

eColenso

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Brock, Colenso's London agent

By Ann Collins

In a letter to his nephew William, of Penzance, Colenso defended his sister Mrs Tucker against the charge, made by his daughter-in-law, that she had made mischief between him and his son Willie.¹ Rather he wrote:

...that had not Mrs T continually urged me, aye & got her London friend Mr Brock, Senr, to back her, & freely offer to help, – It is likely, I should never have got W. an annuity – never have remitted that £2000 to your father – and Glen T. would never have been purchased! The best, truest, friend, that W ever had in England, was Mrs Tucker, in that respect, Wm., far before my brother, your father.

In the letter to Willie which accompanied the forms for the annuity, Colenso asked them to forward the signed forms to “our London friend Mr Brock....I have long known Mr Brock and Mrs Tucker too knows him well....”²

Mrs Tucker was Jane Emily Colenso (1817-1896). She had left Penzance before 1841, working as a dressmaker until she married Colonel John Montmorency Tucker in 1848. She was widowed in 1852 and continued to live in Marylebone, London until returning to Penzance before 1891. Colenso frequently wrote to his sister Emily and supplemented her income.

In his late journals, 1889-1897, Colenso mentioned writing to Brock on several occasions, as follows.

1. Letter to William Colenso 14 February 14 1897

2. Letter to Wiremu Colenso 3 September 1893

- 20 Mar 1890 Wrote Brock, enclosg. Blacklock's
- 21 Mar 1890 Posted Eng. letters and papers ...& 1 p to Brock.
- 6 Aug 1890 Wrote Willie, long. Putting up papers for England 13 Lat., 13 Willie, 2 Brock
- 18 Aug 1890 Posted 4p. Willie, 3p Lat., 1 Brock, per Tainui
- 22 Apr 1891 Posted letters & papers 9p W., 7 Latty, 1 Brock, 1 Yates
- 5 Sep 1891 Writing letters to England – Brock, w. £30.
- 9 Sep 1892 Aftn. & evg. writing papers for Society, also letter to Mr Brock, London enclosing £50 for sister Emily (i.e. £30 her usual annl. allowance; and £20 in case of emergency.)
- 29 Oct 1892 Wrote letter to Mr James Brock, London.
- 24 Jan 1893 Busy, all day, writing to England. Wrote long letters to Sir J D Hooker and also to Brock.
- 25 May 1893 Writing long & important letter to London to Mr. Brock.
- 21 Jul 1893 Posted this day my letter to London to my old friend Mr James Brock, containing 3 drafts = £3400.
- 31 Aug 1893 Busy writing – long business letter to Mr Brock
- 23 Nov 1893 Recd. Several letters last night from England, but (according to my old rule) did not open until this mg. Much shocked on finding one from my dear old friend's son – Mr J H Brock – informing me of the sudden death of his father on Sunday 8th October. Letter with order (wines, fish, &c) to Mr J H Brock.
- 12 Jun 1894
- 18 Feb 1895 Evg. (late) wrote letter to London agent Mr Brock, & began one to Willie

The James Brock who died on 8 October 1893 was a chronometer maker of 64 George-street Portman-square. His son was James Harri-son Brock. James was born in Lewisham in 1826, the son of John Brock, also a clockmaker, and his wife Elizabeth Ann Willson.

In the catalogue for one of his watches, James is described as “from a family of watchmakers, previously a foreman at Messrs Dent’s where he oversaw the making of the clock for the Palace of Westminster. The firm also made superior longcase regulators with gravity escapements and are known to have retailed some fine watches, as well as supplying ‘prize’ watches to Christ’s Hospital for generations.”³ He showed at the 1862 International Exhibition, where he received an honourable mention.⁴

Mr. James Brock shows marine and pocket chronometers of excellent construction. They differ from the ordinary chronometers in a very essential point, that of the balance spring, which has a double action—namely, the action of the helical and spiral springs combined, by which means the errors of positions (in the ordinary chronometers) are very successfully overcome. They are of first-class workmanship, although not possessing so much external decoration as many similar instruments. The exhibitor is well known as the maker of the presentation watches for the Royal Mathematical School, Christ’s Hospital.

3. David Penney’s Antique Watch Store, archive No. 6350

4. International Exhibition, *Morning Post*, 29 Sep 1862, page 3.

5. Baron Grimthorpe downloaded from <https://www.britannica.com/biography/Edmund-Beckett-1st-Baron-Grimthorpe-of-Grimthorpe>.

6. Edmund Beckett, Lord Grimthorpe, *A Rudimentary Treatise on Clocks, Watches and Bells*.

*In 1851, a barrister Edmund Beckett Denison Q.C., later Baron Grimthorpe, in association with Sir George Airey (then astronomer royal) and the clock maker Edward John Dent, undertook the design of the clock for the tower of the Houses of Parliament (known as Big Ben). Denison’s major contribution was a gravity escapement that imparted unprecedented accuracy to the clock.*⁵

His original design was a four-legged escapement, since a three-legged escapement was known to trip. What was actually used was a double three-legged escapement. He wrote fondly in 1902 of a clock he had made with a four legged escapement:

*I am sitting now in front of the very first of them, which was made straight off from my drawing in 1852 and has been going ever since, either in London, while I kept a house there, or here. I am sorry to say that the actual maker, James Brock is dead. He was an excellent and charming man, who first worked for me at the original Dent’s, in the Strand, and built a sufficient factory in a stable-yard in that region, where we made the Westminster clock and sundry other large ones.*⁶

Baron Grimthorpe took part in the design of more than 40 big clocks, including that in St Paul’s Cathedral and it seems that James Brock was involved in making several of them. A photograph of the Big Ben mechanism is shown overleaf.



Elizabeth Tower Clock
https://en.wikipedia.org/wiki/Big_Ben



The mechanism to the clock of the Queen Elizabeth tower and bells of Big Ben
downloaded from https://en.wikipedia.org/wiki/Big_Ben

James Brock ran a business from three different addresses in George Street between 1857 and 1881. It was here he became a friend of Jane Emily Tucker when she lived in Marylebone.

The 1890 entry in Colenso's journal indicates an already established connection between the two men and Colenso described him as a "dear old friend" in 1893. Colenso had been providing his sister with funds for many years and it seems that Brock was the conduit for these transactions.

After Brock's death his son continued to act as Colenso's London agent. He was then a principal of Finlay & Co., colonial merchants

of Fenchurch Street. They specialised in metals, hardware, groceries, wines, spirits, soft goods &c. and were consignees for wool, skins, tallow and all colonial produce. They had connections with Europe, Cape Colony, Australia, New Zealand and Rangoon.



◀ A massive, midvictorian wall clock in early arts & crafts style oak, by James Brock...

