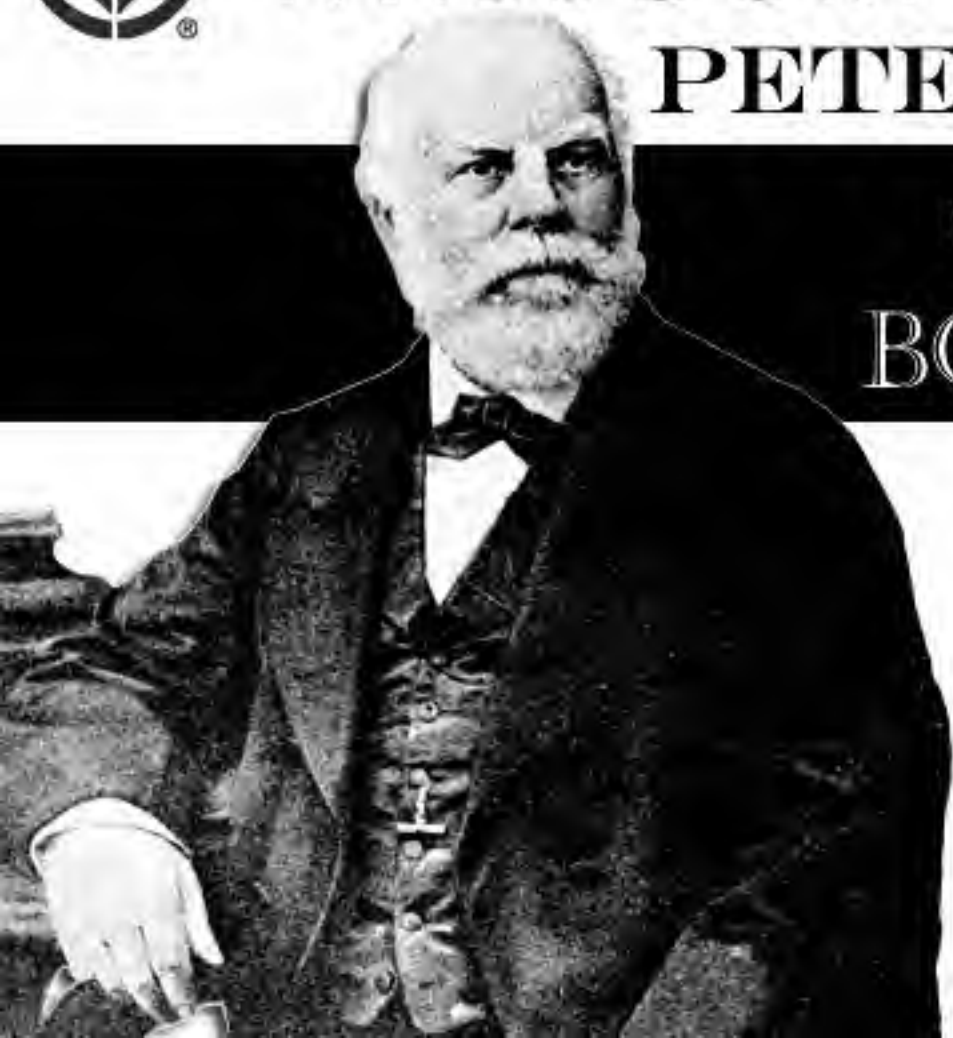




MISSOURI BOTANICAL GARDEN
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GEORGE ENGELMANN
BOTANICAL NOTEBOOKS

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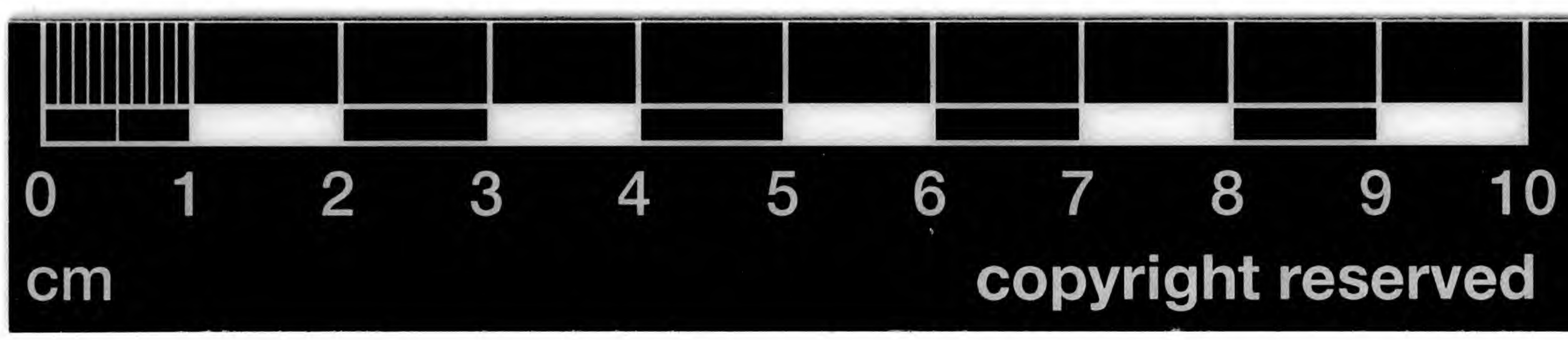
Webbiana = grandis
all leaves with only marginal
Guetts

Masso-Pubronensis
Cibitica
Webbiana
Pindrow
Nordmanniana
Thunbergii
Reg. Carol.

COLLEGE ENTRANCE EXAMINATIONS.

TEN years ago, the entrance examinations of our colleges, with two or three exceptions, were solemn farces. With profound gravity, professors and tutors listened to candidates wildly bungling in translations, demonstrating problems in geometry parrot-like, without comprehending their own words, and often flatly failing to meet the so-called *requirements* laid down in the catalogue; but the examiners passed them, some, it is true, with gentle conditions, and, with beautiful impartiality, gathered the stupid and the studious, the prepared and the unprepared, into the academic fold. The more fairly conducted examinations of Freshman year weeded out these immature and unsightly plants after a brief experience of prompting, "poneying" and shirking; but the harm of the hollow entrance ordeal had been done, a career had been entered upon, a failure in life had been made that might have been avoided at the start. These old-fashioned examinations were generally oral. The candidates were assembled in a hall in the college building on the appointed day. The professors and tutors turned out in full force, and passed from one applicant to another, putting a few questions in Latin, Greek, and mathematics, and the newly admitted were directed to present themselves to the College Treasurer. These oral examinations were feasible while a scanty number of candidates presented themselves for examination, but, within the last ten years, a desire has been growing among parents in this country to send forth their sons into the world as accurate scholars and cultivated gentlemen, and applicants are now numbered by hundreds in many of our colleges. Written examinations have therefore been generally adopted, and, Harvard taking the lead, faculties have been vying with one another in making the ordeals as severe as they were previously lax. Indeed, professors of repute have been heard to boast: "I assure you, sir, it is as difficult for a young man to obtain admission into our college, as into Harvard." And as if it were a matter highly creditable, each college publishes a long list of those who failed entirely, those who were conditioned, and those who "got through."

In the President's Annual Report of Harvard for the year



women between twenty and forty years of age, twenty-three per cent. in Scotland, and nine per cent. in Ireland. The latest published statistics place the excess of women in Sweden at 6.3 per cent.; Norway, 4.2; German Confederation, 2.3; Holland, 1.8; Spain, 1.5; France, 1.5; Denmark, 0.8; Prussia, 0.7. The census of 1860 gives an excess of about 5 per cent. in the United States. In England and Wales there are 513,000 more women than men.

A writer in the *North British Review* not long ago asserted that there were then 1,537,000 unmarried women in these two countries. "England," he added, "has always been the country of old maids—it is becoming so more and more." This is due to the increased luxury of the age. While four or five per cent. of English women may prefer celibacy from taste or tem-

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13056

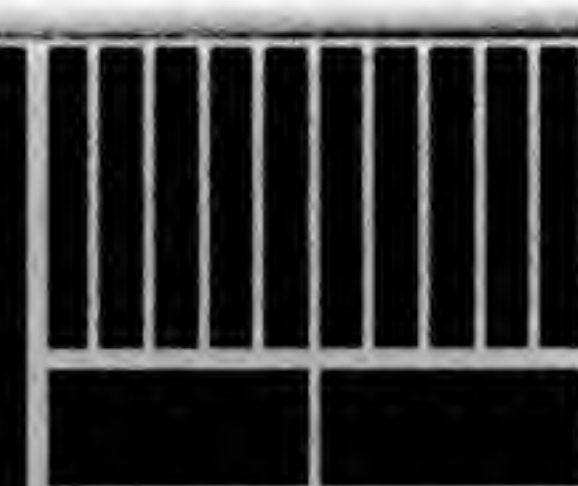
Also

our divergence from a thoroughly natural, sound, social condition."

The women are to blame, but men are incomparably more so; for it is they who do or might give the tone on all social matters. Thousands of women would prefer love to splendor—a bare competence, or even struggling poverty with marriage to the most luxurious life without—if men had the courage to offer them the choice. The latter, however, prefer a vicious and heartless youth, and a joyless and loveless old age, because they have no nerve to work, and no fortitude to forego. This is strong language, but we fear it is warranted by the facts not only in England, but perhaps the United States.

We have not yet learned the fate of the Tennessee bill, imposing a tax upon bachelors. Its enactment into a law certainly could produce no harm, and might result in considerable good were the tax levied increased ten or twenty fold. If every marriageable man was compelled to annually pay into the general fund a sufficient sum to maintain a marriageable woman, there would very soon be less talk about the American stock running out. We merely make the suggestion for the benefit of our State Legislators.

St. Ives



0 1 2 3 4 5 6 7 8 9 10

cm

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Bractea excelsa

Abies firma S. Z.

Oct 7 1870

both specimens have part
of the leaves deeply bifid

Nippon, Maximowicz 1864 - Hb Kew

seems to be the typical form

scale 27-28; 16-17 mm

= 3 1/2; 2



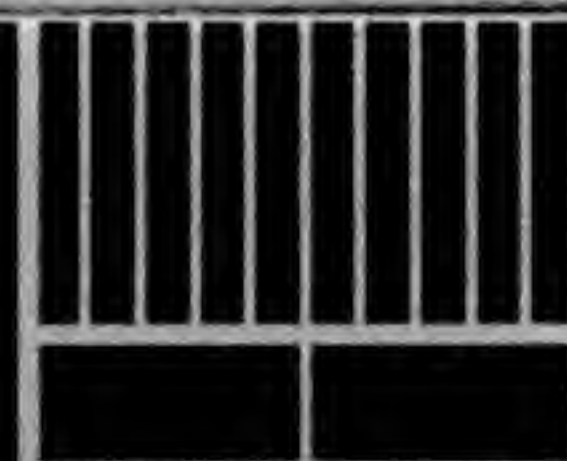
31; 17 mm

= 3 3/4; 2

Yokohama

Maximowicz 1862

- Hb Casson



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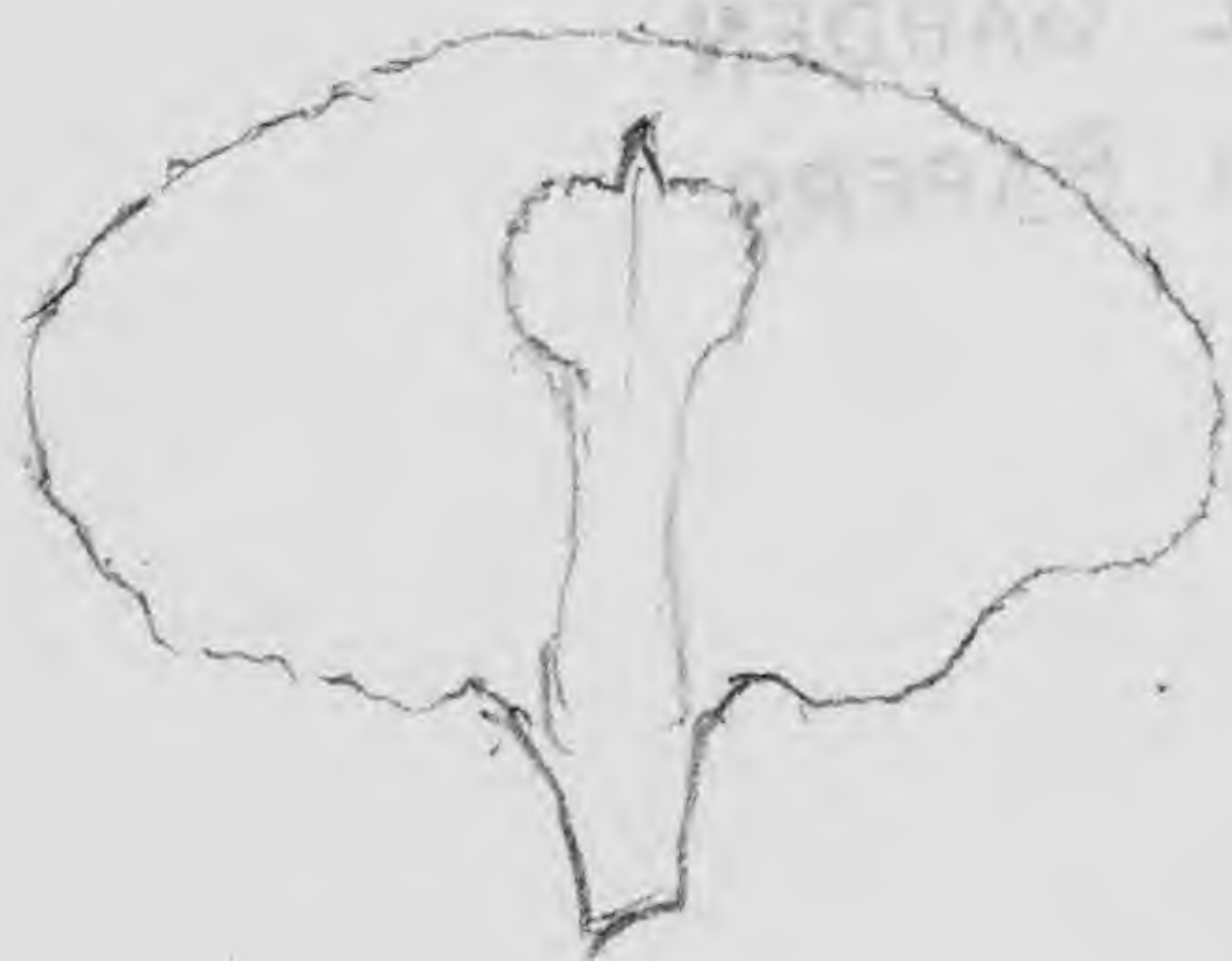
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Abies firma Sieb & Zucc Oct 7 1870
Nagasaki, Oshima 9/62 HB Kaw

