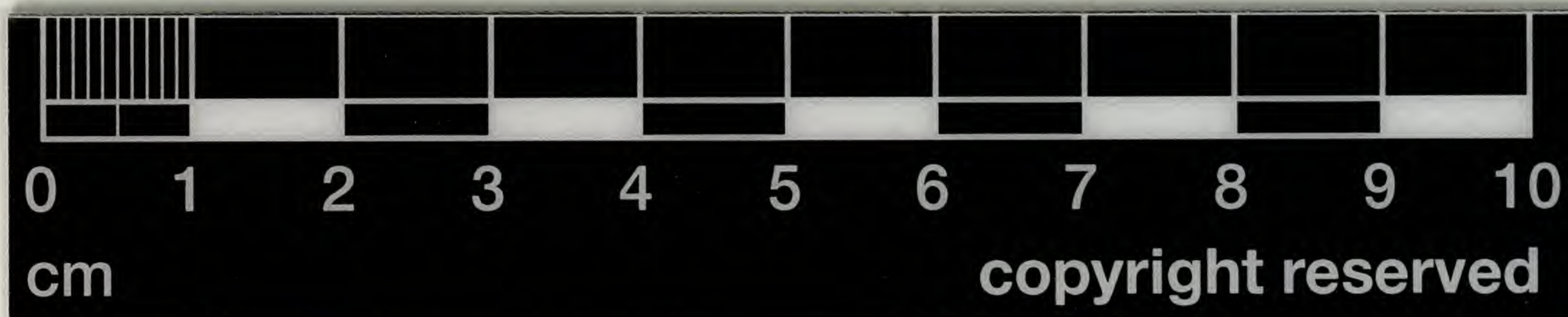


GEORGE ENGELMANN
BOTANICAL NOTEBOOKS

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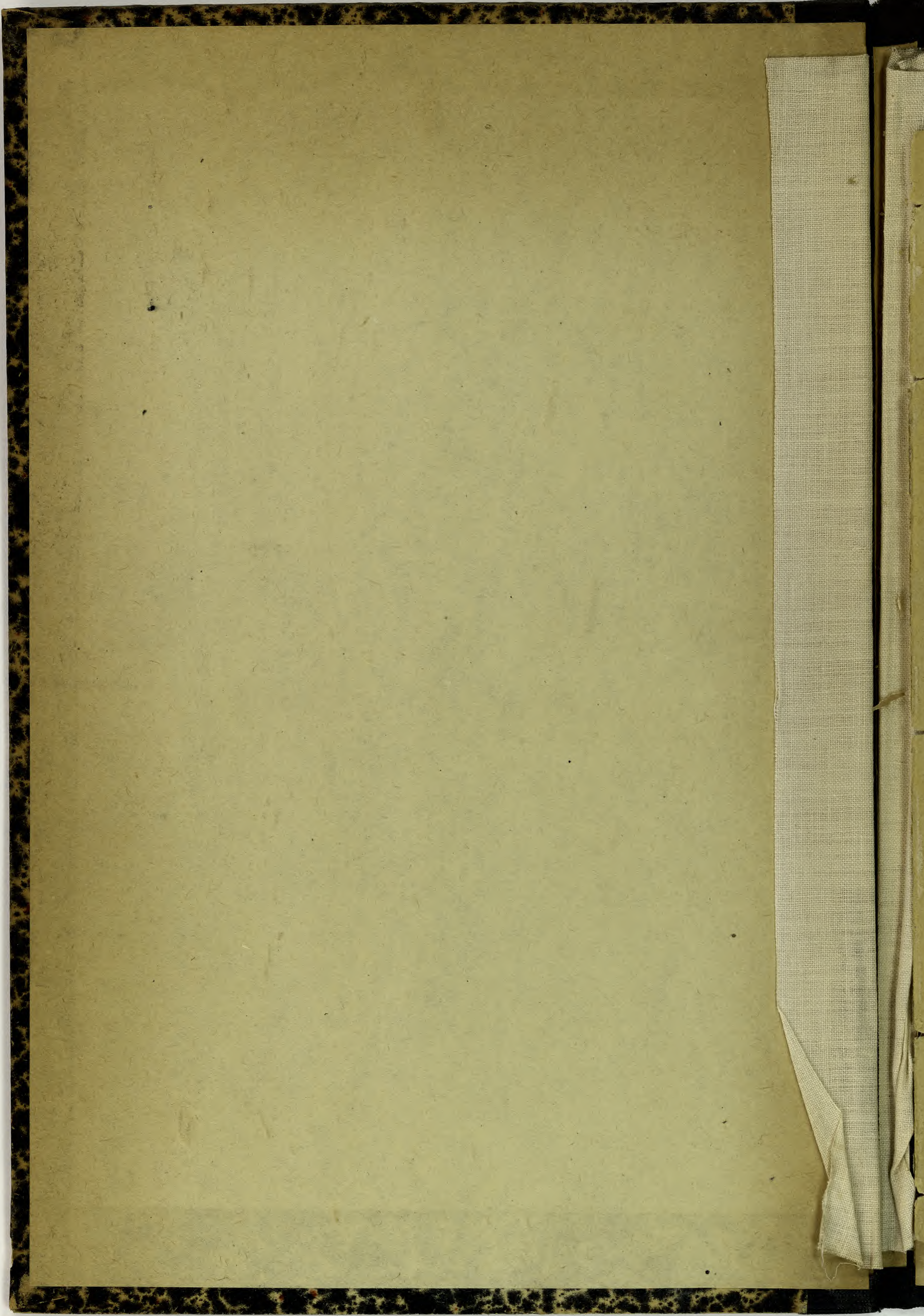
Ascherson, P. Bb-70
Mammillaria phanerogama



