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Recreating a long-lost herbarium

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Abstract

The Horticultural Society of London (now the Royal Horticultural Society (RHS)) sold its herbarium collection at auction in 1856. The collection was made up of specimens collected by its sponsored plant collectors in addition to a number of donated collections. This paper attempts to recreate the lost herbarium virtually by tracking down the current location of the RHS's set of specimens via the sales catalogue. The RHS's Lindley Library still holds many of the journals made by the collectors, along with accessions registers for many of the plants that made their way into our gardens. As these become digitised and available to researchers via the RHS's web portal it should soon be possible to enhance the notes, dates of collection and geographic localities that are sadly lacking on the actual specimens.

Keywords: herbarium, RHS, David Douglas, Robert Fortune, George Don

Introduction

Early on a very cold but dry afternoon in January 1856 (Whympers, 1856) botanists and their agents gathered in London at 38 King Street, Covent Garden, to participate in an auction of arguably, for horticulture, the most important collection of dried plant specimens ever to be sold. These collections are not only of huge scientific significance to taxonomists but also to horticulturists as they were the source of a great many of the plants that are still growing in our gardens today (Harvey and Gregson 2016: 121-123). The auction comprised 54 (plus 2) Lots (Figure 1 and 2) of plants from the Arctic to the Cape, the majority of which had been made by plant collectors sponsored by the Horticultural Society of London. The expectation was to make the dried plant collection of the Society more accessible to researchers as it was anticipated to be sold to some of the larger herbaria.

The specimens had merely been made to aid identification and naming of the plants and seeds sent back to the UK to introduce to gardens (Gardeners' Chronicle 1856: 68), and as that purpose had been successfully served, they were no longer of use to the Society. The report in the Gardeners' Chronicle cited above neglected to mention the financial difficulties that the Society was experiencing that necessitated the sale. Regrettably until recently their new locality was unknown to the Royal Horticultural Society (RHS) as 'no record has been found of the purchasers of the specimens; many may lurk unidentified in private collections' (Elliott 2004: 224). Now that we have reached a time when a number of collections have been or are in the process of being digitised it should be possible to find the collection and recreate the Royal Horticultural Society's long-lost herbarium virtually.



Background

The Royal Horticultural Society (RHS) was formed in March 1804 for the purpose of instituting a Society for the improvement of horticulture and that the objections of the new Society should be 'to collect every information respecting the culture and treatment of all plants and trees as well as culinary as ornamental,' 'to foster and encourage every branch of Horticulture, and all the arts connected with it;' and 'that it shall be considered within the intention of the Society to give premiums for improvements in Horticulture, wherever it should be judged expedient to do so.' (Murray 1868: 9). From its start of 91 members elected in the first year, the Society still continues to this day with a considerably larger membership of over 600,000.

From 1804, plant collecting opportunities outside of the UK were initially hindered by transport difficulties caused by the Napoleonic wars. When peace came in 1815, the Society began to obtain valuable foreign plants from outside of continental Europe, and these were shipped to the UK from Fellows and friends of the Society based abroad, and then distributed to the members (Murray 1868: 14). A large number of these early imports, such as *Wisteria sinensis* and many varieties of camellias, azaleas, roses and chrysanthemums are still known and grown today. However, it is a feat that any living plant should have survived the voyage as the 'Wardian Case' (see Keogh, 2020) had yet to be invented, and plants were frequently heaved overboard when the return voyages hit ferocious weather conditions. Letters between Dr John Livingstone, the chief surgeon of the East India Company in China and Joseph Sabine, Secretary of the Society, about the difficulties of transport led to an idea being formed of sending gardeners to the tropics to collect and subsequently care for living collections during their time in transit to the UK (Fletcher 1969: 93-94). John Potts was the first of these and was sent to China and India in the spring of 1821. His first shipment of plants, seeds and dried specimens arrived in the UK from Calcutta in February 1822. Potts's success was followed by a series of collectors until 1864. In order of employment, the successive plant hunters were George Don, John Forbes, John Damper Parks (occasionally spelt Parkes), David Douglas, James MacRae, Karl Theodore Hartweg, Robert Fortune, Matteo Botteri and John Weir. All of the collectors made herbarium specimens of plants taken for cultivation to enable correct names to be attached to the new introductions. They were also given permission to make duplicate sets of specimens that could be sold, the profit staying with the collector.

The Society's finances were such that in 1818 an experimental garden was established at Kensington and an auxiliary nursery at Ealing. In March 1822 (Elliot, 2004) [March 1823 according to Fletcher (1969: 80)] the Society relinquished these gardens after it obtained a lease on a 33 acre garden at Chiswick (Murray 1868: 12-13). The new garden had greater provision for stove plants and its ever-increasing numbers of glasshouses were filled almost entirely with plants acquired by the Society, especially by those of the early plant collectors it had commissioned. Also stored at Chiswick, in the garden's house, were the 'top set' of herbarium specimens made at the time of collection by the Society's plant collectors. This collection was enhanced by donations from others, mentioned in the appendices of the *Transactions of the Horticultural Society of London* (vol. 5 (1824) and vol. 6 (1826)).

The need for more glasshouses, and the downturn in income owing to the success that the Royal Botanic Gardens, Kew was having in pulling the crowds away from the Chiswick Garden (Fletcher 1969: 153-154) aided the decision to auction the herbarium. From George Bentham's diary, held in the Archives of the Royal Botanic Gardens, Kew, can be seen evidence of the excitement and anticipation that the auction generated. Bentham, the Society's Secretary at the time of the auction, mentions a trip to the Society's Chiswick Garden, taking the Hookers of Kew (William and Joseph) to have a look at the Lots prior to their sale (21st January 1856) (Figure 1), and after sale distribution of bundles to eminent botanists of the day (Figure 2).

As mentioned above, little was known of where the herbarium collections were sent after they were sold in 1856. And nothing is known of the actual number of specimens that the Society held. The collectors are known, and as a consequence it should have been possible to look up their type specimens on JSTOR's Global Plants website (<http://plants.jstor.org/>). However, owing to the many duplicates made by collectors, it was not possible to say where the actual RHS set went. Discovering Robert Brown's annotated copy of the sales catalogue held at London's Natural History Museum in mid-2016, and more recently, John Lindley's annotated copy of the sales catalogue at the RHS's Lindley Library (Figures 3 and 4) has led to the discovery of the herbaria where the majority of the specimens eventually went. *Index Herbariorum* (1990: 513-556) has helped trace subsequent moves. With the purchase of John Lindley's herbarium in 1866 (see Gardiner, 2018), the Cambridge University Herbarium holds the most comprehensive set of duplicates of the Collectors' specimens (inferred

