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*About the Institute*

The Hunt Institute for Botanical Documentation, a research division of Carnegie Mellon University, specializes in the history of botany and all aspects of plant science and serves the international scientific community through research and documentation. To this end, the Institute acquires and maintains authoritative collections of books, plant images, manuscripts, portraits and data files, and provides publications and other modes of information service. The Institute meets the reference needs of botanists, biologists, historians, conservationists, librarians, bibliographers and the public at large, especially those concerned with any aspect of the North American flora.

Hunt Institute was dedicated in 1961 as the Rachel McMasters Miller Hunt Botanical Library, an international center for bibliographical research and service in the interests of botany and horticulture, as well as a center for the study of all aspects of the history of the plant sciences. By 1971 the Library's activities had so diversified that the name was changed to Hunt Institute for Botanical Documentation. Growth in collections and research projects led to the establishment of four programmatic departments: Archives, Art, Bibliography and the Library.

An 14

H (6)

16<sup>o</sup> 17<sup>o</sup> Century  
1943 (f. 1544 lecture) +

for G. book

+ later than 16th. reads  
1944

Some wounded at end beginning

see also (17) III. 114.  
(not used - paper)

To be done when time  
Trogus de Stupium. Translated. Study  
Turner. Herbold. [Sel. 3. 1. 9]  
through read.

# THE EXCELLENT MR RAY

## FATHER OF ENGLISH NATURALISTS

### CHRISTIAN FAITH IN A SCIENTIFIC AGE

"WHEN a student of theology turns aside (as it would seem) from his proper concern, when a normally active citizen in the middle of a great war fills much of his time with the life and work of a naturalist of the seventeenth century, it is reasonable that he should give some account of his eccentricity." With these words Dr. Raven prefaces his "personal explanation" for undertaking a full-length study of John Ray, the great English naturalist. In studying the history of science it became clear to him that

the change from the old world of superstition, the world in which there was no settled frame of reference except that fashioned by deduction from the Bible and Aristotle, the world of alchemy and magic, took place not in the eighteenth century but the seventeenth, and that in the realm of biology, or at least of botany and zoology, there was one man of outstanding genius, "our countryman, the excellent Mr. Ray."

#### MAN AND NATURE

As a theologian Dr. Raven is convinced of the importance of the change in man's aesthetic, moral and religious outlook which had accompanied and in large measure inspired the scientific movement. And in Ray he finds an attitude towards Nature which is new and vastly important. This delight in the worth of the world as aesthetically satisfying, intellectually educative and spiritually significant reflects the best Hebrew, Greek and Christian thought, but is in strong and original contrast to the philosophy and religion both of the Catholic and the Protestant tradition.

From the third to the sixteenth century the note that Ray strikes had been almost entirely mute. To Augustine, as to Luther, Nature belonged to a plane irrelevant if not actually hostile to religion. Its beauty was a temptation, its study a waste of time, its meaning so distorted that there is a radical difference between Nature and grace. Ray, on the contrary, was convinced that the study of Nature is essentially a religious duty. In one of his prefaces he says, as translated by Dr. Raven (Ray wrote in Latin to the excellence of which Dr. Raven shows no inconsiderable facility):

"Surely we can admit that even if, as things are, such studies do not greatly conduce to wealth or human favour, there is for a free man no occupation more worthy and delightful than to contemplate the beautiful works of nature and honour the infinite wisdom and goodness of God."

"He found," says Dr. Raven, "in this new approach to the physical world the awe and reverence, the release and inspiration which psalmists, poets, thinkers and explorers have always found."

It is, therefore, largely with this conviction of the change in outlook initiated by Ray that a distinguished disciple of the great English naturalist has reverently followed in his footsteps, bringing to the detailed survey of Ray's voluminous writings and to the study of his contribution to science and natural history an industry and enthusiasm scarcely second to Ray's own. If Dr. Raven feels in contemplating the first volume of Ray's "History of Plants" a sense of awe at its sheer mass and magnitude, his own readers will be not less impressed with the remarkable industry with which Dr. Raven has collated, annotated and explained, and in many cases followed Ray plant by plant and insect by insect in illustrating, identifying, checking and correcting the detailed descriptions of the master.

If today the savant amazes our continental neighbours to find the greatest English newspaper reporting the annual arrival of Cuckoos and Swallows or the capture of a Camberwell Beauty and the spread of the Comma, the development of that trait in our national life is due to John Ray far more than to any other man.

Ray, in fact, is the father of the English field naturalist; and Dr. Raven, no less than Gilbert White, is in the true line of descent.

