



MISSOURI BOTANICAL GARDEN  
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GEORGE ENGELMANN  
BOTANICAL NOTEBOOKS

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628. a.

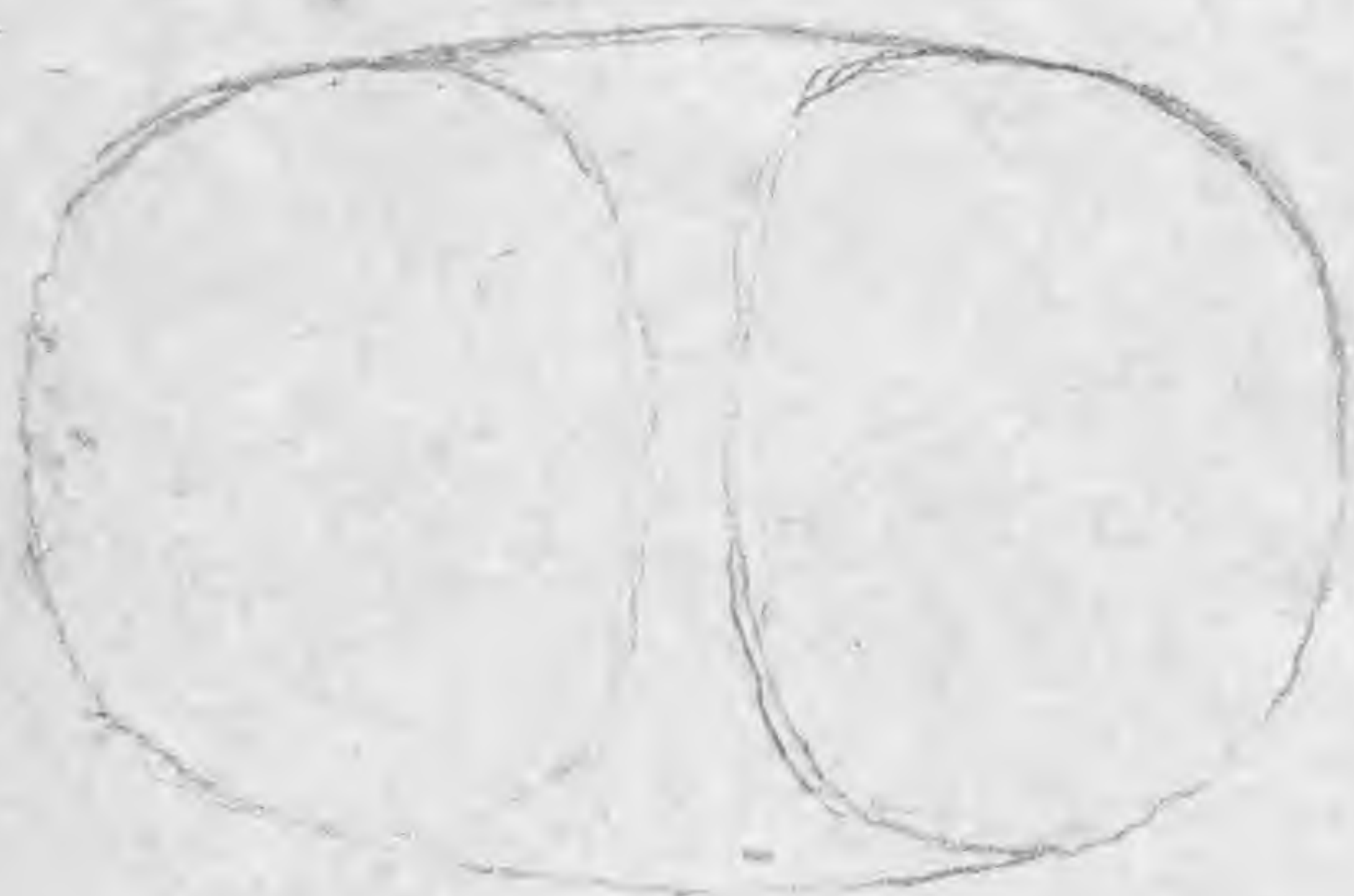
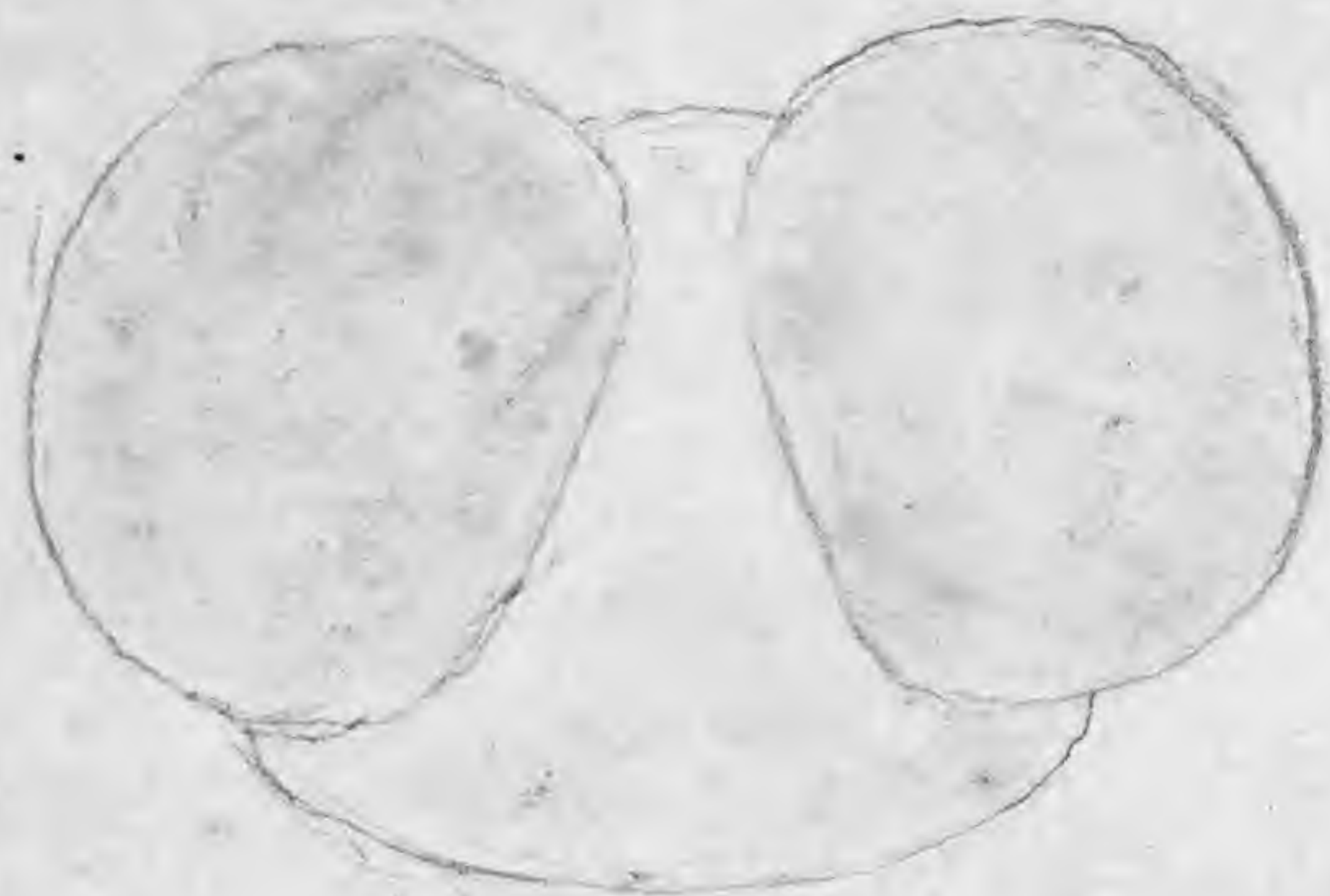
*Pinus Montezumae* ?