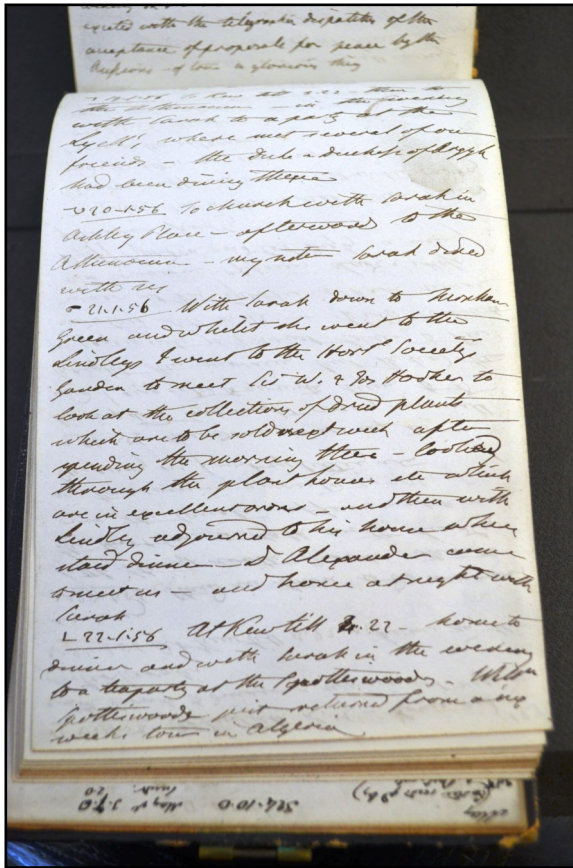


Figure 1. George Bentham's diary entry for 21st January 1821 when he accompanied Sir William and Joseph Hooker to Chiswick to view the auction Lots © Yvette Harvey

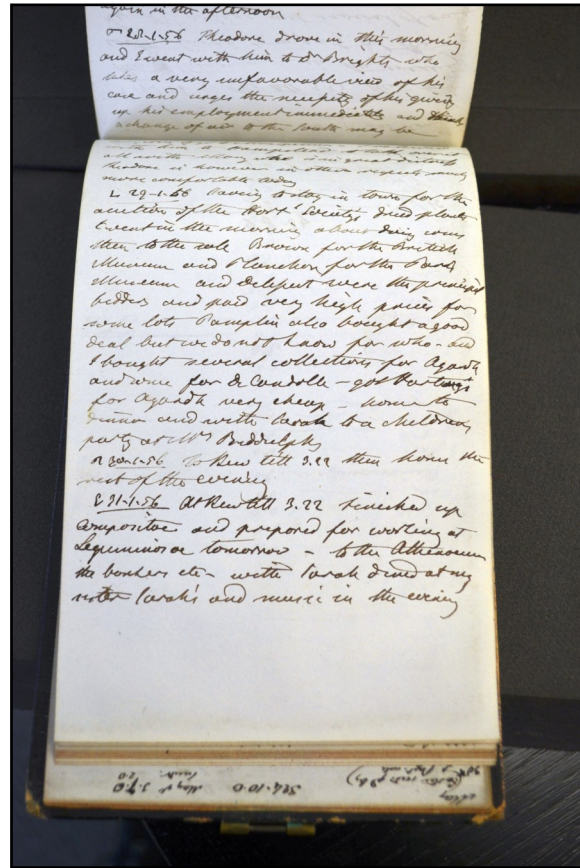


Figure 2. George Bentham's diary entry on the sale day, noting Lots that he purchased © Yvette Harvey

from Lindley's primary position in the Bentham archive's Hartweg duplicate distribution list (Figure 5)) in addition to specimens that were made from plants grown on from seed and depicted in *Botanical Register*.

The RHS's Lindley Library still holds many of the journals made by the collectors, along with accessions registers for many of the plants that made their way into our gardens. As these become digitised and available to researchers via the RHS's web portal it should soon be possible to enhance the notes, dates of collection and geographic localities that are sadly lacking on the actual specimens.

Current locations of the Horticultural Society of London's herbarium

The first section takes a chronological look at the collecting trips of the sponsored collectors, in the order in which their expeditions took place. Herbaria are given their formal name and standard abbreviation in brackets at first mention and are subsequently named by their abbreviation (for example BM is the code for the Natural History

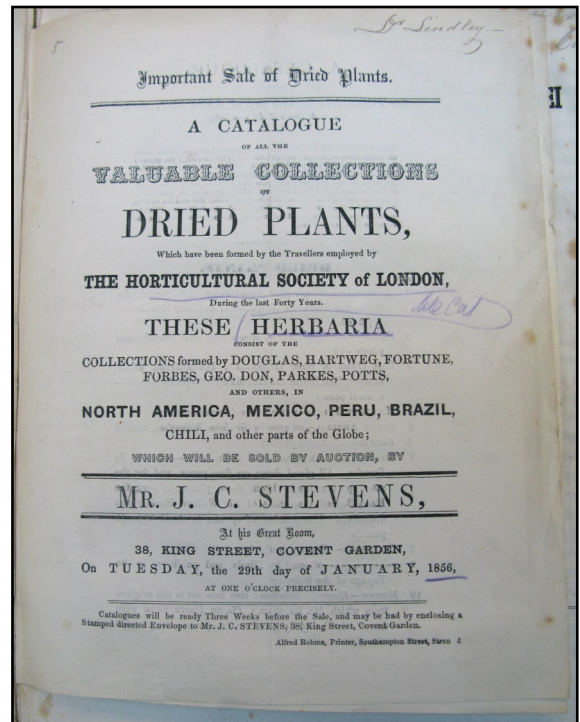


Figure 3. Title page of John Lindley's copy of the Sale catalogue © RHS Lindley Library

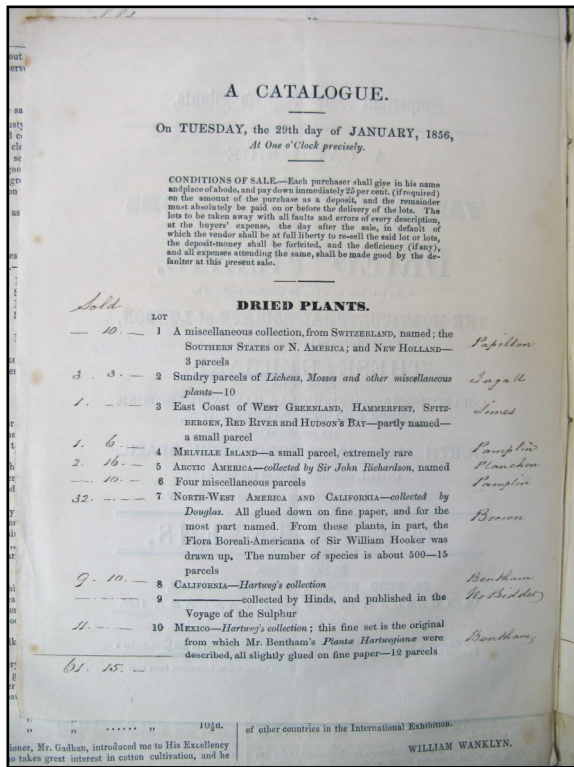


Figure 4. Second page of Lindley's Sale Catalogue. Note the annotations alluding to buyers and prices paid © RHS Lindley

Museum, London) Within botany, all herbaria of over 10,000 specimens are assigned a standard abbreviation or acronym. Since 1952 *Index Herbariorum* (see Lanjou et al., 1952) has been published, initially in printed form, currently online (see Thiers), listing all of the world's herbaria with their abbreviation(s). The second section is devoted to donated collections that were also part of the Society's collection at the time of auction. The final section looks at miscellaneous collections.

