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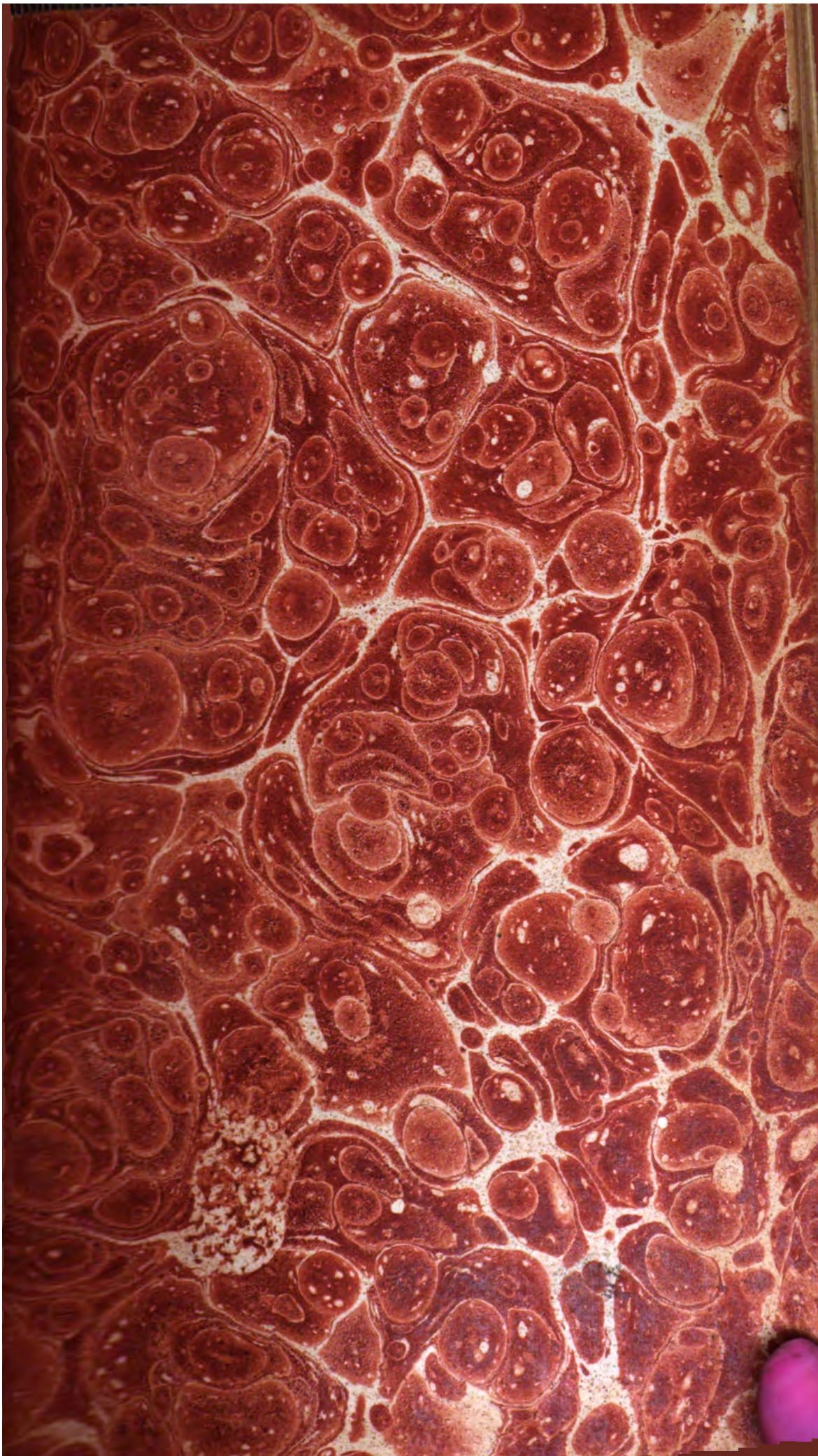
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# ENGLISH BOTANY;

OR,

COLOURED FIGURES

OF

BRITISH PLANTS,

WITH THEIR

ESSENTIAL CHARACTERS, SYNONYMS,  
AND PLACES OF GROWTH.

TO WHICH WILL BE ADDED,

OCCASIONAL REMARKS.

BY

*JAMES EDWARD SMITH, M. D. F. R. S.*

MEMBER OF THE IMP. ACAD. NATURÆ CURIOSORUM, THE  
ACADEMIES OF STOCKHOLM, UPSAL, TURIN,  
LISBON, LUND, BERLIN, PHILADELPHIA, AND  
THE NAT. HIST. SOCIETY OF PARIS;  
PRESIDENT OF THE LINNEAN SOCIETY.

THE FIGURES BY

JAMES SOWERBY, F.L.S.

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“VIRESCQUE ACQUIRIT EUNDO.”—*Virg.*

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VOL. XVI.

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MDCCCIII.







## HYPNUM subtile.

*Slender Feather-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. Caps. ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base : *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem creeping, with slender thread-shaped branches. Leaves lanceolate, acute, ribless, rather loosely spreading. Capsule erect. Lid conical.

SYN. Hypnum subtile. *Hoffm. Germ. v. 2. 70.*  
*Dicks. Crypt. fasc. 4. 17. Sm. Fl. Brit. 1277.*  
*Turn. Musc. Hib. 135.*

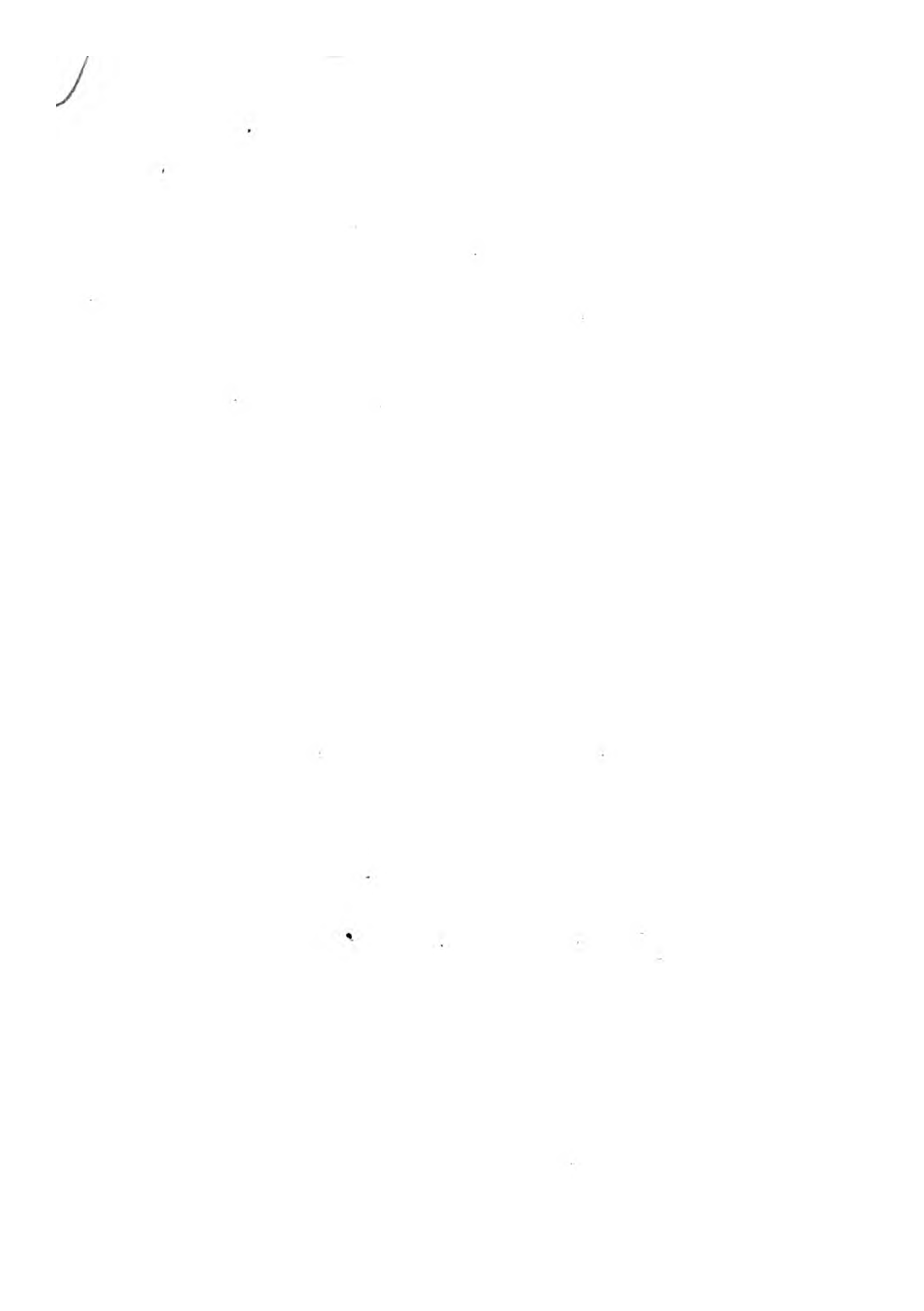
*Leskea subtilis. Hedw. Sp. Musc. 221. Crypt. v. 4. 23. t. 9.*

WET situations, about the roots of trees, and watery gravelly heaths, produce this moss, but the capsules do not often occur in England. We are obliged to take them from a German specimen of Mr. Turner's. The very slender, creeping, entangled stems throw up numerous, erect, short, extremely slender, round, almost always simple, branches, composing fine matted tufts. The leaves are light yellowish green, loosely clothing the branches, spreading every way, lanceolate, very acutely pointed, entire, destitute of rib or veins; and the scales of the sheath are like them, but more concave; both appear reticulated, with oblong interstices, under a microscope. The fruitstalks are capillary and reddish, hardly an inch high, ascending. Capsule either quite erect, or, when ripe, sometimes slightly inclining, cylindrical, wide-mouthed, quite smooth and even, light brown. Lid conical, short and reddish, according to Hedwig, who, finding the inner fringe with 16 simple equal teeth, refers this moss to his *Leskea*, a genus we do not adopt.

2496.



*Jan. 1852 published by Geo. & Charles G. & Co.*





HYPNUM pulchellum.  
*Beautiful Tufted Feather-moss.*

CRYPTOGAMIA Musci.

GEN. CHAR. Caps. ovate-oblong, from a lateral scaly sheath. Outer fringe of 16 teeth, dilated at the base: inner a variously-toothed membrane. Veil smooth.

SPEC. CHAR. Stems erect, tufted. Branches cylindrical, simple. Leaves ovato-lanceolate, taper-pointed, ribless, somewhat inclining to one side. Capsule upright. Lid conical.

SYN. Hypnum pulchellum. *Dicks. Crypt. fasc. 2. 13. t. 5. f. 6. H. Sicc. fasc. 9. 22. Sm. Fl. Brit. 1277. With. 847. Hull. 269. Turn. Musc. Hib. 136. Leskea pulchella. Hedw. Sp. Musc. 220. t. 55. f. 7—12.*

GATHERED last summer by Mr. Borrer and Mr. Hooker in the Den of Reclip, Perthshire, already celebrated in botanic story for producing *Convallaria verticillata*, t. 128.

This is truly an elegant moss, consisting of dense tufts, an inch and half high, conspicuous for their light and splendid green colour. The branches are numerous, alternate, upright, simple and cylindrical. Leaves imbricated, rather inclining to one side, shining, ovato-lanceolate, concave, entire, taper-pointed, finely reticulated, without any rib, though occasionally marked with a plait. Sheaths solitary, from the base of the stem or branches, small, consisting of a few pointed, keeled, pellucid scales. Fruitstalks rising much above the stems, capillary, red, especially in the lower part, bulbous at the base. Capsule nearly erect, oblong-pitcher-shaped, pale brown, finely reticulated, insomuch that should the veil be found to countenance the measure, I should be glad to remove this species to *Hookeria*, where it has perhaps as good a right to be placed as my *H. uncinata*, Tr. of L. Soc. v. 281. t. 23. f. 4. The lid is conical, much shorter than the capsule. Outer fringe yellowish; twice as long, white, with uniform teeth. Veil unknown.

2006



April 1 1809 Published by Jas Sowerby London

V





HYPNUM polyanthos.  
Thread-shaped Feather-moss.

CRYPTOGAMIA Musci.

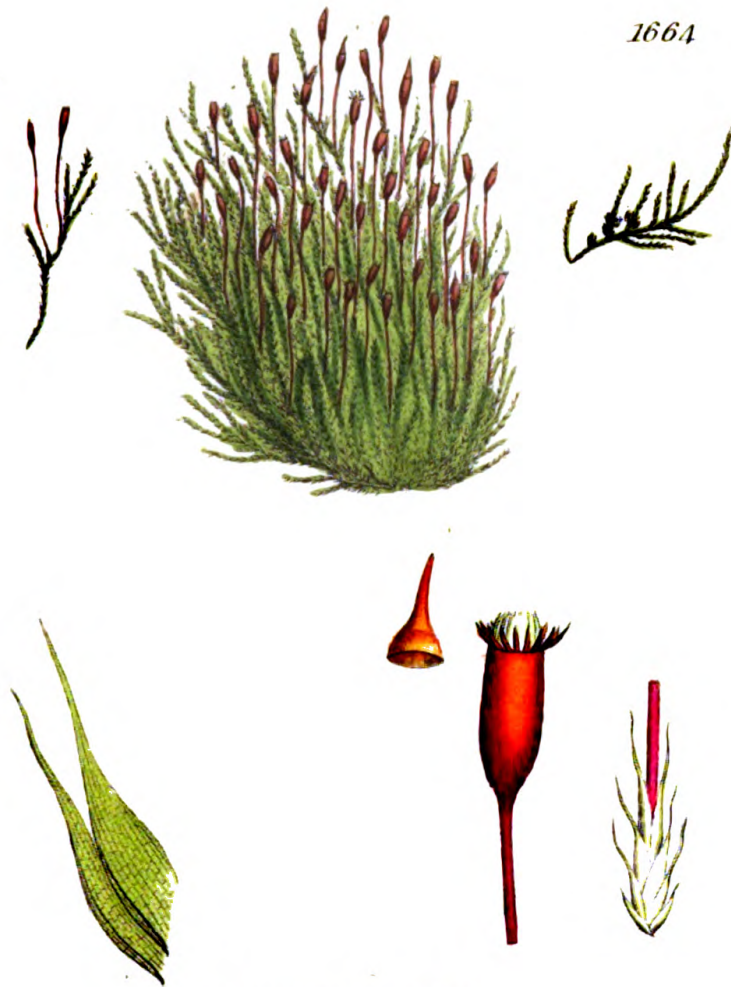
- GEN. CHAR. Caps. ovate-oblong, from a lateral scaly sheath. Outer fringe of 16 teeth, dilated at the base: inner a variously-toothed membrane. Veil smooth.
- SPEC. CHAR. Stem creeping, much branched, round. Leaves lanceolate, taper-pointed, imbricated, erect, without ribs. Capsule erect. Lid pointed.
- SYN. Hypnum polyanthos. Schreb. Lips. 97. Sm. Fl. Brit. 1278. Turn. Musc. Hib. 137.
- H. filiforme. Huds. 497.
- H. filicifolium. Linn. Mant. 2. 310.
- H. filifolium. Wich. 862. Hull. 273.
- H. sericeum ramosius et tenuius, capsulis acuminatis. Dill. Musc. 327. t. 42. f. 62. Herb. Dill.
- H. repens trichoides terrestre viridius minus, capitulis cernuis, minus tumidis. Raii Syn. 84.
- Leskea polyantha. Hedw. Sp. Musc. 229. Crypt. v 4. 4. t. 2.
- L. filiformis. Sibth. 303.

A FREQUENT species about rotten wood and old trees, bearing capsules in the early spring.

Stems creeping, entangled, in dense patches, throwing up many slender, cylindrical, leafy, often pinnated, branches. Leaves with a silky gloss, light yellowish green, small, imbricated every way, rarely inclined a little to one side, lanceolate, broad, entire, ending in a long taper point, but without any rib or vein. Their reticulations are oblong and linear. Sheaths numerous, long, pale; their leaves long-pointed. Fruitstalk half an inch or more in length, erect, red, spiral when dry. Capsule upright, cylindrical inclining to an elliptical figure, rather narrow mouthed, red-brown, smooth. Lid convex, with a longish beak, as figured by Dillenius; Mr. Turner justly observes that German specimens have a shorter lid, as represented by Hedwig, and we find it so in Swiss ones, yet there seems no other difference. Its length varies with us.

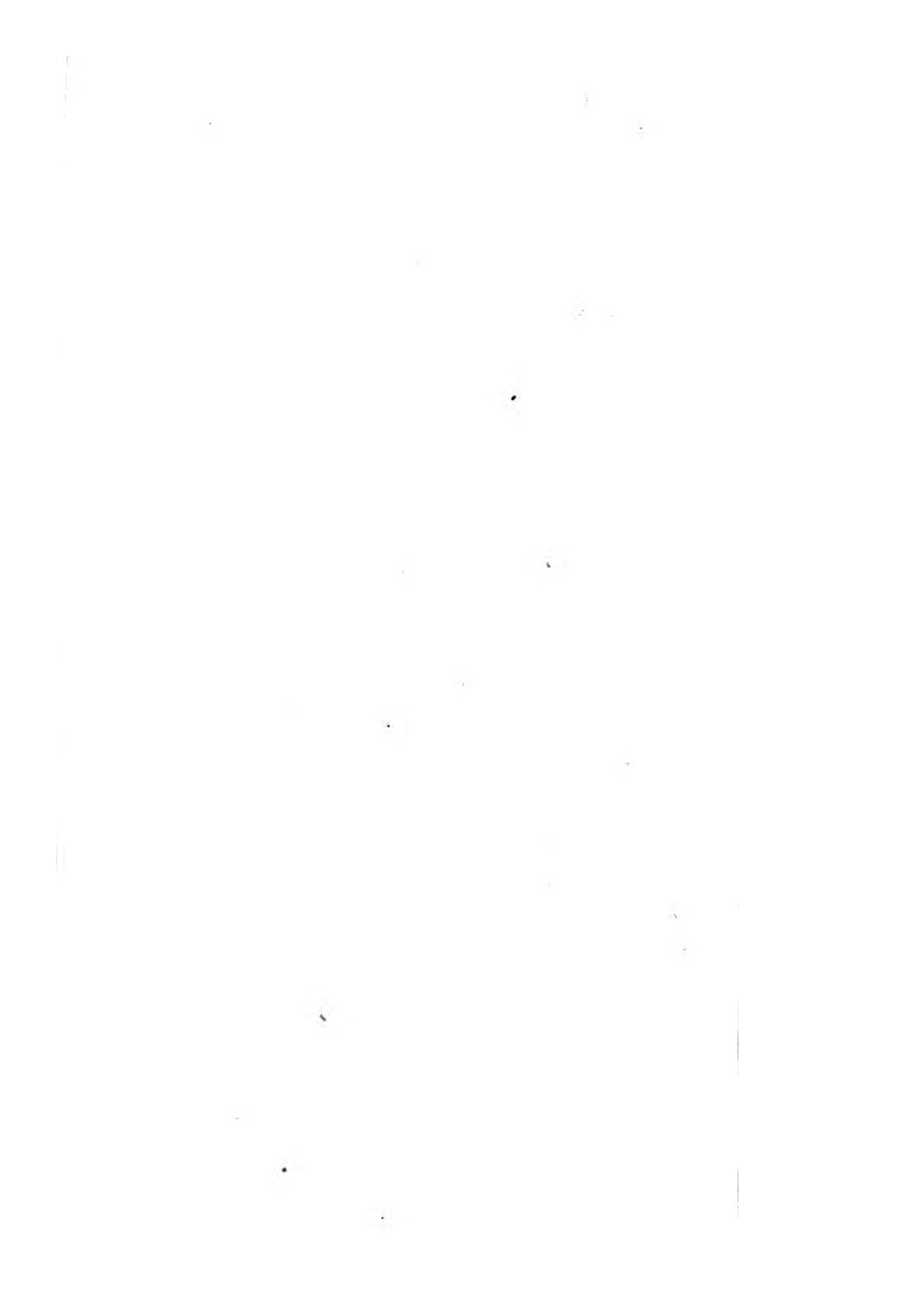
In the first edition of Hudson *filiciforme* was printed by mistake for *filiforme*; hence arose the above confusion of names.

1664



*Nov. 1266. Publish'd by Jas. Sowerby, London.*





## HYPNUM attenuatum.

*Taper-branched Feather-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. Caps. ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem much branched. Branches incurved. Leaves ovate, pointed, imbricated, single-ribbed; the upper ones rather leaning one way. Capsule erect. Lid conical.

SYN. Hypnum attenuatum. Schreb. Lips. 100. Dicks, Crypt. fasc. 2. 13. Sm. Fl. Brit. 1279. With. 860. Hull. 272.

H. repens trichodes arboreum majus, cauliculis ramosis. Dill. Musc. 331. t. 42. f. 66.

Leskia attenuata. Hedw. Sp. Musc. 230. Crypt. v. 1. 33. t. 12.

SUCH as we have only can we here present to our friends. Dillenius never saw the fruit of this moss, nor have we more than one aged capsule, on the specimen given by Mr. Dickson, gathered by him on trunks of trees in Scotland. It accords exactly with the specimens of Dillenius, and, if we are not much mistaken, with some, destitute of fructification, sent by Dr. R. A. Hedwig.

The stems are very much branched, leafy, ascending, entangled, the branches and their extremities incurved. Leaves imbricated every way, close-pressed when dry, dull-green, or tawny, ovate, broad, short, entire, single-ribbed, taper-pointed; the upper ones rather curved, the same way as the branch. Sheaths pale. Fruitstalk an inch high, wavy, dark red. Capsule erect, cylindrical or somewhat ovate. Lid, according to Hedwig, much shorter than the capsule, conical, obtuse,

2420



*From a collection by J. H. Sargent*







## HYPNUM medium.

*Long-headed Feather-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem creeping. Branches scattered. Leaves ovato-lanceolate, acute, single-nerved, imbricated. Capsule cylindrical, slightly elliptical, erect.

SYN. *Hypnum medium.* *Dicks. Crypt. fasc. 2. 12.*  
*Sm. Fl. Brit. 1281. With. 847. Hull. 269.*

*H. trichodes, capsulis oblongis in setis brevioribus.*  
*Dill. Musc. 331. t. 42. f. 65.*

*Leskea polycarpa. Hedw. Sp. Musc. 225.*

MR. DICKSON discovered this *Hypnum* on the trunks of trees in Scotland, and Mr. Templeton has observed it in Ireland upon stones. Our specimens, the only English ones we have ever seen, were gathered by the Rev. Dr. Abbot about the roots of young oaks in Kempston wood Bedfordshire, bearing ripe fruit in the winter months.

The stems form perennial intricate patches, and divide irregularly into many slender branches, which are also procumbent, and which are sometimes thicker in their upper part than any where else. Leaves of a bright but full green, not shining, imbricated every way, small, ovato-lanceolate, acute, entire, concave, with a strong nerve. Stalks very numerous, erect, capillary, not an inch high. Capsule erect, pale brown, long, cylindrical, a little swelling, sometimes curved at the top, but not drooping. Lid conical, short and blunt. Inner fringe with very slender uniform teeth, twice as long as the outer.

1274



1804. Published by J. Sowerby, London

✓



[ 1922 ]

HYPNUM inundatum.

*Marsh Feather-moss.*

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CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base : *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem creeping. Branches erect. Leaves ovate, concave, single-ribbed, somewhat inclining to one side. Capsule cylindrical, erect.

SYN. *Hypnum inundatum.* *Dicks. Crypt. fasc. 4. 17.*  
*Sm. Fl. Brit. 1281. Turn. Musc. Hib. 143.*

*H. heterophyllum aquaticum, polycephalum, repens.*  
*Dill. Musc. 293. t. 37. f. 27, B.*

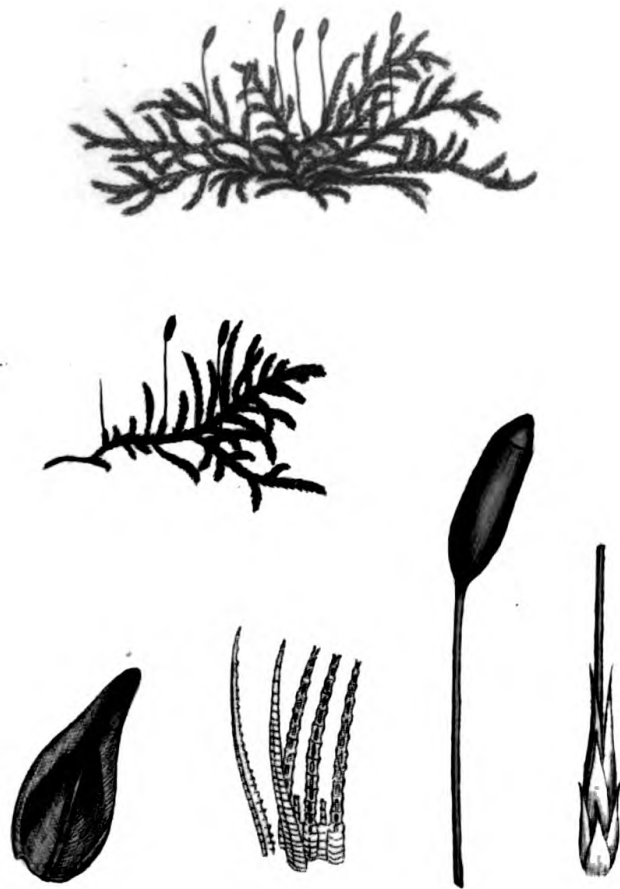
*Leskea paludosa.* *Hedw. Sp. Musc. 221. Crypt.*  
*v. 4. l. t. 1.*

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GATHERED by the late Mr. W. Brunton upon trees in rivulets near Ripon, Yorkshire. The late Mr. R. Teesdale observed the same on the trunks of willows, chiefly about the roots, in Yorkshire, Wiltshire, and at Chiswick near London, bearing capsules from June to September. Our specimens all agree with those of Dillenius, and with what Dr. Swartz sends as Hedwig's plant, and yet his figure seems not altogether expressive of it.

The stems are perennial, creeping, forming lax entangled tufts, of a dull, dark, or tawny green. Branches various in length, scattered, upright or ascending. Leaves small, ovate, entire, concave, bluntish, loosely imbricated, inclined toward one side, each marked with a fine rib, most visible when dry, in which state the rib projects. Sheaths pale, yellowish or tawny, their leaves lanceolate, acute, without ribs, but when dry so plaited as to seem ribbed. Fruitstalks slender, not an inch high. Capsule erect, cylindrical, slender, pale yellowish brown, smooth. Lid conical, short, blunt, reddish.

1922



*Agg. 1. 1808. Published by J. & S. Sowerby, London.*

1







## HYPNUM sericeum.

*Silky Feather-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem creeping. Branches ascending, crowded. Leaves ovate, pointed, erect, with three nerves. Lid conical.

SYN. Hypnum sericeum. *Linn. Sp. Pl.* 1595. *Sm. Fl. Brit.* 1282. *Huds.* 505. *With.* 864. *Hull.* 274. *Relh.* 430. *Abbot.* 251. *Curt. Lond. fasc.* 2. t. 69.

*H. vulgare sericeum recurvum*, capsulis erectis cuspidatis. *Dill. Musc.* 323. t. 42. f. 59.

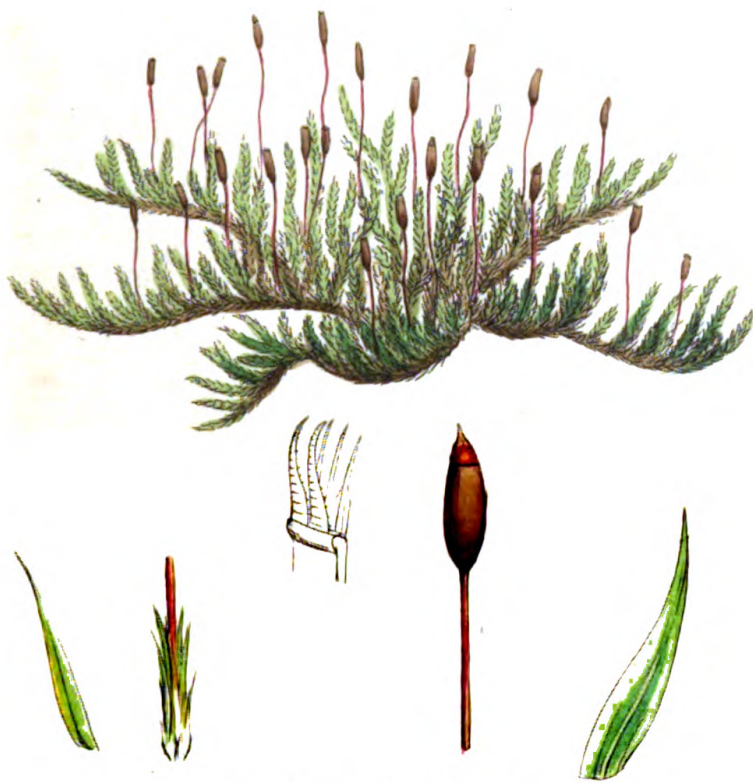
*H. repens trichoides terrestre luteo-virens vulgare majus*, capitulis erectis. *Raii Syn.* 84.

*Leskea sericea.* *Hedw. Sp. Musc.* 228. *Crypt. v.* 4. 43. t. 17.

*Neckera sericea.* *Sibth.* 305.

VERY common on old walls, roofs, banks, and the trunks of trees, where it bears abundance of fruit in the winter and early spring; being readily known by its yellowish shining silky aspect.

The perennial stems spread straight, and closely crowded, over tiles or stones, attached by fibrous roots, and throwing up innumerable short crowded round leafy branches. Leaves imbricated every way, erect, ovate, pointed, entire, marked with 3 ribs, of which the lateral ones reach but half way from the base. Sheath oblong, pointed. Stalk deep red. Capsule upright, ovate, brown, smooth, contracted at the mouth, rarely a little incurved. Lid conical, blunt, generally curved.



April 1. 1805. Published by J. Sowerby, London.

✓



## HYPNUM dendroides.

*Tree-shaped Feather-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem erect, simple. Branches clustered, terminal. Leaves ovate, single-ribbed, finely serrated. Lid pointed. Capsules erect.

SYN. *Hypnum dendroides.* *Lin. Sp. Pl.* 1593. *Sm. Fl. Brit.* 1283. *Huds.* 503. *With.* 859. *Hull.* 272. *Relh.* 430. *Abbot.* 250. *Dichs. Dr. Pl.* 96. *H. Sicc. fasc.* 13. 21. *Ehrh. Crypt.* 16. *Turn. Musc. Hib.* 138.

*H. dendroides sericeum,* setis et capsulis longioribus erectis. *Dill. Musc.* 313. t. 40. f. 48.

*H. erectum,* arbusculam referens, ramulis subrotundis confertim nascentibus. *Raii Syn.* 81.

FOUND in moist shady woods and boggy grassy pastures, producing its fruit, though very rarely, in spring, summer, or autumn. Mr. Mackay gathered our specimens on the island of Innesfallen, Killarney, in August 1805, at which time some capsules were quite ripe, others just beginning to swell.

The species before us is readily known by its tree-like form of growth, which gives it a pretty and peculiar aspect. The roots are long and creeping. Stems solitary, simple and scaly. Branches clustered, cylindrical, straight, acute, covered with imbricated shining leaves, which vary in colour, and are ovate, rather minutely serrated, furnished with a rib and 2 longitudinal plaits. Sheath cylindrical. Capsules erect, slenderly elliptical. Lid conical, pointed. Inner fringe divided almost to the base into uniform slender teeth: hence Swartz has referred it to *Neckera*; and his opinion is sanctioned by the colour and texture of the part in question.



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## HYPNUM curvatum.

*Curve-branched Bushy Feather-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem creeping. Branches clustered, incurved. Leaves elliptical, concave, entire, single-ribbed. Lid tapering. Capsule erect.

SYN. *Hypnum curvatum.* Swartz. *Musc. Suec.* 64. *Sm. Fl. Brit.* 1284. *Dicks. Crypt. fasc.* 4. 18. *Turn. Musc. Hib.* 139.

*H. myosuroides.* Hedw. *Sp. Musc.* 266. *Crypt. v.* 4. 20. *t.* 8. *Huds.* 508,  $\beta$ .

*H. myosuron.* With. 865. *Hull.* 274.

*H. myosuroides crassius,* capsulis erectis. *Dill. Musc.* 316. *t.* 41. *f.* 50.

*H. repens,* triangularibus angustis foliis, ramulis subrotundis. *Dill. in Raii Syn.* 83.

VERY frequent on the trunks of trees, more particularly in the dry woods of limestone countries, where it fructifies plentifully in the spring and summer months.

The stems are perennial, creeping, entangled, elastic and wiry, throwing up numerous, simple or divided, more or less clustered, cylindrical, acute branches, which are also rigid and elastic, always in some degree curved. The leaves are imbricated, concave and turgid, elliptical, entire, sharpish, single-ribbed at the base, of a pale, shining, but not a cheerful, green. Sheath yellowish. Fruit-stalk tawny or reddish, scarcely an inch long. Capsule always upright, ovate, small, tawny. Lid conical, tapering, acute, a little curved.

The real *H. myosuroides* is a smaller plant, with serrated leaves, and a less upright capsule.



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[ 1567 ]

## HYPNUM myosuroides.

*Mouse-tail Feather-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem creeping. Branches clustered, incurved. Leaves lanceolate, pointed, serrated, single-ribbed. Capsule drooping as it ripens.

SYN. *Hypnum myosuroides.* *Linn. Sp. Pl.* 1596. *Sm. Fl. Brit.* 1285. *Huds.* 507. *With.* 865. *Hull.* 274. *Relh.* 431. *Abbot.* 251. *Turn. Musc. Hib.* 140.

*H. myosuroides tenuius, capsulis nutantibus.* *Dill. Musc.* 317. *t.* 41. *f.* 51.

*H. polyanthon, triangularibus angustis foliis.* *Dill. in Raii Syn.* 83.

*Leskia myosuroides.* *Sibth.* 303.

PLENTIFUL on limestone rocks in mountainous countries, bearing fruit in the spring and summer. Mr. Turner gathered our specimen in Anglesea.

This species differs from *H. curvatum*, *t.* 1566, in not being above half so large, and in having narrower and less concave leaves, which are finely serrated. The capsules moreover are, when they begin to ripen, no longer perfectly erect, as in the foregoing, but become inclined or drooping; insomuch that the close affinity of these two species in habit and general structure can alone justify us in placing the present in that section of its genus distinguished by upright capsules. It must however be remarked that these capsules droop only by a bend in their stalks, and are not of themselves arcuate or incurved. The lid is shorter than in *H. curvatum*, and a little bent.

1867



March 1866. Published by J. Sowerby, London.

N.





[ 1620 ]

HYPNUM nigro-viride.  
*Dark-green Silky Feather-moss.*

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CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem procumbent, pinnated. Leaves ovate, pointed, concave, ribless, slightly curved to one side. Lid conical, pointed.

SYN. *Hypnum nigro-viride.* *Dicks. Crypt. fasc. 4. 18.*  
*Sm. Fl. Brit. 1285. Turn. Musc. Hib. 141.*

*H. myosuroides*  $\delta$ . *Huds. 508. var. 2. With. 865.*  
*Hull. 274.*

*H. myosuroides sericeum tenuius, capsulis erectis.*  
*Dill. Musc. 318. t. 41. f. 53.*

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FOR the specimen here represented we are obliged to Charles Lyell, Esq., who found it in the New Forest, Hants, in March last. The species is not unfrequently to be met with on rocks, old walls, or on the ground in shady places.

The stems are an inch or two in length, creeping, throwing up short simple branches curved at their ends. The leaves are very closely imbricated every way, but all more or less curved to one side, ovate, concave, entire, without any nerve; when young they are of a bright shining green; when old, of a dark rusty or yellowish brown. Sheath of many pale lanceolate leaves. Fruit-stalk an inch long, upright, red, smooth. Capsule erect, cylindrical inclining to ovate, smooth, reddish, a little curved by age, but not drooping. Lid conical.



*July 1. 1806. Published by J. G. Sowerby, London*

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[ 1446 ]

## HYPNUM Donnianum.

*Donnian Feather-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stems tufted, simple or divided, bearing fruit from their base. Leaves imbricated every way, ovate, without nerves. Capsule cylindrical, erect.

SYN. Hypnum Donnianum. *Sm. Fl. Brit.* 1286.

WE believe this moss has never been noticed by any other botanist than Mr. G. Donn, who found it, in August 1802, on a bank by the side of a rivulet, upon the high mountains of Cairngorm (vulgarly called Corum Gorum) in Inverness-shire, nor has he seen it elsewhere.

The whole plant has a pale-green shining silky appearance. The stems in the specimens described in *Fl. Brit.* were simple, but we have recently seen others once or twice divided; they grow in tufts, but whether upright or decumbent we are not informed; they are slender, especially at the base, round and leafy. The leaves are loosely imbricated every way, ovate, obtuse, rarely tipped with a minute point, entire, reticulated, without any real nerve, though sometimes the vessels run so as to look like one. Fruit-stalks from the base of the stem, solitary, shorter than the stem, wavy, of a light reddish hue, brighter at the bottom. Sheath minute. Capsule upright or nearly so, of a cylindrical urn shape, smooth, when old and dry somewhat angular, pale rusty brown. Fringe yellow. Lid convex, with a short curved beak.

1440



April 1865 Published by J. Sowerby London

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## HYPNUM complanatum.

*Flat Feather-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem pinnated. Leaves in two ranks, obtuse with a little point, compressed, without a nerve. Lid beaked, oblique. Sheath elongated.

SYN. Hypnum complanatum. *Linn. Sp. Pl.* 1588. *Sm. Fl. Brit.* 1286. *Huds.* 495. *With.* 844. *Hull.* 268. *Relh.* 431. *Abbot.* 244. *Lightf.* 742. *Turn. Musc. Hib.* 144.

H. pennatum compressum et splendens, capsulis ovatis. *Dill. Musc.* 268. *t.* 34. *f.* 7.

H. repens filicifolium ramosum, ramulis appressis et magis complanatis. *Raii Syn.* 87.

Leskea complanata. *Hedw. Sp. Musc.* 231. *Sibth.* 302.

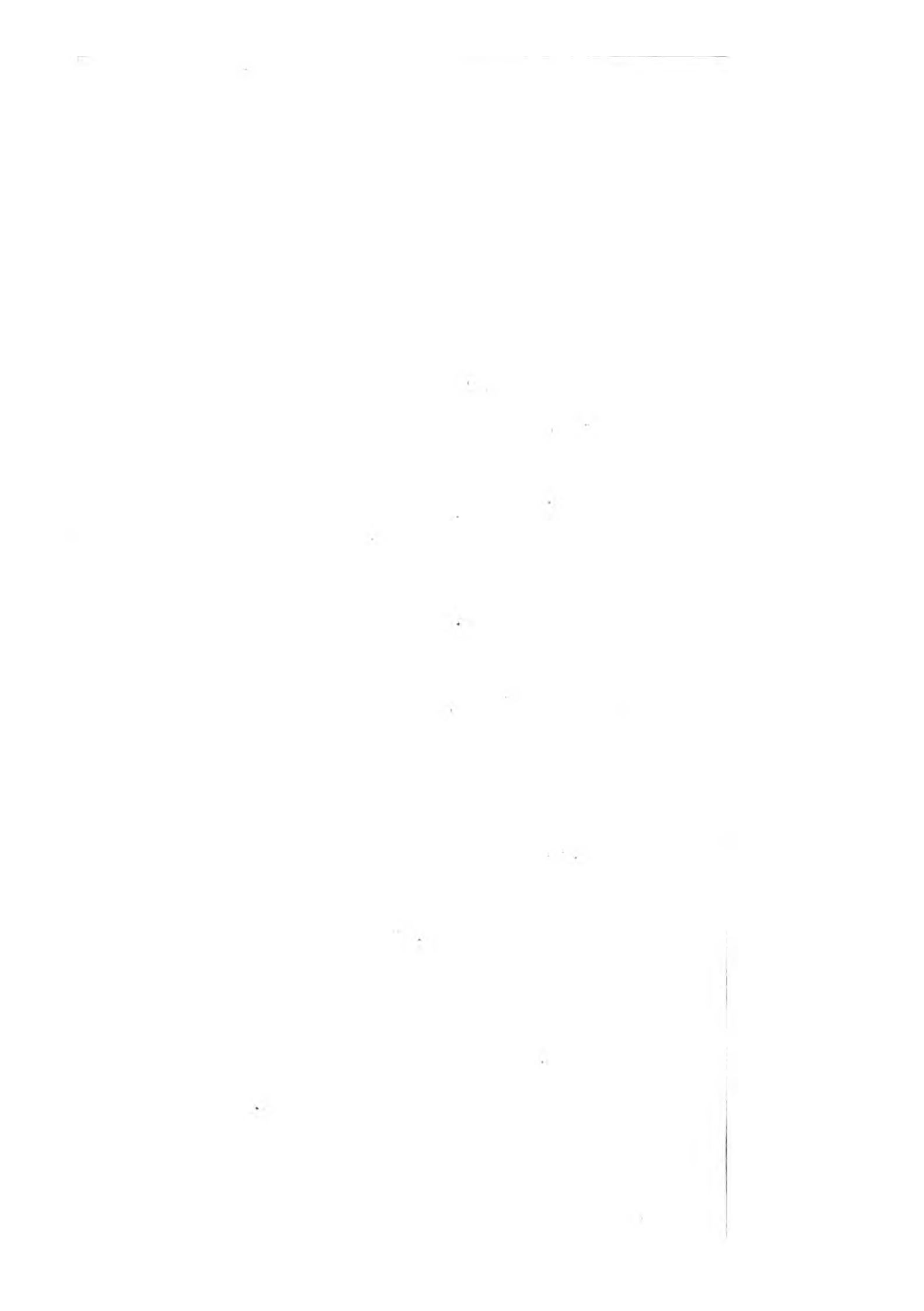
**ABUNDANT** in woods about the roots and stems of trees. In the former situation it often forms dense tufts; in the latter it is pressed close to the bark. In either case the whole plant is singularly flat, as if it had been placed between the leaves of a book. The fructification is produced in March or April, but by no means generally.

Each plant is about 4, 5, or more inches in length, doubly pinnated, the branches two-ranked as well as the leaves, which are closely imbricated, compressed, ovate-oblong, obtuse, entire, without vein or nerve, of a pale shining green, membranous, tipped with a small point. The young points of the branches are often long and taper, bearing a few, more distant, leaves. Sheaths about a third of the length of the fruit-stalks, which are slender, red upwards. Capsule erect, elliptical, short. Lid obliquely beaked.



*April 2 1868. Published by J. & S. Sowerby, London.*

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HYPNUM trichomanoides  
Blunt Fern-like Feather-moss.

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CRYPTOGAMIA Musci.

- GEN. CHAR. Caps. ovate-oblong, from a lateral scaly sheath. Outer fringe of 16 teeth, dilated at the base : inner a variously-toothed membrane. Veil smooth.
- SPEC. CHAR. Stem imperfectly pinnated. Branches all obtuse. Leaves in two ranks, scimitar-shaped, pointless, without a nerve. Lid awl-shaped. Sheath short.
- SYN. Hypnum trichomanoides. Schreb. Lips. 88. Sm. Fl. Brit. 1287. With. 844. Hull. 268. Relh. 431. Turn. Musc. Hib. 145.
- H. complanatum  $\beta$ . Huds. 495.
- H. pennatum trichomanoides splendens ramosum. Dill. Musc. 269. t. 34. f. 8.
- H. erectum filicifolium ramosum, pinnulis obtusis. Dill. in Raii Syn. 87.
- Leskea trichomanoides. Hedw. Sp. Musc. 231. Sibth. 303.
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ON the trunks of trees or on the ground, bearing capsules in February or March. Our specimens were gathered at Studley near Rippon, by Mr. W. Brunton, who justly remarks that the much shorter sheath of the fruit-stalk serves well to distinguish this moss from the preceding, of which Hudson made it a variety. The stems moreover are much shorter, and less regularly pinnated. Branches not running out into a taper point. Leaves slightly recurved into the form of a scimitar, a little convex, with scarcely any point. They have been thought finely serrated, but we believe it to be an optical deception occasioned by their reticulated texture. The lid of the capsule is longer and slenderer than in *H. complanatum*. The inner fringe is, as in that, simply and regularly toothed, which makes the character of Hedwig's *Leskea*.

L. 93



*Andromeda polifolia* L. f. *Andromeda* L.

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## HYPNUM denticulatum.

*Sharp Fern-like Feather-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Leaves two-ranked, ovato-lanceolate, acute, entire, without a nerve. Capsule cylindrical, drooping. Lid conical.

SYN. *Hypnum denticulatum.* *Linn. Sp. Pl.* 1588.  
*Hedw. Sp. Musc.* 237. *Crypt. v. 4.* 81. *t. 31.*  
*Huds.* 494. *With.* 843. *Hull.* 267.

*H. denticulatum pennatum, pinnulis duplicatis recurvis.*  
*Dill. Musc.* 266. *t. 34. f. 5.*

*H. repens filicifolium non ramosum, pediculis et capitulis longioribus ad radicem egredientibus, foliolis utrinque duplicatis.* *Raii Syn.* 88.

FOUND in shady rather moist places, bearing its fruit in March and April.

The root is perennial. The stems form tufts, and are either upright or spreading, at first simple, bearing the fruit-stalk at their base; but by age (as it seems) they grow more or less branched, and decumbent, with the fructification situated about the middle of the stem, or at the base of each branch. In this state it becomes the *H. sylvaticum* of authors, *Dill. t. 34. f. 6*, a plant about which there has been much uncertainty; but we assent to the opinion of Hedwig, confirmed by Mr. Turner, that it is not distinct from *H. denticulatum*.

The leaves are pale-green, a little shining, reticulated, imbricated principally in two rows, so as to render the branch flat; they are ovate-lanceolate, acute, entire, without a nerve, compressed at the base. Fruit-stalk red and shining. Capsule a little drooping, cylindrical, smooth, pale brown. Fringe yellow. Lid conical, more or less pointed.



Taf. 1. 1109. Published by J. Sowerby, London.

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HYPNUM crenulatum.

*Crenate Feather-moss.*

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CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem creeping. Branches mostly simple. Leaves imperfectly two-ranked, ovate, acute, finely notched, single-nerved. Lid conical.

SYN. Hypnum crenulatum. *Sm. Fl. Brit.* 1289.

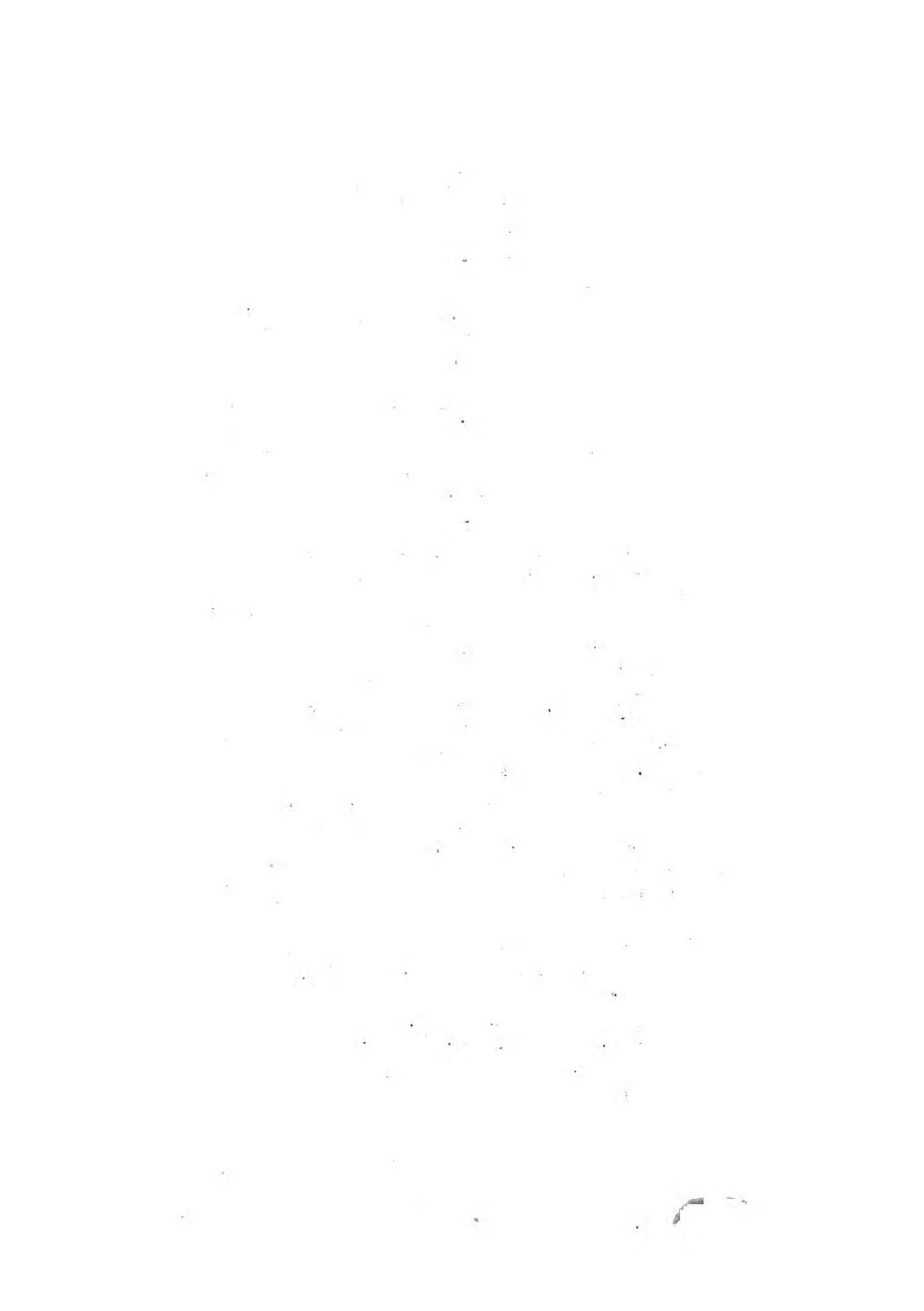
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GATHERED near Newcastle by Mr. Winch. We are obliged to Mr. Turner for specimens, as well as for pointing out the characters which indicate it to be a species hitherto nondescript.

It is perennial, and appears to grow on rotten wood or decayed bark of trees. It is next akin to *H. denticulatum*, but larger in size and darker in colour. The stems creep to some extent, throwing up numerous, spreading, mostly simple branches. Leaves imbricated in two principal rows, but less exactly than in the last, shining, ovate, sharp-pointed, but little concave, not reticulated, minutely crenate, except at the base, furnished with a central nerve, which scarcely reaches to the point. Stalks red and shining, from a pale sheath. Capsule drooping and at length somewhat curved, of an elliptic-cylindrical figure, brown, darker at the base. Lid conical. Fringe reddish brown.

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HYPNUM serrulatum.

*Serrulated Feather-moss.*

CRYPTOGAMIA Musci.

GEN. CHAR. Caps. ovate-oblong, from a lateral scaly sheath. Outer fringe of 16 teeth, dilated at the base: inner a variously-toothed membrane. Veil smooth.

SPEC. CHAR. Stem much branched, creeping. Leaves ovato-lanceolate, sharp-pointed, serrated, with a single nerve at the base. Lid awl-shaped.

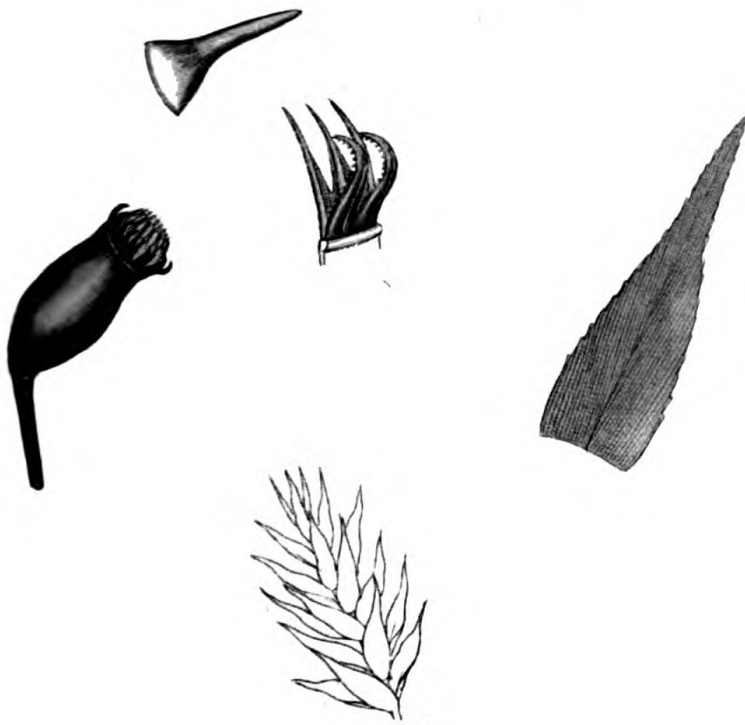
SYN. Hypnum serrulatum. Hedw. Sp. Musc. 238. t. 60. Sm. Fl. Brit. 1290.

WE are also obliged for specimens of this moss to Mr. Turner, who in the progress of his work on Irish Mosses has kindly communicated to us many observations, especially every fact which could only be ascertained by the authentic Hedwigan specimens in his collection.

The *H. serrulatum* was received by the celebrated Hedwig from Pennsylvania. Our specimens were gathered in Ireland by Dr. Scott; nor is it very wonderful that an American plant should be found in that country, whose moist climate moreover renders it fertile in mosses.

The roots appear to be perennial. With the time of its fructifying we are not acquainted. It is smaller than the foregoing species, and much more branched. The leaves are more or less perfectly two-ranked, deep-green, not shining, ovato-lanceolate with a taper point, obscurely reticulated, unequally and finely serrated, furnished with a central nerve which reaches only about half way from their base. Stalks red and shining. Capsule drooping, ovate-oblong. Lid awl-shaped, by which this species is, as well as by the leaves, clearly distinguished from the two last. Fringe of a rusty red.

Mr. Turner, on the authority of a specimen just received from Mr. Dickson, thinks this moss may not be distinct from his *H. confertum*.



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11/11





HYPNUM lætè-virens.  
*Bright-green Feather-moss.*

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CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem threadshaped, creeping. Branches scattered, nearly simple. Leaves ovate, acute, finely serrated, single-ribbed. Lid flattish.

SYN. *Hypnum lætè-virens.* *Sm. Fl. Brit.* 1290.  
*Turn. Musc. Hib.* 149.

*H. rotundifolium.* *Dicks. Crypt. fasc.* 2. 10; excluding the synonym. *With.* 845. *Hull.* 268.

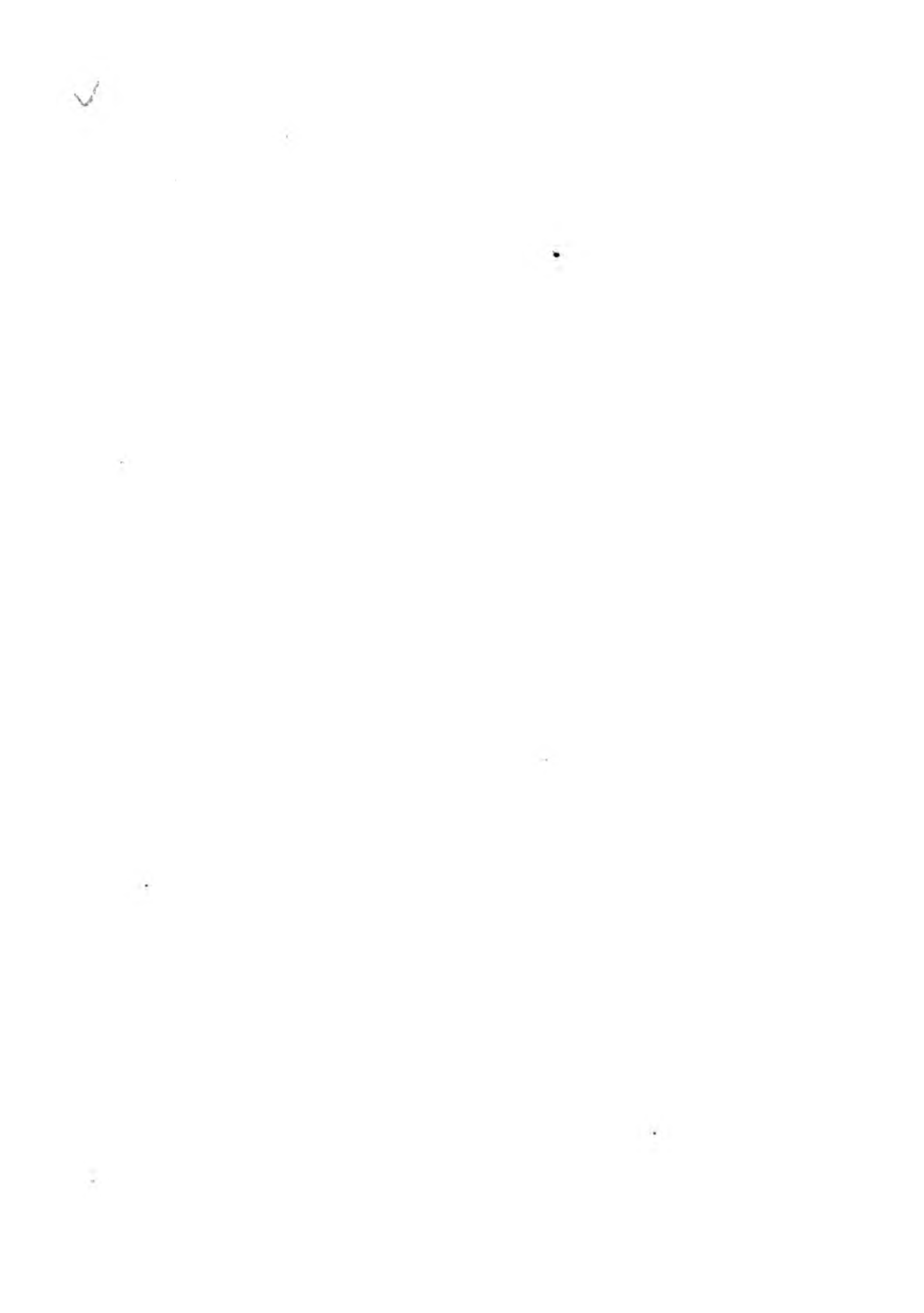
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FOR this we are also indebted to Mr. Dickson, who gathered it about the roots of trees in some Scottish woods. Dr. Scott is said to have collected the same in Ireland. We cannot adopt the synonym of Scopoli's *rotundifolium*, though there is a considerable likeness in his figure to ours; but his lid is pointed, ours flat.

The stems are slender, creeping and scaly, throwing up numerous, simple or divided, short, nearly lanceolate branches. Leaves imbricated in two rows, bright green, ovate, acute, finely serrated, with a fine central rib, scarcely visible to the end. Fruitstalk short, tawny. Sheath-leaves with a twisted serrated point, but no rib. Capsule ovate, inclining, more or less curved. Fringe brown. The lid is wanting in our present specimen; but we have found it, in another authentic one in Mr. Turner's possession, nearly flat, with a small central prominence.



*Fig. 1012 published by J. S. Searcy, London.*







## HYPNUM intricatum.

*Matted Hypnum.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Capsule* with a lid. *Veil* smooth. *Flower-stalk* from a lateral tubercle invested with scales.

SPEC. CHAR. Shoots creeping, with shortish branches. Leaves spreading, lanceolate, taper-pointed. Capsules urn-shaped, inclining, with a recurved beak.

SYN. *Hypnum intricatum*. *Schreb. Fl. Lipsf.* 99. *Dickf. Crypt. fasc.* 2. 10. *With. Bot. Arr. v.* 3. 120.

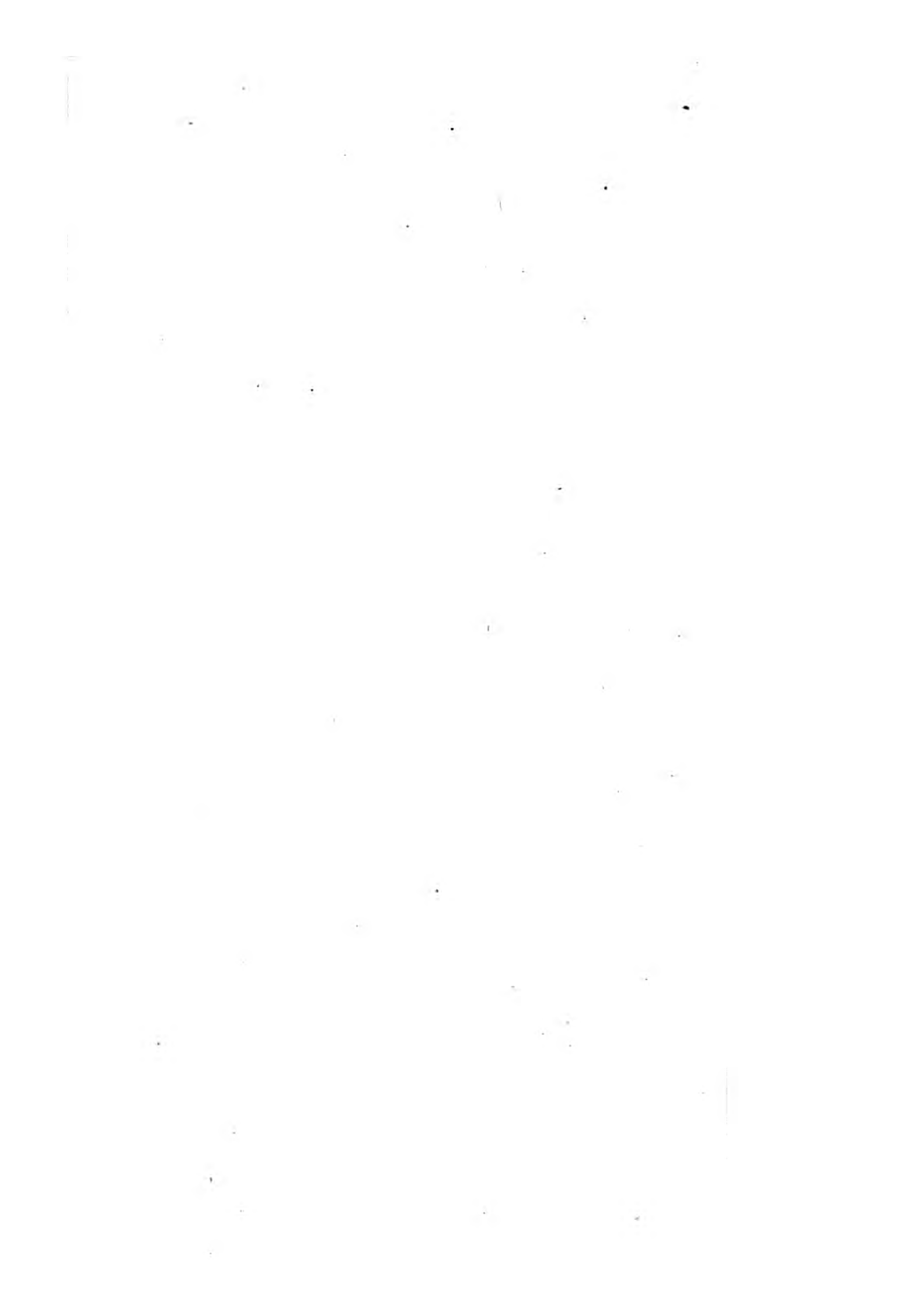
THIS moss was first discovered in England by Mr. Robert Teesdale, F.L.S. in some woods on the south-east side of the river at Matlock-bath, from whence Dr. Smith sent it to Mr. Dickson, and from his original specimens our figure was drawn. It well agrees with Schreber's description, and with the figures of Vaillant quoted by him (*tab.* 28. *f.* 2, 6, 7, 8).

The shoots thickly interwoven form a close dark-green mat on the decayed bark of trees in damp woods, and extend to several inches in length. The branches are short and slender, clothed with alternate, lanceolate, sharp-pointed, entire leaves, those at the summit being palest; and, as Schreber remarks, the leaves are most lax and spreading in a dried state. Numerous reddish stalks, scarcely an inch high, each arising from an oval bulb at the side of the stem, bear small, short, inclining, urn-shaped capsules, red at the margin, and fringed with numerous teeth. Their lid is short, swelling, and terminated by a shortish recurved beak. Veil slender, cylindrical, whitish, but not so remarkably white and conspicuous as in *H. serpens*, which this species otherwise much resembles in habit, though not in the form of its capsules.