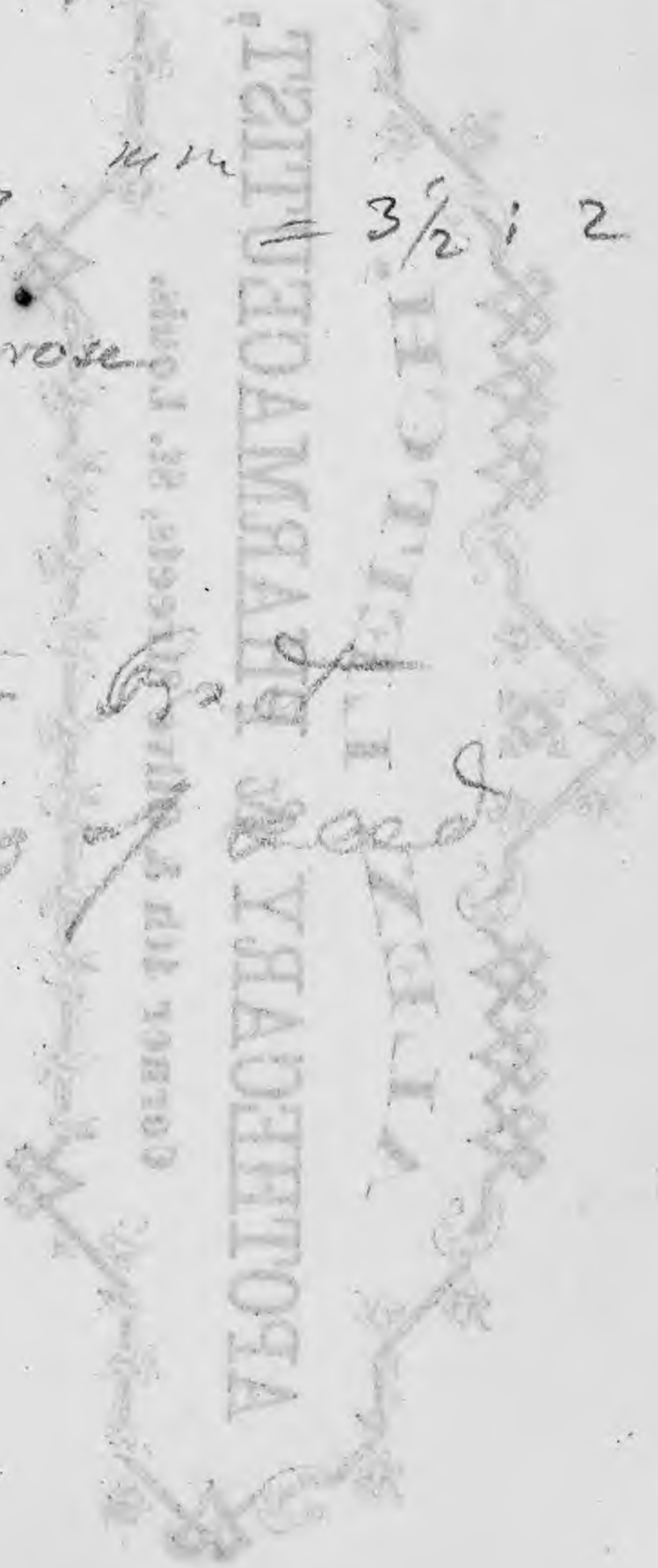


scale 30 ÷ 17 ^{14 14}

= 3 1/2 : 2

scale with very thin wose
upper margin

distinct by shorter
& broader wing of seed



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cm

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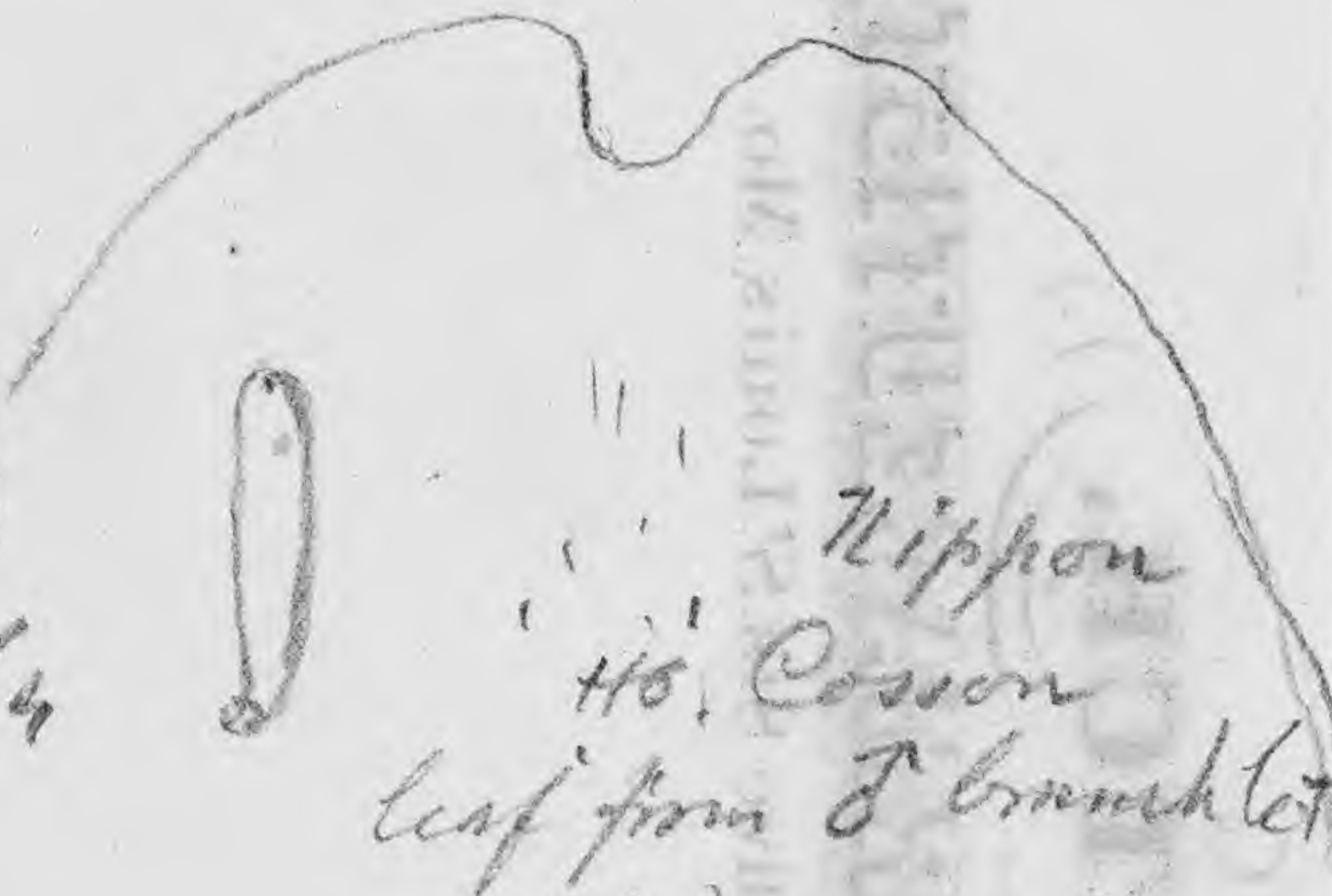
Abies firma S. Z.