The Society's collectors

John Potts (-1822)

John Potts was the first of the Society's salaried plant collectors. In January 1821 he joined Captain Alexander Nairne's round trip on the East India Company's sloop, H.C.S. General Kyd. The voyage went to India, Malaysia, Malacca, Singapore, China and St. Helena before returning to the UK in July 1822. In Canton Potts liaised with John Reeves, an East India Company tea factor who had previously sent plants to the Society. Reeves introduced Potts to a range of suppliers. At that time, foreigners were only allowed access to a few Chinese towns and whilst there Potts had to move rapidly from Canton to Macao during a period of civil unrest.

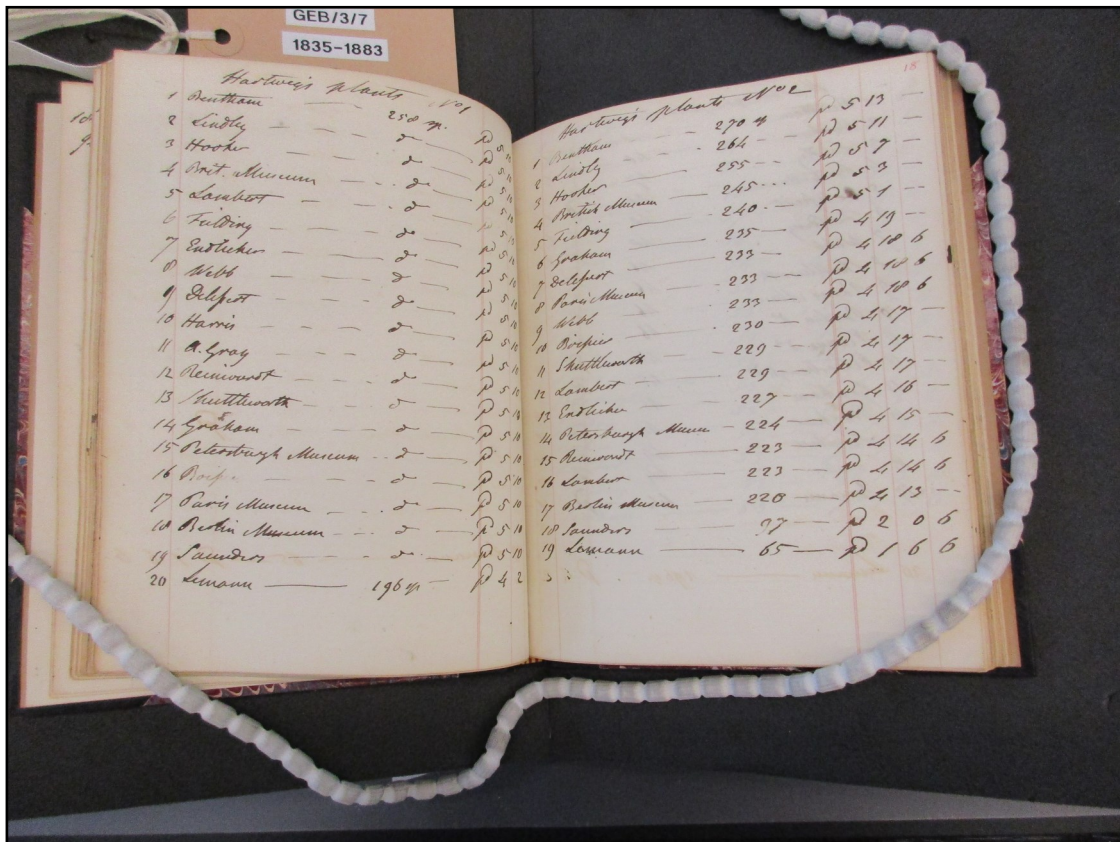


Figure 5. Hartweg's duplicate distribution list held in Bentham's archive at the Royal Botanic Gardens, Kew © Lulu Rico

Potts's first shipment of plants, seeds and dried specimens arrived in the UK from Calcutta in February 1822. His journey was a success and he brought back a large stock of Chinese and East Indian plants, many of which were named in his honour.

Potts's herbarium collection was auctioned in two separate lots. Lot 29, his East Indian plants, were sold to J. Sowerby for £1 1'. Sowerby's herbarium was passed to the Natural History Museum, London, UK (BM). The Chinese plants (Lot 35) were purchased by Daubeny for a similar sum and are in University of Oxford, UK (OXF).

George Don (1798-1856)

In the winter of 1821, George Don, foreman of the Chelsea Physic Garden, travelled on HMS *Iphigenia* and subsequently HMS *Pheasant* with an expedition team tasked with collecting data on the calculation of time in different localities. The team was led by the secretary of the Horticultural Society's brother, Captain Edward Sabine. Don's archive holds journals, letters, instructions, expenses, shipping lists, notes and also letters from Edward Sabine to his bother in London.

The expedition followed a path around the West coast of Africa to Equatorial Guinea and then across the Atlantic to Brazil, and up to New York before returning to England in early February 1823. Don's participation in the voyage was nearly curtailed before they had even left England when he missed the sailing time from Brixham. Fortunately he was able to catch the vessel at the final UK port of Plymouth following a rather fraught dash. Don had many adventures on the trip, particularly in Africa: the HMS *Iphigenia* intercepted vessels carrying recently enslaved people in West Africa; he met the last original surviving 'Nova Scotian' settler in Sierra Leone; dined with James Bannerman, the son of a Fanti mother and a Scottish father who was a successful merchant and subsequently the governor of Accra; survived numerous tropical illnesses that wiped out many of his fellow travellers; and joined two of Dr Hosack's legendary Saturday evening meetings (14th and 28th December.1822) (see Johnson, 2018) whilst in New York.

The Society broke up and auctioned his collection in a number of different Lots based on geographic location. Combining penned remarks on each of the catalogues, it is possible to trace all but two of the Lots. The largest collection, from the West Coast of Africa was purchased by Brown for the BM. Pamplin, who was buying on behalf of Grisebach, secured collections made at Ascension

Island, Havana, Madeira and Tenerife. Grisebach's herbarium is housed at Universität Göttingen, Germany (GOET). According to Brown's note on the Natural History Museum's catalogue, Bentham was Agardh and De Candolle's agent and purchased Lots from Trinidad, Maranhao and Bahia. These collections should be found in the main herbaria in Lund University, Sweden (LD) and Conservatoire et Jardin Botaniques de la Ville de Genève, Switzerland (G) although desktop searches of their incomplete catalogues haven't found any specimens at either institution. The entry for 5th April 1856 in Bentham's diary stored in the Archives at Royal Botanic Gardens, Kew, implies that Bentham was also buying on behalf of Martius 'To Kew till 4.10 I sent off a box to Martius with Lots we returned – Don's Maranhao plants which I bought for him, a parcel of Spruce's plants and Hookers' *Flora Australiæ* [sic] my duplicate copy which I gave him'. Indicating that the specimens will be in the Meise Botanic Garden herbarium, Belgium (BR) (see Förther, 1994)). Brown's catalogue doesn't list the buyer of the Bahian Lot. Lindley's catalogue lists Bentham, so it is likely that the Bahian collections were also purchased for Martius. The specimens from Cape Verde (Santiago) were taken by 'Hooker' and are at the Royal Botanic Gardens, Kew, UK (K). The collections purchased by Roberts are proving more elusive to find. Made in Jamaica and Grand Cayman, they are untraceable at present.

