curtis (Nov. 11 1865)

Lincoln Co. N. Carol.

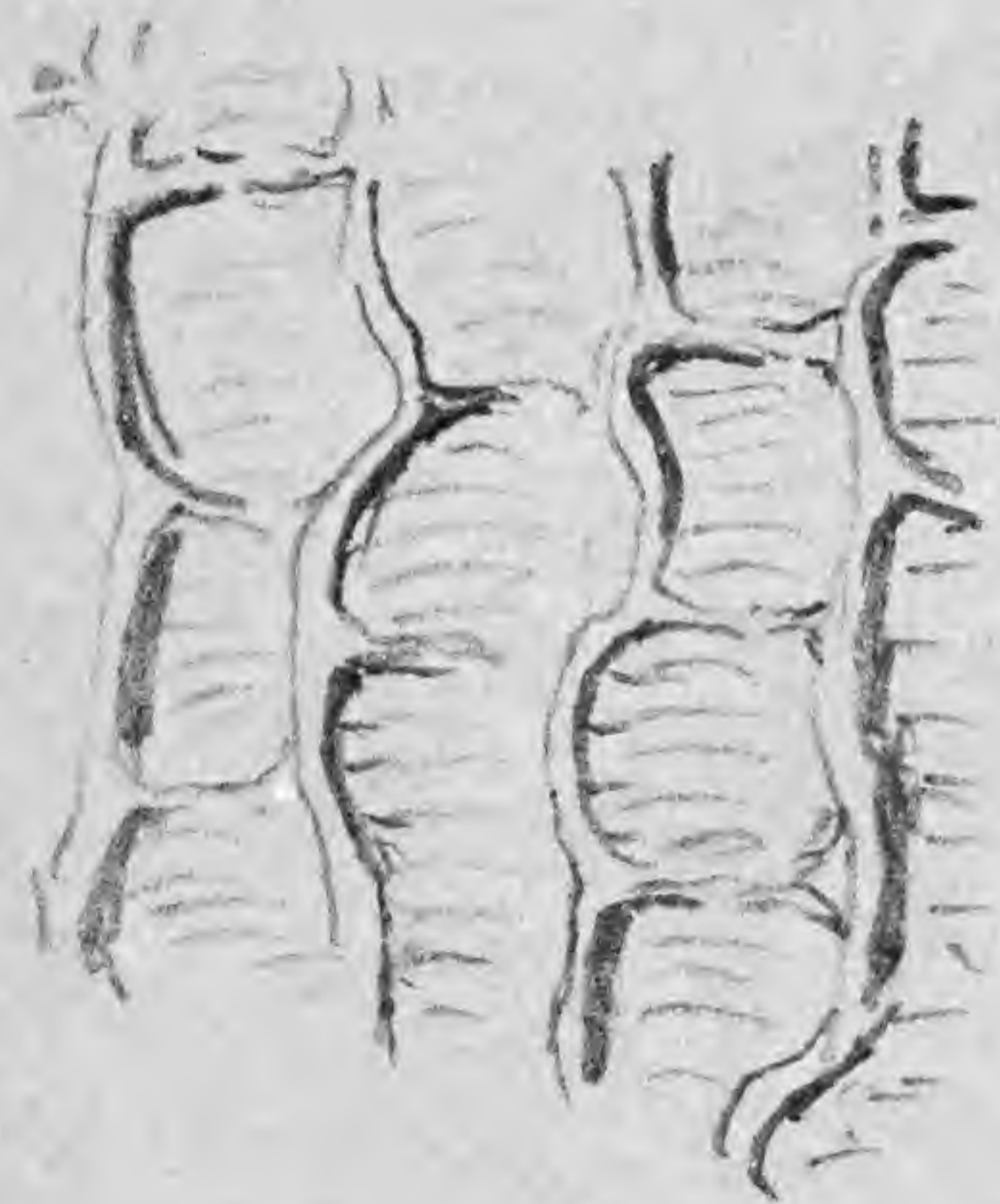
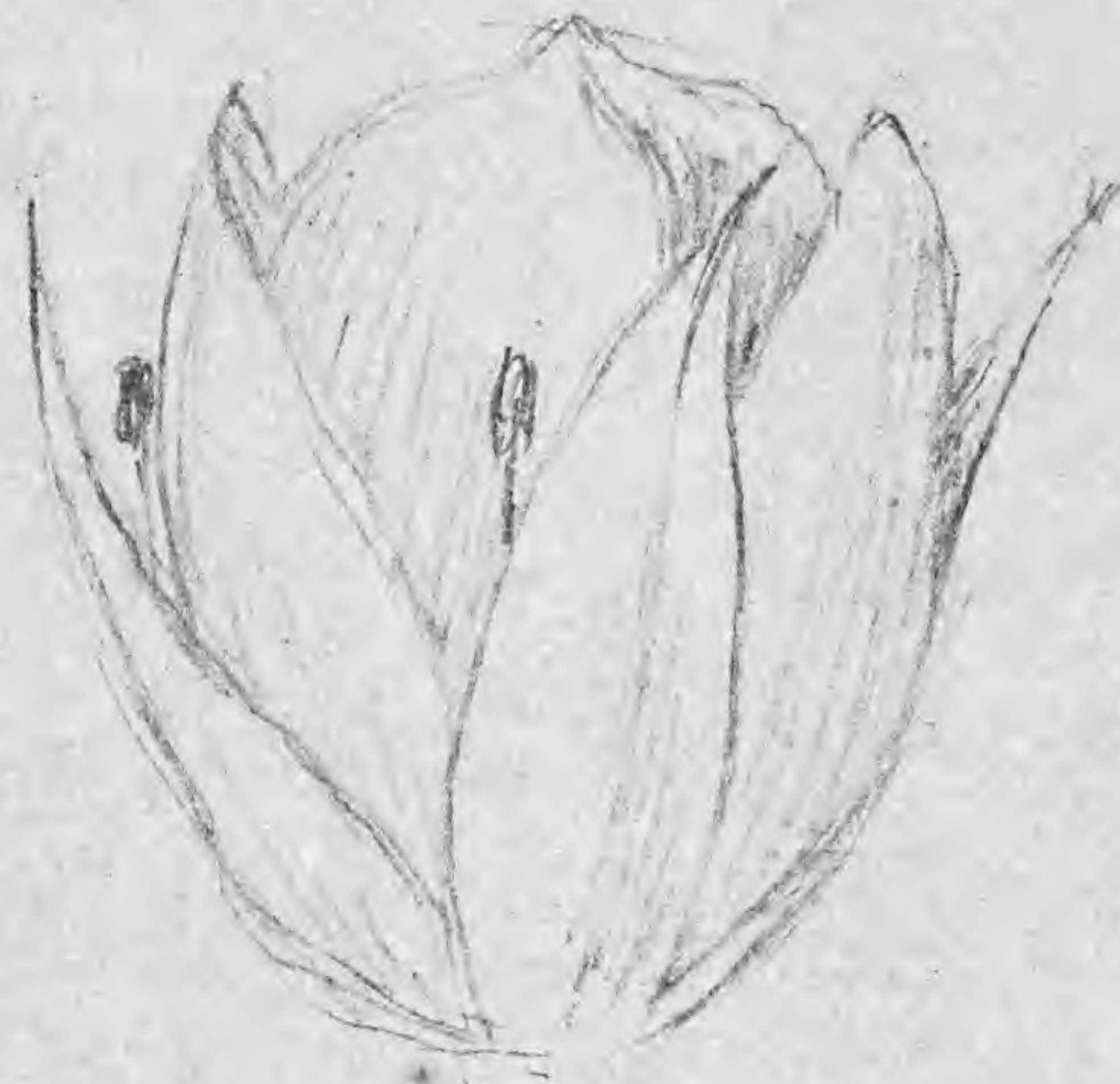