Oct 9 1875

some stomata

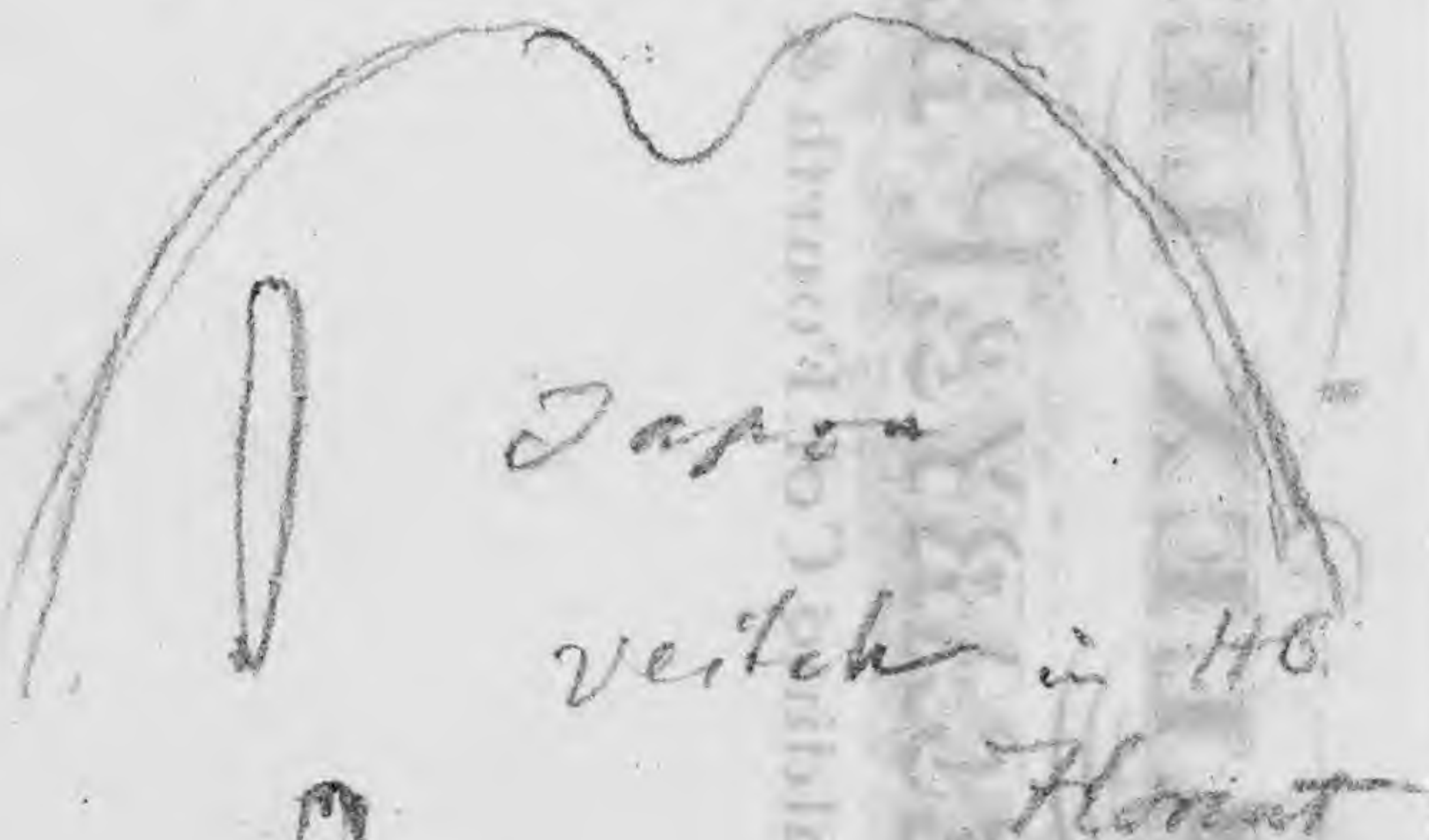


Tschonoski 1864



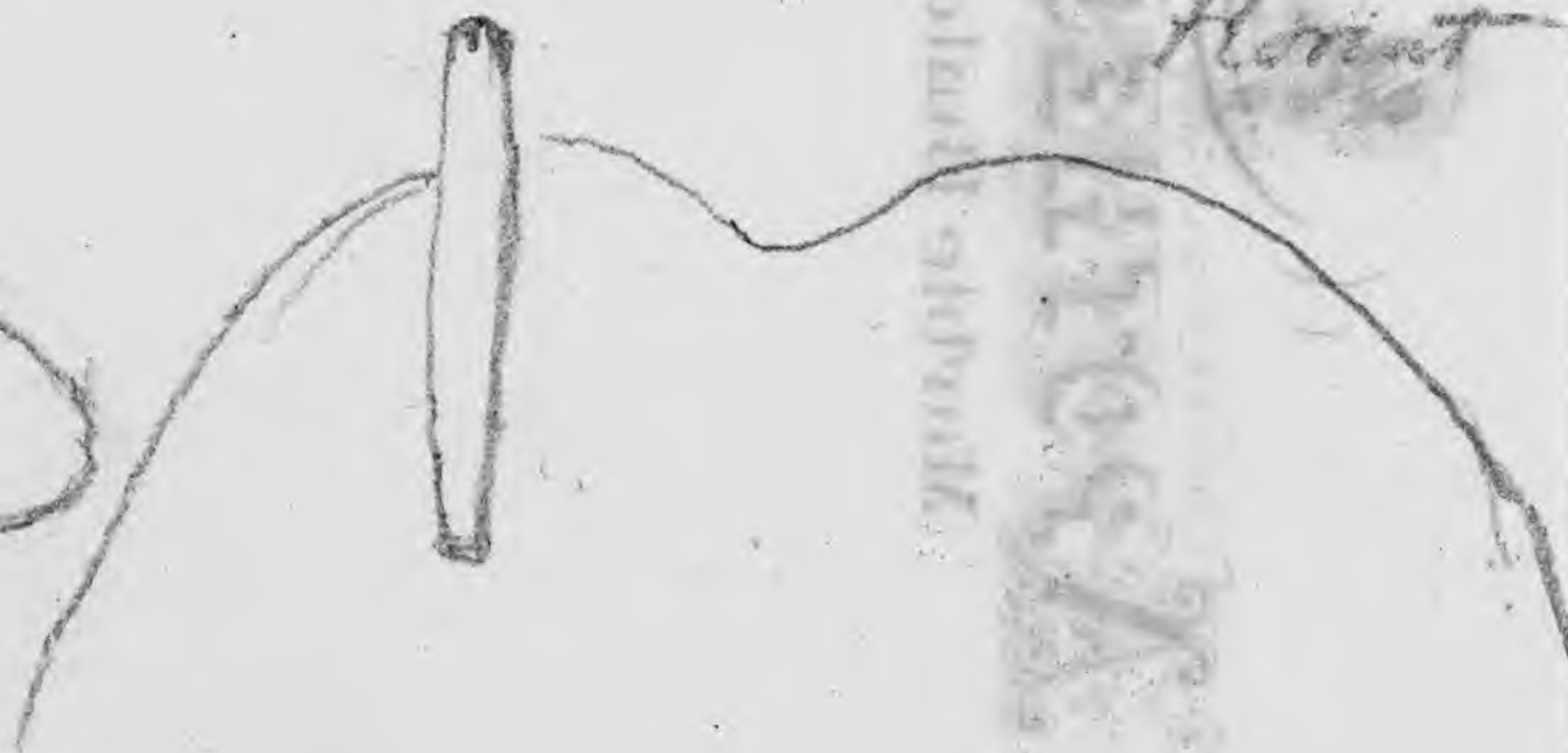
Hippon
Hb. Cosson
leaf from ♂ branchlet

no stomata



Japon
Veitch in Hb.
Flourens

no stomata



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

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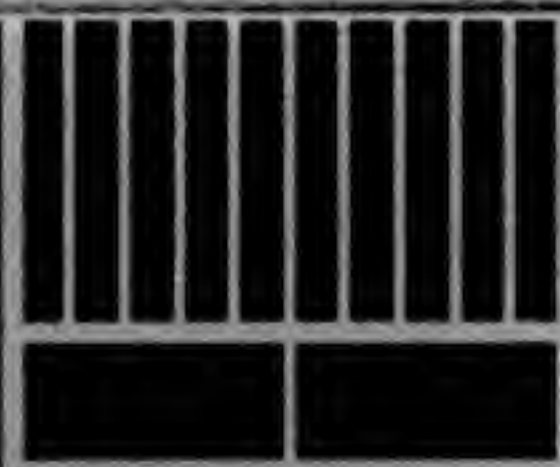
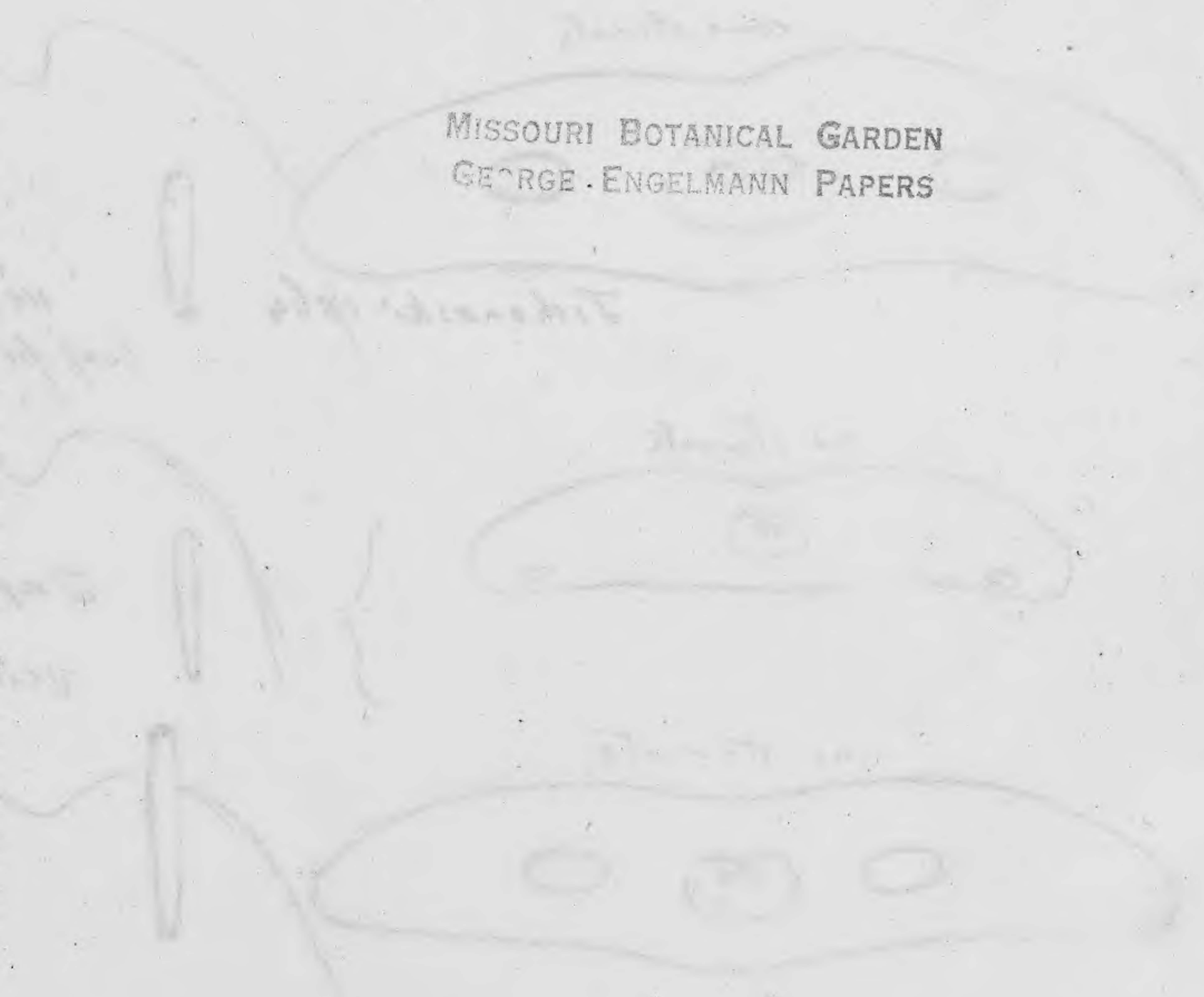
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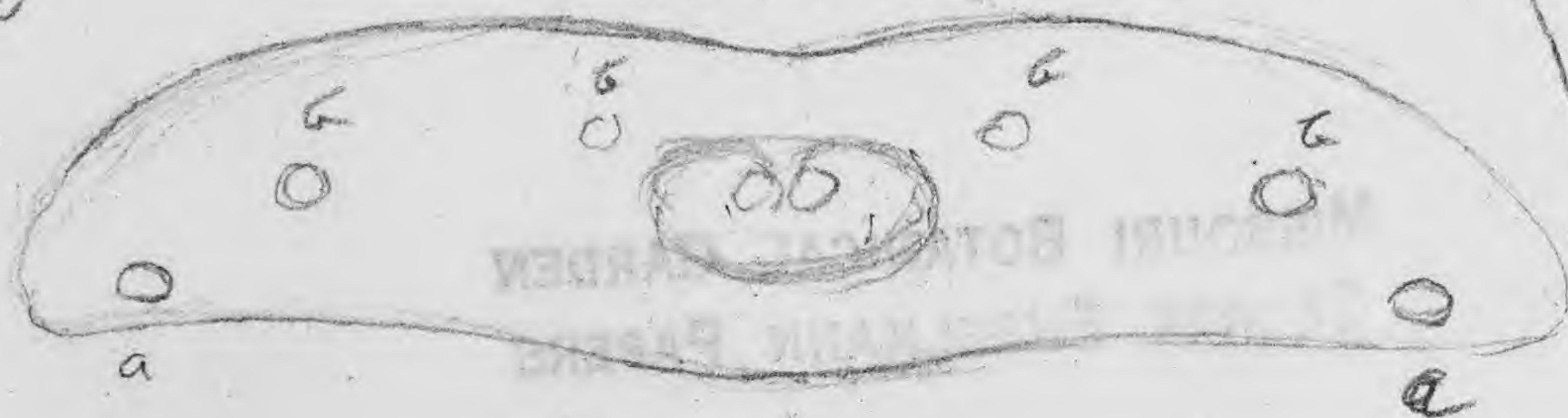
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Abies bifida = *firma*
yokohama 1862 Maximowicz = Hb. Cotton

Oct 6 9 1875

x30

no stomata



Oldham, Nagasaki, cult., 1862

section

similar to lower one
but no accessory ducts

few stomata towards tip



aa principal ducts

bb accessory ducts?

no ducts, rather strong fibres = hypodermis

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS
VOLUME 11
1875
OCT 1877



0 1 2 3 4 5 6 7 8 9 10

cm

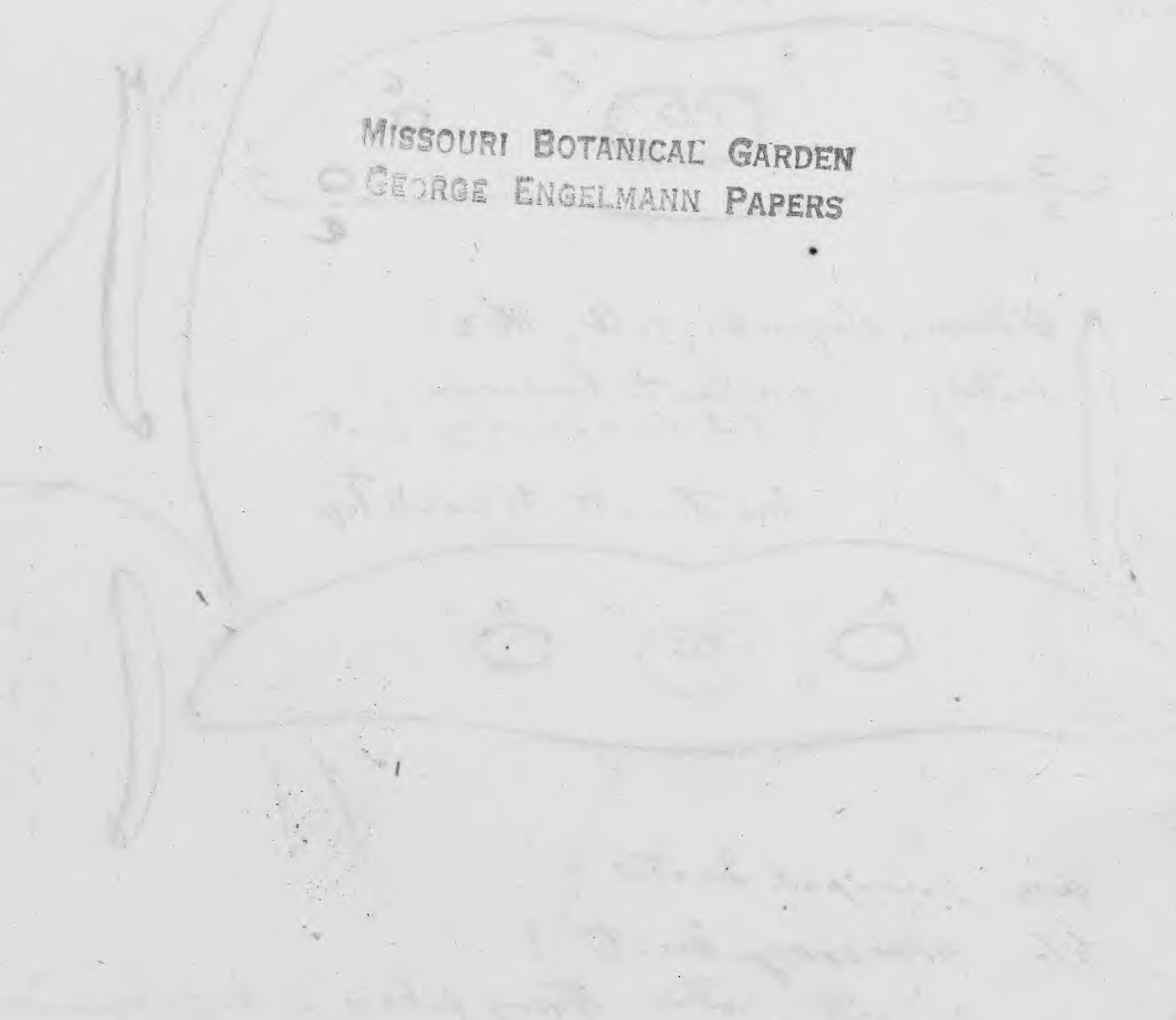
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13060

Faint handwritten notes at the top of the page, possibly including a date and a name.

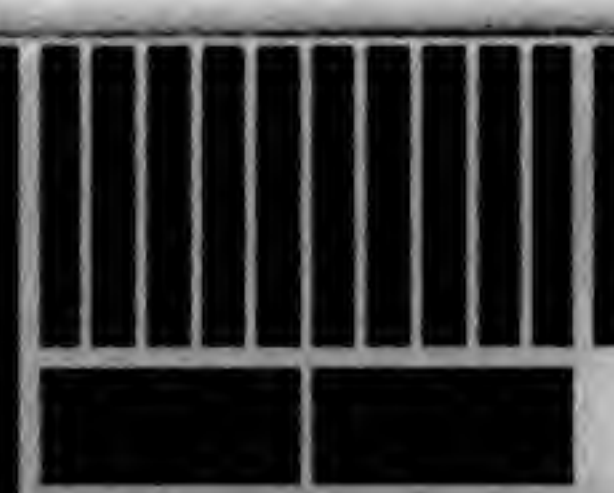


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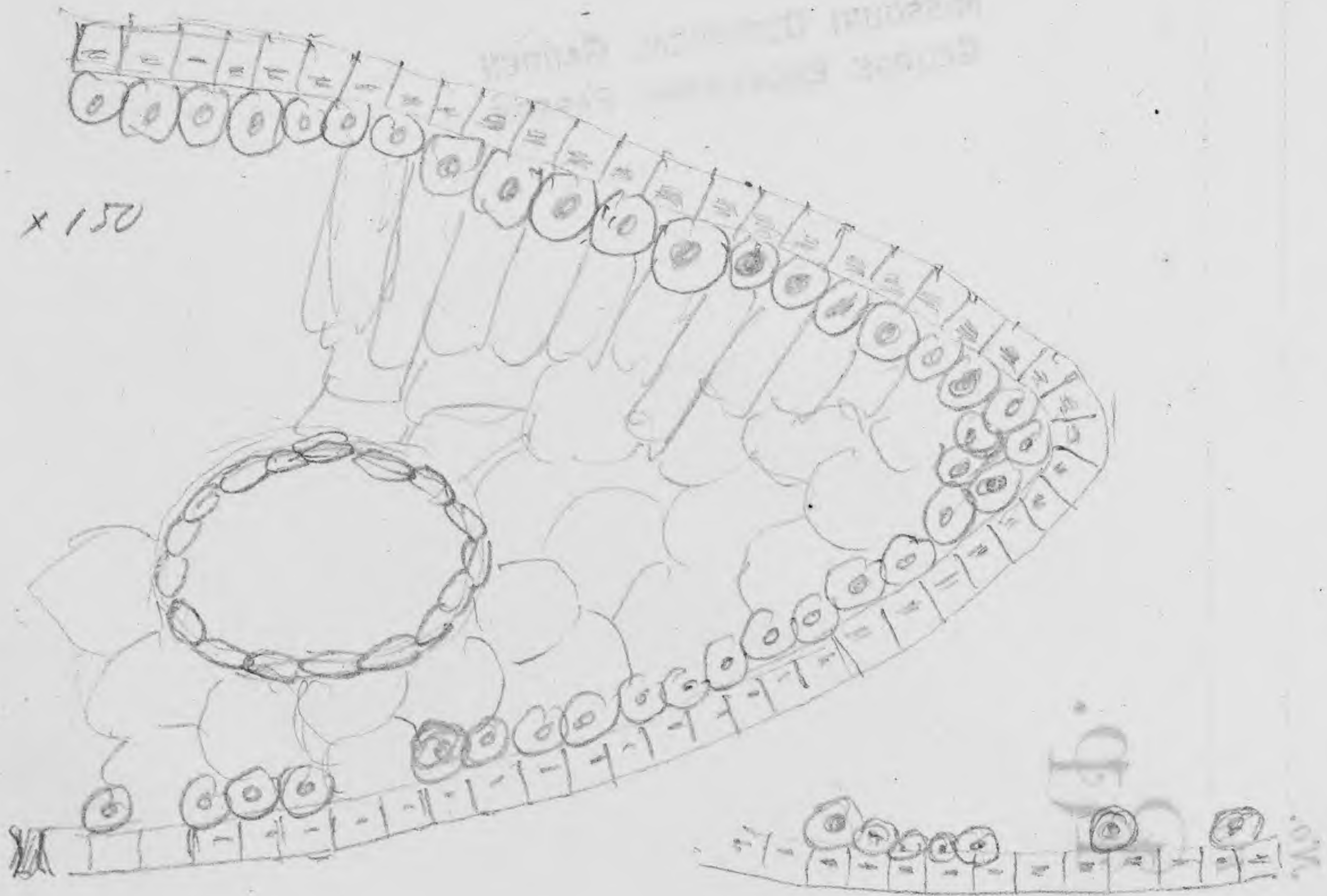