... and an 18ct gold cased pocket watch by James Brock, presented by the Royal Geographical Society to inland Australia explorer John McDouall Stuart in 1859 ▼



Rev. Thomas Hutton Vyvyan

Ann Collins told us at the 2011 Colenso Conference in Napier,

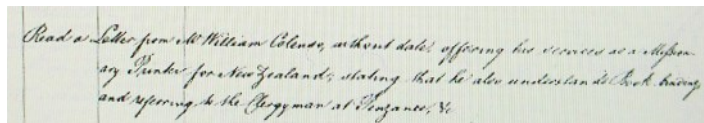
When William was preparing for his future life in the 1830s he counted a number of clergy as his friends. He was particularly attracted to the Bible Christians and counted John Rodda as a valued friend. Another was Thomas Hutton Vyvyan (1803–1844), born at Trelowarren, and the curate of St Mary's Penzance and also John Hobson (1811–1863). In his last week in Penzance before leaving for the new world he “dined with the Rev J Hobson, the superintendent of the Wesleyan Methodist Society in West Cornwall... and on the last Sunday with the minister of the Church of England, my very dear Christian friend the Rev T H Vyvyan (brother of Sir Richard Rawlinson Vyvyan of Trelowarren) with whom (until his premature death) I also subsequently corresponded from NZ.”

Reverend Thomas Hutton Vyvyan was the son of Vyell Vyvyan and Mary Hutton Rawlinson. He married Mary Williams Grenfell, daughter of George Grenfell, in 1835. He died on 4 September 1844 at age 41.

Colenso mentioned him in his journals, the first time on Sunday 4 August 1833,

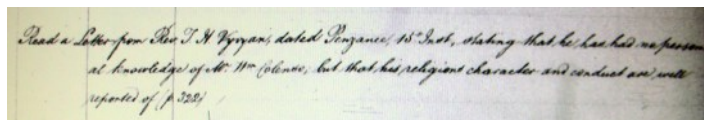
... walked to Ludgoan church to hear Revd. Mr. Vyvyan preach a Missionary Sermon; if all Church (or Dissenting) Ministers were like him what a blessing 'twould be; plain, unassuming, meek and mild. “When unadorned, adorned the most.”

When he applied to the Church Missionary Society to go to New Zealand, Colenso came highly recommended by his employer Richard Watts, and he named Mr. Vyvyan as his other referee. The minutes of the Correspondence Committee suggest the two young men did not know each other particularly well,



Read a letter from Mr. William Colenso, without date, offering his services as a Missionary Printer for New Zealand; stating that he also understands Book-binding and referring to the Clergyman at Penzance, &c.

[“Read a letter from Mr. William Colenso, without date, offering his services as a Missionary Printer for New Zealand; stating that he also understands Book-binding and referring to the Clergyman at Penzance, &c.]



Read a letter from Mr. T.H. Vyvyan, dated Penzance, 15th Inst., stating that he has had no personal knowledge of Mr. Wm. Colenso, but that his religious character and conduct are well reported of. p. 328

[“Read a letter from Mr. T.H. Vyvyan, dated Penzance, 15th Inst., stating that he has no personal knowledge of Mr. Wm. Colenso; but that his religious character and conduct are well reported of.]

Wednesday 19 March 1844

Just finished writing Letters to Cornwall.... Today I was apprised that Mr. Vyvyan, my Minister, in my native Town, had written the Committee and satisfied them. Lord, here I am, take me, and enable me to be fully thine. Support me thro' Life & death I pray, for Jesus' sake.

Wednesday 8 April 1834,

My dear Pastor (Mr Vyvyan) is what I always supposed him to be,—a Christian, how kind? Lord, bless him, give him seals to his ministry, and souls to his hire—oh that every Minister of the Church was like him—following Jesus.

Tuesday 17 June 1834.

This morning received a Letter from my dear Pastor, Mr. Vyvyan, and 1 from Mrs Garnon. Oh! most merciful Lord, enable me by thy Spirit to receive the truths they have imparted; and do thou, for Jesus sake, bless and keep, guide and guard them!

Tuesday 24 June 1834 (seasick)

—recovering slowly—off the Isle of Wight.... sick as I was, dreamed twice of my dr Pastor Vyvyan—today is Midsummer’s day—and at my native Town, they are frolicsome and gay—whilst I, a poor sinner, wends o’er the waters—slowly—my lonely silent way.

16 March 1835 to Coates,

Please forward the 2 little Tracts, enclosed in the Bot., to Mr. Vyvyan, when you send down the “Record,” to the West of England, or at your earliest convenience.

18 March 1841 (at Owae).

One of the young men, (at my desire,) had been baptized Thomas Vyvyan, after my ever-to-be-remembered Cornish Pastor; another had been named W.C. after myself.

References

Mosley, Charles, editor. *Burke’s Peerage, Baronetage & Knightage*, 107th edition, 3 volumes. Wilmington, Delaware, U.S.A.: Burke’s Peerage (Genealogical Books) Ltd, 2003. volume 3, page 4018.

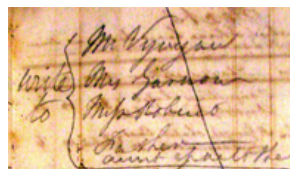
Cornwall OPC Database, online <http://www.cornwall-opc-database.org/>.

Colenso’s support group?

There are two lists in Colenso’s 1834 diary of people he had to write to...



["Write to Father, Vyvyan, Garnon, Robins,—Coates, Broughton—Hill—Orton—O’Neill—"]



Write to

Mr Vyvyan
Mrs Garnon
Miss Robins
Father
Aunt Charlotte.

The Cornwall names appear in both. We have discussed Mr Vyvyan above and Mrs Garnon in *eColenso* before this.

Aunt Charlotte, b.1874, was his mother’s older sister.

1834

Monday 5 May.... This day I left Penz. for Truro, to take leave of my dear aunt. I bless God that she is in good health and enabled to trust him for all things. Into thy hands, Father of Mercies, do I commend her, if we never meet again below grant that we may in heaven.

Tuesday 6 May. Still at Truro.

Wednesday 7 May. Still at Truro, taken suddenly unwell. Lord what am I, a mere worm,—clay—fearfully and wonderfully made.—

Thursday 8 May. Still at Truro:—very unwell.

Friday 9 May. Left my dear Aunt this morning, Lord thou alone knowest, whether we shall ever meet again here, but if not may our next meeting be, where we shall never be separated, but, through Christ Jesus, be for ever with thee.

As for Miss Robins, I asked Ann Collins, who emailed, “The only candidate I can come up with is Miss Elizabeth Robins (1810–1892) who was the daughter of Thomas Robins, a partner of the Cornish banking firm Robins, Foster, Coode and Bolitho. She married Thomas Simon Bolitho 10 July 1838.

“Thomas Simon Bolitho was the son of Thomas Bolitho, brother of William Bolitho who married Mary Dennis Rock, otherwise Mrs Garnon.”

A support group for a local lad off to the antipodes makes sense: his pastor, his father, his favourite aunt and two wealthy and influential women, one of them the widow of a missionary.