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## HYPNUM riparium.

*Short-beaked Water Feather-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem spreading, branched. Leaves ovate, with a taper point, entire, single-ribbed, loosely spreading in two ranks. Capsule drooping. Lid conical.

SYN. *Hypnum riparium.* *Linn. Sp. Pl.* 1595. *Sm. Fl. Brit.* 1292. *Hedw. Sp. Musc.* 241. *Crypt. v. 4. 7. t. 3.* *Huds.* 505. *With.* 861. *Hull.* 273. *Relh.* 436. *Sibth.* 301. *Abbot.* 250. *Turn. Musc. Hib.* 152.

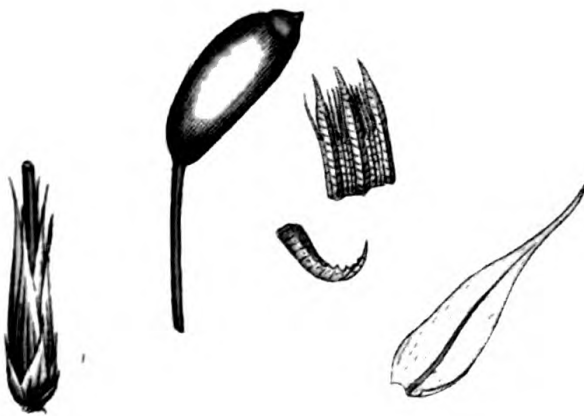
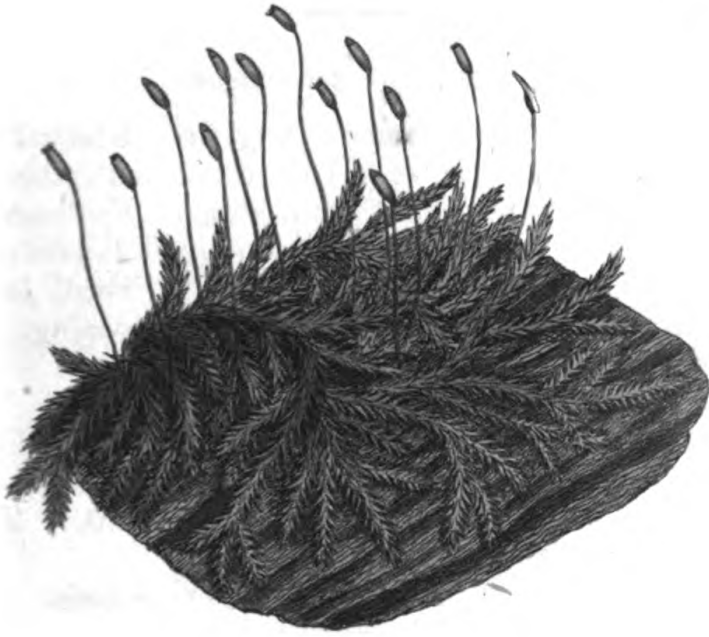
*H. aquaticum, flagellis et teretibus et pennatis.* *Dill. Musc.* 308. *t. 40. f. 44. B, C, D.*

*H. ramosum fluitans pennatum.* *Raii Syn.* 81.

THIS kind of *Hypnum* grows either floating in running streams, or attached to rotten wood or stones, about the shores of rivers, in a decumbent creeping manner, bearing fruit at various seasons.

The stems are 2 or 3 inches long, much longer when floating, irregularly branched, and leafy throughout. The leaves spread loosely and are scarcely imbricated; on the younger branches more especially they are disposed in two ranks, which is less remarkable on the older stems; they are ovate and entire, with a more or less elongated taper point, and a strong central rib; their colour is a yellowish or tawny green. Sheaths solitary, pale, of many tapering plaited leaves. Fruit-stalks red, from 1 to 2 inches in length. Capsule inclining, cylindrical, somewhat ovate, slightly curved and gibbous, smooth. Lid conical, short, pointed. Fringe of a rusty red.

2060.



*Sp. in. published by J. Sowerby, London.*

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[ 1275 ]

## HYPNUM ruscifolium.

*Long-beaked Water Feather-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. Caps. ovate-oblong, from a lateral scaly sheath. Outer fringe of 16 teeth, dilated at the base: inner a variously-toothed membrane. Veil smooth.

SPEC. CHAR. Stem branched. Leaves ovate, acute, minutely serrated, single-ribbed, imbricated, obscurely two-ranked. Lid awl-shaped.

SYN. Hypnum ruscifolium. Dicks. Crypt. fasc. 3. 10. Sm. Fl. Brit. 1292. With. 848. Hull. 269. Relh. 433. Sibth. 297. Abbot. 246.

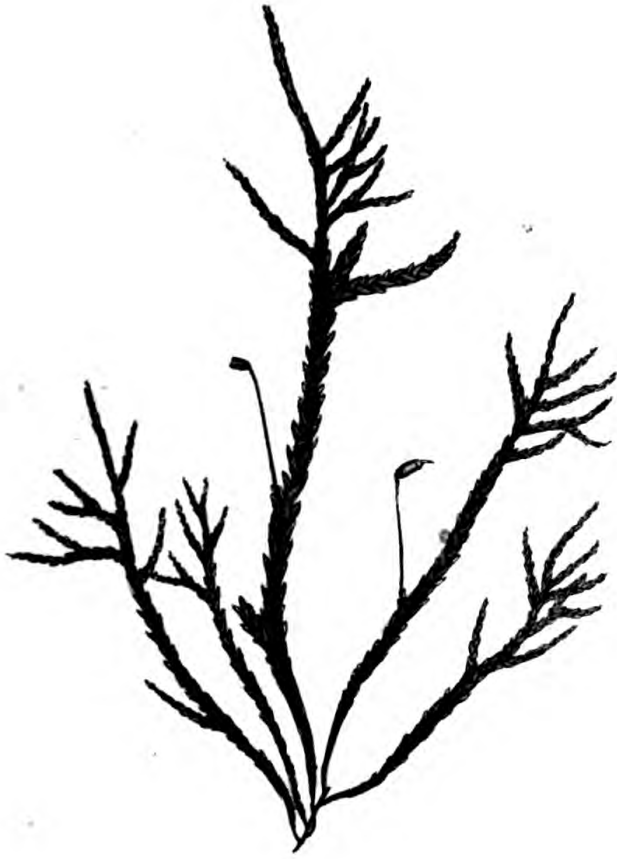
H. rutabulum  $\delta$ . Huds. 497.

H. riparioides. Hedw. Sp. Musc. 242. Crypt. v. 4. 10. t. 4.

H. foliis rusciformibus, capsulis subrotundis. Dill. Musc. 298. t. 38. f. 31; and t. 40. f. 44, A.

NOT rare on stones, posts and mill-wheels in rivers, bearing fruit from March to September. Stems perennial, branched, floating, black, varying in length according to the strength of the current; hence we presume Mr. Dickson's *H. prolixum* (Dill. t. 38. f. 32 and t. 85. f. 20), to be a lengthened variety, and Dr. Abbot's *rotundifolium*, which is certainly not Scopoli's, to be a shorter one than usual. The leaves are of a very dark green, at least the older ones, loosely imbricated, scarcely two-ranked, though the affinity of this species to *H. riparium* (which we hope to figure hereafter) causes it to be ranged among such as have leaves so disposed. The form of the leaves is ovate, broad, acute, with one nerve, which scarcely attains the summit. Fruit-stalks few, bright purple, about an inch high. Capsule ovate, obtuse, short, a little drooping. Lid with a convex base, and long awl-shaped curved point.

*H. riparium* has long-pointed entire leaves, and its capsules a short conical lid.







## HYPNUM Swartzii.

*Swartzian Feather-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base : *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem procumbent, much branched. Leaves obscurely two-ranked, remote, ovate, finely serrated, single-ribbed. Lid awlshaped, curved. Stalk rough.

SYN. Hypnum Swartzii. *Turn. Musc. Hib.* 151. t. 14. f. 1. *Sm. Fl. Brit.* 1293.

*H. atro-virens.* *Swartz. Musc. Suec.* 65 ; exclusive of the synonyms.

MR. TURNER received this originally from Ireland. Our specimens were gathered by S. Hailstone, Esq. in Bell-bank wood, near Bingley, Yorkshire.

The stems are procumbent and creeping, much and irregularly branched, divaricated and loosely spreading, very slender, leafy. Leaves of a more or less deep green, remote, not imbricated, spreading, not very accurately, in two rows, ovate, acute, slightly concave, single-ribbed, finely and sharply serrated. Sheath pale, of numerous, recurved, lanceolate, serrated scales. Fruit-stalks scarcely an inch long, erect, crimson, rough with minute tubercles. Capsule ovate, short, smooth, drooping. Lid awlshaped, taper, the length of the capsule, slightly curved. Fringe of a tawny yellow.

It has been lately suggested to us that this may be only a variety of *H. praelongum*, t. 2035, the difference in the disposition of their leaves being, certainly, very slight. We cannot, however, be convinced that Mr. Turner's variety  $\beta$ , whose fructification we have not seen, is the same species with either.



*Juniperus communis* L.

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## HYPNUM undulatum.

*Waved Feather-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Fringe* double: outer of 16 tapering teeth: inner a toothed membrane. *Flowers* lateral. *Fruit-stalk* from a scaly sheath.

SPEC. CHAR. Stem procumbent, moderately branched. Leaves imbricated in two principal rows, waved, entire, without a main rib.

SYN. *Hypnum undulatum*. *Linn. Sp. Pl.* 1589. *Hedw. Sp. Musc.* 242. *Huds.* 495. *With.* 849. *Hull.* 269. *Lightf.* 744. *Dicks. H. Sicc. fasc.* 6. 22. *Ebrb. Crypt.* 26.

*H. pennatum undulatum, lycopodii instar sparsum.* *Dill. Musc.* 271. *t.* 36. *f.* 11.

*H. repens crispum, cauliculis compressis, lycopodii in morem per terram sparvis.* *Raii Syn.* 88.

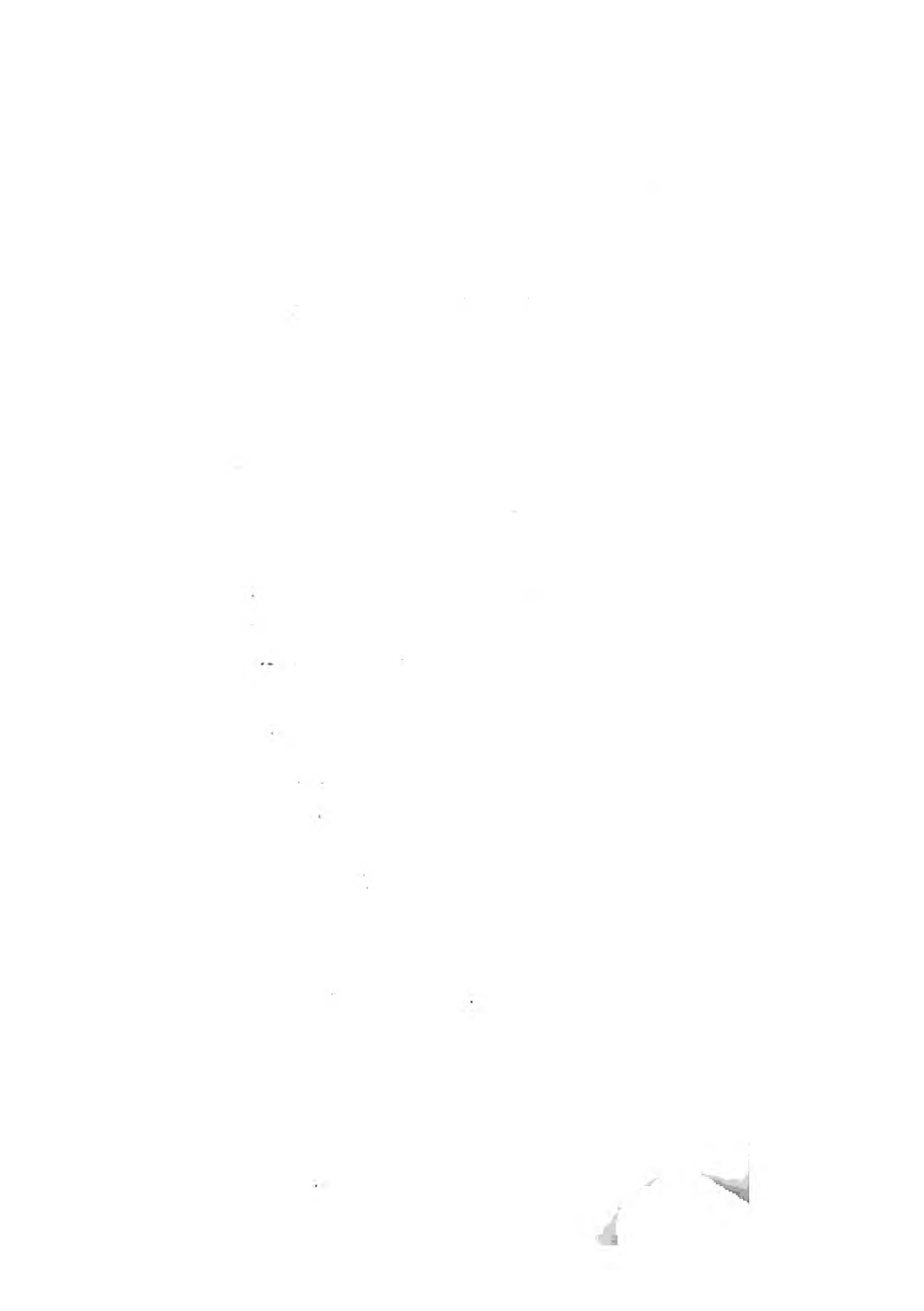
WE are happy to lay before the public a figure of this elegant *Hypnum*, which is very rarely found in fructification, and of which no plate occurs in the works of Hedwig. It is peculiar to dry mountainous woods. The fruit we have obtained from Bingley woods, Yorkshire, by favour of the Rev. Mr. Hailstone, and it has also been obligingly communicated to us from Ireland, by Dr. Scott and Mr. Templeton. It is produced from April to August.

This species is easily known by its large size, and delicate pale-green or whitish colour. The stems grow prostrate, and are irregularly, but not very copiously, branched. Leaves imbricated in two principal rows, compressed, lanceolate, entire, transversely waved, without a central rib, but with a pair of minute veins at the base. Fruit-stalks solitary, each from a lateral scaly bud. Capsule oblong, curved and furrowed when ripe. Outer fringe of 16 shortish teeth: inner a white membrane cut into 16 narrow teeth with notches between them. Lid with a curved beak not half so long as the capsule.



*Ficus L. 1803. Published by J. J. Sowerby, London.*

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## HYPNUM splendens.

*Shining Tamarisk Feather-moss.*

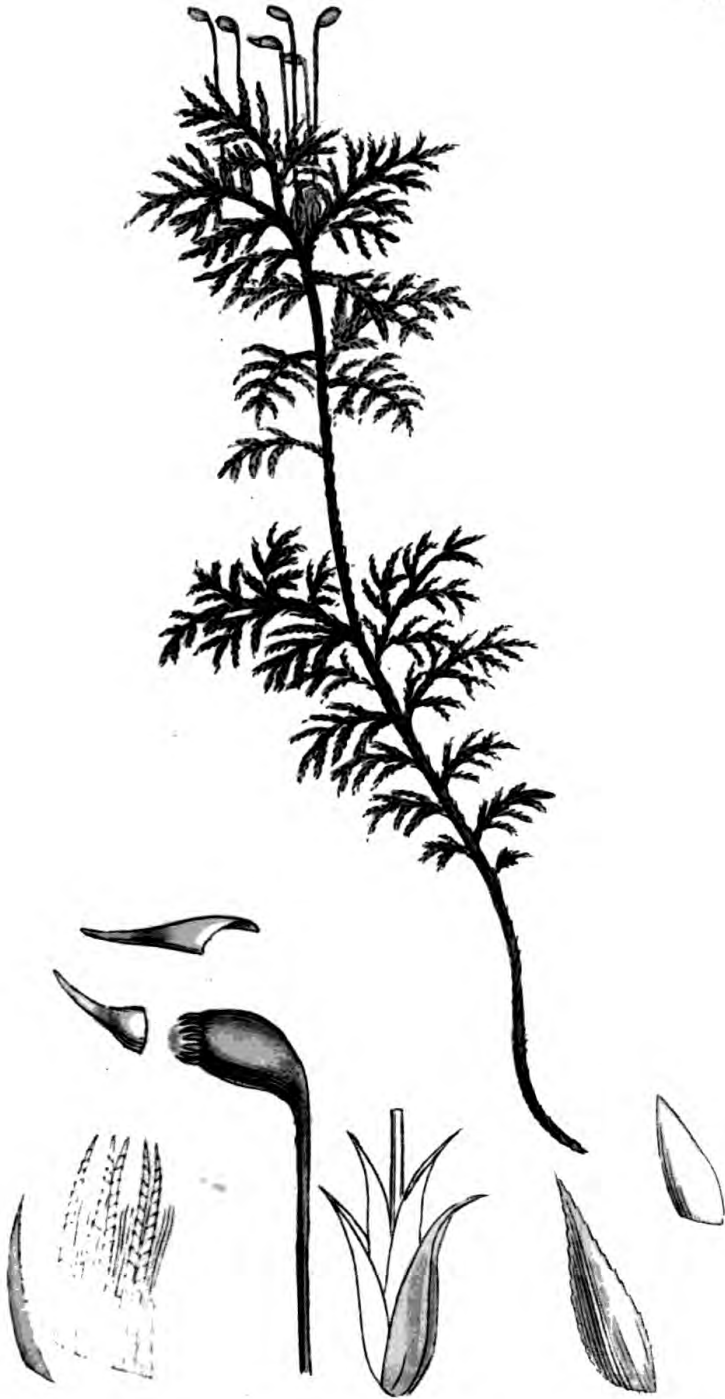
## CRYPTOGAMIA Musci.

- GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base : *inner* a variously-toothed membrane. *Veil* smooth.
- SPEC. CHAR. Stem doubly pinnate, flattish. Leaves closely imbricated every way, ovate, concave, nerveless, shining, tipped with a little point. Lid awl-shaped, recurved.
- SYN. Hypnum splendens. *Hedw. Sp. Musc.* 262. t. 67. f. 6—9. *Sm. Fl. Brit.* 1295. *Sibth.* 295. *Turn. Musc. Hib.* 156.
- H. parietinum. *Huds.* 499. *With.* 853. *Hull.* 271. *Lightf.* 751. *Relh.* 434. *Abbot.* 247.
- H. filicinum, tamarisci foliis majoribus splendentibus. *Dill. Musc.* 274. t. 35. f. 13.
- H. repens filicinum, veluti spicatum. *Raii Syn.* 86.

FOUND in dry woods and on mountainous heaths, where it bears fruit about March or April, retaining its ripe capsules a long time, but in the southern counties the fructification is not very usual.

Stems perennial, a span or more in length, decumbent, elastic and loosely entangled, proliferous, interrupted, doubly pinnate, purple and shining under the leaves, which for the most part closely cover them, and are imbricated, of a pale shining yellowish green, small, ovate, concave, without a nerve; those on the main stem obscurely serrated and long-pointed; the rest entire and pointless. The scaly sheaths are generally crowded near together, each bearing one crimson shining fruit-stalk. Capsule inclining, of a rusty hue, ovate, smooth, taper at the base. Lid taper, longish, conical at the base, recurved.

Linnæus confounded this with his dark-green unpolished *H. proliferum*, *Curt. Lond. v. 1. t. 72*; but having quoted *Dill. t. 35. f. 13.* for his *parietinum*, the moss before us has gone by that name.



March 1. 1865. Published by J. Sowerby, London.

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## HYPNUM proliferum.

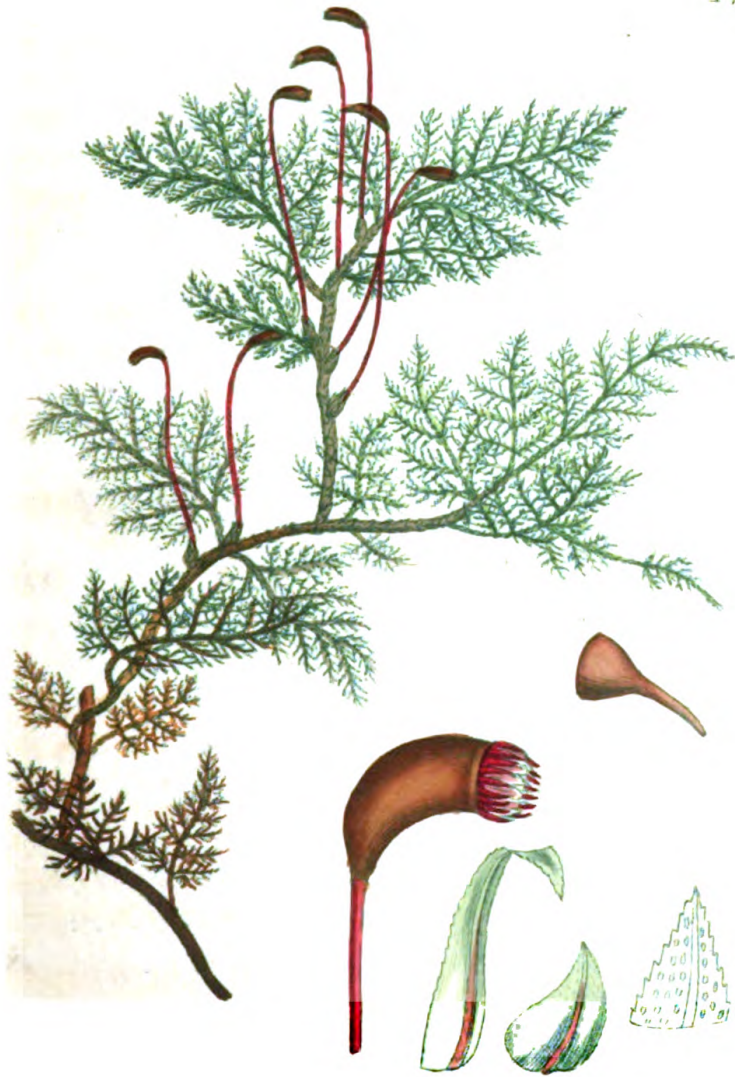
*Opaque Proliferous Feather-moss.*

## CRYPTOGAMIA Musci.

- GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.
- SPEC. CHAR. Stem triply pinnate. Leaves heart-shaped, acute, close-pressed, very minutely serrated, opaque, with one or three nerves. Lid awl-shaped.
- SYN. *Hypnum proliferum.* *Linn. Sp. Pl.* 1590. *Sm. Fl. Brit.* 1297. *Huds.* 499. *With.* 853. *Hull.* 270. *Relh.* 434. *Sibth.* 294. *Abbot.* 248. *Lightf.* 750. *Curt. Lond. fasc.* 1. t. 72. *Dicks. H. Sicc. fasc.* 14. 21. *Turn. Musc. Hib.* 157.
- H. tamariscinum.* *Hedw. Sp. Musc.* 261. t. 67. f. 1—5.
- H. filicinum, tamarisci foliis minoribus non splendentibus.* *Dill. Musc.* 276. t. 35. f. 14.
- H. repens filicinum minus luteo-virens.* *Raii Syn.* 86.

ONE of the most handsome European mosses, very common in woods, and sometimes in exposed situations, clothing the ground or the trunks of old trees with a rich entangled tapestry. The capsules are very rarely found. They are produced in the winter or early spring. Our specimens were gathered at Studley by Mr. W. Brunton. In them the fruit-stalks are all solitary, but we have generally seen 2 or 3 from each sheath.

The stem is elegantly proliferous from its uppermost side; the branches triply pinnate, clothed with rusty down and with imbricated, close-pressed leaves, which are heart-shaped, acute, of a fine opaque (not shining) green, often yellowish; the larger furnished with 3 nerves, the rest with 1; the edges apparently entire, but Mr. Sowerby, with a high magnifier, has found them serrulated as in our plate. Sheaths awl-shaped, shining, of several lanceolate, finely serrated leaves. Fruit-stalks crimson. Capsule incurved, cylindrical, red-brown. Lid awl-shaped, curved, thick at the base.



Anst. 1800. Published by J. J. Smith, London.

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HYPNUM recognitum.  
*Lesser Opaque Feather-moss.*

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CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem doubly pinnate. Leaves heart-shaped, acute, close-pressed, three-nerved, opaque, finely serrated. Lid conical, acute.

SYN. Hypnum recognitum. *Hedw. Sp. Musc.* 261. *Crypt. v. 4. 92. t. 35. Sm. Fl. Brit.* 1298. *Roth. Germ. v. 3. 279.*

*H. delicatulum.* *Willden. Berol.* 321.

*H. parietinum*  $\beta$ . *Pollich. v. 3. 135.*

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THIS I gathered in the neighbourhood of Matlock bath, Derbyshire, in 1790; of the precise spot I am not certain. The plant has hitherto either not been observed in any other part of Britain, or has been confounded with *H. proliferum*, from which it is very distinct. The stem and branches are not half so large as in that species, nor do they grow in the same prolific manner. The latter are only doubly pinnated. The leaves are finely serrated, and have all, for the most part, 3 nerves, of which the middle one is very conspicuous. The leaves of the sheaths are long and taper, very inconspicuously serrated towards their points. The fruit-stalks are always solitary, reddish, shorter than those of the last-mentioned, but longer in proportion to the branches. Capsule incurved, cylindrical, brown. Lid short and conical, with a minute point, a little curved. By the shape of the lid these 2 species are essentially distinguished.



Sept 2 1815 Published by J. Sowerby, London

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## HYPNUM umbratum.

*Striated Proliferous Feather-moss.**CRYPTOGAMIA Musci.*

**GEN. CHAR.** *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

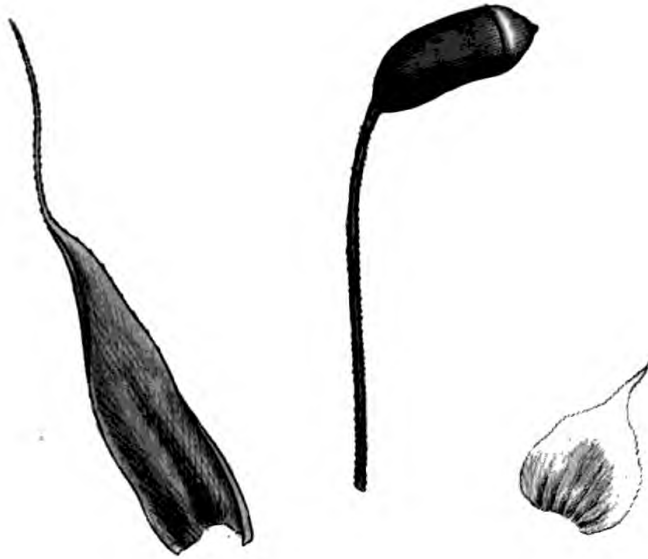
**SPEC. CHAR.** Stem doubly pinnate. Leaves heart-shaped, pointed, finely serrated, with several longitudinal plaits, but no nerves. Lid conical, with a small point.

**SYN.** *Hypnum umbratum.* *Ehrh. Crypt.* 66. *Sm. Fl. Brit.* 1298. *Hedw. Sp. Musc.* 263. *t.* 67. *f.* 10—12. *Turn. Musc. Hib.* 158.

**ORIGINALLY** discovered in Ireland by the late Dr. Scott. Our present specimen was gathered by Dr. Taylor, on Sefing mountain, in the county of Wicklow.

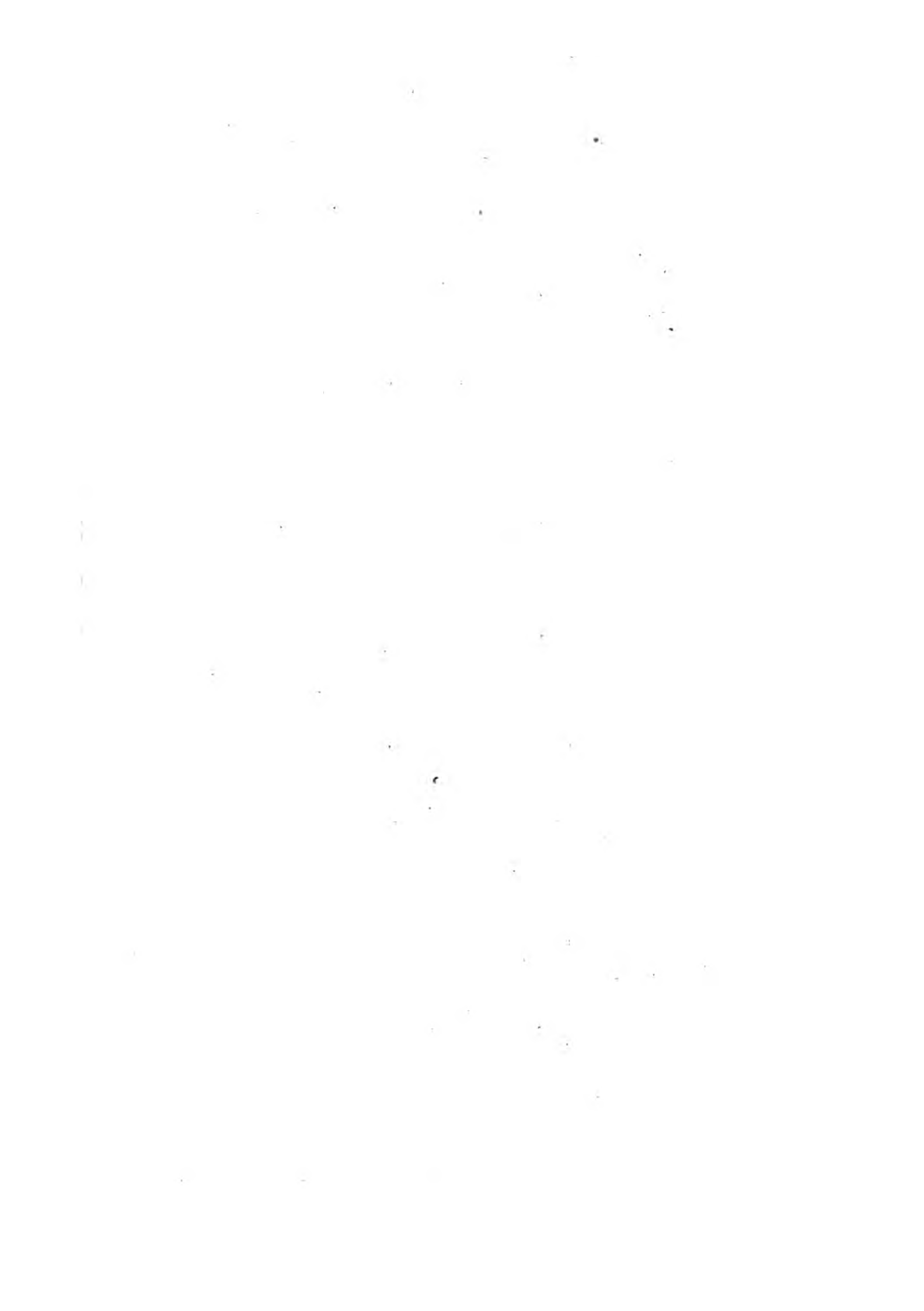
This species, no less rare than the *H. recognitum*, *t.* 1495, is of a rather larger size, and not so regularly bipinnate. The stem is interruptedly pinnate in the first instance, its copious branches either simple or again pinnate, but not with great regularity. Leaves of a fine, bright, yellowish, rather shining green, spreading, heartshaped, dilated, pointed, minutely serrated, destitute of ribs or veins, but furnished with many longitudinal plaits or furrows. Sheaths often several together, rather lax, of several oblong, serrated, rough-awned leaves. Fruitstalks crimson, rough, an inch and half or two inches long. Capsule inclining, ovate. Lid short, conical, obtuse, with a small point.

2565



*Oct. 11/12 published by J. G. Sowerby London.*





## HYPNUM prælongum.

*Long Trailing Feather-moss.*

## CRYPTOGAMIA Musci.

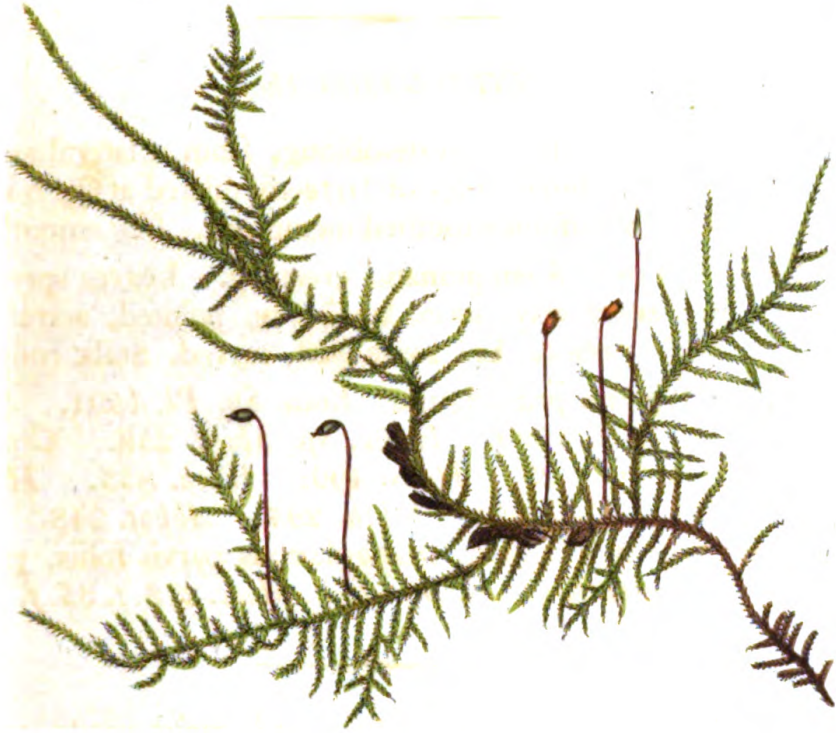
GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem pinnate, creeping. Leaves spreading every way, ovato-lanceolate, pointed, serrated, single-ribbed. Lid awlshaped, curved. Stalk rough.

SYN. *Hypnum prælongum.* *Linn. Sp. Pl.* 1591. *Sm. Fl. Brit.* 1299. *Hedw. Sp. Musc.* 258. *Crypt. v. 4. 76. t. 29.* *Huds.* 499. *With.* 855. *Hull.* 271. *Relh.* 434. *Sibth.* 295. *Abbot.* 248.

*H. repens filicinum, triangularibus parvis foliis, prælongum.* *Raii Syn.* 80. *Dill. Musc.* 278. *t. 35. f. 15.*

THIS species of *Hypnum* is frequent in moist woods, especially on a sandy or gravelly soil, and about the shady bottoms of hedges, where the morning dew, glistening among its leaves, renders it, at that time, particularly apparent. The long, slender, branched and pinnated stems creep closely over rotten wood or bark, spreading in every direction. The lateral branches are scarcely an inch long, and usually simple. Leaves small, of a pale yellowish green, rarely dark-green, spreading loosely every way, lanceolate or slightly ovate, pointed, sharply serrated, with a solitary pale-green nerve. Sheaths solitary, of several loosely recurved ovate leaves, with serrated points. Fruitstalks solitary, rather above an inch long, crimson, rough with very minute tubercles. Capsule drooping, ovate, or slightly cylindrical, a little curved. Lid awlshaped, curved, rather shorter than the capsule. Veil acute, of a pale green.



*July 1803, published by J. Bouverie London.*

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## HYPNUM Stokesii.

*Alpine Trailing Feather-moss.*

## CRYPTOGAMIA Musci.

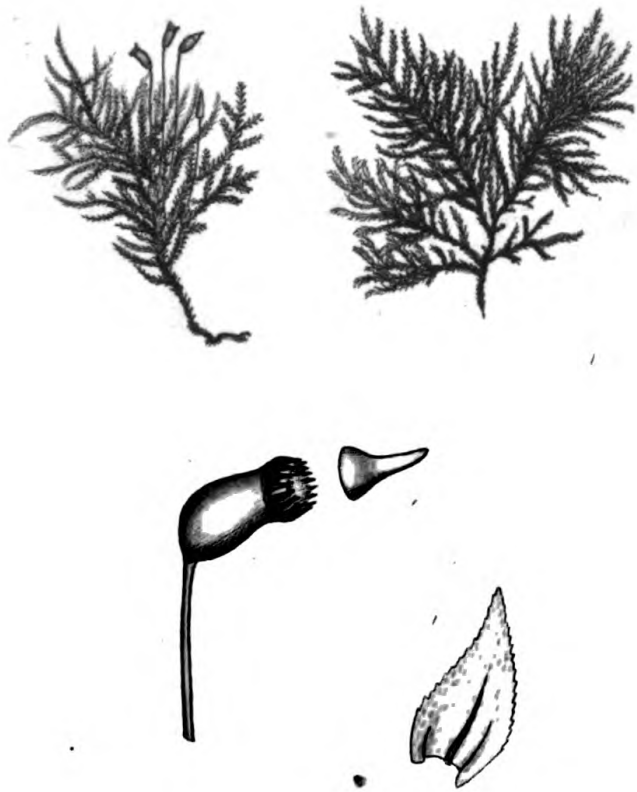
GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem pinnate. Leaves spreading every way, heartshaped, pointed, minutely serrated, single-ribbed. Capsule ovate, drooping. Lid conical, pointed.

SYN. Hypnum Stokesii. *Sm. Fl. Brit.* 1300. *Turn. Musc. Hib.* 159. *t.* 15. *f.* 2.

DISCOVERED by Dr. Whitley Stokes in the hollows of rocks under the eagle's nest at Lough Bray. Having received from Professor Swartz more perfect specimens of the fruit than had previously been seen, we have annexed a branch of his plant. This species appears intermediate between *H. umbratum*, with which it agrees much in leaves and habit, and *H. praelongum*, which it more nearly approaches in dimensions and fructification. Still we think it cannot be united to either. Dr. Swartz names it *H. Ludwigii* of Bridel, and we have been told it is *H. strigosum* of Hoffmann, *Fl. Germ.* v. 2. 76. These authorities may, by the right of priority, to which in this case we ought to submit, disturb our name, but they confirm our species.

Our plant has loosely creeping stems, with crowded pinnate or bipinnate branches. Leaves imbricated every way, spreading, of a full but bright green, somewhat shining, heartshaped, twisted, sharp-pointed, single-ribbed, not always to the extremity, more closely and finely serrated than in *H. praelongum*. Sheaths whitish. Stalks red, an inch long, scarcely rough except towards their base. Capsule drooping, ovate. Lid conical, curved, pointed, rather thicker, if we mistake not, than in the *praelongum*, *t.* 2035.



*Forma 1209 published by J. Sowerby London.*

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## HYPNUM abietinum.

*Fir-branched Feather-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem pinnate, shaggy. Leaves closely imbricated every way, heart-shaped, pointed, nearly entire, with one rib and two plaits. Capsule drooping. Lid conical.

SYN. *Hypnum abietinum.* *Linn. Sp. Pl.* 1591. *Sm. Fl. Brit.* 1300. *Hedw. Sp. Musc.* 353. *Crypt. v. 4. 84. t. 32.* *Huds.* 500. *With.* 855. *Hull.* 271. *Relh.* 435. *Sibth.* 296. *Abbot.* 246. *Necker Musc.* 163.

*H. lutescens, alis subulatis tenacibus.* *Dill. Musc.* 280. *t. 35. f. 17.*

*H. repens filicinum trichoides montanum, ramulis teretibus lutescentibus non divisis.* *Dill. in Raii Syn.* 86.

NOT unfrequent on the dry chalky hills of Kent, Oxfordshire, &c., but the fructification is so extremely rare that Dillenius never saw it, and Necker, though he quotes the place where Linnæus describes it, asserts that it cannot be found. Our specimens of the fruit were sent by Professor Swartz.

The stems are about as long as the finger, decumbent, densely, and generally simply, pinnate, the branches short, acute, spreading. Leaves of a pale tawny opaque green, close-pressed, heartshaped, or broad ovate, sharp-pointed, entire or nearly so, a little revolute when dry, with one rib and two lateral plaits. Their reticulations seem to be elongated by age. Among the leaves the stem is clothed with dense branched jointed fibres, varying in length. Sheaths slender, close, pale. Fruitstalks 2 inches long, wavy, crimson, shining. Capsule inclining, ovate-cylindrical, curved, tinged with red, very minutely reticulated. Outer fringe red; inner yellow. Lid, according to Hedwig, conical.

2037



*Tablet. 1. P. C. 1. 1. 1. 1. 1.*

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## HYPNUM alopecurum.

*Fox-tail Feather-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Fringe* double: *outer* of 16 tapering teeth: *inner* a toothed membrane. *Flowers* lateral. *Fruit-stalk* from a scaly sheath.

SPEC. CHAR. Root creeping. Stems erect; naked below; branched in a paniced form above. Capsules ovate, drooping, with a taper beak. Leaves serrated.

SYN. *Hypnum alopecurum.* *Linn. Sp. Pl.* 1594. *Hedw. Sp. Musc.* 267. *Huds.* 503. *With.* 859. *Hull.* 272. *Relb.* 436. *Sibth.* 299. *Abbot.* 249. *Dickf. H. Sicc. fasc.* 13. 22. *Ebrh. Crypt.* 37.

*H. dendroides obscurius, fetis et capsulis brevioribus, subnutantibus.* *Dill. Musc.* 315. t. 41. f. 49.

*H. palustre erectum arbusculam referens, ramulis subrotundis.* *Raii Syn.* 81.

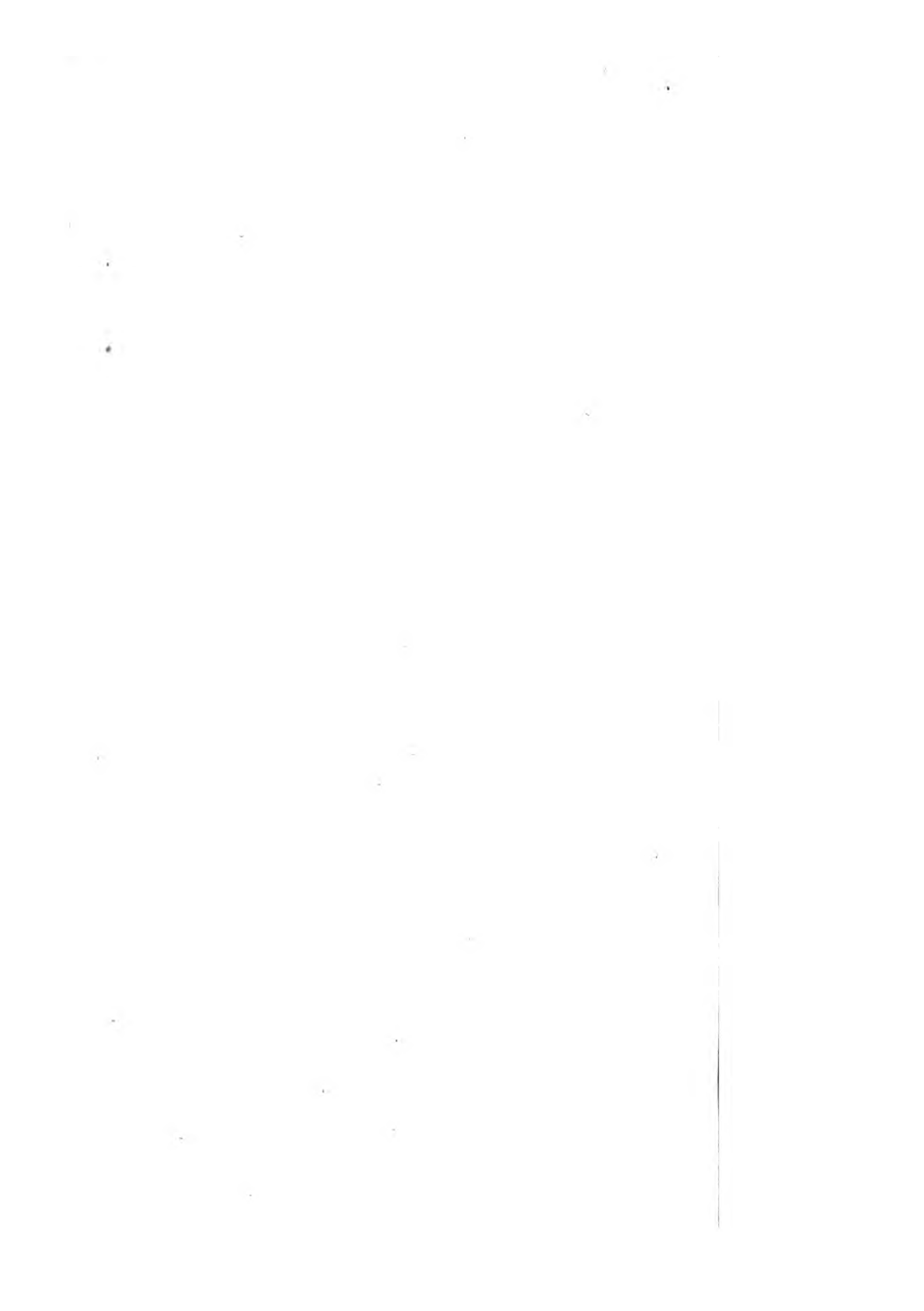
NEITHER has this *Hypnum* been delineated by the celebrated Hedwig. It is to be reckoned among our rarer species, at least in fructification. We received it in that state from Mr. W. Borrer of Suffex. Its general places of growth are moist and shady, as boggy woods, wet calcareous rocks or caverns, and the margins of cascades. The capsules are ripened in the spring.

The horizontal branched roots or scions produce several erect tree-like stems; naked, and when old leafless, below; branched and subdivided above, in the form of a panicle or feather, all the branches inclining to one side, and their summits mostly tapering and elongated. Leaves dark green, yellow when exposed, imbricated every way, ovate, broad, concave, serrated, especially towards the point, and furnished with an acute central rib. Capsules on short solitary inclining stalks, ovate, smooth, nodding. Lid taper and almost as long as the capsule.



1893 Published by J. S. Sauer by Kendall





[ 2405 ]

## HYPNUM stramineum.

*Straw-like Feather-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane, *Veil* smooth.

SPEC. CHAR. Stem but little branched, thread-shaped, erect. Leaves elliptic-lanceolate, concave, destitute of a nerve. Lid convex, with a short point.

SYN. *Hypnum stramineum.* *Dicks. Crypt. fasc.* 1. 6. *t. 1. f. 9.* *H. Sicc. fasc.* 11, 21. *Sm. Fl. Brit.* 1303. *With.* 860. *Hull.* 273. *Turn. Musc. Hib.* 164.

COMMUNICATED long ago by Mr. Dickson, from a bog, on the west side of Hampstead heath. Mr. Turner finds this species near Yarmouth. Its slender, pale, shining, straw-coloured aspect is remarkable. The stems throw out but a few short branches, and are covered with leaves, loosely imbricated every way, which are elliptic-lanceolate, bluntish, concave, entire, destitute of any proper rib or nerve, but often, as Mr. Turner observes, furnished with a few longitudinal plaits in their lower part. Sheaths pale, close, situated about the middle of the stem. Fruitstalk upright, wavy, two inches long, of a shining red. Capsule ovate, inclining and curved, short, rusty-coloured when ripe. Lid convex or very slightly conical, with a short point. Veil pale brown with a black tip. Hedwig has not noticed this moss.



*Ap. 1852 published by J. A. Handley, London*

v





[ 2406 ]

## HYPNUM adnatum.

*Depressed Feather-moss.**CRYPTOGAMIA Musci.*

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem creeping. Branches nearly simple. Leaves ovate, sharp-pointed, entire, concave. Lid conical.

SYN. *Hypnum adnatum.* *Hedw. Sp. Musc.* 248. t. 64. f. 5—10. *Sm. Fl. Brit.* 1303. *Turn. Musc. Hib.* 165.

ONE of Mr. Turner's original specimens, gathered at Rathmines, near Dublin, by Dr. Whitley Stokes, is drawn in our plate. This moss has short stems, creeping on the ground, and throwing up several, nearly erect, short, and generally simple branches, entirely clothed with leaves imbricated every way, and but slightly spreading. The colour of the leaves is a tawny or reddish green, with some gloss; they are small, ovate, sharp-pointed, concave and entire. They have been hitherto thought to have no nerve, and Hedwig has so figured them; but Mr. J. D. Sowerby has found a strong though short nerve at the base, both in the leaves of the stem, and those of the sheath, which last differ from the rest only in being narrower. The fruitstalks are an inch high, deep red, smooth. Capsule drooping, or nearly horizontal, ovate, smooth, of a rusty brown, with a slightly dilated orifice. Lid conical, short, oblique. The entire leaves and short lid still keep this distinct enough from *H. confertum*, see next plate, notwithstanding the rib or nerve.

2406



*Sp. 1. as published by J. S. H. S. S. S.*

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## HYPNUM confertum.

*Clustered Feather-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. Caps. ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem creeping. Leaves ovate, sharp-pointed, somewhat serrated, spreading, single-ribbed at the base. Lid awlshaped, curved.

SYN. Hypnum confertum. *Dicks. Crypt. fasc. 4. 17. t. 11. f. 14. Sm. Fl. Brit. 1304.*

*H. clavellatum. Huds. 508. With. 866. Hull. 274; excluding the synonym of Dillenius.*

**F**OUND upon the trunks of trees, bearing fruit in February. We exhibit an authentic specimen from Mr. Dickson, by which his plant, that of the *Flora Britannica*, will be placed out of the reach of uncertainty. The stems are short, growing in dense tufts, and beset with many short branches. Leaves loosely imbricated in every direction, light green, ovate, concave, sharp-pointed, finely but rather distantly serrated, furnished with a central rib which vanishes entirely about the middle. Scales of the sheath much like the leaves, but rather smaller. Fruitstalks hardly an inch high, tawny or red. Capsule drooping, small, ovate, oblique. Lid convex, with a curved awlshaped beak, almost as long as the capsule.

There has been some suspicion that this species was not distinct from *serrulatum*, *t. 1262*; but the latter has more the aspect of an aquatic moss, and the leaves certainly are disposed in two ranks. Otherwise they are indeed nearly akin. Our *t. 1038* should now be called

## HYPNUM murale.

*Wall Feather-moss.*

The synonyms must be erased, as belonging to the present; others to replace them may be found in *Fl. Brit. 1304, 1305.*

2407.



*Asplenium platyneuron*

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## HYPNUM confertum.

*Clustered Hypnum.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Fringe* double: *outer* of 16 tapering teeth: *inner* a toothed membrane. *Flowers* lateral. *Fruit-stalk* from a scaly sheath.

SPEC. CHAR. Stem creeping. Branches erect, cylindrical, simple. Leaves closely imbricated, ovate, acute, minutely ferrated, obsolete ribbed. Capsules inclining, ovate. Lid with a long slender curved beak.

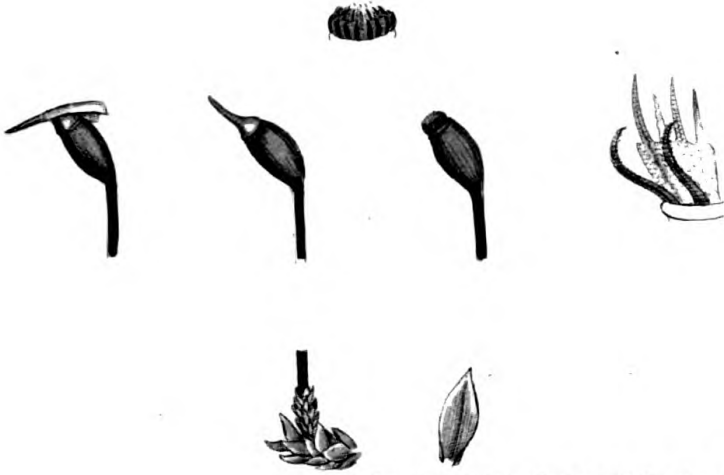
SYN. Hypnum confertum. *Dicksf. Crypt. fasc.* 4. 17. t. II. f. 14.

*H. clavellatum.* *Hudf.* 508. *With.* 866. *Hull.* 274.

WE have Mr. Dickson's authority for believing this the *Hypnum clavellatum* of Hudson; that of Linnæus, adopted entirely from Dillenius, is a Pennsylvanian moss, unknown in Europe, though Linnæus incautiously says the contrary. The *clavellatum* of Pollich and Hedwig seems to be still a different species.

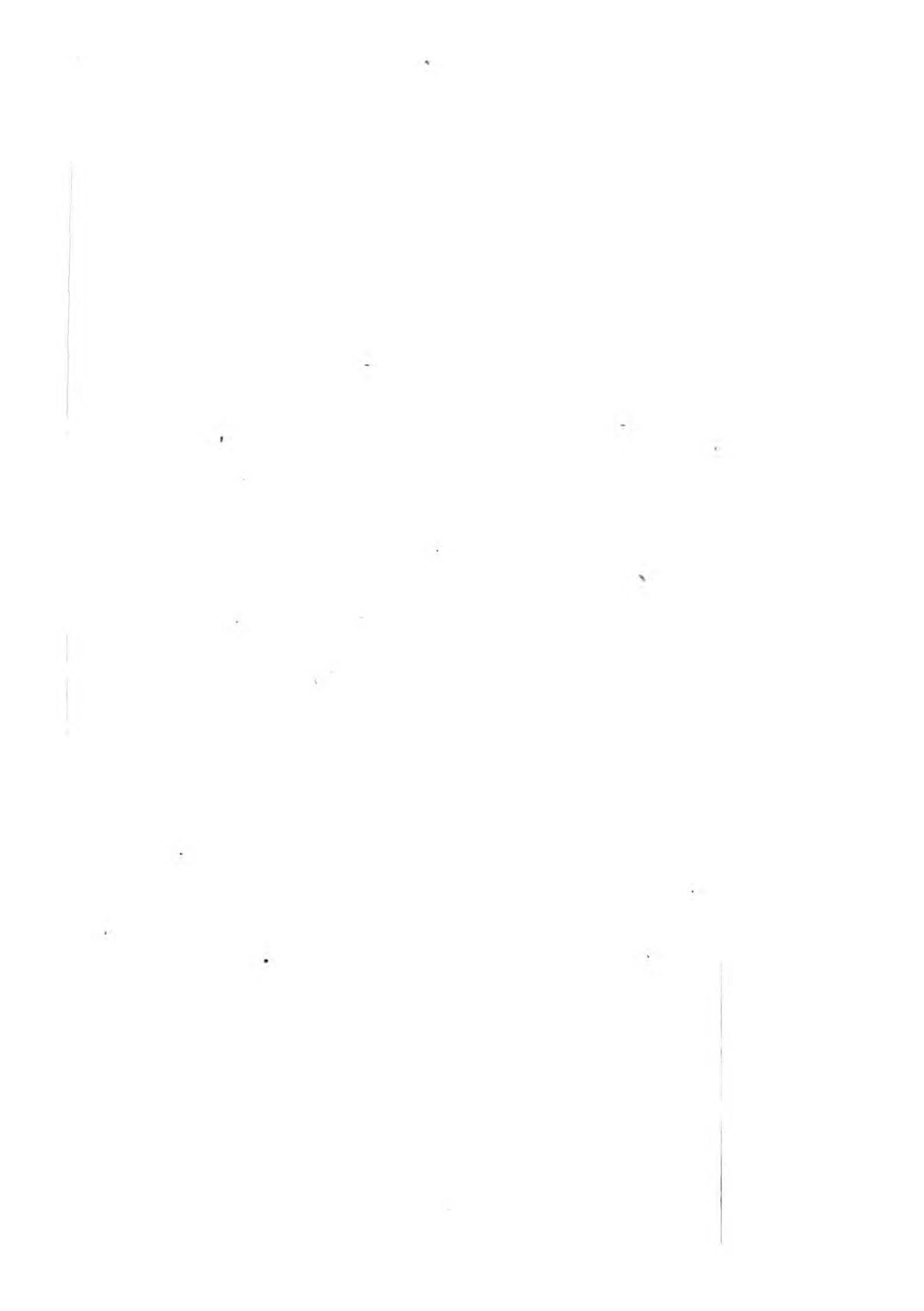
Ours therefore has received the name of *confertum* in Mr. Dickson's 4th *fasciculus*. It is a rare species, and was gathered at Walthamstow by Mr. Dillwyn, bearing ripe fruit early in last February. The stems creep upon the bark of trees, throwing up short simple round branches, thickly clothed (as well as the stems) with concave, ovate, more or less pointed, leaves, very obscurely ferrated in their upper part, and furnished with one central rib, which vanishes about the middle of the leaf. Fruit-stalks from a lateral or axillary scaly bulb, scarcely more than half an inch long, reddish-brown. Capsules ovate, inclining, turgid. Veil whitish. Lid with a long slender curved beak.

By Hedwig's figure of *H. murale* this should be scarcely distinguishable from that species; but we find the leaves of the latter more long and pointed than he draws them, and very distinctly ferrated throughout their whole length. Future more minute examinations may perhaps help us to further distinctions.



June 1, 1872. Published by Jas. Sowerby, London.





[ 1568 ]

## HYPNUM velutinum.

*Velvet Feather-Moss.**CRYPTOGAMIA Musci.*

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem creeping. Leaves imbricated every way, ovate, pointed, serrated, single-ribbed in their lower part. Capsule ovate, drooping. Lid conical.

SYN. *Hypnum velutinum.* *Linn. Sp. Pl.* 1595. *Sm. Fl. Brit.* 1305. *Hedw. Sp. Musc.* 272. *Crypt. v. 4.* 70. *t.* 27. *Huds.* 506. *With.* 866. *Hull.* 274. *Relh.* 437. *Sibth.* 301. *Abbot.* 251. *Turn. Musc. Hib.* 167.

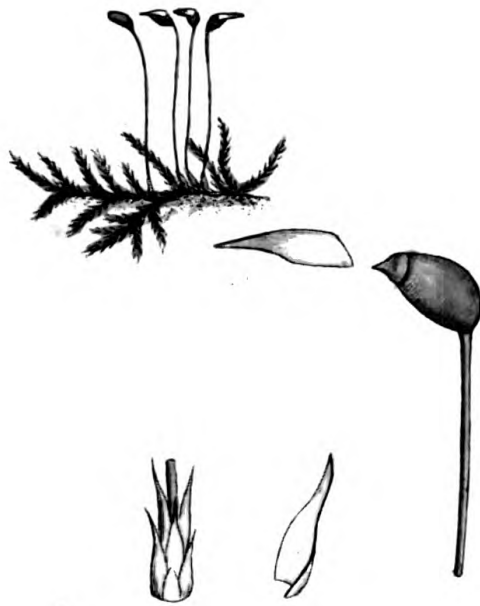
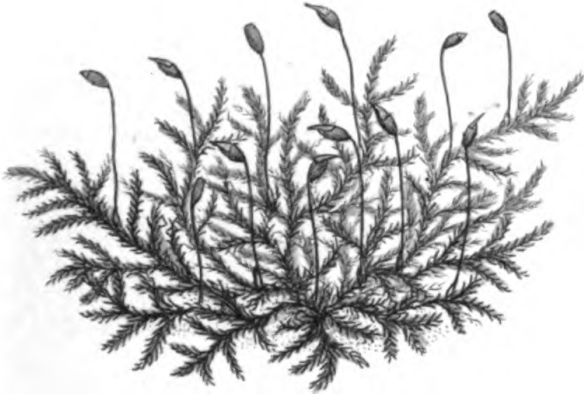
*H. velutinum, capsulis ovatis cernuis.* *Dill. Musc.* 326. *t.* 42. *f.* 61.

*H. repens trichoides terrestre viridius minus, capitulis tumidioribus cernuis.* *Raii Syn.* 84. *n.* 24.

COMMON on banks, and about the roots of trees in woods, forming dense entangled tufts and patches, and bearing ripe fruit in the early spring.

Stems creeping, perennial, densely matted together, much branched. Branches short, erect, clustered, mostly simple, cylindrical, thickly clothed in every direction with imbricated upright little leaves of a yellowish lively green, which are ovate and single-ribbed at their base, tapering into a long serrated nerveless point. Sheath of several slender pale tapering leaves without nerves. Fruitstalk about an inch long, purplish, often rough towards the top with very minute tubercles. Capsule ovate, short, curved and drooping, of a rusty brown when ripe. Lid conical, acute, reddish. Veil greenish.

Ray's No. 25 should seem to be only a slight variety of the above.



March 1, 1806. Published by J. Sowerby, London.

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## HYPNUM intricatum.

*Matted Feather-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. Caps. ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

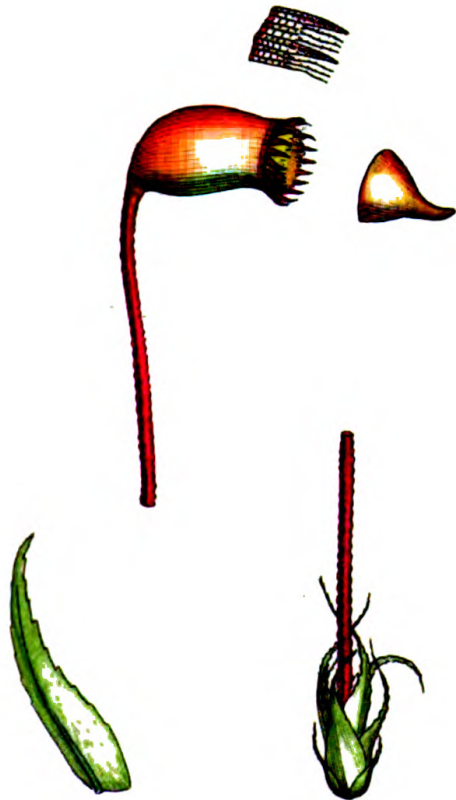
SPEC. CHAR. Stem creeping. Leaves lanceolate, taper-pointed, serrated, single-ribbed half way up, imbricated every way. Capsule drooping, tumid. Lid conical.

SYN. Hypnum intricatum. Schreb. Lips. 99. Sm. Fl. Brit. 1306. Hedw. Sp. Musc. 271. Crypt. v. 4. 73. t. 28. Turn. Musc. Hib. 167.

H. Teesdalii. Dicks. Crypt. fasc. 4. 16. t. 11. f. 13.

THE late Mr. Teesdale found this moss in Yorkshire, and communicated it to Mr. Dickson, who, not aware of its being already named, called it after its discoverer. What he had taken for *intricatum*, is now the *Teesdalii* of *Fl. Brit.* 1291, and is our *t.* 202.

The present species comes next to *velutinum*, *t.* 1568, from which it differs in being rather smaller, with narrower and more spreading leaves, and a rather more tumid capsule, much contracted at the mouth. The scales of the sheath are also much more taper-pointed, and obscurely toothed. Hedwig remarks that the ring which surrounds the mouth of the capsule consists of a double row of scales, not merely a single one, as in *velutinum*. This we have not examined. The fruit-stalk is finely granulated. Lid conical, somewhat oblique.



v



## HYPNUM serpens.

*Creeping White-veiled Hypnum.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Fringe* double: *outer* of 16 tapering teeth: *inner* a toothed membrane. *Flowers* lateral. *Fruit-stalk* from a scaly sheath.

SPEC. CHAR. Stem creeping. Branches irregularly subdivided, very slender. Leaves straight, ovate, pointed, imbricated. Capsules oblong, curved.

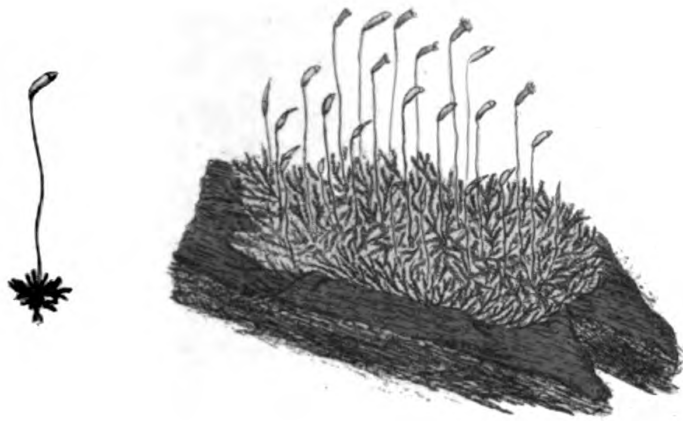
SYN. *Hypnum serpens*. *Lim. Sp. Pl.* 1596. *Huds.* 507. *Wib.* 865. *Hull.* 274. *Relb.* 416. *Sibth.* 302. *Abbot.* 251. *Hedw. Crypt.* v. 4. 45. t. 18. *Sp. Musc.* 268.