Aug. 23. 1863

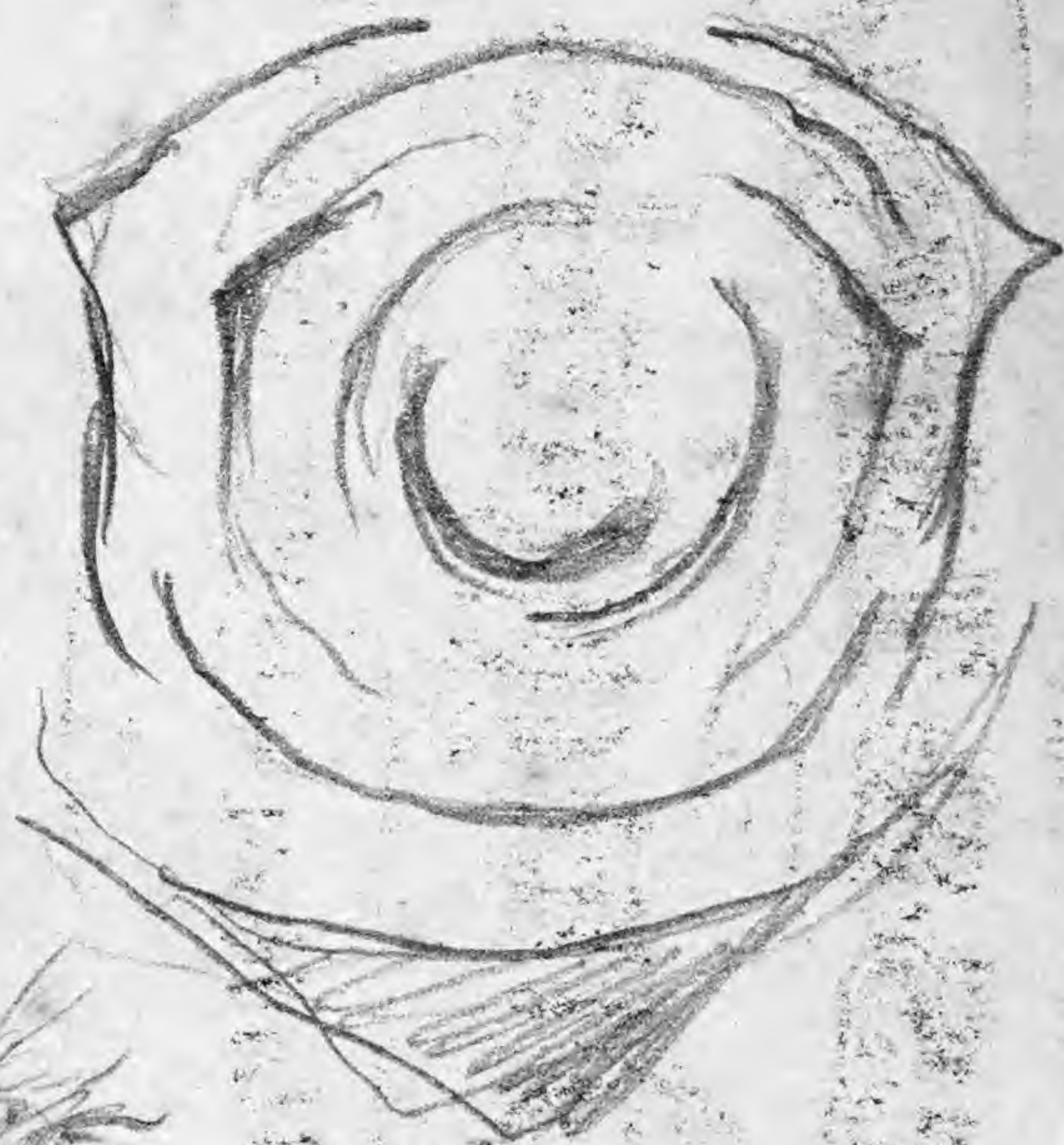
Gregg, Real del Monte

March 22<sup>d</sup> 1849

0.043



44



9-10  
invol.  
leaves

Pollen 0.043-0.044



0 1 2 3 4 5 6 7 8 9 10

cm

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BOTANICAL  
GARDEN



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GEORGE ENGELMANN PAPERS

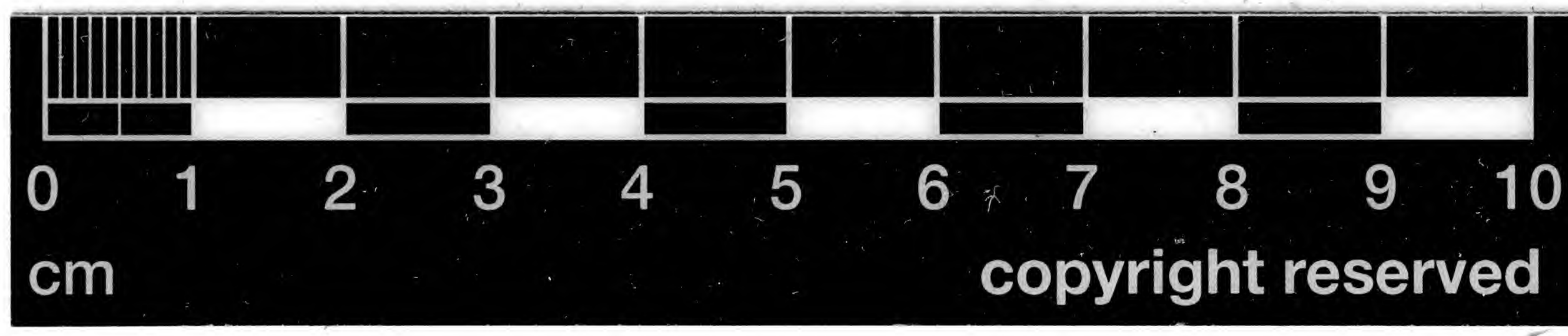
9-10 stout firm concave involucre leaves,  
the outer lateral strongly <sup>shorter</sup> carinate, the inner  
lateral also carinate acute, all others broadly  
oval obtuse.

infer. mesocarp abbreviat. capitata  
bractea recurvata persist. after the fall of the leaves  
vagines (old ones) 1 inch long  
leaves on the sp. with male fl. 8 inches  
on a vigorous shoot 12-13 inches  
strongly & closely serrate

leaves of fem. sp. 17 inches long sheath 16 lines,  
fem. aments subterminal, <sup>in</sup> cylindrical, with spreading  
beaked scales

MISSOURI BOTANICAL GARDEN  
JONES & LETTICH  
DRUGGISTS  
Cor. Fifth & Market Sts. ST. LOUIS, MO.

