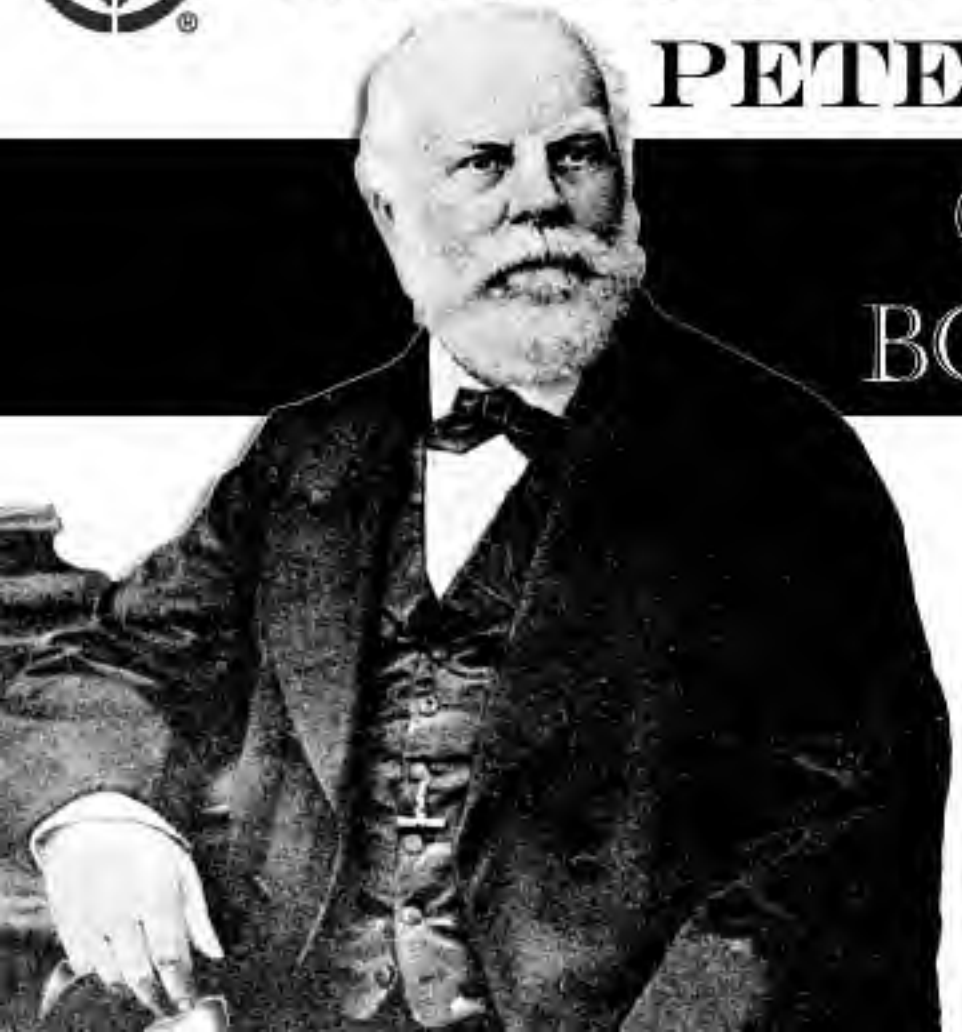
Missouri Botanical Garden
Peter H. Raven Library



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.

9

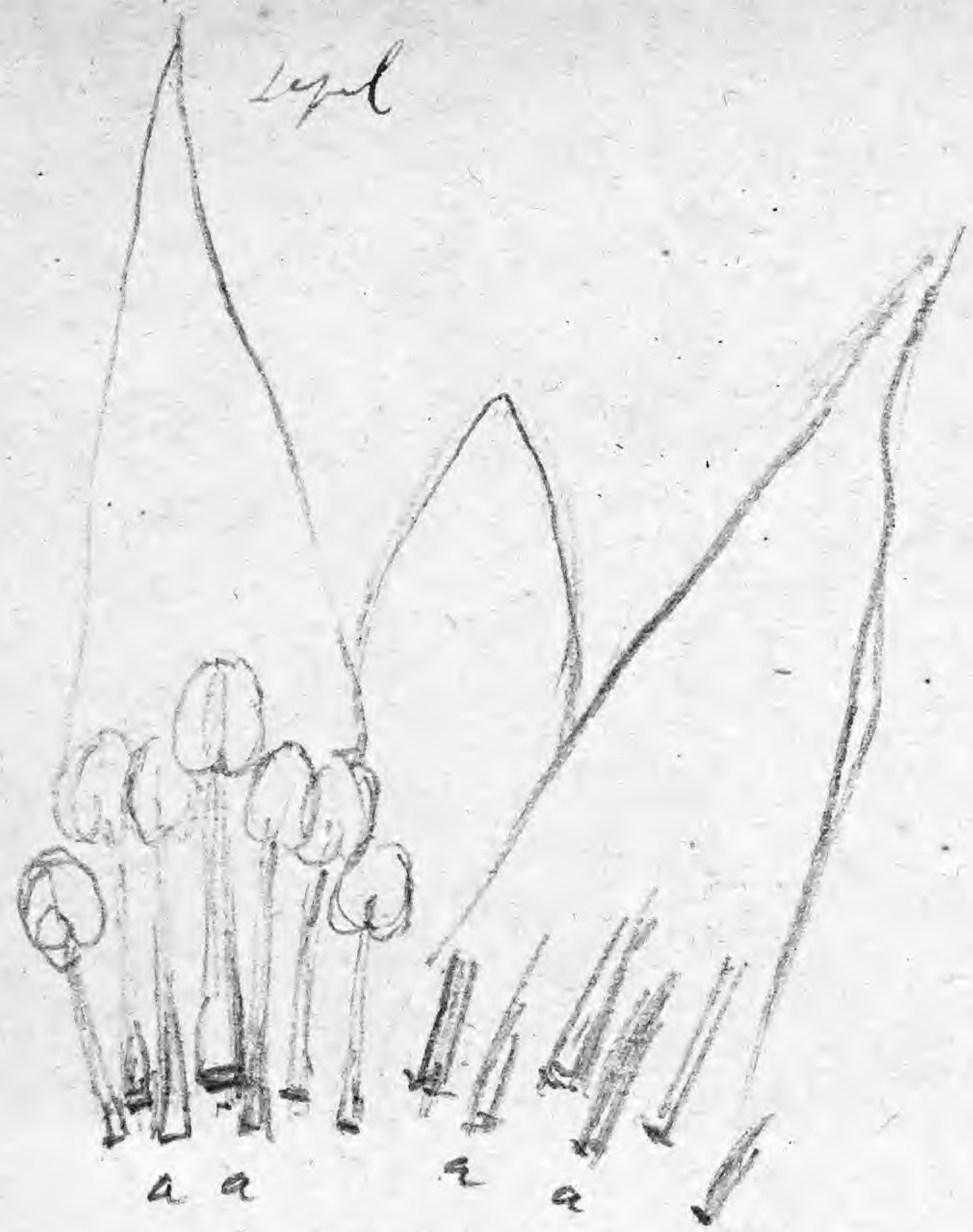
June 7 1867

Jacksons Hole
(small plant)

674

sepal

x 4



30 stamens
or a few less
a a sometimes being
defective

Calyx tube villous

head of carpells oval
except. hirsute

x 10
not quite ripe

x 10

anther 2 celled

petal x 4
orbicular
slightly emarg-
inate

pedigitat

Alex. Leitch,

APOTHECARY & CHEMIST,

Cor 4th & Olive Sts. St. Louis.