John Forbes (1799-1823)

John Forbes, former apprentice at the Liverpool Botanic Gardens became the Society's third plant collector, joining the HMS *Leven*, a 20-gun sixth rate *Cyrus*-class post ship, under the command of Captain W.F.W. Owen, tasked with making a survey of the east coast of Africa. The ship embarked on 4th February 1822 and visited (in the following order) Madeira, Teneriffe, Santa Cruz, Cape Verde Islands, Brazil, South Africa, Mozambique (Forbes is noted as the second botanist to collect there (Exell and Hayes: 130)), Madagascar (1822-1823), Comoros, Mozambique, South Africa and Mozambique (where Forbes died, 16th August 1823) (see Figueiredo and Smith (2022)). All of his dried collections, with the exception of his final sub-expedition up the Zambezi, returned to the Horticultural Society for distribution. The Society still has his journals (used extensively by Owen (1833) in his narrative of the voyage), letters, note books, collecting lists and other archive papers. A reference is made of Forbes's botanical excursion (via his travelling companion, Georg Langsdorff) to the foot of the Organ Mts in Brazil by Gardner (1846: 62). It is unlikely that Forbes's Brazilian collections were

seen by Martius during the writing of *Flora Brasiliensis* since he is not mentioned in the list of collectors (1906: 1(1)), however, plates published in *Botanical Register* of Forbes's Brazilian collections are cited in *Flora Brasiliensis* (see Cogniaux (1901: 226 and 1902: 468)).

In catalogue order, specimens collected in Brazil were purchased by Sowerby and can be found at the BM. Collections from the Cape of Good Hope (South Africa) and Delagoa Bay (Mozambique) were purchased by Planchon, whose collections are at Université de Montpellier, France (MPU). Brown secured collections from Algoa Bay (South Africa) and Madagascar for the BM. Further collections from Mozambique ('east coast of Africa') were sold to Bentham who was acting as agent on behalf of Agardh for LD and de Candolle for G. Forbes collections from Madeira, Teneriffe and Cape Verde (St. Jago [Santiago]) were purchased by Money [possibly W. Money of 53 Borough, London, UK, who was corresponding with Pamplin in May 1869] and have yet to be traced.

John Damper Parks (c.1791-1866)

In 1823 John Damper Parks joined Captain Thomas Baker on the 7th voyage to China of the East India Company's Clipper ship, the *Lowther Castle*. Tasked with taking a number of fruit trees and ornamentals to China, and returning the following year with the double Banksian rose, *Chrysanthemum* and *Camellia japonica* cvs. Regrettably many of the plants being taken to China had perished early in the voyage (peaches, nectarines, violets, rhubarb, plums and *Passiflora*) owing to saltwater ingress in the Lindley designed cases. As a consequence Parks made a number of adjustments and made extensive notes on plant survival during a voyage, and these informed subsequent journeys undertaken by the Society's collectors. A great note-taker, Parks also provided the Society with extensive passages on Chinese horticultural techniques.

The auction catalogue lists two Lots for Parks specimens, Lot 34 of 17 parcels (4 of which were duplicates) sold to Bentham, and Lot 38 of specimens from Java that has no buyer listed although it went for £10. Regrettably, at present no sets have been traced.

David Douglas (1799-1834)

David Douglas undertook three separate collecting trips for the Society, ultimately all to America. Douglas is traditionally known for changing the English landscape with his introductions of conifers. His first trip for the Society was from

June 1823 to January 1824 and was to collect fruit trees and gather information on the latest developments in fruit growing (Fletcher 1969: 100). Along with visits to gardens, orchards, nurseries and leading American horticulturists, Douglas did find time to botanise too. Following the success of his first trip, the Society sponsored his second trip to the Pacific Northwest (via Madeira, Rio de Janeiro, Cape Horn, Juan Fernandez and the Galapagos Islands) from July 1824 to October 1827. He was under the protection of the Hudson Bay Company and based at Fort Vancouver on the Columbia River and had many death defying adventures, particularly during his final overland journey from Vancouver to Hudson Bay. This expedition was an overwhelming success as he introduced over 200 taxa to gardens (see Figures 6, 7 and 8), including *Lupinus polyphyllus* and *Ribes sanguineum*. His third and final expedition



Figure 6. David Douglas's *Penstemon venustus* collected from 'dry channels of the Rivers in the Blue Mountains'. The Horticultural Society of London's specimen that was purchased by Brown for the Natural History Museum in London (Lot 7). © The Trustees of The Natural History Museum, London <https://data.nhm.ac.uk/object/346e0768-71ab-4233-8397-88c8131e95c7/1671667200000>