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Abies firma

Hort Hoopes Sept 1876

Oct 25 77



x 150

Keel

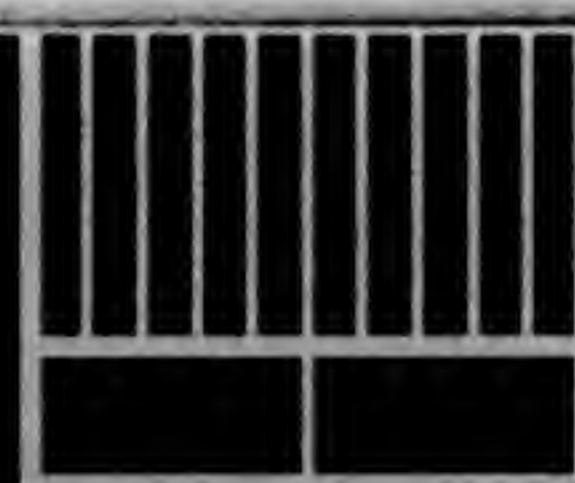
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GEORGE ENGELMANN PAPERS

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—
GEO. WIE,

Appt. in

No. 3610 North 10th Street,
Between Mallinckrodt and Salisbury, ST. LOUIS, MO.

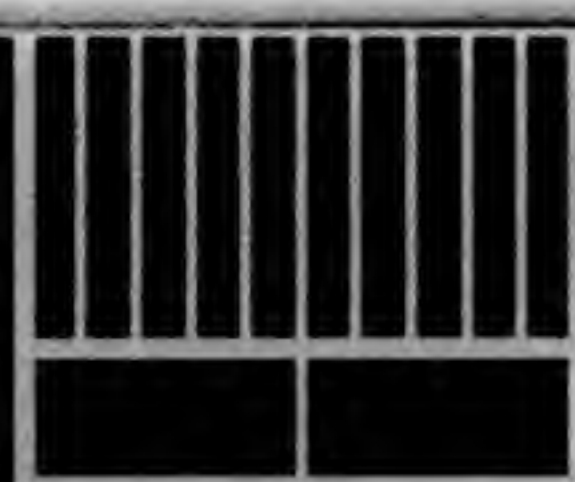
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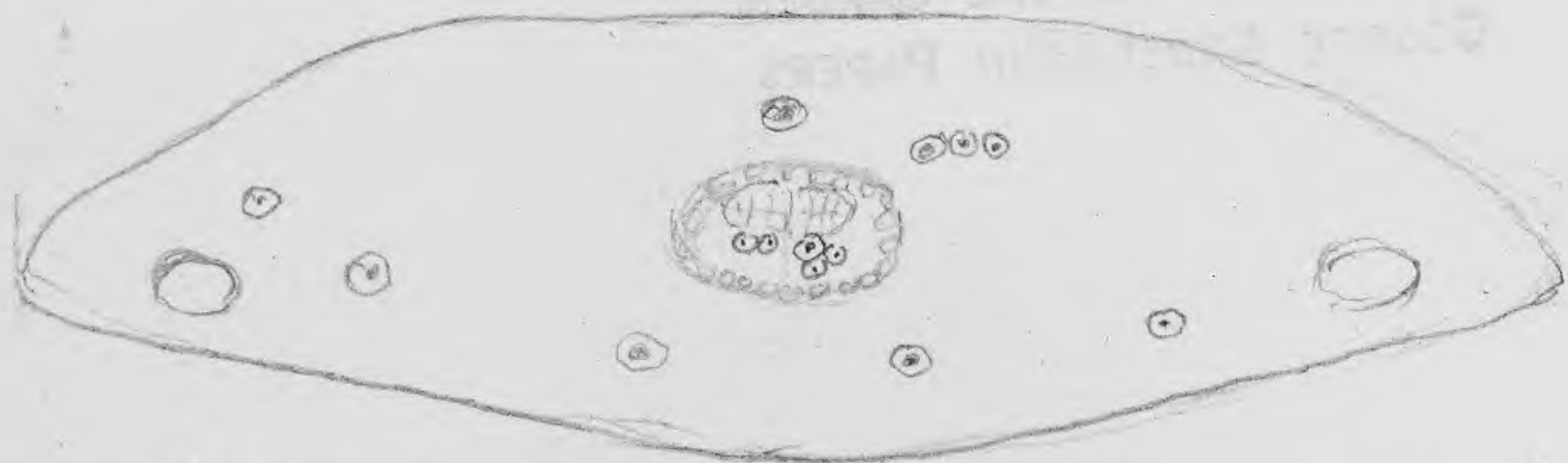


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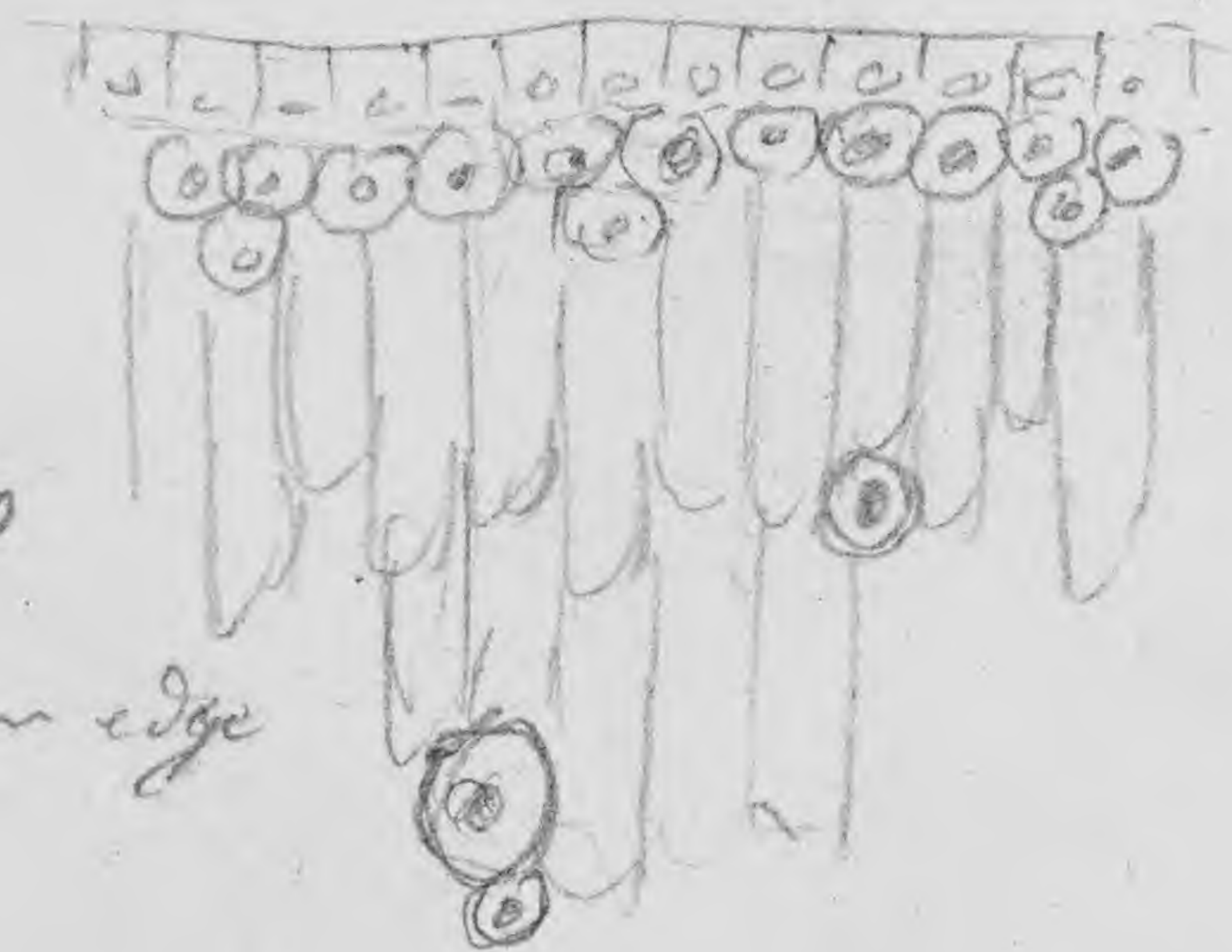
Abies firma
Hob Hoopns Sept 1876

Oct 25 77

x 30



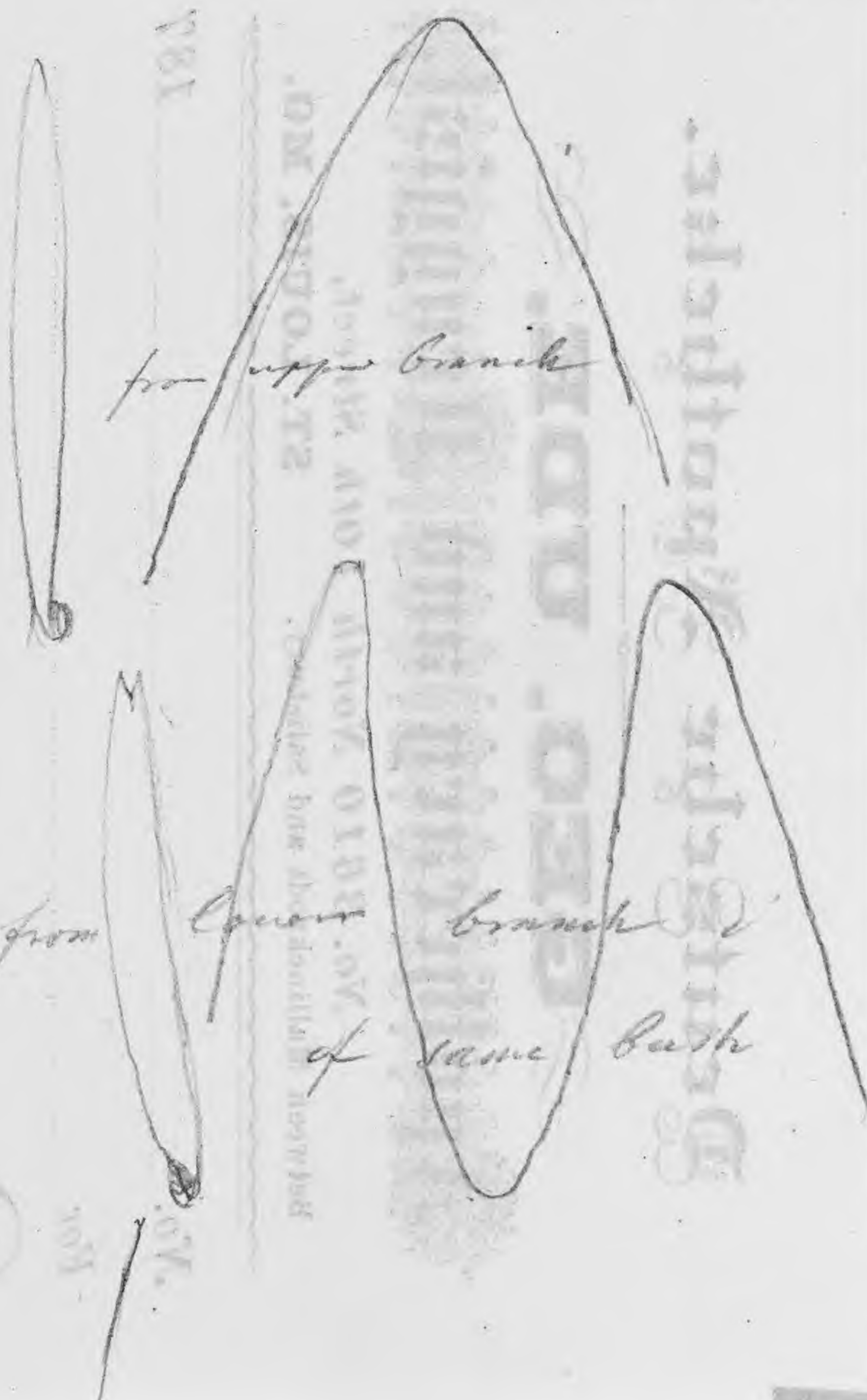
many irregular pseudo-bast cells in parenchyma
and some often within sheath of vessels



x 150

upper edge

ducts near the
epidermis, but
separated by
a few cells



from upper branch

from lower branch
of same bush



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cm

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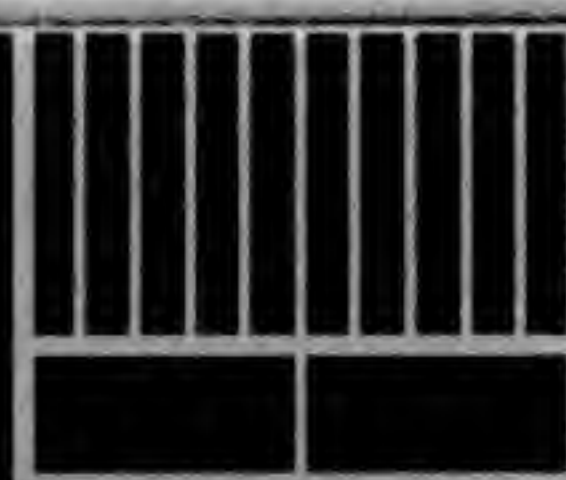
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250 280.
 280 280