11077



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*Pinus monleyana*

Guss 628. a

Aug. 26. 1863

X30

X30

X280

Dry

Soaked

sterile

male

leaves of sterile branch

1 foot long  $\frac{2}{3}$  line diam

leaves of male  
branch,  $\frac{3}{4}$  foot long  
 $\frac{1}{2}$  line diam



0  
cm

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cm

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*Picus Montezumae*

April 6 1871

*foliis brevissimis* (3/2 poll.)

Herb. Bolivia.

C. Ehrenberg No. 651

x30



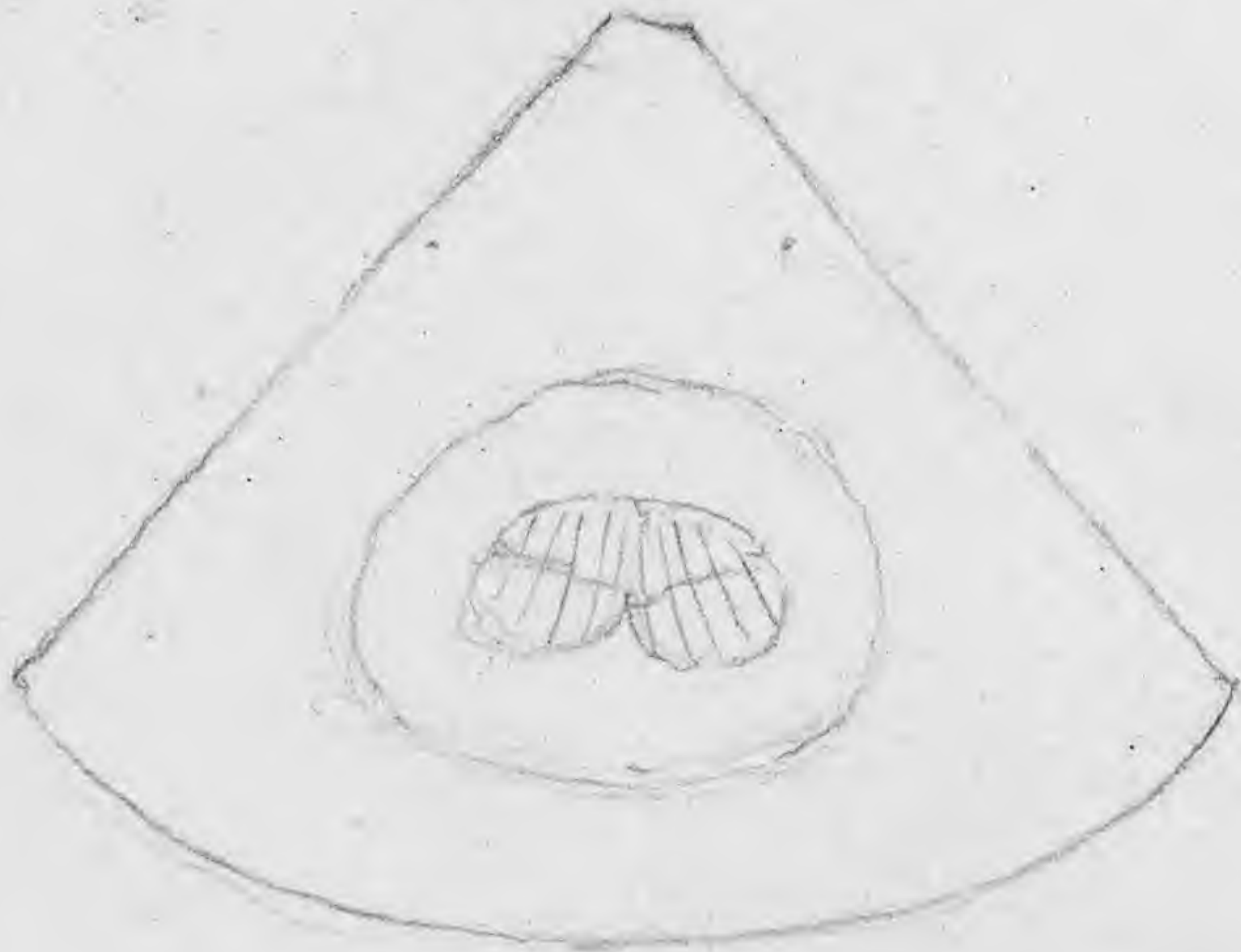
x30



x60



x30



MISSOURI BOTANICAL GARDEN  
GEORGE ENGELMANN PAPERS  
DEPARTMENT OF BOTANY  
GEORGE ENGELMANN PAPERS  
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South West  
Corner Fifth  
and Market  
Streets