#### THE "NEW PHILOSOPHY"

John Ray was of humble origin, son of an Essex blacksmith and born in the smithy, Black Notley, in 1627. He was educated at Brintree School and, at the age of 16, entered Trinity College, Cambridge. Dr. Raven speculates on the influences that may have helped to send him to Cambridge as well as on the circumstances that first turned his attention to botany. From his mother he seems to have acquired an early familiarity with herbs and simples. At Cambridge in Ray's time there was awakening an intense interest in the "new philosophy," in science and the physical world. John Nidd, who was elected to a fellowship about the same time as Ray and who, as Ray records, undertook some dissections of birds, was one of the first of his scientific friends, who were later to include Francis Willughby, John Aubrey, Hans

Sloane, Tancred Robinson, Edward Lhwyd and, indeed, almost every naturalist in this country and abroad.

With Willughby Ray toured England in search of plants, and with Willughby and two others he made a memorable journey on the Continent, where he made acquaintance with the Continental flora and in the fish markets of Rome. Ray and Marsilius greatly extended his knowledge of the species of fish. When, at the Restoration, for reasons of conscience, Ray found it necessary to forfeit his fellowship under the Act of Uniformity, he retired to Willughby's house, where he worked over the collections which, after Willughby's death, provided part of the material for the histories of birds, beasts, fishes, and insects which he then undertook. On the death of his friend, which took place in 1672, Ray married and moved eventually to Black Notley, to Dewlands, the home which he had built for his mother.

Long before this date, in 1659, while still a Fellow at Cambridge, Ray had published the "Cambridge Catalogue" of plants found in that neighbourhood, a little book to go into the pocket, which he hoped would "excite others to a similar survey of their own localities and so to a complete 'Phytologia Britannica.'" From this beginning followed his later botanical works, "The English Catalogue" and "The History of Plants," and his zoological books, the "Ornithology," "The History of Fishes" and "The History of Insects." Dr. Raven provides a close analysis, often minute, of these great pioneer works; and it is probable that no treatment less thorough would fully bring out the real value of Ray's contributions in description, classification and collection and criticism of the works and records of his predecessors and contemporaries.

#### HIS ACHIEVEMENT

But Ray was more than the great field naturalist, more than the compiler of systems of classification, however essential such are. Linnæus devoted himself to classification and made, in the words of Sachs, a single important discovery throwing light on the nature of the vegetable or animal world. Ray, who both observed and dissected, made several such discoveries, few at a time. His innate devotion to classification and naturally divided into the two great classes distinguished by the presence of one or two cotyledons, or seed-leaves. In his classification he dwelt not on one characteristic only, but on the importance of every part of the plant, of every stage in the insect's life history. His achievements were indeed many and varied, and Dr. Raven sums them up in several passages in this book.

His greatness is that in a time of transition and universal turmoil he saw the need for precise and ordered knowledge, set himself to test the old and explore the new, and by dint of immense labour in the field and in the study laid the foundations of modern science in many branches of zoology and botany. He studied, collected, and collated the existing literature; he collected, identified, investigated, described and classified mammals, birds, reptiles, fishes, and insects, cryptogams and all known plants; he contributed richly to the advance of geology and made observations in astronomy which he was a pioneer in the study of language and first revealed the importance of dialect and folk-speech; he did as much as any man of his time to develop a new understanding and interpretation of religion; more perhaps than any man he enabled the transition from the medieval to the modern outlook.

On the question of the respective shares of Ray and his friend Willughby in the preparation of the volumes on birds, fishes, and insects, Dr. Raven argues after considering all due honour to Willughby's enthusiasm and devotion and his friendliness and helpfulness to Ray, that by far the greater share is Ray's.

"The History of Insects" was Ray's last work, and was published posthumously. For years he had been in exceedingly bad health, suffering intensely from swellings and sores in his legs. Almost bed-ridden, the ageing naturalist, confined to the little house that he had built in his native village and surrounded by his collections, yet had power to galvanize the neighbourhood into participation in his pursuits. Here friends brought him the first Purple Emperor and White Admiral to be caught in his native country. His little daughters also helped. Jane, the youngest, made her first capture when she was four-and-a-half, and in his note-book he chronicles four years later that she had found a caterpillar and caught a moth.



John Ray

Besides his formal treatises on the known fauna and flora of his time, Ray was the author of important works in two other departments of knowledge. The first of these, among his earlier publications, are his "Collection of English Proverbs" and his "Collection of English Words," which Skeet declared to be "the most important book ever published on the subject of English dialects, with the sole exception of such publications as belong to the present (nineteenth) century." In 1691, 14 years before his death in 1705, Ray published "The Wisdom of God manifested in the Works of the Creation," his most popular and influential work. Of this summary of the state of science in his day, packed with original observations and marked by the fresh and independent views on much that passed as scientific knowledge, Dr. Raven's estimate is that

it supplied the background for the thought of Gilbert White and indeed for the naturalists of three generations; it was imitated, and extensively plagiarized, by Paley in his famous "Natural Theology"; and more than any other single book it initiated the true adventure of modern science, and is the ancestor of the "Origin of Species" of "I. Evolution Creation."

Modelled to some extent on the "Antidote against Atheism" of Henry More, the Cambridge Platonist, but showing the scientific training and knowledge that More lacked, and free from the credulities of the older man, the book attacks the great problems of Creation and origins.