H. trichodes serpens, setis et capsulis longis erectis. *Dill. Musc.* 329. t. 42. f. 64.

A VERY general Moss in moist shady places, running over decayed wood, trunks of trees, stones and earth, producing flowers and fruit at almost all seasons when there is humidity in the air sufficient to favour its growth.

Stems closely creeping, by means of numerous, short, fibrous, perennial roots, and thickly branched. Branches irregular, simple or subdivided, very slender; clothed with small, pale-green, upright, ovate, entire, sharp-pointed, concave leaves, destitute of keel or nerve, and imbricated every way. The fruit-stalks spring from the side of the main stem, and the swelled base of each is enveloped with a few lanceolate pointed pellucid scales, constituting the *perichætium* of Linnaeus. The stalks are of a brilliant red in their lower part, pale above. Capsule inclined or curved, cylindrical, contracted under the rim. Lid short, conical, with a little bluntish point. Veil white, tipped with light brown, very conspicuous, and at first sight distinguishing this species from *H. prælongum*, whose capsules indeed are much shorter.

The reasons given p. 1021 on the subject of the inner fringe induce us to form the generic character of *Hypnum* so as to include the *Leskia* of Hedwig, there being moreover no natural difference of habit to keep them distinct.



the following table, which is based on the data in Table 10.1.

Year	Number of new cases	Number of deaths
1990	100	10
1991	100	10
1992	100	10
1993	100	10
1994	100	10
1995	100	10
1996	100	10
1997	100	10
1998	100	10
1999	100	10
2000	100	10
2001	100	10
2002	100	10
2003	100	10
2004	100	10
2005	100	10
2006	100	10
2007	100	10
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2014	100	10
2015	100	10
2016	100	10
2017	100	10
2018	100	10
2019	100	10
2020	100	10
2021	100	10
2022	100	10
2023	100	10
2024	100	10
2025	100	10
2026	100	10
2027	100	10
2028	100	10
2029	100	10
2030	100	10

The following table shows the number of new cases and deaths in 2020.

Year	Number of new cases	Number of deaths
2020	100	10

The following table shows the number of new cases and deaths in 2021.

Year	Number of new cases	Number of deaths
2021	100	10

The following table shows the number of new cases and deaths in 2022.

Year	Number of new cases	Number of deaths
2022	100	10

The following table shows the number of new cases and deaths in 2023.

Year	Number of new cases	Number of deaths
2023	100	10

The following table shows the number of new cases and deaths in 2024.

Year	Number of new cases	Number of deaths
2024	100	10

The following table shows the number of new cases and deaths in 2025.

Year	Number of new cases	Number of deaths
2025	100	10

The following table shows the number of new cases and deaths in 2026.

Year	Number of new cases	Number of deaths
2026	100	10

The following table shows the number of new cases and deaths in 2027.

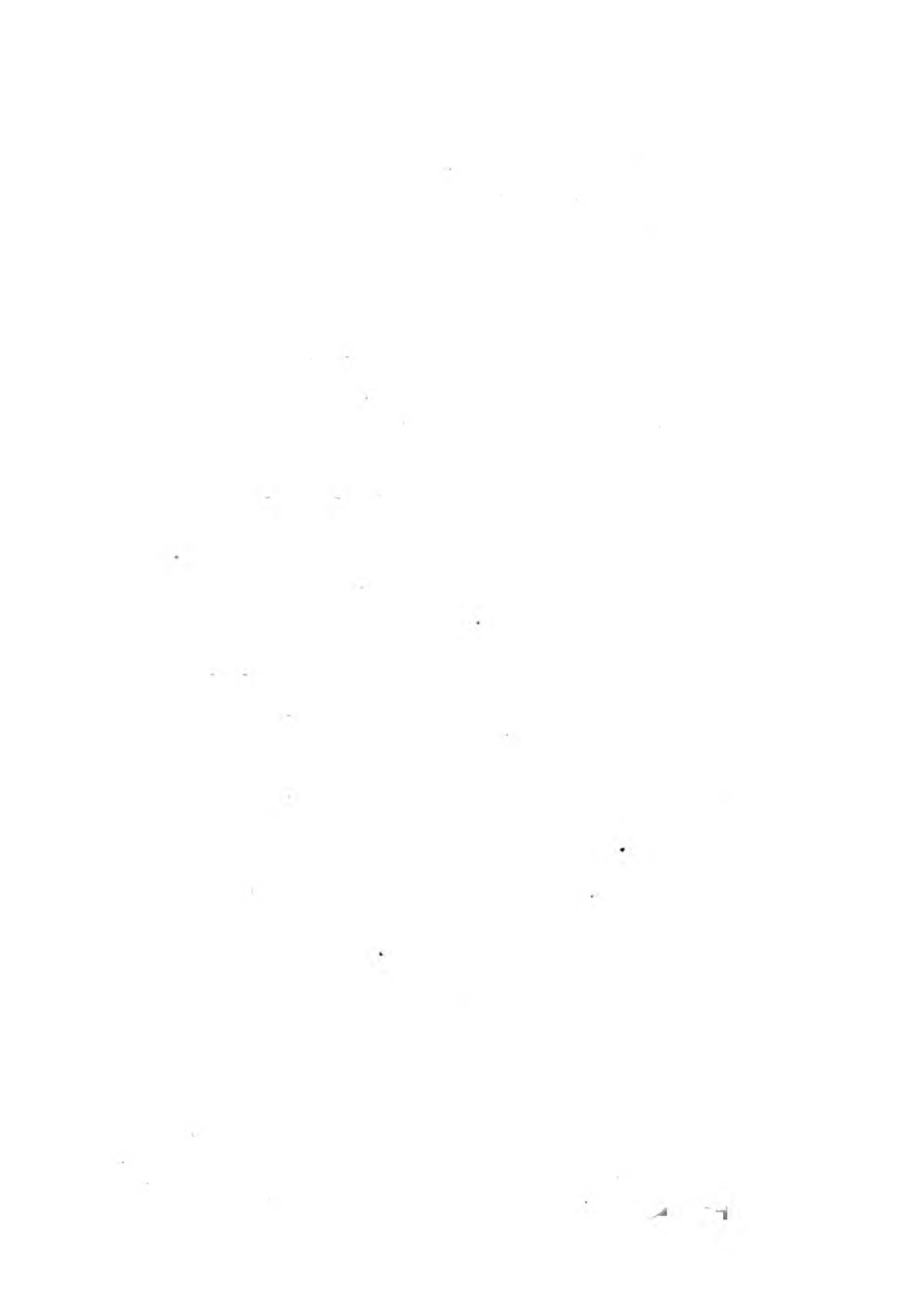
Year	Number of new cases	Number of deaths
2027	100	10

The following table shows the number of new cases and deaths in 2028.

Year	Number of new cases	Number of deaths
2028	100	10

The following table shows the number of new cases and deaths in 2029.

Year	Number of new cases	Number of deaths
2029	100	10





## HYPNUM atro-virens.

*Dark Round-branched Feather-moss.**CRYPTOGAMIA Musci.*

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem diffuse, much branched. Leaves ovate, concave, entire, keeled, imbricated every way. Capsule drooping, obovate. Lid awl-shaped.

SYN. *Hypnum atro-virens.* *Dicks. Crypt. fasc. 2. 10. Sm. Fl. Brit. 1307. With. 864. Hull. 274. Turn. Musc. Hib. 169.*

*H. denticulatum exiguum pendulum atro-virens.* *Dill. Musc. 332. t. 43. f. 67.*

GATHERED on trees in Scotland, by Mr. Dickson, to whom we are obliged for this specimen. Dillenius had his from Patagonia. Dr. Scott is supposed to have found the same, though without fruit, in Ireland.

The stems and branches are much subdivided, leafy throughout, round, slender and rigid. Leaves of a remarkably dull and dark green, imbricated every way, broad-ovate, pointed, perfectly entire, concave, keeled, with a strong rib reaching to the point. Sheaths pale, closely imbricated, their leaves ovate, concave, entire, ribbed, with long taper points. Fruit-stalk hardly an inch long, smooth, dark red. Capsule drooping or pendulous, ovate at the base, contracted above, dilated at the mouth, brown, smooth. Lid, according to Dillenius, slender, awlshaped, curved.

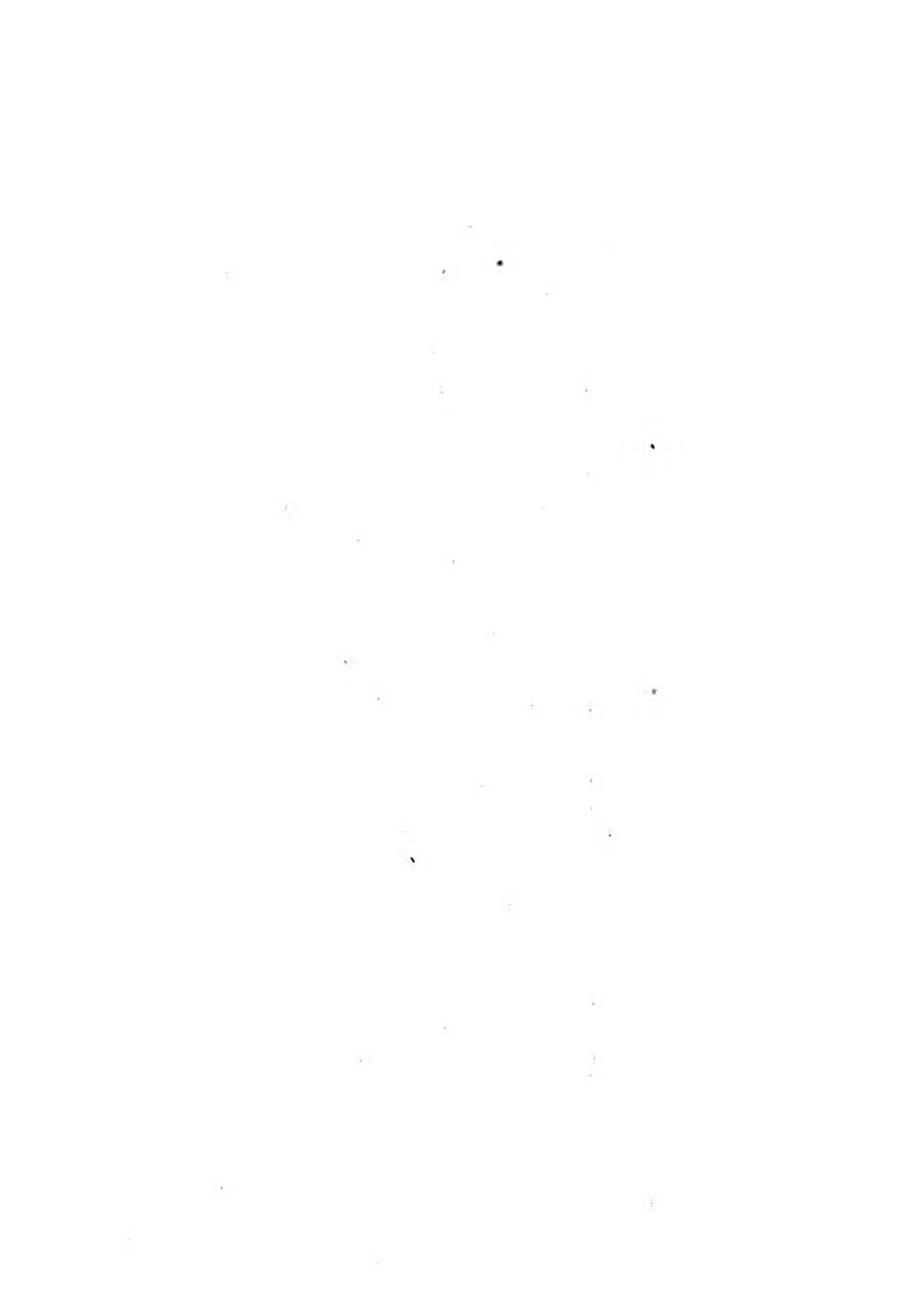
2422.



*From a drawing by J. A. Smith.*

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[ 1859 ]

## HYPNUM tenellum.

*Tender Awl-leaved Feather-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem creeping, much branched. Leaves awl-shaped, ribless, entire. Capsule ovate, drooping. Lid awl-shaped.

SYN. *Hypnum tenellum.* *Dicks. Crypt. fasc. 4. 16. t. 11. f. 12.* *Sm. Fl. Brit. 1308.* *Turn. Musc. Hib. 170.* *Winch. v. 1. 110.*

FIRST noticed by Mr. Dillwyn about the roots of trees in Kent. The Rev. Mr. Williams has found it on the under sides of projecting stones and roots on Acton Burnell hill Shropshire, and Mr. Stone on walls in Norwich. Our present specimens were gathered by Mr. Templeton, on limestone or flint, in moist shady places near Belfast, bearing fruit in April.

It forms small dense perennial tufts of creeping stems, throwing up several short erect branches; the whole being clothed with densely imbricated, slender, awl-shaped, entire leaves, of a full bright green, without any rib, except possibly near the base. Stalks from minute sheaths, red, half or three quarters of an inch long, erect, taller than the branches, at length curved at the summit. Capsule drooping or pendulous, ovate, short, obtuse, brown, smooth, with an awl-shaped lid, about its own length. The fine slender leaves essentially distinguish this species. Neither Hedwig, nor any other foreign botanist, seems to have known it.



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## HYPNUM albicans.

*Whitish Silky Feather-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem branched, ascending. Leaves imbricated, ovate, pointed, three-nerved. Capsule ovate, curved. Lid conical, pointed.

SYN. Hypnum albicans. *Necker. Musc.* 180. *Sm. Fl. Brit.* 1309. *Hedw. Sp. Musc.* 251. *Crypt. v.* 4. 13. t. 5. *Dicks. Crypt. fasc.* 1. 6. *H. Sicc. fasc.* 5. 21. *Willd.* 850. *Hüll.* 269.

*H. sericeum gracile albicans, capsulis subrotundis.*  
*Dill. Musc.* 328. t. 42. f. 63.

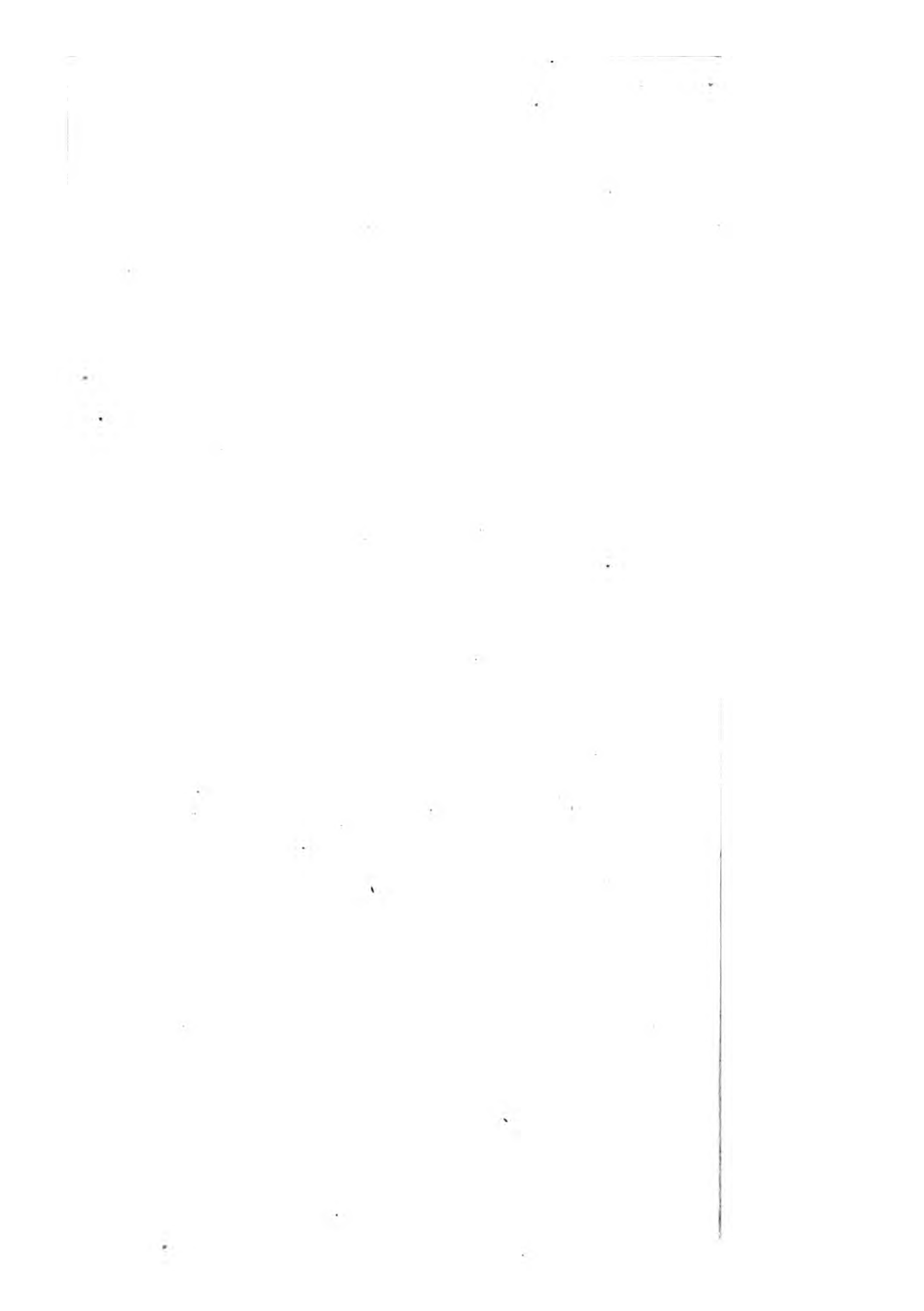
*H. terrestre erectum humilius albicans, ramulis teretibus.* *Dill. in Raii Syn.* 83.

GATHERED by Mr. Turner on the sandy cliffs at Gorleston near Yarmouth, where its fruit is to be found in March or April. In general, though this moss is common in dry sandy barren places, the fructification is rare.

The pale whitish green of the leaves, very shining when dry, readily betrays this species. The stems are an inch or two high, ascending, repeatedly branched, the branches clustered, erect, round, leafy. Leaves closely imbricated every way, ovate, pointed, concave, entire, with 3 ribs, which for the most part disappear towards the point. Fruitstalks an inch long, purple, springing from near the base of the branches. Capsule ovate, short, curved and drooping, of a rusty brown, smooth. Lid conical, with a little sharp, often oblique, point.







## HYPNUM plumosum.

*Rusty Silky Feather-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem creeping. Branches crowded, erect. Leaves ovate, pointed, entire, with a rib reaching half way. Capsule ovate, inclining. Lid conical.

SYN. *Hypnum plumosum.* *Huds. ed. 1. 423. Sm. Fl. Brit. 1310. Linn. Sp. Pl. 1592. With. 852. Hull. 270. Sibth. 296. Abbot. 247. Dicks. H. Sicc. fasc. 5. 22. Turn. Musc. Hib. 172. t. 15. f. 1.*

*H. sericeum*  $\beta$ . *Huds. 506.*

*H. repens filicinum plumosum.* *Dill. Musc. 280. t. 35. f. 16. Raii Syn. 86.*

FREQUENT on rocks, stones, brick walls, and about the roots of trees, bearing its capsules in winter and spring. The stems are prostrate, closely creeping, leafy, throwing up numerous, short, erect, mostly simple, cylindrical, leafy branches. Leaves closely imbricated every way, ovate or ovato-lanceolate, longish-pointed, concave, entire, furnished with a single rib, which scarcely reaches half way; their colour is a shining yellowish green, turning brown with age, but never losing its polish. Sheaths of several ovate palish leaves, with spreading points. Fruit-stalks scarcely an inch long, solitary, smooth, dark-red. Capsule inclining, ovate, short, brown, with a pale fringe. Lid conical.

Hedwig's *H. plumosum* is a very different plant, the *salebrosum* of Hoffmann.



*Oct 1883 published by J. Smalley London.*

✓





HYPNUM implexum.  
*Green Matted Feather-moss.*

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CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem creeping. Branches crowded, erect. Leaves lanceolate, pointed, finely serrated, single-ribbed. Lid conical.

SYN. Hypnum implexum. Swartz. *Act. Holm. ann.* 1795. 264. *Sm. Fl. Brit.* 1310. *Turn. Musc. Hib.* 173. t. 16.

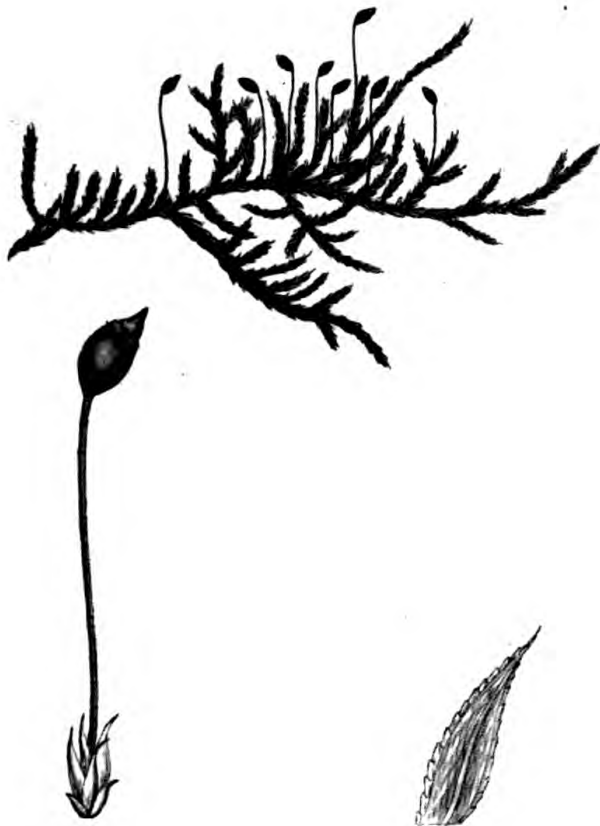
H. plumosum. Swartz. *Musc. Suec.* 66.

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COMMUNICATED by Mr. W. Brunton from stones near Ripon. It was originally noticed by Mr. G. Donn on a large stone near the foot of Ben Lawers, and afterwards in Angushire. It has also been found in Ireland and near Newcastle. The capsules are ripened in the spring.

The colour varies from a pale yellowish green to a rather dark grass green, and is accompanied by a silky gloss, especially in a dry state. The stems creep over stones, bearing numerous short crowded upright cylindrical branches, which are thickly clothed with leaves, and seldom divided. The leaves spread every way, but slightly, and are lanceolate, long-pointed, concave at the base, finely serrated in the upper part, and furnished with a rib from the base to the summit. Fruitstalks little more than half an inch long, red, apparently smooth, but under a magnifier they are found to be finely granulated. Sheath of a few pale loose ovate pointed leaves. Capsule inclining, ovate, smooth, of a chesnut brown. Lid conical, with a sharp point.

1584



April 1. 1846. Published by J. C. Sowerby, London.

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## HYPNUM lutescens.

*Yellowish Feather-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem procumbent, much branched. Leaves imbricated, lanceolate, pointed, three-nerved. Fruit-stalks roughish. Lid conical, a little beaked.

SYN. *Hypnum lutescens.* *Huds. ed.* 1. 421. *Sm. Fl. Brit.* 1311. *Hedw. Sp. Musc.* 274. *Crypt. v.* 4. 40. *t.* 16. *With.* 848. *Hull.* 269. *Relh.* 432. *Sibth.* 298. *Abbot.* 245. *Dicks. H. Sicc. fasc.* 9. 21.

*H. sericeum*  $\gamma$ . *Huds.* 506.

*H. sericeum*, *surculis longioribus et rectoribus, capsulis incurvis.* *Dill. Musc.* 325. *t.* 42. *f.* 60.

*Leskea longifolia.* *Ehrh. Crypt.* 281.

FOUND in dry heathy hilly spots, more especially on a calcareous soil, where its shining yellow hue renders it conspicuous. Mr. Turner sent it from Bradwell near Yarmouth, and Mr. Joseph Woods from the southern part of England. It fructifies from January to April.

Stems perennial, four to six inches long, prostrate, much branched and spreading, the branches round, leafy, various in length. Leaves imbricated every way, lanceolate, entire, long-pointed, with 3 nerves, and sometimes 2 more nerves (or perhaps plaits) near the edge. Fruitstalks plentiful, waved, of a fine red, minutely granulated near the top. Capsule inclined and somewhat curved, brown, polished. Lid conical, with a short bluntish beak.

Mr. Sowerby has repeatedly and constantly found the inner fringe with a simple row of teeth, and I have verified his observation, which confirms the accuracy of Ehrhart in making it a *Leskea*. Yet the excellent Hedwig must have seen the intermediate teeth which he delineates. His whole figure is not a happy representation of our plant. Does it vary? or can his be another species?



✓

1. The first step in the process of identifying a problem is to define the problem. This involves identifying the symptoms of the problem and determining the underlying cause. Once the problem has been defined, the next step is to generate potential solutions. This is done by brainstorming ideas and evaluating them based on their feasibility and effectiveness. The final step is to implement the chosen solution and monitor its progress. This involves setting up a system of accountability and regularly reviewing the results to ensure that the problem is being solved.





[ 1992 ]

HYPNUM molle.  
*Soft Water Feather-moss.*

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CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem much-branched, lax and slender. Leaves ovate, entire, concave, ribless, somewhat pointed. Capsule ovate. Lid hemispherical, pointed.

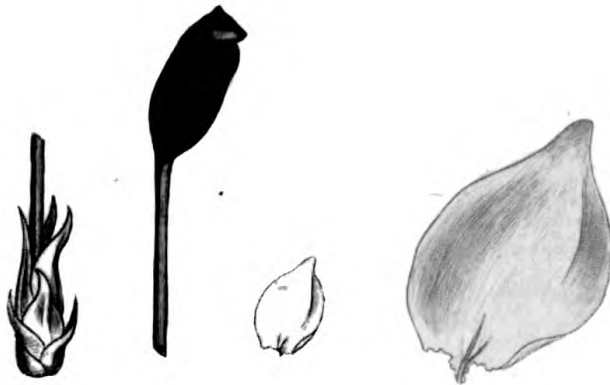
SYN. Hypnum molle. *Dicks. Crypt. fasc. 2. 11. t. 5. f. 8. Sm. Fl. Brit. 1312. Hedw. Sp. Musc. 273. t. 70. f. 7—10. With. 862. Hull. 273.*

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FOR this moss also, as well as those in our three preceding plates, we are indebted to Mr. Hooker and Mr. Borrer, who gathered it on Ben Nevis, in the alpine rivulets of that mountain, last summer.

The stems are perennial, much branched, floating, forming loose soft tufts; the branches variously scattered, leafy and blunt. Leaves loosely imbricated on all sides, a little spreading, so as to give the plant a soft elastic feeling to the touch; their colour is a light yellowish green; their form ovate, broad, concave, with a flattish short point, but no terminal bristle. There is no mid-rib, but only 2 or 3 plaits at the base of each leaf, and the margin is either quite entire, or appearing very slightly toothed under a high magnifier. Fruit-stalks rare, scarcely an inch long, reddish, incurved. Leaves of the sheaths lanceolate, acute. Capsule inclining, roundish-ovate, smooth, of a rusty brown. Lid, hitherto unobserved, short, hemispherical rather than conical, with a little blunt point.

1992



Mar 1 1899 Published by J. & S. Sowerby London









[ 1599 ]

## HYPNUM purum.

*Neat Meadow Feather-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem pinnated. Leaves elliptical, inflated, obtuse with a small point, single-ribbed at the base. Lid conical, curved.

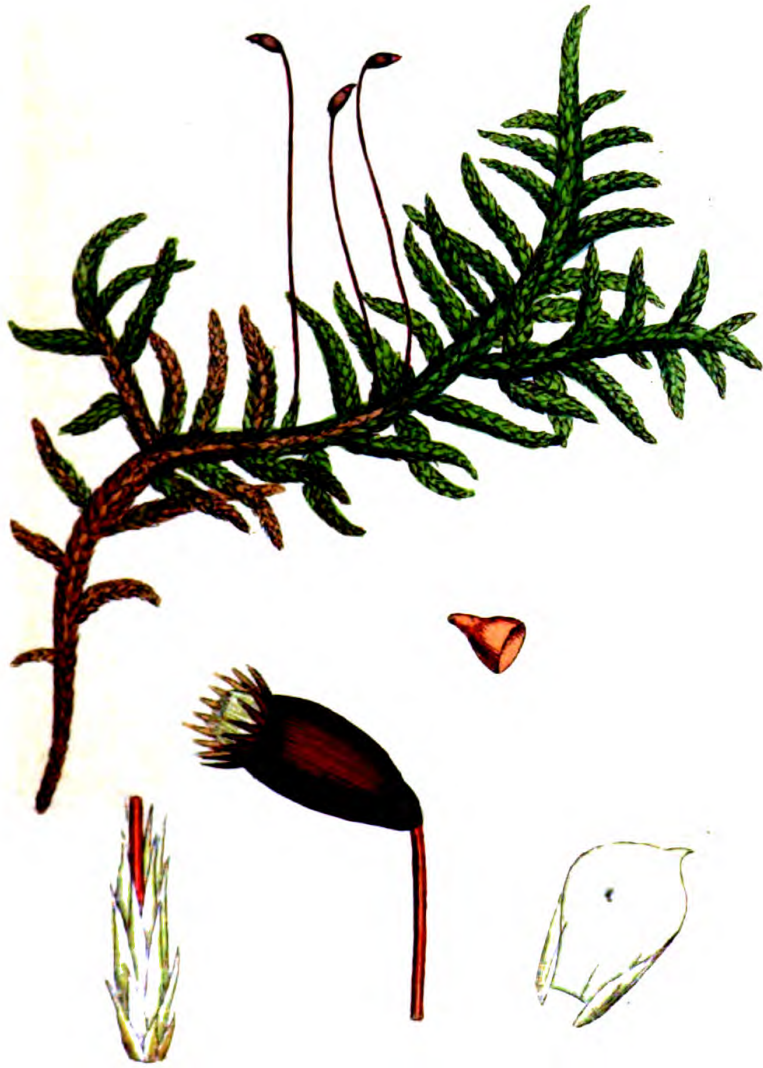
SYN. *Hypnum purum.* *Linn. Sp. Pl.* 1594. *Sm. Fl. Brit.* 1313. *Hedw. Sp. Musc.* 253. t. 66. f. 3—6. *Huds.* 504. *With.* 863. *Hull.* 273. *Relh.* 436. *Sibth.* 300. *Abbot.* 250. *Curt. Lond. fasc.* 3. t. 65. *Turn. Musc. Hib.* 175.

II. *cupressiforme vulgare, foliis obtusis.* *Dill. Musc.* 309. t. 40. f. 45.

H. *terrestre erectum, ramulis teretibus, foliis inter rotunda et acuta medio modo se habentibus.* *Raii Syn.* 81.

PLENTIFUL in moist and shady pastures, also about hedge banks, but not regularly producing capsules. Their most general season, according to Mr. Curtis, is November; we have also found them in the spring.

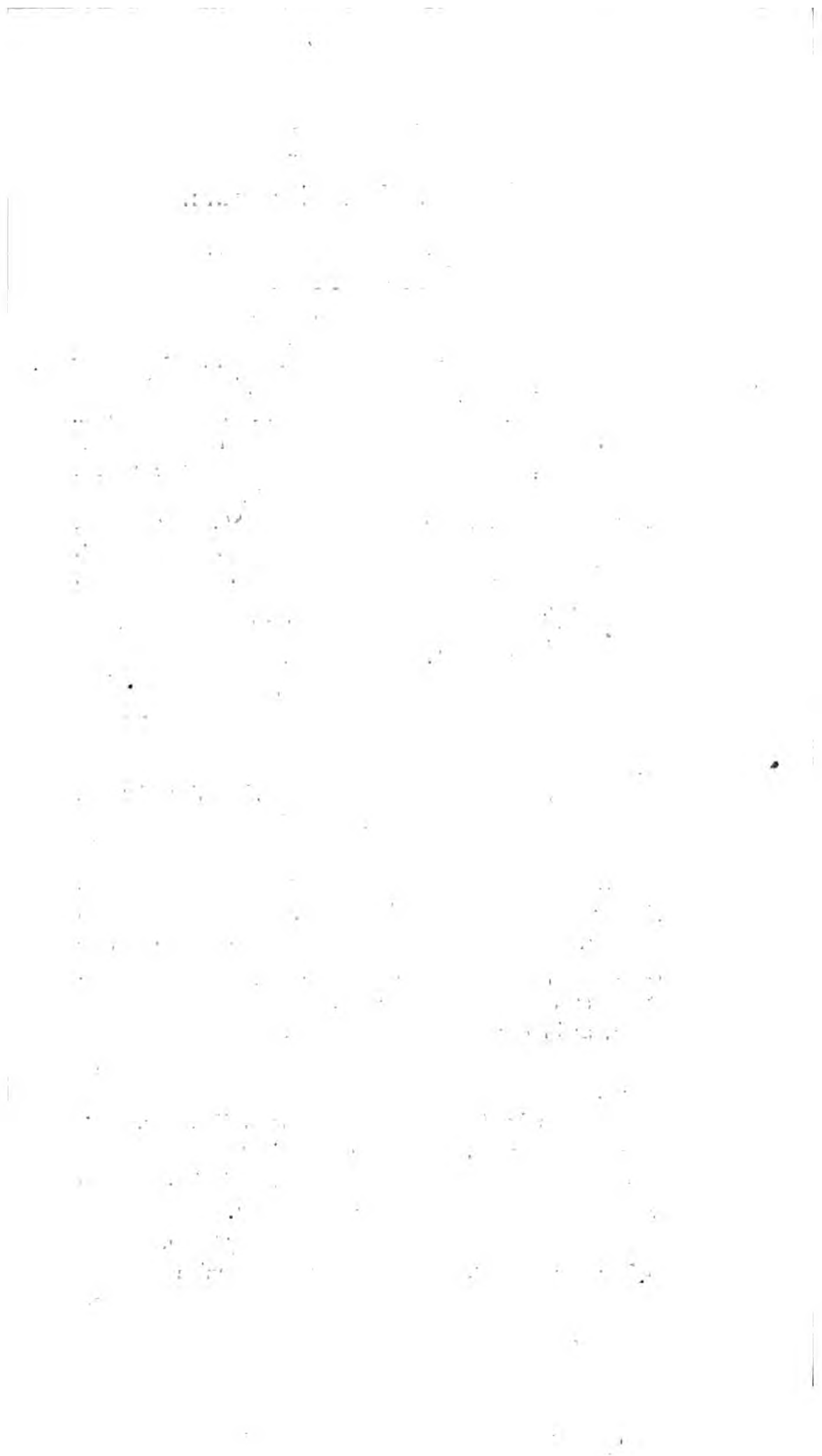
This is truly a beautiful moss, remarkable for the neat shining inflated appearance of its leaves. The stems form large light elastic tufts, growing seldom quite upright, often horizontally, and are subdivided, besides being branched in a pinnate manner. The branches are short, simple, round, acute, recurved. Both the stem and branches are clothed with closely imbricated (though inflated) broad elliptical obtuse entire leaves, each tipped with a little flat point, and marked at the base by one short nerve. Their colour is a light shining green, turning whitish with age. Sheaths cylindrical, of many pale narrow leaves. Fruitstalks solitary, red, 2 inches long, erect. Capsule elliptical, drooping, smooth, more or less curved, a little tumid at the base. Lid conical, with a curved point.



*Fig. 2. 28. 1. 181. ad. by Jas. Sowerby. London*







## HYPNUM illecebrum.

*Glass-wort Feather-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem irregularly branched. Branches obtuse. Leaves elliptical, inflated, obtuse with a small point, and a single obsolete nerve.

SYN. *Hypnum illecebrum.* *Hedw. Sp. Musc.* 252. t. 66. f. 1, 2? *Sm. Fl. Brit.* 1314. *Huds.* 504. *With.* 862. *Hull.* 275. *Sibth.* 300. *Schreb. Lips.* 95. *Winch. v. 1.* 110.

*H. cupressiforme rotundius, vel Illecebræ æmulum.* *Dill. Musc.* 311. t. 40. f. 46.

*H. terrestre erectum, ramulis teretibus, foliis subrotundis albo-virentibus cinctis.* *Raii Syn.* 81, under n. 7.

FEW plants have been more confused than this *Hypnum*, which is so very near *purum*, t. 1599, that many persons have thought it only a variety. It differs chiefly in its more turgid aspect, blunter branches, and broader more concave leaves. No fructification has ever been found upon it by any British botanist. It grows either in dry barren pastures, when the plant is short and upright, as gathered by the late Rev. Mr. Bryant at Heydon, Norfolk; or in damp more shady places, when, as in our specimens from Mr. Lyell, the stems are more elongated and procumbent, and the colour tinged with brown.

Dillenius's fig. C, copied from Vaillant, Bot. Par. t. 25, shows the capsules, which are ovate, short and curved; but we suspect the Pennsylvanian moss, considered by him as agreeing exactly with this figure, may be different.

Linnaeus's *H. illecebrum* is *Mnium arrhenopterum*, Sm. Tr. of L. Soc. v. 7. 262. Hedwig's is of Pennsylvanian origin.



obtained by J. L. L. in London.

J





[ 1621 ]

## HYPNUM Schreberi.

*Schreberian Feather-moss.**CRYPTOGAMIA Musci.*

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem pinnated, slightly compressed. Leaves elliptical, concave, slightly pointed, ribless. Lid conical, with a little straight point.

SYN. Hypnum Schreberi. *Willden. Berolin.* 325. *Sm. Fl. Brit.* 1315. *Dicks. Crypt. fasc.* 4. 18. *Turn. Musc. Hib.* 176.

*H. purum.* *Ehrh. Crypt.* 311. *Huds.* 504,  $\beta$ . *With.* 863, var. 2. *Hull.* 273, var. 2.

*H. cupressiforme tenuius et compressius.* *Dill. Musc.* 312. *t.* 40. *f.* 47.

*H. longum erectum, foliis angustis caulibus appressis.* *Raii Syn.* 83.

SENT from the New Forest, Hants, by C. Lyell, Esq., in April 1806. It grows in shady moist places, producing capsules but rarely. Being very like *H. purum*, *t.* 1599, it has perhaps been generally passed by as that species, and even some able botanists have esteemed it a variety only. It differs clearly however in being more slender and delicate, of a paler colour, and more compressed in the stem and branches. The leaves are more loosely imbricated, narrower, being of an elliptic-lanceolate figure, bluntish with more or less of a small point, not so much inflated, and quite destitute of a rib even at the base. The lid of the capsule moreover is shorter, with a small straight, not curved, point.



*Fig. 1. Moss. Published by W. G. & Co. London.*



✓





## HYPNUM nitens.

*Shining Yellow Feather-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem erect. Branches short. Leaves lanceolate, pointed, striated. Capsule oblong, curved and inclining.

SYN. *Hypnum nitens.* Schreb. *Lips.* 92. Sm. *Fl. Brit.* 1316. Linn. *fil. Meth. Musc.* 34. Hedw. *Sp. Musc.* 255. Dicks. *Crypt. fasc.* 2. 12. H. *Sicc. fasc.* 1. 24. With. 852. Hull. 270.

H. *palustre erectum trichodes, ramulis crebris, luteo- et rufo-virentibus, glabris.* Dill. *Musc.* 303. t. 39. f. 37.

GATHERED by the Rev. Mr. Dalton in marshy ground between Copgrove and the river Ure, Yorkshire, in May 1806. It is among the rarer species of *Hypnum*.

The stems are erect, from 4 to 8 inches high, throwing out numerous, short, spreading, leafy, simple branches. Leaves conspicuous for their shining yellow colour, imbricated, lanceolate, pointed, entire, marked with 3 or 5 longitudinal plaits. Sheaths from the main stem, solitary, oblong and tapering, of many similarly plaited leaves. Fruitstalks slender, variously bent, 2 inches long, red, smooth. Capsule inclining, oblong, curved, smooth, red-brown. Lid conical, acute, short.



*Sept. 1806. Published by J. J. Sowerby London.*

✓





## HYPNUM rufescens.

*Shining Reddish Feather-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. Caps. ovate-oblong, from a lateral scaly sheath. Outer fringe of 16 teeth, dilated at the base: inner a variously-toothed membrane. Veil smooth.

SPEC. CHAR. Stem erect. Branches elongated. Leaves lanceolate, pointed, striated, entire. Capsule cylindrical. Lid conical.

SYN. Hypnum rufescens. Sm. *Fl. Brit.* 1316. Dicks. *Crypt. fasc.* 3. 9. t. 8. f. 4. With. 846. Hull. 269. Hoffm. *Germ.* v. 2. 59, under n. 16.

H. caulibus vix ramosis, foliis subulatis aristatis, capsulis gracilibus. Hall. in *Act. Helvet.* v. 5. 12. n. 34.\*

H. n. 1784. Hall. *Hist.* v. 3. 38; excluding the synonym of Dillenius.

FIRST noticed by Mr. Dickson on wet rocks in the Highlands of Scotland. Mr. W. Borrer found it covering the perpendicular rocks by the falls of Moness, and has favoured us with the only genuine fructification we have ever seen, which is a very great rarity. Its supposed fruit and the accompaniments, described in *Fl. Brit.* from the Linnæan herbarium, appear to be those of an undescribed *Hypnum*, or perhaps *Hookeria*, whose herbage is so like the present moss, that the greatest judges have been deceived by it.

The stems of *H. rufescens* grow erect, or loosely spreading, from one inch and a half to three in height, their branches more or less elongated, cylindrical, leafy throughout. Leaves yellowish green with a fine purplish tinge, very shining, imbricated, a little spreading, lanceolate, concave, entire, taper-pointed, sometimes hair-pointed, ribless, but so furrowed or plaited when dry as to look many-ribbed. Sheath of many broad pointed scales. Fruitstalk slender, above an inch long. Capsule cylindrical, nearly erect. Lid almost half as long, conical. Fringe reddish. We have not seen the inner one, but Mr. Borrer and Mr. Hooker assure us it is that of a *Hypnum*. The name *rufescens* in some of our authors above is an error of the press.



From a moss published by J. P. Kew by Swales



J



[ 1425 ]

## HYPNUM cuspidatum.

*Pointed Bog Feather-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem pinnate, round. Branches pointed. Leaves oblong-lanceolate, nerveless, smooth, imbricated every way. Lid conical, acute.

SYN. *Hypnum cuspidatum.* *Linn. Sp. Pl.* 1595. *Sm. Fl. Brit.* 1317. *Hedw. Sp. Musc.* 254. *Huds.* 505. *With.* 862. *Hull.* 273. *Relh.* 437. *Sibth.* 300. *Abbot.* 250. *Dicks. H. Sicc. fasc.* 7. 20. *Turn. Musc. Hib.* 177.

*H. palustre, extremitatibus cuspidatis et pungentibus.* *Dill. Musc.* 300. t. 39. f. 34.

*H. repens palustre, foliis triangularibus per caules expansis, extremitatibus convolutis et acuminatis.* *Raii Syn.* 82.

THIS is a native of wet plashy meadows and clear springs, bearing fruit plentifully in March and April.

The stems are upright, various in their length, which is generally 6 or 8 inches. Their whole form is lanceolate and acute, composed of several short, two-ranked branches, the uppermost of which, as well as the main stem, are pointed, almost pungent, with a sort of bud, composed of leaves closely enfolding each other. The leaves are of a light shining green, imbricated, rather spreading, oblong, acute, entire, without ribs, veins, or plaits. Fruit-stalks 2 or 3 inches long, red, their sheaths of long whitish striated leaves. Capsule ovate-oblong, much curved, of a red tawny hue, smooth. Lid conical, short, acute.

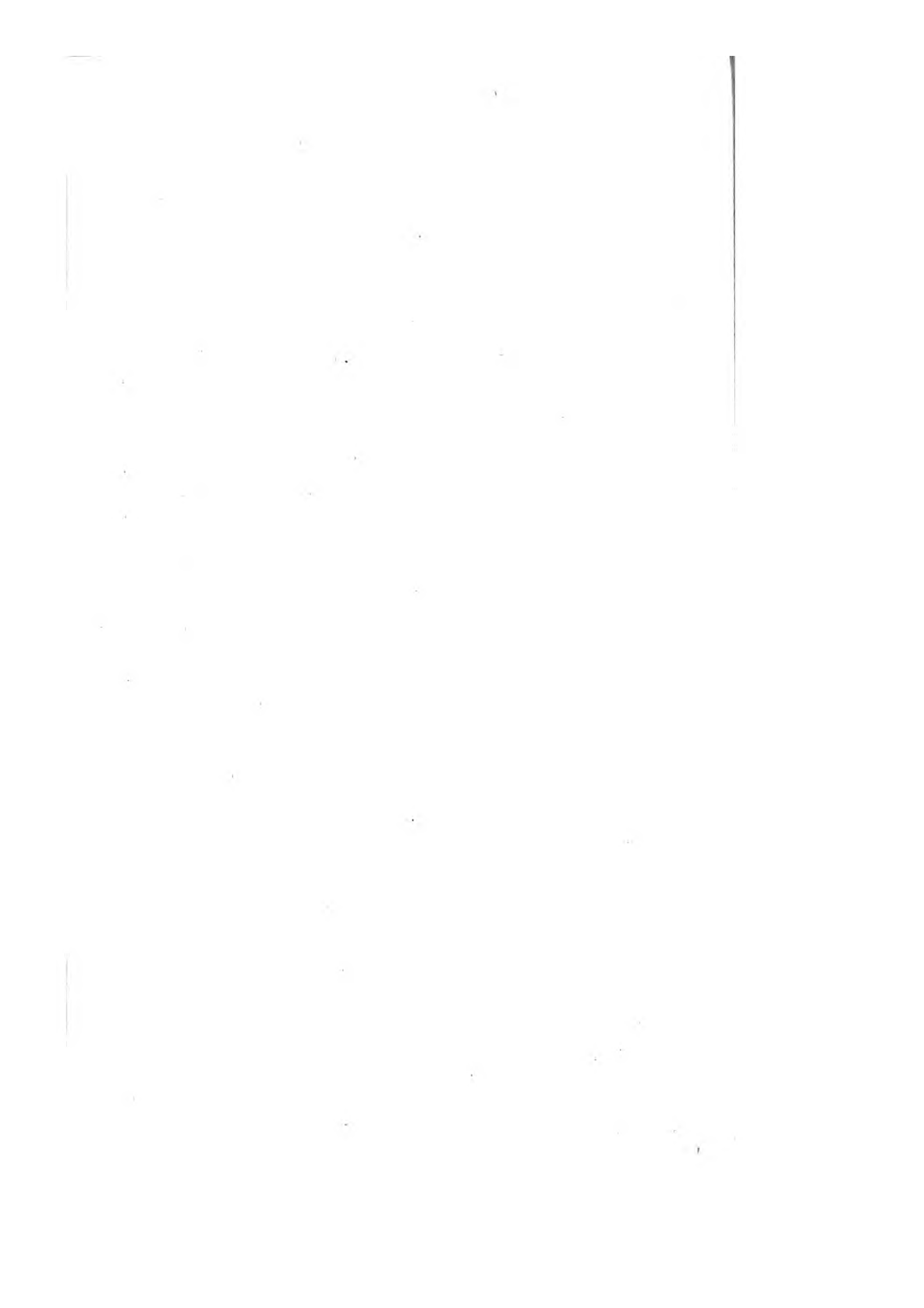
1425



March 2 1895 Publ. by J. & S. Curtis, London

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[ 2016 ]

## HYPNUM silesianum.

*Silesian Feather-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem creeping, pinnated. Leaves loosely spreading, ovate, serrated, pointed, flattish, with two plaits at the base; the upper ones curved. Capsule cylindrical, inclining. Lid conical, short.

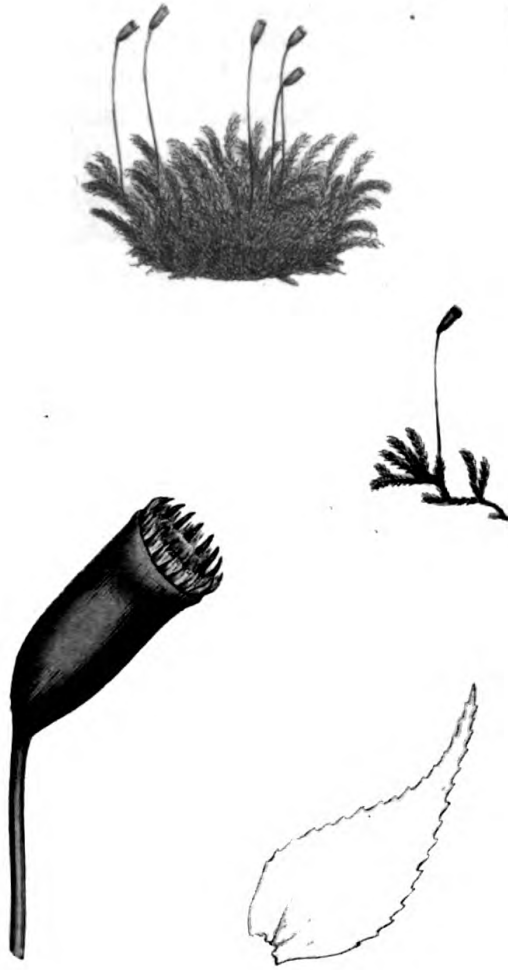
SYN. *Hypnum silesianum.* *Web. and Mohr Fl. Germ.* 343.

*Leskia Seligeri.* *Bridel. Musc. v. 2. p. 2. 47.*

THIS moss, new to our British Flora, and undescribed by all authors but those we have cited, was gathered on Ben Loyal in Sutherland by our often-mentioned friends Messrs. Hooker and Borrer in the summer of 1808. The fruit was then fully ripe and had dropped its lid.

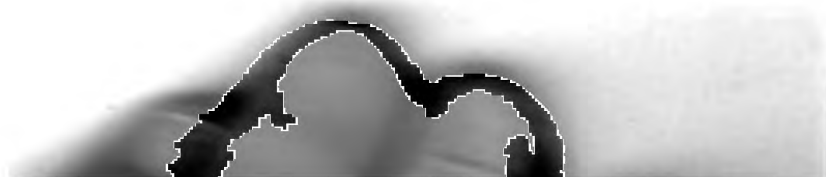
It is a small creeping tufted branched species, which we have hesitated whether to refer to the neighbourhood of *cupressiforme*, t. 1860; but perhaps it will range best in the 5th section of the genus, "*capsules inclining; shoots round, the leaves imbricated every way,*" such being the disposition of its leaves, except towards the end of each branch, where they curve downwards. Their form is nearly ovate, with a long sharp point, flattish, serrated, without rib or nerve, but when dry two plaits are observable at the base. Sheaths at the base of the branches, solitary. Fruitstalk about an inch long, of a light reddish brown. Capsule inclining, not pendulous, ovato-cylindrical, a little curved, light brown, contracted and longitudinally but irregularly rugose, with a wide mouth, when dry. Fringe greenish-yellow. Mr. Hooker confirms the observations of Weber and Mohr, that it is the fringe of a *Hypnum*, not a *Leskea*.

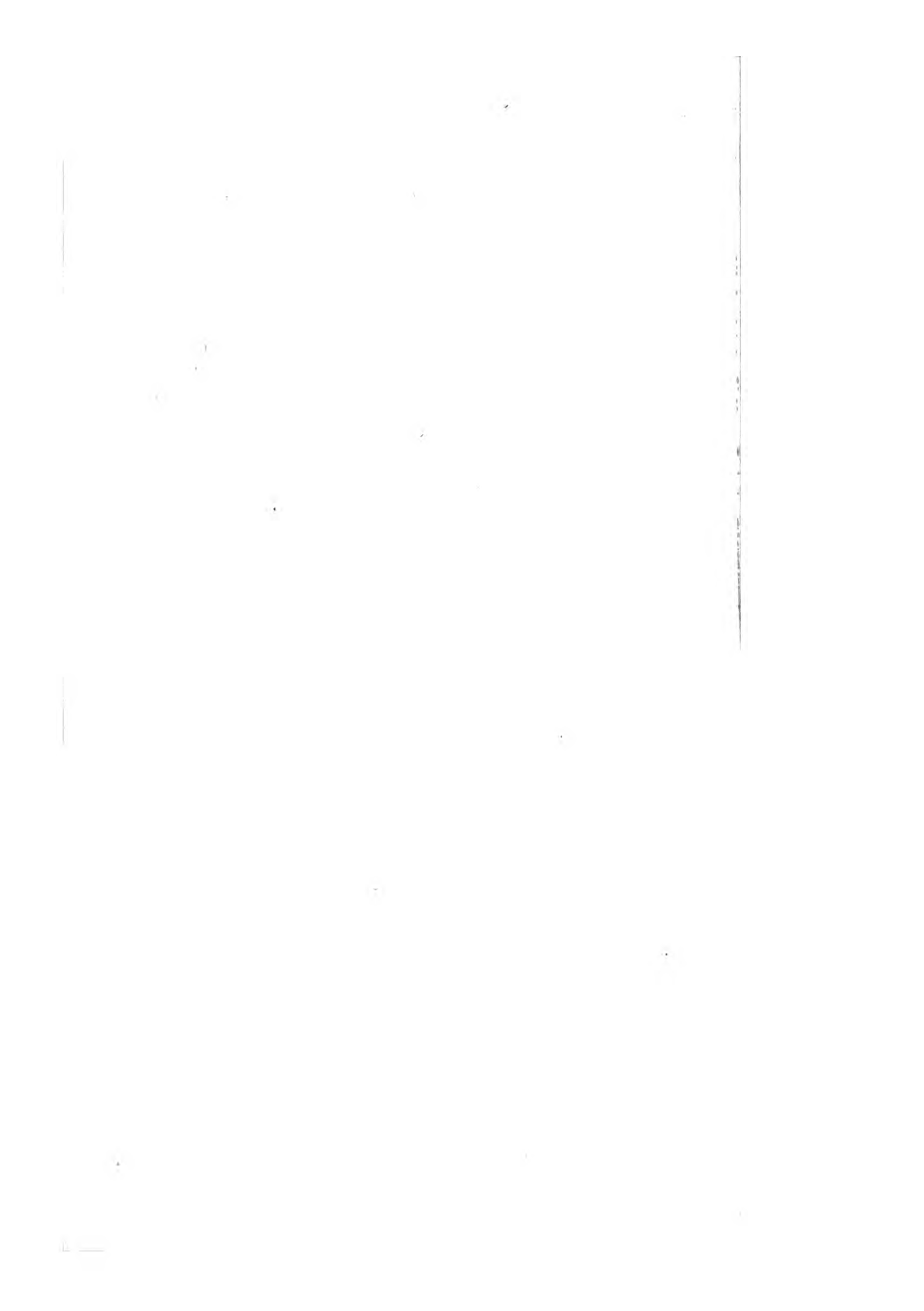
2016



May 1. 1809. Published by J. Sowerby, London.







[ 1447 ]

## HYPNUM cordifolium.

*Heart-leaved Feather-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem erect. Branches short. Leaves spreading, heart-shaped, bluntish, single-ribbed, rather remote. Lid hemispherical, pointed.

SYN. *Hypnum cordifolium.* *Hedw. Sp. Musc. 254. Crypt. v. 4. 97. t. 37. Sm. Fl. Brit. 1318. Swartz. Musc. Suec. 62. Roth. Germ. v. 3. 319.*

THE above synonyms are all that can be found for this very rare *Hypnum*, which was equally unknown to Dillenius, Linnæus, Haller and all other botanists till Dr. Swartz found it in Sweden, and the celebrated Hedwig in Germany. Neither of these eminent investigators ever saw the lid of the capsule. For that we are obliged to Dr. Schrader and to Mr. Winch, the latter having first observed this species in England, growing in watery places near Newcastle, and having favoured us with fine specimens, which exactly accord with the German and Swedish ones. Mr. G. Don gathered the same near Forfar in 1788, and since in marshes near Edinburgh.

It is nearest akin to *H. cuspidatum*, t. 1425, with which it accords in general habit and colour, but differs essentially in its leaves being heart-shaped at their base, distant from each other, and spreading so as to have the character of *squarrose*, not imbricated; but especially in their having a central rib. The fruit-stalks are long, each from a small scaly sheath. Capsule greatly curved, orange. Lid hemispherical, or shortly conical, with a little sharp point.

2447



May 1 1866. Collected by J. D. Sowerby London.

✓





[ 1448 ]

## HYPNUM fluitans.

*Floating Feather-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem somewhat pinnate. Leaves lanceolate, pointed, loosely spreading, single-ribbed. Lid convex, with a small point.

SYN. *Hypnum fluitans.* *Linn. Fl. Suec. ed. 2.* 399. *Sm. Fl. Brit.* 1319. *Hedw. Sp. Musc.* 296. *Crypt. v. 4.* 94. *t. 36.* *With.* 851. *Hull.* 270. *Relh.* 432. *Sibth.* 298. *Abbot.* 245. *Dicks. H. Sicc. fasc.* 16. 22. *Turn. Musc. Hib.* 182.

H. erectum aut fluitans, foliis oblongis perangustis acutis. *Dill. Musc.* 299. *t. 38. f. 33.* *Raii Syn.* 82.

THIS we also received from Mr. Winch of Newcastle in fructification, in which state it is extremely rare. The plant itself is not very unfrequently to be met with in clear still waters, in which it floats to a considerable extent, the stems being loosely pinnate, slender, very various in length. The leaves are of a pale or brownish green, loosely spreading, lanceolate, pointed, entire, very narrow, furnished with a central rib; the uppermost more or less curved and united into a hook, so that it very nearly approaches *H. aduncum*, and this is the case with the original Linnæan specimen. The fruit-stalks are long in proportion to the branches, capillary, reddish, from pointed sheaths. Capsule curved, ovate-oblong, short. Lid of a short conical pointed form. Fringe rather short.





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[ 1516 ]

## HYPNUM piliferum.

*Hair-pointed Feather-moss.*


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 CRYPTOGAMIA Musci.

GEN. CHAR. *Fringe* double: outer of 16 tapering teeth: *inner* a toothed membrane. *Flowers* lateral. *Fruit-stalk* from a scaly sheath.

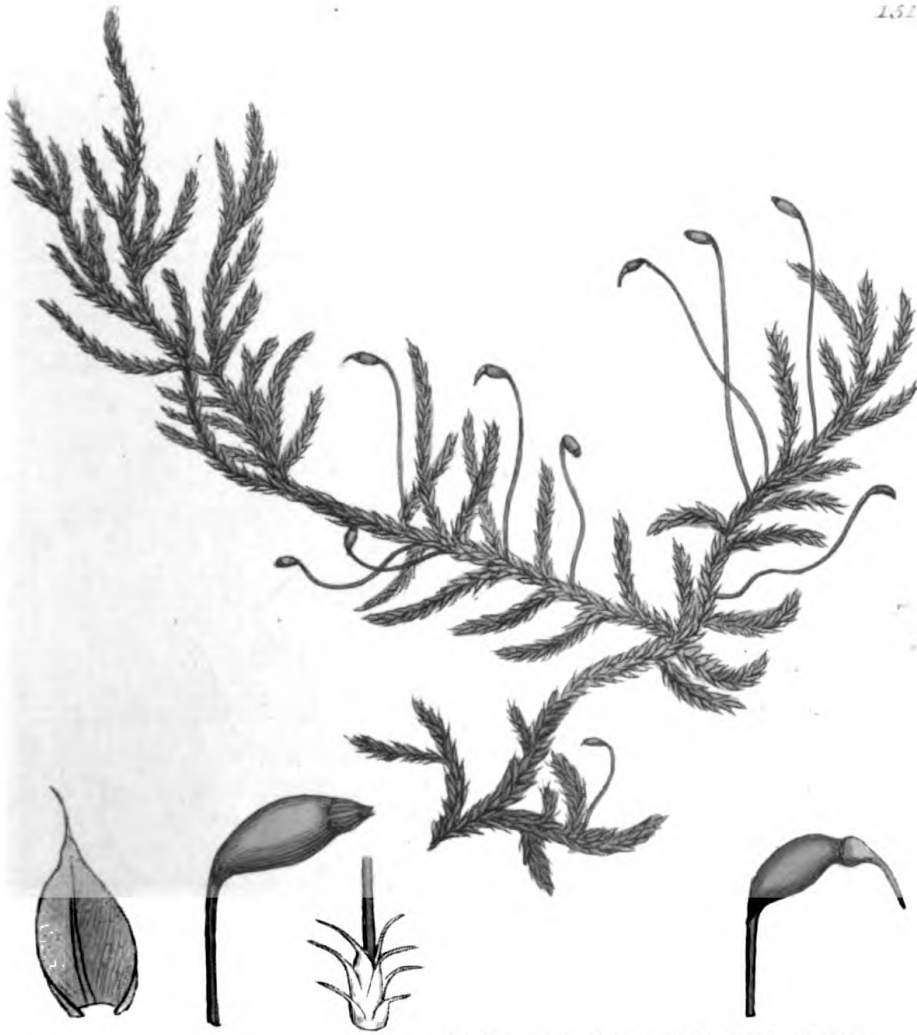
SPEC. CHAR. Branches scattered. Leaves ovate, concave, entire, with a single rib reaching half way from the base, and tipped with a hair. Lid awl-shaped.

SYN. *Hypnum piliferum.* Schreb. *Lips.* 91. Sm. *Fl. Brit.* 1319. Hedw. *Sp. Musc.* 275. *Crypt. v.* 4. 35. t. 14. Turn. *Musc. Hib.* 178.

---

SENT by our obliging friend Mr. Winch from Northumberland in July last. We have it also from the Rev. H. Davies, and it has been found in Ireland by Dr. Scott. It is said to grow in moist shady situations.

The stems vary from 2 to 6 or 8 inches in length, being procumbent, very irregularly branched, their branches spreading, unequal in length, cylindrical and rather acute. Leaves loosely imbricated on every side, of a pale shining green, ovate, obtuse, concave, entire, smooth, hair-pointed, furnished with a rib from their base which commonly vanishes about the middle. Fruit-stalks an inch or more in length, red, wiry. Sheath of several pale, loosely spreading, hair-pointed scales. Capsule drooping, ovate, swelling and short when ripe. Fringe red. Lid scarcely so long as the capsule, slender, with a conical base.



Oct 2. 1806 Published by Jos. Sowerby London.





[ 1647 ]

## HYPNUM brevirostre.

*Common Rough-stalked Feather-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Branches straggling. Leaves ovate, pointed, slightly serrated, single-ribbed about half their length. Lid conical. Fruit-stalk granulated.

SYN. Hypnum brevirostrum. *Ehrh. Crypt.* 85.

H. Rutabulum. *Linn. Sp. Pl.* 1590. *Sm. Fl. Brit.* 1320. *Hedw. Sp. Musc.* 276. *Crypt. v.* 4. 29. *t.* 12. *Huds.* 496. *With.* 851. *Hull.* 270. *Relh.* 432. *Sibth.* 297. *Abbot.* 245. *Turn. Musc. Hib.* 179.

H. dentatum vulgatissimum, operculis obtusis. *Dill. Musc.* 295. *t.* 38. *f.* 29.

H. repens, triangularibus minoribus foliis. *Raii Syn.* 80.

ONE of the most common of Mosses about trees, hedges, and bushy places, bearing fruit in the spring.

Stems perennial, elastic, procumbent, from 3 to 6 inches, or more, in length, irregularly branched; the branches curved, cylindrical, leafy, taper-pointed. Leaves light yellowish green, spreading every way, rather shining, ovate, broadish at the base, pointed, plain, furnished with a rib which disappears before it reaches the point, the edge (especially of the upper half) marked with broad shallow serratures. Fruitstalks an inch or more in length, red, all over granulated or rough with minute tubercles. Sheath small, loosely imbricated. Capsule ovate, curved and inclining, smooth. Lid short, conical, bluntish with a little point.

The old specific name, derived from an extremely reprehensible fancy of Vaillant's, has inadvertently been admitted hitherto; but it is never too late to alter what can convey no other idea than a bad one. Respecting such changes we trust apologies are needless. We therefore adopt the expressive name of Ehrhart, only amending its latinity.

1647



*Sept. No 6. Published by J. Sowerby London.*



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## HYPNUM striatum.

*Common Striated Feather-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. Caps. ovate-oblong, from a lateral scaly sheath. Outer fringe of 16 teeth, dilated at the base: inner a variously-toothed membrane. Veil smooth.

SPEC. CHAR. Branches straggling. Leaves triangular, somewhat ovate, pointed, minutely serrated, single-ribbed, striated. Lid awlshaped.

SYN. Hypnum striatum. Schreb. Lips. 91. Sm. Fl. Brit. 1321. Hedw. Sp. Musc. 275. Crypt. v. 4. 32. t. 13. With. 850. Hull. 270. Sibth. 415. Turn. Musc. Hib. 180.