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cm

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East of Tepic, May 1849

*Pinus Montezumae*

April 3<sup>d</sup> 1871

Dr Gregg No 975

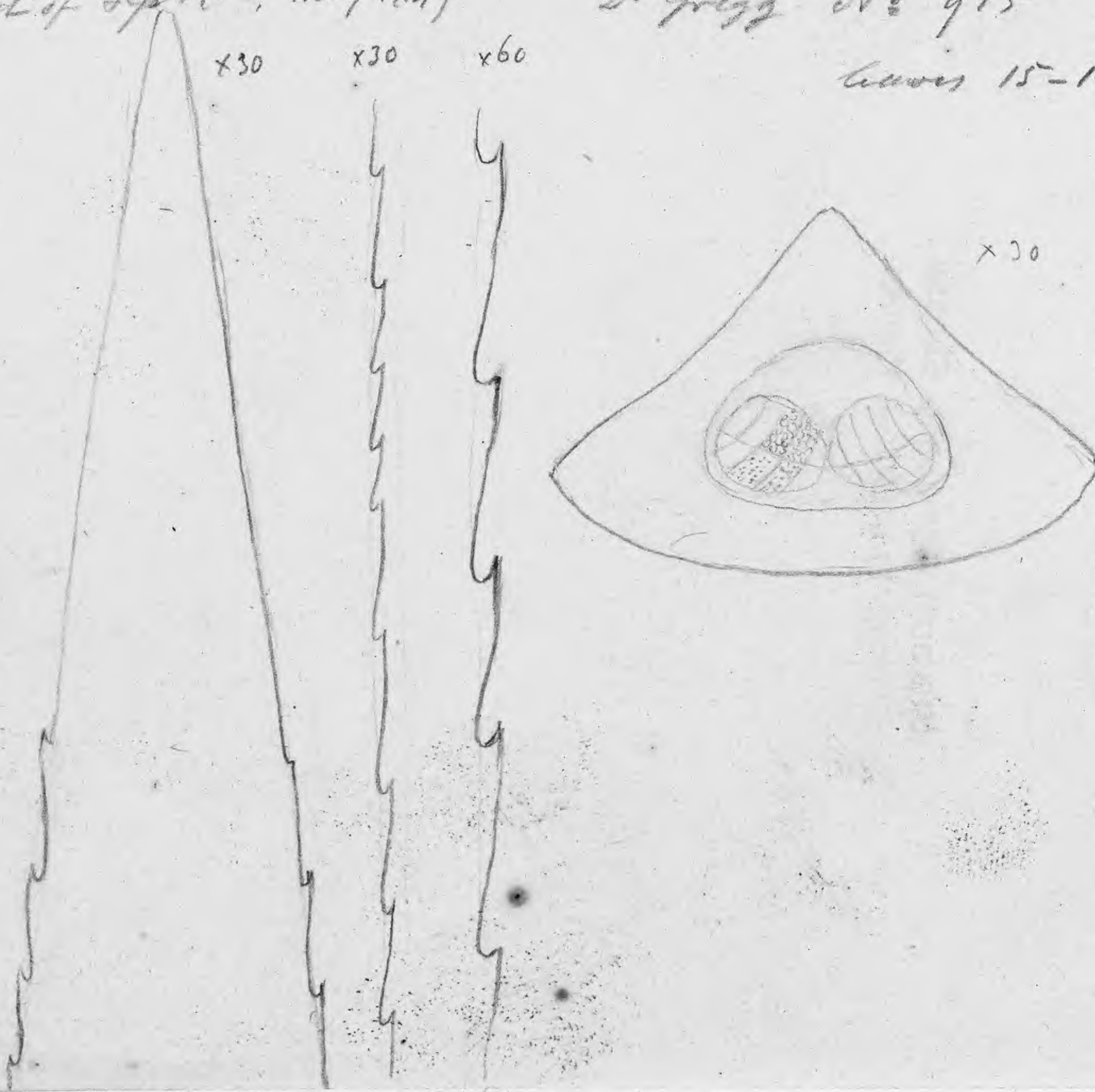
leaves 15-16 inches long

x30

x30

x60

x30



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 GEORGE ENGELMANN PAPERS  
 HERBARIUM  
 GEORGE ENGELMANN PAPERS  
 HERBARIUM  
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 HERBARIUM



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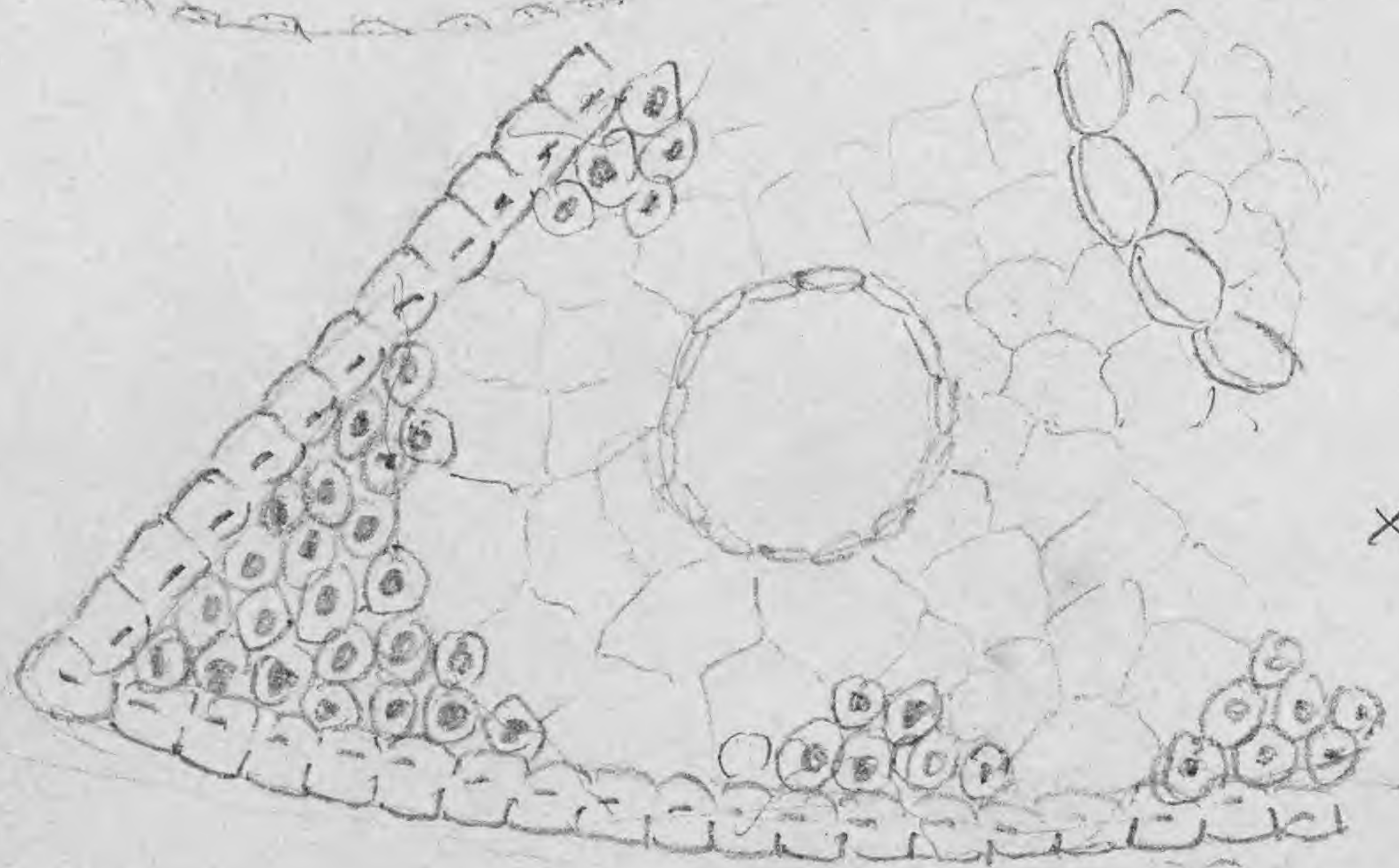


*Pinus Montezumae*

April 30 1878

Gray 975 near Tepic

leaves 16 inches long



x60



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cm

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APOTHECARY,

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MISSOURI BOTANICAL GARDEN  
GEORGE ENGELMANN PAPERS

Geo. Engelmann, M. D.,  
No. 3003 Locust Street.



