



MISSOURI BOTANICAL GARDEN
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GEORGE ENGELMANN
BOTANICAL NOTEBOOKS

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W. H. Kew Sept 8 1869

Hesperopence

430. *Abies Pattoniana* with the printed labels of the Oregon Committee
but without name - "If this tree proves undersized, I hope
it will be known under the name of *A. Pattonii*" this
is evidently ^{extr. of} Jeffrey's letter - (Mrs. Pennell notes: Cascade

Range 49° Washington Territory - This would be the 2^d new species 1880]

Printed label says: from 5000 feet to margin of perpetual snow.

150' high till at last shrub 4 feet high only. On Mount Baker
range of Mountains [49°]

12 California, Lobb. 1857. is said to be the same: globose
♂ anthers on extremely delicate filaments 5-8 mm exsert



A. Hookeriana
= *Pattoniana*

Beantley 1856 from California, cones thickened

... .. *Vide Museum*



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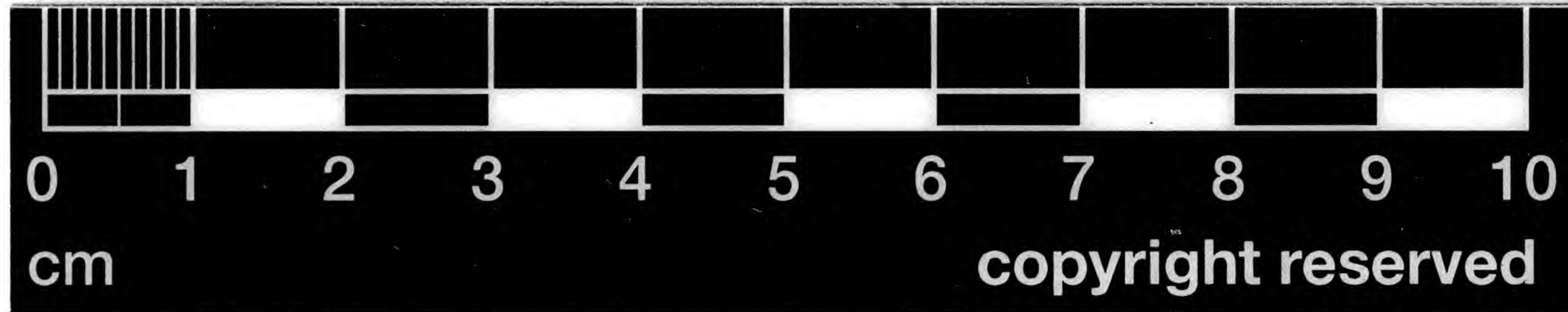
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10583

Ms. No. 141-8 1869

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Abies Canadensis

2-1863

Chadwick



x 415

0.032



0.036

Pollen, for grains
for effect on them

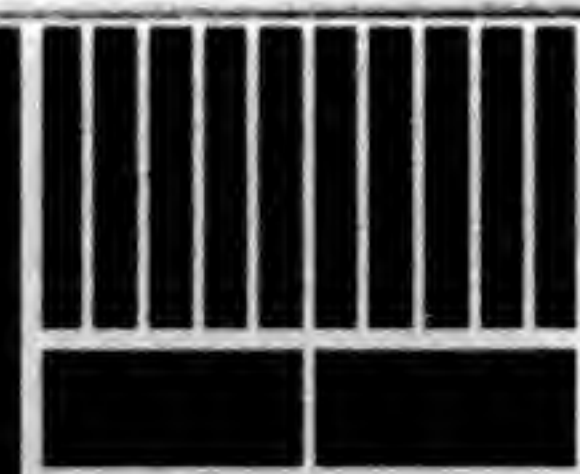


edge of Pollen x 785

x 415



found mixed on the same species



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ALEX. LEITCH,
APOTHECARY & PHARMACEUTIST,

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

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Kew Sept 1869

Abies Pattoniana "Balfour" - Circular by Edw. Oreg. Bot. Assoc.
1853 - p. 1 t. 4. fig 2 - Pinet. Brit. part IV
introduced by Jeffrey

Abies Hookeriana Murray - Edw. Kew Phil Jour. p. 289 (April 1855)
= *A. Williamsoni* Newbery 1857. Pinet. Brit. part IV
Wm Murray ^{discovered} found it on Scott's Mountain - abundant (first Lobb) on
the head waters of Feather River

over *Pattoniana*

(N.B. is the Vancouver *Picea* ^(Meridionalis) not this plant?)