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 GEORGE ENGELMANN PAPERS

R. C. HARRISON & Apothecary

508 Leffingwell Avenue,

R. C. HARRISON,

18063



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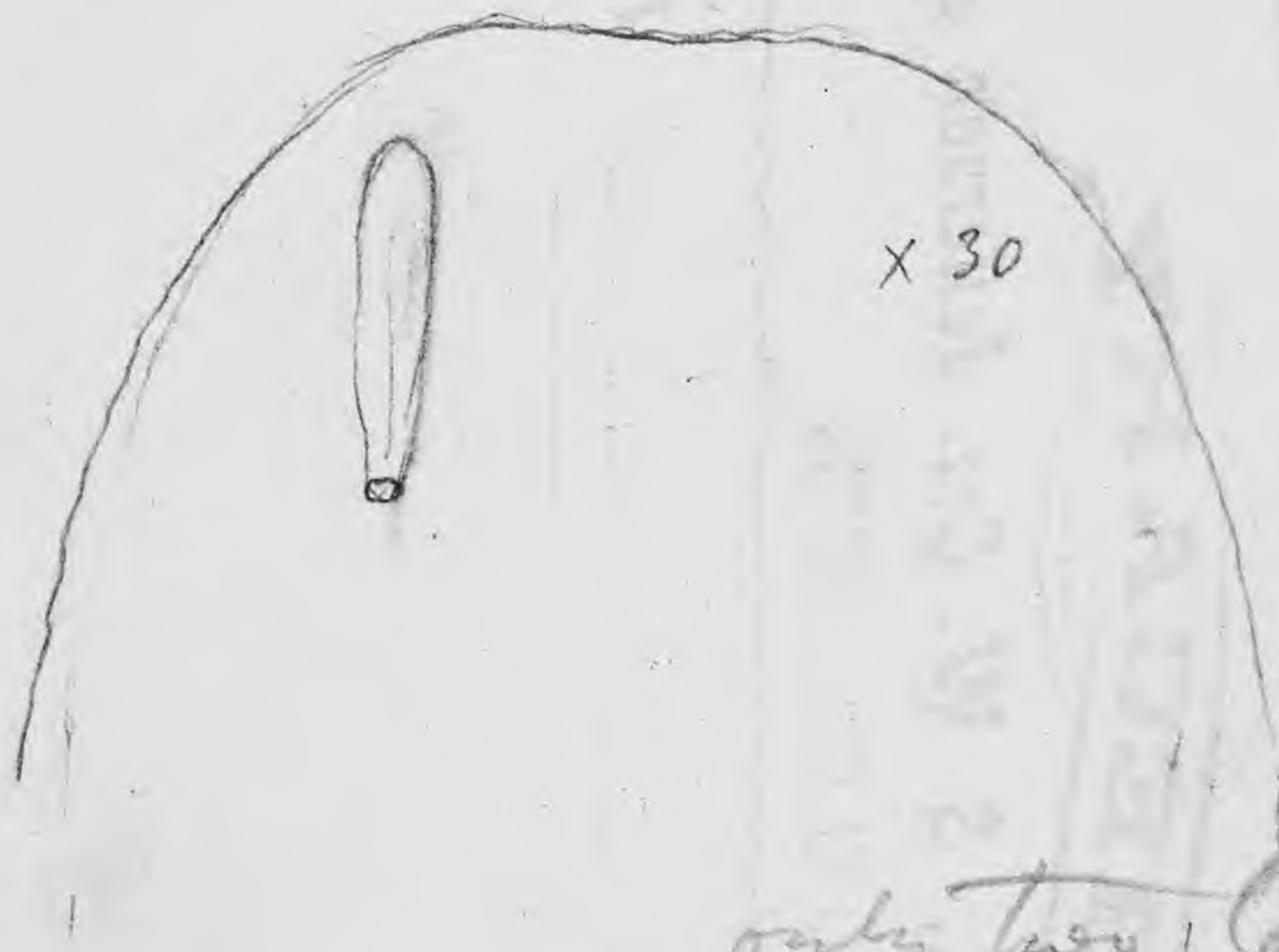
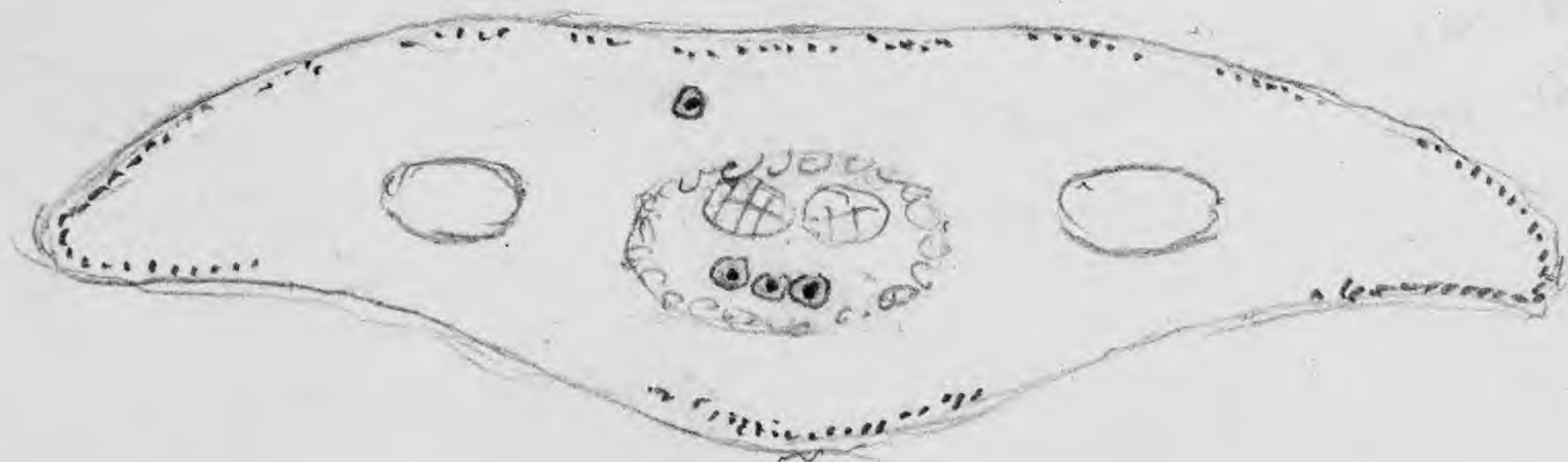
Abies

from Japan,

Sargent mis.

a few leaves

April 15 1878



x 30

about 2 bands of stomata
 in each band below
 few stomata in groove above
 towards tip

pseudobark cells within the leaf larger
 below the epidermis very small

only two leaves
 sent but
 very little doubt
 that it is ferma



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HENRY T. ROHLFINS,

APOTHECARY,

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ST. LOUIS, MO.

No. Date, 187

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



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A. Pissapo gemina

Editorial.

483

assist them in the practice of their profession, and not *drug-venders*. It is the personal interest of every physician, that the person employed in compounding his prescriptions be well qualified; and it is the general interest of the medical profession, that pharmacentists also recognize themselves members of a scientific body, the only access to which is a certain measure of education. Among us, the standard assuredly is so low as to debar no one at all fitted for the apothecary's duties. When we consider how much skill and information is required of a candidate in Great Britain and on the continent of Europe, before he is admitted to the practice of pharmacy, we feel it a sad and humiliating thing that it is *necessary* to urge the medical profession in this country to interest themselves in schools of pharmacy by lending them their influence and countenance.

It is scarcely called for to address the same remarks to our druggists and apothecaries generally; for if physicians will but do their duty in this particular, the former will soon find it in their own interest to employ only such persons as possess the requisite amount of education in their art, the measure and the evidence of which will be a diploma of some college of pharmacy.

St. Louis Medical College.—We are requested to call the attention of students to the course of clinical instruction in this institution. During the month of September, Clinical Lectures will be delivered in all the hospitals connected with the College, viz.: the St. Louis (or Sisters'), the City, and the Marine Hospitals, at 11 A. M. daily, by Profs. HODGKIN.

NOV
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13065

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Editorial.

Erratum.—The reader will please correct the reference in the note on page 414. “Plate i, figure 2” should read “figure 11.” In the extra copies of Dr. BOISLINIERE’S article, the correction has been made.

*MORTUARY STATISTICS.**Number of Deaths in the City of St. Louis, 1868.*

DURING THE WEEK	MALES.	FEMALES.	Total.	STILL- BORN.*	UNDER 5 YEARS.
Ending June 26th	26	22	58	11	31

Obiecta gerontogena
Tea brevissima

Manu:

1868. 8vo. pamphlet.

STORER, The Present Problems in Abdominal Section; illustrated by a successful case of Double Ovariectomy. (From the *Canada Medical Journal*.) S. l. & a. 8vo. pamphlet, pp. 12.

WHITE, Dental Materia Medica. Philad.: S. S. White. 1866. 12mo.

COLES, Progressive Locomotor Ataxia. S. l. & a. 8vo. pamph., pp. 48.

METZ, The Anatomy and Histology of the Human Eye. Philadelphia: Office *Med. and Surg. Reporter*. 1868. 8vo.

DUNLAP, Ovariectomy; a paper read before the Ohio State Medical Society. Cincinnati. 1868. 8vo. pamphlet, pp. 22.

Transactions of the MEDICAL SOCIETY of the State of PENNSYLVANIA at its 19th Annual Session. (5th series, part 1.) Philad., 1868. 8vo.

MOOS, *Ueber das subjective Hören wirklicher musikalischer Töne*. (From VIRCHOW'S *Archiv*, vol. xxxix.) 8vo. pamphlet.