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*Pithecomorpha*

May 2 1878

638 Ehrenburg, Mexico

H. B. Berl.



x30

no hypoderm arbor ducts

x20



x30



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cm

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3 Feb

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P. Foreyane

141-3



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cm

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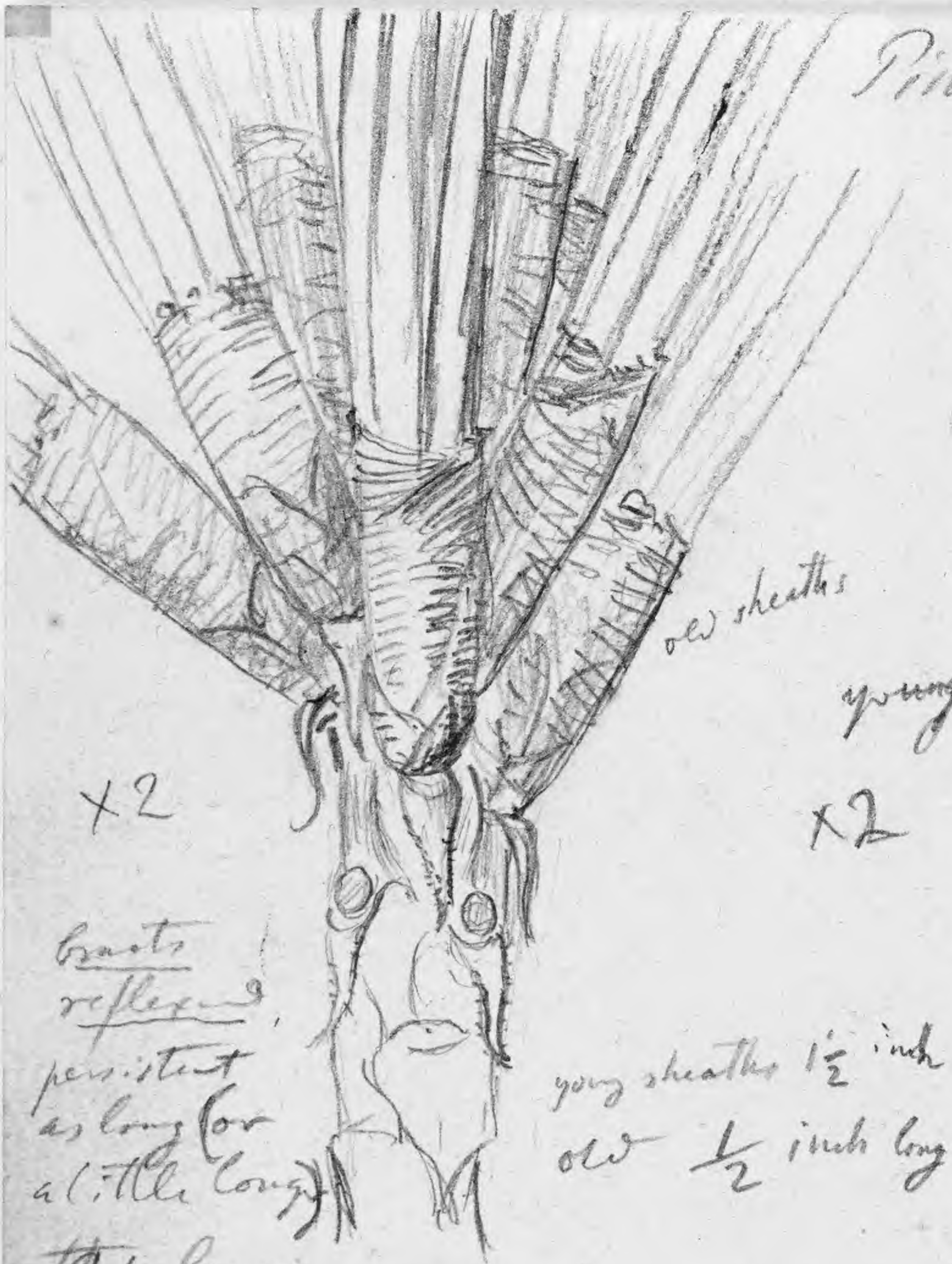
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*Pinus Torreyana* Parry  
by Herb. Parry

Calif

May 1862



x2

bracts  
reflexed,  
persistent  
as long (or  
a little longer)  
than leaves

old sheaths

young

x2

young sheaths  $\frac{1}{2}$  inch  
old  $\frac{1}{2}$  inch long



x2

terminal bud.  
resinous.

more a straggling shrub  
than a tree, with almost  
prostrate branches in  
exposed places — as a  
small tree it is  
quite round topped,  
rather the oval  
of Parry & C<sup>y</sup>

COLLECTED BY HERB. PARRY  
JONES & SEYMOUR



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cm

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DRUGGISTS,**

Corner Fifth and  
Market Streets, St. Louis, Mo.

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cm

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*Pinus Hartwegii* !

May 1<sup>st</sup> 1878

Hb. Berlin ?



leaf  
1.2 mm diam



hypoderm cells, all around  
and a few <sup>below</sup> ~~within~~ bundles  
within sheath  
2-5 ducts, with + hypoderm  
surrounding  
- parenchyma



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cm

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"Pinus Hartwegii" ?

May 25 1878

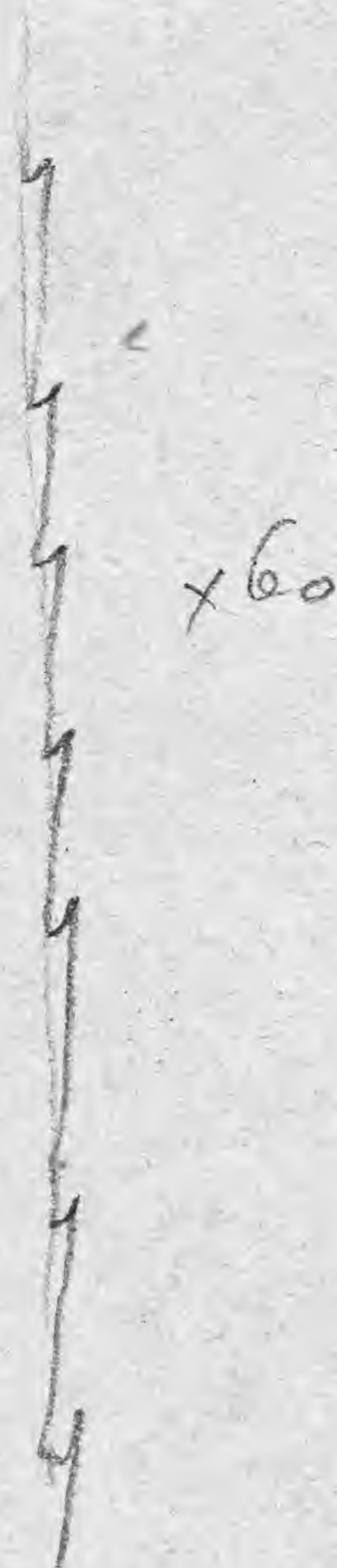
"Jacolote"

Herb. Berl.

White 563



ducts small, paracymbant  
or none  
hypoderm very sparing,  
in bundles  
and within sheath



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cm

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11086

No.  
1006 Olive  
Street.



PURE WINES AND LIQUORS FOR MEDICAL USE.

Cor. 5th  
and  
Walnut St

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*Pinus Hartwegii* ?  
"Jarolote" White Hb. Berlin 563

May 1<sup>st</sup> 1878



leaf 1 mm  
wide



only traces of parenchymatous ducts  
hypoderm cells few on back  
and a few in adax bundle