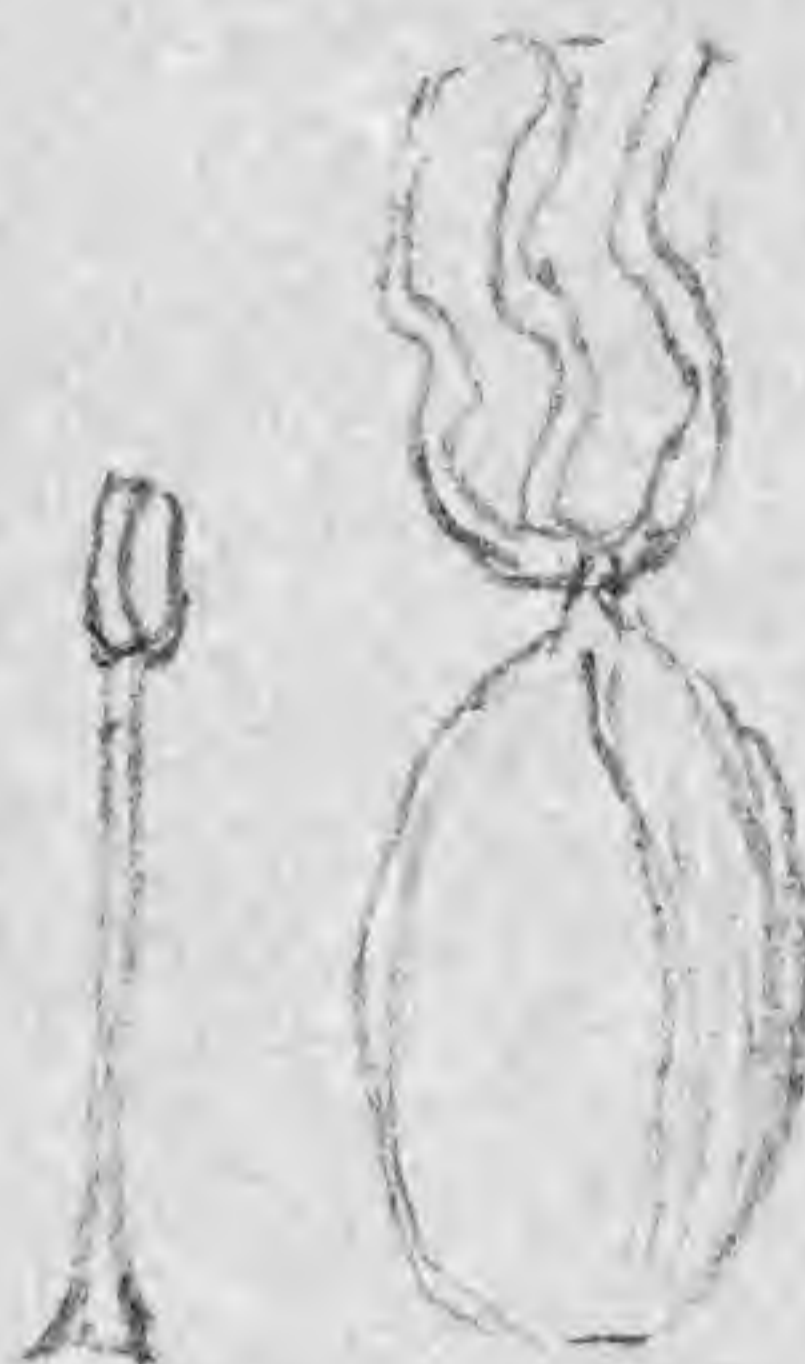