Editorial Department.

REVIEWS AND BIBLIOGRAPHICAL NOTICES.

PAGET'S SURGICAL PATHOLOGY.

[Continued.]

Mr. Paget embraces in his theory the doctrine of complemental nutrition, first taught by C. F. Wolff, illustrating the subject as follows:

"A great change in nutrition rarely takes place in a single organ at a time; for example, the growth of the beard at the period of puberty in man, the growth and perfection of the plumage of the bird at breeding time; but as in man, when the development of the genital organs is prevented, that of the beard and all other external sexual characters is, as a consequence, hindered, so in birds, when the breeding season ends, and the sexual organs pass gradually into their periodic atrophy, at once the plumage begins to assume the pale and more sober colors, which characterizes the barrenness of winter." He next refers to certain interesting specimens presented to the museum by Sir Philip Egerton, showing the interesting fact, "that if a buck be castrated while his antlers are still covered with velt, their growth is checked, they remain as if truncated, and irregular nodules of bone project from their surfaces." "The fact is not, hitherto, explained; it is inexplicable, by believing that the materials which, in the formation of these organs of external sexual character, are removed from the blood, leave or maintain the blood in the state necessary for the further development, growth and active function of the proper sexual or reproductive organs." "The concurrent development of the thymus gland and air breathing organs during the body's growth of the thyroid gland and the brain, (instances

2.—*Monthly Mean of Temperature, Fahrenheit.*

JANUARY.

YEAR.	6 A. M.	9 A. M.	12 M.	3 P. M.	6 P. M.	9 P. M	MEAN OF MONTH.
1861	26.9	29.5	35.3	37.4	33.5	30.8	32.2
1862	27.1	27.3	30.1	30.7	29.5	28.5	28.9
1863	31.9	34.0	39.4	41.2	38.3	36.1	36.8
1864	22.6	25.2	32.6	35.1	31.5	28.0	29.2
1865	21.9	24.2	31.5	33.1	30.2	27.9	28.1
1866	27.0	29.1	34.8	36.8	33.8	31.5	32.2
Mean	26.2	28.2	33.9	35.7	32.8	30.5	31.2

FEBRUARY.

1861	34.2	35.4	43.7	46.7	42.8	39.7	40.4
1862	23.9	27.0	33.6	35.9	31.9	29.2	30.2
1863	31.3	33.7	38.7	39.4	36 6	34.4	35.7
1864	30.4	34.4	42.2	45.5	40.9	36.4	38.3
1865	33.4	36.1	41.7	43.3	39.4	36.8	38.4
1866	27.3	30.0	37.0	38.7	35.2	32.5	33.4
Mean	30.1	32.8	39.5	41.6	37.8	34.8	36.1

3.—*Monthly Mean of Relative Humidity.*

JANUARY.

YEAR	6 A. M.	9 A. M.	12 M.	3 P. M.	6 P. M.	9 P. M.	MEAN OF MONTH.
1861	.....	.....	.....	.....	.....	.....	72.2
1862	91.5	87.5	78.5	79.0	85.2	90.0	85.3
1863	94.1	83.9	75.0	71.9	79.3	86.0	81.7
1864	90.8	79.3	65.9	62.7	75.4	79.8	75.6
1865	89.3	77.5	64.3	62.8	73.7	79 9	74.6
1866	87.1	77.1	67.2	65.3	74.6	79.1	75.1
Mean	90.6	81.1	70.2	68.3	77.6	82.9	77.4

FEBRUARY.

1861	.....	.....	.....	.....	.....	.....	63.3
1862	89.1	79.2	65.8	61.5	72.2	75.5	73.9
1863	94.1	83.9	75.0	71.9	79.3	86.0	81.7
1864	79.0	65.0	53.5	49.0	59.9	70.0	62.7
1865	86.2	73.8	63.7	60.8	70.8	76.7	72.0
1866	85.3	70.8	62.9	59.5	68.6	76.5	70.6
Mean	86.8	74.5	64.2	60.5	70.2	76.9	70.7

Errata. In the last No. of *Journal*, on page 70, line 6, for the word "*destination*" read *declination*.