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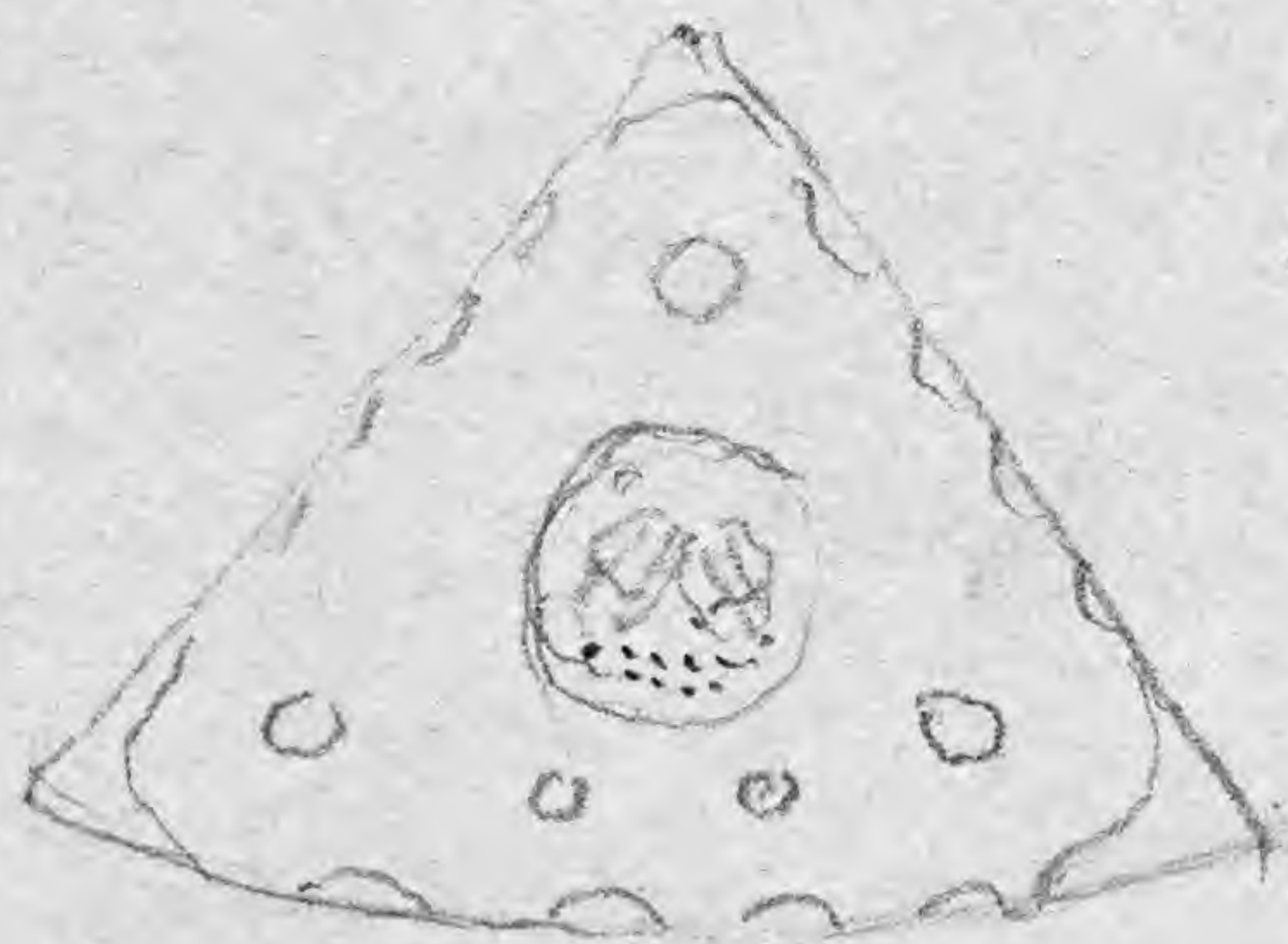
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May 25 1878

*P. Hartwegii* !

The original specimen of Hartweg



x30

3 regular parenchyma dent  
of 2 accessory ones  
no hypoderm around the  
but in bundles and epiderm  
and within sheath



x60



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cm

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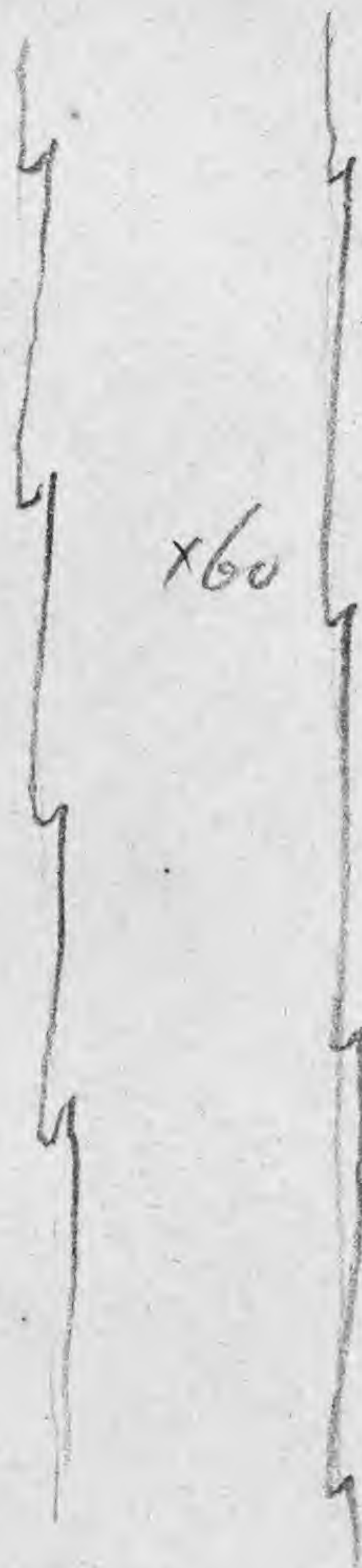
Pinus

May 29 1878

No 2 Liberman, Oaxaca



hypoderm - corners  
and in interrupted  
bundles all around



x60

both seen

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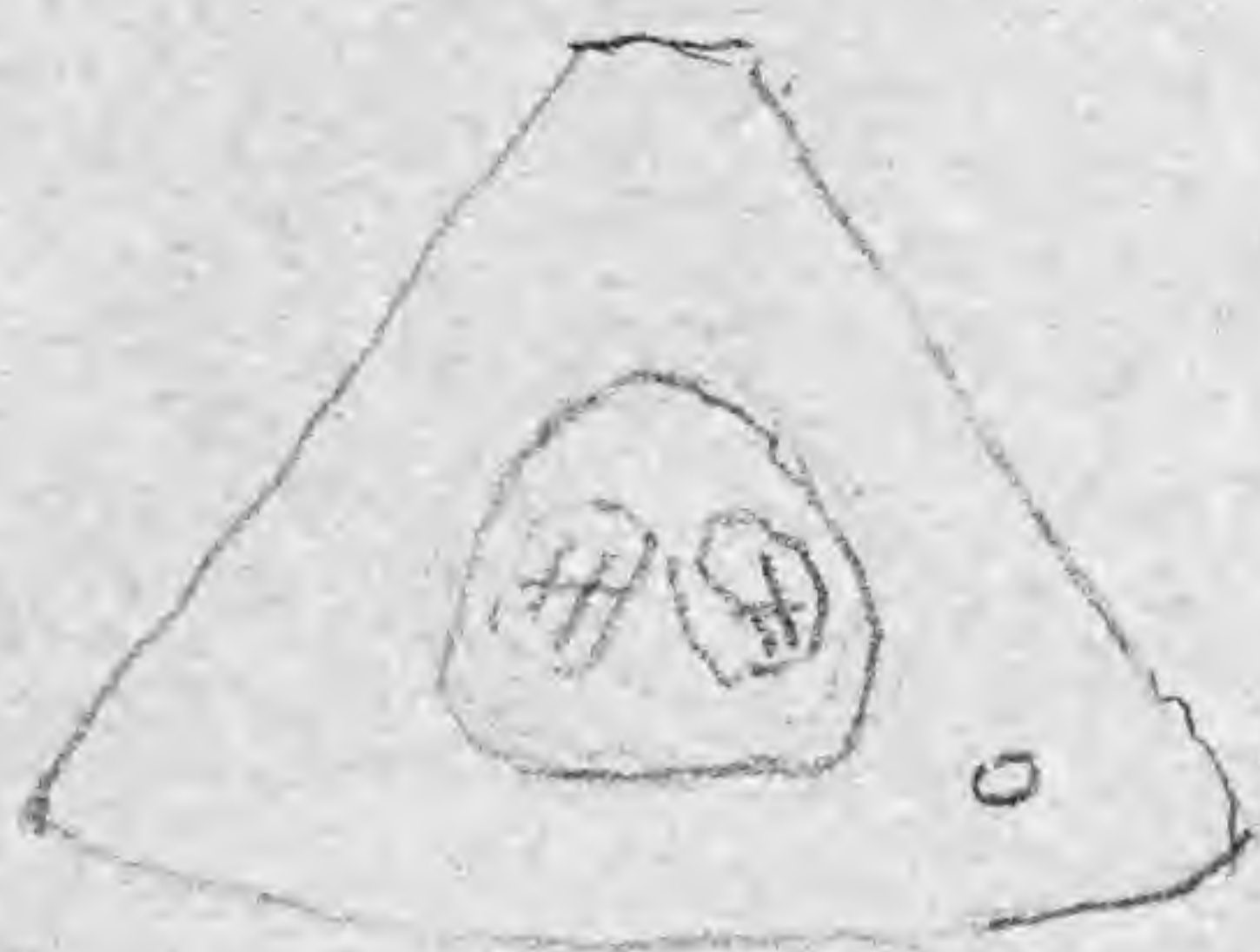