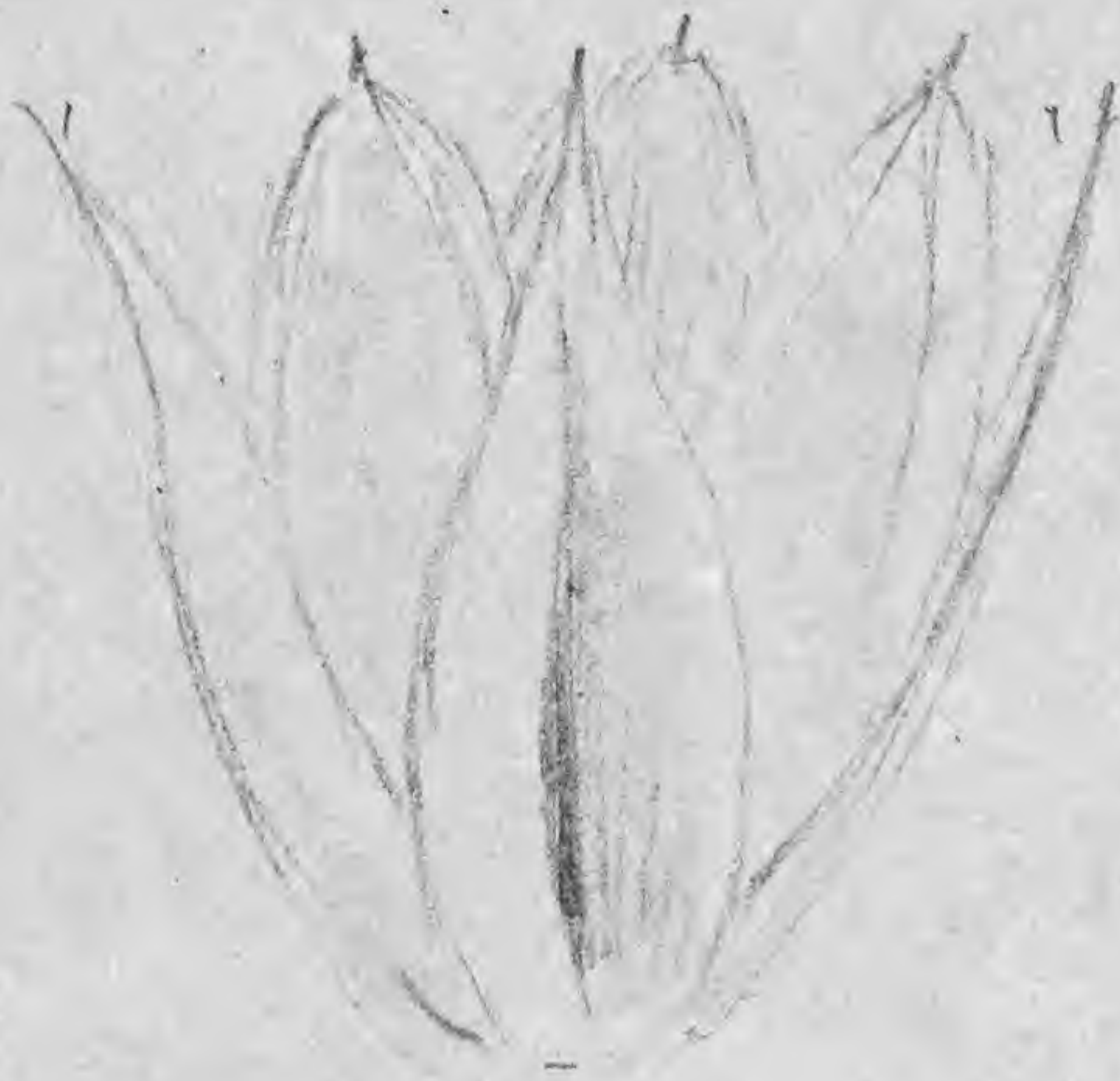
Sill. Journ. 44. p. 83