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Agrostis to *Linob*
no name

New Sept
1854

P. n.

Abies Pattoniana, "Balfour ^{ibid.} Circular of Ed. Assn. 1853" P. n. Brit p. IV

— *Hookeriana* Murray, Ed. & New Phil
Journal p. 289 April 1854

& P. n. Brit. p. IV.

where *Ab. Williamsii* Newb. (1857)
quoted as synonymous.



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Herb No 1269

Alces No 430

Mount Baker Range

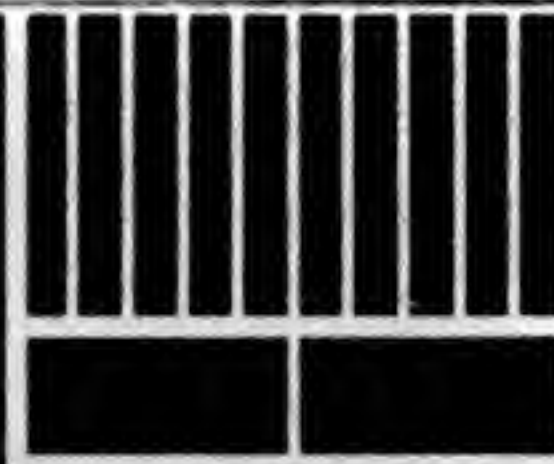
5000' to the peak

Snow 150' high, 13 1/2 diam - at least only
a shrub 4 feet high. - " if understood

I hope it will be known under the name
"of Alces Pattonii" " Jeffrey's *Diplotis* printed
by Oregon Committee

buds & cone

[Extract of a printed label - no name to it.
then must be the original of *A. Pattoniana* - yes!



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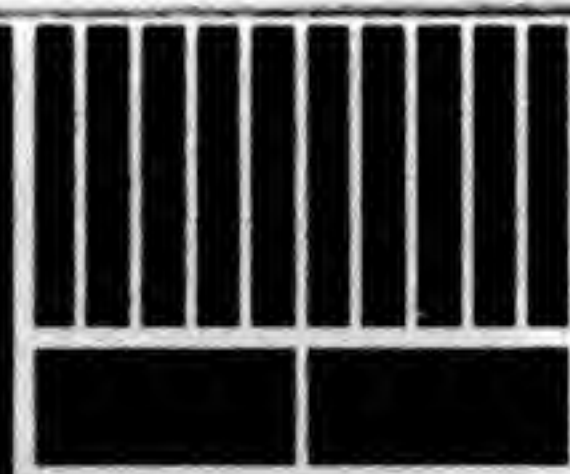
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Abies Williamsonii seen only at great altitudes, above
7000 feet - rarely below 8000; next to *Pinus flexilis* the
highest of any Californian Coniferae. In latitude 38° N
high up as 10000. There are two forms of cones, at
least when dry - one truncated, as figured by Newberry -
Mr Bridges (an experienced seed and plant collector) says
that *A. Williamsonii* in the Sierra Nevada is *A. Pattonii* of
Jeff and the English nurseries. W H Brewer 1864



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Large groups at alt. 7500'

Tsuga Pattoniana on Shasta
Aug 23' 1880. 195 inches circumf.

16' 3" at 7500 feet alt.; another

tree 162" = 13 1/2 feet

Abies magnifica almost stops
at that elevation

$$\begin{array}{r} 16 \\ 12 \\ \hline 32 \\ 16 \\ \hline 195 \end{array}$$


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~~XXXXXX~~ for Rocky Mts
Seed of *Hesperopearle Pattonii*
(England, coll. W.H. Parlatore ^{not fruiting})
shows a few resin vesicles
on the inner side of the
seed
G. Dillman 9 + 12 x 5
12 new ones



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Jagdschlöss - Stubbenkammer $4\frac{1}{2}$
 Putbus - Bergen $1\frac{1}{4}$
 Bergen - Jagard $2\frac{1}{2}$
 Jagard - Stubbenkammer $1\frac{1}{2}$
 Bergen - Stralsund $3\frac{1}{2}$ Me. = 3 Me.
 7 a.m. 4 p.m.