On the day he was to have left London for New Zealand, he received last minute advice from two of them,

Tuesday 17 June. This morning received a Letter from my dear Pastor, Mr. Vyvyan, and 1 from Mrs Garnon. Oh! most merciful Lord, enable me by thy Spirit to receive the truths they have imparted; and do thou, for Jesus sake, bless and keep, guide and guard them!

A replacement child?

William Colenso’s parents’ firstborn was called William, christened 12 May 1809, buried 15 July 1810. Our William was born on 17 November 1811.

He would today be categorised as a “replacement child”: a child conceived by parents to replace an older dead sibling. Often they were given the same name. The replacement child provided consolation to the parents for the loss of the earlier child. Sometimes they believed the second was a reincarnation of the first child.

Studies in the psychoanalytic and psychological literature have involved replacement children who sought help for their problems and are thus biased towards the more dire effects of the experience. At http://www.drmetablog.com/replacement_children/ you can read,

Such substitutes must endure the lifetime burden of competing with a lost and often idealised child. Because it is almost impossible for such persons to please their parents, they easily become confused and frustrated, and in worst-case scenarios, pathological.

One of the ways in which the “replacement child syndrome” manifests itself concerns the matter of self-identity. An adult “replacement child” might wonder, Who am I exactly? He might find himself, especially if he has been raised from his earliest days as if he were someone else, uncertain of his own boundaries.

The great comic actor Peter Sellers, was a classic replacement child. At birth, Sellers was named Richard Henry, but his parents, curiously, always called him Peter, after an older stillborn brother. And Peter he remained. Why would his parents do such a thing? Would it not effect a child to be called not by his own name but by the name of a missing brother?

Sellers was famous for his ability to subsume his identity into the role he played. He said, “If you ask me to play myself, I will not know what to do. I do not know who or what I am”—because even when not acting, he was always Richard Henry playing the part of Peter.

In the days when infant mortality was high, the loss of a child seems unlikely to have been as devastating as it is today, the grief perhaps more readily resolved and the conception and naming of a replacement a more routine response. The expression, “an heir and a spare” was commonplace.

Nowadays the replacement child syndrome appears to include

- a feeling of living in the shadow of someone else;
- awareness while growing up of a deceased child born earlier;
- a sense without knowing about this other child that something felt “wrong” or was missing in the way people in the family related to you;
- the recognition about yourself as a replacement child slowly unfolding as you became an adult;
- frequent comparison to a child who had died; that child idealised; a feeling as if you could never measure up to this deceased sibling (the “angel”);
- a feeling that you were not seen or heard as yourself;
- a need to please; perfectionism; identity confusion and/or survivor guilt;
- a need to “take over” for the deceased or incapacitated child; pressure to assume a role in the family in order to make up for the death of a sibling.

Colenso was as uncertain of his identity as any other young man (no more so I think) and in later life he was a perfectionist, as were many Victorian high achievers—but there is nothing else in his story to suggest he was adversely affected by any of this.

The company of children

I was the eldest of a very large family, and was consequently very much used to and pleased with the company of children; indeed, owing to numerous adverse family circumstances, no small portion of my very early days was taken up with nursing.

—William Colenso, autobiography.

Coupland Harding wrote in his eulogy (see May 2014 *eColenso*), of Colenso’s

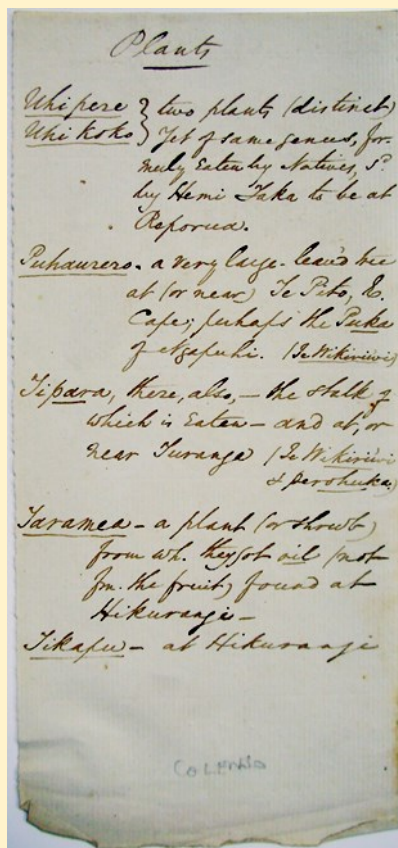
... kindly and practical sympathy with the young in all their higher aspirations, to which many a schoolboy or schoolgirl student of nature in all parts of the country could testify. To all such his time, his paternal advice, and sometimes his books, were freely given.

We have mentioned before this the unhappy week when Fanny and Latty were taken to Auckland; Colenso’s battles to keep Wiremu and later to have him returned; Ripeka’s 2nd child who died; his teaching activities as a deacon; his horror at the treatment of Maori children—sexual abuse, disease, sale into slavery or prostitution; his admonition of a young teacher during his days as school inspector; his Christmas presents to children he knew—Winkelmanns, Suters, Drummond; his letters to the Florence children; the handing out of apples to passing schoolboys on the hill.

He did seem to be pleased with their company.

Edible plants

—There is a list of plants in Colenso's hand on a scrap of paper in the Tumbull Library (MS-Papers-0031-01A), naïve, so written early—probably on his East Cape trip in 1838. He gives his Māori sources for the information on plants' qualities as food.



Plants

Uhi pere } two plants (distinct)
Uhi koko } yet of same genus, formerly eaten by Natives, sd. by Hemi Taka to be at Reporua.

Pahaurero— a very large-leav'd tree at (or near) Te Pito, E. Cape; perhaps the Puka of Ngapuhi. (Te Wikiriwi)

Tipara, there, also,—the stalk of which is eaten—and at, or near Turanga (Te Wikiriwi & Perohuka.)

Taramea— a plant (or shrub) from wh. they got oil (not fm. the fruit) found at Hikurangi—

Tikapu— at Hikurangi

Uhi = yam. *Uhi pere* = the “potato orchid” *Gastrodia cunninghamii*, whose tubers were roasted and eaten.

Uhi koko = taro, a kind of yam.

Hemi Taka was a Māori catechist who had lived with Hobbs and Stack at Mangungu (Hokianga), and who was now working with the William Williams at Turanga (Gisborne). ([http://www.methodist.org.nz/files/docs/wesley%20historical/13\(2-4\)%20brother%20john%20.pdf](http://www.methodist.org.nz/files/docs/wesley%20historical/13(2-4)%20brother%20john%20.pdf)).

“Pahaurero” may be a form of *pahau*, the cultivated variety of *Lagenaria vulgaris* (the calabash)—or *puka*—see next page.

Te Wikiriwi was probably Wikiriwhi Mataura, a noted warrior of Ngati Porou, who later fought for the Crown against the Hauhau.

Tipara was a *Cordyline*, cultivated for the sugary root.