t

P. contorta June 11 1867

Colorado Pary 217

675

20 stam

x 4

Petal

not quite ripe
a few faint wrinkles

for Dystet

Alex. Leitch,

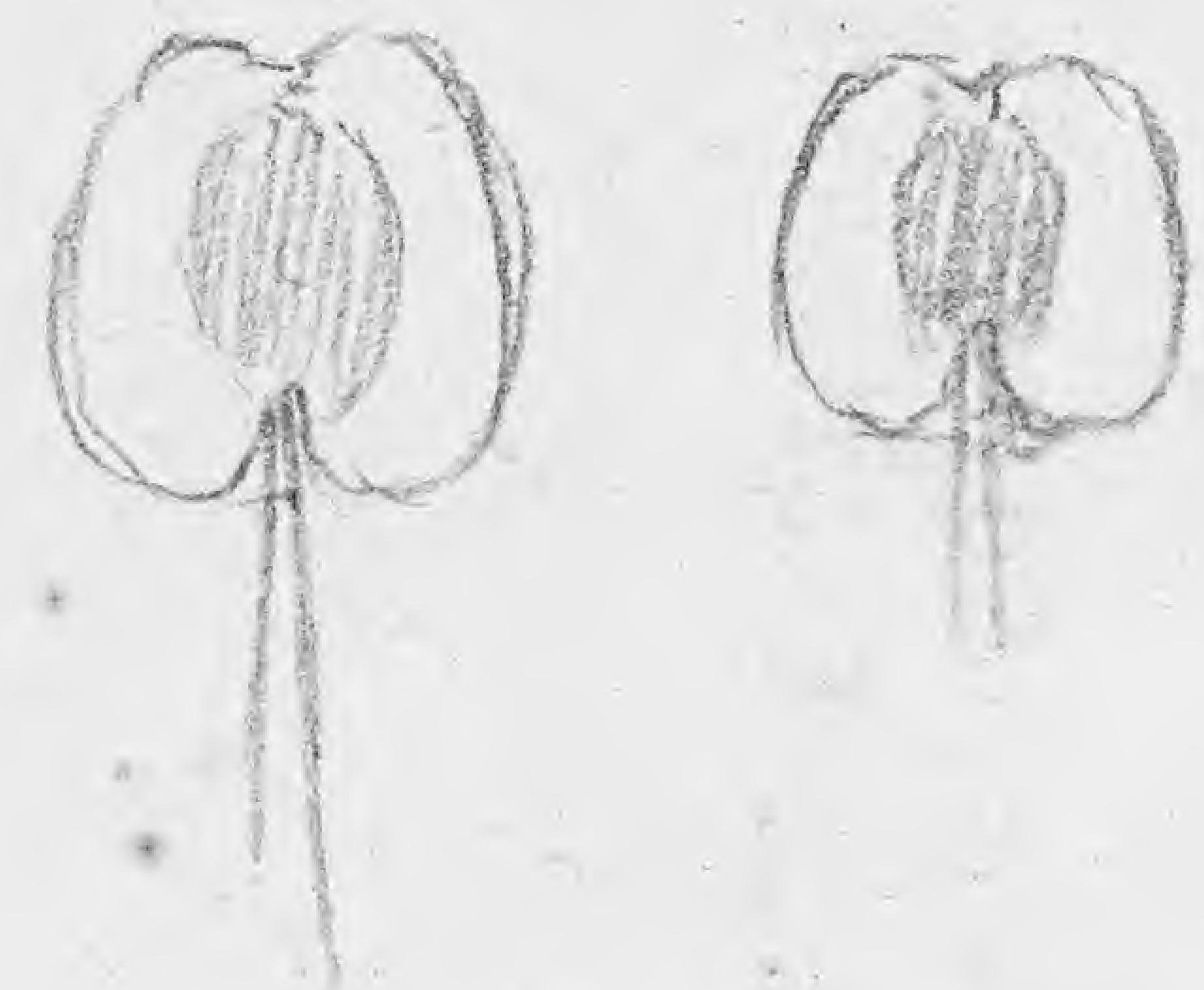
APOTHECARY & CHEMIST,

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

P. concinna — June 11 1867

Colorado Hall No. 157

676



20 stam

uniseriate achen
on hemispherical
villous recept.

LEITCH & CORLIES,

DRUGGISTS,

South-west Corner Fifth and Market streets.

11

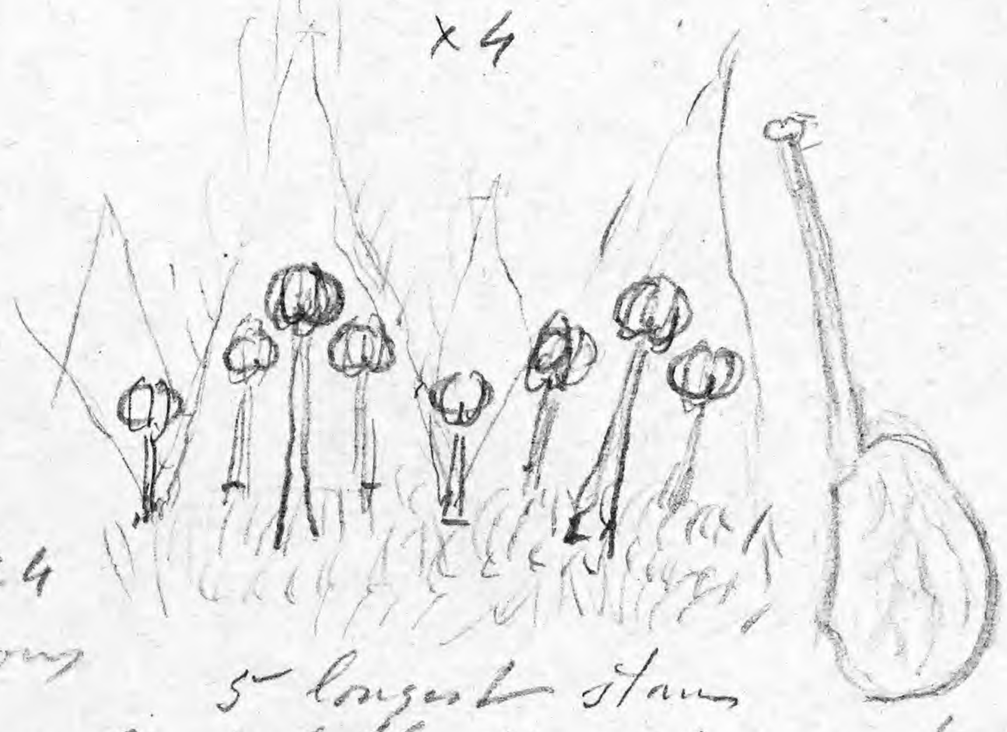
Jun 8 1867

Black Hills, Hayden, July 12

677

fruit head x4

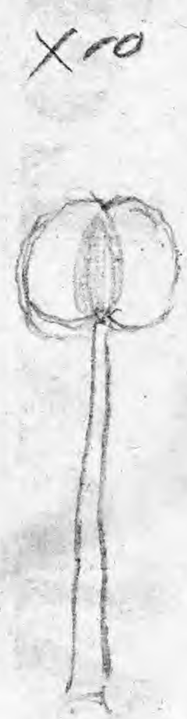
oval, villous



x4

5 longest stam on broadest filam. opp. sepal,
5 shortest alternate
10 middle size
Calyx Tube inside villous