Stem glauc. 2. 304

x60



x10

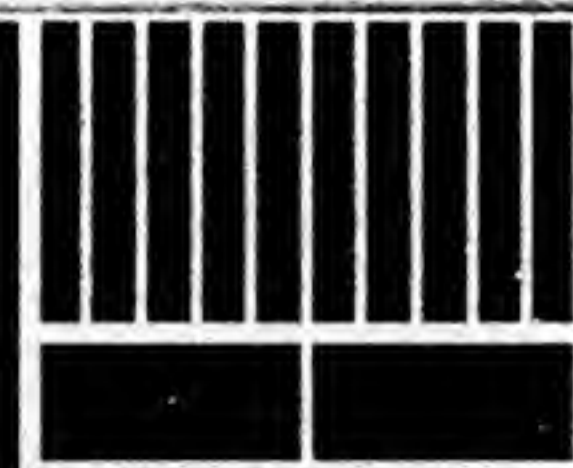


x150



x2

all the lower flowers
sterile, very undeveloped, only
2-3 uppermost bearing seeds



0 1 2 3 4 5 6 7 8 9 10

cm

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Alex. Leitch

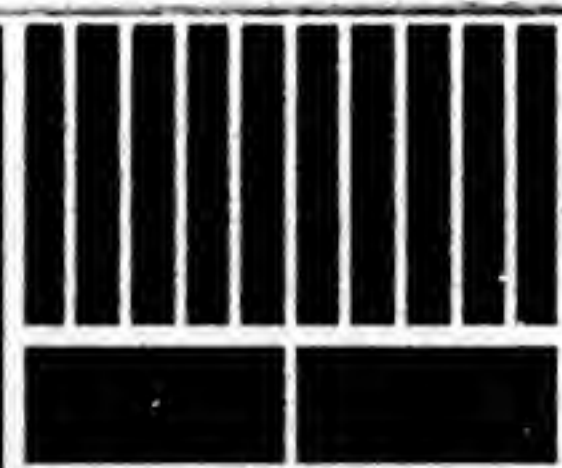
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0 1 2 3 4 5 6 7 8 9 10