H. longirostrum. Ehrh. Crypt. 75.

H. Rutabulum  $\gamma$ . Huds. 497.  $\beta$ . Relh. 433.

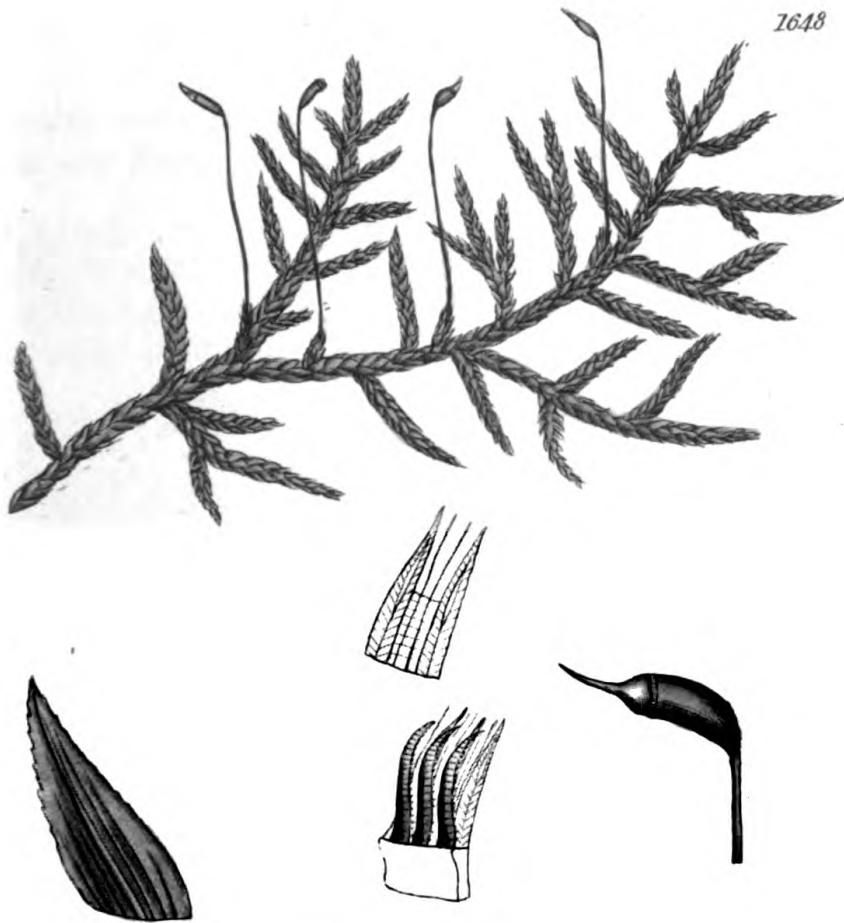
H. vulgare dentatum, operculis cuspidatis. Dill. Musc. 297. t. 38. f. 30.

H. repens, triangularibus minoribus foliis, pediculis et capitulis brevioribus et tumidioribus, minus. Raii Syn. 80.

ALMOST as frequent as the last in shady bushy places, whether dry or wet, bearing fruit in March and April.

It agrees with *H. brevirostre* in habit and colour, but is generally somewhat larger and more straggling, and differs in many very essential characters. The leaves are so broad at the base as to be almost *deltoid* or triangular; their lower half is marked, on each side of the rib, with several longitudinal plaits or furrows; and their edge is finely, acutely, and closely serrated. The fruitstalks are always in every part smooth and even. The lid ends in a fine taper point, and is as long as the capsule.

1648



*Sept. 206. Publish'd by Jo. Sewerby London.*

✓



[ 1302 ]

## HYPNUM stellatum.

*Yellow Starry Feather-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem erect, branched. Leaves ovate, pointed, entire, without nerves, very much spreading. Lid conical.

SYN. *Hypnum stellatum.* Schreb. *Lips.* 92. Sm. *Fl. Brit.* 1322. Hedw. *Sp. Musc.* 280. Dicks. *Crypt. fasc.* 1. 5. t. 1. f. 7. H. *Sicc. fasc.* 6. 23. With. 846. Hull. 268. Relh. 437. Sibth. 301. Abbot. 246.

H. comâ lutescente, extremitatibus stellatis. Dill. *Musc.* 302. t. 39. f. 35.

NOT uncommon in turfy bogs, but the fructification is not often to be found. The season for it is about March or April.

The stems grow erect, either in tufts or intermixed with other mosses, and are more or less branched, the branches pointing upwards, covered with bright yellowish green, or even golden-coloured, leaves, which spread very much, often giving a starry appearance to the summit of each branch; they are broad at the base, tapering to a long point, nearly flat, entire, smooth, and without any rib or nerve: the lowermost become brown or black. Fruitstalks about two inches high, capillary, waved, crimson. Sheath of several lanceolate striated close scales. Capsule drooping, curved, cylindrical, somewhat ovate. Lid conical, short, acute.

Dillenius, who never saw the fructification of this *Hypnum*, could not with certainty distinguish it from the *cuspidatum*. Mr. Dickson was the first in England who clearly determined it as a species.





*April 1 1870. Published by J. Ed. Sowerby, London.*



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[ 1953 ]

HYPNUM squarrosum.  
*Drooping-leaved Feather-moss.*

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CRYPTOGAMIA Musci.

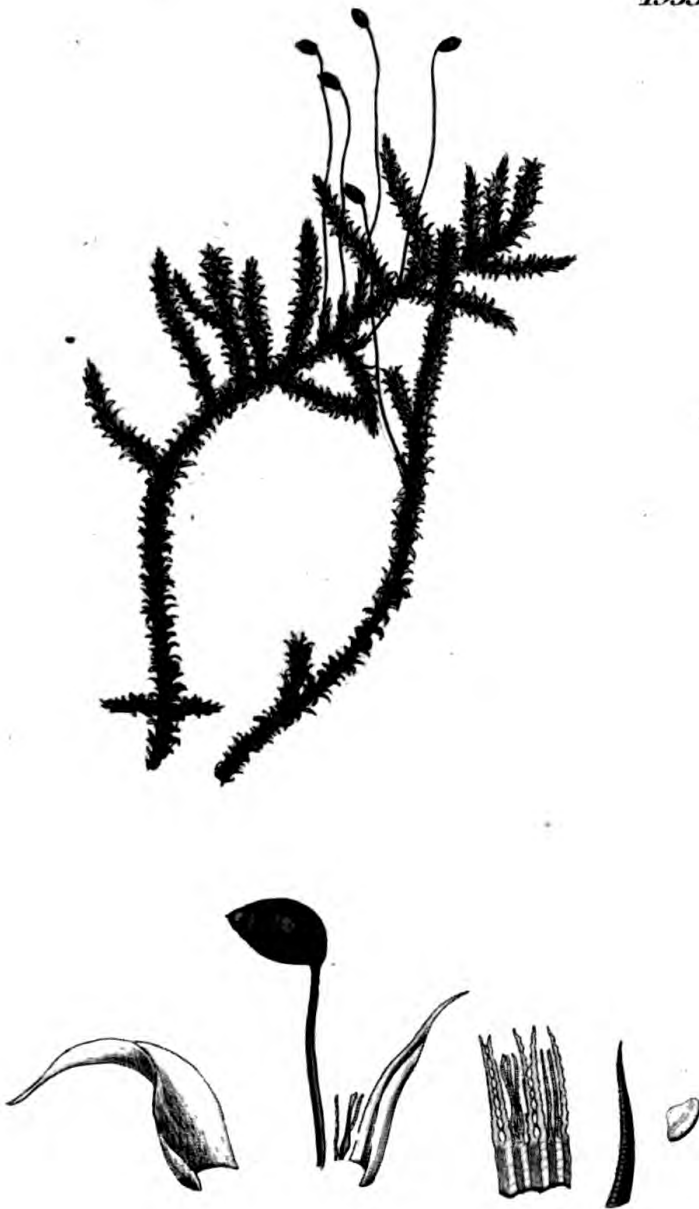
- GEN. CHAR. Caps. ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.
- SPEC. CHAR. Stem branched, somewhat pinnated. Leaves ovate, pointed, keeled, recurved, without ribs. Lid conical.
- SYN. Hypnum squarrosum. *Linn. Sp. Pl.* 1593. *Sm. Fl. Brit.* 1323. *Hedw. Sp. Musc.* 281. *Huds.* 502. *With.* 857. *Hull.* 271. *Relh.* 435. *Sibth.* 299. *Abbot.* 249.
- H. repens, triangularibus reflexis foliis, majus. *Dill. Musc.* 303. *t.* 39. *f.* 38. *Raii Syn.* 82.
- β.H. repens, triangularibus reflexis foliis, minus. *Dill. Musc.* 304. *t.* 39. *f.* 39. *Raii Syn.* 82.
- H. squarrosum. *Swartz. Musc. Suec.* 59. *Ehrh. Crypt.* 36.
- 

COMMON in shady damp woods, and under hedges, producing its fruit occasionally in autumn as well as spring, but by no means frequently at either season. Our specimens with ripe capsules were found in the New Forest, last March, by C. Lyell, Esq.

The perennial stems are branched in a pinnate manner, and are leafy, red, rigid and wiry, forming loose elastic tufts; their branches curved downwards, taper-pointed. Leaves of a yellowish green, closely imbricated generally in 5 rows, ovate, clasping the stem, entire, ribless, smooth, folded into a sort of keel; their points elongated and curved downward. Fruitstalks about an inch and half long, red, smooth. Sheaths close, with taper-pointed leaves, their points spreading. Capsule drooping, ovate, smooth, short and turgid. Lid conical, short, with a minute point.

The variety β has the appearance of a different species, being much more pale and slender in habit, with shorter more distant branches, and a somewhat longer lid, but we find no essential mark of discrimination.

1953



*Neocladia puberula* by J. S. Seward, London.

✓



HYPNUM squarrosulum.  
*Little Spreading-leaved Feather-moss.*

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

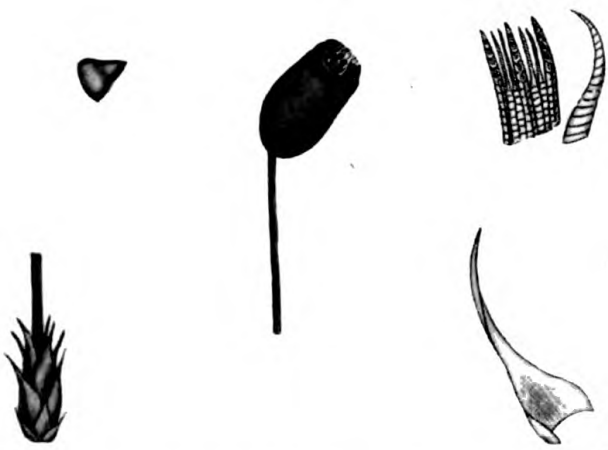
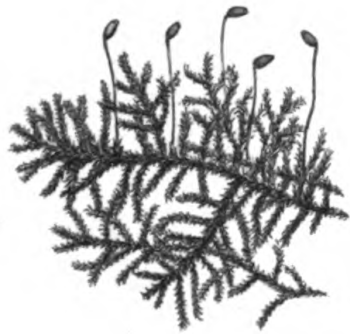
SPEC. CHAR. Stem procumbent, branched; the branches irregularly pinnated. Leaves awlshaped, entire, without a nerve, broad at the base, spreading widely and somewhat reflexed. Capsule drooping. Lid conical, short.

SYN. Hypnum squarrosulum. *Bridel. Musc. v. 3. 149. t. 4. f. 2.*

GATHERED in Mackershaw wood near Ripon by the late Mr. W. Brunton, and by no one else, to our knowledge, in Britain. It bears fruit in the early part of summer. The learned Bridel, who alone has published it, found it in Saxony and Switzerland.

The habit of the plant is somewhat like *H. serpens*, but it belongs to another section of the genus characterized by squarrose leaves, where it should stand near *H. squarrosulum*. The stems are perennial, creeping, green, producing many pinnated slender leafy branches. Leaves of a bright or yellowish green, small, spreading in every direction, at right angles with the branches, or a little reflexed. They are entire, with a broad base, destitute of any nerve or plait, and taper into a very fine point. Sheaths of rather broader and shorter leaves, also without nerves. Fruitstalks an inch long, red, smooth. Capsule drooping, ovate, somewhat curved. Lid, which Bridel never saw, short and conical. Mr. Brunton communicated at the same time a much smaller variety, but differing in no other respect.

In the progress of a long work like this we might expect to have occasion from time to time to lament the loss of many veterans in science, but we have more frequently deplored the ravages of death among our more youthful associates. Mr. William Brunton of Ripon, whose favours we have often acknowledged, is now added to the melancholy catalogue. He was born Oct. 21, 1775, and died June 23, 1806, of a decline, which had long threatened his life. Early devoted to Botany and Chemistry in particular, he ardently pursued those studies to the last. Very strong natural parts, an excellent memory, acuteness and patience of investigation, formed his scientific character; his private one, as we are assured by an excellent friend, was no less estimable, and his relations have sustained an irreparable loss.

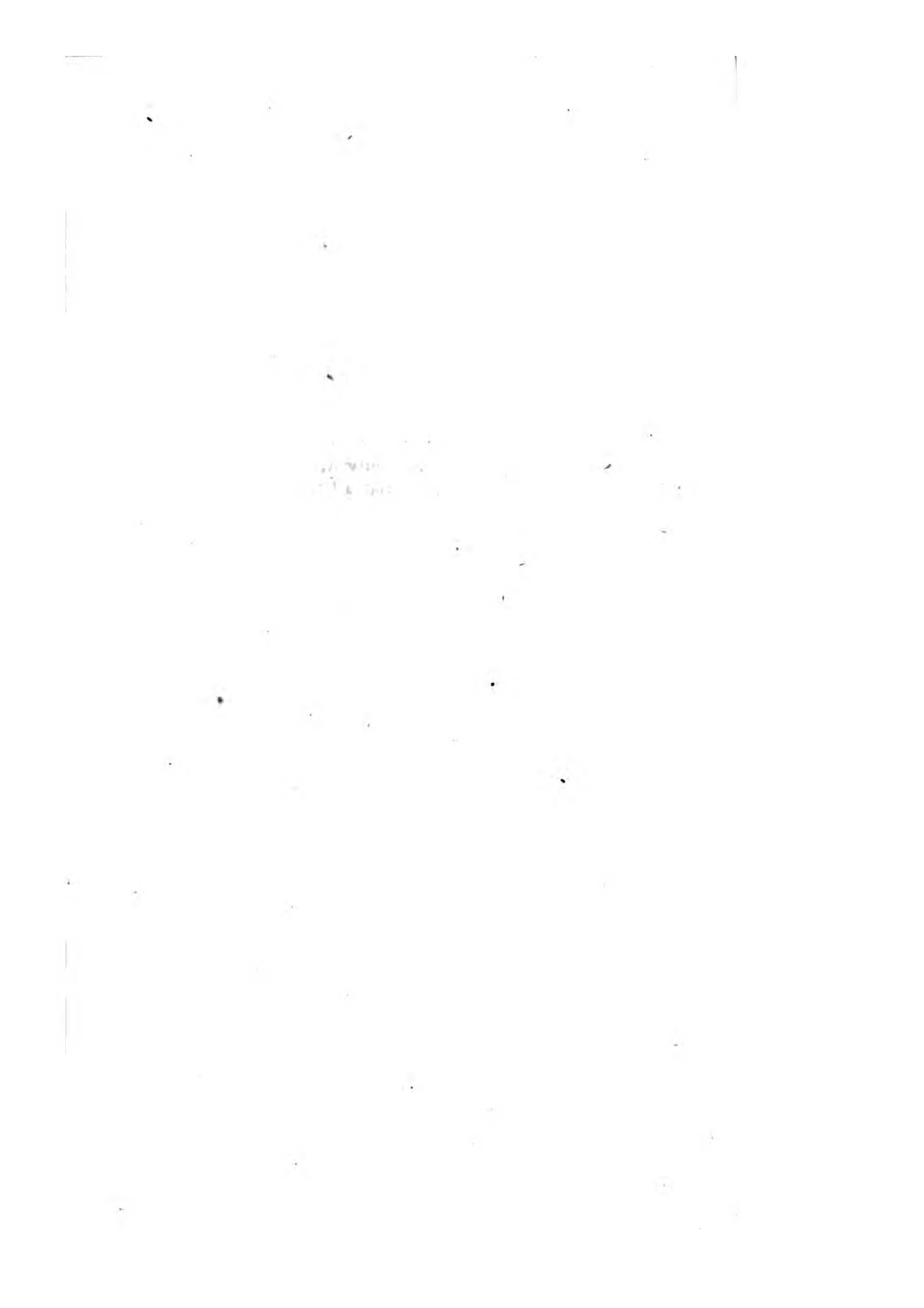


*Fig. 1267. Published by J. & S. Sowerby, London.*



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William Bro  
acknowledged  
He was born  
ending, who  
Botany and  
these results  
often means  
has achieved  
an excellent  
very nature



[ 2072 ]

## HYPNUM loreum.

*Rambling Mountain Feather-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem procumbent, somewhat pinnate. Leaves awlshaped, recurved, pointing towards one side, with a broad striated base. Lid convex, with a small point.

SYN. *Hypnum loreum.* *Linn. Sp. Pl.* 1593. *Sm. Fl. Brit.* 1324. *Hedw. Sp. Musc.* 294. *Huds.* 502. *With.* 857. *Hull.* 272. *Relh.* 436. *Sibth.* 297. *Dicks. H. Sicc. fasc.* 7. 21. *Turn. Musc. Hib.* 185.

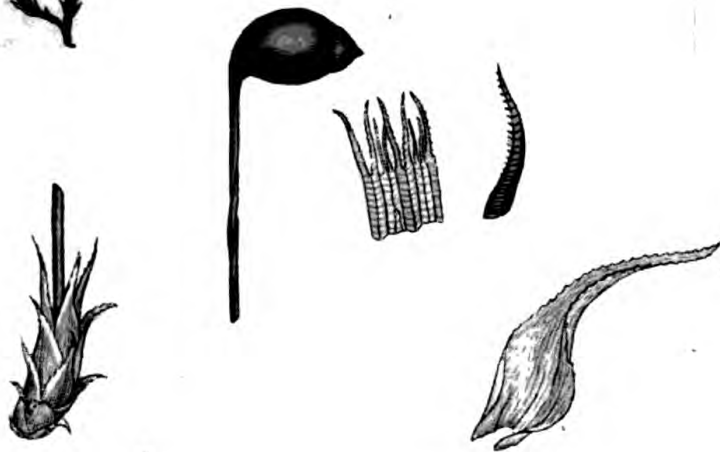
*H. loreum montanum, capsulis subrotundis.* *Dill. Musc.* 305. *t.* 39. *f.* 40.

*H. repens, surculis magis erectis, foliis reflexis longioribus cinctis, operculo capituli magno.* *Raii Syn.* 82.

THIS *Hypnum* had not been noticed in Scotland till I found it in Rivelston wood near Edinburgh in 1782, nor had Mr. Dickson observed it till I brought him specimens from that neighbourhood and from Westmoreland. It is however by no means rare in dry mountainous countries, bearing capsules, frequently enough, in March or April, as well as later in the season.

It is one of the largest of the squarrose kinds, and is known by its long, rambling, branched and pinnate stems, its pale yellowish hue, but especially by the curvature of its leaves toward one side, in which it differs from *H. triquetrum*, *t.* 1622, and *squarrosus*, *t.* 1953, two species most resembling it in size and colour. The ends of the branches are acute and hooked. Leaves closely imbricated, recurved; broad, entire, and marked with 3 or 5 furrows at their base; awlshaped, keeled, and minutely toothed, rather than serrated, in the other part. Sheath pale, of many ovate leaves, with acute, spreading, finely toothed points. Fruit-stalks an inch and half long, red, smooth. Capsule drooping, ovate, turgid, smooth. Lid very convex with a small point, reddish.

2172



1841. 1849. published by J. L. Linnæus.

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## HYPNUM triquetrum.

*Great Triangular Feather-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem ascending, somewhat pinnated. Leaves triangular, pointed, striated, spreading in every direction. Lid conical.

SYN. Hypnum triquetrum. *Linn. Sp. Pl.* 1589. *Sm. Fl. Brit.* 1325. *Hedw. Sp. Musc.* 256. *Huds.* 496. *With.* 850. *Hull.* 270. *Relh.* 433. *Sibth.* 296. *Abbot.* 246. *Dicks. H. Sicc. fasc.* 16. 21. *Turn. Musc. Hib.* 186.

H. vulgare triangulum, maximum et pallidum. *Dill. Musc.* 293. t. 38. f. 28.

H. repens, triangularibus majoribus et pallidioribus foliis. *Raii Syn.* 80.

VERY common in woods and on heaths, bearing fruit in the winter and early spring. It is readily known from all our other species by its great size.

The stems are nearly erect, often a foot long, stiff and tough, red when stripped, much branched in a somewhat pinnate manner, leafy, their branches often tapering and curved downwards at the points. Leaves pale, rather shining green, crowded, spreading horizontally every way, flat, of a triangular shape with a point, longitudinally furrowed and obscurely ribbed, minutely serrated. Sheath of many taper-pointed recurved leaves. Fruit-stalks about 2 inches long, red, smooth and shining. Capsule drooping, ovate, short, brown, when old sometimes irregularly furrowed or wrinkled. Lid conical, short.

This moss is one of the most useful for packing, being, whether in a dry or wet state, peculiarly elastic and light.



*July 1. 1858. Published by J. E. Sowerby London.*



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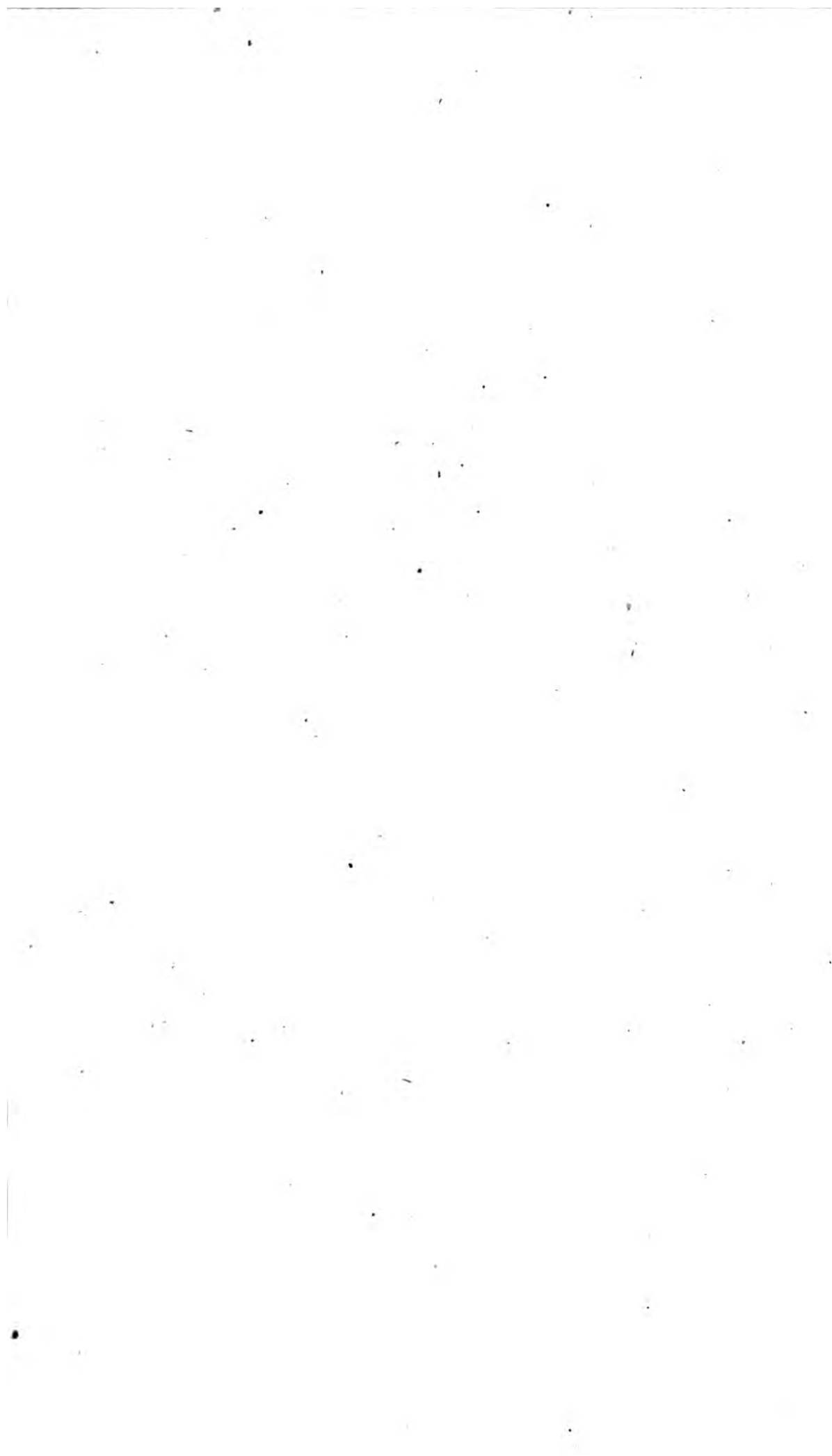
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## HYPNUM rugosum.

*Yellow Wolf's-claw Feather-moss.*

## CRYPTOGAMIA Musci.

- GEN. CHAR.** Caps. ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.
- SPEC. CHAR.** Stem procumbent, somewhat pinnate. Leaves folded, keeled, falcate, twisted, furrowed, pointed, single-ribbed. Lid conical.
- SYN.** Hypnum rugosum. *Linn. Mant.* 131. *Sm. Fl. Brit.* 1325. *Dicks. Crypt. fasc.* 2. 12. *H. Sicc. fasc.* 1. 23. *With.* 856. *Hull.* 271. *Winch. v.* 1. 111. *Swartz. Musc. Suec.* 57.
- H. lutescens crispum, Lycopodii facie.* *Dill. Musc.* 289. *t.* 37. *f.* 24.

**W**ATERY places about Loch Rannoch, Perthshire, a celebrated spot for botany, first afforded Mr. Dickson the present *Hypnum*, which Dillenius knew in Germany only, and for which Hedwig, Ehrhart, and many of less note, have mistaken a different moss, whose leaves are transversely corrugated, not known in Britain. Mr. Winch has favoured us with the true *rugosum*, from Prestwick Car in Northumberland.

The stems are procumbent, imperfectly pinnate, leafy, the branches upright, obtuse, slightly hooked. Leaves of a yellow or tawny green, rusty or black with age, closely imbricated, strongly curved to one side, and in some degree twisted. They are lanceolate, entire, with a long taper point, compressed, keeled, single-ribbed throughout, furrowed lengthwise, when dry, but not across. Sheaths close, of shorter broader leaves. Fruitstalk two inches long, erect, dark purple. Capsule inclining, a little curved, cylindrical, ovate at the base, dilated at the mouth. Lid conical, short, acute.



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## HYPNUM scorpioides.

*Scorpion Hypnum.*

## CRYPTOGAMIA Musci.

**GEN. CHAR.** *Fringe* double: *outer* of 16 tapering teeth: *inner* a toothed membrane. *Flowers* lateral. *Fruit-stalk* from a scaly sheath.

**SPEC. CHAR.** Stem procumbent. Branches scattered, swelling upwards. Leaves ovate, acute, concave, curved all one way, without a midrib. Capsules drooping. Lid conical.

**SYN.** Hypnum scorpioides. *Linn. Sp. Pl.* 1592. *Huds.* 501. *With.* 856. *Hull.* 271. *Relb.* 412. *Abbot.* 249. *Dickf. H. Sicc. fasc.* 3. 22. *Hedw. Sp. Musc.* 295.

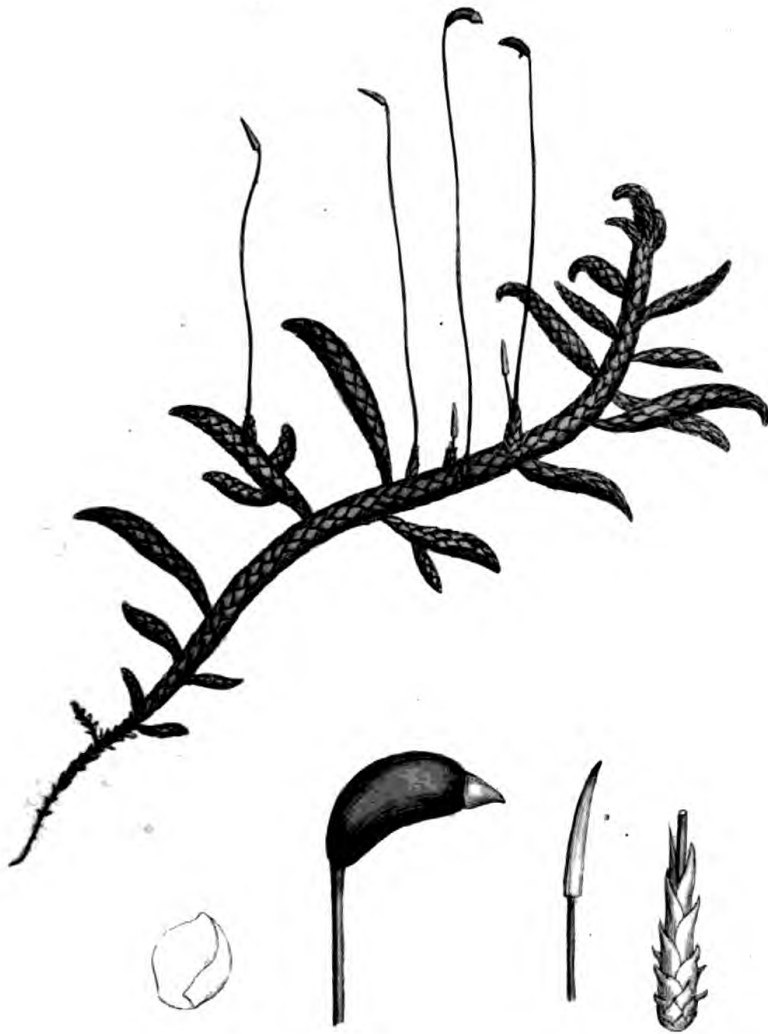
H. scorpioides palustre magnum, Lycopodii instar sparsum. *Dill. Musc.* 290. t. 37. f. 25.

**C**OMMUNICATED from Cambridgeshire by the Rev. Mr. Hemsted. It grows on turfy bogs, and is said to be more frequent in the mountainous or northern counties than with us. Mr. Pitchford and the Rev. Mr. Bryant found it long ago on Felthorpe bogs 5 or 6 miles north of Norwich, where many other scarce plants have been discovered.

The stem is procumbent, leafy, bearing many short, irregularly scattered, branches, likewise leafy, which are taper at their base, thicker upward, ending in a hooked leafy point, and generally not subdivided. The leaves are ovate, concave, acute, entire, membranous and shining, without a rib, closely imbricated, their tips all pointing towards one side, which is most remarkable in the younger part of the branches. Each fruit-stalk springs from a lateral, axillary, very scaly sheath, and is erect, taper, and red. Capsule incurved; when ripe, yellow on the under side, brown above. Lid conical, sharp. Veil tipped with brown. Fringe yellow.

When the leaves grow long immersed in water, they become of a dark rich brown, the young ones only remaining of a yellowish or tawny green.

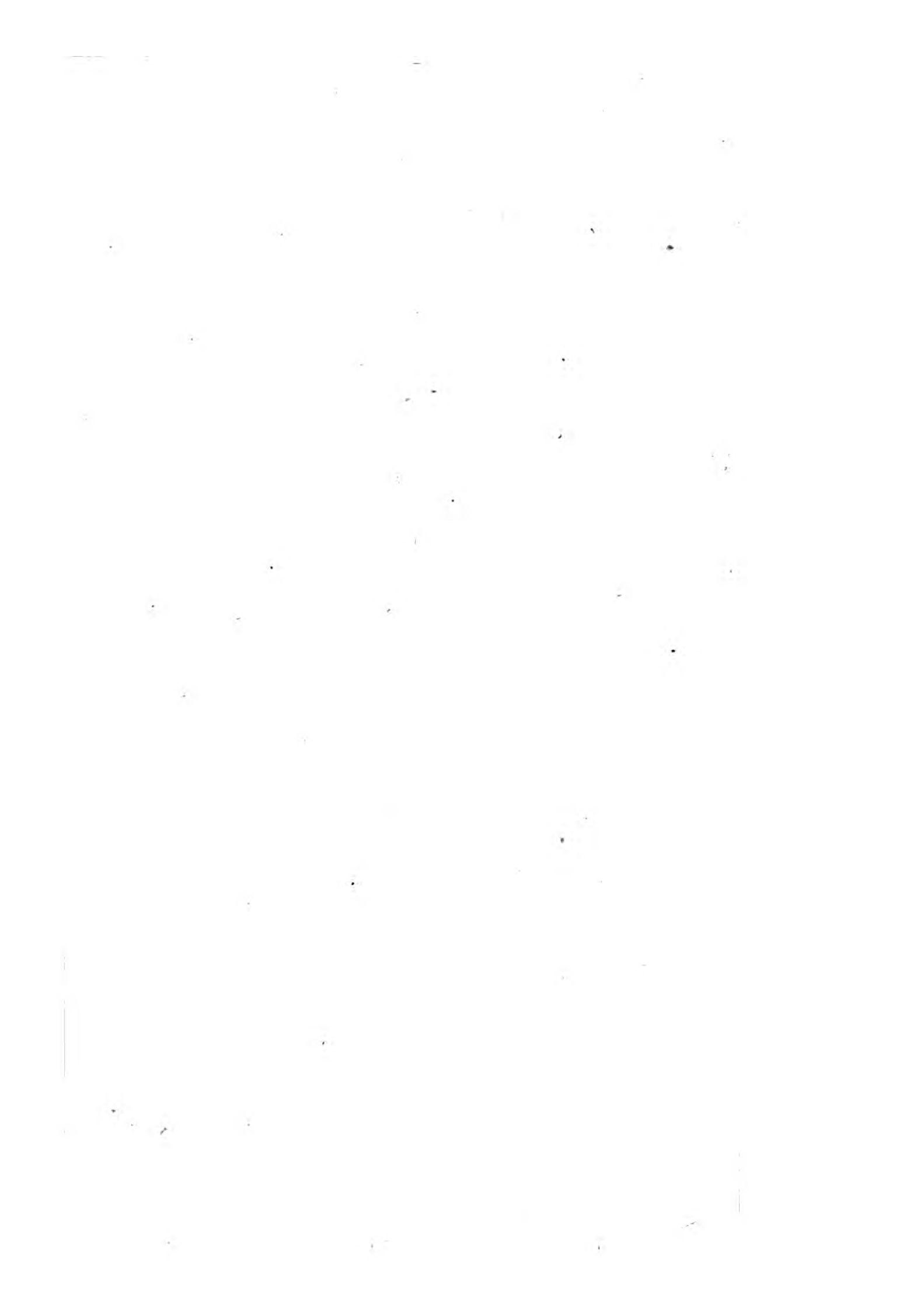
1039.



*Junca verticillata* L. *Strobilus* *seca*.







[ 2073 ]

HYPNUM *revolvens*.  
*Curling-leaved Feather-moss.*

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CRYPTOGAMIA *Musci*.

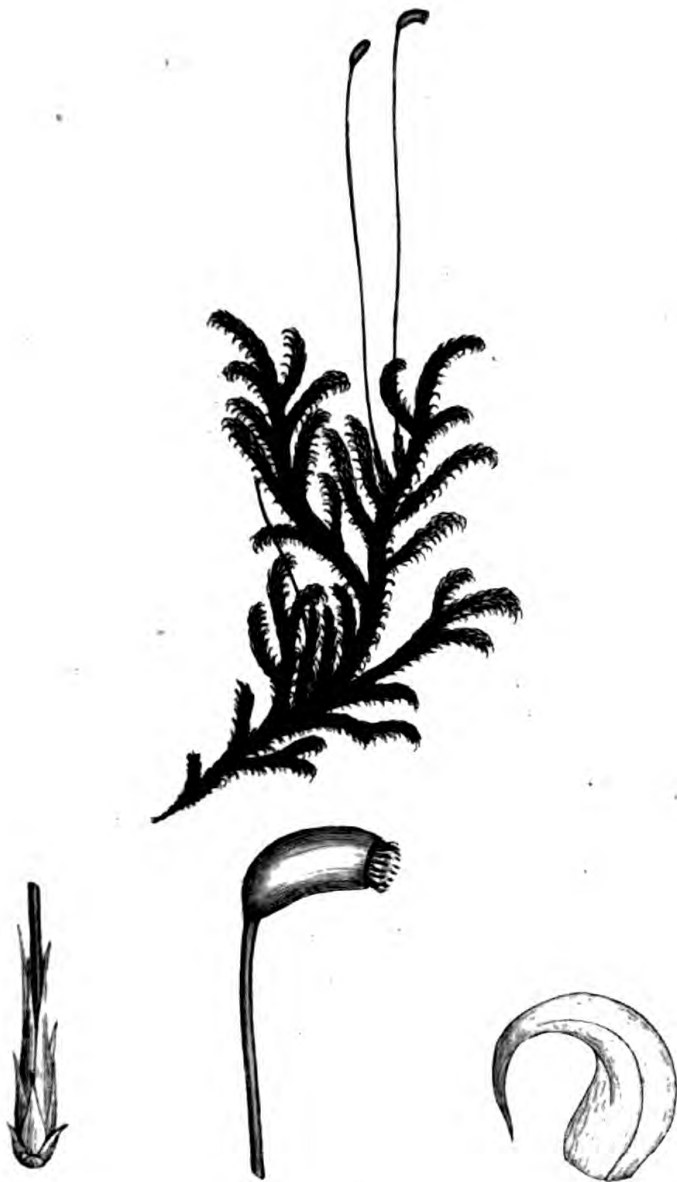
- GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.
- SPEC. CHAR. Stem nearly erect, pinnate. Leaves awlshaped, compressed, twisted into a sickle-shape, single-ribbed; striated when dry. Lid conical.
- SYN. Hypnum *revolvens*. Swartz. *Musc. Suec.* 58 and 101. *t.* 7. *f.* 14. Sm. *Fl. Brit.* 1327. Turn. *Musc. Hib.* 188. Winch. *Guide.* v. 1. 111.
- 

FIRST observed by the late Dr. Scott in boggy places near Swanlinbar, Ireland, but without fructification. Our specimens were communicated from Prestwick Car, Northumberland, by Mr. J. Thornhill in 1804, and Mr. Winch in 1806. They agree precisely with others sent by the original describer of this species, Professor Swartz.

The plant before us has something of the habit of *H. scorpioides*, *t.* 1039, not so well expressed in that plate as we could have wished, the specimens not having acquired their rich tawny colour. This is much smaller, more erect, and of a still darker hue, almost black, except the young branches, whose leaves are pale green, soon becoming tawny. The branches are short, alternate, and spreading. Leaves rather shining, closely imbricated, curved to one side, lanceolate or ovate, with an awlshaped acute termination, compressed, keeled, much curved and twisted, single-ribbed; when dry striated. Sheath pale brown, slender, close. Fruit-stalk above 2 inches high, red, wavy. Capsule cylindrical, curved, drooping, of a rusty hue, becoming slightly but irregularly furrowed by drying. Lid conical, short, with a little point.

The compressed carinated leaves, and dark colour, distinguish this from *H. aduncum*, which is moreover a smaller plant.





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[ 1600 ]

## HYPNUM uncinatum.

*Procumbent Hooked Feather-moss.**CRYPTOGAMIA Musci.*

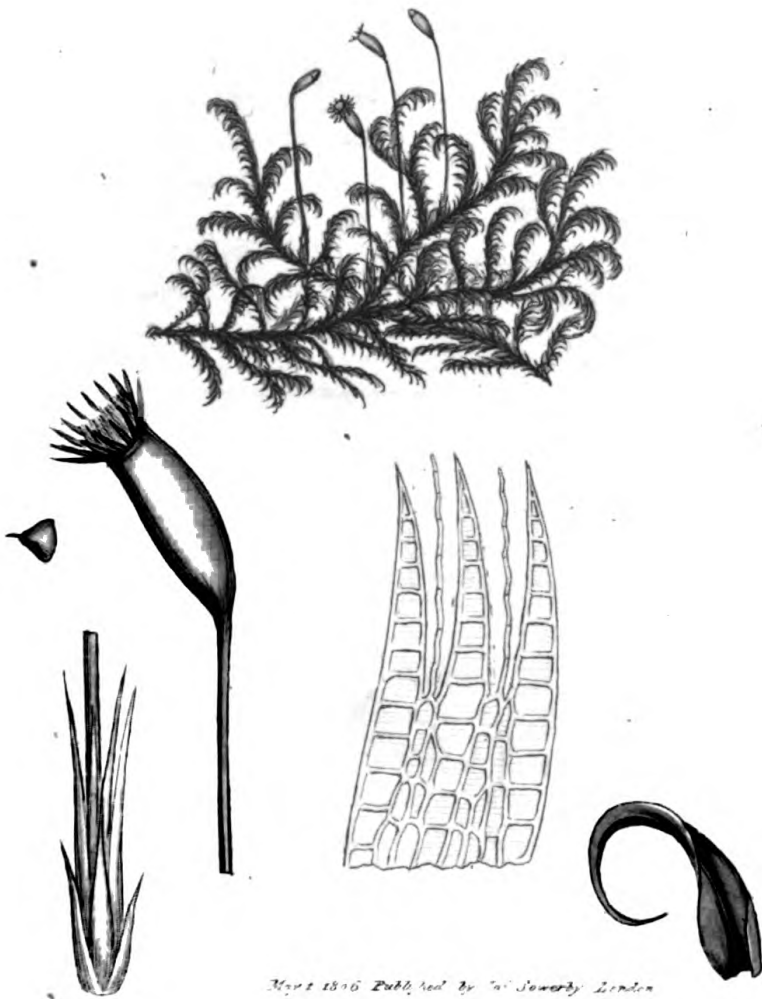
GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem procumbent, pinnated. Leaves tapering, sickle-shaped, single-ribbed, striated. Lid conical. Capsule constricted.

SYN. *Hypnum uncinatum.* *Hedw. Sp. Musc.* 289. *Crypt. v. 4. 65. t. 25.* *Sm. Fl. Brit.* 1328. *Dicks. Crypt. fasc. 4. 19.* *Turn. Musc. Hib.* 190.

THIS grows in watery stony places in the north, and appears to be not unfrequent, particularly in Yorkshire. Mr. William Brunton communicated it from Moss Dale Head, Wensley Dale, in that county. It bears capsules in August and September.

The stems are procumbent and pinnated, forming loose, perennial, matted tufts. Leaves of a pale shining green, often verging towards yellow, closely imbricated, but leaning all to one side, and often so remarkably curved as each to form a complete circle; they are lanceolate with a long point, compressed, single-ribbed, striated and entire; the uppermost are rolled together into a sort of hook. Fruitstalks red, above an inch long. Sheath of many long slender pale leaves. Capsule drooping, curved, smooth, cylindrical, mostly contracted under the mouth, which is much dilated. Lid conical, short, acute. We exhibit in the plate a morsel of the inner fringe highly magnified, to show its curious structure, which indeed is common to many of the genus. Hedwig represents the intermediate teeth in pairs.



May 1876 Published by T. Sowerby London



✓

United States  
The Interpol



[ 1665 ]

HYPNUM palustre.  
*Creeping Marsh Feather-moss.*

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CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem creeping. Branches erect. Leaves lanceolate, concave, nerveless, curved to one side, some of them spreading. Capsule drooping. Lid conical.

SYN. Hypnum palustre. *Linn. Sp. Pl.* 1593. *Sm. Fl. Brit.* 1329. *Huds.* 502. *With.* 857. *Hull.* 272. *Turn. Musc. Hib.* 191.

H. luridum. *Hedw. Sp. Musc.* 291. *Crypt. v.* 4. 99. t. 38. *Dichs. Crypt. fasc.* 4. 18.

H. heterophyllum aquaticum polycephalum repens. *Dill. Musc.* 293. t. 37. f. 27, A, not B. *Herb. Dill.*

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FOUND in marshy or watery places, generally growing on stones, or rotten wood, and bearing fruit in June and July. Our specimens were gathered near Arundel by Mr. Turner and Mr. W. Borrer.

The stems are perennial, creeping, entangled, an inch or two long, leafy or naked. Branches rather distant, erect, mostly simple, half an inch, or an inch in height, leafy, cylindrical. Leaves loosely imbricated, for the most part curved or curled to one side (except on some branches which Hedwig says bear male flowers), ovate, concave, entire, more or less acute, beardless, without any rib, of a rather dull or brownish green. Sheaths pale brown, their leaves long and narrow, each marked, as Mr. Turner observes, with 2 parallel brown furrows from the base to the tip. Fruitstalks orange red, shining, about an inch long. Capsule drooping, curved, of a short, ovate, somewhat cylindrical figure, and tawny brown colour. Lid short, conical, with a little short point.

1665



*Nov. 11806. Published by J. Sowerby, London.*

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# 1. Introduction

The first part of the document discusses the importance of maintaining accurate records.

It is essential to ensure that all data is properly documented and stored.

This section covers the following points:

## 2. Data Collection

The data collection process involves gathering information from various sources. This includes interviews, surveys, and observations. It is crucial to ensure that the data is reliable and valid. The collection process should be systematic and consistent across all participants.

Once the data is collected, it needs to be organized and analyzed. This involves identifying patterns and trends in the data. The analysis should be thorough and objective, taking into account all relevant factors.

The final step in the process is to present the findings. This can be done through a report or a presentation. The findings should be clearly and concisely communicated, highlighting the key results and conclusions.

[ 1303 ]

## HYPNUM fluviatile.

*Creeping River Feather-moss.*

## CRYPTOGAMIA Musci.

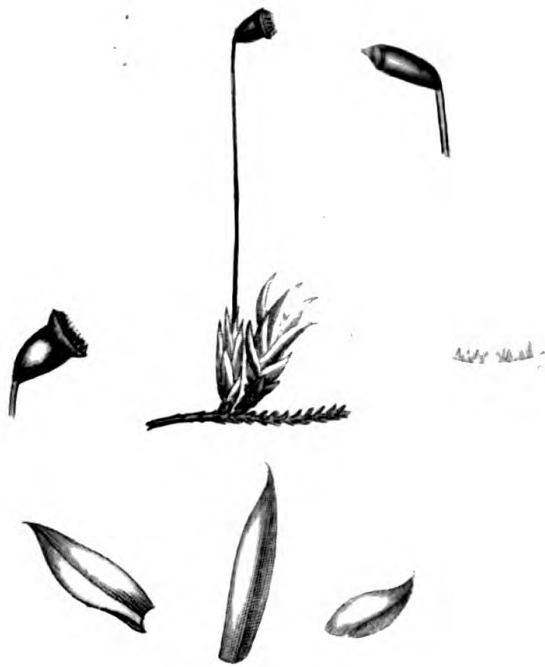
GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem creeping. Branches elongated, flaccid. Leaves ovate, concave, single-ribbed, curved. Lid convex.

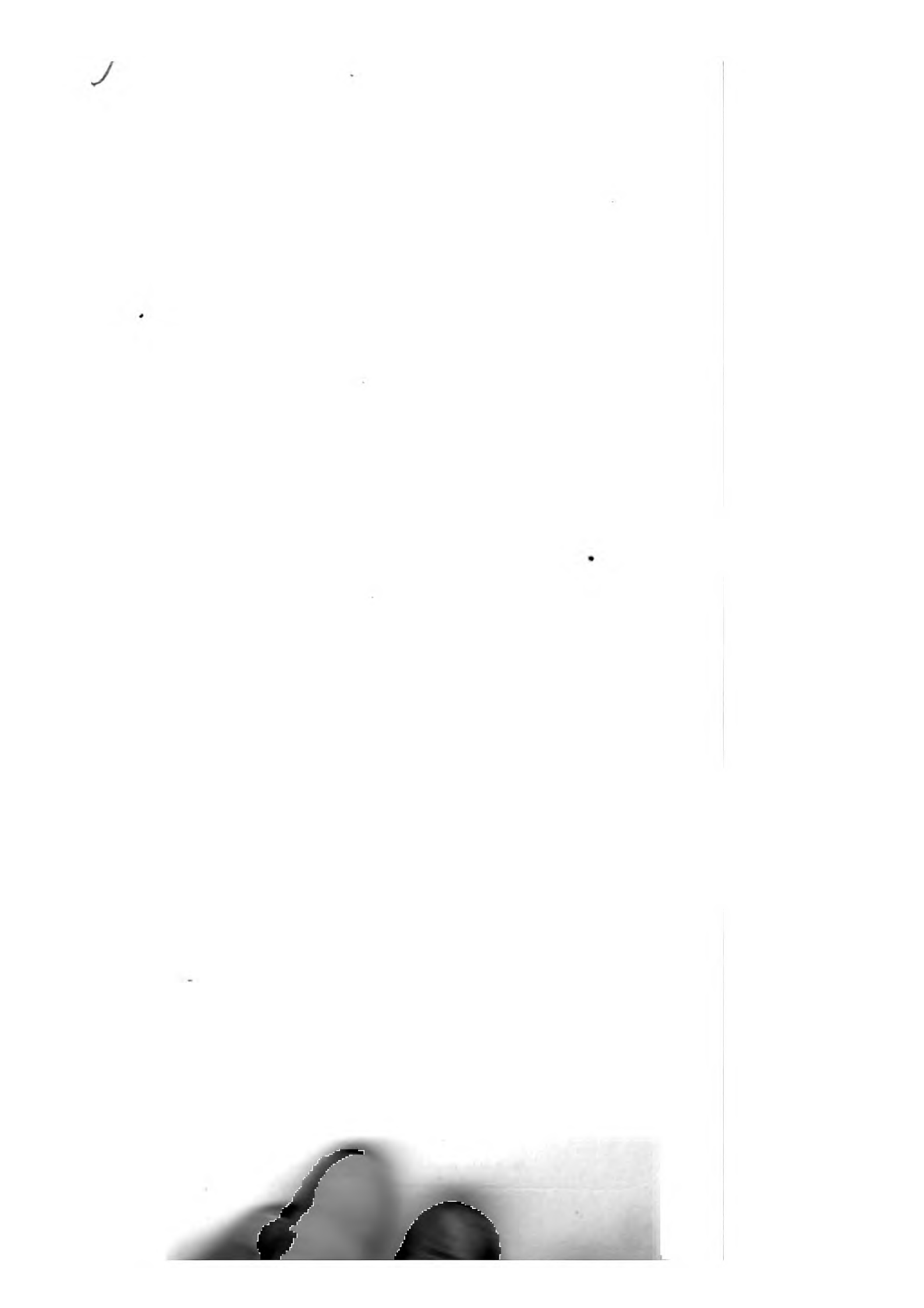
SYN. Hypnum fluviatile. Swartz. *Musc. Suec.* 63. Sm. *Fl. Brit.* 1330. Hedw. *Sp. Musc.* 277. t. 71. f. 4.  
H. luridum. Swartz. *Musc. Suec.* 58.

FOR this rare moss, a new acquisition to the British Flora, we are obliged to Mr. Turner, who is about to describe it in his work on Irish Mosses. It grows upon stones in rivers, and was discovered in Ireland by Dr. Scott and Mr. R. Browne. Specimens from Dr. Swartz himself have determined it to be his *H. fluviatile* as well as his *luridum*; but the *luridum* of Hedwig is the *palustre* of Linnæus, an erect species, whose leaves have no midrib.

The *H. fluviatile* is perennial, and, we presume, bears its fruit in summer. The stems are quite prostrate, creeping and entangled, thread-shaped, much branched, at length naked and wiry. Branches mostly simple, ascending, various in length, flaccid, leafy. Leaves imbricated, all more or less curved towards one side, small, rather shining, ovate, concave, entire, acute, smooth, having a rib continued to their point: when young they are of a delicate pale green, blackish when old. The leaves of the sheath have no rib. The fruit-stalks are an inch high, pale red. Capsule cylindrical; oval when ripe, short, drooping, and a little curved. Lid convex, inclining to conical, with a short blunt point.









## HYPNUM alpinum.

*Alpine-torrent Feather-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem creeping. Branches clustered. Leaves ovate, concave, pointed, with one rib reaching to the middle; the upper ones curved.

SYN. Hypnum alpinum. *Sm. Fl. Brit.* 1330. *Turn. Musc. Hib.* 192.

*H. flagellare.* *Hedw. Sp. Musc.* 282. t. 73. f. 1—3; the synonyms all wrong.

SENT by Mr. Winch from the north of England. Mr. Turner had previously observed it on rocks in the alpine regions of Snowdon, washed by the torrent of Llyn Fynnon Lâs, and had also received it from Ireland. Mr. Dickson found it in the alpine rivulets of Scotland, intermixed with his real *H. flagellare*; and the latter not being in fructification, he, as it seems, described the capsules of this as belonging to it. Those most deeply versed in botany know how easily such mistakes happen. Some of his specimens therefore of this moss only reached Hedwig, who figures them as *H. flagellare* of Dickson, which is a different plant, whose fructification has not yet been observed. See *Fl. Brit.* 1322.

*H. alpinum* has shortish creeping stems, which throw up clusters of short, thickish, upright, leafy branches. Leaves dull green, ovate, sharply pointed, concave, entire, smooth and even, with a rib which vanishes about the middle of the leaf. The upper leaves are of a light shining green, and a little curved to one side, but scarcely enough to justify the placing this plant in the section *foliis circinalibus*, were it not for its affinities. Sheaths loosely spreading. Stalks red. Capsule inclining, ovate, short. Lid conical, very acute.

1490



Aug 11 1867. *Andropogon* & *Sida* *serotina* *serotina*

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[ 1860 ]

## HYPNUM cupressiforme.

*Cypress-branched Feather-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem prostrate, pinnated. Leaves lanceolate-awlshaped, concave, ribless, curved to one side. Lid beaked.

SYN. Hypnum cupressiforme. *Linn. Sp. Pl.* 1592. *Sm. Fl. Brit.* 1331. *Hedw. Sp. Musc.* 291. *Crypt. v. 4.* 59. *t.* 23. *Huds.* 500. *With.* 858. *Hull.* 272. *Relh.* 435. *Sibth.* 298. *Abbot.* 248. *Dicks. H. Sicc. fasc.* 8. 21. *Turn. Musc. Hib.* 193.

*H. crispum cupressiforme, foliis aduncis.* *Dill. Musc.* 287. *t.* 37. *f.* 23.

*H. repens crispum cupressiforme.* *Raii Syn.* 89.

VERY common about the roots of trees and on rocks and stones in dry woods, where it forms broad elastic patches, easily separable from what they grow upon, and bearing capsules abundantly in April and May.

Stems entangled, pinnated, leafy, their branches flattened on the upper side, and hooked at the points. Leaves light shining green, often tawny, entire, without ribs, taper-pointed, closely imbricated, their points all curved to the under side of the branch. Sheaths lax. Stalks upright, red, wavy, an inch or more in length. Capsule cylindrical, a little curved. Lid convex, with a longish taper beak.

*H. compressum* of Linnæus's *Mantissa*, 310, *Dill. f.* 22, is a pale slender variety of this,  $\beta$  of *Fl. Brit.*, found in moist or shady places, but not commonly.

*H. cupressiforme* is an excellent moss for any kind of packing, either of roots, specimens, or any thing which requires a soft elastic covering. Many insects shelter themselves beneath it during the severity of winter.

1860



*Mar. 1. 1868. Published by J. Sowerby, London.*



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## HYPNUM dubium.

*Fine Curve-leaved Feather-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem prostrate, pinnate. Leaves ovate, pointed, single-ribbed, curved towards one side; the uppermost sickle-shaped. Lid conical.

SYN. *Hypnum dubium.* *Necker. Musc.* 161. *Sm. Fl. Brit.* 1332. *Dicks. Crypt. fasc.* 3. 10. *H. Sicc. fasc.* 13. 23. *With.* 854. *Hull.* 271. *Turn. Musc. Hib.* 195. *Hoffm. Germ. v.* 2. 71. *Bridel. Musc. v.* 3. 64.

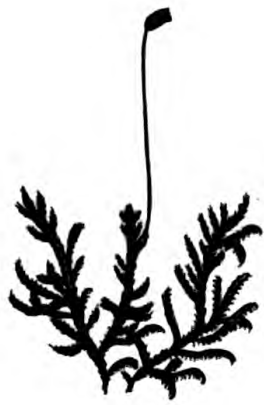
*H. filicinum*  $\beta$ . *Huds.* 498.

*H. repens filicinum trichodes palustre.* *Dill. Musc.* 286. *t.* 36. *f.* 21. *Raii Syn.* 85. *n.* 31 & *n.* 28.

*Leskea incurvata.* *Hedw. Sp. Musc.* 216. *t.* 53. *f.* 8—14.

OUR figure is drawn from a specimen in Mr. Turner's collection, gathered by the late Dr. Scott in a rivulet at Luttrell's town, Ireland.

The stems are 2 or 3 inches long, prostrate, leafy, irregularly pinnated, with short, curved branches. Leaves of a dull yellowish green, ovate, pointed, entire in their lower part, finely serrated upward, with a strong rib; those on the stem broad, closely imbricated; those on the branches more or less falcate, curved to one side, and longer-pointed; all of them frequently furnished with a fold or furrow on each side of the rib. Fruitstalks an inch and half long, wavy, purple. Sheath of several pale, ovate, striated, acute leaves, justly observed by Mr. Turner to be finely toothed, at least near the point. Capsule ovate inclining to cylindrical, brown, smooth, drooping, finally curved; a little contracted below the mouth. Lid, according to Hedwig and Dillenius, conical and short.



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## HYPNUM fallax.

*Fallacious Feather-moss.**CRYPTOGAMIA Musci.*

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stems procumbent, divided, unequally pinnate; branches crowded, sometimes compound. Leaves lanceolate, broad at the base, pointed, strongly ribbed, curved, spreading. Capsule oblong, curved. Lid pointed.

SYN. Hypnum fallax. *Bridel. Musc. v. 3. 66. t. 2. f. 1.*

**T**HIS new addition to the British *Flora* was discovered at Copgrove, Yorkshire, in 1806, by the Rev. Mr. Dalton. Mr. Turner had received it the preceding year from Cambridge, but it was sent accidentally, as a package for other things.— It grows in bogs.

The stems are 3 or 4 inches long, procumbent, divided, leafy, their main branches beset with numerous, crowded, very unequal smaller ones, some of which are again compound or pinnate; the extremities acute, often curved. Leaves imbricated, spreading, mostly curved to one side, of a dull tawny green, tapering from a broad base to a sharp point, slightly serrated, each furnished with so very strong and lasting a midrib, that, as Bridel observes, these ribs often remain, stripped of the rest of the leaf, and assuming the character of a totally different species. Hence the name. The capsules, not having been found in Britain, nor figured by Bridel, are drawn from one of Mr. Turner's foreign specimens. They are almost cylindrical, curved, drooping, on zigzag red stalks above an inch long. We find the lid convex and pointed, but shorter than Bridel describes it. Sheaths of several dark-green lanceolate leaves, toothed at the points, with strong mid-ribs.



2127\*

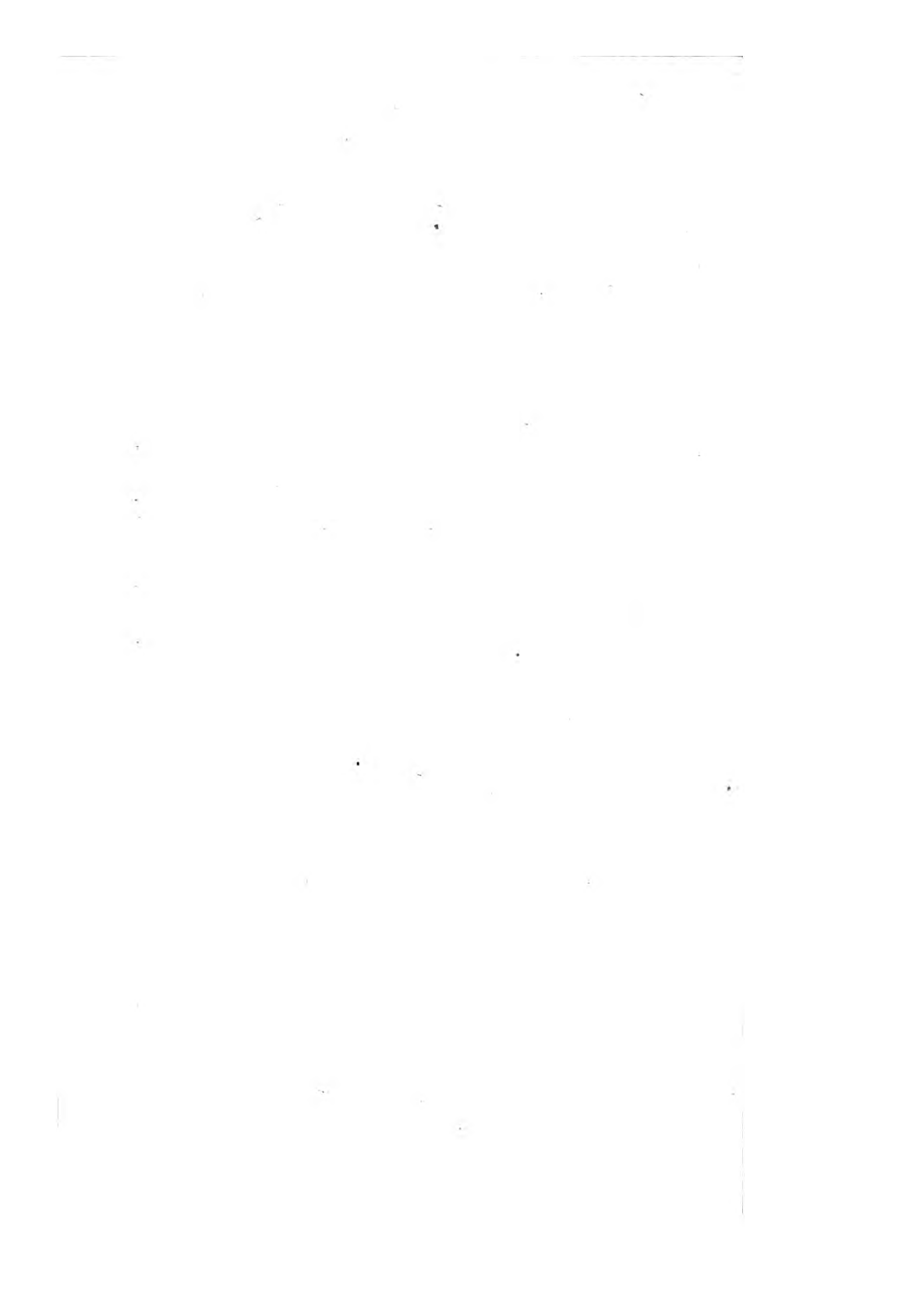


*Moss*



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## HYPNUM commutatum.

*Larger Curled Fern Feather-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

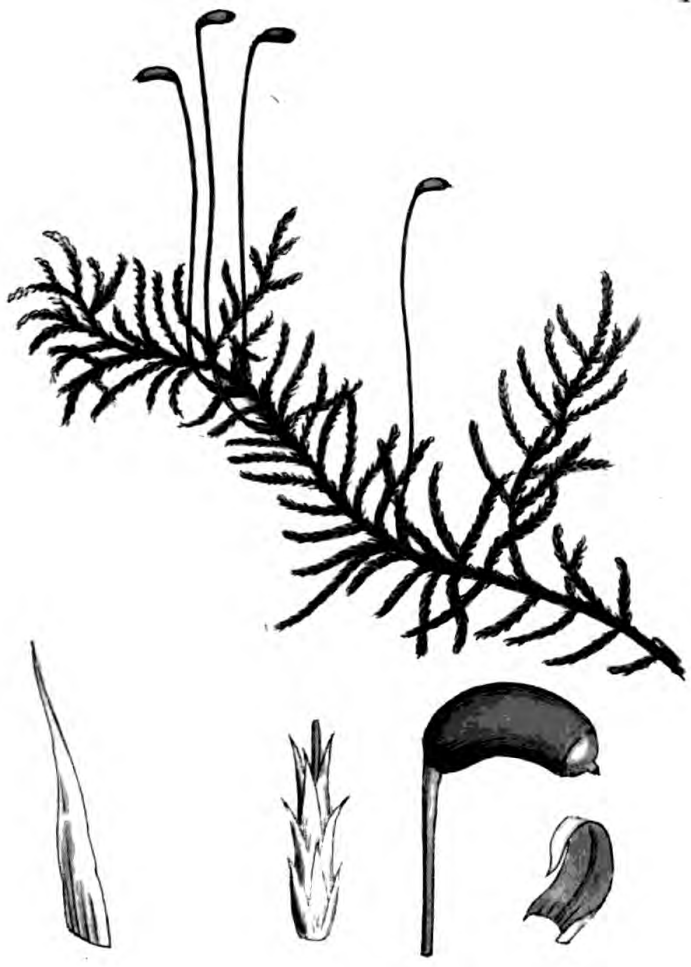
SPEC. CHAR. Stem procumbent, pectinated. Leaves ovate, pointed, curled, ribbed almost to the extremity, beardless. Lid convex, pointed.