achen x10
widely faint



x10

larger with villous filaments
anther 2 cells
with narrow connection

Foliis pinnatis

Alex. Leitch,

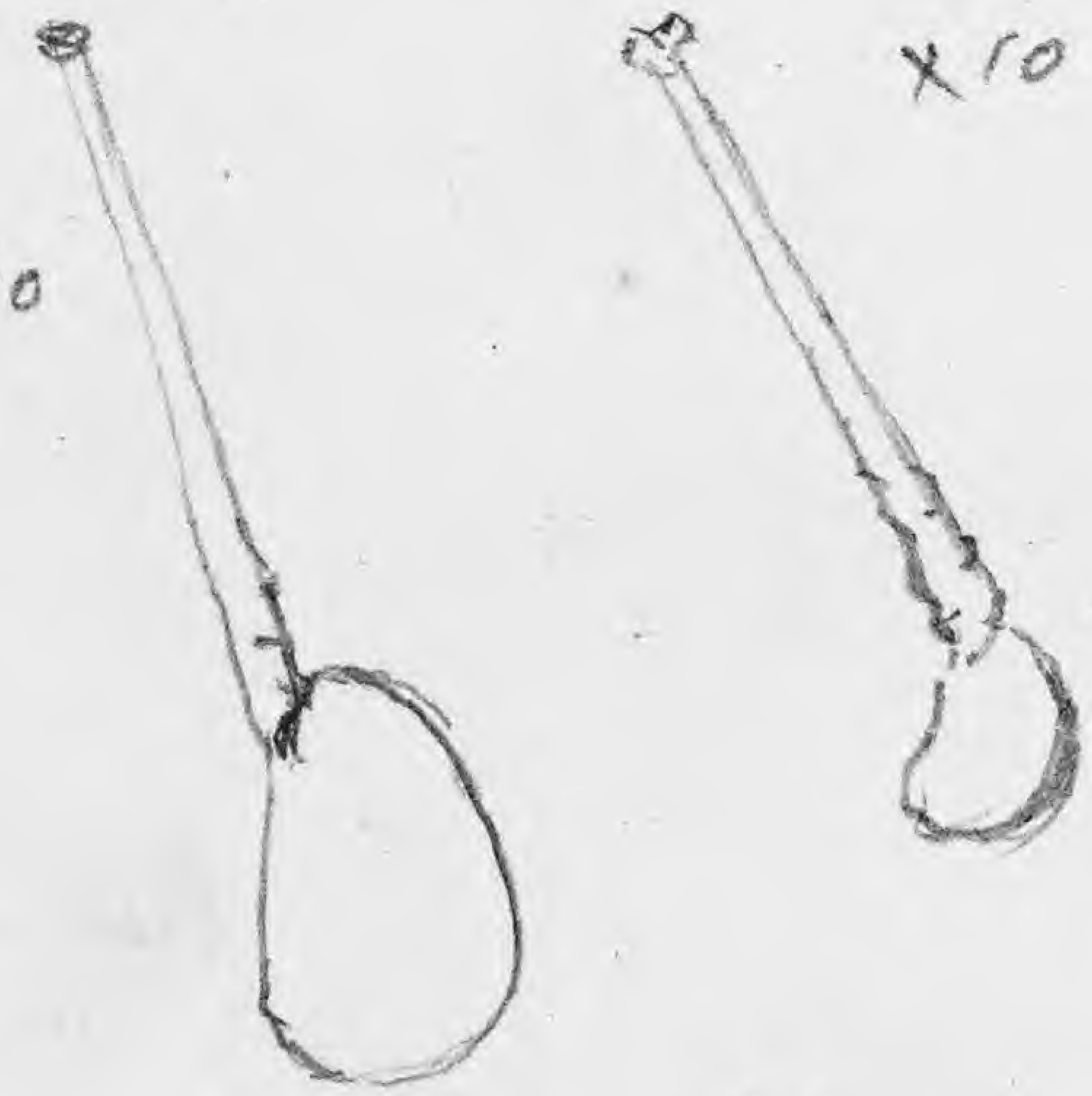
APOTHECARY & CHEMIST,

Cor 4th & Olive Sts. St. Louis.

Pot. gracilis Doug. June 16 1867

H. Engelm. Edwards Creek, Lookout Mtns
Utah July 2 1859

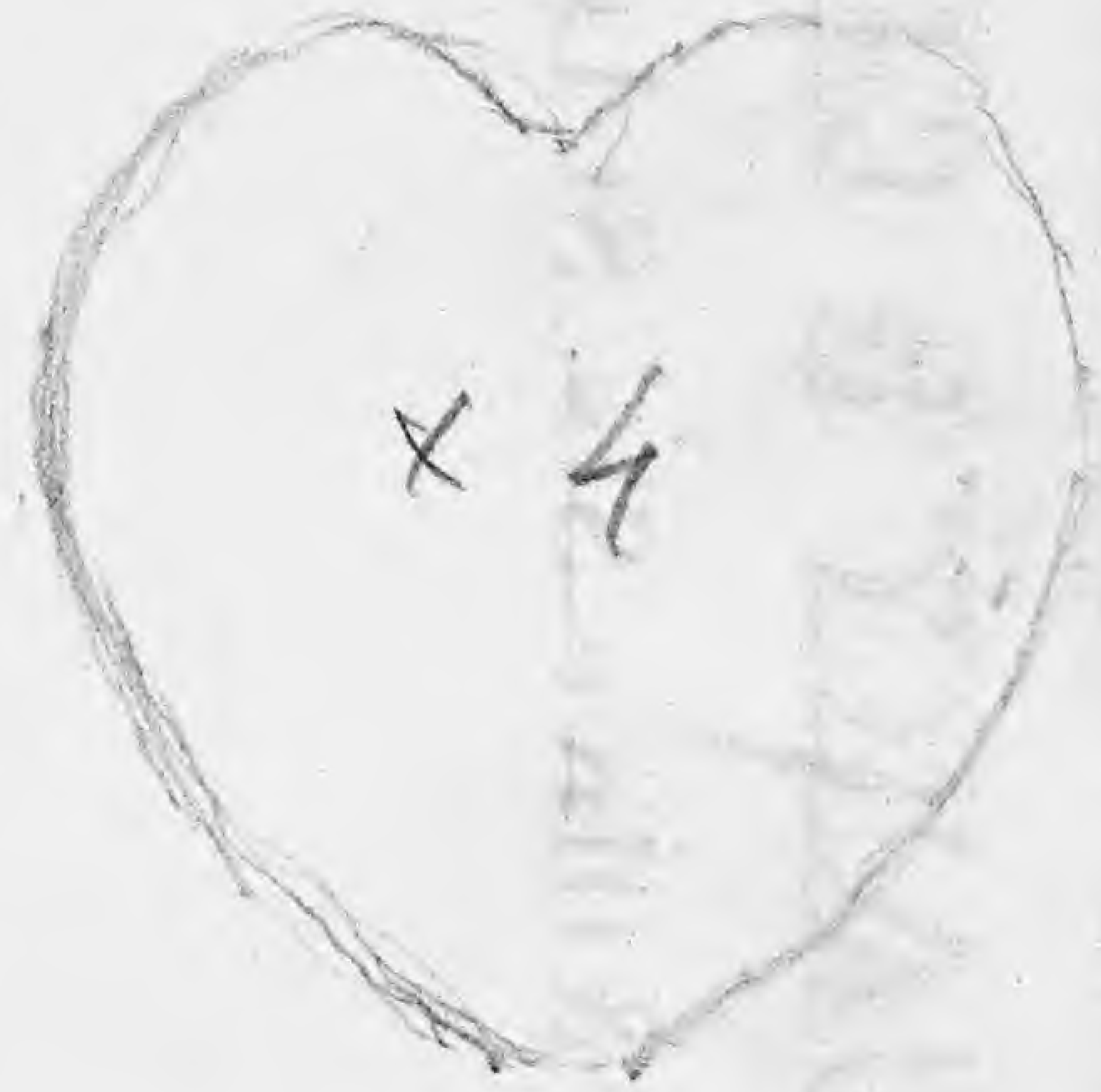
x 10



x 10

x 10

20 stam



x 4

very young Achene

recept. conic-oblique

678

Pollen x 415
oval

leaves digitate
5-7
Silky

Alex. Leitch,

APOTHECARY & CHEMIST,

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

ELÆACRINUS KIRKWOODENSIS, n. sp.

Body very small, subglobose, a little longer than wide, flattened above and below. Basal pieces very gently concave, with their edges on a level with the plane of the under side. Radial pieces (fork pieces) reaching to the base and occupying more than four fifths the entire length of the body, narrow below and widest in the middle, sides gently arched. Interradial pieces subdeltoid, very prominent towards the apex, much longer than wide, obtusely angulated below, acutely angulated above, and notched on either side a short distance below the summit. Pseudo-ambulacral areas extending from base to summit, narrow, deeply impressed; sides nearly parallel; pore pieces amounting to about fifty in each field. A longitudinal fissure or slit extends from the central summit opening downwards, separating the pore pieces of one side from their fellows of the opposite for the distance of about one fifth the length of the field, thence their inner edges are united in the median line to the base. Pseudo-ambulacral spaces lanceolate, sloping gently from their edges to the sutures. Ovarial apertures eight, very minute, situated at the notches of the interradial plates. Anal opening large, circular or very slightly elliptical. The surface markings are not plainly exhibited in any of the specimens I have collected of this species. On several of them I observe, more or less distinctly, irregular coarse rugæ or pittings, which, however, may be due to weathering.