Te Waaka Perohuka was a tohunga and carver of the Rongowhakaata people of Turanga. William Williams held church services at Perohuka's house and his wife, Jane, held her school there.

(<http://www.teara.govt.nz/en/biographies/1p13/perohuka-te-waaka>).

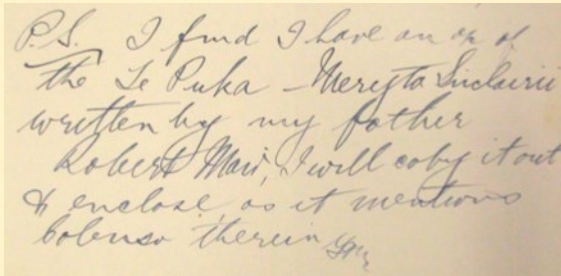
Taramea = speargrass. Fragrant taramea or wild Spaniard was highly valued. Māori held the leaves over a fire to release the oil, which was collected in a small container.

Tikapu = *Cordyline indivisa*, the “cabbage tree”.

This was useful information for later inland journeys—but though Colenso wrote that he and his bearers carried some food, shot birds, caught pigs, caught fish, gathered wild turnip and were given food by local Māori, he did not mention their taking native plants as food.

Te Puka

There is a letter from Gilbert H Mair (son of the Gilbert Mair Colenso knew in the Bay of Islands) to AG Bagnall in the Turnbull Library (88-103-1/17) which has a PS about “an a/c of the Te Puka”.



P.S. I find I have an ac of
the Te Puka *Meryta Sinclairii*
written by my father
Robert Mair, I will copy it out
& enclose as it mentions
Colenso therein.

The copied account reads,

On the Poor Knights, a group of Islands about 11 miles off Whananaki on the Main Land. On these islands the singular tree *Meryta Sinclairii* is found. The Maoris, who at one time had cultivations on the most westerly island, brought the Puka tree & planted it at Muriwhangata near Whangaruru & tabued it.

The Revd. Colenso, an enthusiast, heard of it but was not allowed to see it. Many years afterwards my father (Gilbert Mair) was trading in his schooner & called at the settlement, the Maoris gave him permission to take some leaves, these were taken to Auckland & given to

Mr Robert Lind, Barrack Master of the 58th. Regt., who was a botanist & he invited Mr Andrew Sinclair (also a botanist) Colonel Boulton, a conchologist, & some other naturalist in Auckland & the leaves were forwarded to Sir Joseph Hooker. Later I obtained a branch covered with fruit & sent this to Dr Sinclair who forwarded it to Sir Joseph Hooker & it was named after the canny Scot.

The tree has since been found on the Islands off the North Cape, Hen & Chickens & other islands in the gulf; but not on the mainland other than Muriwhangata where it thrives well when transplanted.

Copied from records written by the late Robert Mair.

Note My father always maintained that the Puka, should have been called after Colenso & if not him the Mair family.

GHM.



◀ *Meryta Sinclairii*, by Sarah Featon

The plant is now threatened by pests introduced by cannabis growers who increasingly plant on offshore islands in the north.

Two big books

On 13 August 1893 Colenso wrote to Harding from Napier; the last page(s) of the letter are missing, but what has survived ends with,

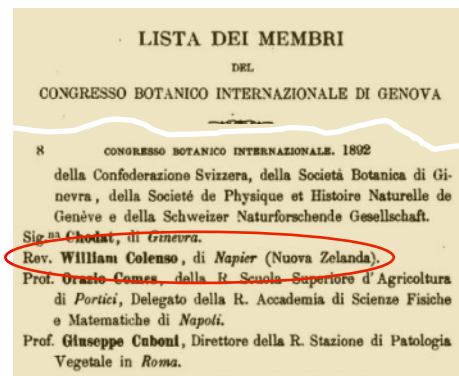
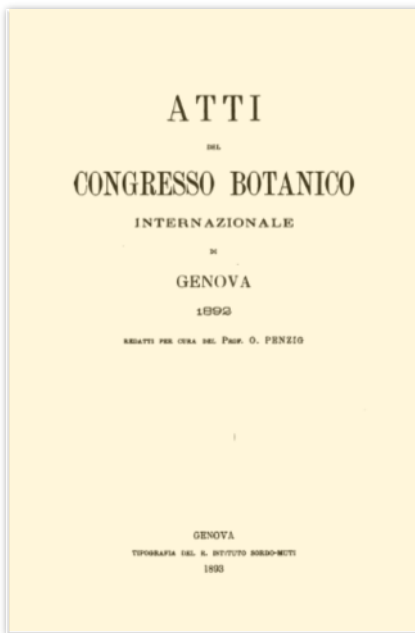
I have lately recd. 2 big books:

1) “Atti del Congresso Botanico Interregionale di Genova”, eng. 8vo. well ptd. & got up with cloth silver letterings, &c, without a single stop in Title page!! Unfortunately! it is nearly all Italian—a small portion only French, & Latin, and 1 paper in Eng. by an American Botanist (delegation from “Am. Club. Assn. Science”), Dr. Underwood, with whom I have been corresponding. They have done me the honour of enrolling me 'mong Members.

2.) a thick “Guillotined” 8vo., over 1000 pp.—“Report 4th. Meeting A.A.A.S.,” (i.e. Australn. Assn. Advanct. of Science) held at Hobart, last year: contg. many useful & good papers. I hope you may get to see a copy, & read (at least) a paper by Prof. Morris, M.A., President “§.1., Literature & fine Arts:”—you would also find at p.8, (Inaugural Address

by President of the Society, the Governor of Tasmania,) pleasing mention made of me—it appears, that
[ends]

<https://archive.org/details/attidelcongresso00penzgoog> (atti del congresso....) has Colenso named as a member. ▼ ►



<http://www.mocavo.ca/Report-of-the-Fourth-Meeting-of-the-Australasian-Association-for-the-Advancement-of-Science-1892-Volume-Volume-4-1892/460445/27#43> carries the inaugural address at the 4th meeting of the Australasian Association for the Advancement of Science, held in Hobart, by the President of the Royal Society of Tasmania, Sir Robert GC Hamilton, Governor of Tasmania.