SYN. *Hypnum commutatum.* *Hedw. Sp. Musc.* 284. *Crypt. v. 4.* 68. *t.* 26. *Sm. Fl. Brit.* 1333. *Turn. Musc. Hib.* 196.

H. *repentis filicini crispum* varietas B, C, D. *Dill. Musc.* 283. *t.* 36. *f.* 19, B—D.

THIS elegant moss grows in watery and marshy places on a calcareous soil. At Hackfall in Yorkshire, from whence the Rev. Mr. Dalton communicated our specimens, it is plentiful, and frequently bears fruit in April and May.

The stems are perennial, from 4 to 8 inches or more in length, simple or divided, rusty, the ascending branches pinnated with a number of short hooked ones, all densely clothed with leaves, which are small, of a rich somewhat tawny green, not shining, curved towards one side, and always, whether wet or dry, curled and crisped. They are ovate, entire, long-pointed, beardless, furnished with a rib which disappears before it reaches the point, and marked with a few short ribs or plaits at their base. Sheath pale; its inner leaves long and striated. Fruitstalk an inch and half long, of a fine crimson and yellow. Capsule arcuate and drooping, nearly cylindrical, with a spreading mouth. Lid convex, scarcely conical, with a short straight point.



March 1865. Published by J. S. Gardner, London

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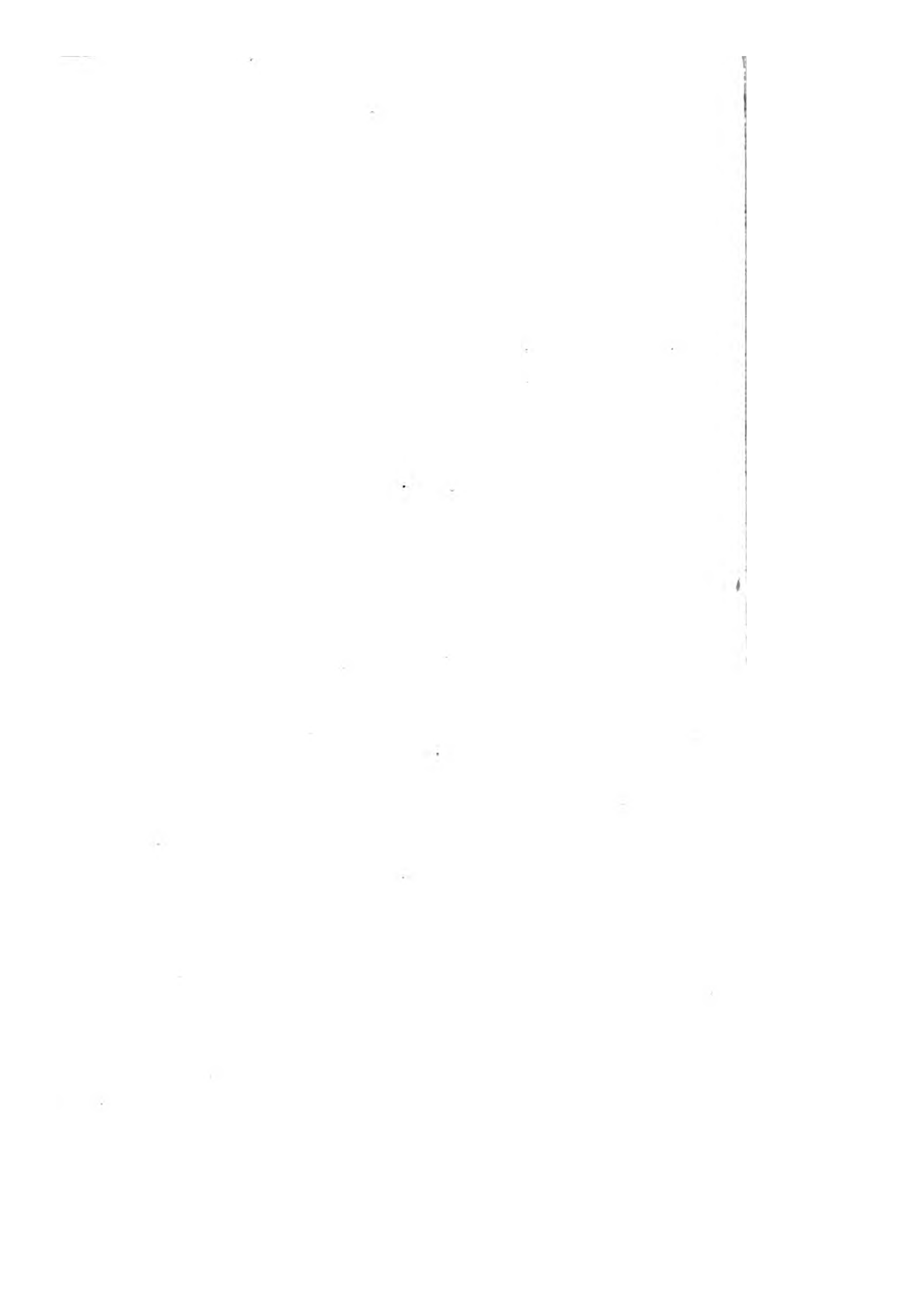
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HYPNUM filicinum.

*Lesser Golden Fern Feather-moss.*

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CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem procumbent, imperfectly pectinated. Leaves ovate, pointed, bearded, ribbed, curved to one side. Lid convex, pointed.

SYN. Hypnum filicinum. *Linn. Sp. Pl.* 1590. *Sm. Fl. Brit.* 1334. *Hedw. Sp. Musc.* 285. *t.* 76. *f.* 5—10. *Crypt. v.* 4. *t.* 26. *f.* A, B. *Huds.* 498. *With.* 854. *Hull.* 271. *Relh.* 433. *Sibth.* 294. *Abbot.* 247. *Turn. Musc. Hib.* 197.

*H. repens filicinum crispum.* *Dill. Musc.* 282. *t.* 36. *f.* 19, A, E, F. *Raii Syn.* 85.

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**E**VEN Dillenius confounded this with the preceding, from which it differs in being rather smaller, less accurately pectinated, of a more golden or tawny hue, and its branches more densely clothed with rusty down. More precise differences are found on minute examination. The leaves of *H. filicinum* are furnished with a rib even to their points, and tipped with a minute hair. They are falcate, or curved to one side, in a wet as well as dry state, but in the latter only are they also curled or crisped. The fruitstalks are nearly two inches long, and proceed from the main stem. Capsule cylindrical, curved and drooping. Lid convex, with a small point.

This species is not rare in watery mountainous places, bearing fruit, though not universally, in April or May.

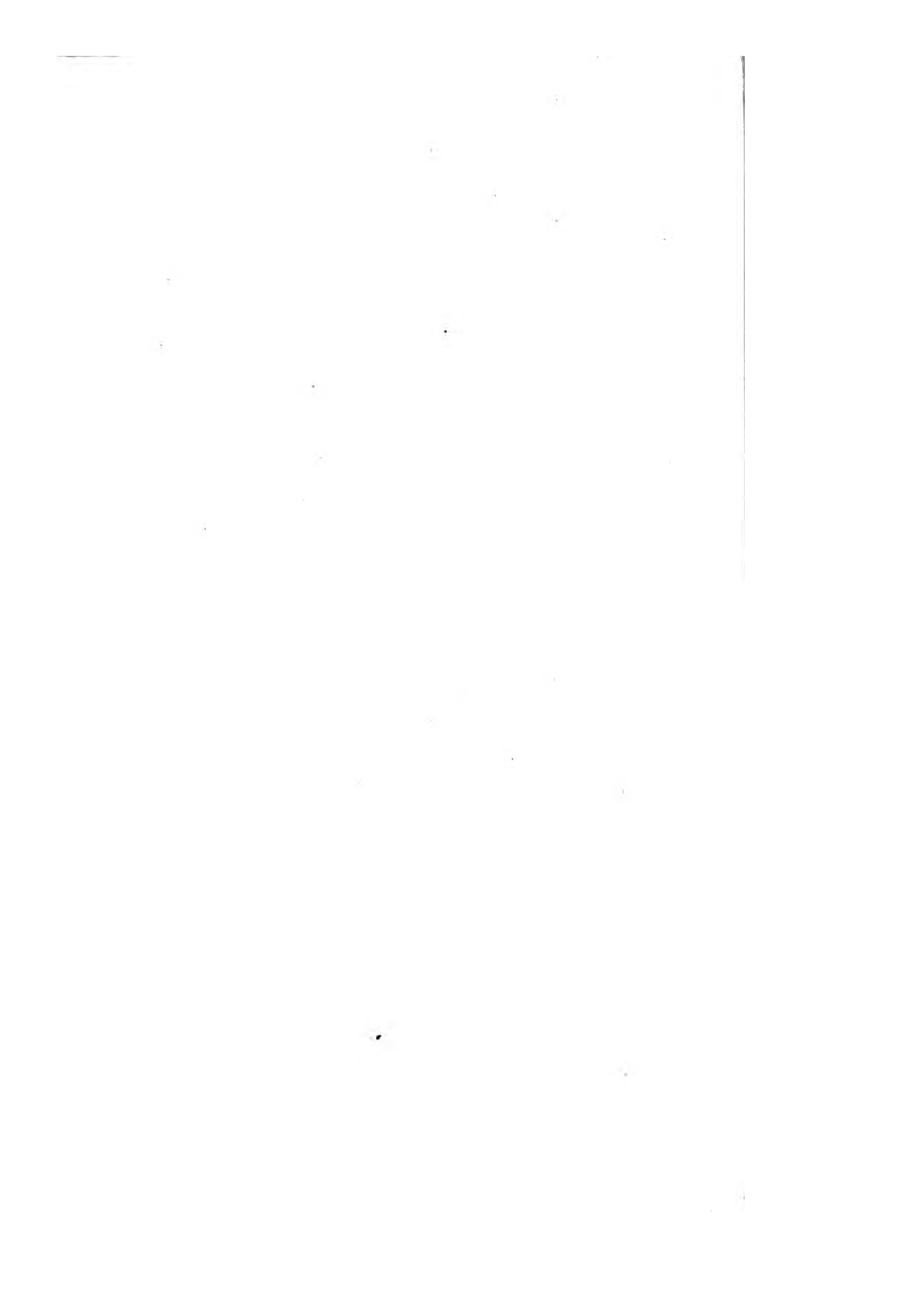


*March L. Rob. Published by J. S. Edwards, London.*



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[ 1327 ]

## HYPNUM molluscum.

*Plumy Crested Feather-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem procumbent, pectinated. Leaves ovate-awlshaped, curved, without ribs. Capsule ovate, drooping. Lid conical.

SYN. *Hypnum molluscum.* *Hedw. Sp. Musc.* 289. *Crypt. v. 4. 56. t. 22.* *Sm. Fl. Brit.* 1335. *Turn. Musc. Hibern.* 198.

*H. Crista-castrensis.* *Huds.* 498. *With.* 854. *Hull.* 271. *Relh.* 434. *Sibth.* 295. *Abbot.* 247. *Dicks. H. Sicc. fasc.* 11. 20.

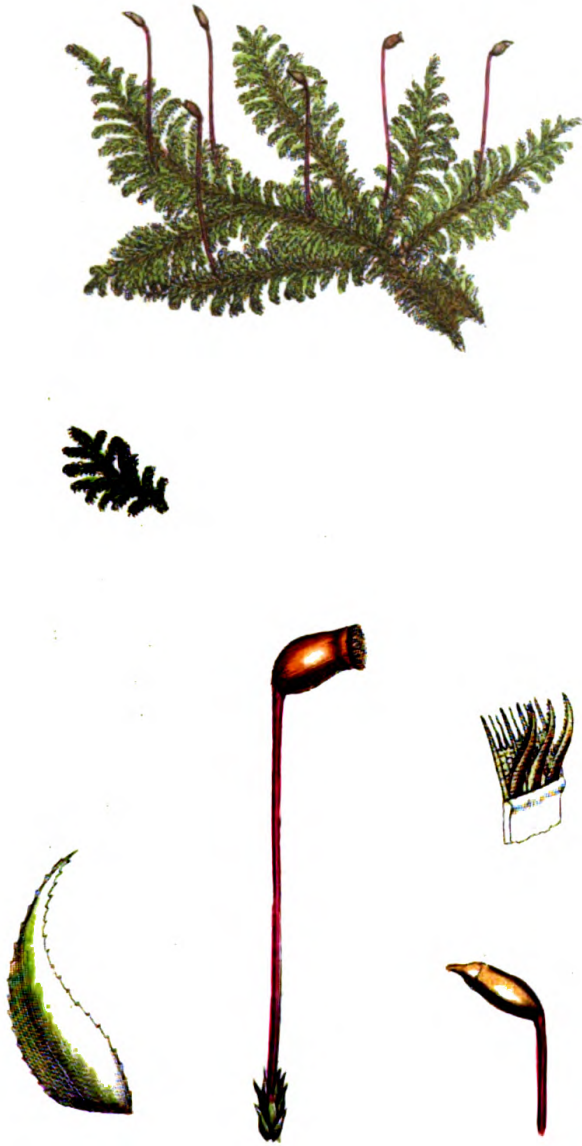
*H. filicinum, cristam castrensem repræsentans.* *Dill. Musc.* 284. *t. 36. f. 20, A.*

*Muscus filicifolius luteus, folio crasso et undulato.* *Raii Syn.* 86, sub *n.* 32.

AN elegant little species, plentiful enough on dry chalky or limestone hills, but the capsules are rather uncommon. We have however gathered them at Matlock. They ripen in May and June.

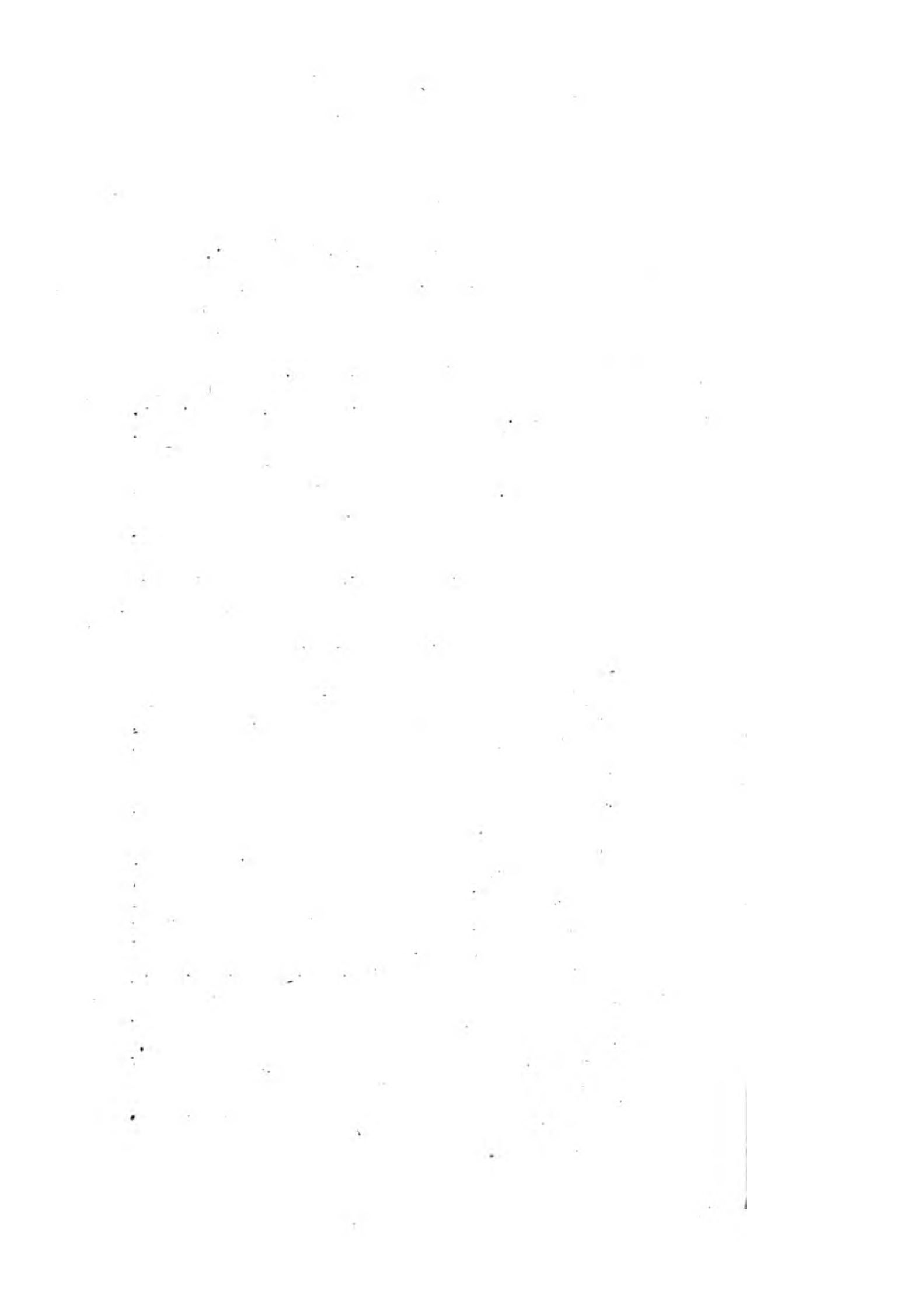
The stems are perennial, repeatedly subdivided, lying horizontally over each other in loose elastic tufts. Branches beautifully pectinated, their extremities curled, like ostrich plumes in miniature. Leaves pale yellowish green, with scarcely any polish, closely imbricated, curved to one side, awlshaped with a broad concave base, quite destitute of plaits or nerves, the margin minutely toothed. Fruitstalks solitary, an inch high, red and shining. Sheaths yellow, lax, with bristle-pointed scales. Capsule drooping, ovate, short, swelling, pale red brown. Fringe yellow. Lid conical, very acute.

The true *H. Crista-castrensis* of Linnæus is a larger and even more beautiful species, not yet found in Britain. Dillenius confounded them together.



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HYPNUM *Crista-castrensis*.  
*Ostrich-plume Feather-moss.*

CRYPTOGAMIA *Musci*.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem procumbent, closely pectinated. Leaves lanceolate, curved, nearly entire, plaited, without ribs. Capsule oblong, drooping. Lid conical, short.

SYN. Hypnum *Crista-castrensis*. *Linn. Sp. Pl.* 1591.  
*Hedw. Sp. Musc.* 287. *t.* 76. *f.* 1—4. *Ehrh. Crypt.* 6.

H. n. 1768. *Hall. Hist. v.* 3. 34.

THE first British specimens we ever saw of this fine moss were gathered by Mr. G. Don, several years ago, but since the publication of *Fl. Brit.*, in woods in Scotland. That in our plate was sent from a wood at the head of Hawes-water, Cumberland, by the Rev. Mr. Dalton to Mr. Turner, in 1809. We have been obliged to draw the fruit from one of Mr. Davall's beautiful Swiss specimens.

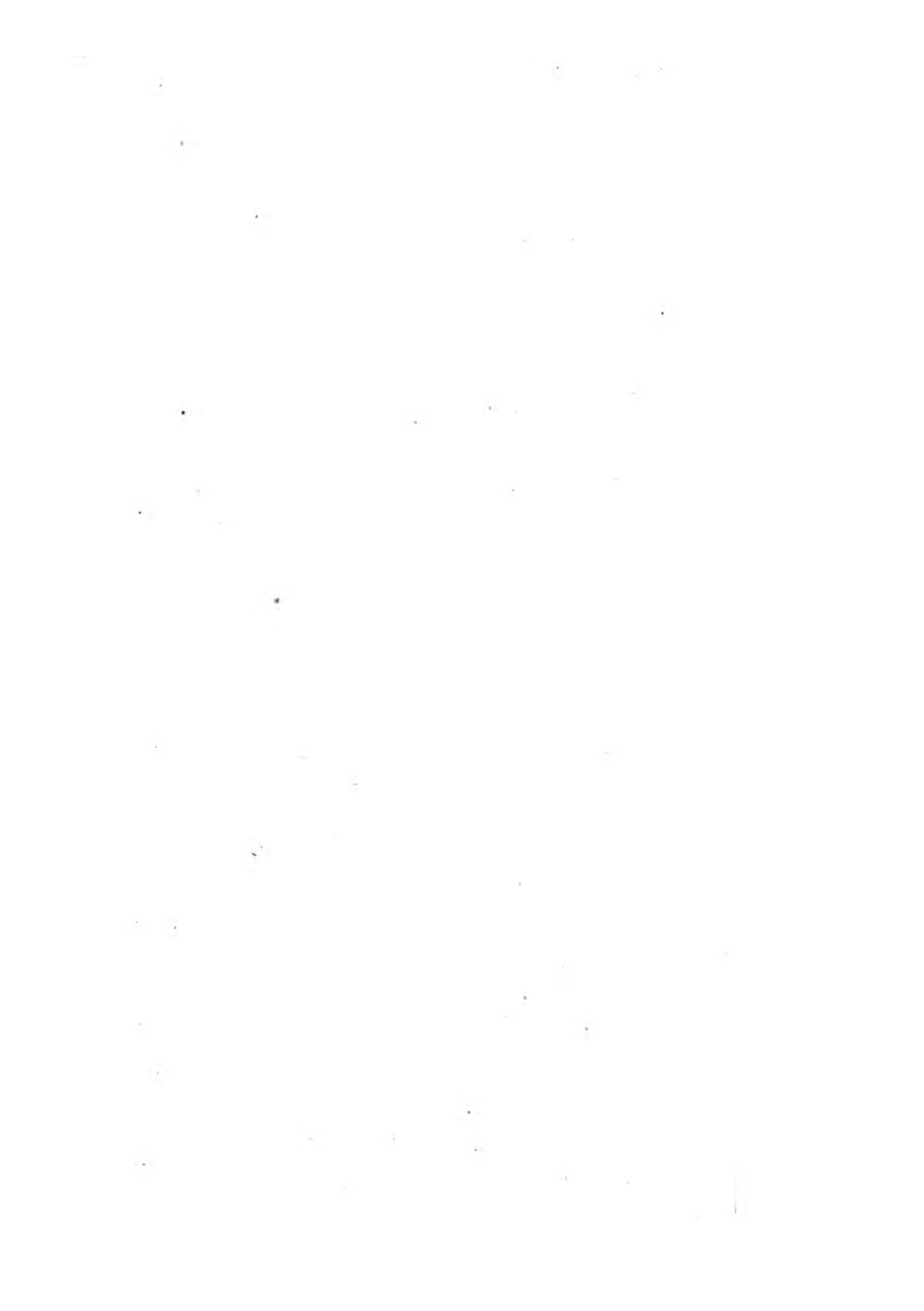
We find by the Linnæan herbarium that Hedwig was right in the above name; see *H. molluscum*, *t.* 1327, which English botanists had mistaken for *Crista-castrensis*. We have supposed Dillenius's *t.* 36. *f.* 20, B, might be the latter, but it may not be so, and therefore we decline a positive reference to that figure.

The present is a much larger and handsomer plant than the *molluscum*, more accurately and closely pectinated, and elegantly curved, truly like an ostrich plume. The leaves are narrower and longer in proportion, scarcely serrated except at their points, destitute of a rib, but plaited, and very strongly curved. Fruit-stalks an inch and half high, or more, red. Capsule elongated and almost cylindrical, drooping and curved. Lid considerably shorter than in *molluscum*, quite straight, without any elongated point.





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[ 1902 ]

HOOKERIA lucens.

*Shining Hookeria.*

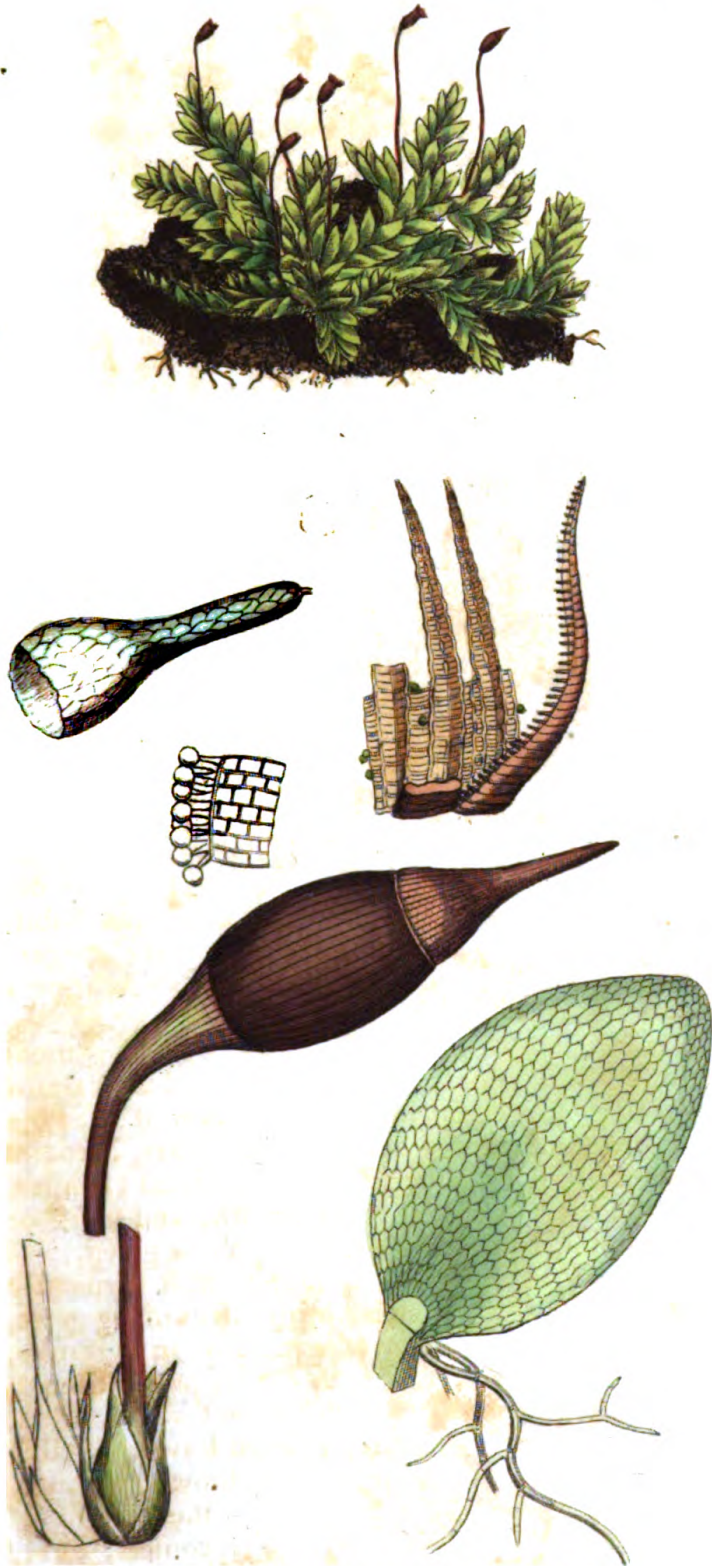
CRYPTOGAMIA Musci.

- GEN. CHAR. Caps. ovate, reticulated and dotted, from a lateral scaly sheath. Outer fringe of 16 teeth : inner membranous, with 16 teeth. Veil reticulated, cellular, undivided.
- SPEC. CHAR. Leaves in three rows, elliptical, uniform, entire, without ribs.
- SYN. Hookeria lucens. Sm. MSS. apud Soc. Linn.  
 Hypnum lucens. Linn. Sp. Pl. 1589. Sm. Fl. Brit. 1295. Hedw. Fund. v. 1. 13. t. 1. f. 4—6. Sp. Musc. 243. Huds. 495. With. 845. Hull. 268. Lightf. 743. Turn. Musc. Hib. 155. Dicks. H. Sicc. fasc. 2. 22.  
 H. pennatum aquaticum lucens, longis latisque foliis. Dill. Musc. 270. t. 34. f. 10.  
 H. repens filicifolium ramosum, foliolis majoribus magisque crebris. Dill. in Raii Syn. 88.

GATHERED on Holt heath, Norfolk, laden with capsules, in February 1803, by Mr. W. Jackson Hooker, F. L. S. the discoverer of *Buxbaumia aphylla*, to whom I am happy to dedicate this new genus ; more especially as the reticulated habit, for which it is conspicuous, so nearly agrees with the *Jungermanniæ*, a tribe concerning which Mr. Hooker is preparing a very elaborate and scientific work.

I have long ago hinted, *Fl. Brit.* 1295, that this moss might constitute a new genus, since which the observations of M. Labillardiere prove *Anictangium bulbosum* of Hedwig to belong to the same, and I am indebted to Mr. Menzies for 6 more species, all agreeing in their reticulated capsules, which I find the most essential generic mark, and more or less closely in habit and the other characters above given.

*Hookeria lucens* grows in wet shady places, most frequently in the northern counties. The stems form tufts among grass, creeping, partly ascending. Leaves generally in 3 ranks, vertical, spreading in 2 rows, elliptical, entire, pale, pellucid, juicy, most beautifully reticulated, but without rib or veins. Sheaths solitary or in pairs, of ovate, pointed leaves. Stalks red. Capsule somewhat drooping, ovate, brown, shining, all over reticulated, as well as its conical lid, the margin of which is fringed with a chain-like ring. Veil conical, tight, undivided, crenate, whitish, all over reticulated, and very peculiar.



June 1868. Published by J. Sowerby London.

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## FONTINALIS antipyretica.

*Greater Water-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Capsule* with a lid and veil, sessile, enclosed in an imbricated calyx.

SPEC. CHAR. Leaves pointed, folded so as to form a keel, disposed in three ranks. Fructification lateral.

SYN. *Fontinalis antipyretica.* *Linn. Sp. Pl.* 1571.  
*Huds. Fl. An.* 467. *With. Bot. Arr. v.* 3.75.  
*Relh. Cant.* 395. *Sibth. Ox.* 293.

*F. major*, foliis triangularibus complicatis, capitulis in foliorum alis sessilibus. *Raii Syn.* 79.

*F. triangularis major complicata*, e foliorum alis capsulifera. *Dill. Musc.* 254. t. 33. f. 1.

NOT uncommon in slow deep waters, growing upon rocks, posts, &c. floating with the stream considerably below the surface, and very rarely producing any fructification.

The root is small, but strong, and perennial. Stem slender, tough and wiry, much branched, from 3 or 4 inches to a foot long, clothed with numerous leaves, which are imbricated generally in three rows, of an ovate sharp-pointed form, but compressed so as to become acutely carinated, entire in the margin, their colour a deep transparent green. Capsules lateral, solitary, on very short scaly flower-stalks, elliptical, entirely invested with imbricated scales, and their orifice ciliated with about 16 red taper teeth. The lid is conical, and the veil of the same form, but rather longer.

Linnæus informs us, in his *Flora Suecica*, that the Swedes “stuff in this moss between their chimneys and wooden walls, to guard the latter from fire:” a passage which English writers have greatly misapprehended; for, without supposing any thing very incombustible in its nature, it may answer the purpose above described merely by preventing the passage of air.



*Pinus strobus*



J



[ 1861 ]

## F O N T I N A L I S squamosa.

*Shining Scaly Water-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* oblong, lateral, enclosed in a scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* reticulated.

SPEC. CHAR. Leaves imbricated, lanceolate, pointed, concave. Scales of the sheath blunt, as well as the lid.

SYN. *Fontinalis squamosa.* Linn. *Sp. Pl.* 1571. Sm. *Fl. Brit.* 1336. Hedw. *Sp. Musc.* 299. *Crypt.* v. 3. 32. t. 12. Huds. 467. With. 788. Hull. 275. *Lightf.* 696. Dicks. *H. Sicc. fasc.* 5. 25. *Turn. Musc. Hib.* 199.

F. *squamosa tenuis sericea atro-virens.* Dill. *Musc.* 258. t. 33. f. 3.

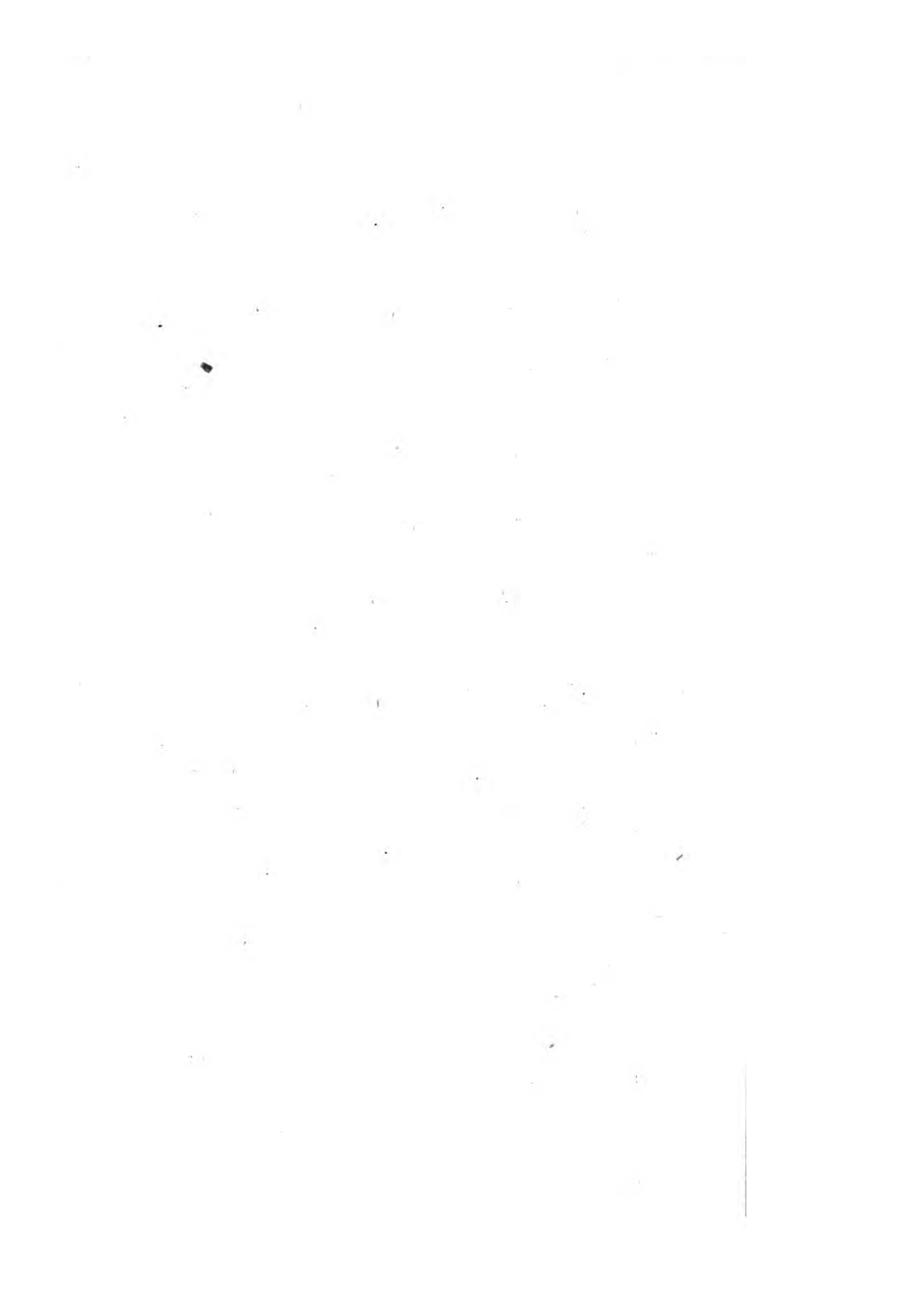
A NATIVE of alpine rivulets. Mr. Templeton sent it in July last from a little stream on the Belfast mountains.

This species is much smaller than the common one, *t.* 359, as well as of a more yellowish and shining aspect. The leaves are lanceolate, imbricated commonly in three rows, taper-pointed, without any rib, concave, not folded together. Male flowers brownish, in numerous axillary buds. Capsules elliptical, or nearly cylindrical. Lid conical, short and obtuse. Outer fringe recurved, brown: inner deep red. Lid awl-shaped. Scales of the sheath ovate, broad, rounded at the end, closely imbricated, not quite extending to the point of the capsule.—We have been obliged to copy the fringe from Hedwig, our specimens being in that point too imperfect.



*Mar. 1868. Published by J. Sowerby, London.*





[ 2432 ]

## FONTINALIS capillacea.

*Bristly Water-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. Caps. oblong, lateral, inclosed in a scaly sheath. *Outer fringe* of 16 teeth, dilated at the base; *inner* reticulated.

SPEC. CHAR. Leaves linear-bristleshaped, spreading. Sheaths and fruitstalks elongated and thread-shaped; the scales acute, overtopping the capsule.

SYN. Fontinalis capillacea. *Dicks. Crypt. fasc. 2. 1. Sm. Fl. Brit. 1337. With. 789. Hull. 275.*

*F. capillacea, calycibus stili instar cuspidatis. Dill. Musc. 260. t. 33. f. 5.*

GIVEN us by Mr. Dickson, who gathered it in alpine streamlets in Scotland. The whole plant is of a brownish green, about a span long, branched in a pinnate manner. Leaves imbricated, spreading nearly equally every way, not sickle-shaped and curved to one side as in *F. falcata* of Swartz and Hedwig, which has often been confounded with this, even by Linnæus and Ehrhart, but is not known to be a British moss. The form of the leaves is very slender, almost hair-like, and they are keeled, with a midrib. Sheaths either lateral, or terminating some short branch, long and threadshaped, consisting of thin, convoluted, acute scales, the innermost longest, enveloping and concealing the capsule, which in our specimen is too imperfect to be delineated.

2432.



*July. 1882 published by J. S. Lewis & Co.*



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## BRYUM hygrometricum.

*Yellow twisting Bryum.*

## CRYPTOGAMIA Musci.

GEN. CHAR. Caps. with a lid. Veil smooth. Flower-stalk from a terminal tubercle.

SPEC. CHAR. Stem none. Capsule drooping, pear-shaped. Veil oblique, angular, with a slender beak. Leaves ovate, collected together at their points.

SYN. Bryum hygrometricum. *Huds. Fl. An.* 488.

Mnium hygrometricum. *Linn. Sp. Pl.* 1575. *With. Bot. Arr. v. 3.* 86. *Relh. Cant.* 399.

Funaria hygrometrica. *Sibth. Ox.* 288.

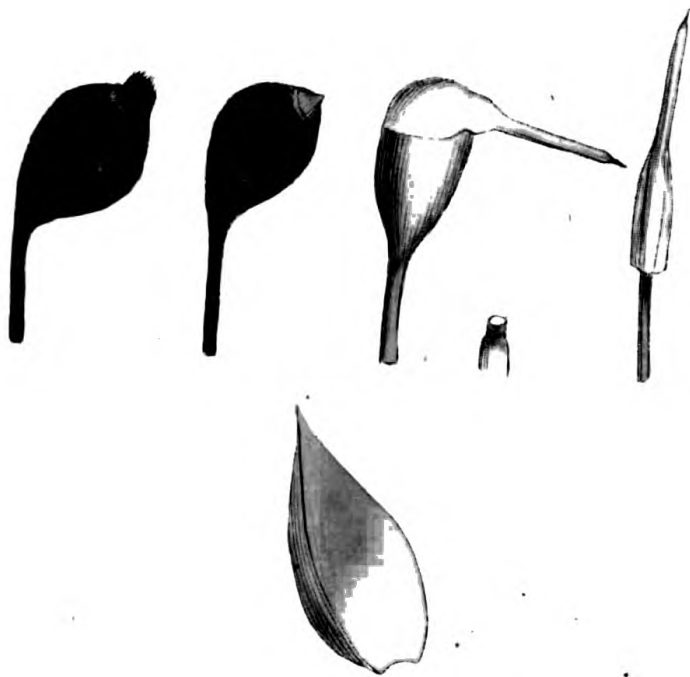
Bryum aureum, capitulis reflexis piriformibus, calyptra quadrangulari, foliis in bulbi formam congestis. *Raii Syn.* 101.

B. bulbiforme aureum, calyptra quadrangulari, capsulis piriformibus nutantibus. *Dill. Musc.* 407. t. 52. f. 75.

**EXTREMELY** common on moist garden walks and neglected flower-pots, waste ground, heaths, &c. producing its capsules in the spring and early part of summer abundantly.

Roots long, simple, downy. Stem none, or very short, bearing a few broad, ovate, entire, acute, pellucid leaves, so curved in and collected together by their points as to form a little ball, or bulb as it were, according to Dillenius's definition. Stalk long, simple, upright, yellow, then purple, its summit incurved and bearing a pear-shaped obliquely pendent capsule, which is green when unripe, with a yellowish blunt lid, and enfolded in a long, slender, sharp-pointed veil with several angles (not always exactly four), the lower part of which becoming stretched by the swelling capsule, the point is bent to one side, and soon afterwards the veil falls to the ground. The capsule turns yellow in ripening; brown and rugose in decay, discharging great plenty of an impalpable pale-brown powder, which is the seed.

Linnæus in his *Flora Suecica* rightly asserts, that if the lower half of the stalk be moistened, the capsule turns one way, and if the upper half (not as erroneously translated in the *Bot. Arr.* the *head*, or capsule) receives the moisture, it turns in a contrary direction.



PLANTAE R. H. A. 1. 1. 1.

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12





[ 1497 ]

## FUNARIA Muhlenbergii.

*Hair-pointed Cord-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* obovate. *Outer fringe* of 16 oblique teeth, cohering at their tips: *inner* of 16 flat teeth. *Flowers* terminal. *Veil* beaked.

SPEC. CHAR. Leaves concave, finely serrated, hair-pointed. Capsule oblique. Veil cylindrical. Lid slightly conical.

SYN. *Funaria Muhlenbergii.* *Turn. in Annals of Botany, v. 2. 198.*

FOR this new and highly interesting addition to the Flora of Britain we are obliged to the Rev. Mr. Dalton of Copgrove, who found it in that neighbourhood. It was first discovered near Lancaster in Pennsylvania by the Rev. Dr. Muhlenberg, and is mentioned by Mr. Turner in his work on Irish Mosses, p. 106, as well as in Dr. Sims, and Mr. König's *Annals of Botany*. It makes only the third species hitherto known of the very distinct and natural genus to which it belongs, one of which species is common in Europe, and is figured in our 5th volume, t. 342, and the remaining one, from Hispaniola, is in the Linnæan herbarium.

The plants of the present species grow in a scattered manner, and at first sight greatly resemble the *Gymnostomum pyriforme*, t. 413, but are of a darker green. The stem is short and simple. Root brown, long, probably annual. Leaves scarcely at all spreading, concave, ovate, finely serrated, acute, with a strong rib terminating in a hair-like point; their substance more reticulated than in *F. hygrometrica*. Stalk terminal, not an inch long, of a fine red, somewhat curved. Capsule nearly upright, pear-shaped, oblique, smooth, green. Lid of a short conical form, red at the edge. Outer fringe red; inner pale green. Veil bent obliquely, inflated at the base, its beak cylindrical, not quadrangular.





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## FUNARIA Templetoni.

*Long-fruited Cord-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* obovate. *Outer fringe* of 16 oblique teeth, cohering at their tips: *inner* of 16 flat teeth. *Flowers* terminal. *Veil* beaked.

SPEC. CHAR. Stem elongated, somewhat branched. Leaves spreading, ovate, entire. Capsule obovate, tapering at the base.

DISCOVERED by our worthy friend Mr. Templeton near Belfast; and we gladly accede to the wishes of Mr. Turner, in calling it after the discoverer, especially as we have sought in vain for any thing similar, among several nondescript exotic *Funariæ* now in our possession.

This species differs widely from the only two of its genus already described as British, see *t.* 342 and 1497, in its caulescent habit, and scarcely oblique fruit, the form of which is far more slender than in those, with an elongated tapering base. The proliferous and occasionally branched stem shows this moss to be perennial. The leaves differ from *F. hygrometrica* in being expanded and nearly flat; from *F. Muhlenbergii* moreover in being entire, and, though pointed, destitute of a hair-like termination.—The fringe is quickly deciduous and very tender, nor have we had an opportunity of examining it critically. The veil is sufficiently like the rest of the genus, though not, as in the original species, quadrangular.

2524.



*Moos, 1812, published by J. G. Sowerby, London.*

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## BARTRAMIA Halleriana.

*Lateral Bartramia.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Capsule* spherical, at length furrowed. *Outer fringe* of 16 tapering teeth; *inner* a plaited membrane.

SPEC. CHAR. Fruit-stalks lateral, curved, shorter than the leaves. Leaves linear-awlshaped, without lateral nerves.

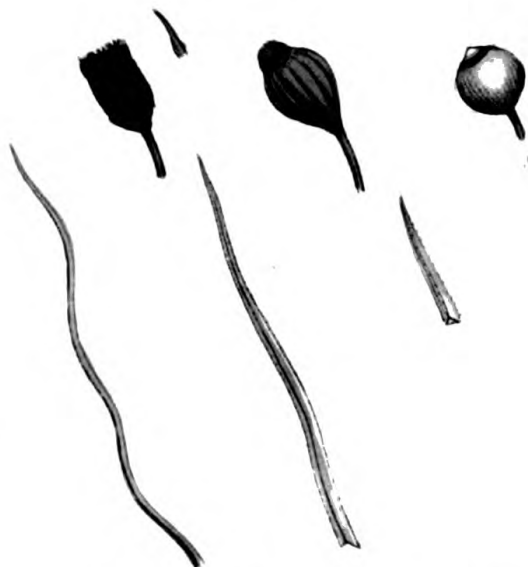
SYN. *Bartramia Halleriana.* Hedw. *Crypt. v. 2.* 111. t. 40. Swartz. *Act. Holm. ann. 1795.* 268.

*Bryum laterale.* Hudf. 483. Lightf. 727. With. 823. Hull. 254. Dickf. *H. Sicc. fasc. 5.* 20.

FOUND in the moist stony parts of mountainous woods in Scotland, Wales, and the north of England, but not commonly. Mr. Griffith sent our specimens from Wales in July 1800, at which season the seeds are for the most part ripe.

This moss forms broad patches of dense, upright, branched stems, near two inches high, and entirely clothed from top to bottom with leaves, which are a little more inclined to one side than the other. The lower part of the stems is also clothed with dense brown woolly radicles. The leaves suddenly taper from a broad base into a linear-awlshaped slender figure, serrated at the edge, and sharply keeled, having one strong nerve only. The flowers, whether terminal or not occasionally, appear to be truly lateral and axillary; for several capsules are found one above another on an unbranched stem, each on a curved stalk, proceeding from the *axilla* of a leaf, and shorter than the leaf itself. The unripe capsule is globose. Veil deciduous. Lid short and broad. The capsule soon becomes lengthened, or rather laterally contracted, into a cylindrical form, marked with 16 strong furrows, and its margin is fringed with the same number of awlshaped flattish teeth, surrounding an internal plaited membranous covering, a little torn at its opening.

We would not dissent from the above great authorities as to the specific name, but the original one, *lateralis*, seems much the most expressive.



March 1 1842. D. Alford to L. C. Wier, S. side

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## BARTRAMIA pomiformis.

*Apple Bartramia.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Capsule* spherical, at length furrowed. *Outer fringe* of 16 tapering teeth; *inner* a plaited membrane.

SPEC. CHAR. Fruit-stalks erect, longer than the stems. Leaves awlshaped.

SYN. *Bartramia pomiformis.* Swartz. *Act. Holm. ann.* 1795. 268.

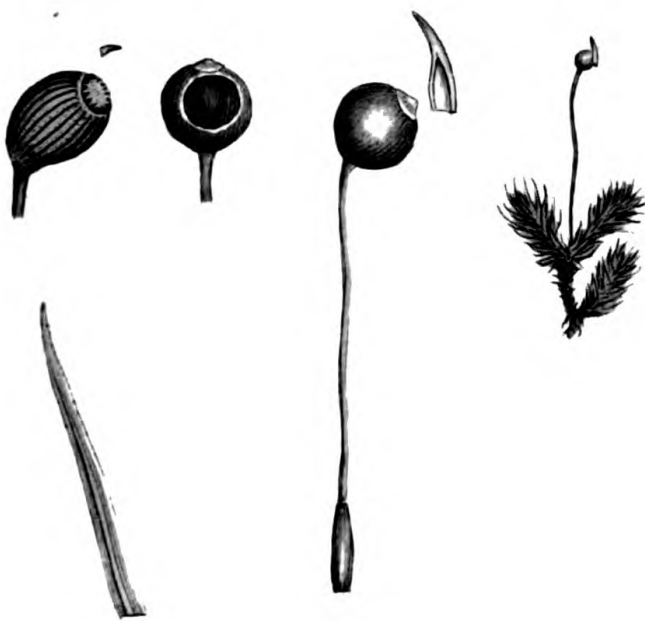
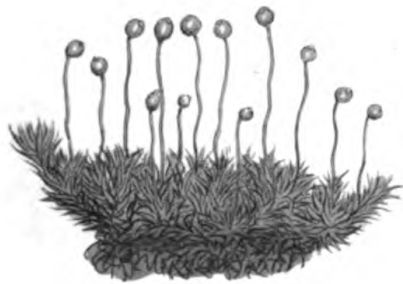
*Bryum pomiforme.* Linn. *Sp. Pl.* 1580. *Huds.* 474. *With.* 822. *Hull.* 259. *Relb. Suppl.* 3. 10. *Abbot.* 240. *Dicks. H. Sicc. fasc.* 10. 20.

*B. capillaceum, capsulis sphaericis.* Dill. *Musc.* 339. t. 44. f. 1.

*B. trichoides virescens, erectis majusculis capitulis maliformibus.* Raii *Syn.* 97.

THIS elegant moss is found here and there on sandy shady banks, or in black boggy mould in the clefts of rocks, bearing its green round fruit about April, which in the following month discharges the seeds, becoming brown, more oblong, and marked with 16 parallel furrows as in the preceding. There can be no doubt of these plants forming, as Hedwig observes, one natural genus; and although we are generally less disposed than that great author to found our generic characters of mosses on minutiae of structure in the inner teeth or membrane which closes the fruit, we cannot but follow him in this instance, at the same time rather depending on the spherical form, and regular furrows, of the capsule as an obvious and certain distinction. We suspect one or two more species of *Bartramia* may be natives of Britain.

The stems of *B. pomiformis* are branched and form tufts, but are much shorter than in *B. Halleriana*; the leaves are more spreading, lanceolate, ferrated chiefly towards the point, and not so suddenly contracted just above the base. Fruit-stalks red, at first terminal, but soon becoming axillary, rising erect, high above the stems.



*March 1 1801 Published by J. G. Sowerby, London.*

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[ 1526 ]

BARTRAMIA *crispa*.*Frizzled Bartramia.*CRYPTOGAMIA *Musci.*

GEN. CHAR. *Capsule* spherical, at length furrowed. *Outer fringe* of 16 tapering teeth; *inner* a plaited membrane.

SPEC. CHAR. Fruit-stalks erect, longer than the stems. Leaves setaceous, broad at the base, curled when dry. *Capsule* somewhat oblique. Lid obtusely conical.

SYN. *Bartramia crispa*. Swartz. *Musc. Suec.* 73.  
Turn. in *Ann. of Bot.* v. 1. 527.

OUR specimens of this moss were sent by Mr. Winch from Northumberland. It is a very recent acquisition to the British Flora, having been discovered by that gentleman in Healyfield, and, in company with Mr. Richard Waugh, in Alendale and Cheviot in that county. Mr. Turner, in the valuable periodical publication of Dr. Sims and Mr. König above quoted, has fully described it, and clearly established it as a distinct species from the more common *B. pomiformis*, figured in v. 14. t. 998.

The stems form tufts, vary in height from half an inch to 2 or 3 inches, and are but little branched. Leaves pale green, dilated at their base, then suddenly contracted into a tapering or awl-shaped form, narrower than those of *B. pomiformis*, serrated, and furnished with a strong rib. When dry they become much curled and contorted. Fruit-stalks rising above the stems, not an inch long, tawny or yellow, shining. Capsules oblique, at first globose, then somewhat oblong and furrowed. Lid obtusely conical, rather more prominent than in the above-named species. Outer fringe bright red.



*N<sup>o</sup>. 2 1805. Published by J. Sowerby London.*

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[ 1710 ]

## BARTRAMIA ithyphylla.

*Straight-leaved Bartramia.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Capsule* spherical, at length furrowed.  
*Outer fringe* of 16 tapering teeth; *inner* a plaited membrane.

SPEC. CHAR. Fruit-stalks erect, longer than the stems.  
 Leaves capillary, with a very broad base, entire, very straight when dry.

SYN. *Bartramia ithyphylla*. *Bridel. Musc. v. 4. 132.*  
*t. 1. f. 6. Turn. and Dillw. Bot. Guide, 730.*  
*Winch. Bot. Guide, 113.*

MR. SOWERBY informs me that this moss was first found in Great Britain by his 2d son Mr. George Sowerby, in May 1803, at Llyn-vach, near Pont-nedd-vechan, in South Wales, since which it has been sent him by the Rev. Mr. Dalton from Yorkshire, and Mr. Winch from Northumberland. It is probably, as Bridel observes, not uncommon in Europe, having been easily overlooked for *B. pomiformis*, v. 14. t. 998, and according to him, taken for the latter even by the excellent Professor Swartz.

It differs from the species just mentioned in having longer, narrower, quite capillary, and almost perfectly entire leaves, (though very much dilated at the base,) which in every state of the plant, whether dry or wet, always remain perfectly straight, and this is known by experience to be a good specific difference. The capsules grow on long, terminal, upright, though not quite straight, fruitstalks, and are larger than those of *B. pomiformis*. When ripe they are deeply and regularly marked with 16 furrows.



*Feb 1867; Published by J. S. Sewerby, London.*

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[ 1826 ]

BARTRAMIA gracilis.

*Tall Slender Bartramia.*

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CRYPTOGAMIA Musci.

GEN. CHAR. *Capsule* spherical, at length furrowed. *Outer fringe* of 16 tapering teeth; *inner* a plaited membrane.

SPEC. CHAR. Fruit-stalks erect, taller than the stems. Leaves lanceolate, revolute, single-ribbed, serrated towards the point. Stems elongated.

SYN. *Bartramia gracilis.* Flörk in Schrad. Journ. v. 2. 171. Sm. Fl. Brit. 1341.

*B. Oederiana.* Swartz MSS.—Mohr. Ind. 5.

*Bryum Oederi.* Retz. Prod. 261. Fl. Dan. t. 478.

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IN the year 1788 I received from my worthy friend Mr. Dickson a Scottish specimen of this moss, as a probably new species, which agreeing with original ones from the authors above quoted, caused me to admit it into the *Fl. Brit.*; with mention of Ireland also as its native country on the authority of Dr. Scott and Mr. Turner. But while my final sheet was under correction, my correspondent last-named informed me, with his usual candour, of his having made a mistake, and I therefore, p. 1407, struck out this species as foreign to our *Flora*, at that moment not adverting to Mr. Dickson's specimen. It remains however on his original authority, now confirmed by Mr. G. Don, who finds it on the summits of some of the highland mountains, bearing ripe fruit in August, and to whom we are obliged for this specimen.

The stems are much taller than those of *B. pomiformis*, t. 998, as well as more slender, compact, and usually less branched. The leaves are very different, being more broadly lanceolate, revolute; when dry recurved and twisted; serrated towards the point. Their colour is darker than in that plant. Fruit-stalks red. Capsules smaller, and more evidently curved towards one side when ripe.

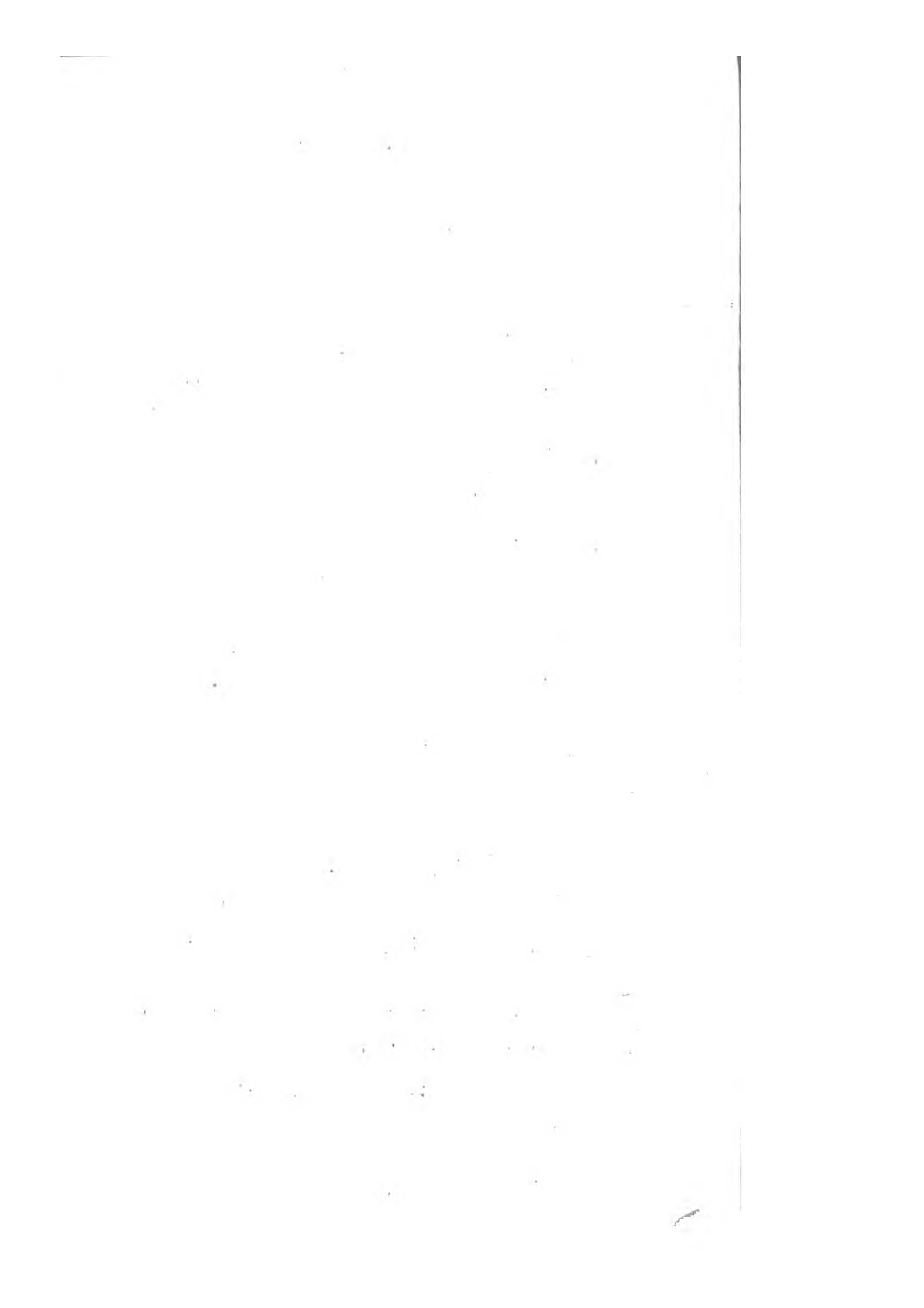
Mr. Turner's Irish specimen, which led to the above error, is figured in his *Musc. Hib.* t. 10. f. 1, as a probable variety of *B. fontana*, with which it seems to us not well to accord, and we should rather assent to his suggestion of its being a new species.

1826



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## B R Y U M fontanum.

*Fountain Bryum.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Capf.* with a lid. *Veil* smooth. *Flower-stalk* from a terminal tubercle.

SPEC. CHAR. Capsule oblique, roundish. Stem branched. Leaves ovate, acute, a little remote, entire.

SYN. *Bryum fontanum.* *Huds. Fl. An.* 475. *Sibth. Ox.* 289.

*B. palustre, scapis teretibus stellatis, capsulis magnis subrotundis.* *Dill. Musc.* 340. t. 44. f. 2.

*Mnium fontanum.* *Linn. Sp. Pl.* 1574. *Witb. Bot. Arr.* v. 3. 85. *Lightf. Scot.* 708.

*Muscus palustris Adianto aureo affinis, scapis tenuibus, foliolis brevibus.* *Raii Syn.* 98.

**F**REQUENT in the boggy soil about clear cold springs on mountainous commons and heaths, very conspicuous at a distance from the wide yellowish patches it forms in such situations, and often occupying the whole course of a rivulet through a small alpine meadow.

Roots perennial, tufted, brown, stems erect, thickly clustered together, leafy, slender, generally once divided into 3 or more branches from one centre, with now and then a straggling branch besides, so that we could scarcely have believed Linnæus had intended the same moss, were not his own Lapland specimens now before us. The leaves are small, ovate, sharp-pointed, but little spreading, frequently so thinly set that the red stem appears between them. Male flowers in large terminal heads, consisting of numerous yellow antheræ, surrounded by a circle of large spreading leaves. Fruit-stalks from the divarication of the branches on a different plant from the male flowers, long, slender, each bearing a large globose oblique capsule, with a small beaked lid. These capsules are to be found throughout the summer.

We do not hesitate to refer this and the preceding to the genus *Bryum* rather than *Mnium*, as the male flowers of the latter ought to be quite naked. Linnæus ran counter to that definition in reckoning every thing a *Mnium* in which male flowers were discoverable at all, whether naked or leafy.

270



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## BARTRAMIA marchica.

*Bog Bartramia.*

## CRYPTOGAMIA Musci.

GEN. CHAR. Capsule spherical, at length furrowed. Outer fringe of 16 tapering teeth; inner a plaited membrane.

SPEC. CHAR. Fruit-stalks erect, taller than the stems. Leaves lanceolate, finely serrated, imbricated in five rows. Branches clustered, slender, upright.

SYN. *Bartramia marchica*. *Web. and Mohr. Ind. Mus. 5. Swartz in Schrad. Journ. for 1800. 180.*

*Leskia marchica*. *Willd. Berol. 319.*

*Mnium marchicum*. *Hedw. Crypt. v. 2. 108. t. 39.*

DISCOVERED at the falls of Moness by Aberfeldy, in the Highlands of Scotland, in 1808, by Mr. W. Borrer and Mr. W. J. Hooker, but without fructification. That deficiency we have supplied from East Indian specimens, exactly agreeing with the British ones, which we have the authority of our intelligent friend last named to say, are what is called by mistake *B. fontana* in his paper on Nepal Mosses, *Tr. of L. Soc. v. 9. 317.*

This species has extremely the aspect of *B. fontana*, (*Bryum fontanum*,) *t. 390*, but when examined with a common magnifying glass, the leaves are found much more closely imbricated, ranged in 4 or 5 spiral rows, lanceolate, with longer more taper terminations, and when more highly magnified they prove to be finely serrated, which Mr. J. D. Sowerby has first detected, for Hedwig represents them entire. Several young, short, leafy, angular branches are clustered round the base of each fruitstalk, which rises much above them, being near 2 inches long, red, rather stronger than in the *fontana*. The capsule is somewhat smaller and more globular, but scarcely any difference is observable in the lid.