Dimensions.—Length, 0.20 of an inch; width, 0.18.

The *Elæacrinus Kirkwoodensis* is nearly allied to *E.* (*Pentremites*) *melo*, 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.

Topaz in Utah. By HENRY ENGELMANN.

During my explorations in Utah as Geologist of the Expedition under Capt. J. H. Simpson, Top. Eng'rs. U. S. A., in 1858 and 1859, I observed some remarkably beautiful crystals of Topaz among some detritus of trachytic porphyry. They were perfectly colorless, transparent, sharply developed, and of great lustre. They were all short columnar. The largest of them measured scarcely one third of an inch in the direction of the basal cleavage, which was highly perfect. I observed ten modifications: all crystals exhibited (according to Prof. Rose's designation)

∞ c : b : a ,	∞ c : b : 2 a ,	c : ∞ b : : ∞ a 1 ,
4 c : b : ∞ a ,	2 c : b : a ;	
most of them also	2 c : b : ∞ a ,	c : b : a ;
a few only	2 c : ∞ b : a , and	4 (?) c : b : a .

As in none of the crystals were both ends developed, I could not ascertain whether they were hemihedral, as is most common with topaz. The hardness of the mineral is =8. It is infusible before the blowpipe; and when strongly heated is coated with small blisters, but does not show any change of color. It exhibits the reactions of fluorine, alumina, and silex. No tests were made for other elements, nor were the crystals examined in regard to pyro-electricity and polarization of light. They exhibit double refraction quite plainly.

The locality of the mineral is near lat. 39° 40′, long. 113° 30′ west of Greenwich, west of south of Salt Lake, in Thomas' range of mountains, on Capt. Simpson's return trail. Circumstances prevented me from obtaining more than a few crystals, which are now deposited in the collection of the 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.

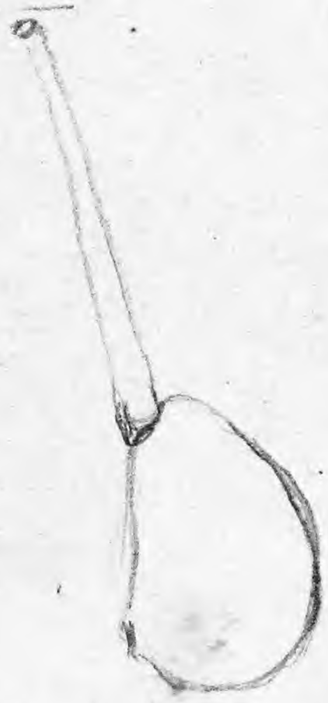
The mountains of the former Territory of Utah promise a rich yield to the mineralogist. We know already of gold and silver ores in the east, west and south part of that district; of copper and lead ores in the south, and I have discovered the latter also in the centre of it; of specular iron ores and 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.

15 A. gmelini Torr. June 7 1867.

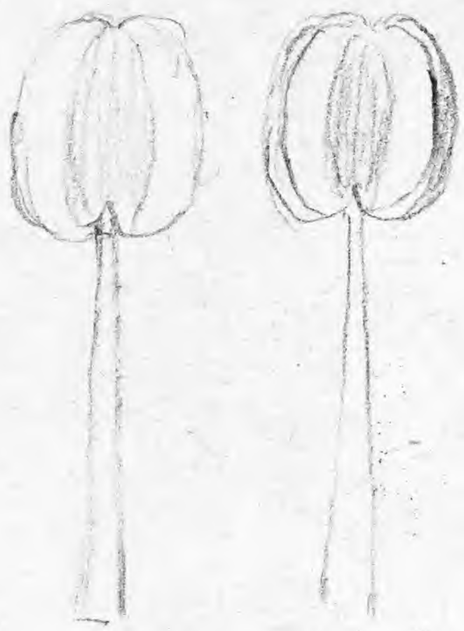
Rocks Prairie Utah, H. Engl.

16. Three Forks of the Saline

679



achen ×10
not quite ripe



pistil ×10 outside inside of largest stamen ×10

20 stamens in 3 series anthers 2 celled

Petal ×4
orbicular, a little obliquely emarginate
calyx tube villous inside
pt. light-yellow

Alex. Leitch,

APOTHECARY & CHEMIST,

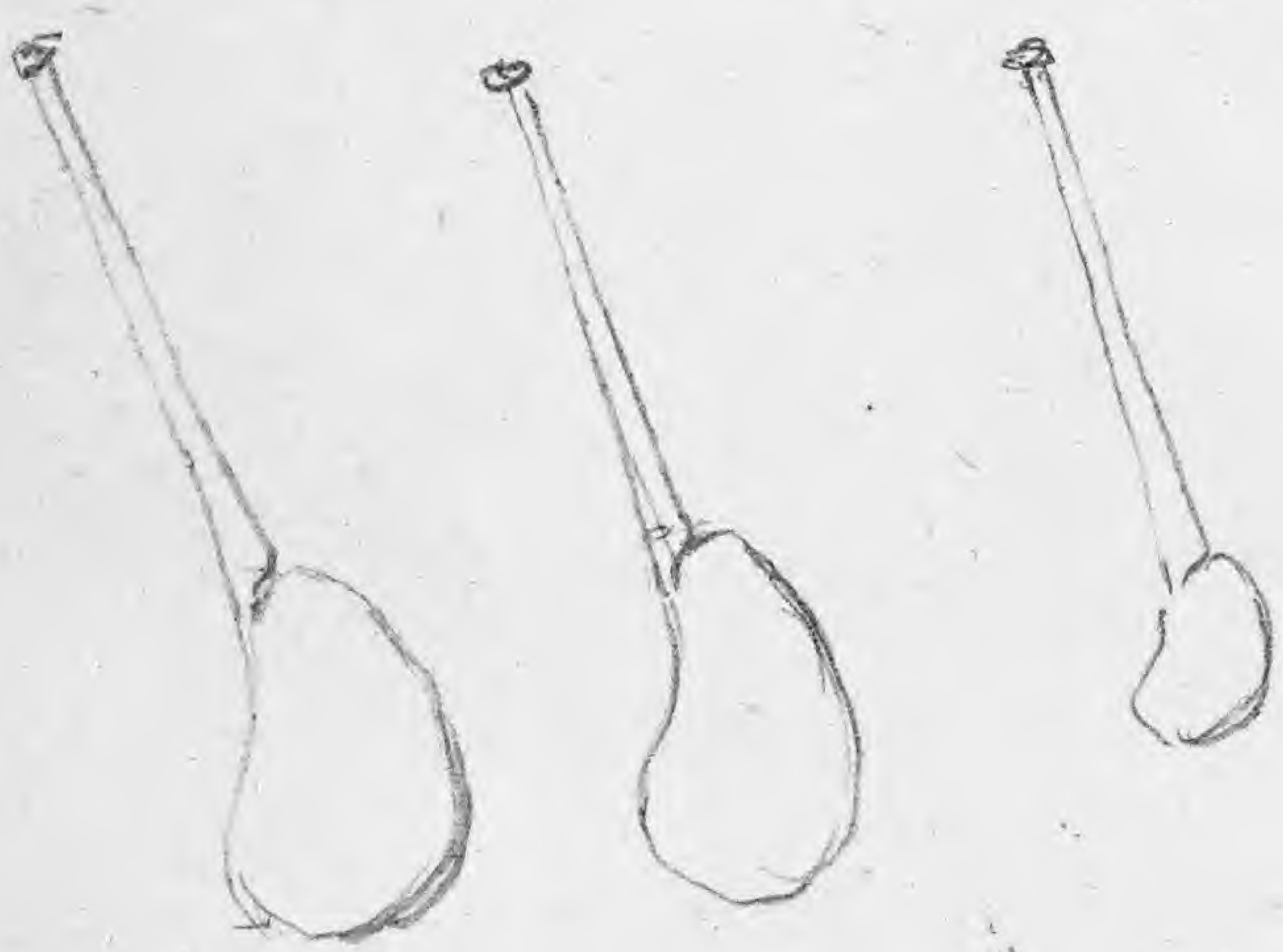
Cor 4th & Olive Sts. St. Louis.