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Abies Pinsapo

July 1 1874

H. G. Paris

Pollen



$$\frac{26-40}{280} = 0.13 - 0.14 \text{ mm}$$

G. ENGELMANN, M.D.
303 First Street



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12
260 600
280 282
800 1200

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Abies Pinosapo
cultivated

Oct. 7 1875

covered with stomata

x 30

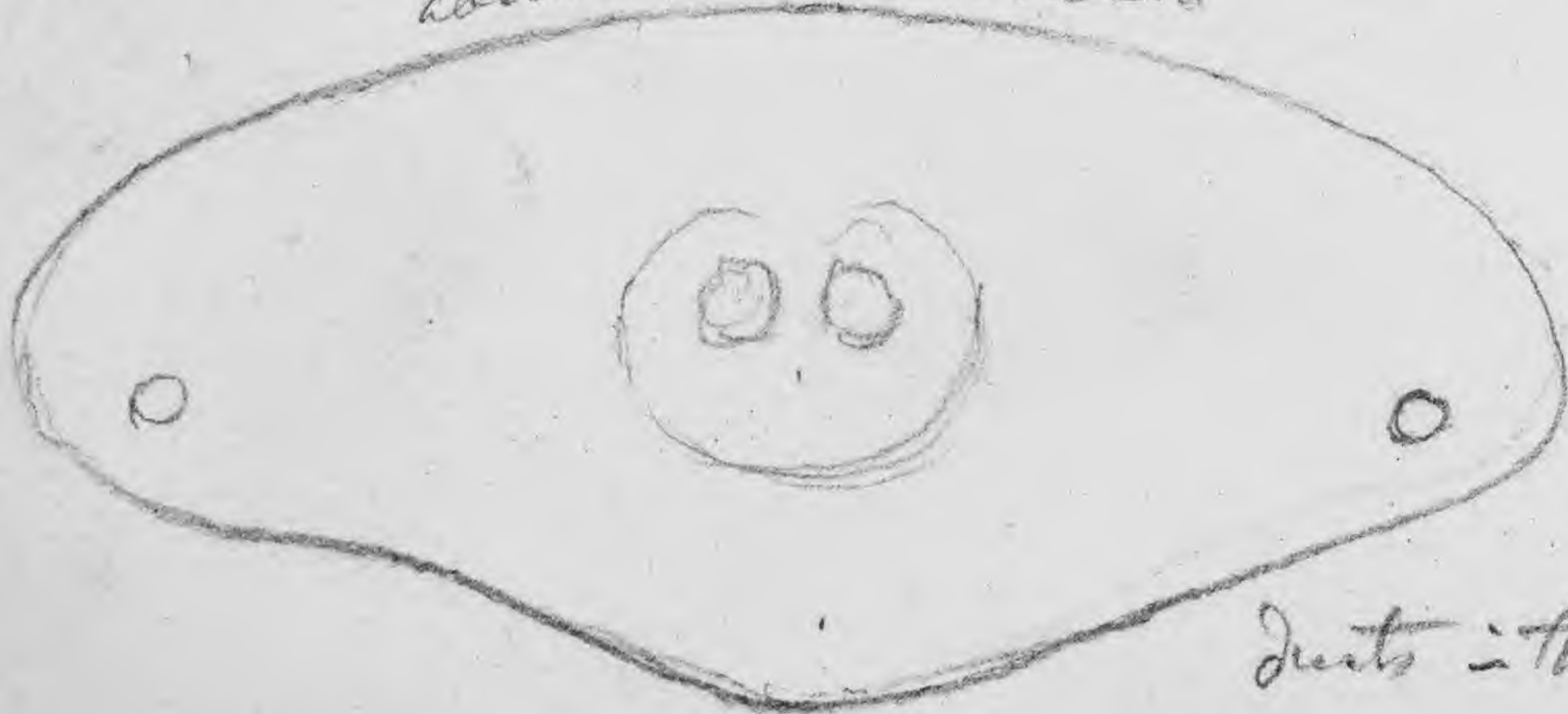


Ducts in the
parenchyma
but nearer the lower edge
narrower band of stomata

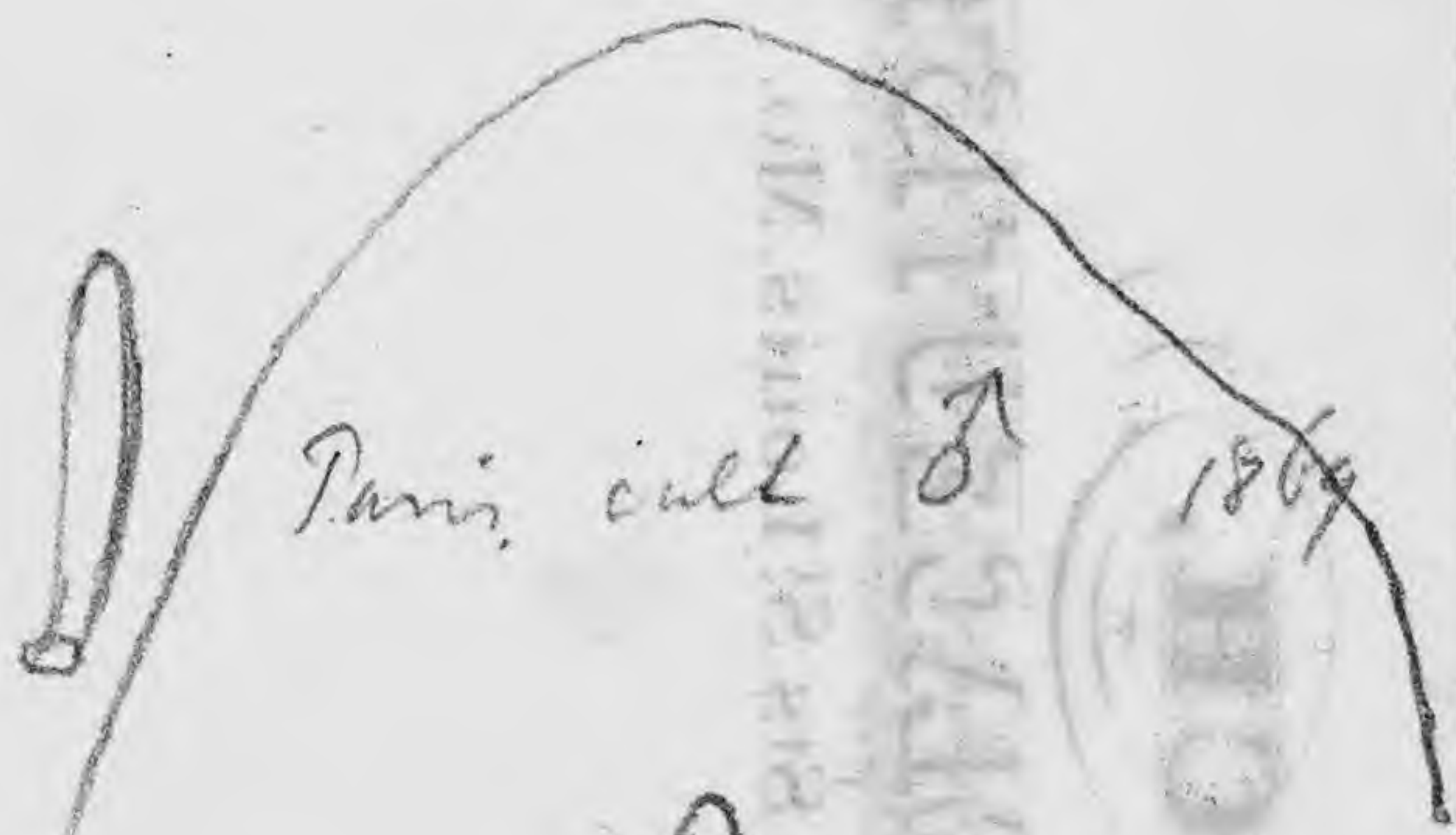


abundant stomata

ducts cortical
i.e., approach to bark



ducts in the parenchyma



Paris, cult ♂ 1869



H.B. Morrison 1863



Sisiani Pinosapo ♂
cult 1869



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Abies Pinsapo

Oct 6 7. 1875

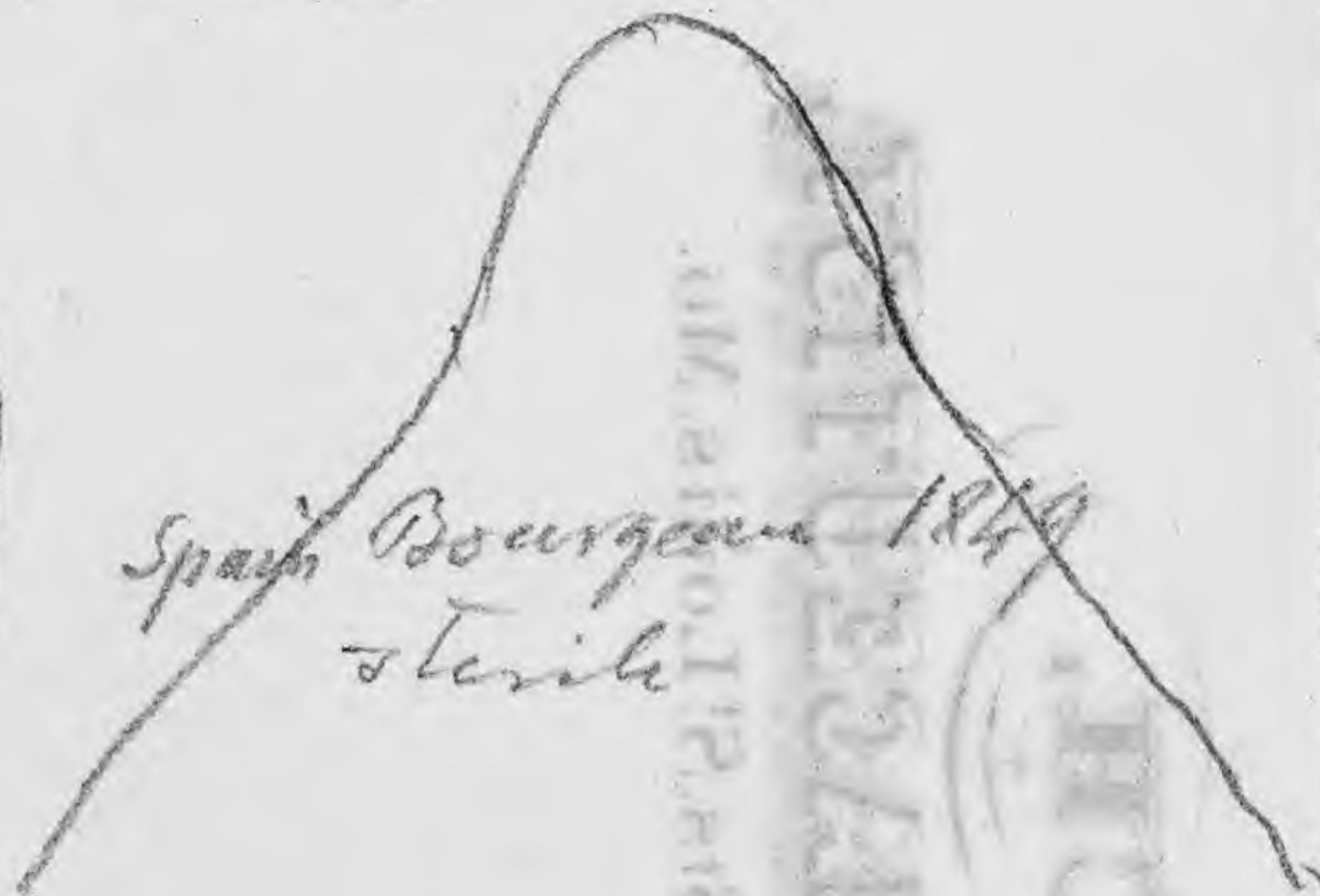
from Spain, native

covered with stomata

x 30



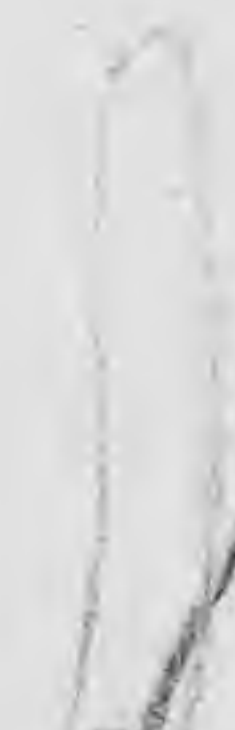
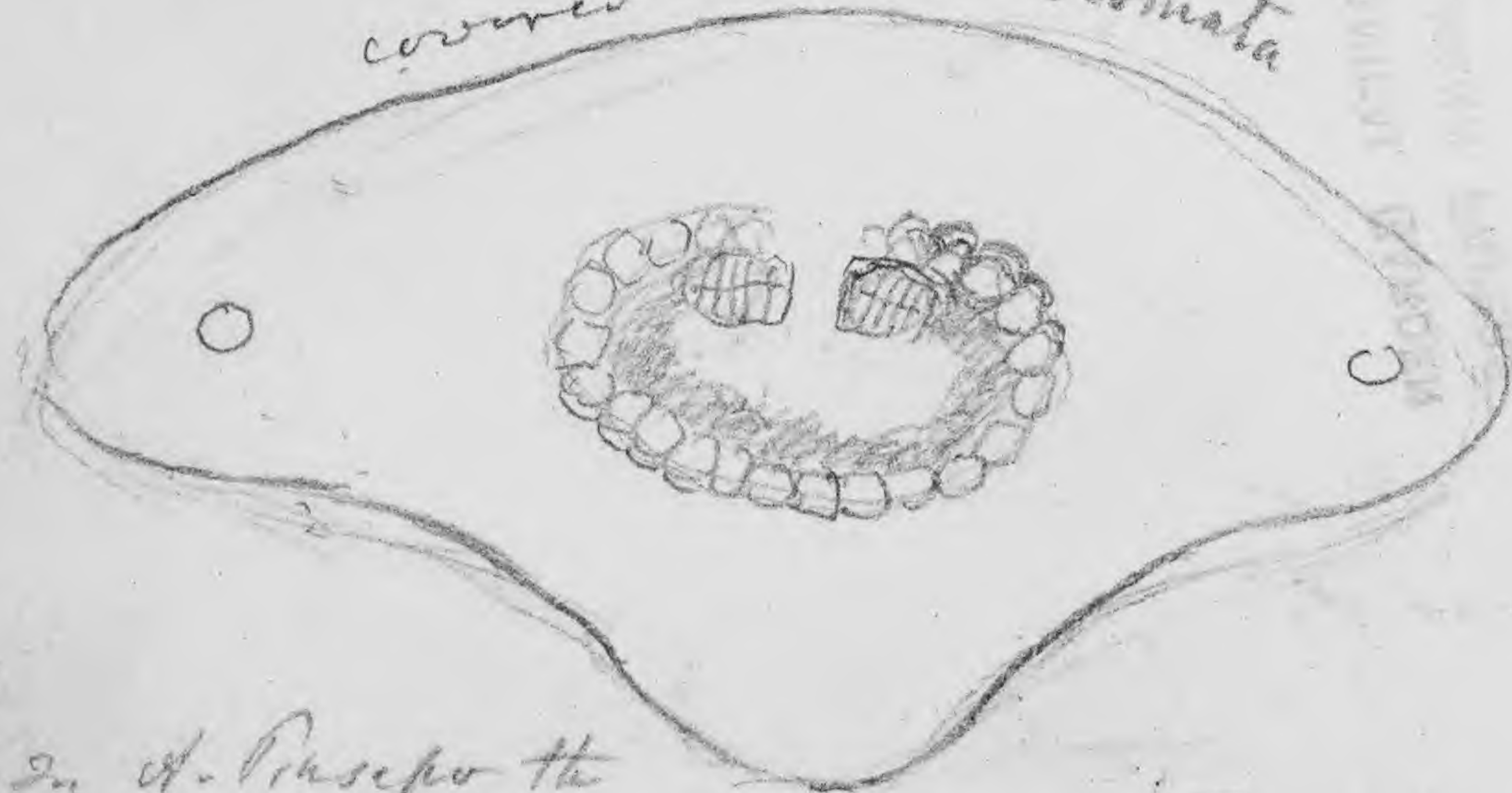
Spain Bourgeon 1849
sterile