In it he said, ►►

It is interesting to notice that the first list of corresponding Members of this Society contained some very distinguished names. Among them are to be found those of Captain James C. Ross, of H.M.S. *Erebus*, and Captain Francis R. M. Crozier, of H.M.S. *Terror*. Both these ships, as you are no doubt aware, visited Hobart on their outward voyage to the Antarctic regions in 1840, and on their return from those regions in 1841, after having ascertained the true position of the south magnetic pole. The list also includes the names of Mr. W. Macleay, of Sydney, a learned zoologist, and the father of Sir William Macleay, whose recent death we so deeply deplore,—no man in the present generation having done so much for the advancement of science in Australia; of Count Strzelecki, of London, the eminent zoologist; and of Mr. John Gould, of London, the great ornithologist, whose magnificent work on Birds is not only of rare artistic merit, but is still the standard work on the subject. All of these are no longer living. But three of the original corresponding Members of this Society still retain their health and vigour. They are the Rev. W. Colenso, whose investigations in botany and zoology, extending over a very lengthened period in New Zealand, have been very important and extensive, and who, moreover, is the greatest living authority on the folk lore of the Maories; Sir George Grey, whose brilliant services in his riper years in the political world have a tendency to somewhat cast in the shade services, scarcely less brilliant, which, as a younger man, he rendered in the field of exploration; and last, and by no means least, Sir Joseph Hooker, then the Assistant-Surgeon of H.M.S. *Erebus*; and it is no small satisfaction to Tasmanians that a man of the extraordinary powers and attainments of Sir Joseph Hooker should have devoted so much of them as he has done to the investigation and description of the nature, distribution, and affinities of the Tasmanian Flora.

A correspondence of hepaticologists

A *herpetologist* is a zoologist specialising in reptiles; a *hepatologist* is a medico specialising in liver diseases; a *hepaticologist* is a botanist specialising in liverworts (hepaticae).

Clearly only a fraction of Colenso's correspondence has survived: most of the letters he received were destroyed either by Colenso himself late in his life, or by his son Latimer after his death; those he sent have survived as his own copies or were kept by the few who thought they were important. The manuscripts that have survived do contain clues about some of the lost letters.

This is a case study of hepaticologists. On 21 February 1893 Colenso wrote to **Joseph Dalton Hooker**,

From letters received I should think there must now be an increasing No. of Cryptogamic Botanists at work especially Hepaticologists. Possibly Stephani's Paper in Linn. Socys Journal on our N.Z. Hepaticæ (and on me in particular) may have been a means of bringing them out, — or, at all events, to write to me for specimens!! Among them is a recent Paper (from Trans. Connt. Academy, 1892) from a Mr **A.W. Evans** of New Haven Connt. U.S.A., in which he breaks up our known Hepaticæ into 117 genera! and in so doing ignores or destroys old-establd. ones....

Even in his missionary collecting days Colenso sent liverworts to the Hookers at Kew: **William Mitten** examined and described them. But it was in the 1880s that he began to take a special interest in the specimens he was finding in the Bush district—and **David Balfour** was sending from Glenross, **Felix Reader** from Marlborough, and over a dozen other local collectors whom Colenso named in his descriptions.

On 28 November 1881 he wrote to **Prebendary Hedgeland** in Penzance,

Your mention of Mr. **Ralfs**, and of his very appropriate remark on Mitten's labours among the Hepaticæ of this country, as shewn in the "Hand Book of the N. Zealand Flora."—Curiously enough I had, some three months ago, received a letter from an old townsman (Mr. **William Curnow** of Newlyn) respecting our smaller cryptogams,—Musci and Hepaticæ, (which he had also written through what he had seen in that same copy of the Hand Book in your Library, referred to by you;) and I, in reply, had promised to send him some specimens,—which I now do by this Mail; having last month purposely gathered them for him in our forests. And if you in your Library and Museum attached (?), have any room for such specimens of Nature's Botanical gems,—and if Mr. Ralfs (or some other skilled Botanist) will lay them out, name them, &c.,—I will gladly send you a larger parcel both of Hepaticæ and Musci for your Penzance Library.—

Colenso wrote to JD Hooker on 22 January 1883,

Would you like to have a lot of Crypts. (mostly Hepaticæ) in the rough & presumably several new? or, should I send to **Mitten**? Required, in return, name of each. — Let me know early.

He sent "a large lot of Hepaticæ, — in 2 boxes" to Hooker that June. On 29 October, "I trust Mitten may find something new — or of service — among the Hepaticæ, and I have plenty more to send w. Mosses." In fact the liverworts were sent from Kew to **Franz Stephani** in Leipzig and he published a paper ("A revision of Colenso's Hepaticæ, with descriptions of new species collected by him. *Journal of the Linnean Society* 1892, Botany 29: 263-80). Thiselton Dyer, now

Director at Kew, sent Colenso a copy: on 18 January 1892 Colenso wrote back to **Thiselton-Dyer**,

I duly received from you... in Feby. last, the List of Hepaticæ as determined by Stephani.... I was certainly totally unprepared to find that I had sent you so very many duplicates! and that not a few of those I had so long laboured at and described in the "Trans." as sps. novæ were already known!! I suppose Stephani is quite correct in his decisions respecting them(?) but, be that as it may, one thing I have been taught — not to attempt to describe any more of that difficult order. (I confess, I abandon my hitherto pleasing work with sorrow!) so that of all these I now send you, I know nothing; I have not examined one of them, but send them as collected, (or, obtained, in some few cases from among roots of ferns and other small plants sent to me for naming by correspondents,) therefore, here, again, may be many duplicates and repetitions!!

However, I may now say, that these will be the last lots of Hepaticæ and Fungi I shall send to Kew; as (now that I am 81) I have entirely given up forest botanizing, especially in those deep secluded dark unfrequented and distant gullies the homes of the dear Hepaticæ, — not possessing physical strength sufficient for that work, — which, too, has lately been so sadly lessened by this terrible Influenza.

(In JG Baker's hand)

Parcel received March 10, 1892.

21 Phænogams & Ferns.

395 Hepaticæ

178 Fungi.

Mr Clarke will report on the Gahnias, Dr Cooke on the Fungi & we will send the Hepaticæ to Dr Stephani if he is willing to undertake them.

JGB

A year later, on 30 January 1893 Colenso wrote again to Thiselton Dyer,

At last I have completed my task, and am therefore writing to you: having this day made up another lot of Fungi, in which I hope some sps. nov. may be found and so please Dr. Cooke. I have also added about 40 lots of Hepaticæ, – although such may gain me extra animadversions from Stephani! These last I had collected during the autumn & winter of 1892, – not so much for sending to Kew as for my own future examination (however cursory), but on my receiving, through you, Stephani's long and full correction of the large lot of Hepaticæ. I had sent you in Jany, 1892, and finding such an enormous number of repetitions, &c., I ceased gathering any more, seeing I was still working over the same ground, and should not find time to examine them – even if I possessed the requisite ability to do so. And here I would just quietly observe, (before I have done with them,) that I think Stephani might have let me down a little more gently; for he knew, at least, 2 things; – 1. that by far the larger portion of the Hepaticæ I had sent had never been examined by me, but were merely gathered and roughly put up for a future examination: and 2. that I had not the necessary modern books of reference here, – as I had previously written to him (in reply) respecting them: and, I fear I must in justice to myself, (and in writing to you at Kew,) add, 3. that my refusal to send him any Hepaticæ (made a few years before) had something to do with it.