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195

Amelia
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Directions

on the species of marine Phanerogamae
to be looked for on the coasts

of North America

I. On the Atlantic coast

1. Zostera marina L., the common eel-grass. Flowering July (in the warmer May) to
2. Z. nana Rth., found almost everywhere in the northern temperate zone with the former viz. in Europe, the Canarian island, Japan therefore to be expected on the seaside of the Atlantic states. It is easily distinguishable from the common eel-grass by its more delicate growth, its narrower leaves ($\frac{1}{3}$ - 1 line wide) distinguished with a very different nervature, viz a very strong middle nerve and two ^{like-wise} also strong exactly marginal ones between which 2 - 4 secondary ones are found on each side. In the common eel-grass 3 - 5 (rarely to 7) primary nerves, none of



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which is closely approximated to the ~~main~~ almost
edges of the leaf, are little stronger than the ~~primary~~ only.
numerous secondary ones. In both species ~~secondary~~ ~~white~~
the leaves are somewhat emarginated ~~on the~~ white an
top but not denticulate. Z. nana fl. ~~white an~~
from June to ~~fruit,~~
~~similar~~
~~unprick~~

II On the Gulf coast.

^{esidy}
Beyond the

Zostera mariana, found by Chapman on
the West-Florida coast,
to be expected

3. Thalassia testudinum Kön., the ~~largest~~ ~~grass~~ ~~of~~ ~~the~~ ~~West~~ ~~Indian~~ ~~islands~~. Its ~~leaves~~
grass of the West Indian islands. Its ~~leaves~~
are somewhat larger than in the ~~common~~ ~~one~~
eelgrass ($\frac{1}{4}$ - 1 inch wide) ~~with~~ ~~by~~ ~~the~~ ~~top~~
11 - 13 longitudinal primary nerves, between the ~~middle~~
which are 2 - 4 secondary ~~of~~ ~~the~~
ones, connected by very numerous trans-
versal ones (the area dotted with dark ~~angely~~
brown dots and lines). The flowers, was ~~are~~ ~~in~~
and minutely ~~not~~ ~~shar~~ ~~denticulate~~ ~~on~~ ~~the~~ ~~blunt~~ ~~(not~~
ginate) top.