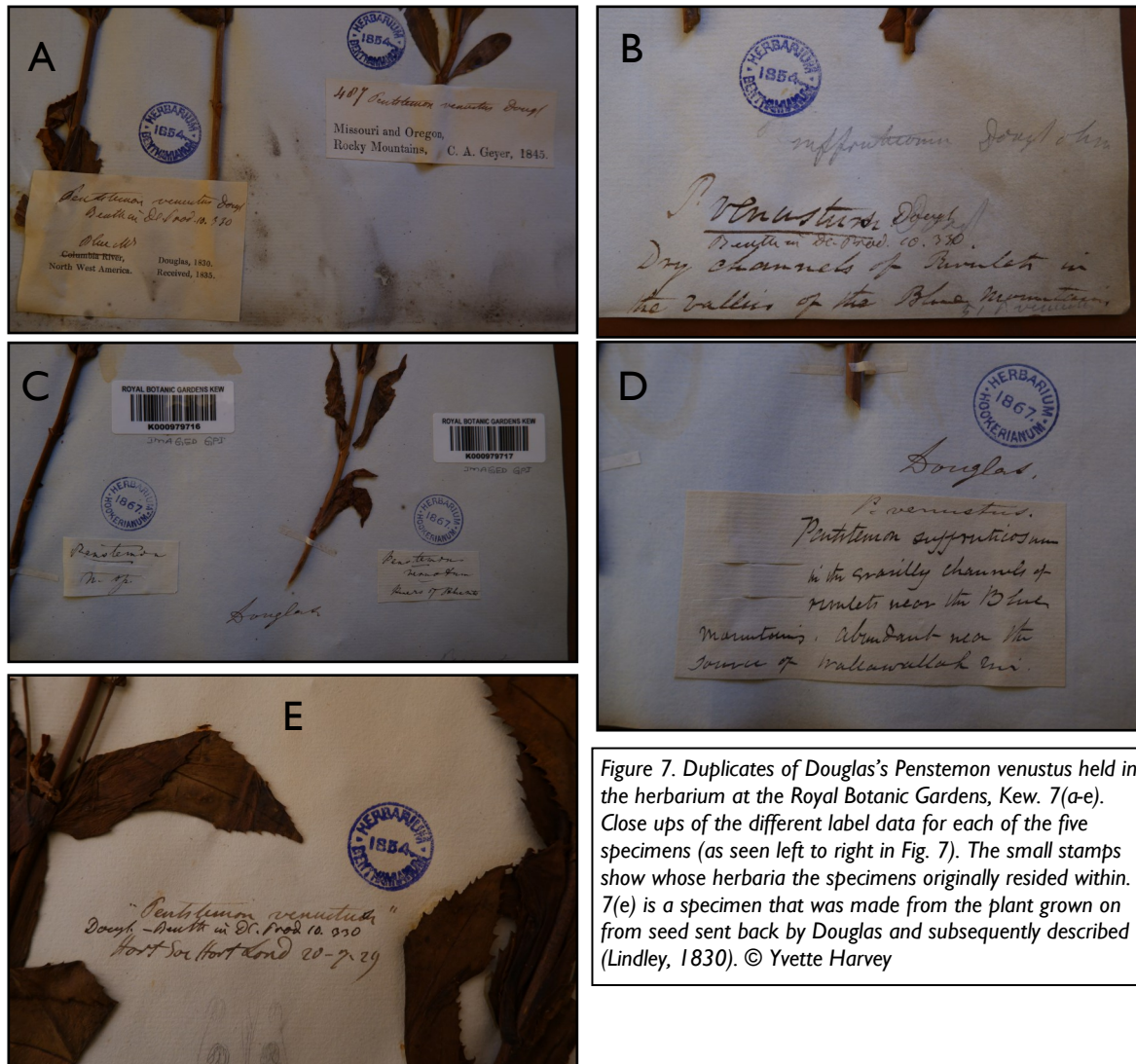


Figure 7. Duplicates of Douglas's *Penstemon venustus* held in the herbarium at the Royal Botanic Gardens, Kew. 7(a-e). Close ups of the different label data for each of the five specimens (as seen left to right in Fig. 7). The small stamps show whose herbaria the specimens originally resided within. 7(e) is a specimen that was made from the plant grown on from seed sent back by Douglas and subsequently described (Lindley, 1830). © Yvette Harvey

for the Society was to California and was from October 1829 to 1832 (when he resigned whilst in Hawaii). Douglas's herbarium collections were sold in different Lots. Lot 12, his first trip had no bidder. The American collections made during his 2nd and 3rd trips were purchased by Brown for the BM (see Figure 4). Lot 25 contained collections made near Rio de Janeiro and were purchased by Pamplin on behalf of Grisebach (GOET). Douglas's Chilean collection went to George Bentham, the agent buying on behalf of Agardh (LD) and de Candolle (G). Lots 1 and 3 contained misc. collections and will almost certainly have included Douglas duplicates. Lot 1, including plants from the Southern States of N. America was sold to an unknown party. Lot 3, with specimens from the East Coast of West Greenland and Hudson's Bay was purchased by 'Syme' and also remains untraced.

James MacRae (b.unk-1830)

James MacRae was the horticulturist on board of the HMS Blonde, under Captain George Byron, tasked with repatriating the bodies of King Kamehameha II and Queen Kamāmalu of the Kingdom of Hawaii who had died while trying to visit King George IV. The voyage left the UK in September 1824 and returned in March 1826. Taking in Madeira, Brazil, Chile, Galapagos Islands, Hawaii, Chile (again) and St Helena, it was quite an adventure as the ship had a mutiny, and also took on board passengers from a stranded vessel, the survivors who had only lived by eating their dead companions (including a fiancé). MacRae was the horticulturist performing the diplomatic function of keeping fruit trees and other plants alive on their voyage to Hawaii. In addition, he collected plants of horticultural value during the voyage. Although previously discovered by Menzies, it was MacRae's seed that established the Monkey Puzzle as a tree of merit in the UK.

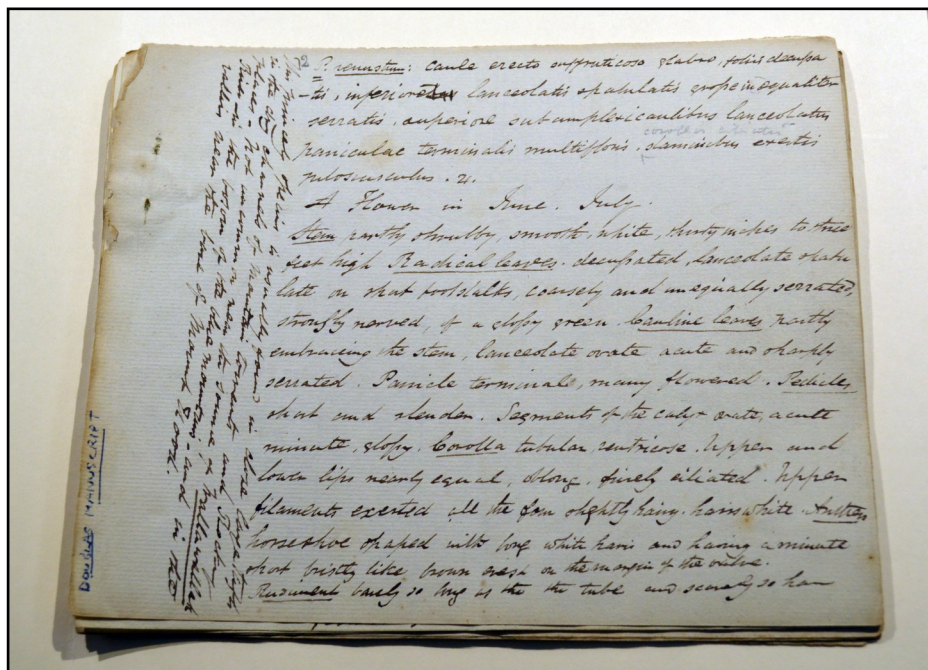


Figure 8. Passage from Douglas's unpublished manuscript held by the RHS Lindley Library. Here he describes the locality of *Penstemon venustus* 'near the source of Wallawallah River in the bosom of the Blue Mountains – and in the valley near the base of Mount Hood'. © RHS Lindley Library.

The auction catalogue has numerous listings for MacRae's herbarium collections, including duplicates. The top set of Hawaiian specimens were purchased by Brown (BM); Brazilian and St Helenan specimens by Pamplin for Grisebach (GOET); and Chilean collections by Planchon (MPU). Duplicates from Chile and Brazil were taken by Planchon (MPU) and unnamed duplicates including specimens from Hawaii and Chile went to Grisebach (GOET) via his buyer, Pamplin.

Karl Theodor Hartweg (1812-1871)

Hartweg undertook two expeditions to Central America for the Society. Tasked with collecting plants suitable for growing outdoors (orchids excepted), in 1836 he travelled around Mexico until the country became too unsettled (hostilities between Mexico and France), and then continued collecting in Guatemala, Ecuador, Colombia and finally Jamaica before returning to the UK in 1843. His next expedition was to California and Mexico (1846-48), at a time when the United States was claiming parts of Mexican territory, so was also fraught with difficulty. He introduced many of the ancestors of the modern hybrid *Fuchsia*, *Salvia*, *Lupinus* and *Penstemon* along with a number of conifers, orchids and cacti. The archives at the RHS Lindley Library include his correspondence, account books and other documents. The Chiswick garden accessions books are available to trace his introductions.