However all that is over now: I never worked for sale or gain, and though it appears I made several woeful mistakes – yet being done con amore, in the Happy Golden Age of Ignorance, I had gained many pleasant hours in collecting, examining and describing them. Sic transit Gloria, &c. and here I would specially thank you, my dear Sir, for the corrected

page in the Jl. Linn. Socy., beginning with Stephani's strictures and restorations....

But there were others interested in the New Zealand liverworts. On 16 March 1893 Colenso wrote to RC Harding,

I have been unwell ... through persistently sitting all day long at this table putting up spns. of Hepaticæ—for 2 American Botanists (1 at Connt. & 1 Indiana) I had promised (!) last year from Bush, & had put it off till I was ashamed, however the job is done now! I hope my American correspts. will treat me a little better than Dr. Cooke, & Dr. Stephani (Berlin), from this latter I have no reply!

Stephani did reply: 28 August 93 to Harding, "I know, from Stephani direct, of Kirk sending him Hepaticæ!!!— (Keep this... private.)"

Finally, 16 January 1898, to JD Hooker,

I received a letter last month from a Mrs Tindell, Misperton Hall, Kirby, Pickering, Yorkshire, asking for a few spns. of Hepaticæ: the seeking them, among hundreds of little packets of spns, of Crypts stored away in boxes, gave me some days of trouble, enhanced by my right arm not being strong enough to move many things: just a few spns. go to her by this Mail: she mentioned her visit to the Cryptog. Museum at Kew, & other places. (She seems to be an expert at Hepat.)

This was the botanist **Isabella (Ella) Mary Tindall**. In the Alexander Turnbull Library (Ms-Papers-5778) is an unnamed letter from Colenso, clearly to Ella Tindall and naming the two American correspondents,

Napier, New Zealand,
January 8th, 1898.

Dear Madam

Shortly before Xmas. I received your letter of 31st. Octr., in which you wished to obtain from me “specimens of the five species of Fossombronia named by me”. At first I feared I could not possibly do as you desired, for two reasons: (1.) from my peculiar present position,—not being able to use my right hand & arm freely, arising from a very serious fall when out driving in April last, which broke my elbow bones, &c, &c, so that I cannot well use my hand and arm, save for writing: and (2.) from my not knowing in which parcel, or lot, or box, to look for those *Hepaticæ* you required; and there are dozens—I may truly say scores—of such lots roughly made up and set aside. However, as I much wished to aid you, I have been working parts of 3–4 days, and now send you what I can find of Fossombronia and Noteroclada:—that is, according to their numbers, and not from examination—which I cannot carry out at present. I have also had a rare & long search after Petalophyllum (2 sps.) without success, unless a spn. I send (no. a1547.) should prove to be the one. Stephani, however, gives this no. as ‘F. ? sterilis’: and I find, on my referring to my descry. of P. australis, (Trans. N.Z. Instit., vol. XVII, p.261,) that I had “only seen 3 spns. of the plant.”——

Of several Hepaticæ I have but very small (and poor) specimens left, having given them away to American Cryptogamists—Drs. Evans, and Underwood, and others; while of other specimens I have plenty; but I never cared to collect any quantity of each, merely for Kew & myself, and always con amore, rarely ever mounting any.—As you are acquainted with the Kew Museum, should you desire any other specimens, the better plan would be for you to note down the number (as given by me with the specimen at Kew) then, probably, I might be able to find them;—that is, if health continues,

as my advanced age (nearing 90) and weak state are obstacles to my doing much more work, especially being unassisted.—

And as I happened to have a spare copy left of my paper containing descry. of Fossombronia, sps., &c, I post it to you with this note & small packet, as probably you may not have seen it. I trust the few little specimens I send may prove of some small service.

Colenso mentioned her in a letter to Harding a couple of weeks later (21 January 1898),

a letter from a Lady at Home (who seems a regular expert) wanting some spns. of small *Hepaticæ*, named, described by me years ago, & more recently criticised, &c, &c, by Stephani of Berlin: she, has seen his Crypts, & those at Kew, & lots of others—in Museums, &c.,—and says Dr. Stephani is wrong, &c.

Summary

In his missionary years Colenso sent NZ liverworts to Kew and Mitlen described them. Colenso himself formally described many more in papers in the *Transactions* in 1881 (when he also sent specimens to Ralfs and Curnow in Cornwall), 1883 (when he also sent “a large lot” to Thiselton Dyer who sent them to Franz Stephani), 1885, 86, 87, 88 and 89. Eventually Stephani published (in 1892) a paper reassigning many of Colenso’s NZ species and describing new ones. Colenso received a pre-publication ms and published a list of Stephani’s new NZ species in the *Transactions* in 1891. He was so upset he swore he would not attempt to describe any more liverworts and he questioned Stephani’s motives. He sent his liverworts to Kew and these were also forwarded to Stephani; Colenso reported Stephani’s conclusions about these in the *Transactions* in 1892 and 95. In 1893 Colenso sent

specimens to Evans and Underwood in the United States and in 1898 to Mrs Tindall who had questioned Stephani's assessments, probably rightly. Colenso's letters to Kew have survived, but those to (and from) the other hepaticologists named here have not.

The fungi Colenso sent to Kew were revised by Dr Mordecai Cooke with similar results.



◀ **William Mitten** 1819–1906 was an English pharmaceutical chemist and authority on bryophytes who has been called “the premier bryologist of the second half of the nineteenth century”. His papers are in the New York Botanic Garden library, but there are no Colenso letters there.



◀ **John Ralfs** 1807–1890 was an English botanist who lived most of his life in Penzance, Cornwall. There are no Colenso letters among his papers.

[**William Curnow** 1809–1887 was a Cornish market gardener who became an expert in liverworts, one of his publications being “The Hepaticae of West Cornwall”. I cannot find any collection of his papers].



◀ **Alexander William Evans** 1868–1959 was Professor of Botany at Yale. He was the undisputed leader in two areas of botanical research. After achieving eminence as a hepaticologist, he turned to lichenology and made contributions of equal importance to that field. His correspondence at the Sterling Memorial Library of the Yale Library begins at 1931, so there are no Colenso letters.



◀ **Lucien Marcus Underwood** 1853–1907 was an American botanist and mycologist. He was the author of *Descriptive Catalogue of North American Hepaticae* (New York, 1884) and “Hepaticae” in Gray's *Manual of Botany*. He also prepared *Hepaticae Americanae* (1887–93). After losing large amounts of money on Wall Street, Underwood attempted to murder his wife and daughter before committing suicide. His papers are in the New York Botanic Garden library, but there are no Colenso letters.



◀ **Isabella (Ella) Mary Tindall** 1850–1928 was a British botanist and hepaticologist. Richard Spruce wrote in 1893 (*Notes of a botanist*), — “Slater and I have discovered two lady botanists in our own neighbourhood — or rather they have discovered us. Mrs. Tindall's husband is brother of the proprietor of Kirby Misperton, but their home is in the south. Miss Lister, her cousin, is a clever botanical artist. Her home is in Dorset. They are very quiet, unassuming ladies — fine scholars (I envied them their familiarity with German) — and

have both a fair knowledge of British flowers and mosses, but are comparatively new to Hepaticae.” Her herbarium is at the Natural History Museum in London but I can find no trace of her papers.