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almost all botanical collections appear
July. The male flower, comparatively large
solitary, e. by a bifid spathe, with
3 (white?) sepals $\frac{1}{2}$ inch long, and 9 (or 12?)
sessile anthers. The female flower unknown.
The fruit, when, as it is to be supposed,
similar to that of the Asiatic Chizotheca
Hemprichii, ~~2-4 seeded~~ rough with
green, herbaceous prickles, 2-4 seeded, but
like into numerous valves.

where it flowers submerged or
floating

4. Halodule sp. ? (seen from the island
of St. Thomas); ^{closely} similar to the Zostera nan.
but distinguishable by its indistinct
secondary nerves of the leaves tridentate
on the top by the excurrent marginal and
middle nerves. The middle tooth is blunter
than the lateral ones. The male flower
of the African H. australis Mig. ^{only known} is a
longly stalked anther the cells of which
are inserted on the stalk in somewhat
different height



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5. The "Alga janoea of Hoane or
Manati grasse (Hist. Jam. I. tab
22 fig. 5.) a singular marine plant
with creeping roots and rush-like
leaves ($\frac{1}{2}$ lines wide $\frac{7}{8}$ inches long
we know from the Indian Ocean
a similar species (Cymodocea ~~seguis~~ isoc-
folia Aris.) the Westindian plant ought
to be looked for.

III On the Pacific coast

Beyond the

Zostera marina, found in Unalaska and the
Z. nana, found in Japan

6. Phyllospadix Coulteri ^{Hook.} closely similar in leaves
to the Zostera marina, differs by its densely
fibrous root (all the species quoted formerly
have creeping roots). The flowers, wanting
it almost everywhere, are ^{also} similar to the
common eel-grass, but dioecious, the female on
and fruit only known, the male to be
Found from the Oregon River to Monterey in Upper Califor
7. P. serrulata Rupr., closely similar to the former,
which it differs by its minutely and sharply denticulate
leaves. Found only ejected on the shore of Sitka or Unalaska
Berlin 1 June 1868. P. Ascherson M. D.