Hartweg was given permission to collect herbarium specimens on the understanding that it was not to interfere with the specific objective of his mission. For every 100 species he received £2 (McVaugh: 15). Collecting in sets of 20, the lists of subscribers and subsequent correspondence can be found in the Bentham archive, held at the Royal Botanic Gardens, Kew (see Figure 5). The duplicate sets are in the following herbaria: Kew (K) (Bentham's collection and Sir William Hooker's collection); Cambridge University Herbarium, UK (CGE) (Lindley's collection, Lemann's collection and Graham's collection); BM (their own set and Shuttleworth's collection); Herbarium Universitatis Florentinae (FI) (Lambert's collection and Webb's collection); OXF (Fielding's collection); Naturhistorisches Museum Wien, Austria (W) (Endlicher's collection); Naturalis Biodiversity Centre, The Netherlands (L) (Reinwardt's collection); G (Delessert's collection and Boissier's collection); Harvard University, USA (A) (Gray's collection); Komarov Botanical Institute of RAS, Russia (LE) (their own set); P (their own set) and ZE Botanischer Garten und Botanisches Museum, Berlin (B) (their own set). Other sets purchased by Harris and Saunders have yet to be traced. The set of specimens that belonged to the Horticultural Society of London was sold in two lots (8 and 10) and purchased for £20 10 shillings by Bentham buying on behalf of Agardh whose collection can be found in LD (searchable here: http://herbarium.emg.umu.se/standard_search.html).

Robert Fortune (1812-1880)

Most commonly known as the man who introduced tea to India whilst working for the East India Company, earlier in his career Robert Fortune collected extensively in China for the Horticultural Society of London. This was possible following the signing of the Treaty of Nanking on 26th August 1842, granting easier access to China (Ward 2003: 445-457). His transport, the *Emu*, set sail from Portsmouth on 1st March 1843 (1843: 345) and arrived in Hong Kong's harbour on 9th July (1844: 70). Fortune was tasked with collecting plants suited to a temperate climate (with the exception of orchids and 'plants producing very handsome flowers') (RHS archive); studying soils suitable for camellias, azaleas, chrysanthemum and *Enkianthus*; collecting seeds for distribution to Fellows; growing advice for 'Chinese dwarf trees'; and manure management amongst others. He was supplied with gardening tools and a firearm that was put to excellent use when a boat in which he was travelling was attacked by pirates (Fortune 1847: 396-398).

Fortune's herbarium was sold in two separate Lots. Lot 32 comprised his main collection of plants from Hong Kong, Chusan and other places and was sold for £9 5/- to Planchon (MPU). The second item, Lot 36 was of a small parcel of specimens of the Tea Plant collected by Fortune. This was sold to Papillon for 11/-. Although no trace can be found of 'Papillon' it seems likely that this might be a *nom de plume* for JC Stevens (his close relative was a keen butterfly collector (Allingham 1924: 129)), buying on behalf of John Lindley. A bundle filled with Fortune's tea plants has been discovered by Lauren Gardiner within Lindley's herbarium stored in the Cambridge University herbarium (CGE) (Gardiner, pers. comm.).

Matteo Botteri (1808-1877)

No longer selecting horticulturists, following a brief gap, the next plant collector to be chosen to collect on behalf of the Society was the Italian ornithologist, zoologist and botanist Matteo Botteri. He was tasked by the Society to collect plants in Mexico between 1854 and 1856 when his employment was terminated. His non-dried plant collecting was not overly successful as many shipments arrived in too poor conditions or the plants were of insufficient interest (Elliot 2004: 206). The RHS archives have a ledger containing his incoming collections, itemised by a clerk as they were removed from the packing crates. The RHS clerk didn't hold back with regard the state of the incoming material: record 178 [not Botteri's

number sequence] *Tillandsia* sp. (broadleaved), "22 bits in very doubtful condition and nearly all dead"; and after record no. 212 "the plants were very dry and seem to have been long packed. They were thrown loosely into the chests, and some few, seem to have been numbered on bits of paper but which had mostly been detached on the journey". And for record 301 "nine small scraps of papers rolled up, with no names nor numbers and scarcely a seed in them. ? condition". Botteri's specimens were sold in one Lot to Planchon for £25, containing c. 1000 species. As noted earlier they should be found in MPU herbarium although a larger number are in P (*pers. comm.* Caroline Loup, curator of MPU).

John Weir (b.unk-1898)

Weir's collecting trips were undertaken after January 1856 and so were made outside the scope of this study.

Donated Collections

In the early years of the Society, Fellows were encouraged to donate plants, seeds, publications and other pertinent items of interest including herbaria. The auctioned items included donated herbarium specimens, some of which had been itemised in un-numbered pages at the end of two separate volumes of the *Transactions of the Horticultural Society of London* (v. 5 (1824) and v. 6 (1826)), along with others listed only in the auction catalogue (1856). Donor names are listed below as they appeared in either the *Transactions* (1824 and 1826) or the sale catalogue (1856).

James Brogden (b. unk – d. unk)

New Holland (1856). Purchased by Brown for the BM. It is likely that there also were duplicates that were sold within a different Lot purchased by Papillon (see above, likely to be at CGE).

Lieut John Henry Davies, RN (b. unk – d. unk)

Specimens of Lichens and mosses from Newfoundland (1826). Although not individually itemised, it is likely that these were sold as part of Lot no. 2 'Sundry parcels of Lichens, Mosses and other miscellaneous plants – 10' (1856) purchased by Ingall. This is likely to be Thomas Ingall (c. 1799-1862) whose plant collection was donated to Warwick Archaeological and Natural History Society and subsequently moved to K (Desmond 1994) (and likely then to the BM).

East India Company [The Honourable The Court of Directors of the East India Company]

'Herbarium of Plants from various parts of the Honourable Company's Possessions in the East Indies' (1826) were sold to Brown for the BM.

William Griffith (1810-1845)

'East Indies – a large set from Bootan [Bhutan]; forming part of Griffiths' [sic] collections, dispersed by the East India Company – 8 parcels' (1856) were purchased by Planchon for MPU

Richard Brinsley Hinds (1812-1846)

'California – collected by Hinds, and published in the Voyage of the Sulphur' (1856) (Lot 9) attracted no bidders. Hinds was appointed surgeon of the HMS Sulphur in 1835 and collected plants during the voyage. Hinds (1844: 182) mentions that some 2000 collections had been deposited in Bentham's herbarium (now at K, with the exception of Lindley's orchid collection (now also at K) and Sir William Hooker's fern collection (also at K)). The location of the auctioned specimens has yet to be discovered.

Richard Stonhewer Illingworth Esq. (b.unk – d.unk)

'A collection of dried plants, from Santa Fe de Bogota' (1826). It is likely that these were Lot 44 'Santa Fe de Bogota – collected by Goudot – 3 parcels' (1856) that were sold to Pamplin for Grisebach at GOET.

Charles Mackenzie (1788-1862)

'St Domingo [Dominican Republic] – collected by Mr. Charles Mackenzie, a good set' (1856). Sold to Pamplin for Grisebach at GOET.

Mr Mont. Martin (1801-1868)

'East Coast of Africa – collected between 6° and 8° S lat., by Mr. Mont. Martin' (1856). Likely to be Mr Robert Montgomery Martin who joined the HMS Leven in June 1823 (see John Forbes above). Lot purchased by Bentham and as yet untraced although may be in LD or G.