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Abies Hookeriana Murray in Proceedings
of the Royal Horticultural Society vol III

N^o 5. May 1. 1863. p. 202-207

(file folder)

Abies Hookeriana A. Mur. ^{New} Edinb. Philos Journ. Apr. 1855



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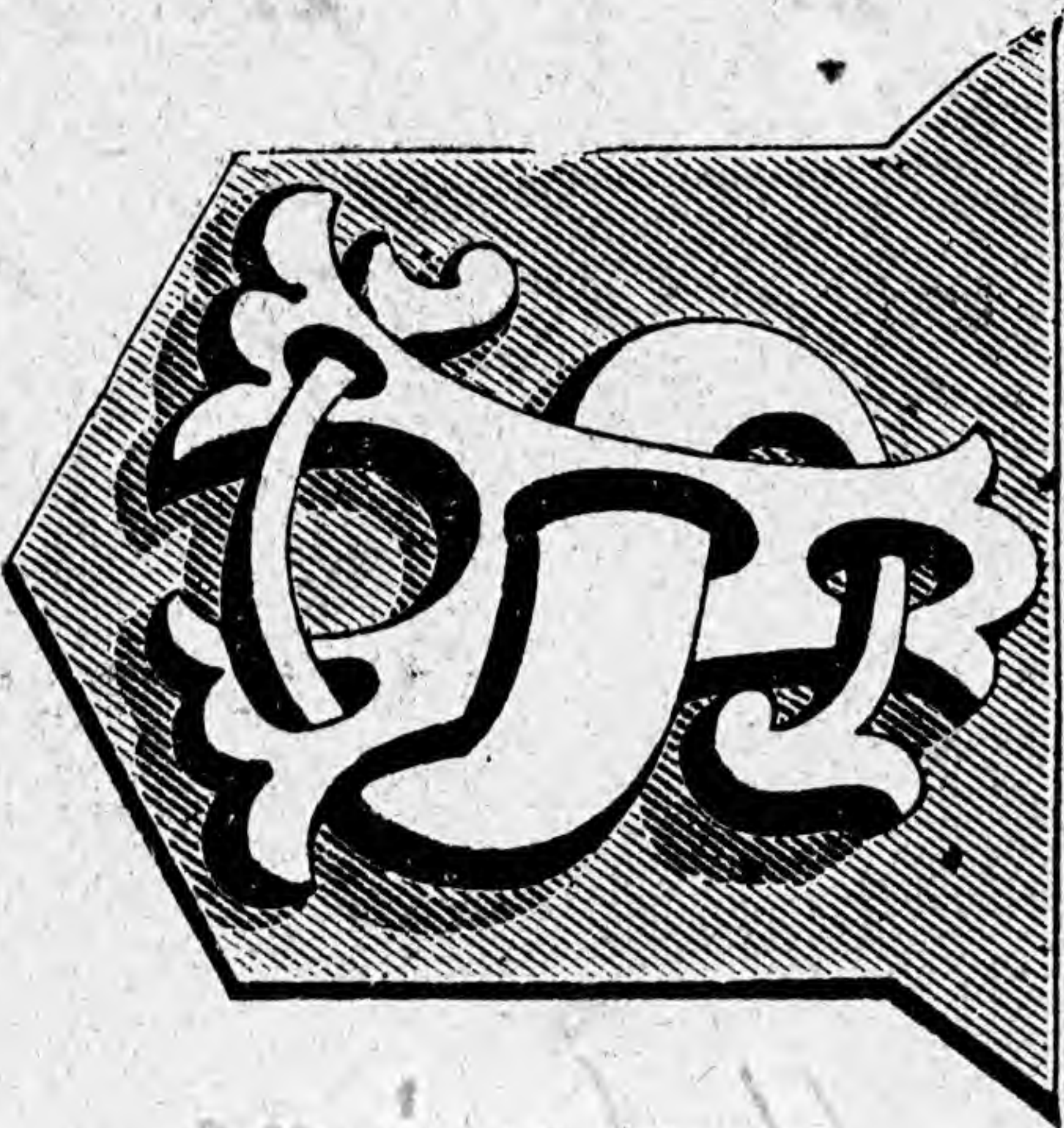


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WHEELER & WILSON



SEWING MACHINES.

Permit us to c

SEWING

mentioned in our en-
COTTON and SILK M-
ing Machine, and

10,000 of



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= *Jung. Pittonia* ~~Lab~~ 1875

P. A. Hookeriana ¹⁸⁵⁵ - leaves margin entire, both sides

dark green - 4-6 rows of stomata on each side
of middle line. Resin duct separate from the
sheath of the fibrovascular bundles by one or
two layers of large chlorophyll bearing cells

P. A. Pattoniana ^{n. sp.} leaves margin denticulate towards apex
upper side yellowish green, 2-4 rows of stom. on each
side of a slight central furrow; beneath with 6-7
rows on each side of middle line. Resin duct
in contact with sheath of fibrovascular bundle & epiderm



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Remember when you are in want of any PERFUMERY, FINE BAY RUM, ENGLISH AND FRENCH BRUSHES, CUT GLASS BOTTLES, WRITING PAPER, VISITING CARDS, SOAPS, COLOGNES, EXTRACTS in bulk for the Handkerchief, SPONGES, ODOR CASES, or any Toilet Article, you can find a Complete Stock at C. K. JONES & Co., 2800 Washington Avenue. Also remember when compelled to buy any MEDICINES, that they keep a full and fresh stock, which are dispensed by experienced Pharmacists.