◀ Franz Stephani

1842–1927 was a German businessman who studied liverworts. His great work was *Species Hepaticarum* (1898–1925), six volumes in-

tending to cover every liverwort and hornwort in the world. Almost 10,000 species are included, but it “holds the reputation of being one of the most notorious publications in bryology” and “taxonomists are still busy clearing the mess” (Gradstein SR 2006. Stephani's *Species Hepaticarum* revisited (pdf). *Willdenowia* 36 (Special Issue): 557–563. doi:10.3372/wi.36.36152). Perhaps only a quarter of his species will prove to be valid. The problem is attributed to his progressive brain disease that affected the last three volumes. His papers at Leipzig University Library contain no Colenso letters. His herbarium and the Stephani Icones (original sketches of all the species described in his books), are in the General Herbarium and library archives of the Conservatory and Botanical Gardens of the City of Geneva respectively: there are no Colenso letters there.

In 1891 Colenso spoke about liverworts to the Hawke's Bay Philosophical Society and his talk was published in the *Transactions*. ►

1891 Plain and practical thoughts and notes on New Zealand botany.

Transactions of the New Zealand Institute 24: 400-409.

[Read before the Hawke's Bay Philosophical Institute, 15th June, 1891.]

Colenso began by differentiating between flowering (phaenogamic) and nonflowering (cryptogamic) plants, then briefly discussed the nine orders of cryptogams. He went on...

Of those nine courts or natural divisions in the grand temple of cryptogamic vegetable nature, I choose No. 5, *Hepaticæ*, for my subject tonight; and the main cause of my so doing is my having lately received a letter from the Director of the Royal Botanic Gardens at Kew, containing a very long list of *Hepaticæ* from the celebrated cryptogamic expert, F. Stephani, of Leipzig, lately determined by him, numbering 1,027 specimens (or, rather, separate packets), being portion of a very large lot I had collected in our forests during several years and sent to Kew last year. This list I now [404] lay before you; and the *species novæ* contained in the same, now named by him, will form the subject of a future paper. Moreover, as an adjunct or minor cause is the fact of my recent return from those dear old sequestered haunts in the dense and lonely forests where I had again been admiring those lovely productions of nature.

In 1864, Sir J.D. Hooker, in his “Handbook of the Flora of New Zealand,” writing on this order, says, “Of the *Hepaticæ* (about 212) here enumerated, the greater majority were discovered by Mr. Colenso and myself, and were new to science on the return of the Antarctic Expedition to England” (loc. cit., p. 498). Since then, owing to many subsequent discoveries, I suppose the present number known of our New Zealand *Hepaticæ* to amount to about five hundred. Many of them are endemic; some are also found in Tasmania and in Australia, in the far-off antarctic islets, and at Cape Horn and Fuegia; while others are strictly identical with species denizens of the British mountains and of the South American Andes. Here, then, there is food for thought—whether such productions, now found so very far apart in the two hemispheres of the globe, were originally specially created, or whether developed; and, if the former, whether together at one time at both ends of the globe, or, if singly, which first.

And here I may mention a letter I have lately received from a skilful naturalist in the South Island. I had sent him some living molluscs (univalve land-shells) I had lately detected on a living tree in the forest, which seemed to me peculiar. In his reply he mentioned having lately found a species of land mollusc which is identical with a species

hitherto only found in Java, and which he considered as proof of these two countries, that and this, now so far apart, having been at some distant period geologically connected. I cannot, however, agree with him in his conclusion; and I merely mention this as bearing in a slight degree on the finding of the same species of *Hepaticæ* occupying the extremes of both the Northern and Southern Hemispheres.

Numerous as our endemic species are, some of them are both very rare and local, while others are very common and plentiful. Some are generally epiphytical—that is, growing on other species, and on mosses and on some of the smaller ferns, particularly on *Trichomanes elongata* and *Hymenophyllum demissum*, one species in particular not unfrequently completely and closely covering the upper surface of the frond in the former plant with its pale delicate fringes, which are the more conspicuous from the very contrary colour of that dark-green fern; the branches of many living trees, even the topmost of [405] the tallest, including branchlets that are dead, are often clothed with them; the steep sides of streams and mouths of caves abound in species; and even isolated stones and boulders, and dry hardened logs denuded of their bark and exposed to the hot rays of the burning meridian sun, possess them, exhibiting most astonishing proofs of their endurance

and long vitality; even dry black and charred logs, extra heated in the sun, are often thickly clothed with a small red species, bearing fruit too, presenting an uncommon appearance after rains. Many of them are very beautiful, being most exquisitely and symmetrically formed and adorned; each species, however minute, possessing the greatest regularity in shape and size of leaves, in their delicate fringes and their mathematically-formed cells, &c., and this in its most delicate and microscopical distinctions.

I am not aware of any of them being of service or use to man, only that a few of the larger species of the genera *Lophocolea* and *Chiloscyphus* that are odoriferous were formerly prized and eagerly sought after in the woods by the ancient Maori females to impart a fragrant scent to their anointing-oils, as well as to wear in little sachels around their necks. To such an extent was this perfume valued that it was also both used as a proverb and sung in a loving nursery song.

Oh! there are curious things of which men know
As yet but little—secrets lying hid
Within all natural objects.
He who findeth out
Those secret things hath a fair right to gladness;
For he hath well performed, and doth awake
Another note of praise on Nature's harp
To hymn her great Creator.

Some of our principal genera I will briefly mention, as I purpose showing you mounted specimens of some of their species, and plates of others faithfully drawn and coloured, with their dissections highly magnified, in illustration. I trust that, at least, the ladies of my audience will not be discouraged on hearing their proper generic names, supposing them to be sadly uncouth and unmeaning, and totally unfitted for such delicate and elegant forms; for such is really not the case, as I hope to be able to prove to them.