Captain William Edward Parry RN (1790-1855)

'Herbarium of Arctic Plants collected on the Coasts and adjacent Islands of the North-east part of North America, in the Voyage to the Polar Seas in the years 1821, 1822 and 1823' [Voyage to find a passage near the northwest end of Hudson Bay] (1824). This is likely to be part of Lot 3 of the auction catalogue 'East Coast of West Greenland, Hammerfest, Spitzbergen, Red River and Hudson's

Bay – partly named – a small parcel'. Purchased by 'Simes' according to the RHS's annotated copy of the catalogue and 'Symes' in Brown's catalogue. As yet untraced although perhaps this Lot is one of the 'small parcels' of Parry's Arctic plants in BM or CGE? Parry's collections from North America occur also in the University of Oxford's herbarium (OXF). 'Simes' or 'Symes' may be John Thomas Irvine Boswell Syme (1822-1888) whose herbarium is listed in Index Herbariorum (Holmgren *et al.*, 1990) as being in the BM and at the University of Manchester (MANCH).

William Edward Phillips Esq. Lieutenant Governor of Prince of Wales's Islands CMHA (1769-?1850)

'Herbarium of Plants collected at Prince of Wales's Island and the contiguous land of Sumatra' (1824). Lot purchased by Planchon of MPU.

John Reeves Esq. (1774-1856)

'China – a small collection, formed in the neighbourhood of Macao by John Reeves, Esq.' (1856). Lot purchased by Daubeny so may be in the herbaria of the University of Oxford (FHO/OXF), but are as yet untraced.

John Richardson MD (1787-1865)

'Herbarium of Plants collected in the Interior of the Northern parts of North America, during the Journey of Captain Franklin to and from the coasts of the Polar Seas, in the years 1819, 1820 and 1821' [Richardson was the doctor, naturalist and second in command of this, the 'Coppermine Expedition'] (1824). Lot purchased by Planchon of MPU.

Captain Edward Sabine, RA (1788-1883)

Here we have two separate donations: 'Herbarium of Arctic Plants collected at Melville Island, in 1819 and 1820' [Parry expedition in search of the Northwest Passage] (1824). Lot 4 is likely to have contained this collection 'Melville Island – a small parcel, extremely rare' (1856) and was sold to Pamplin, buyer for Grisebach of GOET.

'Herbarium of Arctic Plants collected in a Voyage to the North Cape, Spitzbergen, and East Greenland, in the year 1823' [voyage to take Geodetic measurements] (1824). This is likely to be part of Lot 3 of the auction catalogue 'East Coast of West Greenland, Hammerfest, Spitzbergen, Red River and Hudson's Bay – partly named – a small parcel'. Purchased by 'Simes' according to Lindley's annotated copy of the catalogue and 'Symes' in Brown's catalogue (See Parry (above)).

Mr Webster (1793-1875)

'Staten Island and Montevideo – collected by Mr Webster [William Henry Bayley Webster] in the voyage of the Chanticleer' [scientific expedition in the Pacific Ocean under the command of Captain Henry Foster in 1828] (1856). Lot purchased by Planchon of MPU.

John Williams Esq. CMHS (b.unk – d.unk)

'A Collection of Specimens of Mosses and lichens from the Neighbourhood of Moose Factory, Hudson's Bay' (1826) This is likely to be part of Lot 3 of the auction catalogue 'East Coast of West Greenland, Hammerfest, Spitzbergen, Red River and Hudson's Bay – partly named – a small parcel'. Purchased by 'Simes' according Lindley's annotated copy of the catalogue and 'Symes' in Brown's catalogue (See Parry and Sabine (above)).

Henry Willock Esq, FHS (1790-1858)

'Specimens of Dried roses, from Persia' (1826). 'Persia – a set of specimens, from Tabreez, and formed during a journey to Tiflis through Armenis to Trebizond ©, glued upon fine paper (1856). This lot was purchased by 'Hooker' for K. A thorough search of the collection has failed to locate any Willock specimens.

Miscellaneous collections

The catalogue lists a smaller number of Lots that have been divided into specimens from specific countries or regions. In the case of Lot 43 it is possible to deduce the collector/donor of what appears to be duplicates.

Lot 1: a miscellaneous collection, from Switzerland, named; the Southern States of N. America; and New Holland – 3 parcels (1856). Lot sold to Papillon. As suggested above this might be a *nom de plume* for JC Stevens (his brother was a keen butterfly collector), buying on behalf of John Lindley.

Lot 6: four miscellaneous Parcels (1856). Lot sold to Pamplin, buyer for Grisebach of GOET

Lot 43. Miscellaneous duplicates, Cape of Good Hope, Delagoa Bay, Sandwich Islands and Chili (1856). It is likely that the African collections were duplicates of Forbes collections and the Sandwich Island and Chilean collections were MacRae duplicates. Lot sold to Pamplin, buyer for Grisebach of GOET.

Lots, buyers and their eventual herbarium

Auction catalogue break-down of Lots and their buyers. Content is as presented and spelt in the catalogue. Where buyer and price annotation differences between the two catalogues occur, they are noted below with either BM for Brown's catalogue or RHS for Lindley's catalogue. On the first page of Brown's (BM) catalogue is a handwritten note mentioning Bentham as the agent acting on behalf of Agardh and De Candolle. More details about the herbaria can be found in the paragraphs above.

Lot	Content	Buyer	Price paid (£sd)	herbarium
1	A miscellaneous collection, from Switzerland, named; the Southern States of N. America; and New Holland – 3 parcels	Papillon (RHS)	0 10 0	?CGE
2	Sundry parcels of Lichens, Mosses and other miscellaneous plants – 10	Ingall (RHS)	3 3 0	?BM
3	East Coast of West Greenland, Hammerfest, Spitz-Bergen, Red River and Hudson's Bay – partly named – a small parcel	Simes (RHS) Syme (BM)	1 0 0	?BM/?MANCH
4	Melville Island – a small parcel, extremely rare	Pamplin [Pamplin for Gourlu [?]] (BM)]	1 6 0	GOET
5	Arctic America – collected by Sir John Richardson, named	Planchon	2 16 0	MPU
6	Four miscellaneous parcels	Pamplin	0 10 0	GOET

Lot	Content	Buyer	Price paid (£sd)	herbarium
7	North-West America and California – collected by Douglas. All glued down on fine paper, and for the most part named. From these plants, in part, the Flora Boreali-Americana of Sir William Hooker was drawn up. The number of species is about 500 – 15 parcels	Brown [BM with later catalogue note '1460 species besides duplicates fide J.J.Bennett']	32 0 0	BM
8	California – Hartweg's collection	Bentham	9 10 0	LD
9	California – collected by Hinds, and published in the Voyage of the Sulphur	No bidder	0 0 0 (RHS) 1 0 0 (BM)	
10	Mexico – Hartweg's collection; this fine set is the original from which Mr Bentham's <i>Plantae Hartwegianae</i> were described, all slightly glued on fine paper – 12 parcels	Bentham	11 0 0	LD
11	Mexico – Botteri's plants – found on Orizaba; good specimens, loose, about 1000 species – 9 parcels	Planchon	28 0 0	MPU
12	United States – the plants gathered by Douglas on his first visit to N. America – 10 parcels	No Bidder	0 0 0 (RHS) 1 0 0 (BM)	
13	Sandwich Islands – Macrae's collection – 4 parcels	Brown	9 0 0	BM
14	Staten Island and Montevideo – collected by Mr Webster in the voyage of the Chanticleer	Planchon	0 15 0	MPU
15	Trinidad – collected by George Don – 8 parcels	Bentham	4 0 0	?LD & ?G
16	Jamaica – ditto – 2 parcels	Roberts (RHS)	1 12 0	
17	Grand Cayman – ditto	Roberts (RHS)	0 0 0 (RHS) 1 0 0 (BM)	
18	Ascension – ditto	Pamplin (RHS) Pamplin for Grisebach (BM)	0 16 0	GOET
19	Havannah – ditto	Pamplin (RHS) Pamplin for Grisebach (BM)	0 10 0	GOET
20	St. Domingo – collected by Mr. Charles Mackenzie, a good set	Pamplin (RHS) Pamplin for Grisebach (BM)	1 0 0	GOET
21	Brazil – collected by Macrae, in the neighbourhood of Rio Janeiro and St. Catherine's – 5 parcels	Pamplin	2 0 0	GOET
22	Brazil – collected by Forbes, near Rio Janeiro – 9 parcels	J. Sowerby	1 0 0 (RHS) 1 1 0 (BM)	BM
23	Brazil – collected at Maranhão, by George Don – 6 parcels	Bentham	2 15 0	?BR
24	Brazil – collected at Bahia, by George Don – 4 parcels	Bentham (RHS)	0 0 0	?BR
25	Brazil – collected near Rio Janeiro, by Douglas – 2 parcels	Pamplin	1 0 0 (RHS) 1 1 0 (BM)	GOET
26	Chili – a fine set, from Macrae – 5 parcels	Planchon	9 0 0	MPU