Potentilla Nuttallii var. Jan 19 1867

Edwards Creek, Lookout Mountain
Utah. July 2 1857
H. Engelmann

680

x10

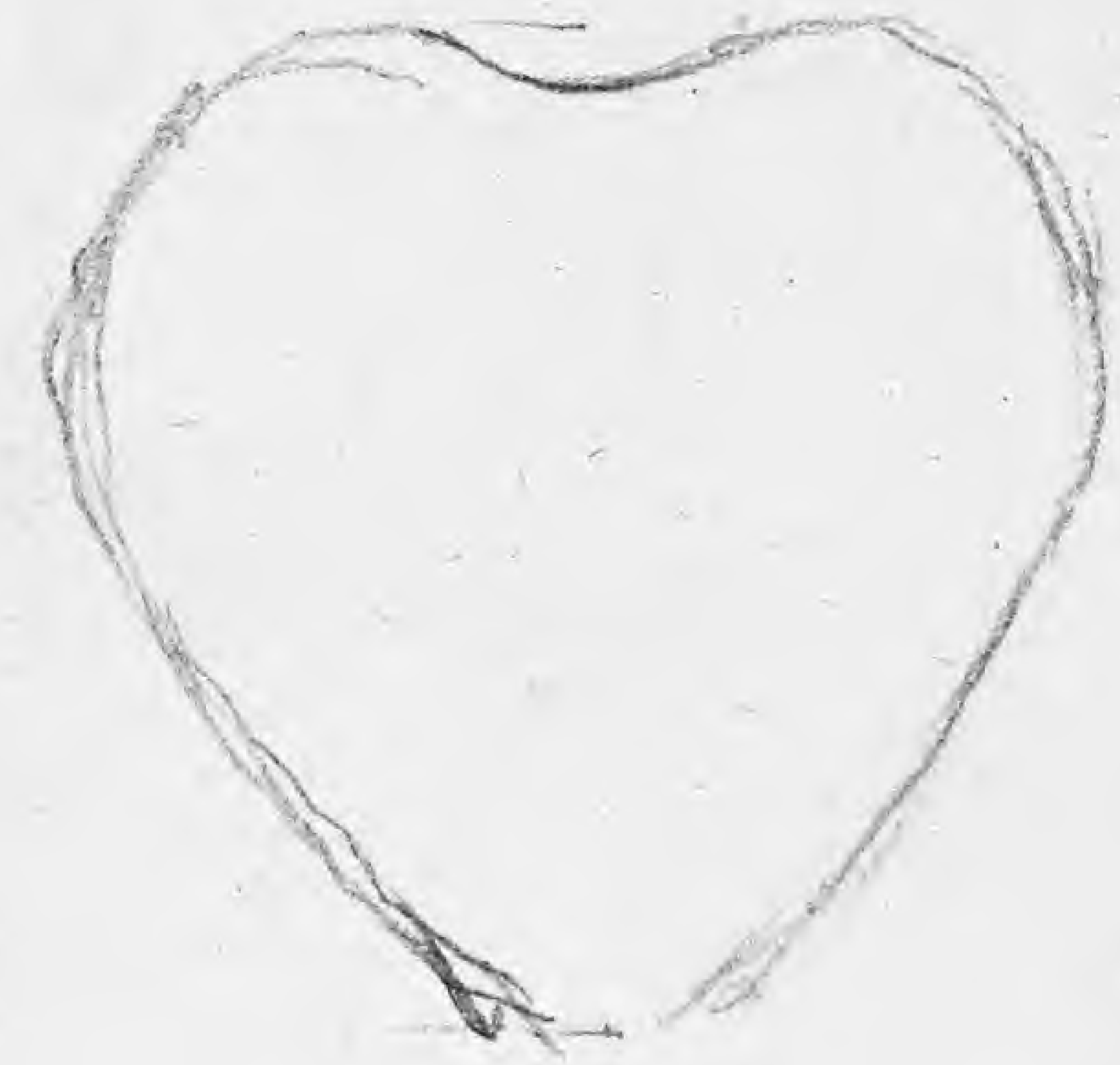


very young
achi

receptacle conica, oblong
acute

x10

20 stam



petal
x4

Specimen without lower
leaves, mixed with No 25
from same place — but rough
glandular, leaflets reflexed

ALEX. LEITCH,

APOTHECARY & PHARMACEUTIST,

Marble Building Cor. Fourth & Olive Sts. St. Louis, Mo.

Additional Remarks on Atmospheric Electricity.

By A. Wislizenus, M.D.

The delay in the publication of this volume enables me to add to my observations of atmospheric electricity in 1861, the result of my observations in 1862. The latter observations have been made in the same manner and by means of the same fine glass thread, which, after many thousand torsions, proves as good as ever. I present herewith in tabular form the general result of my observations in 1861 and 1862.

I. *Monthly mean of Positive Atmospheric Electricity in* 1861 *and* 1862, *at St. Louis, Mo., based upon daily observations at* 6, 9, 12, 3, 6 *and* 9 *o'clock, from morning till night.*

	Jan.	Feb.	Mar.	Ap'l.	May.	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Mean of Year.
1861*.	16.5	12.1	9.8	8.8	7.8	4.0	3.7	3.4	3.0	7.1	10.0	14.3	8.4
1862...	12.1	16.0	9.4	10.6	7.5	3.0	2.2	2.3	3.0	7.7	12.6	13.9	8.4

* This table of 1861 differs in some decimals from that published on page 66 and in Diagram No. 1. Having discovered some errors, I calculated all my observations once more, and give now the present as the corrected table.