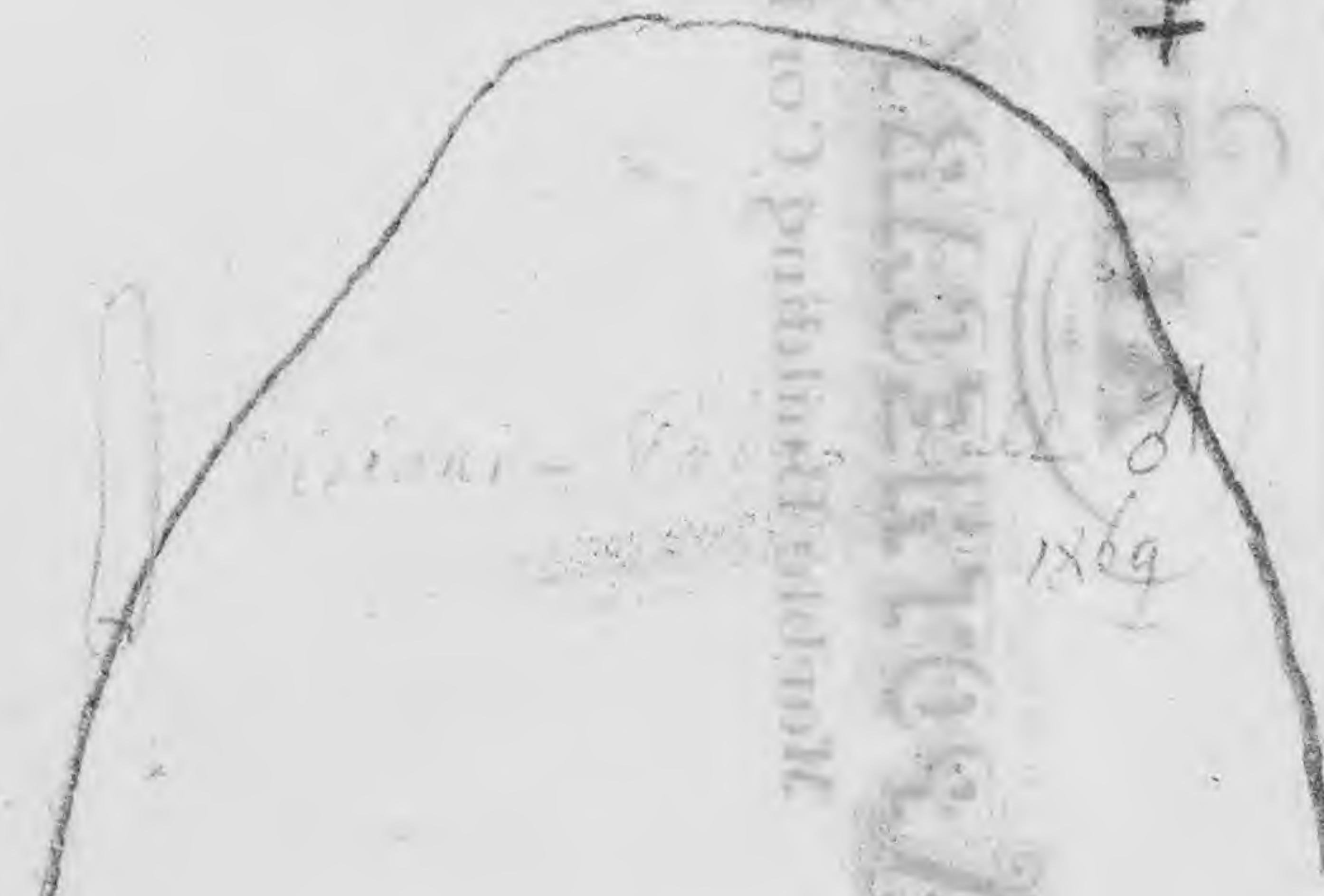
covered with stomata



Spain Boissier 1838
fertile branchlet



Spain - Boissier 1838
fertile branchlet



In *A. Pinsapo* the ducts are almost always in Paraclymen



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Octob 8 1870

Abies Veitchii

Oct 1875

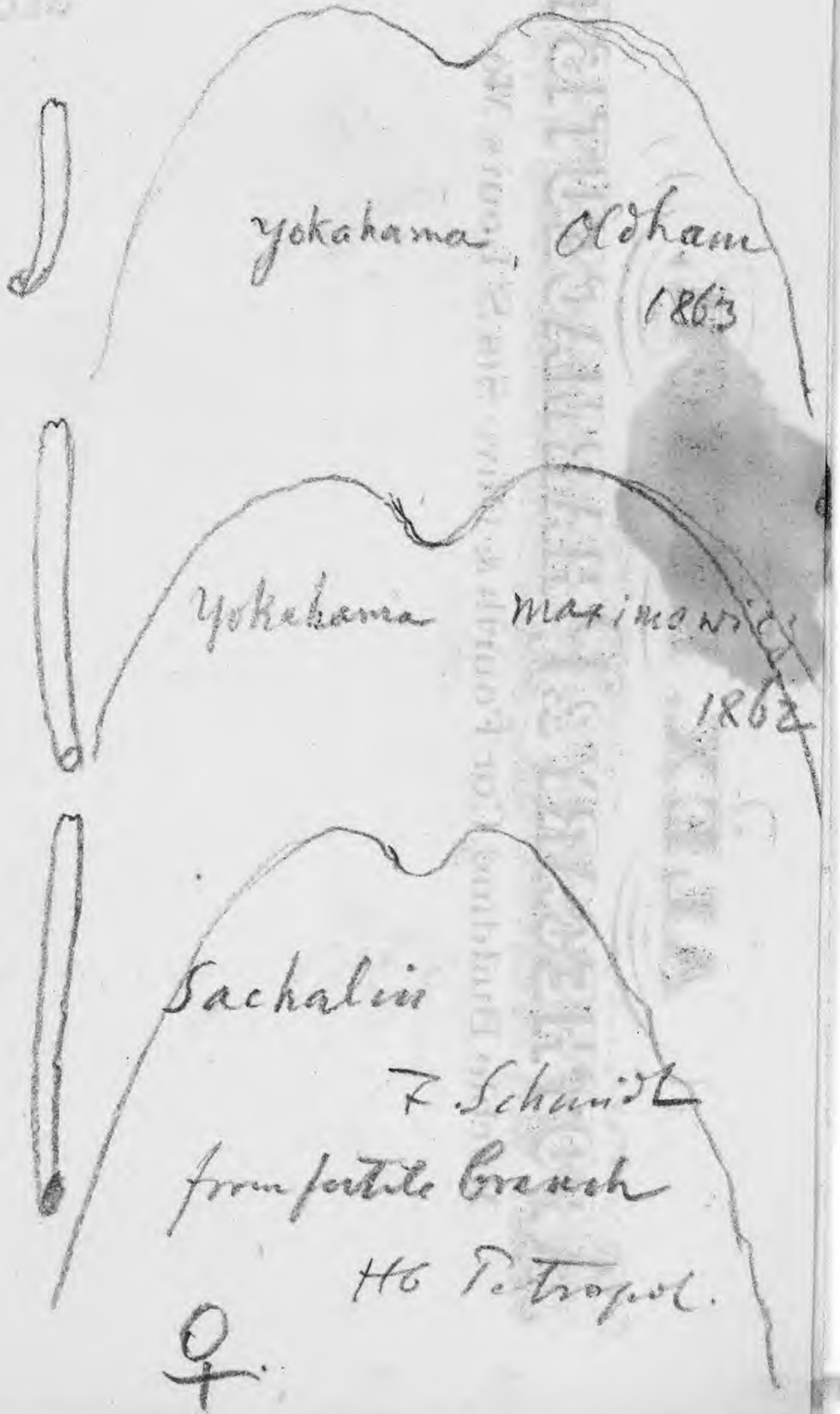
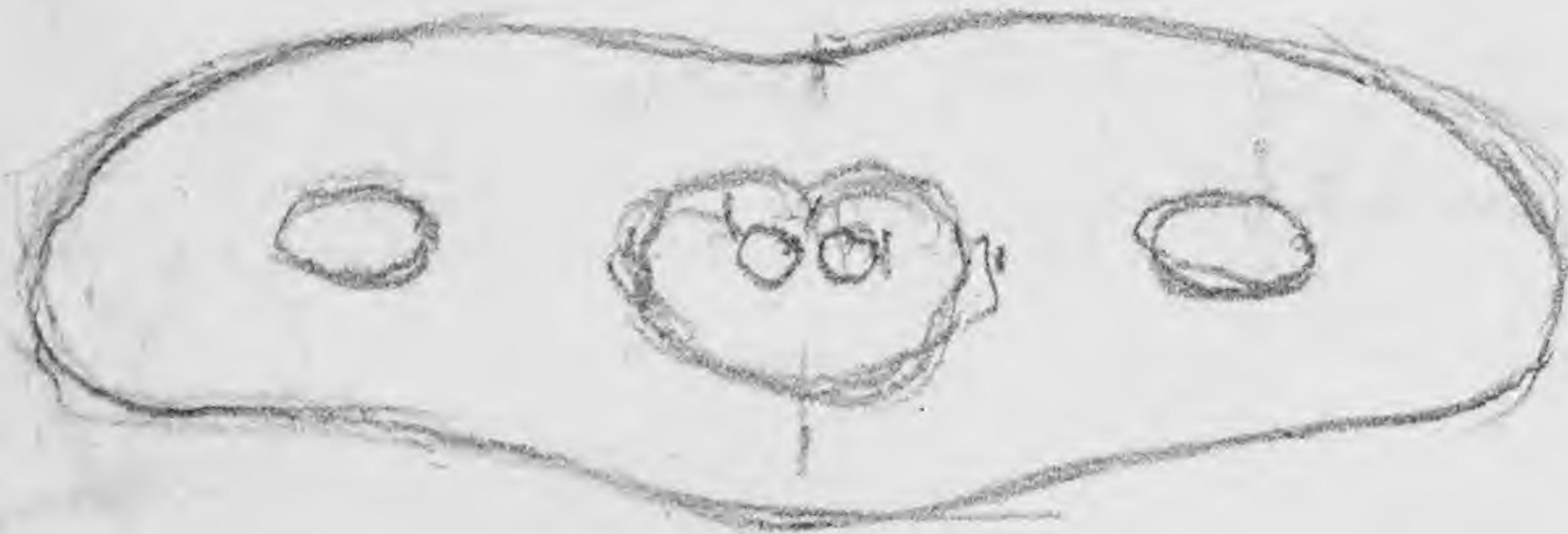
no stomata



no stomata



no stomata



0 1 2 3 4 5 6 7 8 9 10

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Octob.

br. 1863

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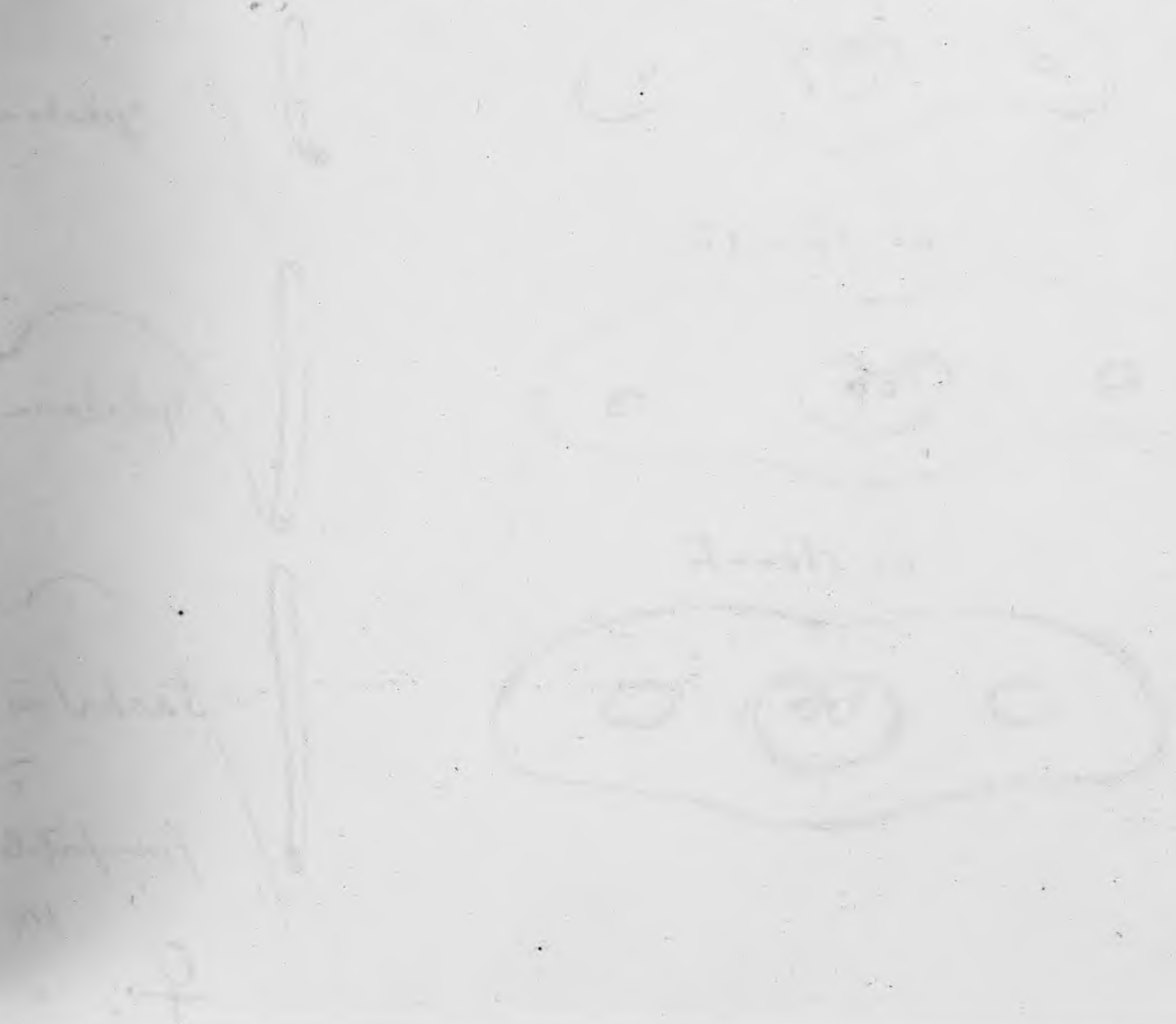
Marble Building Cor. Fourth & Olive Sts. St. Louis, Mo.

5-6 mm = 512

long, shorter
seed

See drawing 98

512



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0 1 2 3 4 5 6 7 8 9 10

cm

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813 *Abies Verticillii*
Yokohama, Octham Febr. 1863

Octob 8 1870



14-16 : 5-6 ^{mm} = 5:2



wing much broader than long, & shorter
than seed

Abies Verticillii
Yokohama Mac. Murray 1862



15-16 : 5-6 ^{mm} = 5:2



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cm

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MISSOURI
GEORGE

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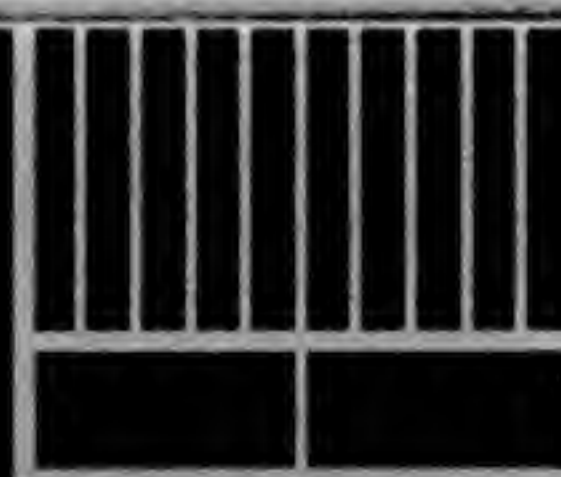
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CHEMIST



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

ALL THE NEW REMEDIES
CONSTANTLY ON HAND



0 1 2 3 4 5 6 7 8 9 10

cm

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~~Arctea brucei~~
Abies brachyphylla Max

