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Revised Note on Laminaria

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Agaricus—continued—

**A. campestris*.

**A. (Omphalia) umbelliferus*.

Lycoperdon.*

L. cælatum.

Inoderma.

I. arenarius.

Cyathus.

C. fimicola.

Isaria.*

I. fuciformis.

I. umbrina.

Bovista.

B. lilacina.

Nematogonium.

N. aurantiacum.

Pestalotziella.

P. circulare.

Patellaria sp.

Stereum.*

S. lobatum.

S. hirsutum.

S. elegans.

Thelephora.*

T. pedicellata.

REVISED NOTE ON LAMINARIA. By THOMAS BERWICK,
St. Andrews.

(Read 9th July 1903.)

*Demonstrations of the Masked Chlorophyll in fronds of above,
for Class purposes.*

(1) If a frond of *Laminaria* of any length—the longer the better—after being simply air-dried, be passed with moderate rapidity with both hands through an ordinary bat-wing or bunsen flame, at once the brown colouring matter (Phycophæin)¹ disappears, the discharge of a misty vapour accompanying the change.

(2) By placing a coin heated to the proper temperature on frond, and exerting pressure, a series of green impressions can be immediately produced. Metal stamps of various designs act similarly. To obtain printed impressions the letters require to stand well out.

(3) By playing a lens upon frond for a short time, green

¹ Botanical Microtechnique. By Dr. A. Zimmermann. Translated by J. E. Humphrey, S.D., 1896, p. 104.

spots are got, and there is a beautiful demonstration in miniature of the misty vapour making its escape.

(4) The Phycophæin retreats like a cloud before the heat (this is observable in the first experiment).

When a metal mould of an Ivy leaf is heated and pressed on the frond, one gets an impression of the same size as the mould well defined in green, and three minutes after removing metal, an outline beyond the contour line in pale green, which latter is surrounded by another outline in pale brown impinging on the natural brown.

(5) If a heated double split ring be applied on frond, the ring forms a light green circle, bordered on either side by a broad green band. Towards the periphery in three minutes the condition as in Ivy leaf is seen, a light green succeeded by a light brown ring appearing.

From the central brown area, corresponding with the hollow of the ring, similar phenomena occur in three minutes—a light brown ring next the brown (natural), and a light green ring beyond.

After an exposure to air of a few hours, and an afternoon and night wrapped up in paper, and thus excluded from atmospheric agency, the central brown (natural) area of the manipulated frond is surrounded by a green ring, and a brown occupies the place of the previous green ring.

Towards the periphery of the figure, one finds a green ring touching the natural brown of the frond, and within the green ring a circle of brown.

COWTHORPE OAK. By JOHN CLAYTON. Communicated by
Dr. DAVID CHRISTISON. (With Photo. Illustrations.)

(Read 12th March 1903.)

The oak tree at Cowthorpe, near Wetherby, is acknowledged to be the largest in diameter of all oaks that are known. It therefore commands an attention that is specially its own—as a king among men—and it is doubtful whether any other living tree has had as much written about it as it has, for wherever books on forestry in the English language are printed and read, so far has spread the fame of the Cowthorpe Oak.