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Abies Pattonii

monstrous.

set of several leaves
also of top of a leaf

epidermis

(larger piece the upper,
smaller - lower surface)

Just below close to hypodermis, distinct
for new

largest age lower
smaller upper

ridge usually on upper side

stomata all over upper side

none in middle below (but)

There long epidermis ridges
groove below! near base
especially



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2800	0.89	29-38	31 58
3935		415-2900	
650		2905	
		1007	
1800	0.11		
415			
650			

Dear Sir

Left out my

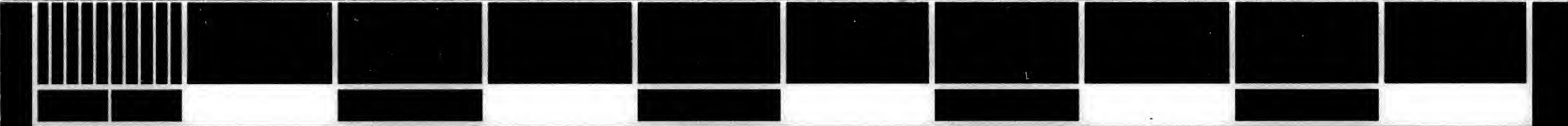
from each

a minimum

rank - 12

Yours

Dec 27



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GEO. ENGELMAN, M. D.

Office & Residence; 3003 Locust St.

Abies Williamsoni

Hall: a common but not large forest
tree at the higher Cascades at
base of Mt Hood

Podocarpus a most graceful tree
at Crescent City it comes near the coast
just as contorta!



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Gordon's Pinetum - p. 10

" No. 7. *Abies Pattonii*, Jeffrey.

Syn. *Abies gracilis*, Hook.

" " *trigona*, Raf.

" " *Hookeriana*, Murray

" *Picea Californica*, Carrice

"

Nothing said of "Distinction between *Pattoniana* and *Hookeriana*" leaves described as "bright green above and glaucous beneath."

In Supplement - p. 6, is given "Syn. *Abies Williamsonii*, Nutt. var. *Bridgesii*" - *Bridgesii* *Williamsonii* being *A. Arborescens*.

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A. Pattonii in both cases.

Rec^d - 23rd April 1872
as 8 May.

Dear Dr. Engelman, Above find notes from Gordon as requested. I cannot give exact date of publicⁿ of Hooker's journal - but the collection was made in '46 & '47. As to my description of my *A. amabilis* I must say that I think you are rather hard to satisfy. All that I borrowed from any one in that description is put in quotation marks. Having foliage, perfect a



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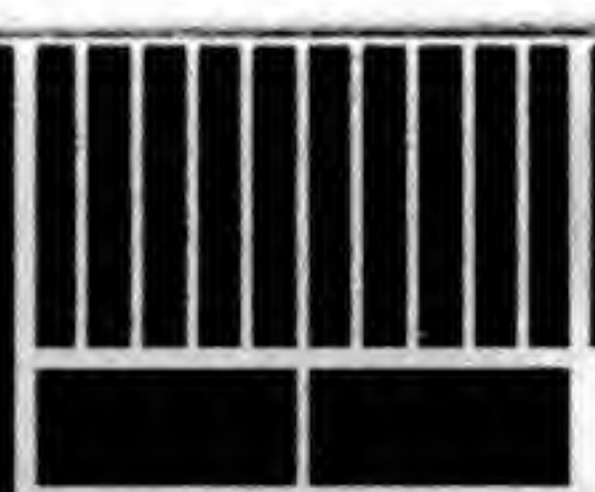


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fertile aments & perfect cones I had an-
casion to do no more than to put a
(?) after the name. I can refer here
only to the specimen in Dr. Gray's set,
and on examining it, it seems to
differ little from the general descrip-
tion, though the leaves are more often
glaucous above than I expected to
find them. They are certainly often chan-
nelled, especially towards the base. The
"greenness" of course fades out in
dried specimens and both sides be-
come alike aside from the glaucous-
ness. The specimens were tolerably
fresh when my description was written &
I endeavored to make it conform to them,
without troubling myself whether or
not it omitted any thing else.

I did not say that they were not your concolor
but that they did not accord with the description
given. Further specimens here have a
very different look - but I should not wonder
if it was all one with grandis.

Dr. Gray says that the "Abies balsamea"
from Camb. Garden, referred to you, was
certainly that species & nothing else.
In haste - Yours Very Truly
B. Moore Watson



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