Pinus

May 29 1878

Puebla, Sierrita No. 1. strobili globosi

x 30



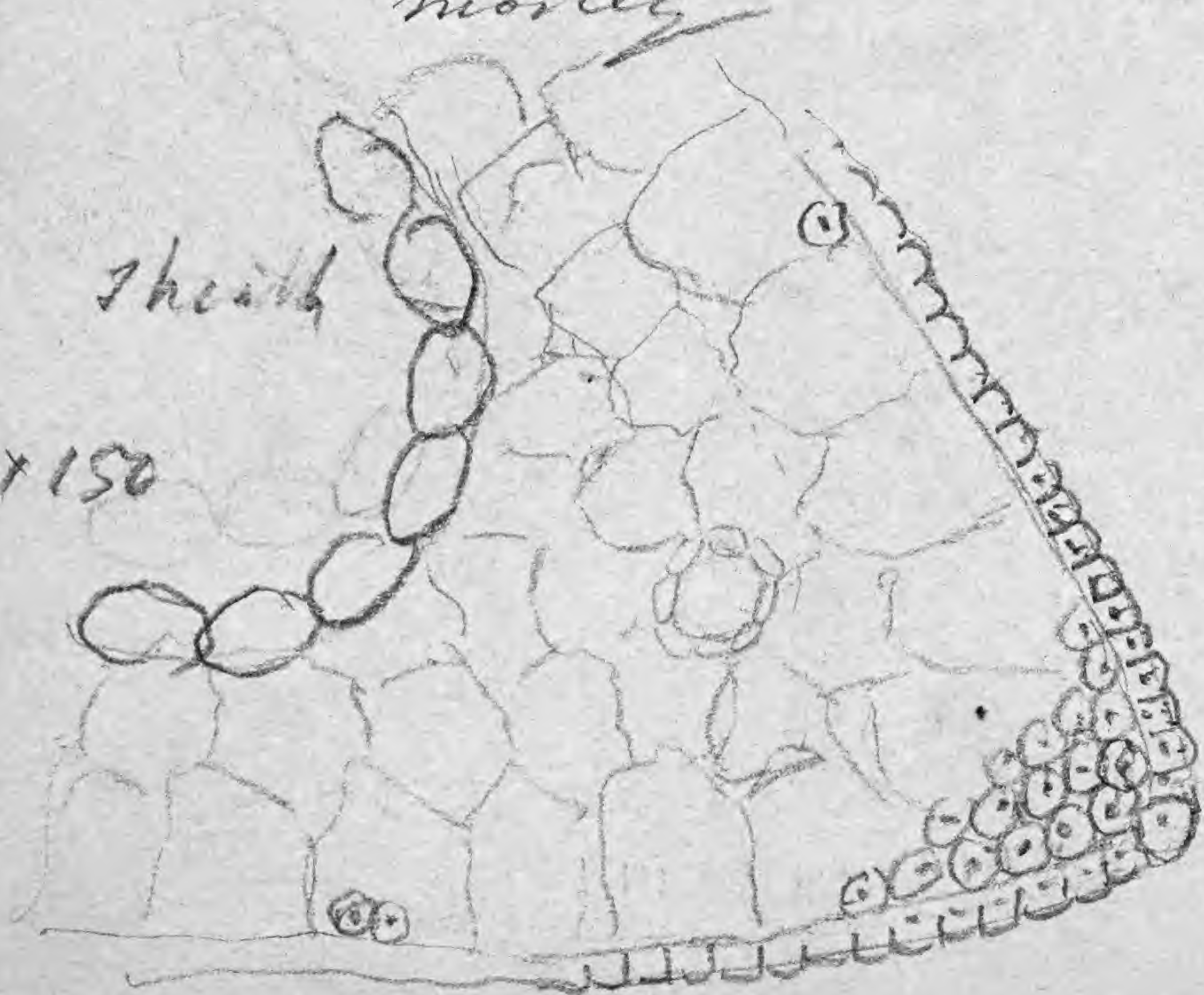
one parenchyma  
duct or none  
mostly

x 60



x 150

Sheath



0 1 2 3 4 5 6 7 8 9 10

cm

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*Pinus granvillei*

April 3 1871

cult. Pallaqua, May 16 1858

x 30



x 30



x 60



Leaves 16 inches long

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*Pinus Brachystemum*

June 21 1878

Hort Thuret 1869



x 30

2 lateral parenchymatous  
ducts

veins: 2 bundles.

hypoderm with sheath

in angles, and

sparingly all around.



x 60



0

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"Pinus inflexus" Roehl  
at Montezuma?

Kew Gardens 1869

June 21 1872

see Roehl Cat  
p. 19.



x 30



x 60

2 x 4-5 series of stomata on upper side  
about 1/2 " " on back  
2 parench. ducts - much hypoderm within sheath