Lot	Content	Buyer	Price paid (£sd)	herbarium
27	Chili and Brazil – sundry duplicates, collected by Macrae – 2 parcels	Planchon	0 19 0	MPU
28	Chili – collected on Juan Fernandez, by Douglas	Bentham	2 0 0	?LD & ?G
29	East Indies – a fine set of plants, named, dried by Potts in the Botanic Gardens, Calcutta – 9 parcels	J. Sowerby	1 1 0	BM
30	East Indies – a large collection, named; distributed by the East India Company – 12 parcels	Brown	3 0 0	BM
31	East Indies – a large set, from Bootan; forming part of the Griffiths' collections, dispersed by the East India Company – 8 parcels	Planchon	11 10 0	MPU
32	China – Fortune's plants, from Hong Kong, Chusan and other places	Planchon	9 5 0	MPU
33	China – a small collection, formed in the neighbourhood of Macao, by John Reeves, Esq.	Daubeney (RHS) Daubeney (BM)	1 5 0	OXF
34	China – collected by Parkes, 17 parcels, 4 of which are marked as duplicates	Bentham	4 10 0	?LD & ?G
35	China – collected by Potts	Daubeney (RHS) Daubeney (BM)	1 1 0	OXF
36	China – a small parcel of specimens of the Tea plant collected by Fortune	Papillon (RHS)	0 11 0	CGE
37	Ceylon – collected by Macrae. An extensive collection, in large sized cartridge paper, not named or glued down – 9 parcels	Brown	21 0 0	BM
38	Java – a small collection formed by Parkes	No bidder	0 10 0 (BM)	
39	Prince of Wales' Island – sent home by Governor Phillips. A very considerable collection, arranged in natural orders, and to a great extent named – 14 parcels	Planchon	25 0 0	MPU
40	Cape of Good Hope – collected by Forbes, a fine set of plants – 3 parcels	Planchon (RHS)	0 0 0 (RHS) 1 0 0 (BM)	MPU
41	Delagoa Bay – collected by Forbes, another fine set – 3 parcels	Planchon	9 0 0	MPU
42	Algoa Bay – collected by Forbes – 3 parcels	Brown	5 0 0	BM
43	Miscellaneous duplicates, Cape of Good Hope, Delagoa Bay, Sandwich Islands and Chili	Pamplin	1 0 0 (RHS) 1 1 0 (BM)	GOET
44	Santa Fé de Bogota – collected by Goudot – 3 parcels	Pamplin (RHS) Pamplin for Grisebach (BM)	3 10 0	GOET
45	St Helena – collected by Macrae	Pamplin	1 0 0	GOET
46	East Coast of Africa – collected by Forbes	Bentham	5 0 0	?LD & ?G
47	East Coast of Africa – collected between 6° and 8° S. lat. By Mr Mont Martin	Bentham	1 1 0	?LD & ?G
48	Madagascar – collected by Forbes	Brown	2 10 0	BM

Lot	Content	Buyer	Price paid (£sd)	herbarium
48*	New Holland – collected by James Brogden, Esq. – 2 parcels	Brown (RHS)	0 0 0 (RHS) 1 0 0 (BM)	BM
49	Persia – a set of specimens, from Tabreez, & formed during a journey to Tiflis through Armenia to Trebizond, glued upon fine paper	Dr Hooker	1 10 0	?K
49*	Cape de Verd – collected by G. Don, at St. Jago	Dr Hooker (RHS)	0 0 0 (RHS) 1 0 0 (BM)	?K
50	Madeira and Teneriffe – collected by Forbes – 2 parcels	Money (RHS)	1 1 0	
50*	Cape de Verd, St. Vincent	Money (RHS)	0 12 0	
51	Cape de Verd, St. Vincent – collected by Forbes, at St. Jago		0 0 0 (RHS) 0 18 0 (BM)	
52	Madeira – collected by George Don	Pamplin	0 14 0	GOET
53	Teneriffe – collected by George Don – 2 parcels	Pamplin (RHS) Pamplin for Grisebach (BM)	0 18 0	GOET
54	West Coast of Africa – George Don – 9 parcels. This collection is named by the authors of the Niger Flora, and may be regarded as typical of that work	Brown (RHS) Brown (BM with later catalogue note 'contained 700 species')	12 10 0	BM
		Total (RHS)	249 12 0	

Conclusion

Having scrutinised the two catalogues, and followed a variety of trails, a large proportion of the original RHS herbarium has been located so it will be possible to view the Horticultural Society of London's auctioned specimens when the collections have been fully digitised and made available online.

The bulk of the collection is to be found in the herbarium of the Natural History Museum in London, and also in the herbaria of Paris and Montpellier. However, defeat has to be admitted in tracking down a number of collections and also verifying the location of others. With the exception of the Hartweg collections housed in LD, it is still a challenge to find specimens within herbaria whose collections may have just been, or are presently undergoing digitisation.

Of immense value has been being able to view digitally some of the older duplicates, with labels or stamps showing their original owners before being moved to another, larger herbarium. It is tantalising to have access to one of the greatest compilation of specimens in the World available on the GBIF site, but without a chance of searching by

collector, some of our plant collectors' specimens remain unfindable at present. Similarly that some of the online herbaria have not yet managed to transcribe all collections so their collectors remain 'silent' as far as a search goes.

When the CGE team are able to fully digitise the Lindley collection it is likely to prove to be the catalyst that leads to the tracking down of the unknown herbaria of the auctioned collection. This resource will provide the plant names necessary for a number of search engines. Is it possible to dream that the unsold Lots were cared for by Lindley and passed to CGE (with his herbarium) in 1866?

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29. *Went to Cox's, Clowes', Prior's and Well's, cut up wood and drew some letters. No news. Parliament meets on Thursday. They are getting on with the Houses of Parliament very rapidly, in anticipation of it. A peace conference is going to meet in Paris in the beginning of next month. Murders are plentiful about this time of year; there have been several fresh ones lately. Very cold and dry.*