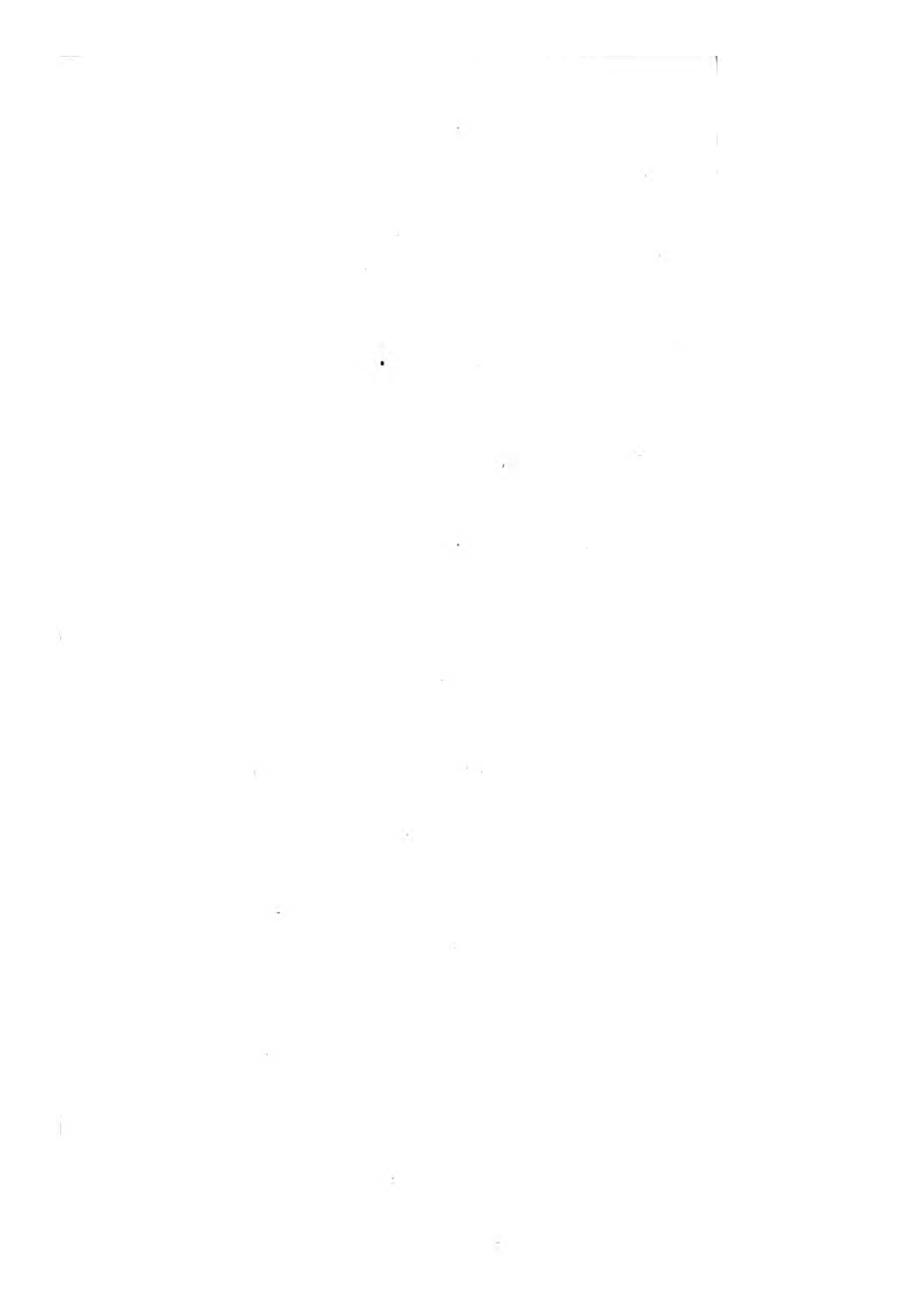
2071



Oct 1824 published by J. Smurthy London

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BARTRAMIA arcuata.

*Curve-stalked Bartramia.*

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CRYPTOGAMIA Musci.

GEN. CHAR. Capsule spherical, at length furrowed. Outer fringe of 16 tapering teeth; inner a plaited membrane.

SPEC. CHAR. Fruit-stalks recurved. Leaves lanceolate, many-nerved, finely serrated. Branches scattered, spreading.

SYN. Mnium arcuatum. Dicks. Crypt. fasc. 3. 2. t. 7. f. 3. H. Sicc. fasc. 6. 19. With. 803.

M. chrysocomum. Hedw. Sp. Musc. 74.

Hypnum chrysocomum. Dicks. Crypt. fasc. 2. 12.

H. palustre erectum, comâ luteâ, basi nigricante. Dill. Musc. 302. t. 39. f. 36. Raii Syn. 83.

Bryum arcuatum. Hull. 255.

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THIS elegant moss is a native of alpine bogs. It was known, without fructification, to Richardson and Dillenius; but the capsules were first discovered in Yorkshire and Cheshire by Mr. Bradbury, who sent them a few years since to Mr. Dickson. Our specimen was gathered at Beddgelart, North Wales, by Mr. D. Turner in July 1802.

The stems are perennial, erect, leafy, clothed with dense rusty pubescence, and divided irregularly into various spreading branches. Leaves imbricated, spreading, of a yellowish shining green, lanceolate, pointed, evidently, though finely, serrated, furnished with many lateral ribs or nerves besides the principal one. Stalks solitary, at first terminal, but by the branching of the stem above them they soon become lateral; they are short, red, recurved, with a few small scales at their base. Capsule drooping, globose, green and smooth when young, but brown and marked with 16 furrows when ripe. Lid red, convex with a blunt point. Outer fringe shortish, red; inner white and very thin, with 16 teeth.



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**MNIUM androgynum.**

*Narrow-leaved Spring-moss.*

**CRYPTOGAMIA Musci.**

**GEN. CHAR.** Caps. cylindrical, at length furrowed. Outer fringe of 16 tapering teeth; inner a lacinated membrane. Veil smooth. Flowers terminal.

**SPEC. CHAR.** Monoecious. Capsule straight. Lid conical. Leaves imbricated every way, spreading, notched at the point.

**SYN.** *Mnium androgynum.* Linn. Sp. Pl. 1574. Huds. 472. Hedw. Theor. 149. t. 12. f. 48--50.

*M. perangustis et brevibus foliis.* Dill. Musc. 230. t. 51. f. 1. Rau Syn. 78.

*Bryum androgynum.* Hedw. Sp. Musc. 178. With. 266. Huell. 262. Aitort. 238.

... with singular pleasure I found, on a careful scrutiny ... for the *Flora Britannica*, that the ... in Dillenius ought on every account ... from *Bryum*, and that the furrowed ... and unexceptionable character. No ... of this character; nor any *Hypnum*, ... a moss so peculiar in other respects as

... grows in moist shady boggy places, flower- ... little powdery heads of male blossoms, ... stalks, may not unfrequently be ... which ripen in April or May, are ... figure was drawn from Mr. Tur-

... and are branched and ... reddish, dotted, imbricated in ... single-ribbed, acute, somewhat ... towards the point. Fruit-stalks soli- ... with the male flowers, shining, red ... nearly upright, cylindrical, ... blunt, striated, a little ... pointed teeth; inner finely







MNIUM conoideum.  
Club-fruited Spring-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. Caps. cylindrical, at length furrowed. Outer fringe of 16 tapering teeth; inner a lacinated membrane. Veil smooth. Flowers terminal.

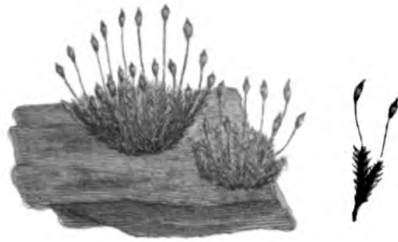
SPEC. CHAR. Monoecious? Capsule straight, obovate. Lid awl-shaped. Leaves imbricated every way, spreading, entire.

SYN. Bryum conoideum. Dicks. Crypt. fasc. 4. 9. t. 11. f. 2.

THIS moss unquestionably belongs to the same genus with the preceding, with which it agrees closely in habit, especially in the peculiar round dots of its leaves, as well as in the essential generic character of the furrowed capsule. Mr. Dickson found it on the banks of Beeches near Inverary. Our specimens were gathered by Mr. Templeton, on Pear-trees in his garden near Bellis; and it is to this gentleman, through Mr. Turner, we are entirely indebted for a knowledge of the above moss, which he describes and delineates in fine capital letters, just as nature would lead us to expect it. Of its true flowers we have no knowledge, and therefore cannot determine whether the plant monoecious or dioecious.

It is much smaller than in *M. androgynum*. The stems with terminal tufts, and are mostly simple, erect, but branched at a dull pellucid green, imbricated, spreading every way, entire, with one rib and an obscure point. Stalks minute, short, reddish. Capsule nearly erect, obovate, striate, red brown. Lid awl-shaped, acute, often curved about as long as the capsule. Outer fringe of 16 striated teeth like as above described.

This British species of *Mnium* is figured in our t. 6. p. 20. by the name of *Bryum pastinaca*.



[  
HYPNUM

Shining Tame

CRYPTOG

GEN. CHAR. Caps. ov  
sheath. Outer fringi  
inner a variously-too

SPEC. CHAR. Stem do  
closely imbricated  
nerveless, shining, t  
awl-shaped, recurved

SYN. Hypnum splendens  
f. 6—9. Sm. Fl. B  
Musc. Hib. 156.

H. parietinum. Huds.  
Lightf. 751. Relh.

H. filicinum, tamarisci  
Dill. Musc. 274. t. 5

H. repens filicinum, ve

FOUND in dry woods and  
bears fruit about March or  
a long time, but in the south  
not very usual.

Stems perennial, a span  
elastic and loosely entangled,  
pinnate, purple and shining  
most part closely cover then  
shining yellowish green, sn  
nerve; those on the main s  
pointed; the rest entire and p  
generally crowded near toge  
shining fruit-stalk. Capsule  
smooth, taper at the base.  
base, recurved.

Linnaeus confounded this  
*H. proliferum*, Curt. Lond  
Dill. t. 35. f. 13. for his pe  
gone by that name.

MENTUM coccineum.

Club-fruited Spring-moss.

CRYPTOGAMA Musc.

GEN. CHAR. Caps. cylindrical, at length flattened.  
Outer fringe of 16 tapering teeth; inner a be  
nerved membrane. Vei smooth. Pores terminal.

SPEC. CHAR. Numerous? Capsule straight, obtuse.  
Lid oval-shaped. Leaves inclined every way  
spreading, entire.

SYN. Bryum coccineum. Dick. Crypt. Musc. A. N.  
t. 11. f. 2.

THIS moss impressively belongs to its own genus with  
the preceding, with which it agrees chiefly in habit, espe-  
cially in the peculiar round dots of its leaves, a web in the  
essential generic character of the former species. Mr. Willd.  
was found it on the trunk of *Betula* near *Leicester*. The  
specimens were gathered by Mr. Tappin, in the year 1788, in  
his orchard near *Belton*; and it is in his garden, through  
Mr. Turner, we are entirely indebted for a knowledge of the  
inner fringe, which he describes and illustrates in the accom-  
panying figures, just as analogy would lead us to expect it. Of  
the male flowers we have no knowledge, and therefore cannot  
positively pronounce the plant monocious or dioecious.

Every part is much smaller than in *M. coccineum*. The  
stems form perennial tufts, and are easily swept out,  
herb. Leaves of a dull polished green, inclined, spreading  
every way, entire, with one or two in obscure part.  
Lid terminal, short, yellowish. Capsule erect, ob-  
ovoid, about as long as the capsule. Outer fringe of 16  
obovoid teeth; inner a dove described.  
The British species of *Mentum* is figured in our N. B.  
t. 11. by the name of *Bryum pulchrum*.

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145









B R Y U M palustre.

*Marsh Bryum.*

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CRYPTOGAMIA Musci.

GEN. CHAR. Caps. with a lid. Veil smooth. Flower-stalk from a terminal tubercle.

SPEC. CHAR. Capsule oblique, oblong. Stem branched and forked. Leaves lanceolate, pointed, waved, entire.

SYN. *Mnium palustre.* Linn. *Sp. Pl.* 1574. *Huds. Fl. An.* 472. *With. Bot. Arr. v.* 3. 85. *Relh. Cant.* 398. *Lightf. Scot.* 708.

*M. majus, ramis longioribus bifurcatis.* *Raii Syn.* 78. *Dill. Musc.* 233. t. 31. f. 3.

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COMMON in boggy meadows and the moist parts of heaths, producing its fructification in May and June.

Its stems form thick tufts, and they are matted together by a dense brown woolliness which clothes their lower part; they are two or three times branched or forked, thickly clothed with yellowish-green, lanceolate, pointed, entire, waved leaves, with a strong central rib. Male flowers in small flat terminal heads, surrounded by numerous spreading leaves. Capsules on a different plant, oblong or somewhat pear-shaped, oblique, inclined but not pendent, supported by a long wavy stalk, which is yellow above, red below, originating in a pretty large tubercle. Lid conical.

Dillenius describes the male flowers as occasionally naked rising upon little flower-stalks above the leaves, see his *fig. C*; and he figures (No. 4.) a very singular branched plant, composed of such naked heads, growing on axillary branches all the way up the common stem. This was *Mn. ramosum* of Hudson's first edition. These varieties seem to unite the genera of *Bryum* and *Mnium*, and to prove that even the naked male flowers are not a perfectly just criterion of the latter. We are now merely collecting facts, which may hereafter help us, or some more able hand, to a better distribution of these obscure vegetables.



No. 1799. *Leucobryum*. "March 20th"

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## BRYUM nutans.

*Silky Pendulous Thread-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. Caps. ovato-oblong, smooth. Fringe double: outer of 16 teeth, broad at their base: inner a toothed membrane. Flowers terminal.

SPEC. CHAR. Stem mostly simple. Leaves lanceolate, acute, keeled. Capsule obovate, pendulous, obtuse.

SYN. *Bryum nutans*. Schreb. Lips. 81. Swartz. Musc. Suec. 46. Roth. Germ. v. 3. 252.

*B. sericeum*. With. 839. Hull. 265. Sibth. 292.

*B. trichodes læte virens, capitulis cernuis oblongis*. Dill. Musc. 391. t. 50. f. 61. Raii Syn. 100.

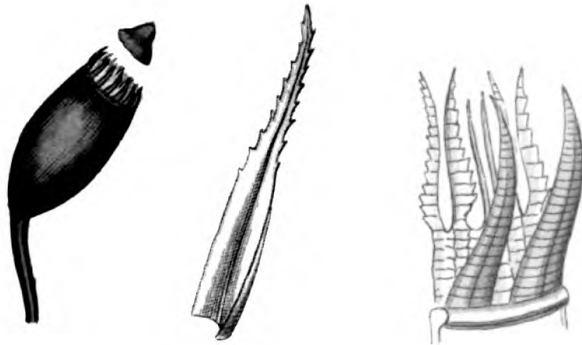
*Webera nutans*. Hedw. Sp. Musc. 168. Crypt. v. 1. 9. t. 4.

FOUND on mountainous heaths, ripening its fruit in July and August. Dillenius gathered it near Woolwich; the Rev. Dr. Abbot in Apsley wood, Bedfordshire; and Mr. Turner near Dublin. We have seen it about rocks on Cromford moor, near Matlock.

The stems grow erect in dense tufts, and are for the most part simple and short, most leafy at their summits. The leaves are of a light shining yellowish green, lanceolate, acute, tipped with a serrated point, and furnished with one rib. Fruit-stalk terminal, solitary, very long, frequently even 3 inches, of a polished red or tawny purple, paler upwards. Capsule pendulous, obovate, obtuse, or as it were truncate, of a rusty hue, opaque, tapering very little at the base. Lid convex, with a short blunt point. Outer fringe yellowish; inner variously lacinated.

The great Hedwig found the stamina in the same flower with the pistillum, and on that account separated his genus of *Webera* from *Bryum*. We think with Dr. Swartz that such a circumstance does not in mosses form a natural genus.

According to the Rev. H. Davies the *B. sericeum* of Hudson is only *B. crudum*. The herbarium of Dillenius shows that he confounded this plant with *Pohlia elongata* of Hedwig.





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## B R Y U M aureum.

*Golden Bryum.*

## C R Y P T O G A M I A Musci.

GEN. CHAR. *Caps.* with a lid. *Veil* smooth. *Flower-stalk* from a terminal tubercle.

SPEC. CHAR. Capsule drooping, pear-shaped with a stricture in the middle. Leaves bristle-shaped.

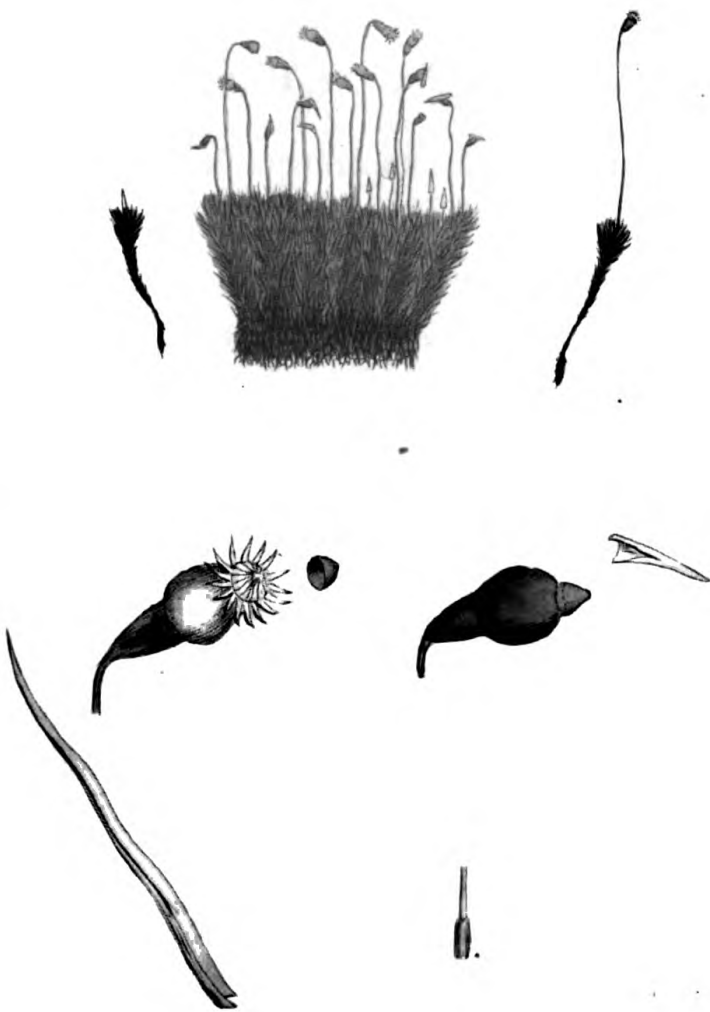
SYN. *Bryum aureum.* *Huds. Fl. An.* 487. *Dicks. H. Sicc. fasc.* 8. 19.

*Mnium pyriforme.* *Linn. Sp. Pl.* 1576. *With. Bot. Arr. v.* 3. 89.

*B. trichodes aureum,* capsulis piriformibus nutantibus. *Dill. Musc.* 391. t. 50. f. 60.

THE rare and elegant little moss here delineated was originally found by Dr. Deering on the rocks of Nottingham-park, and sent by him to Dillenius. Mr. Hudson seems never to have gathered it. Mr. Crowe and Mr. Dickson found it some years ago in Surrey, and Dr. Smith met with it very unexpectedly in 1790, as well as repeatedly since, on the inside of the walls of some frames for green-house plants, in the garden of Messrs. Lee and Kennedy, Hammer-smith, perfecting its capsules in July, as the Rev. Mr. Wood of Leeds likewise observed them in Wales.

The stems grow erect, in little tufts, to the height of  $\frac{3}{4}$  of an inch, and are clothed with light green, very delicate and slender, tapering, entire leaves, some of the uppermost of which are much longer than the rest, forming a tuft or star, in the centre of which stand the antheræ in some individuals, and in others the fruit-stalk (for so the *pedunculus* may properly be called in this tribe), which arises, from an oblong tubercle, to the height of above an inch. This stalk is capillary, slightly waved, of a vivid gold or orange colour. Capsules pear-shaped, green when young, ripening into the same bright colour as the stalk, closed with an hemispherical lid, covered when young with a white slender veil, which Dillenius never saw. The capsule is bordered with 16 spreading white teeth, and closed with other unequal ones besides, according to Hedwig's character of *Bryum*.



Arch. 197. Pub. (K. H. L.), Smith, London

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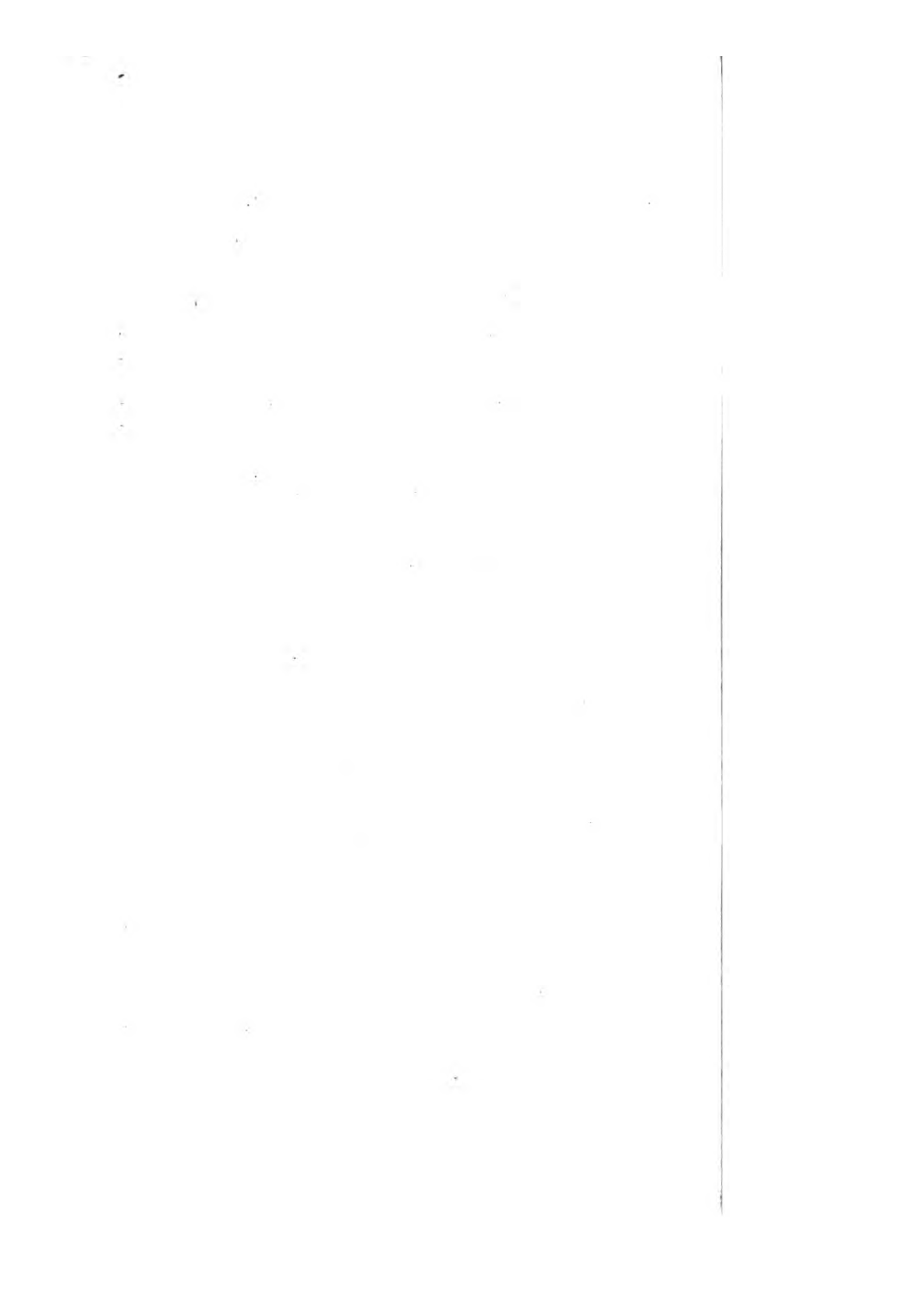
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## BRYUM elongatum.

*Elongated Thread-moss.*

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*CRYPTOGAMIA Musci.*

GEN. CHAR. *Outer fringe* of 16 teeth, broad at the base: *inner* a toothed membrane. *Flowers* terminal. *Capsule* ovate-oblong, smooth. *Veil* smooth.

SPEC. CHAR. Stem nearly simple. Leaves linear-lanceolate, thick-edged. Capsule inclining, cylindrical, tapering at the base.

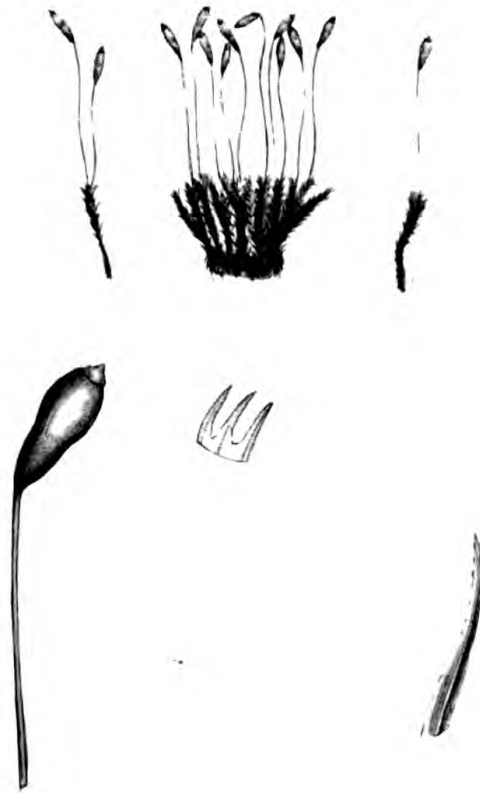
SYN. *Bryum elongatum*. *Sm. Fl. Brit.* 1349. *Dicks. Crypt. fasc.* 2. 8. *With.* 832. *Hull.* 263. *Turn. Musc. Hib.* 114.

*Pohlia elongata*. *Hedw. Sp. Musc.* 171. *Crypt. v.* 1. 96. *t.* 36. *Ehrh. Crypt.* 64.

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DILLENIIUS gathered this moss on Clogwyn y garnedd, North Wales, as appears from his herbarium, and confounded it with *B. nutans*, his N<sup>o</sup> 61, from which it is very distinct. Our specimens were collected on Ingleborough, Yorkshire, by Mr. W. Brunton. The capsules ripen in June and July.

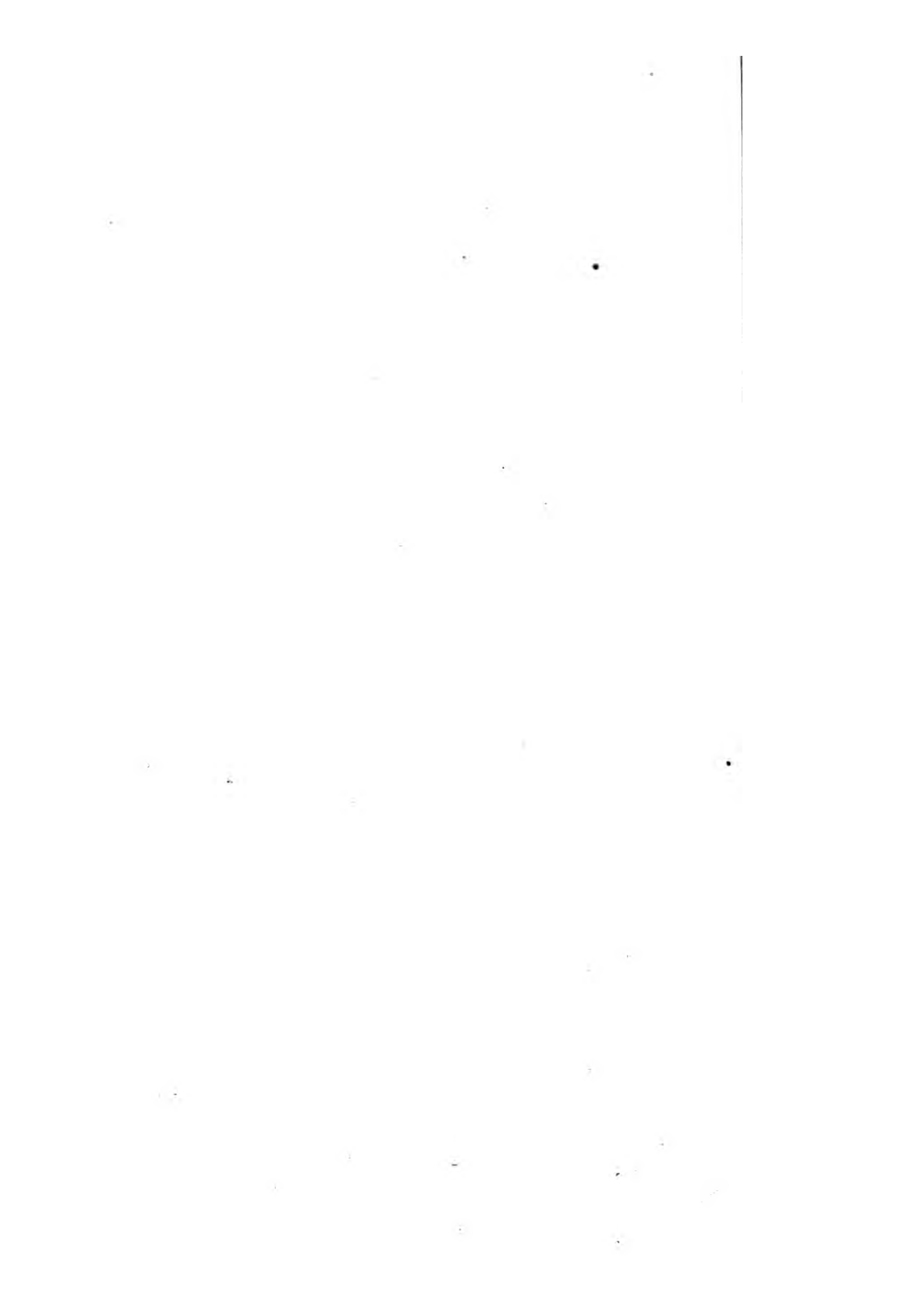
Roots slender, tufted, black, perennial. Stems erect, slender, generally about half an inch high, simple, leafy, sometimes, from luxuriance, branched. Leaves dark shining green, rather spreading, lanceolate or linear-lanceolate, acute, beardless, single-ribbed, with an entire, somewhat thickened margin. Fruitstalk an inch or inch and half high, mostly solitary, upright, of a shining tawny red, yellowish at the top. Capsule more or less inclining, not pendulous; when young, obovate and a little curved; when ripe longer, and almost cylindrical, its lower half, or thereabouts, consisting of an inversely conical base. The mouth is narrow, the lid short, conical and acute, of an orange hue. Outer fringe rather short, pale brown; inner white, simply toothed, as Hedwig describes it.





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## BRYUM trichodes.

*Long Capillary Thread-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Fringe* double: *outer* of 16 teeth, broad at their base: *inner* a toothed membrane. *Flowers* terminal. *Capsule* ovate-oblong, smooth. *Veil* smooth.

SPEC. CHAR. Stem but little branched. Leaves linear, obtuse, Capsule obovate, incurved, inclining. Fruit-stalk very long.

SYN. *Bryum trichodes*. *Linn. Sp. Pl.* 1585. *Sm. Fl. Brit.* 1350. *Dicks. Crypt. fasc.* 2, 7. *H. Sicc. fasc.* 3. 21. *Hull.* 263.

*B. trichodes aureum*, capsulis incurvis obtusis in setis longis, *Dill. Musc.* 389. t. 49. f. 58.

*Mnium uliginosum*. *With.* 800.

*Meesia uliginosa*. *Hedw. Sp. Musc.* 173. *Crypt. v.* 1. 1. t. 1, 2.

THIS moss, to which Hedwig has devoted the 2 first plates of his great work, is remarkable for having longer fruit-stalks, in proportion to its size, than any other found in Britain, though in that respect it must yield to the exotic *Meesia longiseta* of the same author. Mr. Dickson found it on bogs in Scotland. Mr. Winch sent our specimens from Northumberland. It bears fruit in June and July, and is perennial.

The stems are seldom an inch high, erect, simple or divided, red when young, black and rusty when old. Leaves nearly upright, of a full yellowish shining green, linear, narrow, obtuse, entire, with a strong coloured rib. Fruit-stalk terminal, capillary, red, paler upwards. Capsule obovate, obtuse, curved and inclining, with a short base most evident in an advanced state of growth. Lid conical, obtuse, very short. Veil straight, slender. Outer fringe short: inner reticulated.



Oct 1. 1805. Published by Jas. Sowerby, London

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BRYUM dealbatum.  
*Pale-leaved Thread-moss.*

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CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe of 16 teeth, broad at the base: inner a toothed membrane. Flowers terminal. Capsule ovate-oblong, smooth. Veil smooth.*

SPEC. CHAR. *Stem very short, simple. Leaves lanceolate, reticulated, obscurely serrated at the point. Capsule obovate, inclining.*

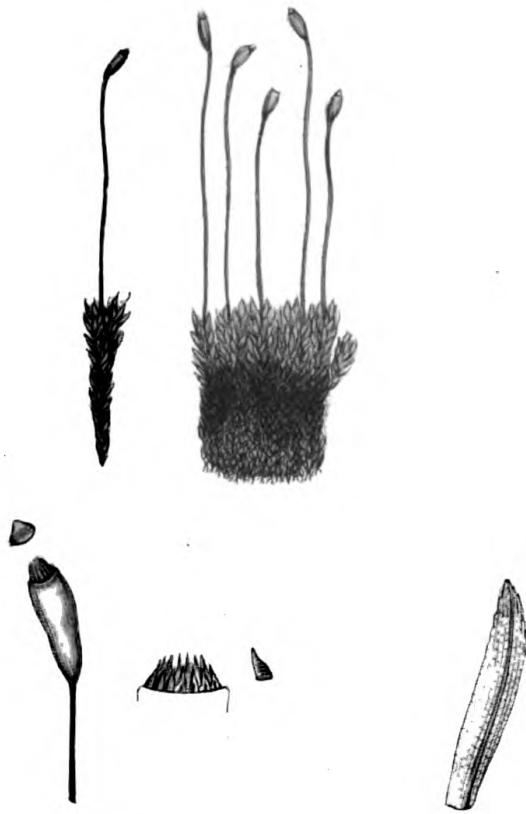
SYN. *Bryum dealbatum. Sm. Fl. Brit. 1350. Dicks. Crypt. fasc. 2. 8. t. 5. f. 3. With. 816. Hull. 258. Don. Herb. fasc. 4. 99.*

*Meesia dealbata. Swartz. Musc. Suec. 44. 94. t. 5. f. 10. Hedw. Sp. Musc. 174. t. 41. f. 6—9.*

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COMMUNICATED by our very intelligent and indefatigable friend Mr. G. Don from a marshy spot in the King's Park, Edinburgh. It bears its capsules in the spring and summer, and is presumed to be perennial. Mr. Crowe gathered the same on sandy turfy ground at St. Faith's near Norwich.

It is known by the pale whitish hue of its leaves. The stems are short and simple. Leaves pellucid, of a membranous appearance, reticulated with rather coarse veins, lanceolate, acute, single-ribbed, very obscurely serrated near the point only. Fruitstalk solitary, an inch and half high, terminal, erect, red, rather wavy. Capsule inclining, particularly when dry, pear-shaped with a contracted base, curved, obtuse, brown, opaque, not polished. Lid convex, almost hemispherical. Outer fringe short, reddish; inner twice as long, yellowish, formed of 16 teeth united by a reticulated base.



March 1. 1866. Published by J. Sowerby, London.







## BRYUM triquetrum.

*Long-stalked Thread-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe of 16 teeth, broadest at the base; inner a toothed membrane. Flowers terminal. Capsule ovate-oblong, smooth. Veil smooth.*

SPEC. CHAR. *Stem subdivided. Branches simple, erect. Leaves spreading in three rows, ovato-lanceolate, sharp-pointed, finely serrated. Capsule slender-pearshaped, oblique and incurved. Lid conical.*

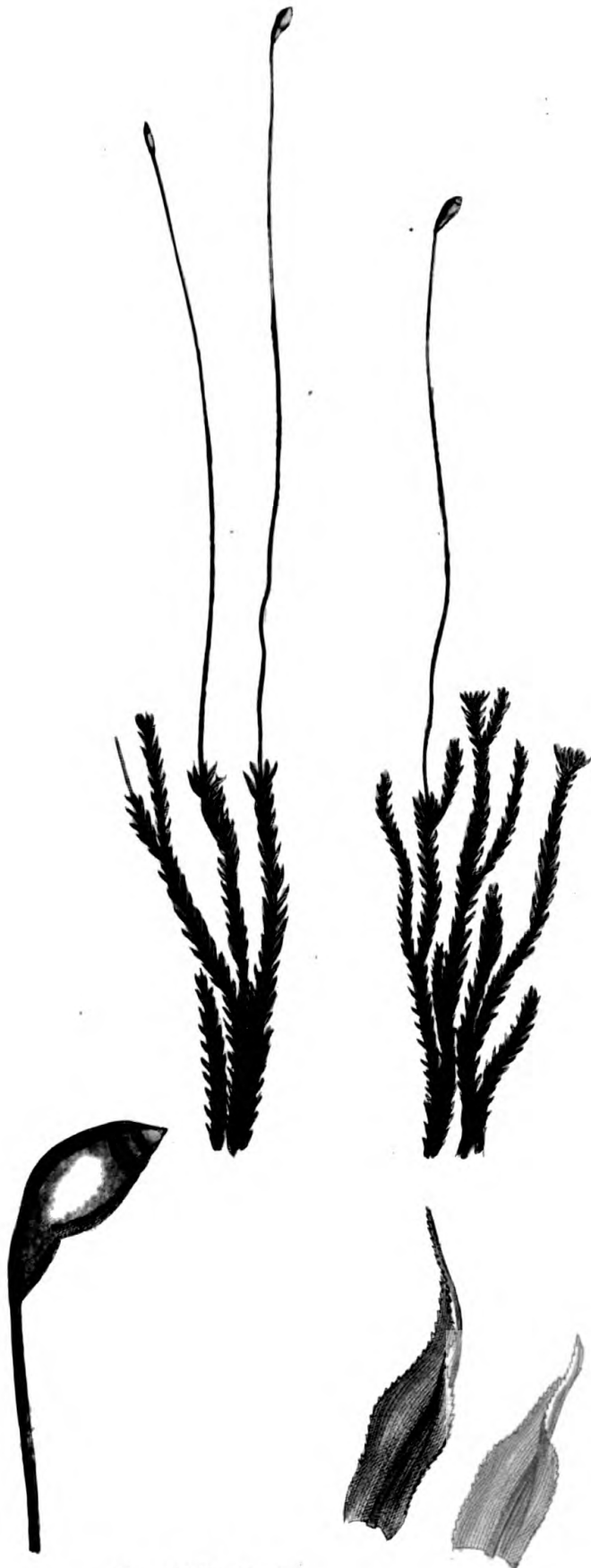
SYN. *Bryum triquetrum. Turn. Musc. Hib. 115.*

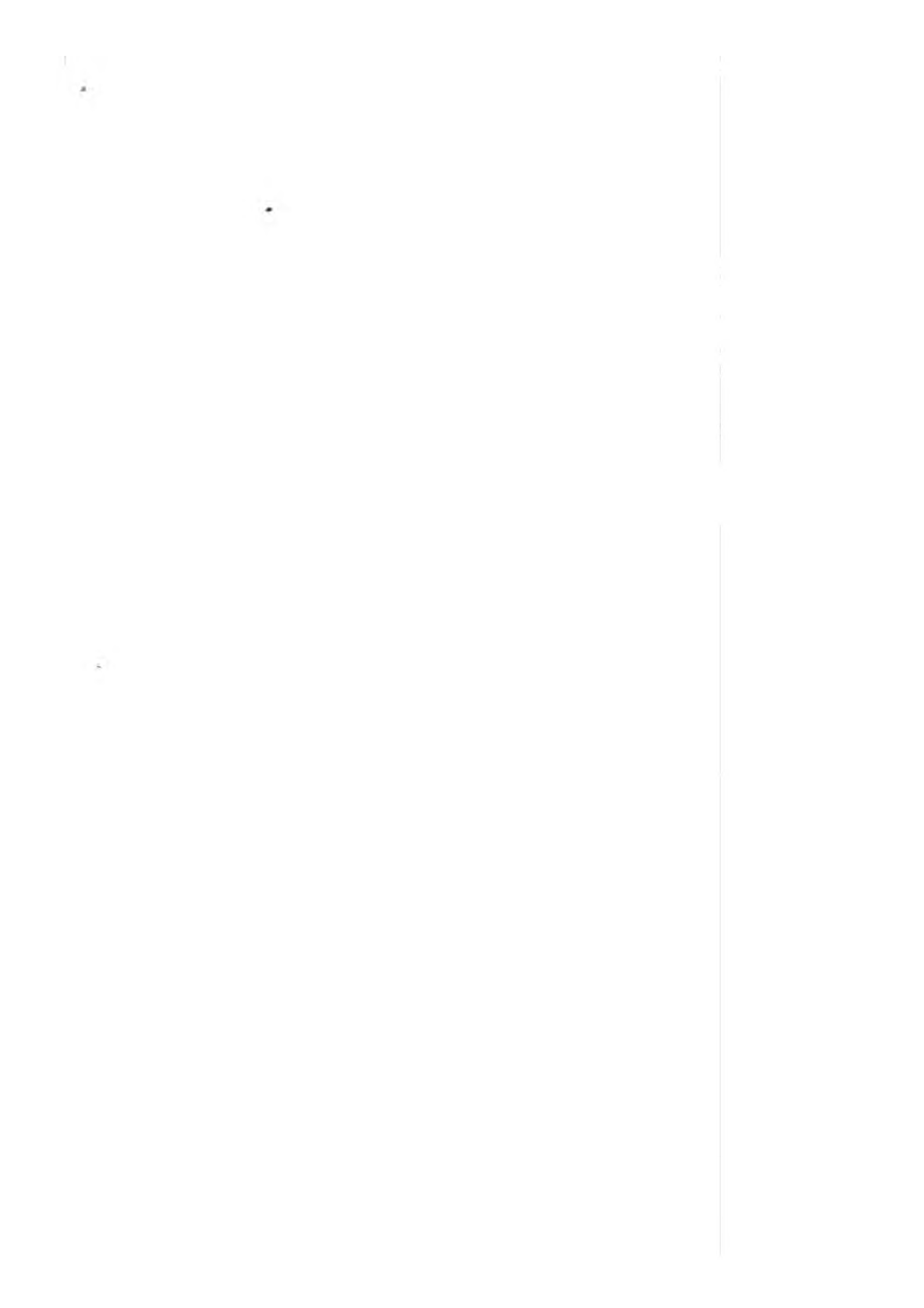
*Mnium triquetrum. Linn. Sp. Pl. 1578, excluding the synonyms. Ehrh. Phytoph. 59.*

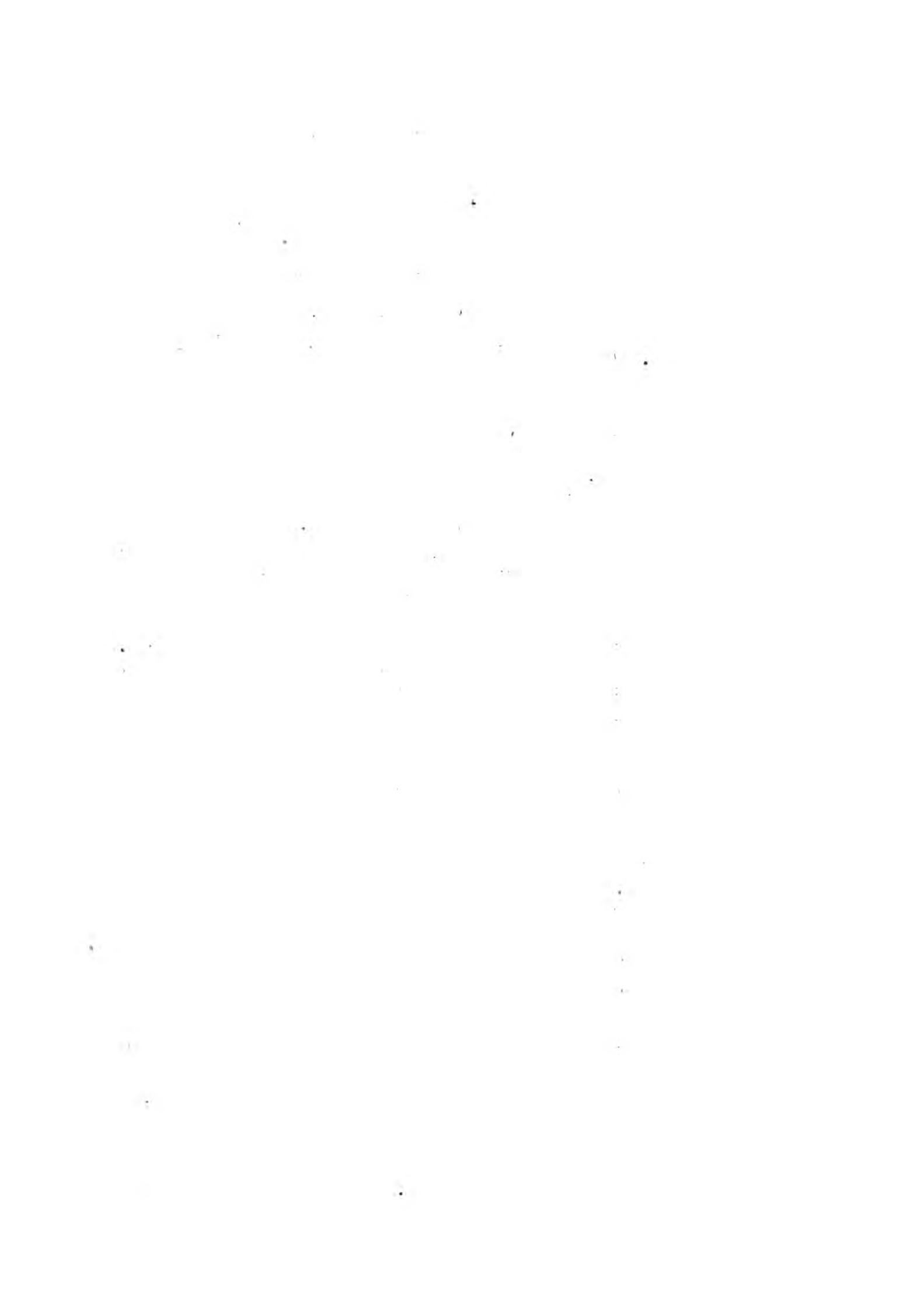
*Meesia longiseta. Hedw. Sp. Musc. 173. Crypt. v. 1. 56. t. 21, 22. Swartz. Musc. Succ. 43.*

WE introduce this stately moss to the acquaintance of British botanists, on the authority of Mr. Turner, who mentions it as discovered by Dr. Scott, "about the borders of some lake in the north of Ireland." It bears fruit in July, and is perennial, growing always in a spongy peat soil. Having never seen Irish specimens, we are obliged to have recourse to Swedish and Swiss ones, in very fine preservation; by which we are enabled to correct certain inaccuracies in our predecessors.

The stems grow in tufts, and are several inches high; not simple, but branched; the annual shoots indeed are usually simple and upright. Leaves in three rows, spreading, light green, nearly ovate, keeled, with a sharp point more or less elongated, a strong rib, but no awn; the edges under a high magnifier prove to be finely serrated, by no means entire. The leaves of former seasons are permanent, blackened, intermixed with rusty-black down. Young flowers, encompassed with star-like leaves, terminate the branches. These seem destined to bear fruit in the following summer. The fruitstalks are terminal, solitary, uncommonly long, (even three or four inches,) somewhat wavy, red and very elegant. Capsule pale brown, smooth, pearshaped, a little oblique, bent where its cavity reaches the solid base, or spurious apophysis. Lid conical, short, acute. Outer fringe short and blunt, as described by Hedwig.







## BRYUM carneum.

*Shining Bryum.*

## CRYPTOGAMIA Musci.

GEN. CHAR. Caps. with a lid. Veil smooth. Flower-stalk from a terminal tubercle.

SPEC. CHAR. Capsules pendulous, somewhat globular. Leaves alternate, acute, and entire.

SYN. *Bryum carneum.* Linn. *Sp. Pl.* 1587. Huds. *Fl. An.* 489. With. *Bot. Arr.* v. 3. 112.

*B. nitidum*, foliis Serpilli pellucidis angustioribus, reflexis capitulis subrotundis, carnei coloris, in pediculis brevioribus. Raii *Syn.* 102.

*B. lanceolatum pellucidum*, capsulis rotundis, pendulis, carneis. Dill. *Musc.* 400. t. 50. f. 69.

SENT from Cambridgeshire by the Rev. Mr. Hemsted. It is an uncommon, and not generally known species, growing in moist shady places, among grass, and by the margins of little rills, bearing its fruit in the spring.

Root perennial. Stems short, slender, simple at first, clothed with thick-set, alternate, lanceolate, pointed, entire leaves, of a bright pellucid green. Stalk terminal, a little longer than the stems, reddish, shining, pellucid and succulent. Capsule pendulous, when young green, pear-shaped and very obtuse, with a depressed lid; but as it ripens becoming of a flesh-coloured red, and when arrived at maturity the orifice is much dilated, so that in some specimens the capsule may be called almost campanulate. Our figure is not in that advanced state. The veil we have not seen. Dillenius represents it as awl-shaped and very tender, falling off the young capsules before they begin to nod. When the fruit is ripe, young shoots are protruded from the top of the stem, so that the fruit-stalks are no longer terminal.

We have compared ours with the specimens of Dillenius.



*Funaria hygrometrica* L.



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## BRYUM alpinum.

*Red Alpine Thread-moss:*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe of 16 teeth, broad at the base: inner a toothed membrane. Flowers terminal. Capsule ovate-oblong, smooth. Veil smooth.*

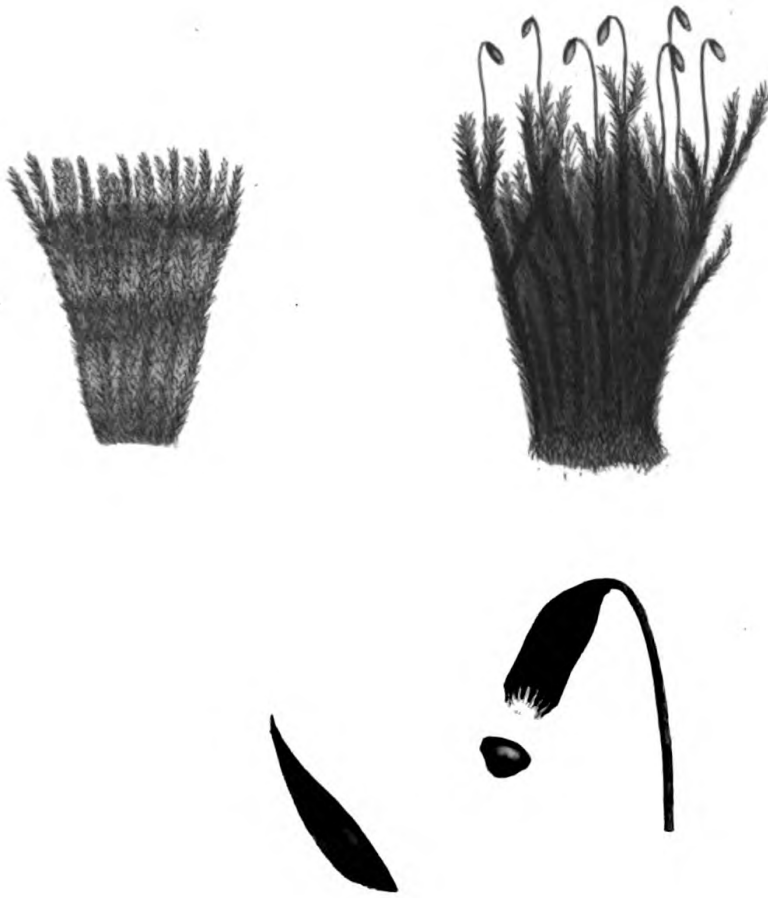
SPEC. CHAR. *Stem branched, erect. Leaves ovato-lanceolate, acute, imbricated. Capsule oblong, pendulous.*

SYN. *Bryum alpinum. Linn. Mant. 309. Sm. Fl. Brit. 1353. Huds. 490. With. 841. Hull. 254. Lightf. 738. Turn. Musc. Hib. 125.*

*B. hypnoides pendulum sericeum, comâ insigni atro-rubente. Dill. Musc. 394. t. 50. f. 64.*

NOT unfrequent on the highest alpine rocks of Britain, where it bears fruit in the early part of summer, and is readily known by its beautiful shining hue variegated with green and red. In wet situations, and by time, the leaves, as well as other parts, assume a dark and blackish colour.

The stems are branched, and form dense tufts of various heights. Leaves closely imbricated every way, green, purple or red, with a silky gloss, ovato-lanceolate, acute, entire, with a strong rib, often more red than the rest of the leaf. When dry they are closely pressed to the stem. Fruit-stalks about an inch long, solitary, straight, red, rising above the branch. Capsule more or less pendulous, when young obovate, then cylindrical or ovate, red or brown. Lid convex with a little blunt point, reddish. Fringe pale or reddish.







**BRYUM cæspititium.**  
*Lesser Matted Thread-moss.*

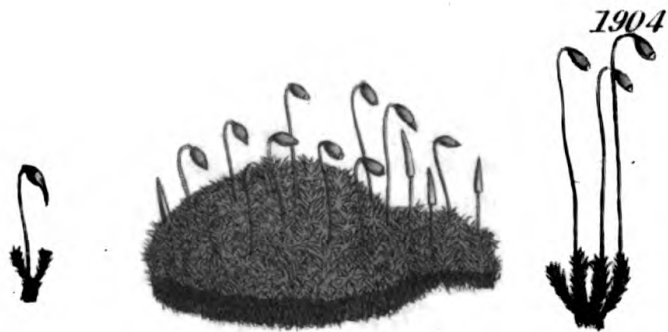
CRYPTOGAMIA Musci.

- GEN. CHAR.** *Outer fringe of 16 teeth, broad at the base: inner a toothed membrane. Flowers terminal. Capsule ovate-oblong, smooth. Veil smooth.*
- SPEC. CHAR.** *Stem branched from the base, tufted. Leaves ovato-lanceolate, flat, hair-pointed, entire. Capsule obovate, pendulous.*
- STN.** *Bryum cæspititium. Sm. Fl. Brit. 1354. Linn. Sp. Pl. 1586. Hedw. Sp. Musc. 180. Huds. 488. Hill. 256. Sibth. 290. Lightf. 736. Curt. Lond. fasc. 3. t. 67. f. 1. Turn. Musc. Hib. 120.*
- B. pendulum ovatum cæspiticium et pilosum, setâ bucciori. Dill. Musc. 396. t. 50. f. 66, A—E.*
- B. trichoides capitulis reflexis, pediculis imâ medietate rubris, summâ luteo-virentibus. Raii Syn. 100.*
- Minimum cæspititium. Relh. 421. With. 807. Abbot. 235.*

**COMMON** on walls and roofs, sandy banks and gravelly grassy places, bearing fruit from February to April.

The stems are perennial, and form dense cushion-like tufts, their branches dividing from the very base, each about 3 or 4 lines long, simple, spreading, leafy, obtuse and terminated by a starry head of leaves larger than the rest. Leaves all bright green, ovato-lanceolate, flattish, entire, with a single rib which ends in a hair-like point. Fruit-stalks solitary from the base of the branches, capillary, upright, an inch or more in height, their lower part crimson, the upper green. Capsule pendulous, ovate when young; then obovate, with a convex, pointed lid; at length dilated at the mouth. Fringe of pale yellow, very acute teeth. Veil taper, sharp-pointed.

It will be seen by referring to *t.* 1601 how different *Bryum bicolor* is from this species.



June 2. Bot. Publ. ed. by Ja. Sowerby London.







[ 1601 ]

## BRYUM bicolor.

*Two-coloured Thread-moss.**CRYPTOGAMIA Musci.*

GEN. CHAR. *Outer fringe* of 16 teeth, broad at the base: *inner* a toothed membrane. *Flowers* terminal. *Capsule* ovate-oblong, smooth. *Veil* smooth.

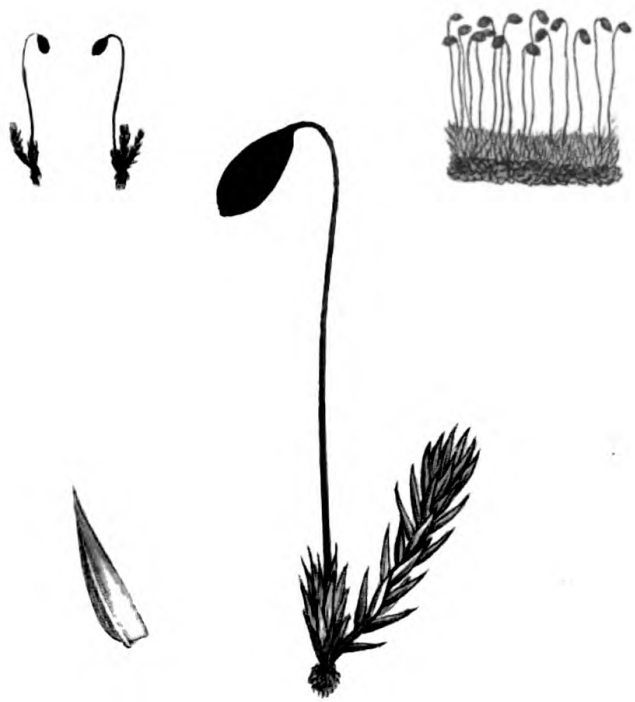
SPEC. CHAR. Stem very short, branched at the base. Leaves ovato-lanceolate, pointed. Capsule ovate, obtuse, pendulous.

SYN. *Bryum bicolor.* *Dicks. Crypt. fasc. 4. 16. Sm. Fl. Brit. 1355. Turn. Musc. Hib. 121. t. 11. f. 2. B. n. 66, varietas parva. Dill. Musc. 397. t. 50. f. 66, F, G.*

COMMUNICATED by Mr. W. Brunton from the neighbourhood of Ripon, Yorkshire. It bears capsules in March, and is supposed to be perennial. I have it from Switzerland, and have also gathered it near Rome. It loves a barren sandy soil.

The plants grow in rather loose tufts, and are very short, throwing up a branch or two from their base which rises above the original stem. Leaves pale yellowish green, imbricated, ovato-lanceolate, acutely pointed, entire, single-ribbed, nearly flat, not inflated. Fruitstalk from the top of the primary stem, though apparently from the base of the branches, half an inch or more in height, red and shining, its top curved and often greenish. Capsule pendulous, ovate or obovate, obtuse, red, or partly yellowish, generally of a deep blood red. Lid convex with a little point, often red, sometimes yellowish, shining. Fringe yellow or of a tawny hue.

Dillenius thought this a variety of *B. caespitium*, but that is much larger and greener, and has hair-pointed leaves.



May 1 1806. Published by J. G. Sowerby London.





[ 1602 ]

## BRYUM argenteum.

*Silvery Thread-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe* of 16 teeth, broad at the base: *inner* a toothed membrane. *Flowers* terminal. *Capsule* ovate-oblong, smooth. *Veil* smooth.

SPEC. CHAR. Stems tufted, branched from the base. Leaves ovate, concave, imbricated, with pellucid colourless bristly points. Capsule ovate, pendulous.

SYN. *Bryum argenteum.* *Linn. Sp. Pl.* 1586. *Sm. Fl. Brit.* 1355. *Hedw. Sp. Musc.* 181. *Huds.* 489. *With.* 838. *Hull.* 256. *Relh.* 427. *Sibth.* 293. *Abbot.* 243. *Dicks. H. Sicc. fasc.* 15. 19. *Curt. Lond. fasc.* 3. t. 67. f. 2. *Turn. Musc. Hib.* 122.

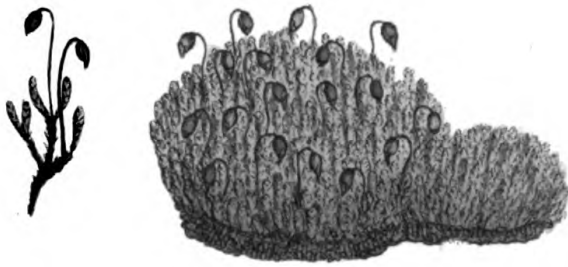
*B. pendulum julaceum, argenteum et sericeum.* *Dill. Musc.* 392. t. 50. f. 62.

*B. capitulis subrotundis reflexis, cauliculis teretibus argenteis.* *Raii Syn.* 100.

COMMON in the spring on dry open spots, especially on the tops of walls and stone roofs, where its beautiful silvery hue in moist weather renders it impossible to be overlooked or mistaken.

The stems form perennial, round, cushion-like tufts, and when separated are found to be much branched, about half an inch high, with cylindrical blunt branches, tapering at the base. Leaves closely imbricated on all sides, of a broad ovate figure, swelling, entire, single-ribbed, tipped with a hair, more or less of their upper part pellucid and colourless, which gives the silvery appearance above mentioned. The fruitstalks come forth in the early spring, from the tops of old branches, just where the new ones originate, and are not an inch long, red below, pale and curved at the summit. Capsule of a short ovate form, brown or reddish. Lid convex with a point. Veil small, soon falling off. Fringe yellow.

1602



May 2. 1806. Published by J. G. Smith, London.



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[ 1021 ]

BRYUM Zierii.  
*Zierian Bryum.*

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CRYPTOGAMIA Musci.

GEN. CHAR. *Fringe* double: *outer* of 16 teeth, broad at their base: *inner* a toothed membrane. *Flowers* terminal.

SPEC. CHAR. Stems branched after flowering. Leaves ovate, imbricated, concave, pointed. Capsules drooping, ovate, with a tapering base.

SYN. Bryum Zierii. *Dicks. Crypt. fasc. 2. 8. t. 4. f. 10. H. Sicc. fasc. 1. 19. With. 839. Hull. 256. Hedw. Sp. Musc. 182. t. 44. f. 1—4.*

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WE are obliged to Mr. Griffith for Welch specimens of this rare alpine moss, never found by any other botanist except Mr. Dickson, who in its specific name has honoured the memory of his friend the learned and accurate Zier.

It grows in tufts upon moist banks. The leafy stems, short and simple at first, become divided above the flowering summit, and are finally near an inch long. Leaves imbricated, small, concave, ovate, entire, pointed, ribbed, bright-green at first, afterwards whitish or flesh-coloured. Stalks capillary, about half an inch long, erect. Capsules drooping, club-shaped when green, but as they ripen they assume their true form, which is ovate, standing on a tapering or club-shaped receptacle of their own length and brown colour. Veil reddish, entire, slender, tipped with the capillary remains of the style. Lid convex, pointed. Outer fringe of 16 sharp red and yellow teeth: inner a lacinated membrane.

It appears to us that the immortal Hedwig, whose labour and skill in decyphering the characters of these curious vegetables cannot be too highly praised, has nevertheless laid too much stress on the minute differences of structure in their inner fringe or *peristomium internum*, and has thence made too many genera out of what we consider as true *Brya*.



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## BRYUM julaceum.

*Slender-branched Thread-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe of 16 teeth, broad at the base ; inner a toothed membrane. Flowers terminal. Capsule ovate-oblong, smooth. Veil smooth.*

SPEC. CHAR. *Stem branched from the base. Leaves ovate, concave, imbricated, obtuse, pointless. Capsule club-shaped, pendulous.*

SYN. *Bryum julaceum. Schrad. Spicil. 70. Sm. Fl. Brit. 1357.*

*B. filiforme. Dicks. Crypt. fasc. 4. 16.*

*B. argenteum*  $\beta$ . *Linn. Sp. Pl. 1586. Huds. 489. With. 839. Hull. 256.*

*B. pendulum, surculis teretibus viridibus. Dill. Musc. 394. t. 50. f. 63.*

*B. trichodes, capitulis reflexis, viridissimum holosericeum. Dill. Giss. 226. app. 86. t. 2. f. F.*

**DILLENIIUS** says he gathered this on the gravel walks of the Oxford garden. Mr. Dickson found it in moist rather mountainous places in Scotland, and our specimens were gathered by Mr. G. Don on the mountain of Clova in Angusshire, in July or August.

This elegant species has been supposed a variety of *B. argenteum*, *t.* 1602, but without much examination. It is much larger, with long slender erect and acute branches, forming dense tufts, of a bright silky green, not silvery. Leaves small, closely imbricated, ovate, entire, rather concave, single-ribbed in the lower part, obtuse, without any hair-like point. Fruit-stalk from the base of a branch, an inch or more in height, wavy, red. Capsule pendulous, brown, smooth, of a slender obovate or pear-shaped form. Lid convex with a little point.