II. *Monthly mean of Temperature and of Relative Humidity in* 1861 *and* 1862, *at St. Louis, Mo., based upon daily observations, cotemporaneous with those of Atmospheric Electricity.*

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	5.3	70.6	60.0	57.5	67.6	78.0

IV. *Direction of Winds and number of Thunderstorms in* '61 & '62.

1861.	E.	N.	N.E.	S.W.	N.W.	S.	W.	S.E.	Prevailing Winds.	Thunder-storms.
January.....	11	3	12	22	38	18	28	61	S.E.	 0
February	4	2	2	35	24	19	41	60	S.E.	 2
March.....	12	11	10	23	30	19	42	40	W. & S.E....	 3
April	16	10	9	26	21	35	34	26	S. & W.....	 2
May	26	10	23	21	8	13	49	35	W. & S.E. ...	 5
June	12	21	22	20	25	26	8	41	S.E.	 7
July	3	31	14	21	26	46	15	29	S.	 3
August	18	24	58	17	11	18	3	37	N.E.	 5
September...	6	14	18	26	30	13	21	52	S.E. & N.W.	 3
October	12	9	5	21	30	33	30	46	S.E. & S.....	 1
November....	7	15	8	22	27	20	36	44	S.E. & W....	 1
December ...	9	19	9	25	23	33	17	51	S.E. & S.....	 0
	136	169	190	279	293	293	324	522	S.E.	 32

1862.	E.	S.W.	N.	N.E.	W.	S.	N.W.	S.E.	Prevailing Winds.	Th. st's.
Jan.....	19	6	19	23	29	3	38	51	S.E.	1
Feb.....	14	9	18	16	22	7	39	43	S.E. & N.W.	0
March ...	9	14	3	15	59	10	34	43	W., S.E. & N.W....	4
April	12	13	18	31	18	11	34	47	S.E., N.W. & N.E..	6
May.....	12	18	14	38	18	30	14	44	S.E. & N.E.....	5
June	3	29	24	16	8	36	26	23	S., S.W., N.W., N. & S.E.....	6
July.....	5	25	17	7	2	24	31	77	S.E.	10
August..	6	16	16	45	5	22	28	48	S.E. & N.E.....	7
Sept.	16	10	21	18	11	18	13	72	S.E.	6
Oct.....	1	15	19	4	10	40	47	46	N.W. & S.E.	1
Nov.....	14	19	21	12	43	19	34	18	W. & N.W.	0
Dec.....	11	17	21	5	34	45	13	38	S., S.E. & W.	4
	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°

12

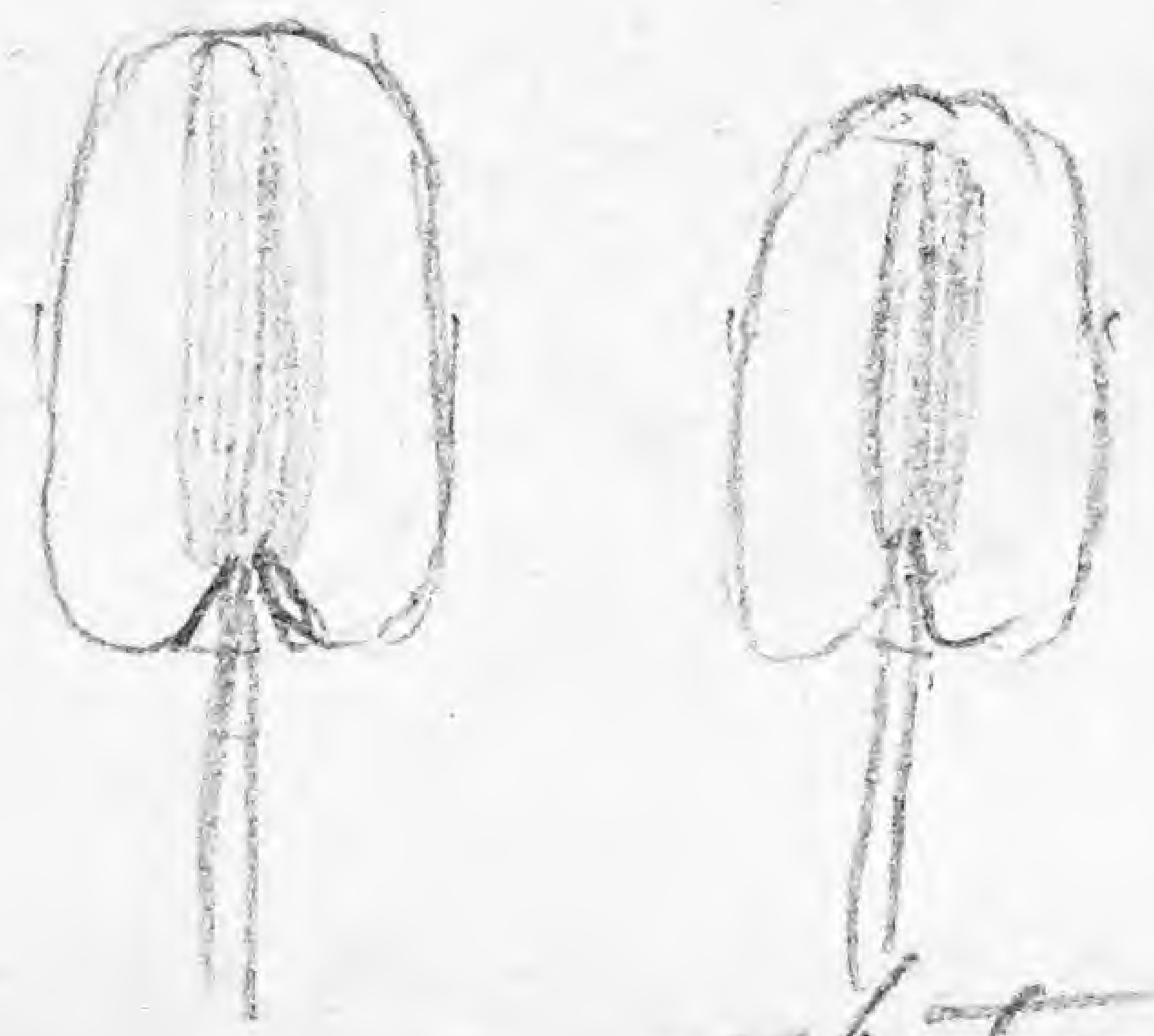
681

June 8. 1860

Dr Hayden Low Pass, Reynolds Expedit.