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Febr 3 1866

Sub nom *J. platycaulos*

Monte Video Baldwin

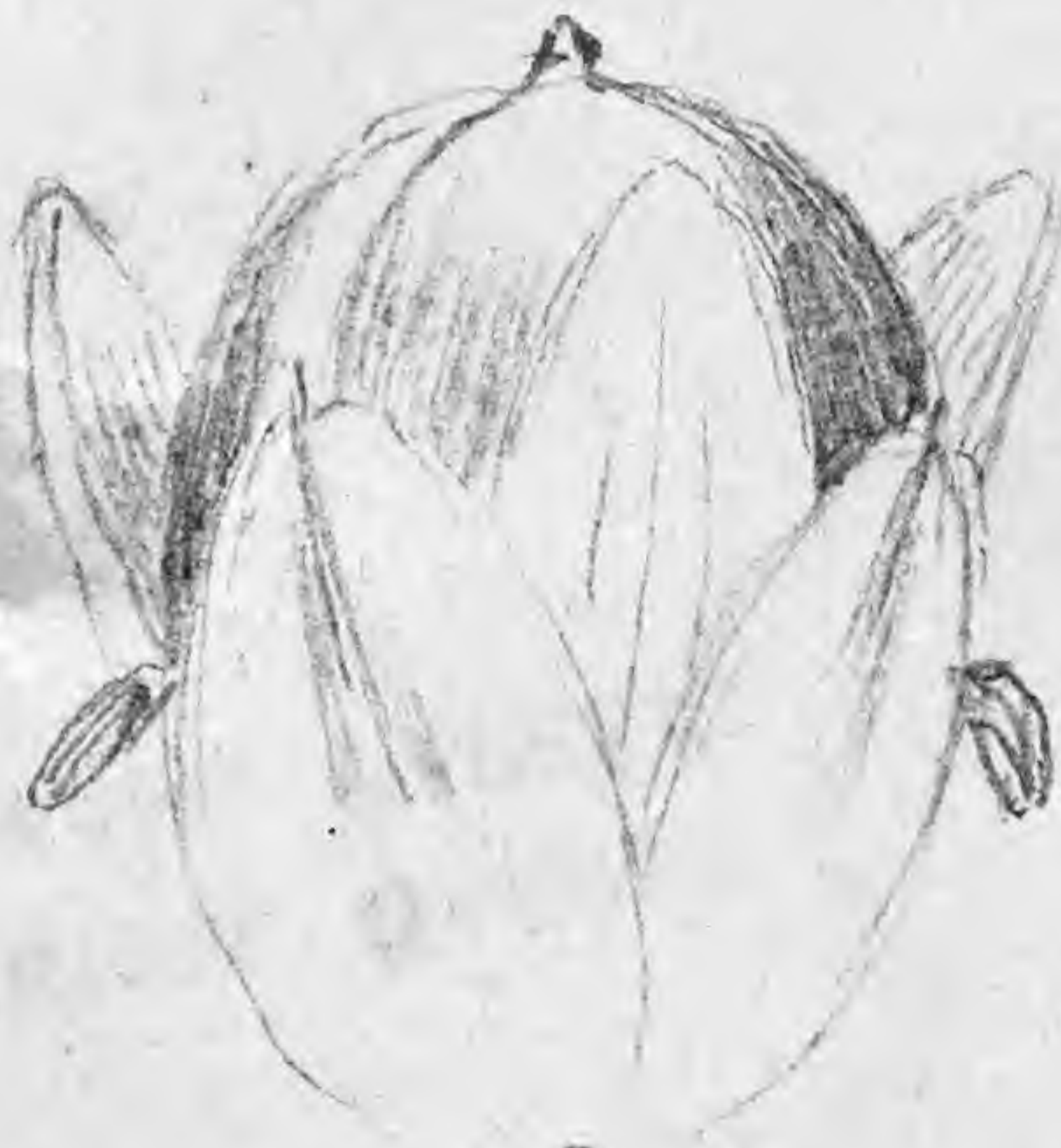
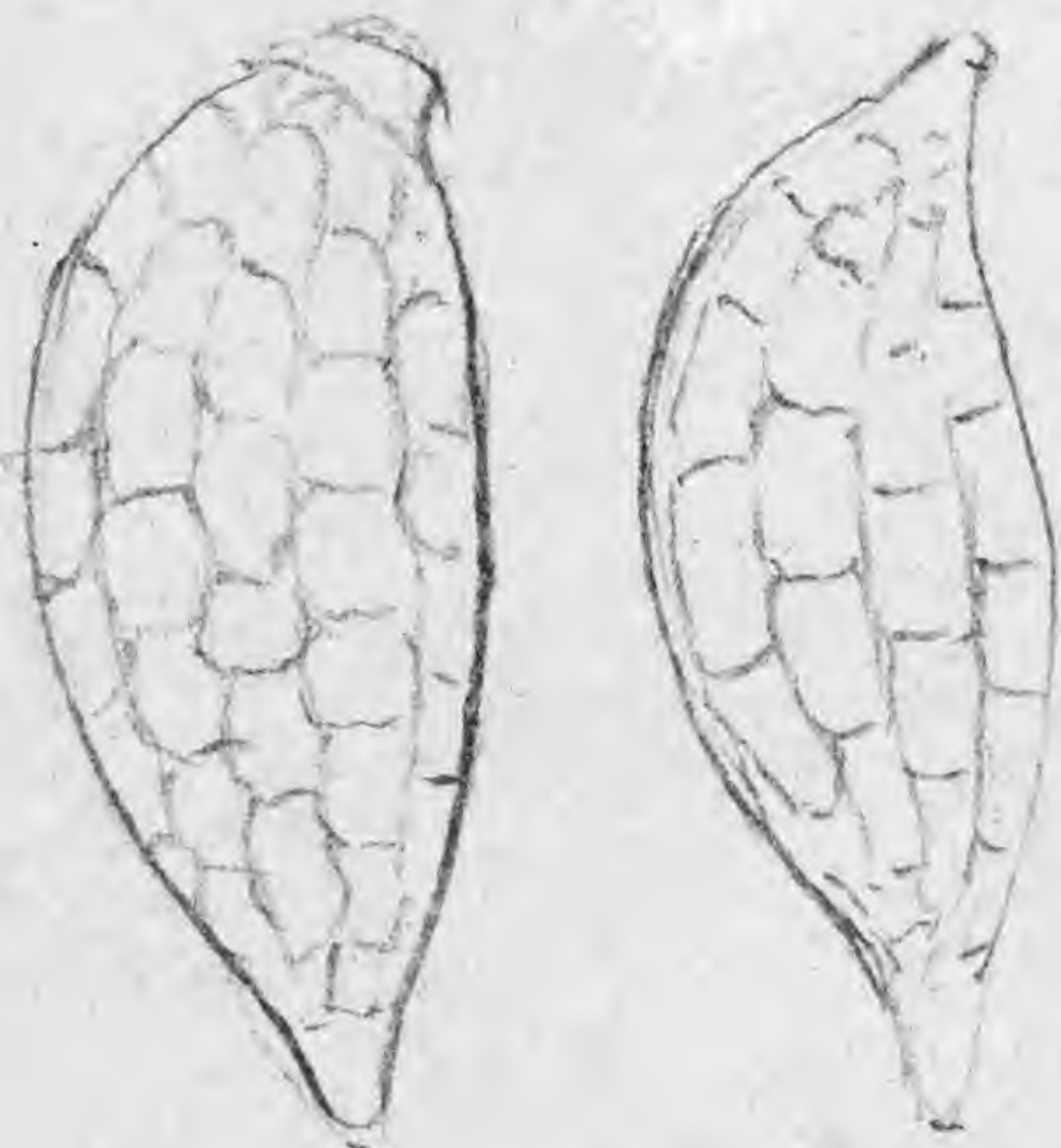
Herb. Acad. Phil.