2270

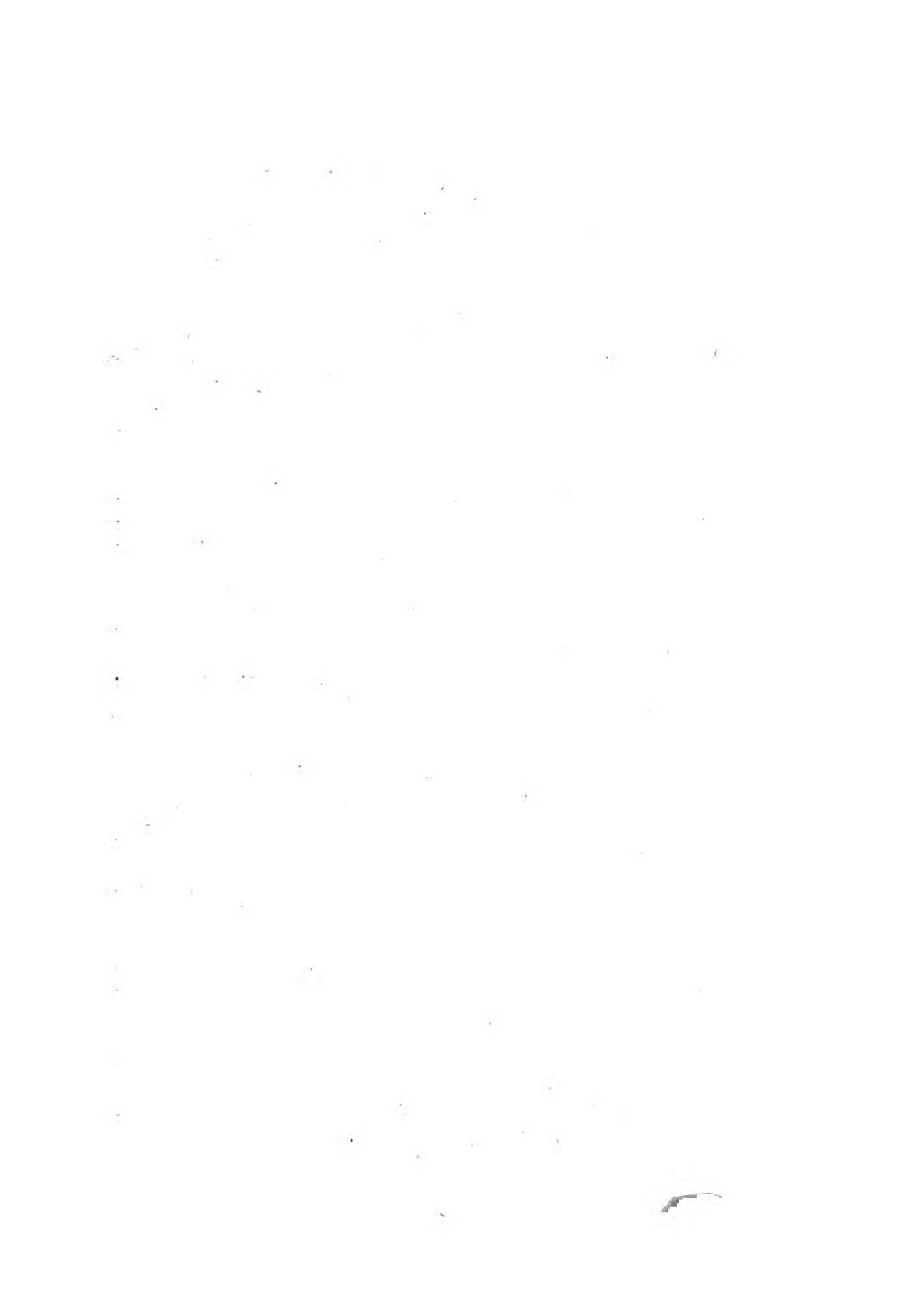


*Illustrated by J. S. Sargent*



1





[ 2007 ]

BRYUM capillare.  
*Greater Matted Thread-moss.*

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CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe* of 16 teeth, broad at the base; *inner* a toothed membrane. *Flowers* terminal. *Capsule* ovate-oblong, smooth. *Veil* smooth.

SPEC. CHAR. Stem branched from the base, tufted. Leaves obovate, hair-pointed, twisted when dry. Capsule club shaped, pendulous.

SYN. *Bryum capillare.* *Linn. Sp. Pl.* 1586. *Sm. Fl. Brit.* 1357. *Hedw. Sp. Musc.* 182. *Huds.* 488. *Hull.* 255. *Lightf.* 737. *Sibth.* 290. *Turn. Musc. Hib.* 120.

*B. foliis latiusculis congestis, capsulis longis nutantibus.* *Dill. Musc.* 398. *t.* 50. *f.* 67.

*B. capitulis reflexis, foliolis latiusculis congestis.* *Raii Syn.* 100.

*Mnium capillare.* *Linn. Fl. Suec.* 385. *With.* 805. *Relh.* 420. *Abbot.* 234.

---

FOUND in woods and on heathy banks, not, like *B. cæspitium*, *t.* 1904, on walls or roofs, nor about much-frequented places in general. It bears fruit about the same time as that species, or rather later, and agrees with it in general appearance, differing chiefly in being always much larger. The branches when full-grown are near an inch long. Leaves obovate, concave, keeled, thickened at the edge, and sometimes slightly serrated at the very summit, each tipped with a long hair. When dry they are twisted together, and form a sort of spiral star at the top of each branch. Fruit-stalks an inch and half long, firm, deep crimson. Capsule pendulous, twice as large as *B. cæspitium*, and more elongated, being when old so taper at the base as to become club-shaped rather than obovate. Lid of a shining red brown, hemispherical with a little point. Outer fringe orange-coloured, with long-pointed teeth.

2007



*April 1 1869 Published by Ja<sup>r</sup> Severky London.*

✓



[ 1862 ]

## B R Y U M annotinum.

*Summer Thread-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe* of 16 teeth, broad at the base: *inner* a toothed membrane. *Flowers* terminal. *Capsule* ovate-oblong, smooth. *Veil* smooth.

SPEC. CHAR. Stem branched from the base. Leaves ovato-lanceolate, pellucid, keeled, somewhat serrated. Capsule obovate, pendulous.

SYN. *Bryum annotinum*. *Hedw. Sp. Musc.* 183. t. 43. *Sm. Fl. Brit.* 1358. *Huds.* 490. *Hull.* 255. *Sibth.* 291. *Turn. Musc. Hib.* 123.

*B. annotinum lanceolatum pellucidum*, capsulis oblongis pendulis. *Dill. Musc.* 399. t. 50. f. 68.

*Mnium annotinum*. *Linn. Sp. Pl.* 1576. *With.* 805.

THIS moss is frequent enough on moist turfy ground, but very rarely indeed produces any capsules. We have gathered it in fruit once only, on Scarning common, Norfolk, in May 1780. The Rev. Dr. Abbot sent specimens from the thatch of a cottage near Bedford. The stellated male blossoms frequently occur.

The roots are probably perennial. Stems red, erect, leafy; those of the male plants simple, zigzag, with one terminal stellated blossom: those of the female ones very short, each bearing a terminal fruit-stalk, and throwing out several tall leafy simple branches from the bottom. Leaves of a bright transparent green, finely reticulated, lanceolate inclining to obovate, keeled, with a rib ending in a point, serrated in their upper part. Fruit-stalk red, wavy, an inch and half long. Capsule pendulous, pear-shaped. Lid conical, very short, pointed, reddish when ripe. Fringe pale.

As this species so rarely bears fruit, and yet so frequently occurs, we presume it to be perennial, though Dillenius seems to think otherwise. Perhaps it may generally be increased by buds, which are often borne in the bosoms of the leaves of the male plant, in which state it is the truly wonderful *Trentepohlia* of several German authors, named, as some of them inform us, after the Rev. Mr. Trentepohl.





✓



[ 1527 ]

## BRYUM compactum.

*Compact Thread-moss.*

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*CRYPTOGAMIA Musci.*

GEN. CHAR. *Fringe* double: *outer* of 16 teeth, broad at their base: *inner* a toothed membrane. *Flowers* terminal. *Capsule* ovate-oblong, smooth. *Veil* smooth.

SPEC. CHAR. Stem divided at the base. Leaves lanceolate, keeled, serrated towards the point. Capsule ovate, pendulous.

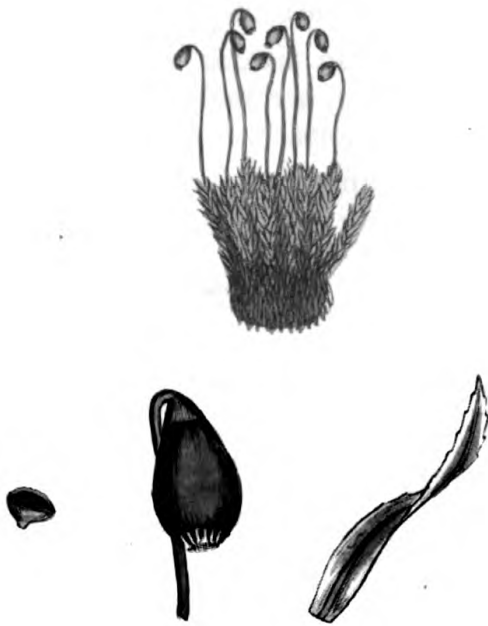
SYN. *Bryum compactum*. *Dicks. Crypt. fasc. 4. 15. t. 11. f. 11.* *Sm. Fl. Brit. 1859.* *Turn. Musc. Hib. 124.*

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ALL our knowledge of this *Bryum* was derived from Mr. Dickson, till specimens were sent to Mr. Sowerby by the Rev. Mr. Dalton, who has been uncommonly fortunate in discovering rare mosses near his residence at Copgrove, Yorkshire. He found it in a small running drain near Scriven, the seat of Sir Thomas Slingsby, Bart., and in another drain between Copgrove and Farnham. The capsules are perfected in the spring.

The roots are perennial. Stems half an inch or more in height, erect, forming a dense tuft, some of them simple, others divided at the bottom, often stripped of their leaves in the lower part, when they appear red. Leaves of a pale yellowish shining green, narrow, lanceolate, acute, keeled, serrated from the middle to the point, furnished with a strong red rib; the lowermost shorter and almost heart-shaped. Fruit-stalk terminal, solitary, scarcely an inch long, a little wavy, of a red or tawny hue. Capsule pendulous; when ripe ovate, short, brownish, with a spreading mouth so as to be almost turbinate; in an earlier state the capsule is rather pear-shaped. Lid convex, with a small point, red. Fringe red.

1727



*Bot. Soc. England by J. Sowerby, London.*

J



BRYUM attenuatum.

*Slender Proliferous Thread-moss.*

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CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe of 16 teeth, broad at the base: inner a toothed membrane. Flowers terminal. Capsule ovate-oblong, smooth. Veil smooth.*

SPEC. CHAR. *Stem simple, proliferous. Leaves stellate, ovate, entire, reticulated. Capsule club-shaped, somewhat cylindrical, erect.*

SYN. *Bryum attenuatum. Dicks. Crypt. fasc. 4. 8. t. 10. f. 8. Sm. Fl. Brit. 1360.*

---

COLLECTED by Mr. Dickson in bogs on the mountains of Scotland. Mr. D. Turner, who has examined the fringe, assures us it is that of a *Bryum*; further we know nothing, except from a drawing made by Mr. Sowerby from an original specimen.

The stems are simple, slender, about an inch high, throwing out roots here and there, and apparently making annual shoots, each of which is marked by a sort of tuft or whorl of crowded leaves, which are ovate, acute, entire, single-ribbed, pellucid and reticulated. Capsule on a solitary, slender, pale, terminal stalk, obovate, slender, tapering at the base, smooth, contracted at the mouth. Lid small, convex. Fringe not sufficiently advanced to be observed.



*July 1872 published by J. L. Linné & Co.*



v



[ 2271 ]

## BRYUM hornum.

*Swan's-neck Thread-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe of 16 teeth, broad at the base; inner a toothed membrane. Flowers terminal. Capsule ovate-oblong, smooth. Veil smooth.*

SPEC. CHAR. *Stem simple. Leaves lanceolate, bordered with fine teeth. Fruit-stalk bowed. Capsule ovate, drooping.*

SYN. *Bryum hornum. Huds. 491. Sm. Fl. Brit. 1360. Hull. 266. Sibth. 290. Curt. Lond. fasc. 1. t. 71. Dicks. H. Sicc. fasc. 4. 23. Turn. Musc. Hib. 128. Winch. v. 1. 115.*

*B. stellare hornum sylvarum, capsulis magnis nutantibus. Dill. Musc. 402. t. 51. f. 71.*

*B. nitidum, capitulis majoribus reflexis, calyptrâ imùm vergente, pediculis oblongis e cauliculis novis egredientibus. Raii Syn. 102.*

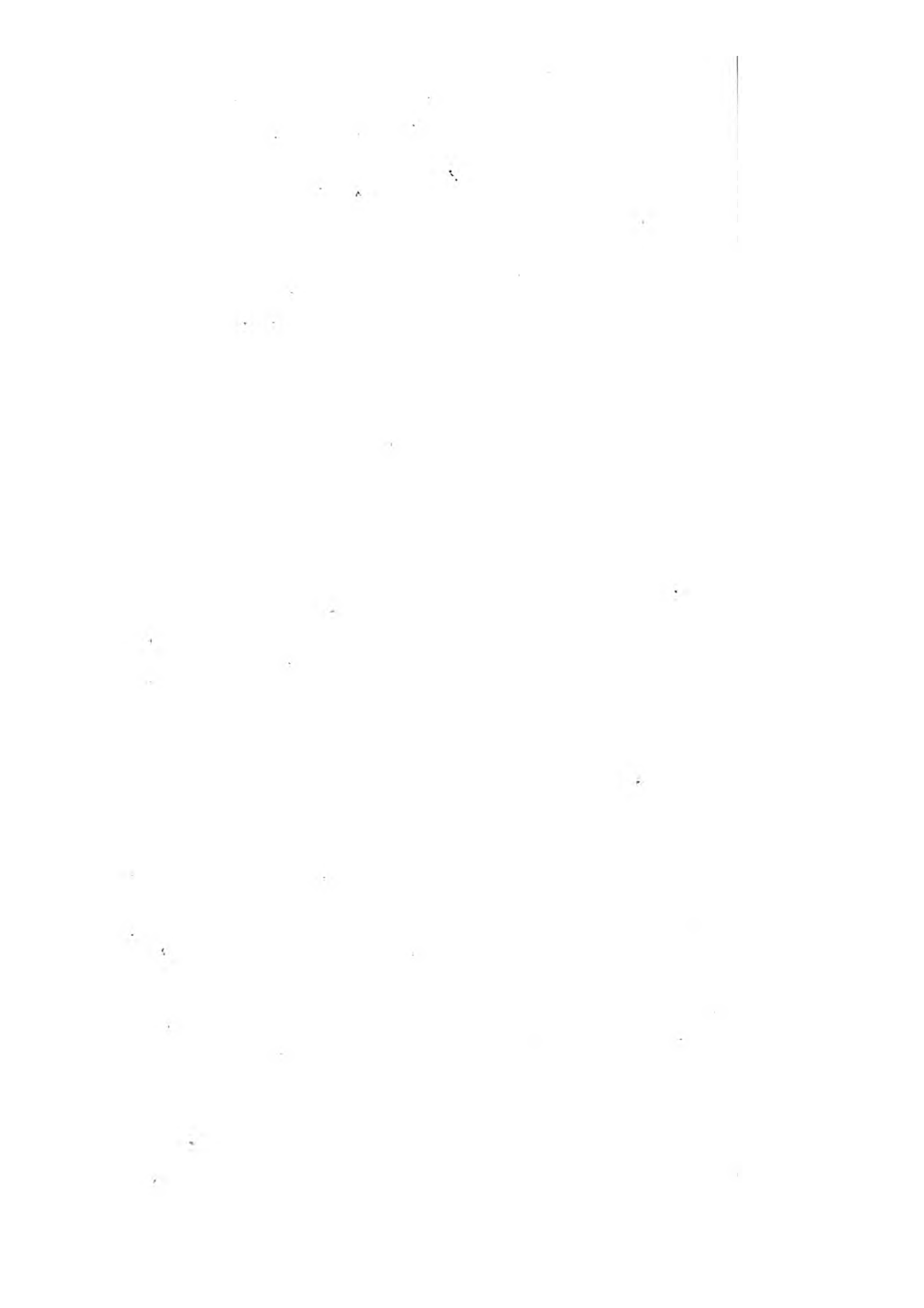
*Mnium hornum. Linn. Sp. Pl. 1576. With. 804. Lightf. 711. Relh. 419. Abbot. 233. Ehrh. Crypt. 3.*

**N**OT uncommon in rather moist umbrageous woods, bearing fruit in the spring. It is one of the largest of its genus. The stems form dense, soft, elastic tufts, several inches high, furnished with close, blackish, fibrous, perennial roots. Each stem is simple, annual, whence the trivial name, from one to two inches in height, reddish, leafy. Leaves alternate, bright green, wavy when dry, pellucid, membranous, spreading, lanceolate, acute, beardless, single-ribbed, their edges and keel rather toothed than serrated. The male flowers are terminal, reddish, encompassed with large, spreading, star-like leaves, and are so conspicuous that nobody could overlook them, how much soever botanists might differ about their use. The female ones grow on a different plant. The fruitstalks are solitary, terminal, red, two inches or more in height, most curved in the upper part, so as often to imitate the graceful position of a swan's neck; under the fruit they are a little thickened. Capsule large, drooping, ovate inclining to elliptic, abrupt, turgid, thin, smooth, red brown, with a crimson mouth. Lid convex with a little point. Fringe yellowish.

Specimens of this species, in various stages of growth, were sent by Hedwig to Linnaeus to demonstrate the sexes of mosses.



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## BRYUM crudum.

*Transparent-green Thread-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe* of 16 teeth, broad at the base: *inner* a toothed membrane. *Flowers* terminal. *Capsule* ovate-oblong, smooth. *Veil* smooth.

SPEC. CHAR. Stem simple. Leaves lanceolate, acute, entire; the uppermost narrow and minutely toothed. Capsule oblong, drooping.

SYN. *Bryum crudum*. *Huds.* 491. *Sm. Fl. Brit.* 1361. *Hull.* 266. *Turn. Musc. Hib.* 130.

*B. sericeum*. *Huds.* 487, according to Rev. H. Davies.

*B. pendulum* *hornum molle*, *foliis lanceolatis et gramineis*. *Dill. Musc.* 401. *t.* 51. *f.* 70.

*Mnium crudum*. *Linn. Sp. Pl.* 1576. *Hedw. Sp. Musc.* 189. *Crypt. v.* 1. 99. *t.* 37. *With.* 807. *Ehrh. Crypt.* 152.

GATHERED by Mr. W. Brunton at Moss Dale Head, Wensley Dale, in the north of Yorkshire. It bears fruit in the summer, and is perennial.

We have compared our specimens with original ones of Dillenius, Hedwig, Ehrhart, and other writers. Much affinity is observable between this species and *B. elongatum*, though there are abundant marks of distinction, particularly in the inner fringe, which in *B. crudum* has the usual structure of the genus. The size of the whole plant is also twice as large; the leaves are much broader, and thin at the edge, the upper ones only being lengthened out into a narrow linear shape and slightly toothed; the capsules are thicker, when ripe rather oblong than ovate, with much less of that base or *apophysis* into which the cavity for the seeds does not extend. The lid is like *B. elongatum*. We conceive that these 2 species ought naturally to be placed near each other, though in the *Flora Britannica*, out of deference to the method of Hedwig, they stand far asunder. The natural distribution of all the species, as well as genera, of mosses with respect to each other, can only be perfected by degrees, when more exotic ones are observed with this particular view.

1604



June 1806. Published by J. Sowerby, London.



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## B R Y U M marginatum.

*Thick-edged Thread-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, smooth. *Fringe* double: *outer* of 16 teeth, broad at their base: *inner* a toothed membrane. *Flowers* terminal.

SPEC. CHAR. Stem simple. Leaves lanceolate, acute, finely toothed; thickened at the margin. Capsule ovate. Lid conical.

SYN. *Bryum marginatum.* *Dicks. Crypt. fasc. 2. 9. t. 5. f. 1. Sm. Fl. Brit. 1362. With. 841. Hull. 267. Turn. Musc. Hib. 129.*

*Mnium crudum.* *Lightf. 712.*

THE Rev. Dr. Burgess, so often quoted in the *Fl. Scotica*, first found this moss in woods and moist shady places in Dumfriesshire. From him I obtained corresponding specimens with those which he gave Mr. Lightfoot, who mentions the plant as *Mnium crudum*, very incautiously translating from Dillenius a description extremely foreign to the purpose. Mr. Dickson found the same moss in Scotland, and first named it properly. Our specimens were found, and determined, at Copgrove, Yorkshire, by our very obliging correspondent the Rev. James Dalton.

It is perennial, bearing fruit in April or May. The stems are simple, red, leafy, upright, about an inch high. Leaves elliptic-lanceolate, acute, wavy, finely toothed, especially in the upper part, remarkable for a thick cartilaginous margin, which, as well as the rib, is often red. Fruit-stalk solitary, erect, an inch long, flesh-coloured. Capsule pendulous, ovate. Lid conical at the base, with a taper point. Veil awl-shaped, brown or reddish, curved generally upwards as it grows.

1473



*Junca 1805. Published by J. Sowerby, London.*

✓



[ 2371 ]

## B R Y U M interruptum.

*Interrupted Thread-moss.*


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 CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe of 16 teeth, broadest at the base; inner a toothed membrane. Flowers terminal. Capsule ovate-oblong, smooth. Veil smooth.*

SPEC. CHAR. *Stem branched, interruptedly leafy. Leaves lanceolate, acute, finely serrated throughout. Capsule pear-shaped, nearly erect.*

SYN. *Bryum interruptum. Dicks. Crypt. fasc. 4. 13. t. 11. f. 6. Sm. Fl. Brit. 1363.*

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**F**OUND on the alpine rocks of Scotland by Mr. Dickson, who bestowed on us a specimen, here delineated, from Ben Nevis. We have borrowed from the original sketch, made for his plate, what more decidedly shows the interrupted foliation of this species.

The perennial stems constitute dense tufts, an inch or two high, and are determinately branched, interruptedly leafy, red in the naked parts. Leaves clustered, bright green or yellowish, shining, reticulated, lanceolate, acute, with a mid-rib, equally and finely serrated; the lower ones more distant, small and short. Fruitstalk erect, red, hardly an inch high, terminal in its origin, though surmounted by branches. Capsule nearly erect, brown, pear-shaped, with a rather wide mouth, obscurely reticulated. Lid hemispherical, with a blunt point.

2371.



*For. 1887 published by J. E. Burroughs, London*







BRYUM nigricans.  
*Dark-green Thread-moss.*

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CRYPTOGAMIA Musci.

GEN. CHAR. *Fringe* double: *outer* of 16 teeth, broad at their base: *inner* a toothed membrane. *Flowers* terminal. *Capsule* ovate-oblong, smooth. *Veil* smooth.

SPEC. CHAR. Stem branched at the base. Leaves lanceolate, straight, serrated about the point. Capsule turbinate, pendulous.

SYN. *Bryum nigricans*. *Dicks. Crypt. fasc. 4. 15. t. 11. f. 10.* *Sm. Fl. Brit. 1363.*

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NO one but Mr. Dickson seems to have known this moss, till from his Scottish specimens, and the account published by himself, a description of it appeared in the *Flora Britannica*. Our liberal friend Mr. Winch has lately communicated it from Northumberland. It bears fruit in July and is perennial, growing on turfy bogs.

The stems form tufts an inch or two in height, and are more or less branched. Leaves of a dull darkish green, closely imbricated, straight, lanceolate, broadish, acute, keeled; dilated and entire at the base; serrated near the point. Fruit-stalk terminal, solitary, various in length, wavy, curved at the top, red. Capsule pendulous, turbinate; when ripe of a rusty brown, with a wide mouth. Lid convex, with a little blunt point. Fringe yellowish.

2528



*Vol. 2 1815 Published by J. Sowerby, London*

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BRYUM cubitale.

*Elbow-shaped Thread-moss.*

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CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe of 16 teeth, broad at the base; inner a toothed membrane. Flowers terminal. Capsule ovate-oblong, smooth. Veil smooth.*

SPEC. CHAR. *Stem ascending, somewhat branched. Leaves lanceolate, entire, decurrent. Fruitstalk bent. Capsule clubshaped, pendulous.*

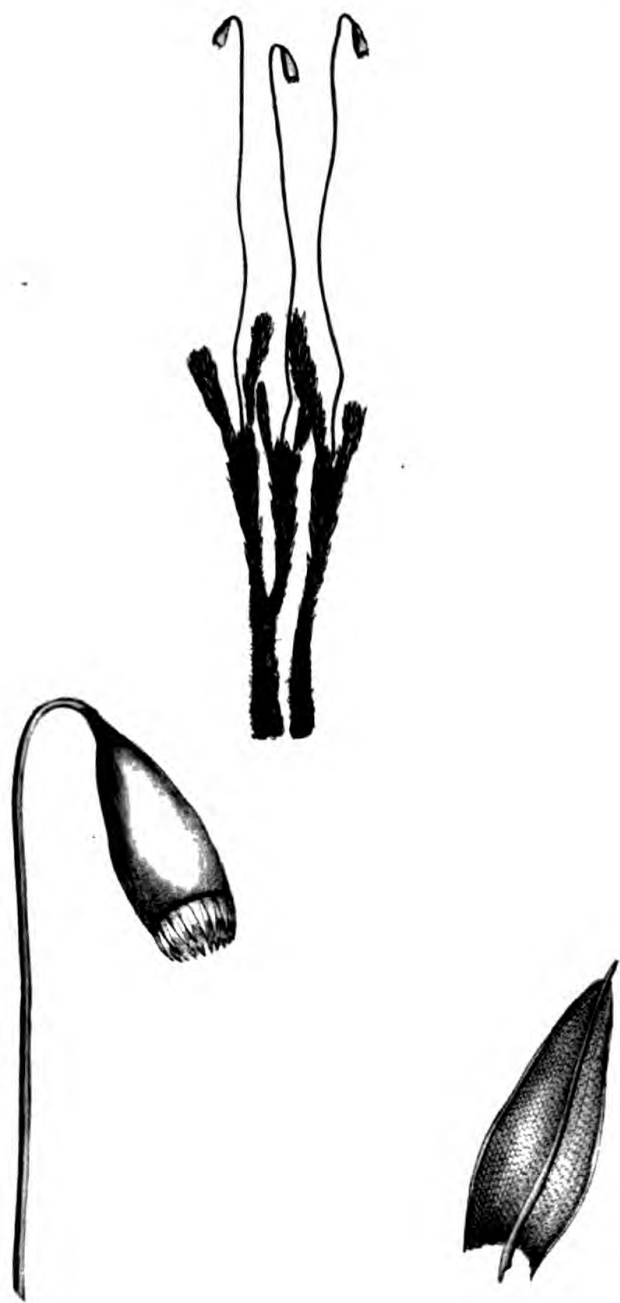
SYN. *Bryum cubitale. Dicks. Crypt. fasc. 2. 9. t. 5. f. 2. Sm. Fl. Brit. 1364. With. 840. Hull. 267.*

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**T**HIS large species of *Bryum*, distinguished by a singular bending near the base of its fruitstalks, was gathered by Mr. Dickson on moist banks near Aberfeldy in North Britain. We know of no other botanist who has observed it.

The habit approaches that of *bimum*, t. 1518, the stems being two or three inches high, clothed with rusty down, leafy, and irregularly branched. Leaves spreading, bright green, pellucid, reticulated, with a strong red mid-rib, and a thickened entire margin of the same hue. The apex is crowned with a minute point; the base is slightly decurrent. Fruitstalks solitary at the top of last-year's shoots, three or four inches long, of a shining tawny brown; bent near the bottom. Capsule pendulous, club-shaped, tapering at the base, pale brown, smooth, red at the margin, with a light-yellow fringe.

2554



*Funaria hygrometrica* Hedw.



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[ 2272 ]

## B R Y U M ventricosum.

*Swelling Bog Thread-moss.**CRYPTOGAMIA Musci.*

**GEN. CHAR.** *Outer fringe of 16 teeth, broad at the base: inner a toothed membrane. Flowers terminal. Capsule ovate-oblong, smooth. Veil smooth.*

**SPEC. CHAR.** *Stem determinately branched; the branches ascending. Leaves alternate, ovato-lanceolate, serrated near the point. Capsule swelling, pendulous.*

**SYN.** *Bryum ventricosum. Dicks. Crypt. fasc. 1. 4. Sm. Fl. Brit. 1365. Relh. 427. Turn. Musc. Hib. 126. Winch. v. 1. 115.*

*B. triquetrum. Huds. 490, α. Hull. 256.*

*B. annotinum palustre, capsulis ventricosis pendulis. Dill. Musc. 404. t. 51. f. 72.*

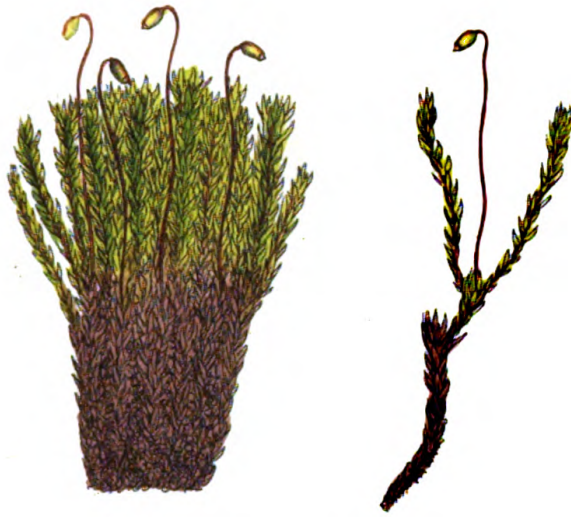
*B. nitidum, foliis serpilli angustioribus, majus. Dill. in Raii Syn. 102.*

*Mnium pseudo-triquetrum. Hedw. Sp. Musc. 190. Crypt. v. 3. 19. t. 7. With. 108.*

*M. triquetrum. Abbot. 235. Lightf. 715.*

**GATHERED** on the sandy brink of the river at Meavis bank near Edinburgh, bearing fruit in April. It prefers marshy or boggy places, especially where there is a mixture of sand or gravel, not mud. The long perennial rusty roots grow in close tufts. The stems are bright red, and have two or more branches springing from beneath the fructifying spot, which ascend in a slightly spreading posture. Leaves pale green, lax, rather alternate than three-ranked, moderately spreading, lanceolate, or in some measure ovate, acute, single-ribbed, serrated near the top, twisted when dry. Male and female organs often in the same flower, according to Hedwig. Fruitstalk from the top of last-year's branch, an inch and half or two inches high, nearly upright, red below, yellowish above. Capsule pendulous, ovate, short, tumid near the base, a little constricted under the mouth. Hedwig draws it, as he himself describes it, contracted at the base after the seeds are discharged. Lid convex, with a rather prominent point. Fringe yellow.

2272



*Asplenium bulbosum* L. f. *Asplenium bulbosum* L.

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[ 1518 ]

## BRYUM bimum.

*Long-stalked Bog Thread-moss.**CRYPTOGAMIA Musci.*

GEN. CHAR. *Fringe* double: *outer* of 16 teeth, broad at their base: *inner* a toothed membrane. *Flowers* terminal. *Capsule* ovate-oblong, smooth. *Veil* smooth.

SPEC. CHAR. Stem branched. Leaves alternate, linear-lanceolate, slightly serrated near the point. Capsule obovate, elongated, pendulous.

SYN. *Bryum bimum.* Schreb. *Lips.* 83. Sm. *Fl. Brit.* 1365. Turn. *Musc. Hib.* 127.

*B. triquetrum*  $\beta$ . Huds. 490. Hull. 256.

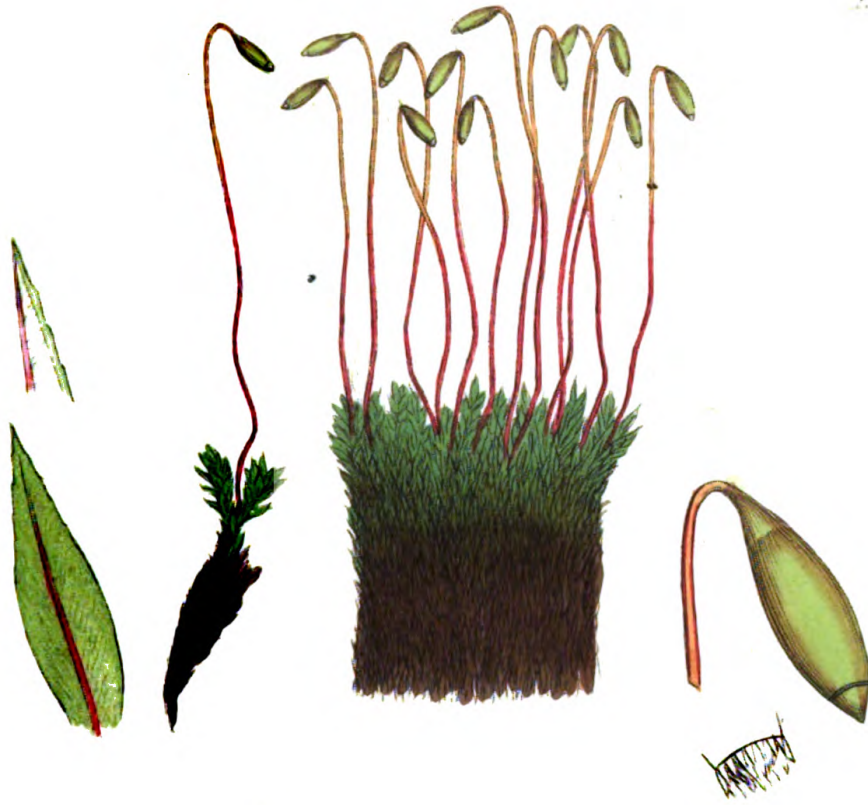
*B. lanceolatum bimum*, setis et capsulis longis pendulis. Dill. *Musc.* 405. t. 51. f. 73.

*B. nitidum*, foliis serpilli pellucidis angustis, capitulis tumidis nutantibus, præaltis pediculis e surculis an-  
notinis egredientibus. Dill. in *Raii Syn.* 102.

*Mnium pseudo-triquetrum*, var. 2. With. 808.

FOR this we are obliged to Mr. Winch, It is found in mountainous boggy places, bearing fruit in the summer season, and is perennial.

Stems 2 or 3 inches high, irregularly branched, soon assuming a dark ferruginous hue. Leaves longish, sharp-pointed, pale green, pellucid, obsoletely serrated in the upper part, varying in breadth, furnished with a coloured midrib. Fruit-stalks, as Dillenius observes, from the summits of branches which are 2 or 3 years old, purple below, pale above, polished, 2 or 3 inches long, often bent near the base. Capsule pendulous, long, of a slender obovate or club-shaped figure when ripe. Fringe yellow.



Oct 2 1845. Engraved by J. Sowerby, London.



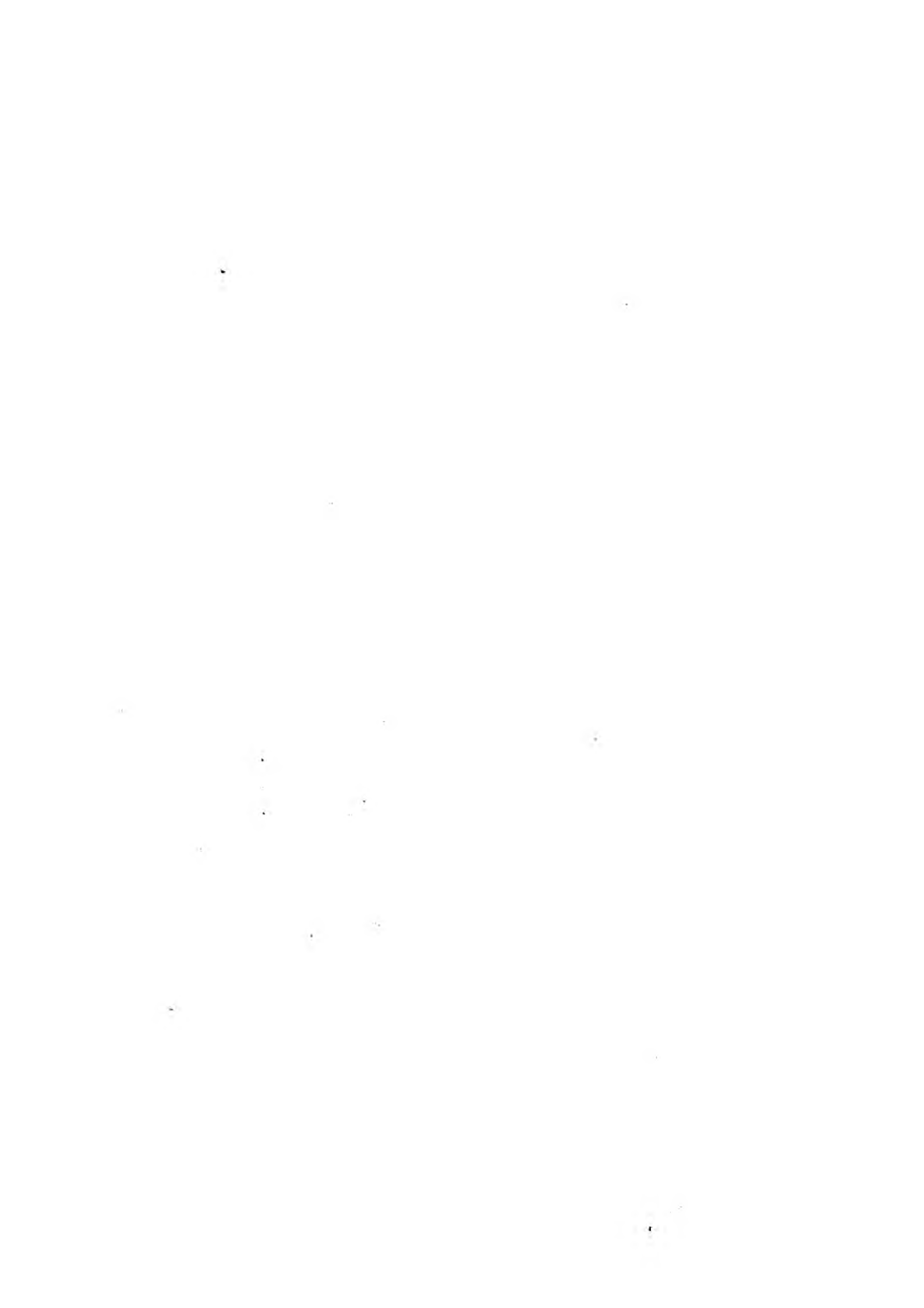
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## BRYUM turbinatum.

*Pear-shaped Bog Thread-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe* of 16 teeth, broad at the base: *inner* a toothed membrane. *Flowers* terminal. *Capsule* ovate-oblong, smooth. *Veil* smooth.

SPEC. CHAR. Stem branched. Leaves ovate, bearded, entire. Capsule pear-shaped, pendulous.

SYN. *Bryum turbinatum.* Swartz. *Musc. Suec.* 49. *Sm. Fl. Brit.* 1366.

*B. triquetrum*  $\gamma$ . *Huds.* 491.

*B. palustre complicatum rubens, capsulis turbinatis pendulis.* *Dill. Musc.* 406. *t.* 51. *f.* 74.

*B. nitidum rubens, capitulis reflexis, foliis angustis pellucidis, cauliculis proliferis.* *Dill. in Raii Syn.* 102.

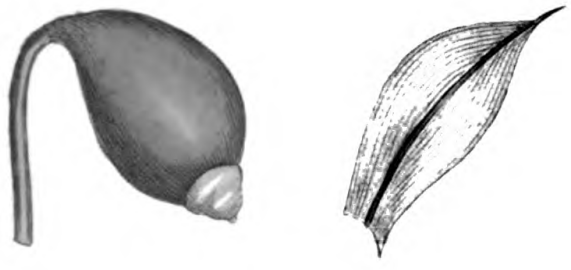
*Mnium turbinatum.* *Hedw. Sp. Musc.* 191. *Crypt. v.* 3. 22. *t.* 8.

*M. nutans.* *With.* 803. *Hull.* 255.

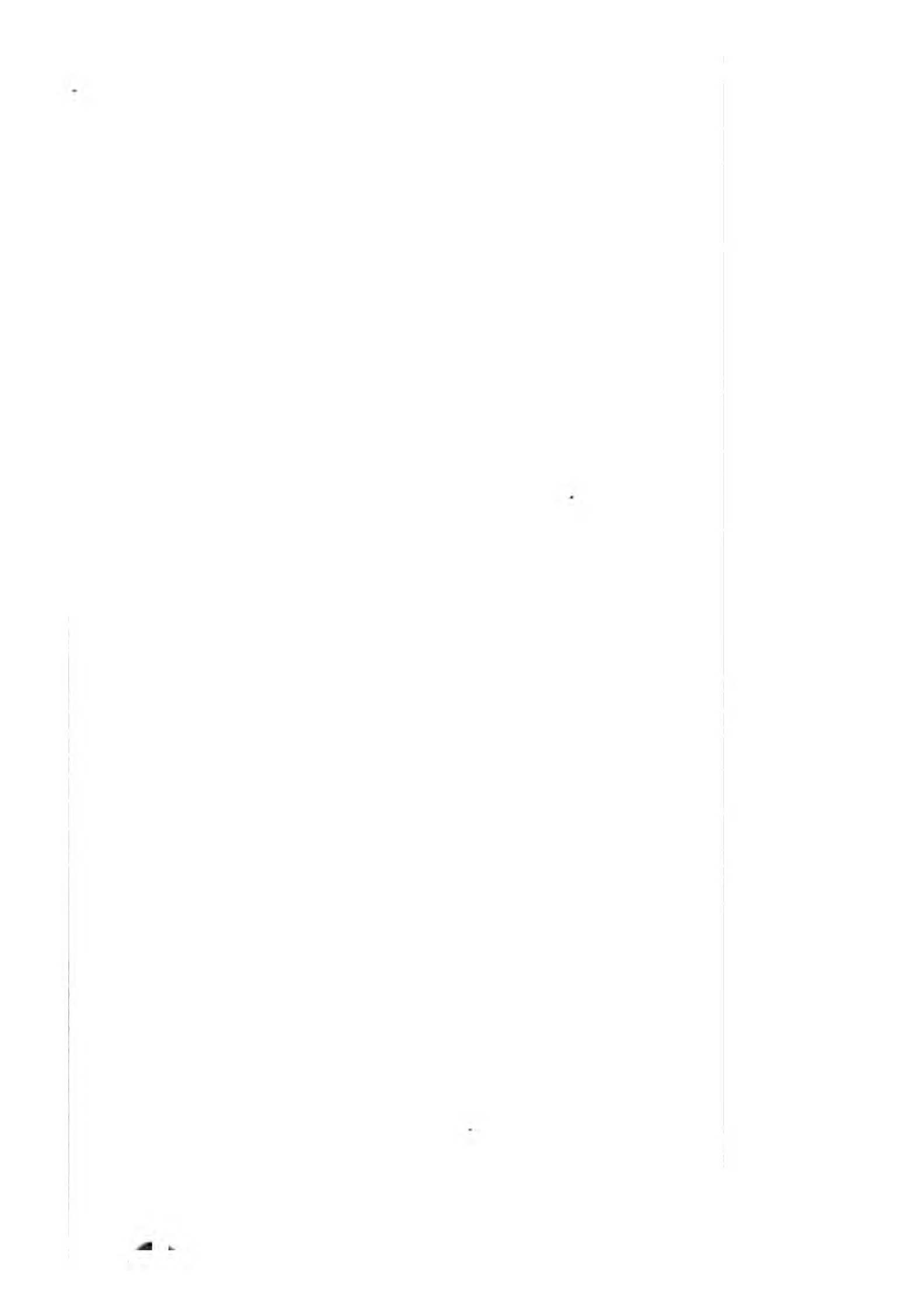
THIS seems to be a rare species. Dillenius mentions Shooter's hill and Wales as its stations. The Rev. Mr. Dalton finds it on Scotton banks near Knaresborough, and no where else. It bears fruit in spring and summer, and loves a wet sandy soil.

Stems about an inch high, perennial, branching, reddish. Leaves bright green, pellucid, reticulated, alternate, ovate, entire, with a strong rib ending in a small bristly point. Fruitstalk dark red, wavy, about an inch high. Capsule pendulous, pear-shaped, of a light shining brown when ripe. Lid convex, with a little point which is only perceptible in an early state. Fringe yellowish with a rusty hue.

1572



*March 1850. Collected by J. H. Dewey.*





## BRYUM stellare.

*Starry-leaved Thread-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe of 16 teeth, broad at the base: inner a toothed membrane. Flowers terminal. Capsule ovate-oblong, smooth. Veil smooth.*

SPEC. CHAR. *Stem branched. Leaves ovate, pointed, reticulated with roundish interstices; the upper ones serrated and stellate. Capsule oblong, pendulous.*

SYN. *Bryum stellare. Roth. Germ. v. 3. 240. Sm. Fl. Brit. 1367.*

*B. proliferum, var. 2. Hull. 266.*

*B. serpyllifolium ε. Huds. 492.*

*B. stellare roseum pendulum minus, capsulis et setis longioribus. Dill. Musc. 412. t. 52. f. 78.*

*B. roseum minus, foliis subrotundis. Raii Syn. 92.*

*Mnium stellare. Hedw. Sp. Musc. 191. t. 45. f. 1—4.*

*M. proliferum, var. 2. With. 807.*

**F**OUND occasionally in woods, and moist heathy spots. The stem is an inch or two high, branched in a determinate manner, leafy and perennial, with many rusty radicles. Leaves light green, ovate or obovate with a short point, and a strong red rib. Under a magnifier they are found beautifully reticulated with roundish interstices. The lower ones are entire; the uppermost are crowded and stellate, and their tips are more or less serrated. Fruitstalk solitary, two inches high, smooth, rather stiff, not quite straight. Capsule pendulous, cylindrical inclining to obovate. Lid hemispherical with a small point.

2434



*Joly variegata* var. *glaberrima* Hedw.



✓





[ 1474 ]

## BRYUM cuspidatum.

*Pointed-leaved Thyme Thread-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, smooth. *Fringe* double: *outer* of 16 teeth, broad at their base: *inner* a toothed membrane. *Flowers* terminal.

SPEC. CHAR. Stem simple: when barren procumbent and somewhat branched. Leaves ovate, serrated. Capsule ovate. Lid hemispherical.

SYN. *Bryum cuspidatum*, Swartz. *Musc. Suec.* 51. *Sm. Fl. Brit.* 1368. *Hull.* 266. *Sibth.* 291.

*B. serpyllifolium*  $\gamma$ . *Huds.* 492.

*B. pendulum*, foliis variis pellucidis, capsulis ovatis. *Dill. Musc.* 413. *t.* 53. *f.* 79.

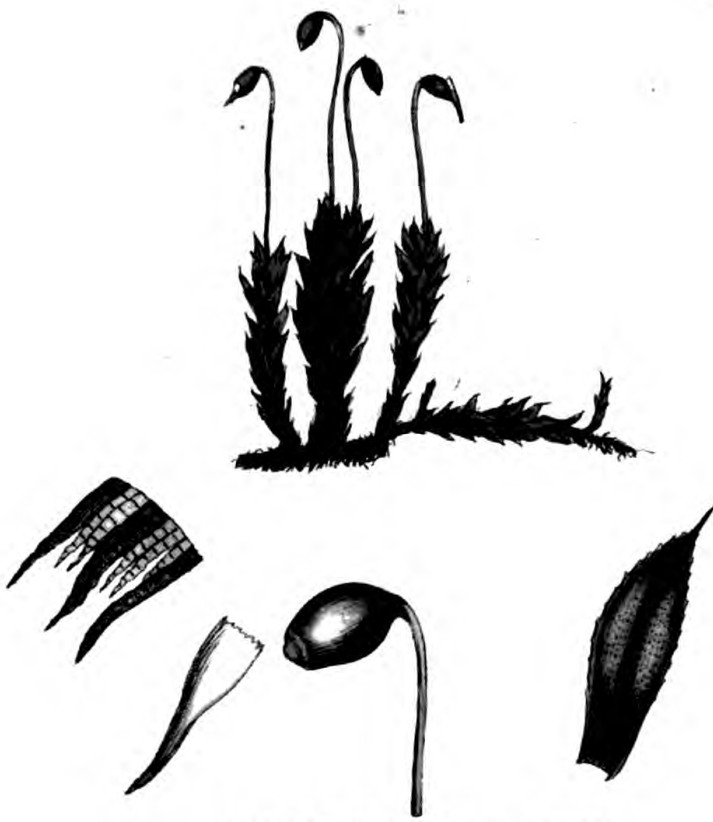
*Mnium cuspidatum*. *Hedw. Sp. Musc.* 192. *t.* 45. *f.* 5—8. *With.* 804. *Relh.* 420. *Abbot.* 234.

*M. serpyllifolium*  $\beta$ . *Linn, Sp. Pl.* 1577.

THIS species is common in shady moist groves, and is not very unfrequently found with capsules in the spring. We received it from the Rev. Mr. Dalton.

Its stems are of two kinds. The barren ones are procumbent and creeping, 2 or 3 inches, or more, in length, sometimes branched, always leafy. The flowering stems are upright, simple, only an inch high. The leaves are of a fine green, transparent, very minutely reticulated, of an ovate form with a sharp point, a little waved, and sharply serrated. Nerve strong, palish. Fruit-stalk solitary, erect, rose-coloured, a little zigzag. Capsule pendulous, ovate, rather short and broad when ripe, at which period it becomes yellow or tawny, with a blush on one side, and a red mouth. Lid convex, blunt. Fringe yellowish.

1474



June 2. 1805. Published by J. G. Sowerby, London.





## BRYUM punctatum.

*Dotted Thread-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Fringe* double : *outer* of 16 teeth, broad at their base : *inner* a toothed membrane. *Flowers* terminal.

SPEC. CHAR. Leaves obovate, entire, waved, dotted. Capsules elliptical, pendulous. Lid with a taper point.

SYN. *Bryum punctatum.* *Hull.* 266. *Sibth.* 291.

*B. serpyllifolium, punctatum.* *Huds.* 492.

*B. pendulum, serpylli folio rotundiore pellucido, capsulis ovatis.* *Dill. Musc.* 416. *t.* 53. *f.* 81.

*B. nitidum, serpylli rotundis et latioribus foliis pellucidis.* *Raii Syn.* 103.

*Mnium punctatum.* *With.* 805. *Relb.* 420. *Abbot.* 234 *Hedw. Sp. Musc.* 193.

*M. serpyllifolium, punctatum.* *Linn. Sp. Pl.* 1577.

**A** NATIVE of wet shady spots, for specimens of which from Tunbridge we are obliged to Mr. T. F. Forster. It is perennial, ripening its fruit during the winter and early spring; but neither the fruit, nor indeed the moss itself, is of very frequent occurrence.

The root consists of dense brown fibres. Stems generally simple, reddish, leafy. Leaves obovate, broad, more or less pointed, waved, entire, with a thick cartilaginous edge; their substance thin and pellucid, pale-green, beautifully dotted or reticulated like the leaves of a *Splachnum*, with a central rib. Flowers terminal, dioecious. The male flat, surrounded with a rose of larger leaves. Capsules elliptical, pendulous, on longish, red, upright, mostly solitary, stalks. Lid with a taper point, not half so long as the capsule.

Linnæus has most unwarrantably combined under his *Mnium serpyllifolium* many species as distinct from each other as they are all remarkable for elegance. The present is known at once by its broad dotted leaves.









## BRYUM rostratum.

*Long-beaked Thyme Thread-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. Caps. ovate-oblong, smooth. Fringe dentate: outer of 16 teeth, broad at their base: inner a toothed membrane. Flowers terminal.

SPEC. CHAR. Stem simple. Leaves obovato-spatulate, minutely serrated. Capsule ovate. Lid awl-shaped.

SYN. *Bryum rostratum*. Schrad. *Spicil.* 72. *Sm. Fl. Brit.* 1869.

*B. serpyllifolium* β. *Huds.* 492.

*B. punctatum*, var. 2. *Hull.* 266.

*B. pendulum*, serpylli folio longiore pellucido, capsulis oblongis cuspidatis. *Dill. Musc.* 416. t. 53. f. 80. *Herb. Dill.*

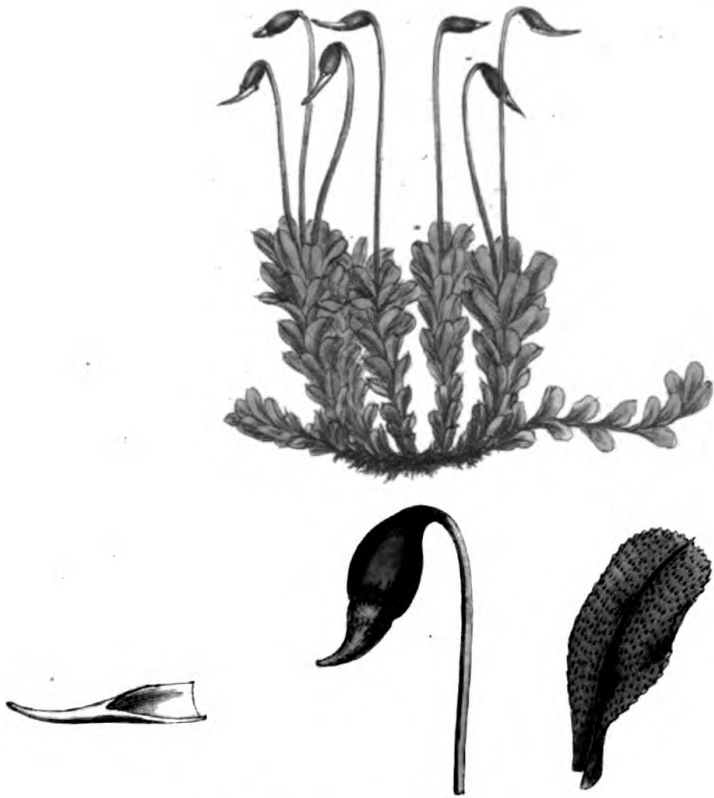
*Mnium punctatum*, var. 2. *With.* 806.

FOR this, which is much rarer and less known than the last, we are also obliged to Mr. Dalton, who found it at Copgrove and Flumpton, Yorkshire, in April 1805. Dillenius had it from his friend Richardson, who botanized much in the western part of that county.

It has been confounded with *B. punctatum*, t. 1183, to which an error of Dillenius has contributed, who figures and describes the leaves as entire, whereas they are finely serrated, even in his own specimen, as well as ours and Dr. Schrader's.

The stems are about an inch long, the fertile ones erect. Leaves different from those of *B. punctatum* in being smaller, more spatulate, not evidently dotted or reticulated, their margins finely serrated, not entire. Fruit-stalks often several together, an inch and half long, reddish or orange-coloured, purple at the base. Capsule pendulous, nearly elliptical, greenish with a pale red mouth. Lid nearly as long as the capsule, recurved, tapering, yellow and somewhat obtuse when ripe.

1475



*July 2 1805. Published by J. J. Sowerby, London.*

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## BRYUM roseum.

*Rosaceous Thyme Thread-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe of 16 teeth, broadest at the base; inner a toothed membrane, Flowers terminal. Capsule ovate-oblong, smooth. Veil smooth.*

SPEC. CHAR. *Stem somewhat proliferous. Leaves crowded, stellate, ovate, acute, minutely dotted; finely serrated towards the summit. Lid conical.*

SYN. *Bryum roseum. Schreb. Lips. 84. Swartz. Musc. Succ. 51. Sm. Fl. Brit. 1370. Turn. Musc. Hib. 132.*

*B. serpyllifolium*  $\delta$ . *Huds. 492.*

*B. proliferum. Sibth. 292.*

*B. stellare roseum majus, capsulis ovatis pendulis. Dill. Musc. 411. t. 52. f. 77.*

*B. roseum majus, foliis oblongis. Raii Syn. 92.*

*Mnium roseum. Hedw. Sp. Musc. 194.*

*M. proliferum. With. 806. Abbot. 235.*

*M. serpyllifolium*  $\gamma$ . *Linn. Sp. Pl. 1578. Hull. 250.*

ALTHOUGH this species of *Bryum* may be occasionally met with in the moist parts of woods and heaths, the capsules are so exceedingly rare, that Dillenius appears to have procured them but once from his friend L. Brown, who found them at Christmas-time, near Bishop's-Castle. We are therefore happy to profit by Swedish specimens of Dr. Swartz.

The stems are simple, erect, an inch or two high, perennial, brown, bearing many small scattered scales, and at the top a starry tuft of numerous, large, broad, pointed, finely dotted leaves, whose upper part is finely serrated, and their entire base somewhat decurrent. The fruitstalks grow, solitary or in pairs, from the centre among the leaves, and are about two inches high. Capsule inclining, ovate, smooth, red brown. Lid, according to Dillenius, convex, but short. The top of each stem often throws up a vertical shoot, bearing leaves and fruit the next year. The barren stems described in *Fl. Brit.* prove to belong to a different plant.

2395



*Herbarium published by J. G. Harvey, London*







BRYUM ligulatum.  
*Long-leaved Thyme Thread-moss.*

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CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, smooth. *Fringe* double: *outer* of 16 teeth, broad at their base; *inner* a toothed membrane. *Flowers* terminal.

SPEC. CHAR. Stems simple, at length branched at the summit. Leaves oblong, undulated, serrated. Fruit-stalks clustered.

SYN. *Bryum ligulatum.* Schreb. *Lips.* 84. Sm. *Fl. Brit.* 1371.

*B. undulatum.* Sibth. 292. Turn. *Musc. Hib.* 133.

*B. dendroides polycephalon, phyllitidis folio undulato pellucido, capsulis ovatis pendulis.* Dill. *Musc.* 410. t. 52. f. 76.

*B. nitidum, foliis oblongis undatis, capitulis cernuis, arbusculam referens.* Raii *Syn.* 103.

*Mnium undulatum.* Hedw. *Sp. Musc.* 195. With. 806. Hull. 250. Relh. 420. Abbot. 235.

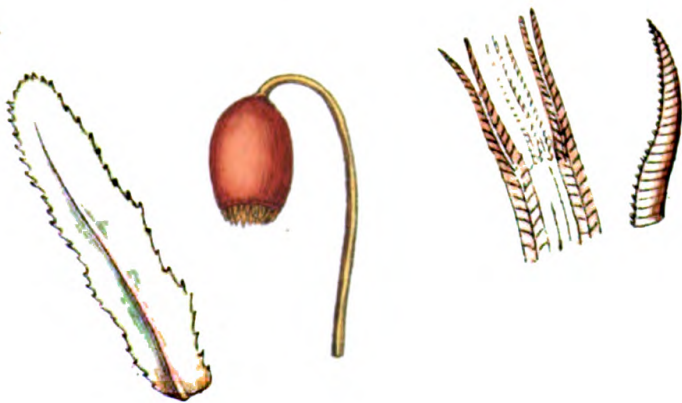
*M. serpyllifolium*  $\delta$ . *Sp. Pl.* 1578.

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THIS very elegant *Bryum* is of frequent occurrence in damp shady places, bearing fruit, though rarely, in the spring. Our specimens were gathered at Swainsthorpe near Norwich by Mr. Stone, and in the west by Mr. Dillwyn.

The stems form as it were a grove of fairy palm-trees, branching copiously in a very graceful manner where they bear either male or female flowers. The roots are creeping and perennial, shaggy with black woolly fibres. Leaves alternate, linear-oblong, obtuse, waved, sharply serrated, having a strong red rib. They are delicate and pellucid, drying and losing their beauty very soon after gathering. Fruit-stalks terminal, red, many together. Capsules pendent, red, short and thick.

We greatly prefer the name *ligulatum* to *undulatum*, because the latter has been applied to another Linnæan *Bryum*.



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## POLYTRICHUM commune.

*Common Hair-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe of 32 or 64 short incurved teeth: inner a flat undivided membrane. Veil generally double: the outer hairy.*

SPEC. CHAR. *Stem simple. Leaves linear-lanceolate, finely serrated, acute. Capsule erect, quadrangular, standing on a roundish pedestal.*

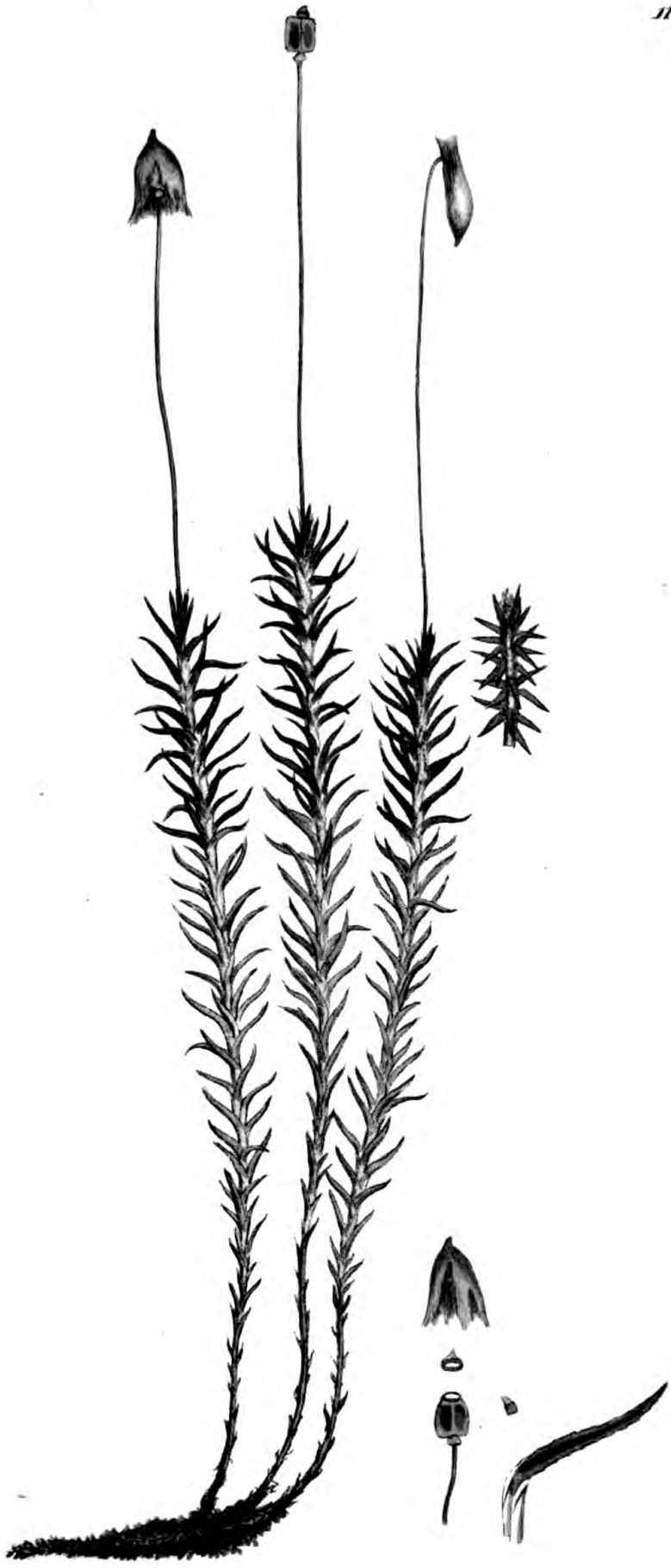
SYN. *Polytrichum commune. Linn. Sp. Pl. 1573. Hedw. Sp. Musc. 88. Menz. Tr. of Linn. Soc. v. 4. 74. Huds. 469. With. 795. Hull. 247. Relh. 415. Sibth. 305. Abbot. 232. Dicks. H. Sicc. fasc. 17. 19?*

*P. quadrangulare vulgare, Juccæ foliis serratis. Dill. Musc. 420. t. 54. f. 1.*

*P. vulgare et majus, capsulâ quadrangulari. Raii Syn. 90.*

THIS, the most magnificent of all our Mosses properly so called, is also one of the most common. It grows abundantly in shady woods and moist heaths, in a black boggy soil, producing its fruit-stalks in March, and ripening the capsules about May and June. The roots are perennial, long and hairy. Stems forming tufts; erect, simple, from 2 or 3 inches to 8 or 10 in height, thickly clothed with sheathing, linear-lanceolate, acute, finely serrated, spreading leaves, of a full shining green: the old ones permanent, turning brown. Male flowers terminal, star-like, encompassed with membranous and whitish-edged leaves; the stem continued through the centre after flowering. Capsule on a separate plant, solitary, square, green till quite ripe, standing on a fleshy *apophysis* or pedestal, which crowns the long erect terminal red fruit-stalk. Lid with a short beak, and a beautiful red margin. Fringe of 64 minute incurved teeth, to whose points the broad flat internal membrane is slightly attached. Veil double; the outer a congeries of long shining brown hairs.

The stems are in some countries used to make a neat kind of brooms.





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## POLYTRICHUM attenuatum.