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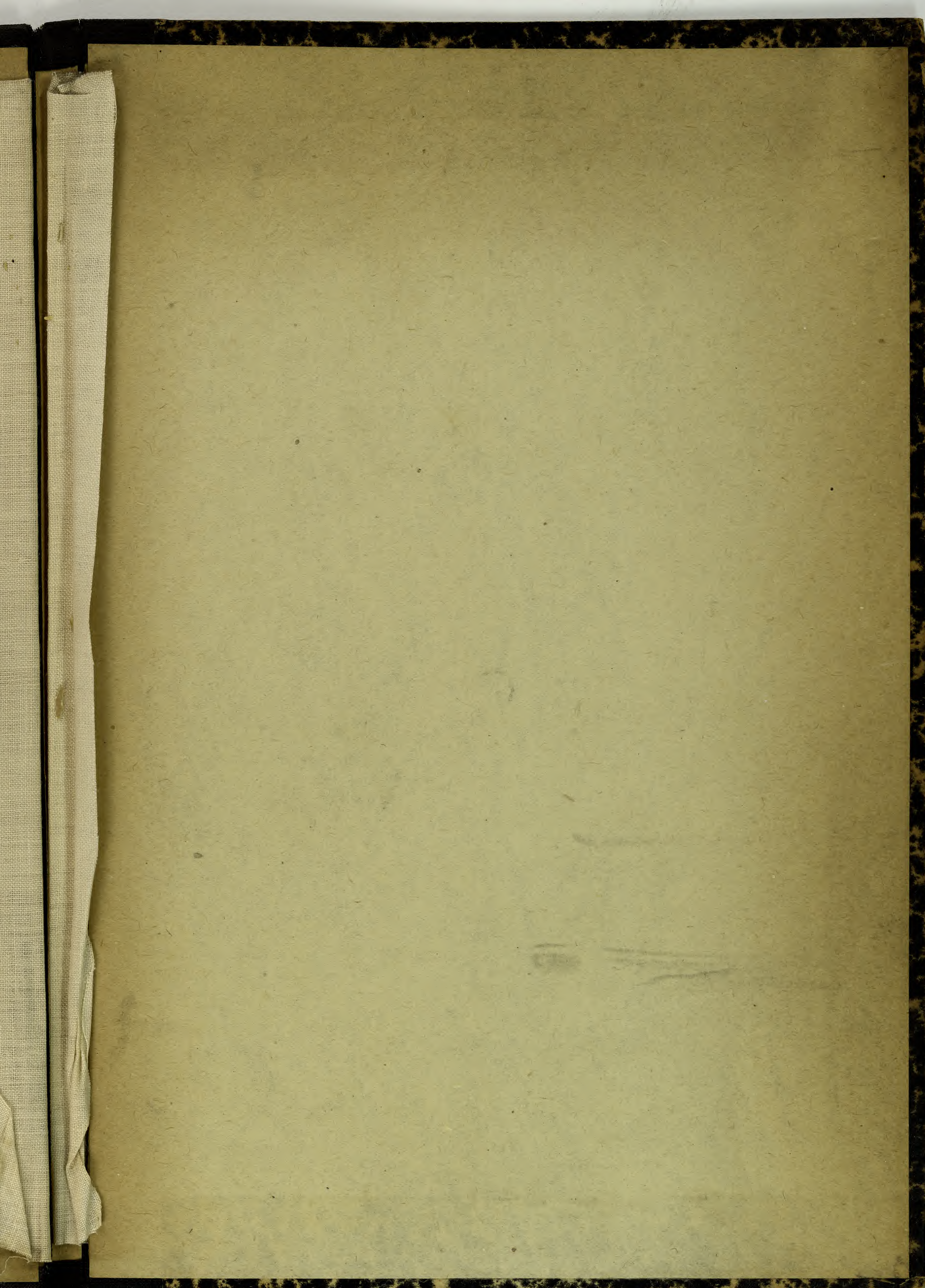
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