Generic names of plants are usually chosen with two objects—I, to indicate and perpetuate the proper name of the botanical discoverer, or of some distinguished patron or friend of the science; 2, to show some striking specialty of the plant itself, the type of the genus—for this purpose a suitable Greek [406] name Latinised (simple or compound) is used. Thus, among those of our New Zealand *Hepaticæ* we have—of the former class, (1) *Jungermannia*, in honour of L. Jungermann, a botanical author; this genus is a very large one—formerly (and until the last forty-five years) nearly all our present genera were included in this one: (2) *Frullania* (another large genus), named after Signor L. Frullani, an eminent Italian statesman and great patron of botany: (3) *Lejeunia* (a very large and cosmopolitan genus, stated by Hooker in

1864 to contain 236 species, which have been largely increased since), named in honour of Dr. A.L.S. Lejeune, a botanical author: (4) *Gottschea*, “a noble genus, almost confined to the Southern Hemisphere, and abundant in New Zealand” (Hook., l.c., p. 512), named after the celebrated cryptogamic botanist and author Dr. C.M. Gottsche: and of the latter class—(1) *Trichocolea* = hairy sac or bag (such being the state of its calyx); (2) *Polyotus* = many ears (from the very peculiar appearance of its neat little concave and lobulated leaves); (3) *Isotachis* = equal-rowed spike or ear—as of wheat, &c. (the leaves of this elegant species forming two close and very regular rows, while a third and similar row is formed of its large stipules); (4) *Plagiochila* = oblique lip, or mouth—of its calyx; (5) *Madotheca* = bald, smooth, largely-rounded capsule, issuing from its calyx bag or case; (6) *Mastigobryum* = whiplash-like moss (from its very long and slender scaly aerial rootlets, resembling the scaly stem of a minute *Lycopodium*, a peculiar and striking feature); (7) *Lepidozia* = scaly bud (gemma), from its general appearance; (8) *Chiloscyphus* = cup-shaped lips, from the form of its calyx; (9) *Psiloclada* = slenderly branched, sparingly leaved; (10) *Zoopsis* = rigid, silvery, scaly, animal-like; (11) *Aneura* = without nerve.

Now, these and suchlike generic names (and there are many such among our New Zealand plants) convey a true and useful *prima facie* meaning to those who know the Greek and Latin languages, and such natural names aid in properly placing newly-discovered species under their respective genera. And, strange as it may seem to English ears, such names are far more scientific and serviceable than many of those common and plain ones of our English plants, as alder, ash, apple, cherry, oak, larch, plum, &c.

Here, I think, I may properly relate a striking observation of Bishop Selwyn’s on this very subject of (the so-called) “hard botanical names.” The Bishop had been looking over my manuscript scientific catalogue of New Zealand plants (which I had collected from various sources for my own use, there being then no published work on New Zealand botany) for their names for his “Church Almanac:” and, he having casually remarked on “the reproach of the science” (its often [407] hard and uncouth names), and coming to *Urtica ferox* = fierce stinging-nettle; *Phormium tenax* = tenacious basket-weaving plant; *Pteris esculenta* = edible fern; *Arundo conspicua* = conspicuous prominent reed (and suchlike), the Bishop said, “Now, this is what I like. In these names is contained intelligent and useful information, even to a stranger or novice in botany.”

The fascinating wonders of Nature are indeed greatly displayed here in this order to the inquiring mind and eye. Here is to be seen the perfection of elegance and beauty in her humblest productions. Permit me to more particularly call your attention to the specialties of some of our genera of this order—e.g., in form, so intricately and finely compound, almost bewildering, yet regular—*Trichocolea*; and, on the other hand, so very simple—*Symphyogyna*: in size, *Plagiochila*, some of which are large dendroid and tree-like, branched and nearly 1 ft. high, resembling small shrubs; while others of this same genus are very minute: in extreme fineness and delicacy of structure—*Zoopsis* and *Psiloclada* in remarkable close regularity, shape and position of their imbricated leaves—*Isotachis*, *Madotheca*, *Mastigobryum*: in their charming rich and varied colours (on the one plant), golden, orange, purple, emerald-green, &c.—*Polyotus*: in elegance and richness of superb cutting and fringing—*Gottschea*, *Chiloscyphus*: and, generally, in their minute cells, their structure, shape, regularity, and mathematical correctness; in their endurance, retaining life though daily heated and scorched, crisped and dried up by the summer’s sun; in the excessive minuteness and regular form of their microscopical spores (seeds), &c.; in the highly curious manner of the distribution of their seeds

when ripe, which is done by coiled and double-spiral elaters, or springs.

Not unfrequently, when alone in the low, secluded, damp dells and gullies of the umbrageous forests, far away from man, surrounded by these beautiful *gems*, and contemplating them in their luxuriant perennial growth, their pleasing elegant profusion, and almost endless variety of forms, have I been led to exclaim,—

Who can this field of miracles survey,
And not, with Galen, filled with rapture, say,
“Behold a God! adore Him, and obey!”

And here I may briefly remark in passing (and so, possibly, anticipate a question) that it is all one to me, at such times, whether those many and varied, yet regular and symmetrical, forms were produced by creation or by evolution. Rather, however, would I set the consideration of that deep and difficult question aside that I might the more fully drink in and enjoy the exquisite living scene before me. [408]

I will now lay before you a few dried and mounted specimens illustrating some of the principal genera I have mentioned; but in so doing I must premise that, just as the planets and distant large objects are the more clearly revealed by the aid of the telescope, so also these minute ones are by the aid of the microscope. Indeed, without it their beauties

and wonderful formation and structure are wholly unknown, being invisible to the unassisted eye.

Here, also, in several large botanical volumes on the table are faithful coloured and magnified drawings of many species, with their microscopical dissections. These well-executed plates will best show these lowly yet lovely plants, and will no doubt interest you more than the dried specimens.

In some of the later volumes of the Transactions of the New Zealand Institute I have described several new species of *Hepaticæ*. Both in detecting and in collecting, and also in working at them under the microscope, I have enjoyed many a pleasant hour; such sometimes even serving to powerfully neutralise chronic rheumatic pains.

I am happy in knowing that the study of this order of plants has become increasingly popular of late years—that is, abroad, all over the world; for I regret to say such is not yet followed here in New Zealand. I have received several letters from cryptogamic botanists in both Europe and America, who were desirous of studying our New Zealand *Hepaticæ*; but I am unwillingly obliged to decline, at my advanced age, the taking-up with any new scientific correspondents, involving the collecting and transmitting of specimens, though a few years ago I should have rejoiced

in doing so. It grieves me not a little when I reflect on the utter carelessness of our colonists generally (both old and young) toward all scientific pursuits. Superior education, though so largely praised and attended to by our rising generation, seems to have effected very little in this respect. The study of botany, especially of the cryptogamic class, and more particularly of this order *Hepaticæ*, is a highly-pleasing one. It is of a calming nature, beneficial and mentally profitable to the student, leading him genially on “through Nature up to Nature’s God.”

In conclusion, I must ask forgiveness of my audience for the roughness and disjointedness of my paper, as but little time was allowed me for its preparation; hence its hurried and somewhat irregular form.

The principal books referred to as containing faithful and valuable plates of *Hepaticæ*, also shown on this occasion, were—

1. “Botany of the Antarctic Voyage,” Hooker fil., vols. i., ii., iv., vi., with coloured plates. [409]
2. “Species Hepaticarum,” Lindbg. et Gottsche, coloured plates.
3. “Hepaticæ Amazonicæ et Andinæ,” Spruce.
4. “British Jungermannia,” Hooker, coloured plates.
5. “Musci Exotici,” Hooker, vols. i. and ii.

And several small but more recent works, containing well-executed plates of various species.

WILLIAM COLENZO SQ