x60

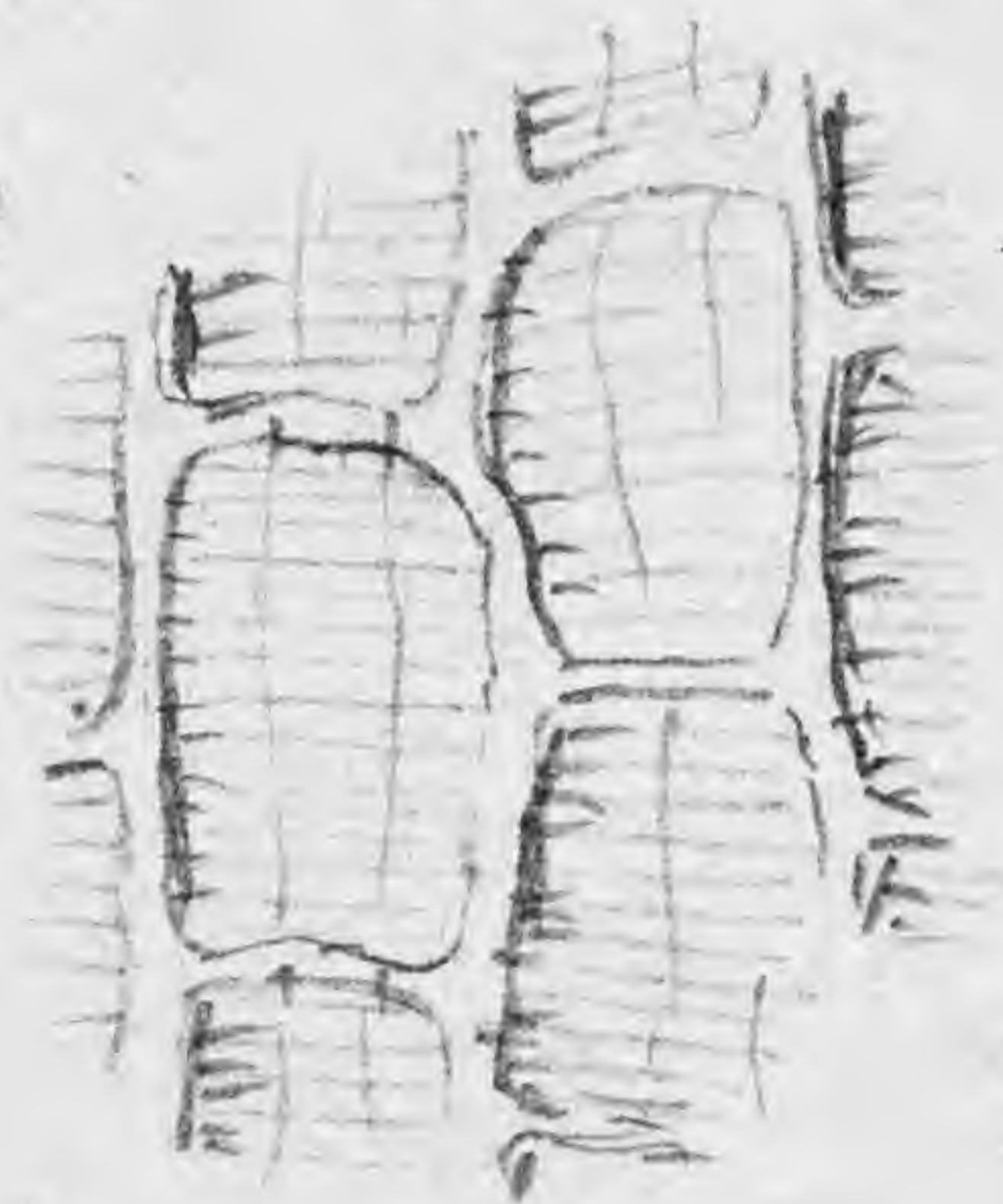
(*J. platycaulos* is band)

Identical with other specimens, marked
and probably also from U.S.

Georgia
Baldwin



x150



not yet in flower

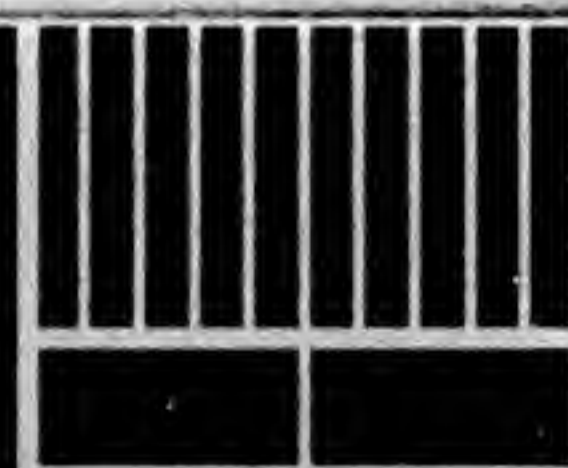
anthers red brown
effete ones recurved
as in margineatus

soaked

seed reddish



seed of stem X10



0 1 2 3 4 5 6 7 8 9 10

cm

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Sumner

Oct 21 1865

Wright coll. in Mex. 1851

No 1923 - part

= Hb Gray

(near *Dioscorea xiphoides*
paniculiflora)
same = Hb Short

x60



anthers dark red
when dry and
effete
hanging often out
between the sepals



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cm

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