Oct 7 1870

A. brachyphylla Maxim n. sp.

Oct 5 1875

Yokohama

Maximowicz 1862

ex herb Cosson

x30

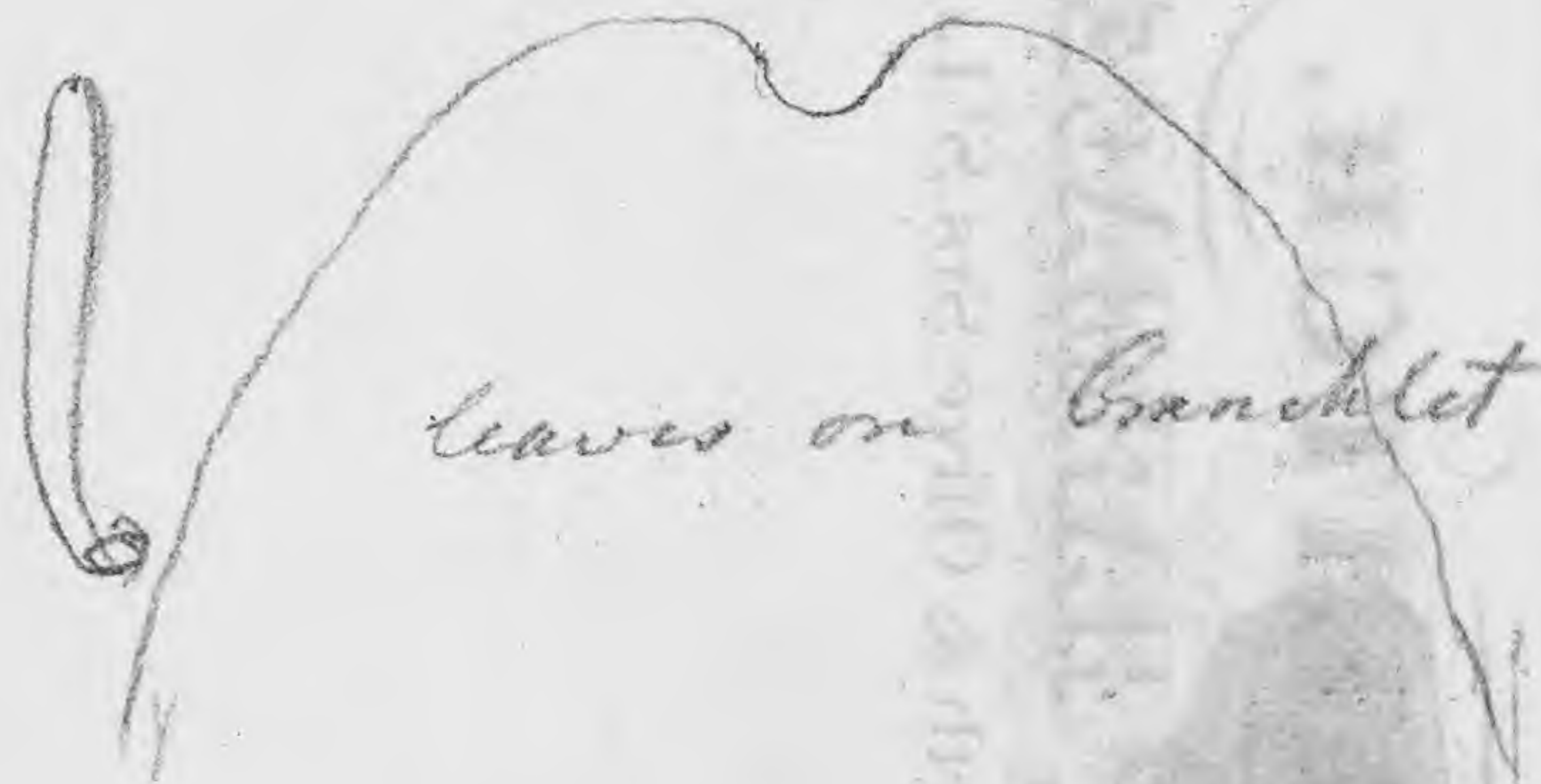
no stomata



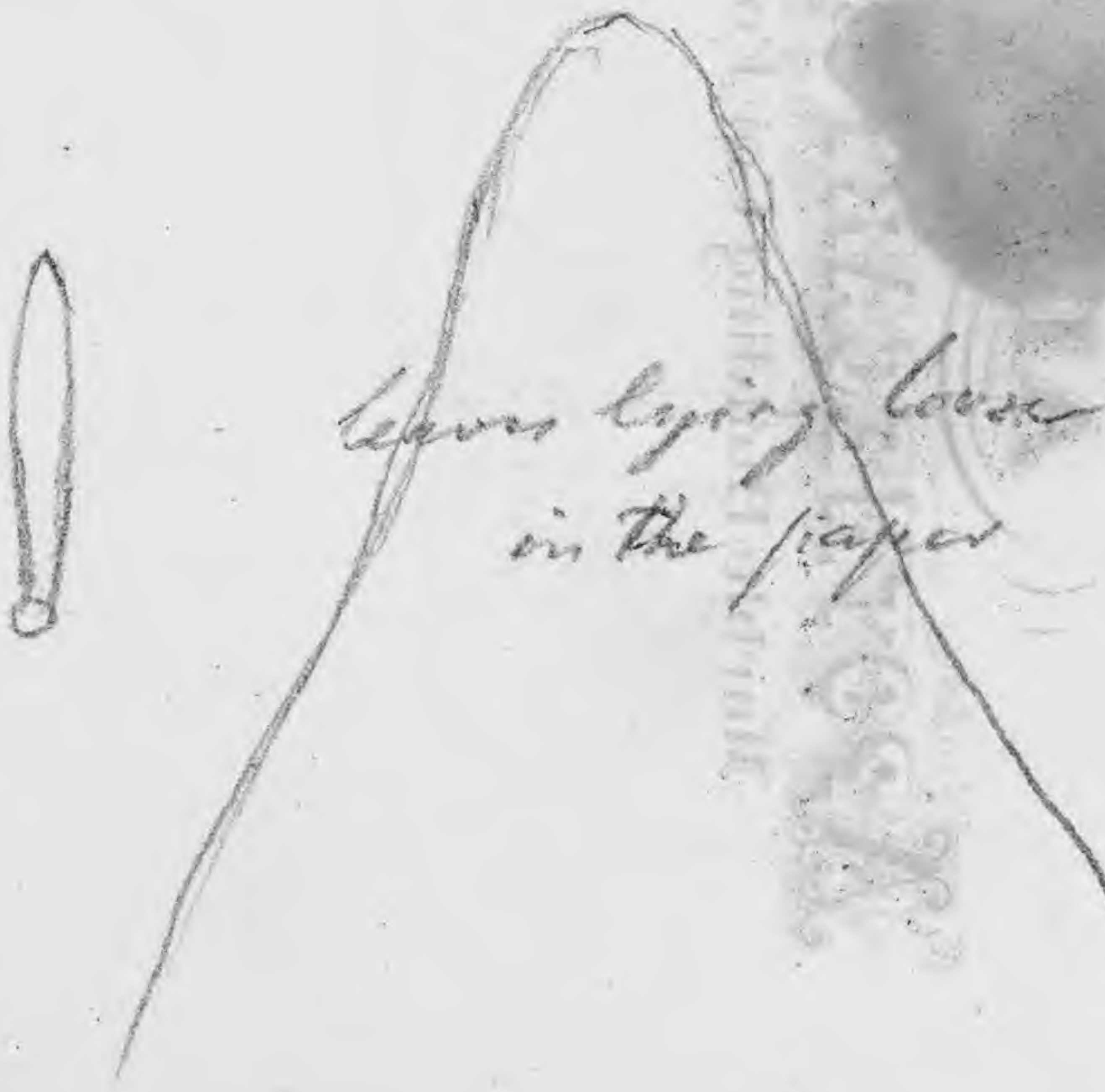
narrow band of stomata - grow
upward



leaves on branchlet



leaves lying loose
in the paper



0 1 2 3 4 5 6 7 8 9 10

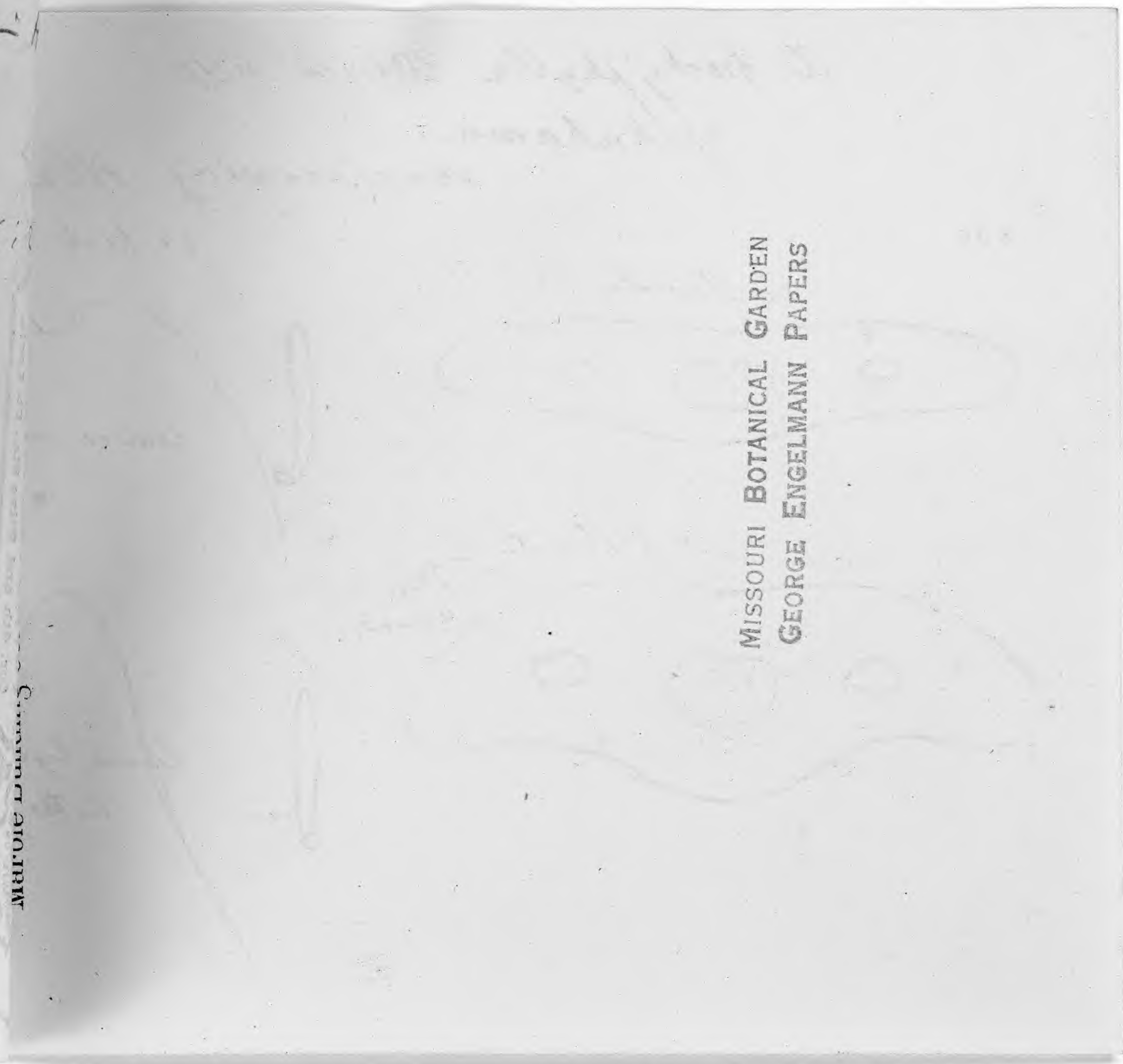
cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

Oct 6 7
x-mowing
= 3 3/4 in



MISSOURI BOTANICAL GARDEN

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS



0 1 2 3 4 5 6 7 8 9 10

cm

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GARDEN

~~Arctea brevissim~~
Abies brachyphylla Max

Octob 7 1870

Yokohama Maximowicz - Hb. Cassin 1875



28: 15 mm = $3\frac{3}{4}$: 2



0 1 2 3 4 5 6 7 8 9 10

cm

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BOTANICAL
GARDEN

13074



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



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0 1 2 3 4 5 6 7 8 9 10

cm

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Cryptogamium

Oct 7 1870

A. holophylla Maxim

Oct 8 1875

Manschuria austro orient. Port May

Maximowicz 1860

[ex Hb Kew

X 30

no stomata



GEORGE ENGELMANN
WISCONSIN
MUSEUM

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN
MUSEUM



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

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

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0 1 2 3 4 5 6 7 8 9 10

cm



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ALL THE NEW REMEDIES
CONSTANTLY ON HAND



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

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Abies nephrolepis Mac

Oct 8 1870

A. nephrolepis Maxim

Oct 9 1875

both leaves from fruit bearing branch

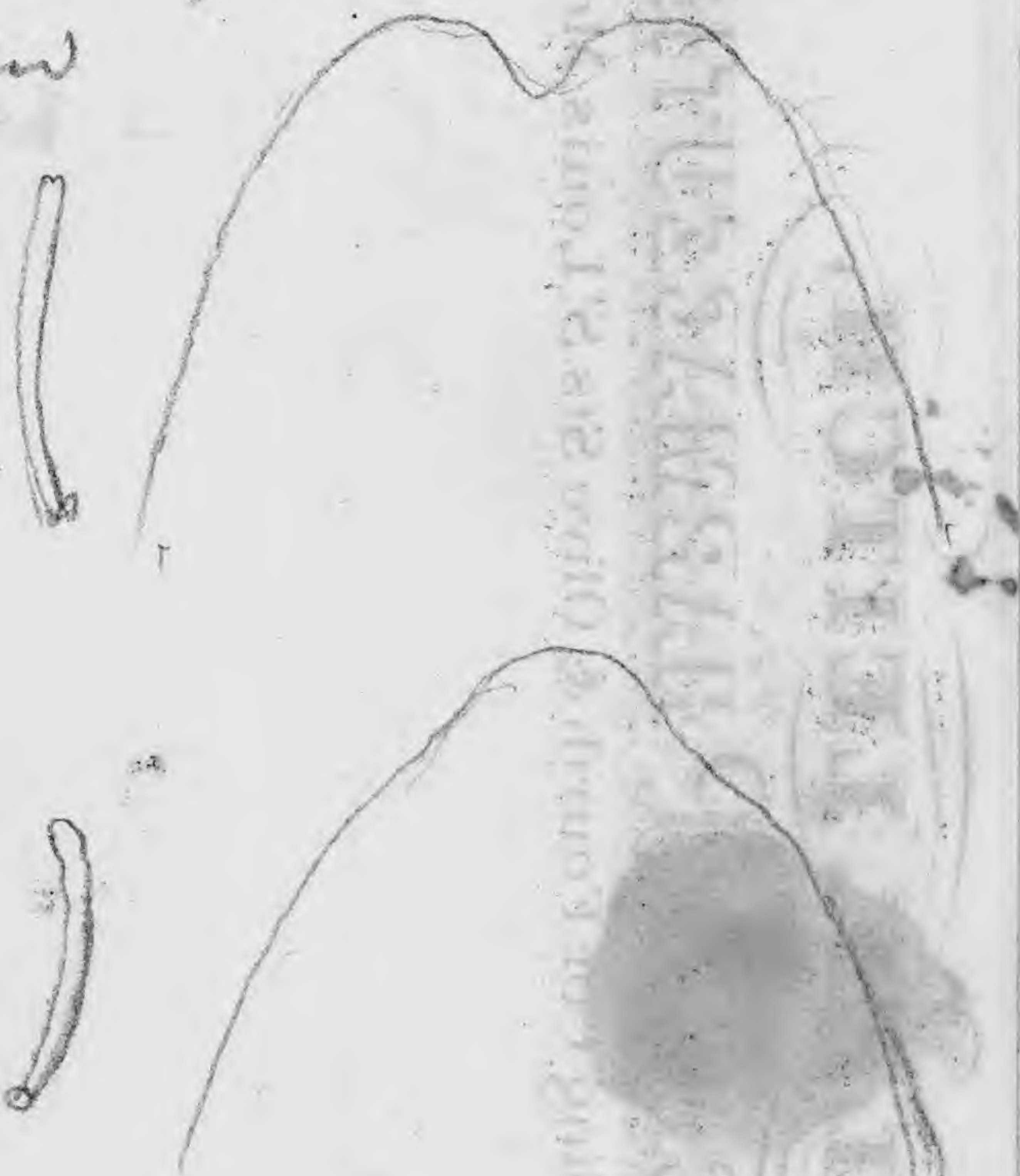
Mandschuria, Maxim 1860

no stomata

ex HB Kew



no stomata



MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS
1870



0 1 2 3 4 5 6 7 8 9 10

cm

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GARDEN

Outd
Max in d
- 5 1/2 mm = 4 1/2

13077

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BOTANICAL
GARDEN



0 1 2 3 4 5 6 7 8 9 10

cm

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Abies nephrolepis Max

Oct 8 1870

Mandschuria,

Maximowicz 1860

- Herb. K.



11-12; 5-5 $\frac{1}{2}$ ^{mm} = 4 $\frac{1}{4}$: 2



0 1 2 3 4 5 6 7 8 9 10

cm

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CONSTANTLY ON HAND



0 1 2 3 4 5 6 7 8 9 10

cm

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