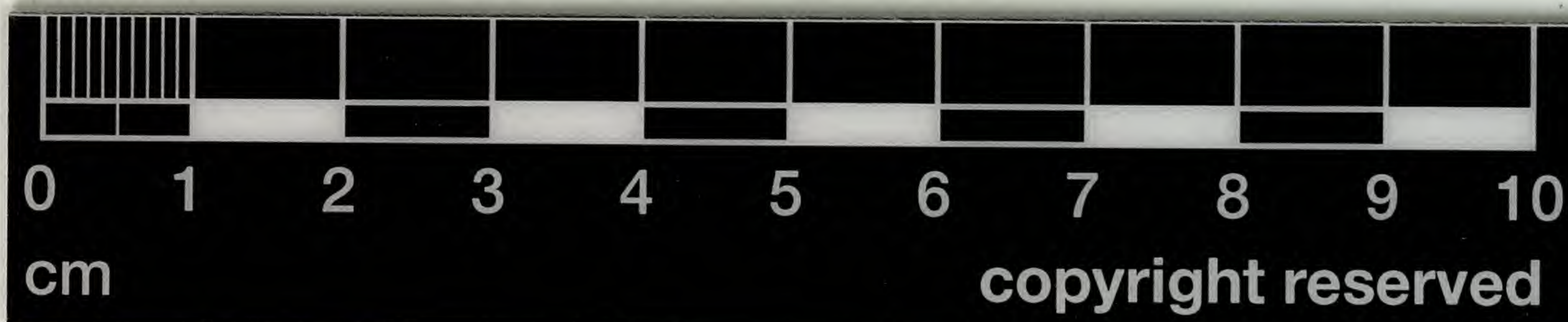
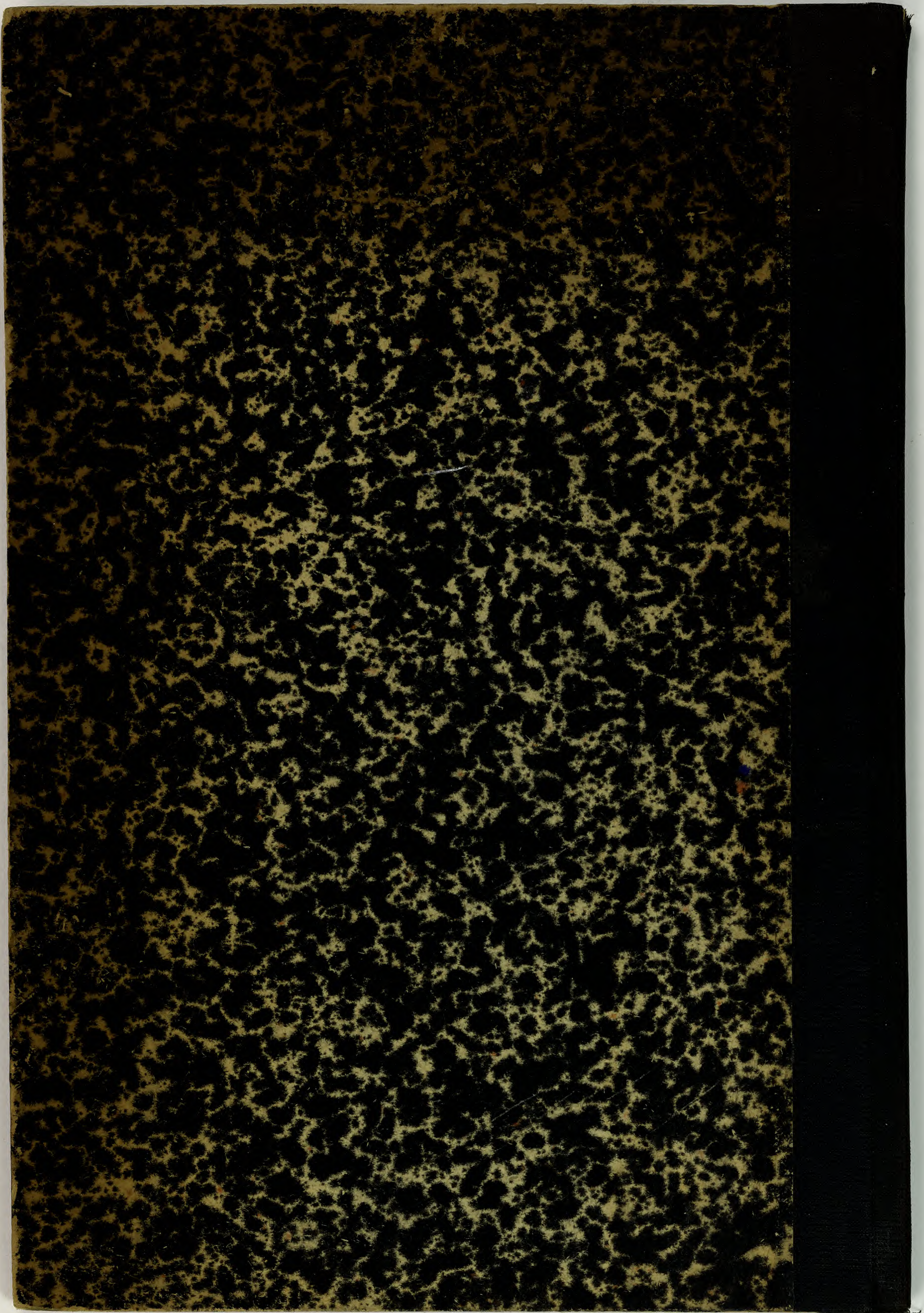
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