0 1 2 3 4 5 6 7 8 9 10

cm

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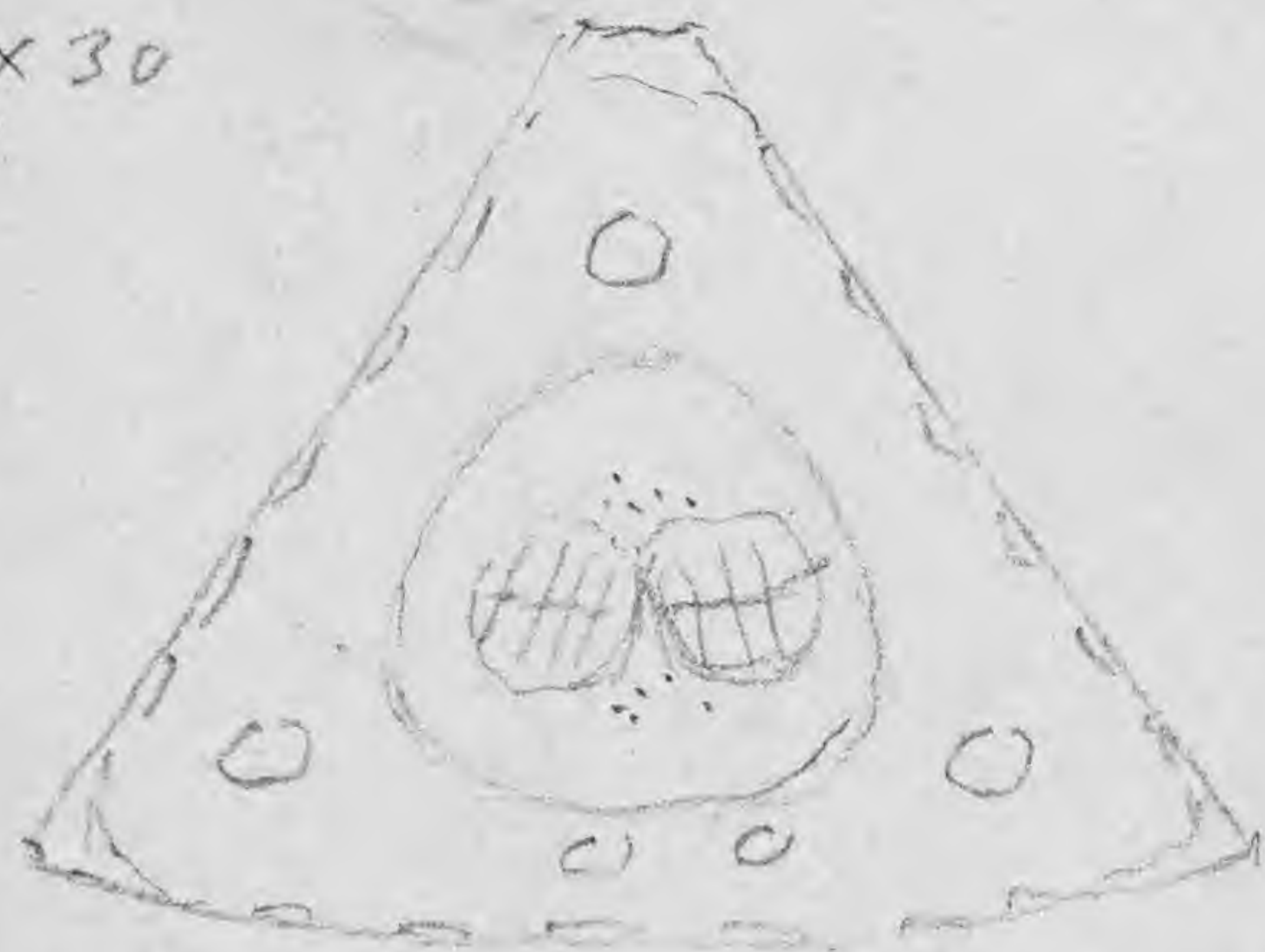


*P. horizontalis* Rargl

May 30 1878

= *Pseudotsuga* fide Parlat.

x 30



x 30



x 60



3 parenchymatous ducts  
of some accessory  
ones



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cm

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*Pinus rudis* ?

May 1<sup>st</sup> 1878

Mexico Ehrenburg, Hb Berlin 616

leaf 0.8 mm wide



very little hypodermis on  
angles and back, none  
within sheath



x 60



0

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"*Pinus Russeliana*"

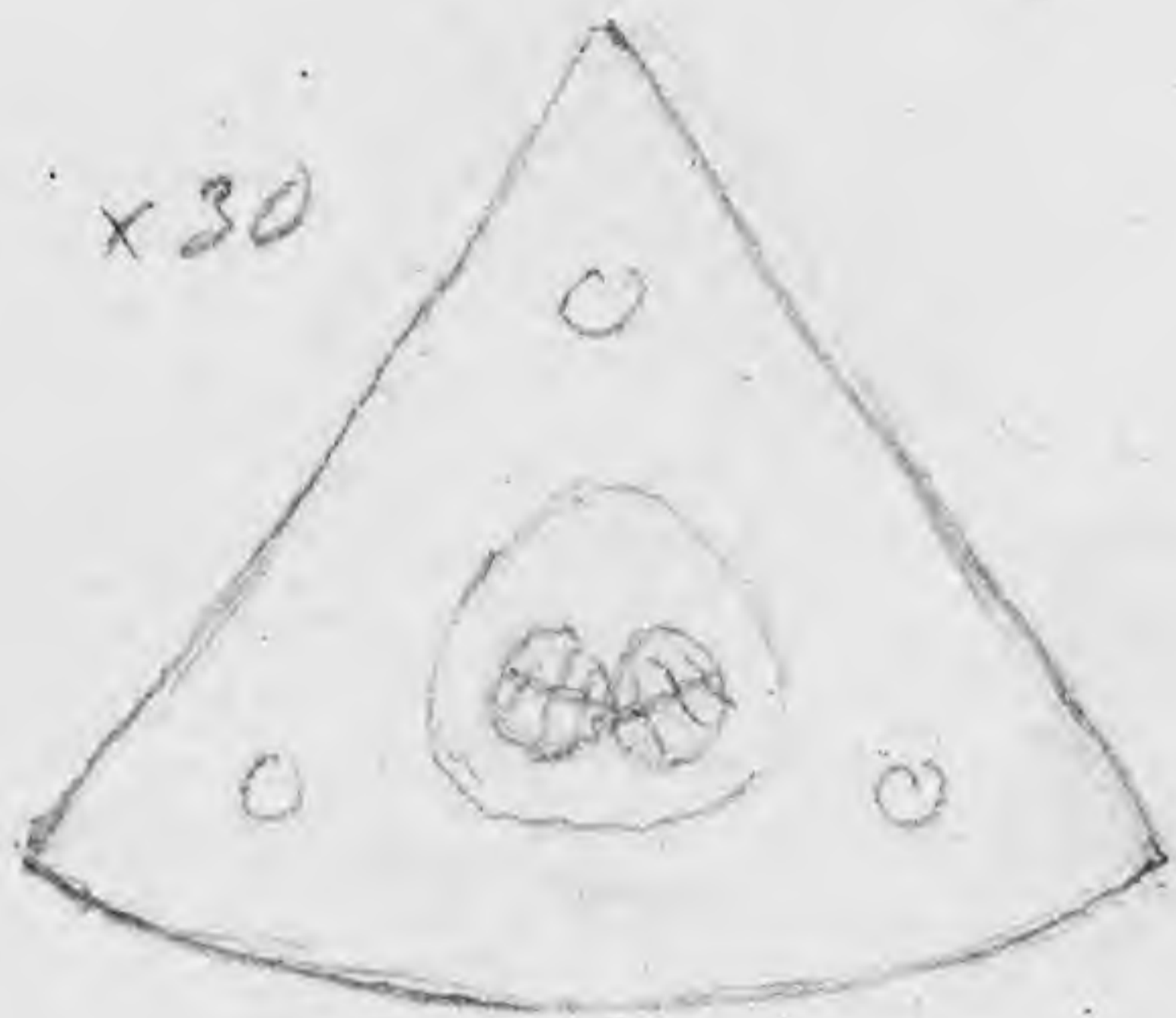
April 3 1871

leaves in 5 & 6

Villa Semidoff, Florence

Sept 1868

specimen of 6 leaves



leaf 0.9 mm wide

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