*Slender Hair-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe of 32 or 64 short incurved teeth: inner a flat undivided membrane. Veil generally double: the outer hairy.*

SPEC. CHAR. *Stem simple. Leaves linear-lanceolate, spreading, serrated, acute. Capsule quadrangular, drooping, contracted at the base, without a pedestal.*

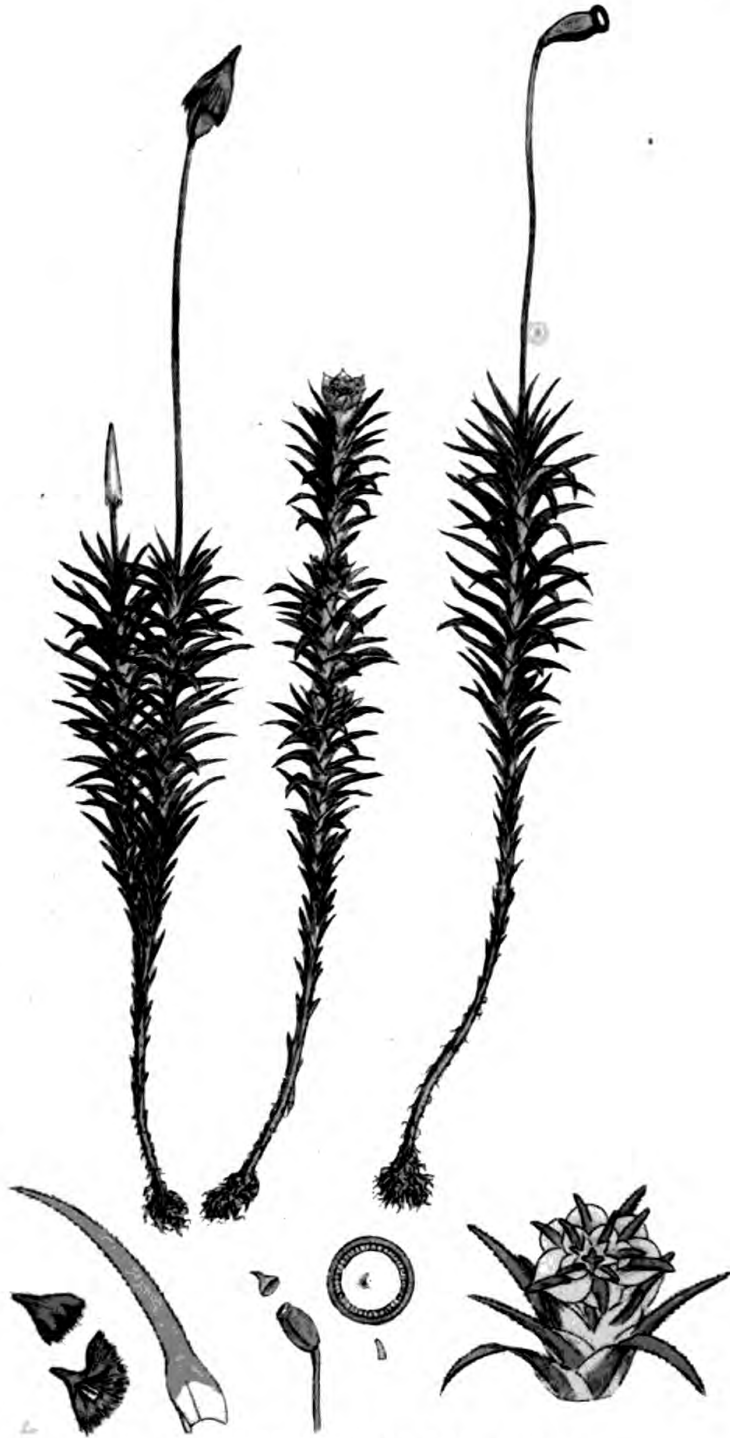
SYN. *Polytrichum attenuatum. Menz. Tr. of Linn. Soc. v. 4. 72. t. 6. f. 2.*

*P. formosum. Hedw. Sp. Musc. 92. t. 19. f. 1, a.*

OBSERVED by Mr. Sowerby in April 1800, on Sydenham Common, Kent, for the first time, we believe, in Britain.

This elegant species has apparently been long overlooked as not different from *P. commune*, for it appears not to be very rare. It nevertheless clearly differs from the preceding in having a drooping and somewhat longer capsule, contracted at the base, but destitute of a proper fleshy *apophysis*. Its leaves are more spreading and recurved; their serratures more distinct and cartilaginous. The stems do not seem ever to grow to the height which those of *P. commune* sometimes do. Like that species, the capsule and its lid are beautifully edged with red. The fringe consists of 64 little white teeth. The hairy outer veil is rather yellower than in the former.

Dr. Hedwig appears not to have seen Mr. Menzies's excellent treatise on this genus in the Linnæan Transactions.



Aug 1 1801 Published by Ja<sup>s</sup> Sowerby, London.

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[ 1827 ]

## POLYTRICHUM gracile.

*Long-stalked Hair-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe of 32 or 64 short incurved teeth: inner a flat undivided membrane. Veil generally double: the outer hairy.*

SPEC. CHAR. *Stem simple. Leaves linear-lanceolate, somewhat spreading, serrated. Capsule inclining, ovate, quadrangular, contracted at the base, without a pedicel. Fringe of thirty-two teeth,*

SYN. *Polytrichum gracile. Menz. Tr. of Linn. Soc. v. 4. 73. t. 6. f. 3. Sm. Fl. Brit. 1374. Hull. 247. Turn. Musc. Hib. 85.*

*P. longisetum. Swartz. Musc. Suec. 76 and 103. t. 8. f. 16.*

SENT from Ireland by Mr. Templeton, who finds it on both mountain and lowland bogs, bearing fruit in the middle of May.

It is very nearly related to *P. attenuatum*, t. 1198, at least in general appearance, but is usually somewhat smaller. Its essential differences from that species consist in the ovate form of the capsule, which as it ripens becomes so turgid as partly to obliterate the angles, but more especially in the teeth of the fringe being only about 32, instead of 64. The lid is also more conical, and less depressed, and the leaves more erect when dry. The fruit-stalk varies in length from 2 inches to 4, and in some of Dr. Swartz's specimens is very zigzag, which we have not seen in British or Irish ones.

It appears from the herbarium of Linnæus that this species is the No. 395 of his *Flora Laponica*; but doubtless he confounded it, like every body else till lately, with *P. commune*.

1827

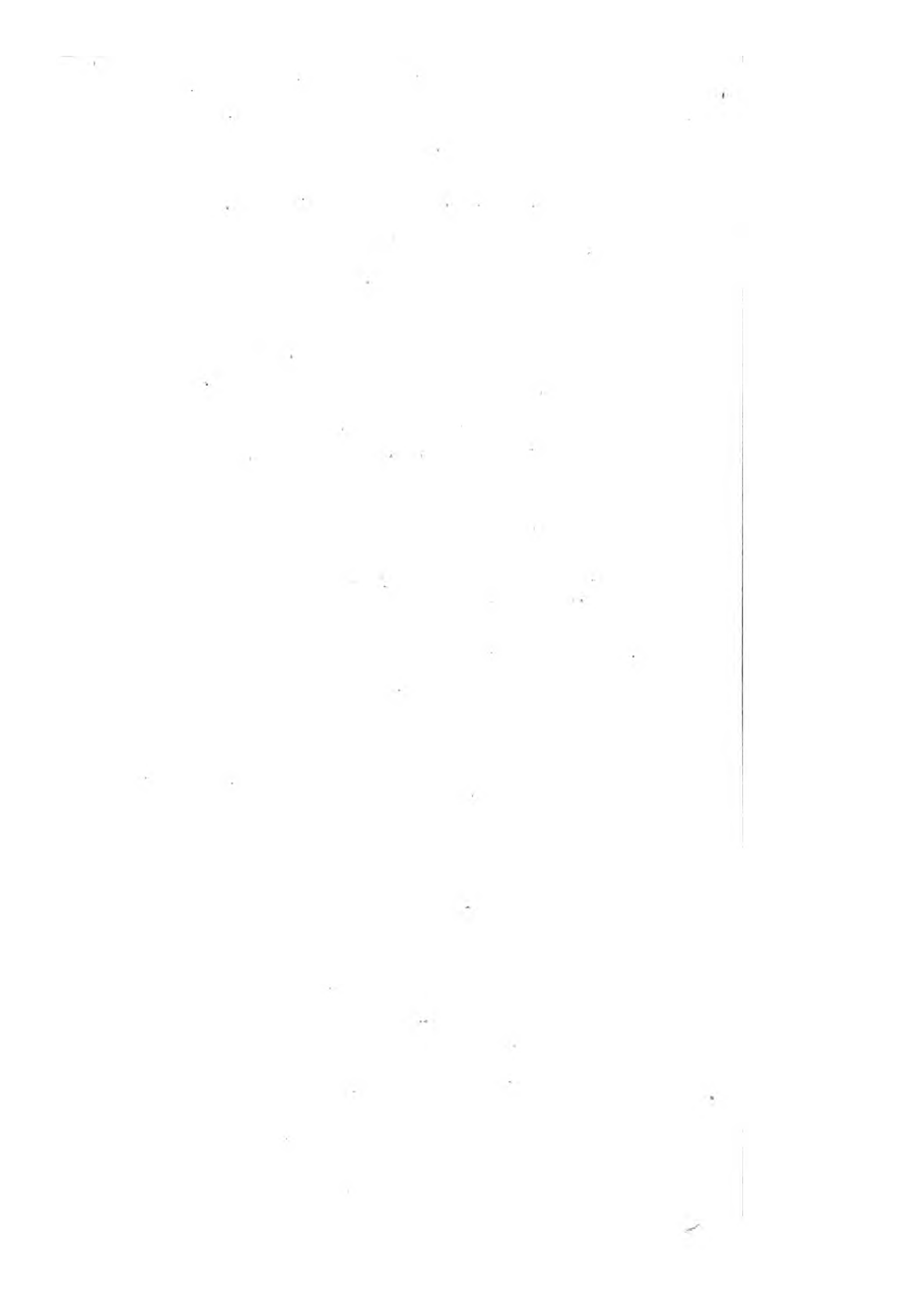


*Det. 1807. Publish'd by Ja<sup>s</sup> Sowby London.*



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[ 1199 ]

## POLYTRICHUM piliferum.

*Bristle-leaved Hair-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe of 32 or 64 short incurved teeth: inner a flat undivided membrane. Veil generally double: the outer hairy.*

SPEC. CHAR. *Leaves lanceolate, rigid, entire, tipped with a white hair. Capsule quadrangular, on a depressed pedestal.*

SYN. *Polytrichum piliferum. Schreb. Fl. Lips. 74. Menz. Tr. of Linn. Soc. v. 4. 75. Hedw. Sp. Musc. 90. Hull. 247. Sibth. 306. Ehrh. Crypt. 92.*

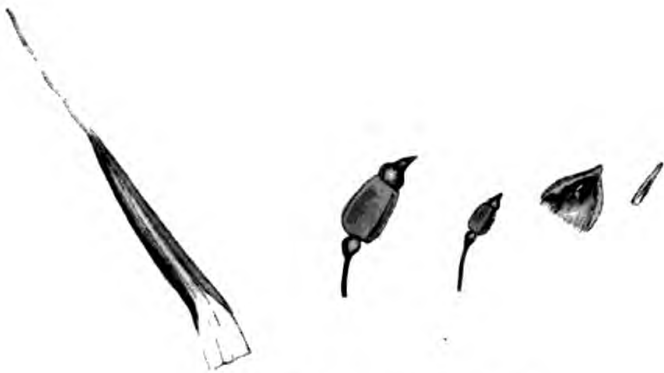
*P. commune, γ. Linn. Sp. Pl. 1573. Huds. 470. With. 796.*

*P. quadrangulare minus, Juniperi foliis pilosis. Dill. Musc. 426. t. 54. f. 3.*

COMMON on dry mountainous sandy heaths and open places, which are enlivened in the winter and early spring by its red protruding veils and crimson stalks, elegantly contrasted with the dark leaves.

The roots are long and downy, deeply fixed in the earth. Stems simple, or according to the remark of Dr. Schwaegrichen (the learned editor of Hedwig) sometimes branched. They are scarcely more than half an inch or an inch high, Their summit is thickly clothed with deep-green, lanceolate, revolute, entire leaves, each tipped with a slender white hair, longest and most waved in the upper ones. Fruit-stalk an inch or somewhat more in length, rigid, deep-red. Capsule ovate, quadrangular, erect, green, standing on a depressed fleshy pedestal of a dark red. Lid conical. Outer veil brownish with a red or golden tinge.

If there be any certainty of species among Mosses at all, we conceive this must be distinct from *P. commune*, and that the characters above noted in the leaves are sufficient to discriminate them, without adverting to their totally different size, habit and appearance.



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[ 1200 ]

## POLYTRICHUM juniperinum.

*Juniper-leaved Hair-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe* of 32 or 64 short incurved teeth: inner a flat undivided membrane. *Veil* generally double: the *outer* hairy.

SPEC. CHAR. Leaves linear-lanceolate, pointed, entire; their margins inflexed. Capsule quadrangular, on a flat pedestal.

SYN. Polytrichum juniperinum. *Menz. Tr. of Linn. Soc. v. 4. 76. t. 6. f. 4. Hedw. Sp. Musc. 89. t. 18. f. 6--10. Relh. 415. Sibth. 306. Abbot. 232. Ehrh. Crypt. 82. Pl. Off. 180.*

*P. commune*,  $\beta$ . *Linn. Sp. Pl. 1573. Huds. 469. With. 795.*

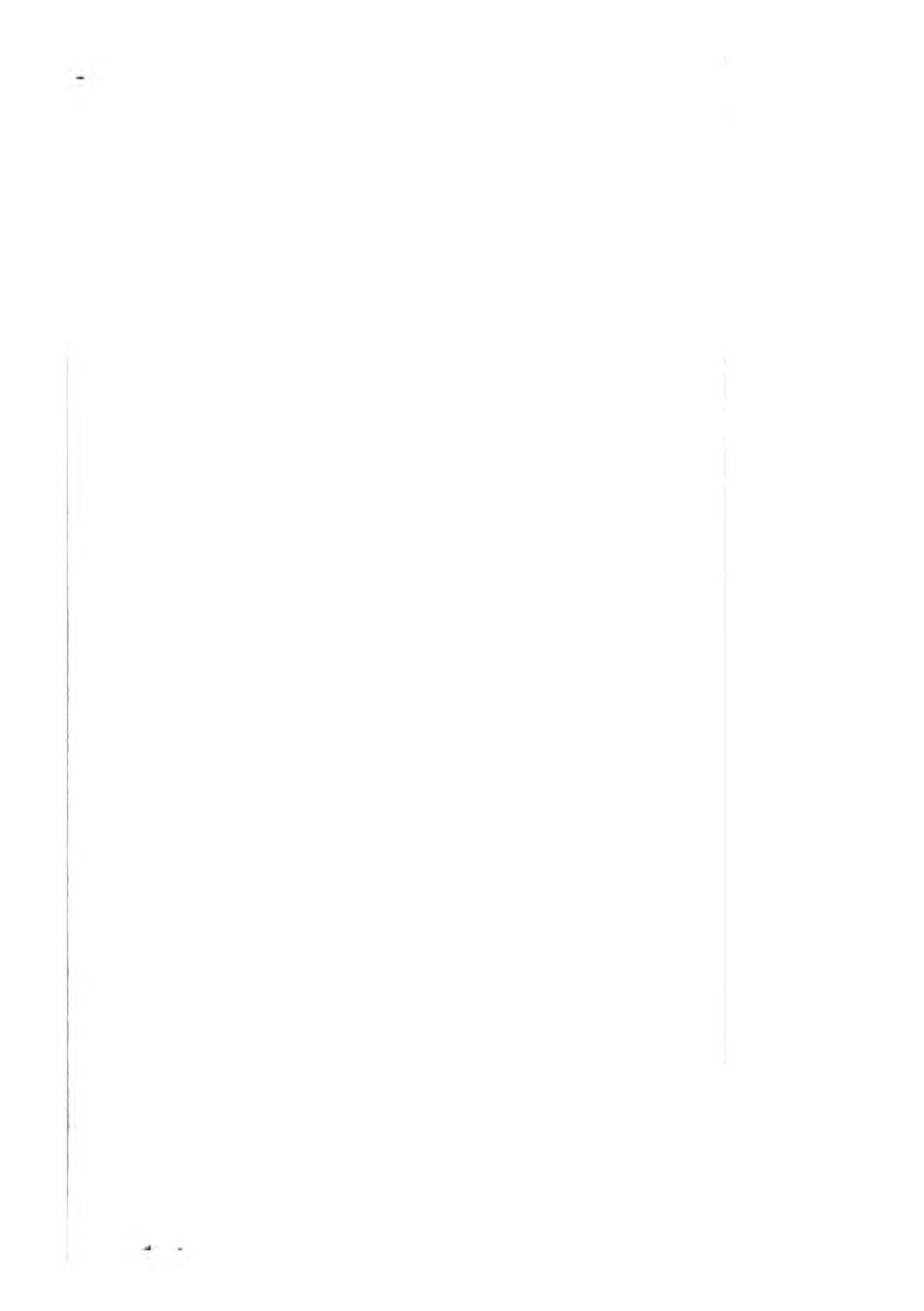
*P. quadrangulare*, *juniperi foliis brevioribus et rigidioribus. Dill. Musc. 424. t. 54. f. 2.*

ABOUT as common as the last in heathy mountainous places, ripening its fruit in April. We gathered these specimens on Hampstead heath.

The stem is rather taller than that of *P. piliferum*, and the whole plant larger. Leaves dark-green, spreading, acute but not bearded; their margin entire; and instead of being revolute as in the last, it is on the contrary folded in nearly flat upon the disk. Such marks when they occur render the study of Natural History truly delightful from its mathematical truth as well as its other charms. The fruit-stalk is 2 or 3 inches long, rigid, bright-red. Capsule erect, quadrangular; its pedestal very much depressed, and of the fine red colour of the stalk. Fringe and lid much like the last. Veil tawny, tipped with brown.

We have lately verified the synonym of Dillenius by examining his herbarium.







## POLYTRICHUM strictum.

*Close-leaved Hair-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe of 32 or 64 short incurved teeth: inner a flat undivided membrane. Veil generally double: the outer hairy.*

SPEC. CHAR. *Leaves lanceolate; their margins inflexed, entire. Capsule quadrangular, on a flat pedestal. Stem branched.*

SYN. *Polytrichum strictum. Menz. Tr. of Linn. Soc. v. 4. 77. t. 7. f. 1. Sm. Fl. Brit. 1376. Hull. 247. Turn. Musc. Hib. 83.*

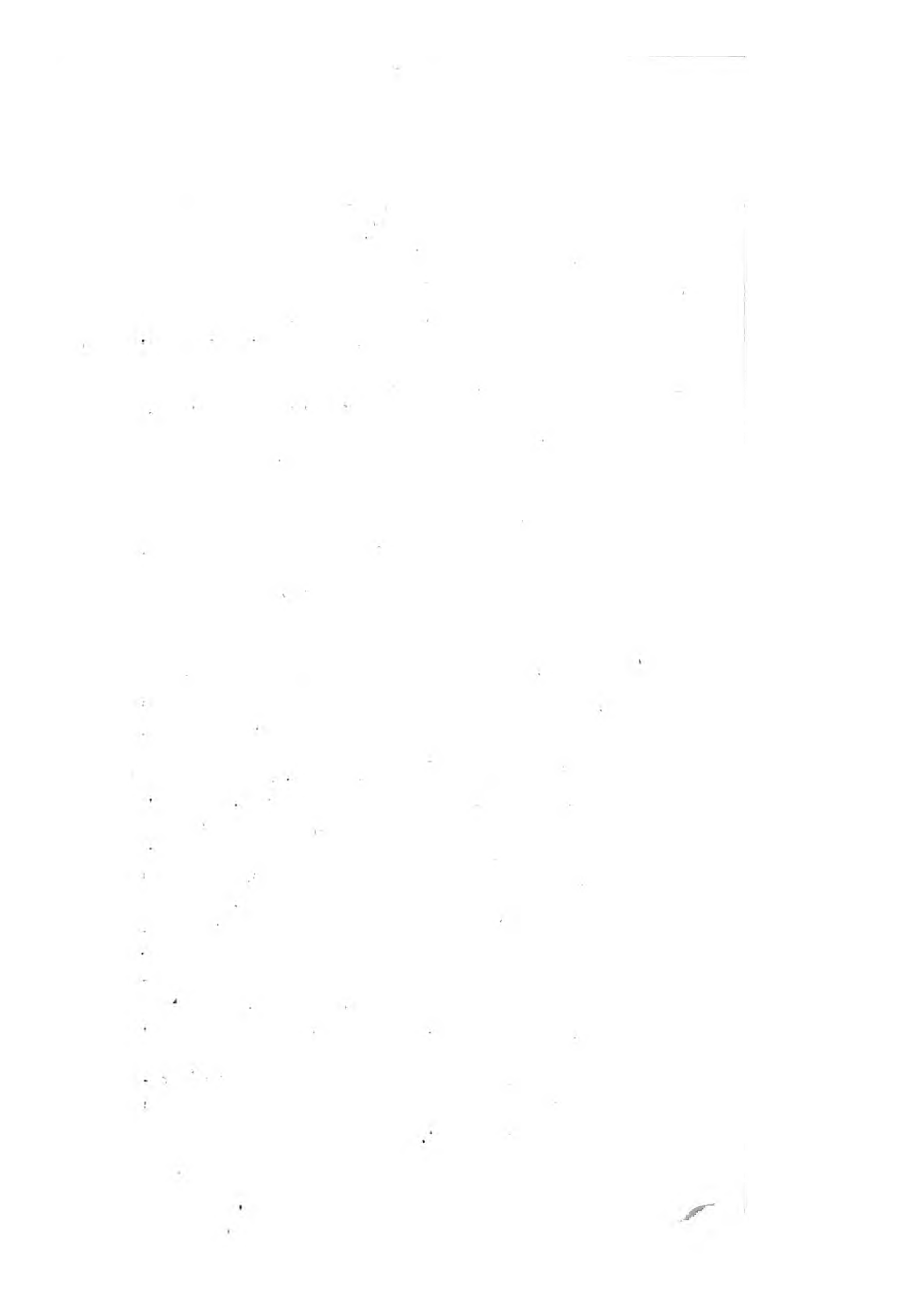
**A** NATIVE of dry, barren, mountainous places. We have it from Scotland, by favour of Mr. G. Don, as well as an authentic specimen from Mr. Menzies. The branched stem, with a greater quantity of soft white woolly down about the roots, and the more upright or close position of the leaves, are supposed to constitute a specific difference between this and *P. juniperinum*, t. 1200. The branches moreover are sometimes very long, and from the close-pressed leaves, at least in dry weather, look very slender, with a pale, more red or rusty aspect than is observable in the *juniperinum*. Nevertheless, we are inclined, with Mr. Turner, to suspect it a variety only, though certainly a remarkable one. The tips of the leaves are slightly serrated, but on that we dare not lay any great stress in this case.

2435



published by J. S. P. Kew & Co.







[ 1905 ]

## POLYTRICHUM alpinum.

*Alpine Hair-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe of 32 or 64 short incurved teeth: inner a flat undivided membrane. Veil generally double: the outer hairy.*

SPEC. CHAR. *Leaves lanceolate-awlshaped, finely serrated. Capsule ovate, drooping, with a top-shaped pedestal. Stem branched.*

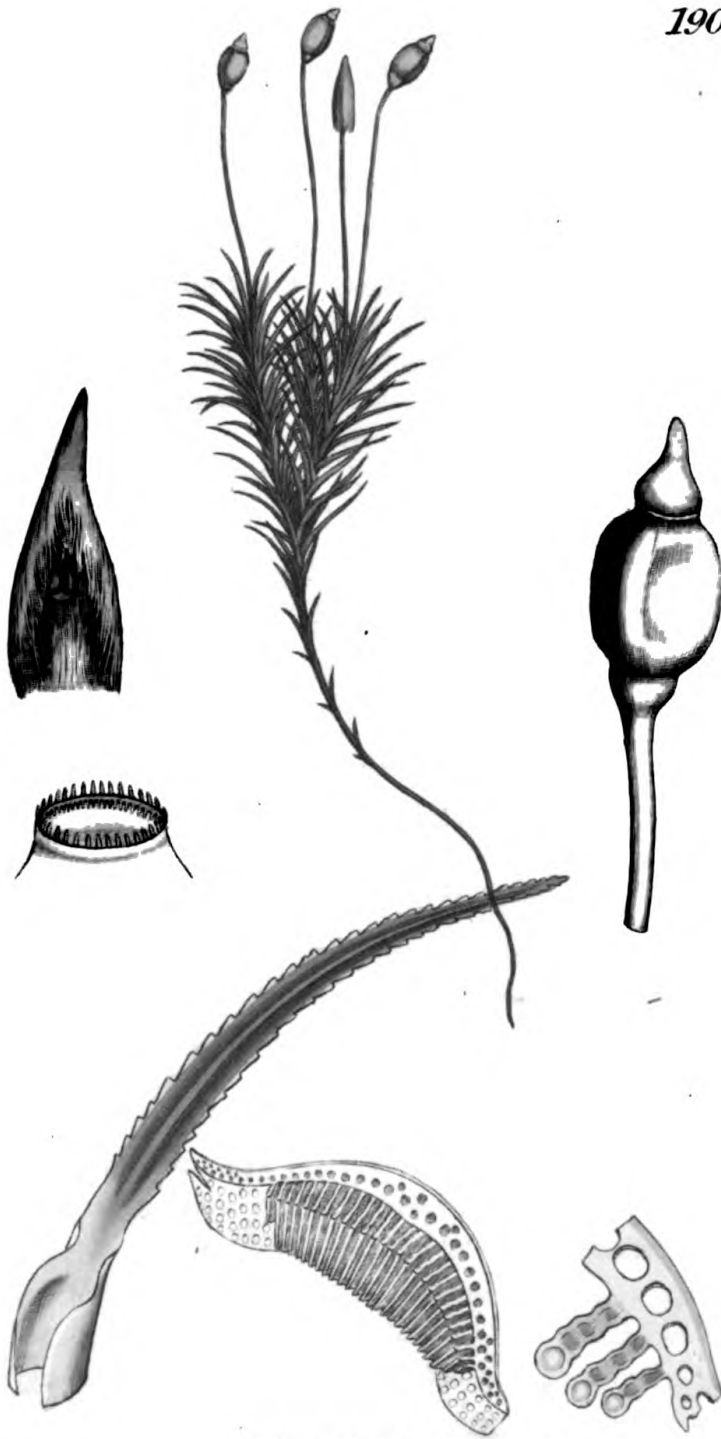
SYN. *Polytrichum alpinum. Linn. Sp. Pl. 1573. Sm. Fl. Brit. 1377. Hedw. Sp. Musc. 92. Menz. Tr. of L. Soc. v. 4. 83. Huds. 470. With. 797. Hull. 248. Lightf. 703. Turn. Musc. Hib. 85. Dicks. H. Sicc. fasc. 12. 19. Ehrh. Crypt. 2.*

*P. alpinum ramosum, capsulis e summitate ellipticis. Dill. Musc. 427. t. 55. f. 4.*

**A** NATIVE of the highest mountains of Britain, as Snowdon, Ben Lomond, &c. The specimen here delineated was gathered by the late Mr. W. Brunton, in June 1803, on Moss Dale Head, Wensley-dale, Yorkshire. The capsules are produced in succession throughout the summer.

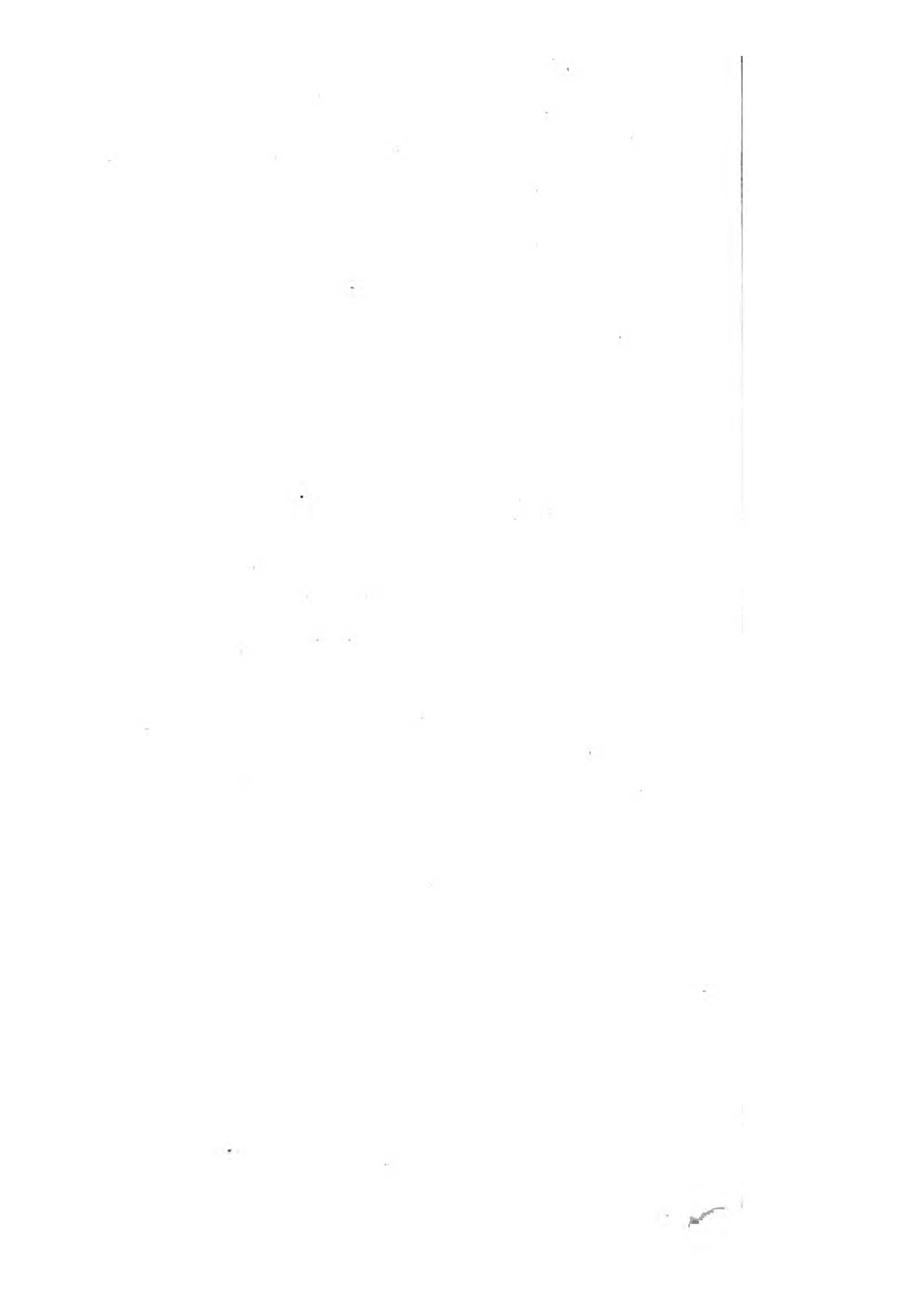
Stems perennial; slender and naked below; branched, level-topped and leafy above. Leaves of a dark dull green, sheathing at the base, spreading and in some degree recurved, lanceolate, tapering, acute, without any keel, rib, or terminal bristle; their edges bordered with fine cartilaginous serratures; their green disk very deeply and curiously furrowed. Fruit-stalks solitary, near 2 inches high, purplish in their lower part, yellow above, not quite straight. Capsule ovate, without angles, drooping and dark brown when ripe, standing on a small top-shaped base. Mouth red. Lid conical when young, but its sides soon become depressed. Veil double, of a golden brown. Fringe of 32 small simple pale teeth, accompanied within the mouth by the membranous expansion already noticed at *t. 1624*.

1905



July 12th 1905. Published by J. A. Sowerby, London.

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## POLYTRICHUM urnigerum.

*Urn-headed Hair-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Outer Fringe* of 32 or 64 short incurved teeth: *inner* a flat undivided membrane. *Veil* generally double: the *outer* hairy.

SPEC. CHAR. Leaves lanceolate, finely serrated. Capsule cylindrical, erect, without a pedestal. Stem branched, fastigiate.

SYN. *Polytrichum urnigerum*. *Linn. Sp. Pl.* 1573. *Hedw. Sp. Musc.* 100. *t.* 22. *f.* 5---7. *Menz. Tr. of Linn. Soc. v.* 4. 81. *With.* 797. *Hull.* 248. *Lightf.* 703. *Dicks. H. Sicc. fasc.* 12. 20.

*P. alpinum*  $\beta$ . *Huds.* 471.

*P. ramosum*, *setis ex alis urnigeris*. *Dill. Musc.* 427. *t.* 55. *f.* 5.

THIS does not unfrequently occur in a dry loose soil on the mountains of Scotland and Wales. Specimens from which our figure was taken were gathered by Mr. Winch, on Gateshead Fell, near Newcastle. The fruit ripens throughout the summer.

Roots perennial. Stems much branched, forming dense even-topped tufts. Leaves sheathing, spreading, lanceolate, acute, obscurely keeled, serrated with fine sharp teeth; their colour a lightish green, turning rusty with age. Fruit-stalks solitary, an inch and half high, purple at the base, yellow above. Capsule erect, of an ovate cylindrical form, contracted just below the margin, and without a pedestal or *apophysis*. Lid convex, red at the border, with a shortish curved beak. Outer fringe of 32 teeth. Veil double; the outermost tawny.

*P. alpinum* differs from this in its greater size, and ovate drooping capsule supported by a pedestal.

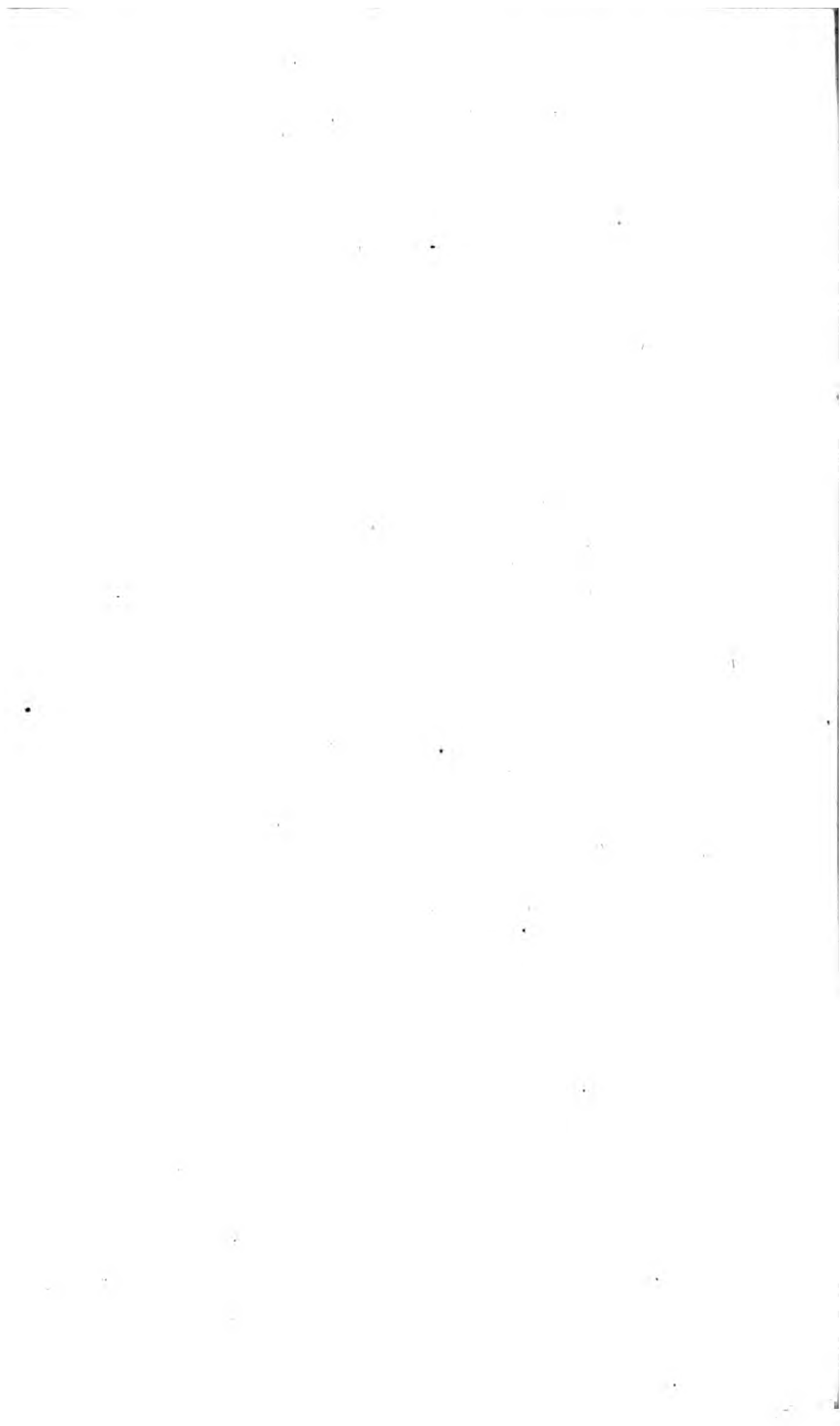


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[ 1906 ]

## POLYTRICHUM sexangulare.

*Six-sided Hair-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe of 32 or 64 short incurved teeth : inner a flat undivided membrane. Veil generally double : the outer hairy.*

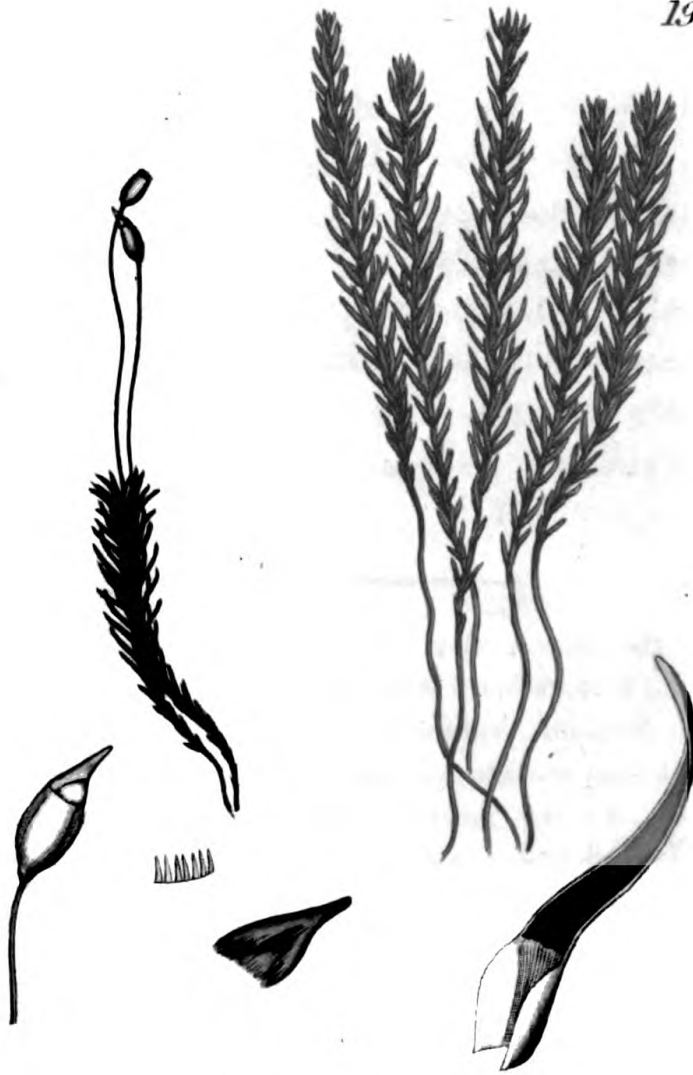
SPEC. CHAR. Stem simple. Leaves linear-lanceolate, beardless, their edges and keel quite smooth and entire. Capsule inclining, ovate, with six angles, contracted at the base, without a pedestal. Fringe of sixty-four teeth.

SYN. *Polytrichum sexangulare. Swartz in Schrad. Journ. v. 2. 174.*

ONE of the most curious acquisitions of Messrs. Turner and Hooker, who gathered it on Ben Nevis in their last-year's journey to Scotland, but not in fructification. The annexed specimen in fruit was sent us long ago from the Salzburg alps of Germany, by our much-esteemed and very liberal correspondent Dr. Schrader, with whom in the present disordered state of the world we can have no communication.

Mr. Flörk, it seems, an eminent alpine botanist, first found and named this species of *Polytrichum*. It is known by its leaves being perfectly smooth and entire both at the edges and keel, linear-lanceolate, slightly incurved, channelled above, convex beneath, without any terminal hair. Its capsule is ovate and 6-sided, contracted at the base so as to resemble an *apophysis*, but we think it has none. Veil double. Lid awl-shaped. Fringe of 64 minute white slender teeth standing in pairs.

1906



*Del. et sculp. H. B. K. in J. A. S. Bot. v. 1, p. 10, t. 1, f. 1.*

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## POLYTRICHUM subrotundum.

*Dwarf Round-headed Hair-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe* of 32 or 64 short incurved teeth: *inner* a flat undivided membrane. *Veil* generally double: the *outer* hairy.

SPEC. CHAR. Leaves lanceolate, obtuse, entire, rigid. Capsule turbinate, nearly upright. Stem very short.

SYN. Polytrichum subrotundum. *Huds. ed. 1. 400. Sm. Fl. Brit. 1378. Menz. Tr. of Linn. Soc. v. 4. 68. Hull. 247. Turn. Musc. Hib. 89.*

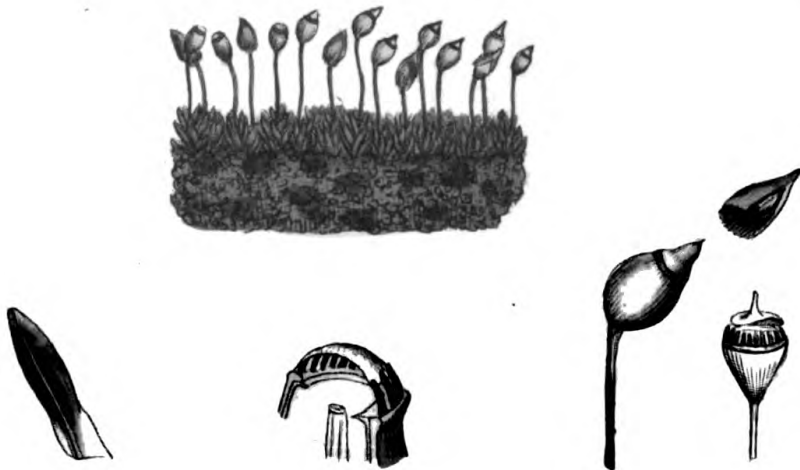
*P. pumilum.* *Swartz. Musc. Suec. 77 and 108. t. 9. f. 19. Hedw. Sp. Musc. 97. t. 21. f. 7—9.*

*P. nanum, capsulis subrotundis galeritis, aloe folio non serrato.* *Dill. Musc. 428. t. 55. f. 6. A—F.*

COMMON on heaths and sandy or loamy banks, bearing its capsules in the winter or early spring.

The root consists of fine dense woolly fibres, and is presumed to be annual. Stem scarcely any. Leaves numerous, of a dark dull green, rigid, thickish, oblong or lanceolate, obtuse, beardless, channelled, for the most part quite entire, the lowermost only being sometimes toothed at the summit. Fruit-stalk solitary, not an inch high, nearly straight, reddish brown, thickened at the top. Capsule almost erect, roundish when young, short and turbinate, with a very wide mouth; when old, a little oblique. Fringe of 32 slender teeth, soon turning black. Lid convex, red-edged, with a curved beak, which is conical when young, as in some other species. Veil double, the outermost yellowish brown.

Mr. J. D. Sowerby has observed that what is above called the inner fringe is more properly the membranous base of the lid, often attached to the column by its centre; and that there seems in this, as well as in *P. undulatum*, *t. 1220*, a real membranous *peristomium* within the teeth. This gives quite a new idea of the generic character.



*July 1. 1806. Published by Jas. Sowerby, London.*

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## POLYTRICHUM nanum.

*Slender Round-headed Hair-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe of 32 or 64 short incurved teeth: inner a flat undivided membrane. Veil generally double: the outer hairy.*

SPEC. CHAR. *Leaves linear, obtuse, slightly serrated. Capsule turbinate, drooping. Fruit-stalk zigzag. Stem very short.*

SYN. *Polytrichum nanum. Hedw. Sp. Musc. 95. Crypt. v. 1. 35. t. 13. Menz. Tr. of Linn. Soc. v. 4. 69. Sm. Fl. Brit. 1379. Huds. 470, β. Hull. 247. Relh. 416. Sibth. 306. Turn. Musc. Hib. 89. Ehrh. Crypt. 54.*

*P. subrotundum. Curt. Lond. fasc. 2. t. 68. With. 796. Abbot. 232.*

*P. nanum, capsulis subrotundis galeritis, aloes folio non serrato. Dill. Musc. 428. t. 55. f. 6. G—L.*

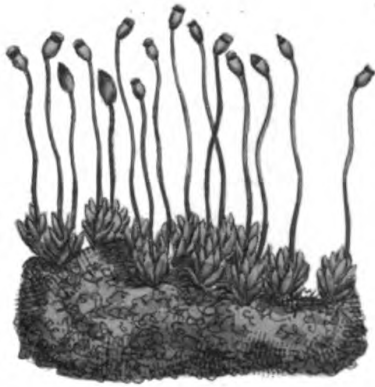
*P. minus, capsulis subrotundis, calyptrâ quasi lacerâ coronatis. Raii Syn. 91.*

*Mnium polytrichoides α. Linn. Sp. Pl. 1576.*

**F**REQUENT in dry heathy places, flowering in the early spring.

Root supposed to be annual. Whole plant much like *P. subrotundum*, except that it is somewhat larger, the leaves narrower, for the most part serrated, though obscurely, and less rigid than in that species. The fruit-stalk is nearly an inch and half high, slender, wavy or zigzag, twisted when dry. Capsule more or less drooping, rather more oblong than in the last-mentioned species. Fringe as in that, with a similar internal membrane.

1625



July 12, 1866. Published by J. S. Sewerby, London.

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## POLYTRICHUM aloides.

*Dwarf Long-headed Hair-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe of 32 or 64 short incurved teeth: inner a flat undivided membrane. Veil generally double: the outer hairy.*

SPEC. CHAR. *Leaves lanceolate, obtuse, rigid, serrated towards the top. Capsule cylindrical, oblique. Stem unbranched.*

SYN. *Polytrichum aloides. Hedw. Sp. Musc. 96. Crypt. v. 1. 37. t. 14. Menz. Tr. of Linn. Soc. v. 4. 70. Sm. Fl. Brit. 1380. With. 796. Hull. 247. Sibth. 307. Turn. Musc. Hib. 88.*

*P. nanum. Huds. 470, α. Lightf. 701.*

*P. parvum, aloes folio serrato, capsulis oblongis. Dill. Musc. 429. t. 55. f. 7.*

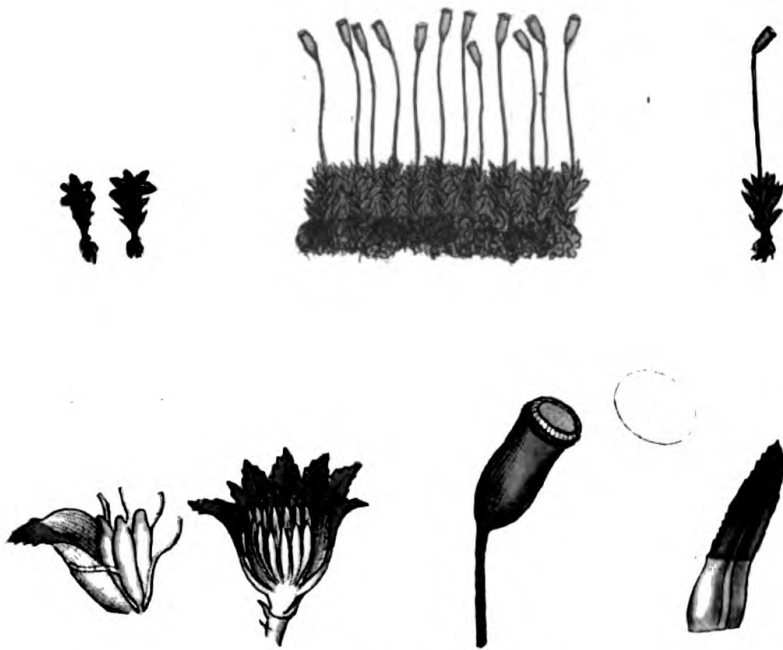
*Mnium polytrichoides β. Linn. Sp. Pl. 1577.*

FREQUENT on rather moist and shady banks near rivulets, bearing capsules in April or May, sometimes much later in the summer. We have gathered it at the Hermitage near Edinburgh in August.

This has the habit of *P. subrotundum* and *nanum*, t. 1624, 1625, but the stem is rather taller, though still always perfectly simple. Leaves more rigid and somewhat broader, strongly serrated at the edge, and even towards the top of the keel, concerning which last the description in *Fl. Brit.* requires some correction. Fruitstalk an inch or more in height, red, almost straight. Capsule scarcely drooping, but a little oblique, cylindrical, its mouth slightly dilated. Fringe of 32 teeth. Lid convex, with a small curved beak.

We have represented at A, A, a male flower, with the stamens, accompanied by some abortive filaments, all more or less magnified.

1649



*Sept. 1806. Published by J. Sowerby, London.*

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[ 1605 ]

## POLYTRICHUM Dicksoni.

*Dwarf Short-stalked Hair-moss.**CRYPTOGAMIA Musci.*

GEN. CHAR. *Caps.* swelling. *Outer fringe* of 32 or 64 short, flat, incurved teeth: *inner* a circular, transverse membrane, attached to the points of the former. *Veil* generally double; the outermost hairy.

SPEC. CHAR. Leaves linear-lanceolate, obtuse, rigid, serrated. Capsule cylindrical, erect. Lid conical, taper-pointed. Stem mostly simple.

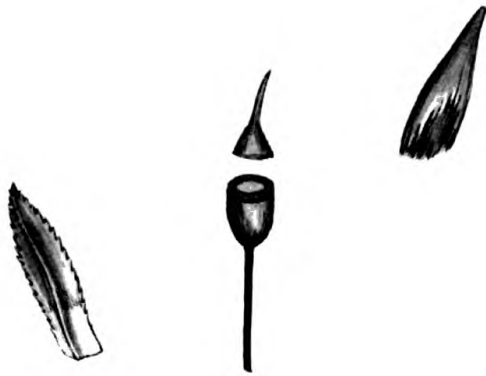
SYN. *Polytrichum Dicksoni*. *Turn. Musc. Hib. 90. t. 10. f. 2.*

FOR specimens of this moss, gathered on sandy banks near Yarmouth in April 1805, we are obliged to Mr. Turner, who also received it from Ireland, as mentioned in his work on Irish Mosses, and who has named it after its original observer Mr. Dickson.

It is nearly allied to several small species of its genus, which we have not yet had an opportunity of figuring. We shall therefore describe it without referring to those species.

Root of many dense woolly fibres, probably perennial. Stems half an inch high, erect, simple or slightly branched, leafy. Leaves crowded, rigid, dark green with a tinge of purple, smooth, rather spreading when wet, a little incurved when dry; they are nearly linear, obtuse, keeled, their margin and keel serrated. Fruitstalks red, not much exceeding the leaves in length. Capsule quite erect, of a short cylindrical form, rounded at the base, smooth, purplish or glaucous. Fringe red, of about 32 teeth. Lid when young and moist conical, with a taper point; when dried the base becomes contracted and depressed. Outer veil composed of dense brown hairs.

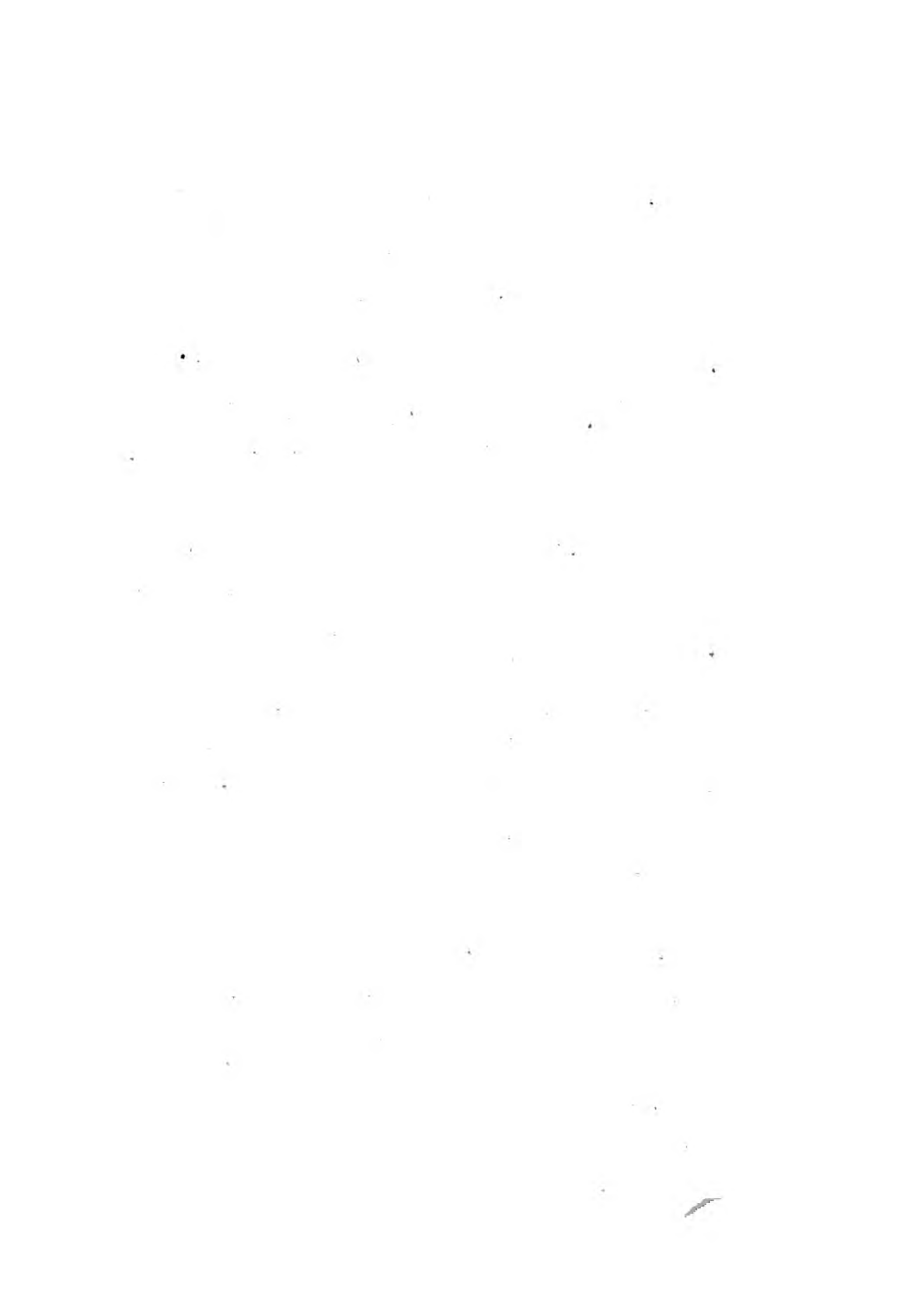
1605



June 1 1806. Published by J. Sowerby, London.

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[ 1939 ]

## POLYTRICHUM rubellum.

*Reddish Dwarf Hair-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe of 32 or 64 short incurved teeth : inner a flat undivided membrane. Veil generally double : the outer hairy.*

SPEC. CHAR. *Leaves lanceolate, bluntish, serrated in the margin and keel. Capsule cylindrical, oblique. Stem branched.*

SYN. *Polytrichum rubellum. Menz. Tr. of Linn. Soc. v. 4. 79. t. 7. f. 3. Sm. Fl. Brit. 1381. Hull. 248. Turn. Musc. Hib. 87.*

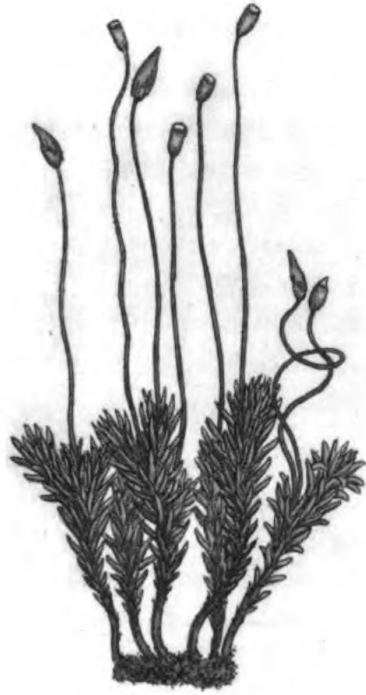
*P. aloides. Ehrh. Crypt. 45.*

GATHERED in April 1808, by Mr. G. B. Sowerby, in a wood at Darent, near Dartford, Kent; a spot celebrated for affording many rare insects as well as plants, having been much investigated by the late Mr. Lewin, who for some time resided there.

The stem of this species is reddish, much more elongated than in *P. aloides*, t. 1649, and frequently branched or subdivided. Indeed the whole plant is taller and larger. Leaves more curled and twisted when dry, serrated nearly throughout, as is a great part of their keel. Fruitstalks commonly an inch and half, sometimes 2 inches, long, twisted, red. Capsule a little oblique, cylindrical inclining to ovate, its mouth slightly dilated. Teeth 32. Lid short, pointed, most conical when young, as in others of this genus.

Most authors have not distinguished this from *P. aloides*.

1939



*Sept. 1868, Published by J. Sowerby, London*

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## POLYTRICHUM hercynicum.

*Incurved Hair-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Outer Fringe* of 32 or 64 short incurved teeth: *inner* a flat undivided membrane. *Veil* generally double: the *outer* hairy.

SPEC. CHAR. Leaves linear, mostly entire, incurved when dry. Capsule ovato-cylindrical, erect. Veil single, hairy when young.

SYN. *Polytrichum hercynicum.* Hedw. *Sp. Musc.* 94. *Crypt.* v. 1. 40. t. 15. *With.* 797. *Hull.* 248. *Bryum incurvum.* Huds. 479.

A RARE inhabitant of the Welch and Scottish mountains, for specimens of which we are obliged to Mr. Griffith, and to its original discoverer the Rev. H. Davies. It bears fruit in July.

Root perennial, densely woolly. Stems in tufts, from one to three quarters of an inch in height, mostly simple. Leaves dull-green, rigid, linear, channelled, rather pointed, for the most part entire, but the uppermost are sometimes serrated towards the point: all of them curl in as they lose their moisture. Fruit-stalk solitary, terminal, an inch or more in height, rigid, reddish. Capsule cylindrical, somewhat ovate, nearly erect, the orifice scarcely at all dilated. Fringe of about 32 teeth, shaped exactly as in the several species of *Polytrichum* already described, and accompanied by the inner horizontal membrane. Lid conical, with a short curved point. Veil cylindrical, at length bursting on one side, simple, smooth when arrived at maturity; but in a young state, when emerging from among the leaves, it is clothed with upright shining tawny hairs. These, though not essential, confirm the generic character of the moss before us, which is founded beyond all doubt on the peculiar construction of the fringe. The habit also is entirely that of a *Polytrichum*.



*One of them Published by the Society, London.*

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## POLYTRICHUM undulatum.

*Undulated Hair-moss.*

## CRYPTOGAMIA Musci.

GEN. CHAR. *Outer Fringe* of 32 or 64 short incurved teeth: *inner* a flat undivided membrane. *Veil* generally double: the *outer* hairy.

SPEC. CHAR. Leaves lanceolate, serrated, crisp when dry. Capsule cylindrical, drooping. Veil rough at the point.

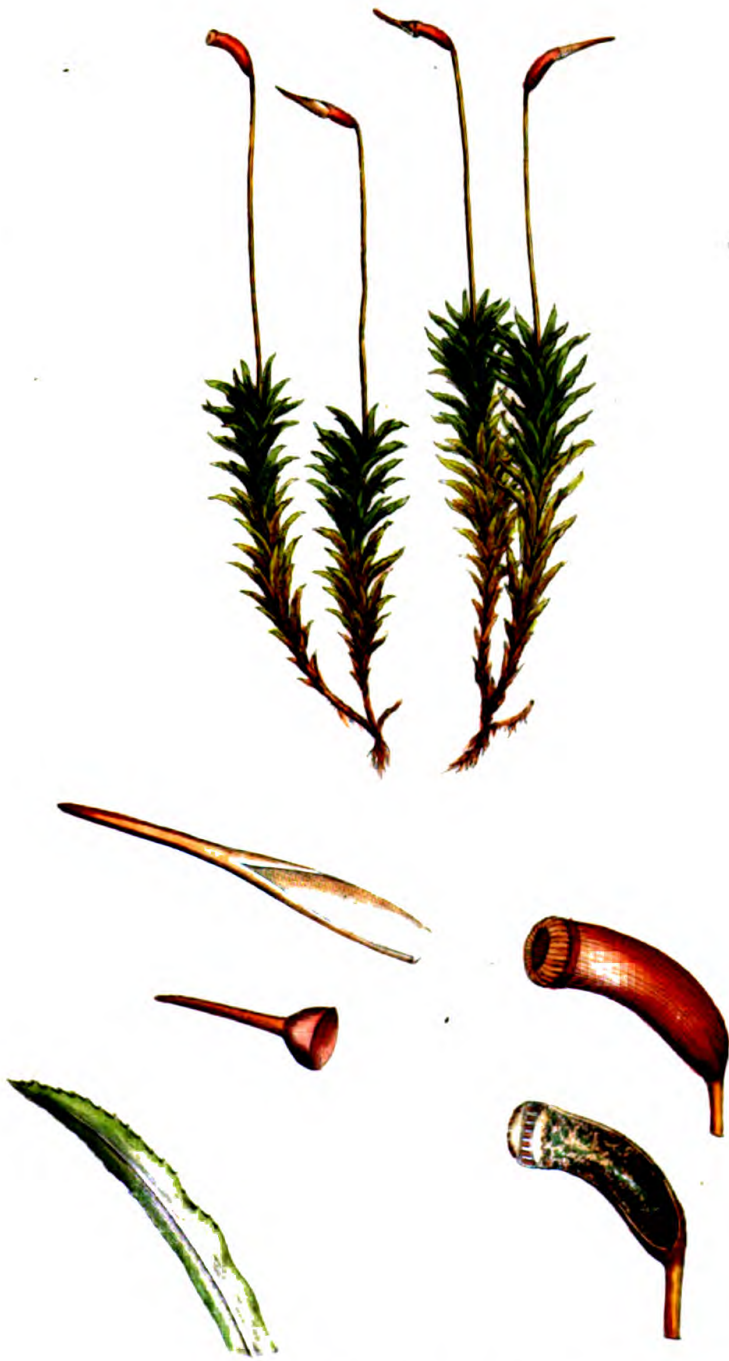
SYN. *Polytrichum undulatum.* Hedw. *Sp. Musc.* 98.  
*Crypt. v.* 1. 43. *t.* 16, 17. *Relh.* 416. *Sibth.* 307.  
*Bryum undulatum.* Linn. *Sp. Pl.* 1582. *Huds.* 479.  
*With.* 836. *Hull.* 265. *Abbot.* 243. *Curt. Lond.*  
*fasc.* 1. *t.* 70. *Dichs. H. Sicc. fasc.* 10. 19.

B. *phyllitidis folio rugoso acuto, capsulis incurvis.*  
*Dill. Musc.* 360. *t.* 46. *f.* 18.

B. *capitulis oblongis rubentibus, foliis oblongis angustis pellucidis rugosis.* *Raii Syn.* 95.

FREQUENT on shady sandy banks under hedges, and in groves, ripening its capsules in February and March.

Root perennial, branched, densely woolly. Stems scattered, simple, erect, leafy, an inch or two high. Leaves bright-green, lanceolate, acute, serrated, waved, thin and pellucid, with a central rib: soon after gathering they wither and curl up, losing their original beauty. Stalk terminal, solitary, red, straight, about as long as the stem. Capsule curved and drooping, cylindrical, brown, with a thick red edge. Outer fringe of 32 narrow teeth; inner as in the foregoing. Lid hemispherical, with a long taper beak. Veil cylindrical, brown, single, its point rough as if with the rudiments of bristles, evincing its generical affinity to the preceding. Indeed we consider the beauty of the Hedwigian principles no where more conspicuous than in affording certain characters by which this moss and the last are ranged under *Polytrichum*, though destitute of a really double veil. How wise is the Linnean axiom, "*Genus dabit characterem, non character genus!*"



*Oct. 1 1803. Published by J. Sowerby, London.*

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