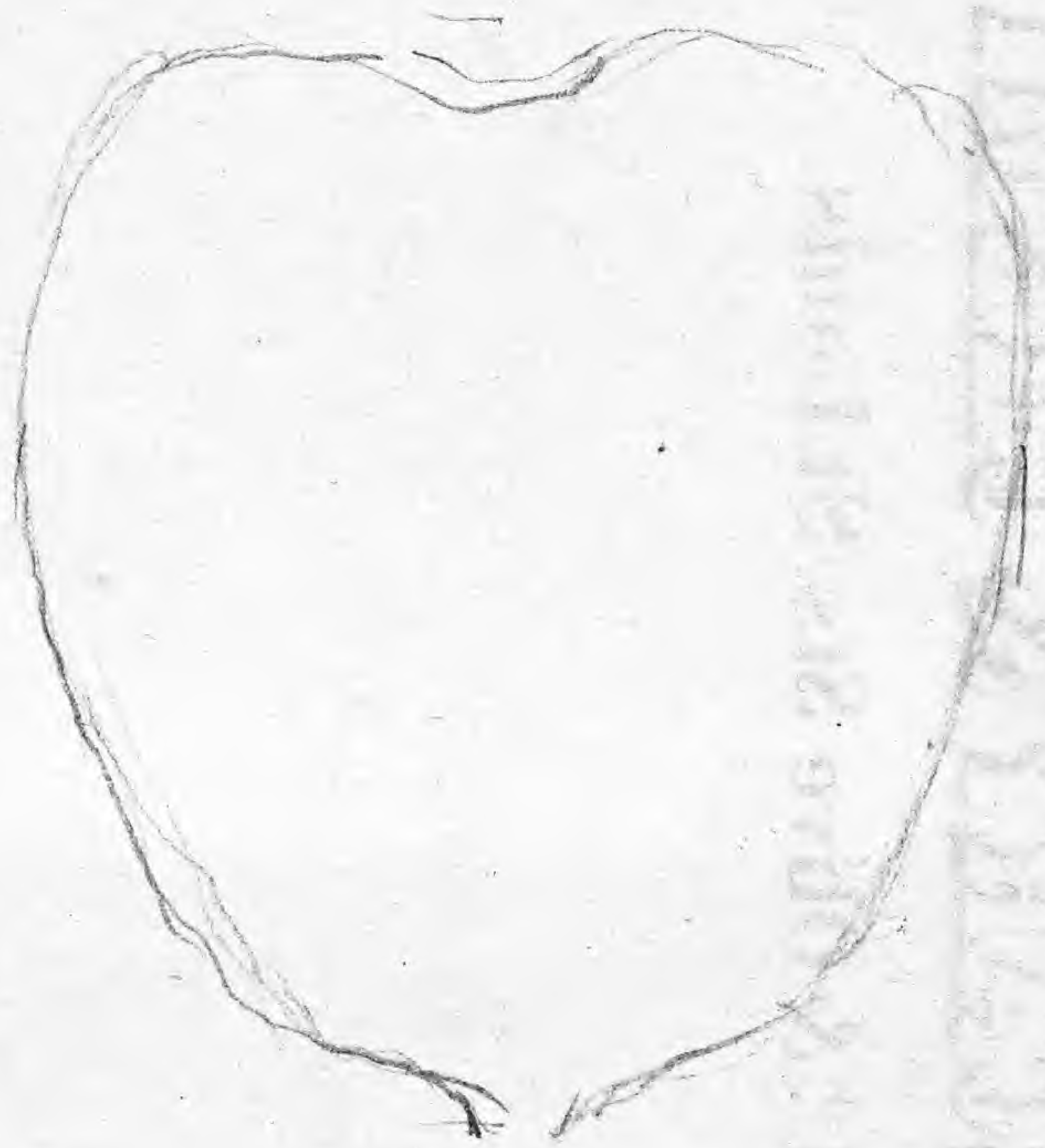
oval receptac.

× 10



Longest filament with a little larger anth

shorter filaments smaller anther



petal

× 4

20 stamens

inclosed, inside of calyx tube

fol digit

Alex. Leitch,

APOTHECARY & CHEMIST,

Cor 4th & Olive Sts. St. Louis.

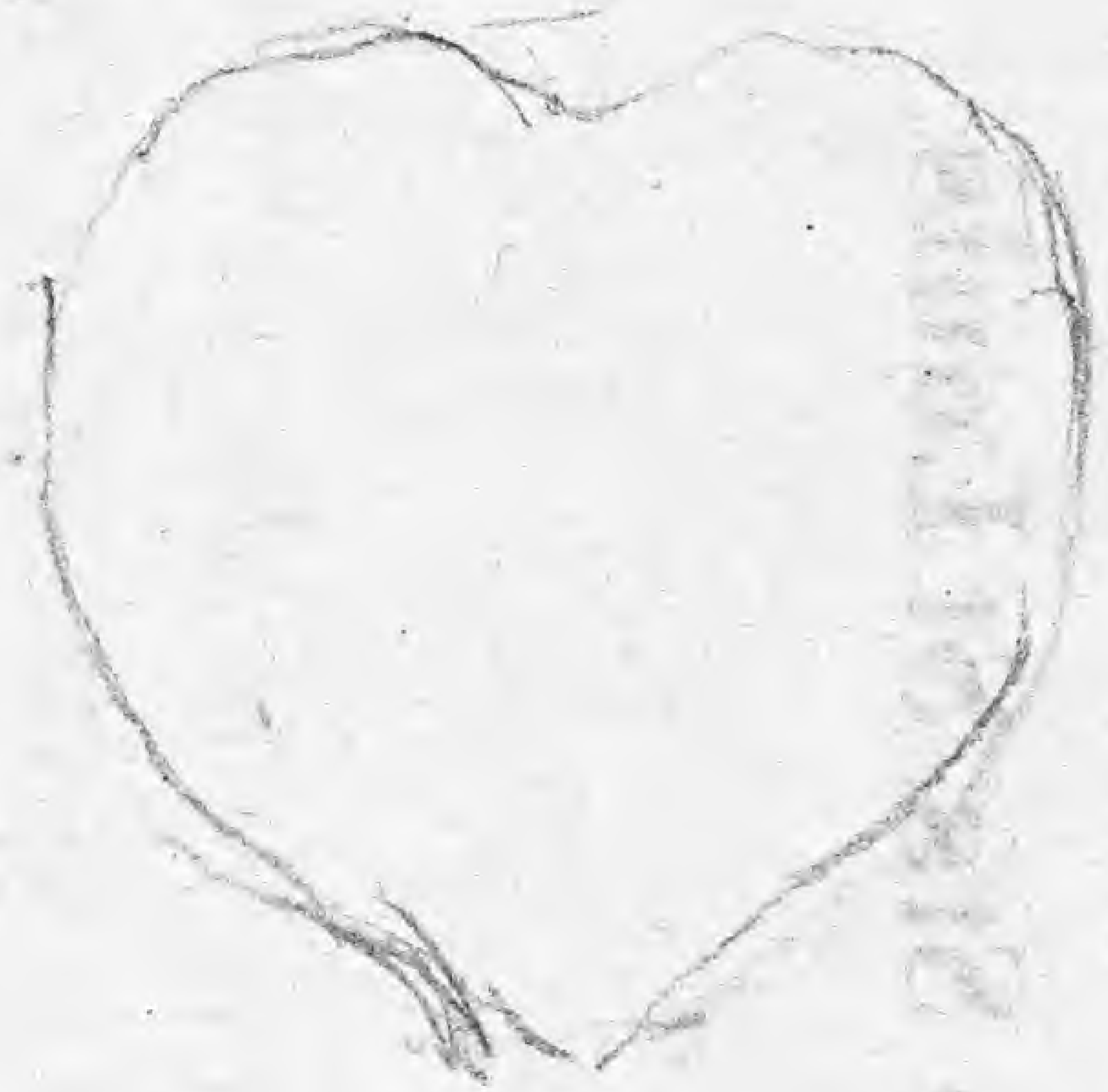
25

Nuttallii ?
= [illegible] ?

June 7 1867

454 Hayden, Yellowstone

x10



petal x 4

stamens 20 in 3
series
receptacle conical as usual
oblong
villous
the 5 opposite sepals
longest
and the 5 alternate
shortest

682

fol digitat.

Alex. Leitch,

APOTHECARY & CHEMIST,

Cor 4th & Olive Sts. St. Louis.