#### "THE WISDOM OF GOD"

Here Ray adopts the Copernican system, limits the number of constituents of matter, rejects the view that animals are automata, transmutation of the elements, and spontaneous generation, as well as the medieval beliefs in witchcraft, the doctrine of signatures and so forth; and in the controversy about the origin of fossils, states his belief quite definitely that they are the remains of what were once living organisms. Hampered he was by the mental climate in which he lived. His framework was necessarily that of "the Book of Genesis," but yet, as Dr. Raven shows, he was singularly free from the limitations which the old order imposed. He was not an anticipator of Darwin—it was impossible that he could be—though Darwin acknowledged his indebtedness to Paley, who, as remarked above, drew so much from Ray. He was not a philosophic theologian. But the "Wisdom of God" remains, in Dr. Raven's words, "a store-house of data covering the whole field of contemporary science and containing many points, especially of his own observing, which are startlingly modern in character."

For a century and a half after him, Dr. Raven concludes, "there was developed a type of theology, of which the 'Wisdom of God' is the first example, capable of giving appropriate expression to the Christian faith in a scientific age. This is John Ray's proper memorial."

\* JOHN RAY, NATURALIST: His Life and Works. By CHARLES E. RAVEN, D.D. Cambridge University Press. 30s.

## THE ENGLISH NATURALIST

In the biography of John Ray, reviewed on the opposite page, the Master of Christ's makes two related comments. He hails Ray as the progenitor of Gilbert White and the great English writers on nature, and as the man to whom, more than to any other, the development of the characteristic British interest in natural history has been due. He also notes, with a certain detachment, the phenomenon of himself, "a normally active citizen in the middle of a great war," occupying much of his time in tracking the footsteps of a seventeenth-century naturalist. The second fact is clearly one result of the first, and is not nearly so much of an "eccentricity" as Dr. Raven almost self-deprecatingly suggests. Many an English soldier has paused on the fringe of battle to watch, say, a kestrel sparring with a rook, or has had his first glimpse of a hooded crow in the wet fields of the Salient. There comes to mind, too, such a book as Dr. Philip Gosse's memoirs of his service with the R.A.M.C. in the last war—much of which consists of observations on birds and beasts, especially mice, in the war zone. In truth, the love of plants and animals is so deeply ingrained in the English character that it will express itself, in a proportion of Englishmen, in almost any circumstances.

On literature and the graphic arts this national trait has had a deep effect. It existed before Ray's time—can anyone doubt that Shakespeare had looked with a comprehending and loving eye upon the wild flowers of the riverside meadows at Stratford?—and even in a narrower sense, as a scientific writer, Ray had his fore-runners. Thomas Johnson's *Iter Plantarum Investigationis . . . in Agrum Cantianum* preceded by more than thirty years Ray's *Catalogus Plantarum circa Cantabrigiam nascentium*, and though the *Catalogus* has the honour of being the first full-fledged botanical study of an English region, yet the *Iter*, too, deserves remembrance. No doubt without Ray Great Britain would still have produced its naturalists, who would often also have been poets and painters. The ferment was there, and would have worked. But the fact remains that, as things turned out, John Ray, the Essex blacksmith's son, was the first modern Englishman to grasp the essential truth that nature was something to be studied from the world around, and not to be grubbed out of ancient authors such as Dioscorides, as the herbalists had attempted to do. This changed attitude it was which gave a basis of actuality and sound reasoning to subsequent writers, a sense of natural history as a rational study for men of culture and

understanding, whether, like Gilbert White or, on a higher plane of intellectual achievement, Charles Darwin, they made it their main aim in writing, or, like Cowper and Wordsworth, referred to it only incidentally, allusively, or by way of illustration.

Natural history, in one form or the other, has through literature long been one of the strong formative influences on the English mind, and it has also had its effect on and through pictorial art. Partly this was from the need for illustrations, of which Ray himself felt the lack, particularly in the case of birds. English bird drawings of the seventeenth century do survive

—not merely such comparative crudities as Daniel King's representation of the Great Auk, but the far more skilful and artistic pen drawings of Francis Barlow. Yet it was left to the eighteenth century to build up the tradition of natural history draughtsmanship, growing with increasing naturalism through men like George Edwards (firmly bound to the convention of a large bird seated on a far too small tree stump) and Charles Collins, until it reached such heights as the delicate and precise botanical drawings of James Sowerby, and the woodcuts, so full of observation, feeling and humour, of Thomas Bewick.

There is, indeed, no end to the tale of the ramifications of the love and study of nature among English and Scottish people. It crops up in all conditions and in every class. The shores, fields and hedges of Britain have been searched as lovingly by the labourer John Clare as by the parson Charles Kingsley or the philosopher John Stuart Mill, whose records of many rare plants are to be found in Brewer's "Flora of Surrey." To the poor cobbler Thomas Edward, whose life is movingly told by Samuel Smiles, the charm of birds was as much a passion and a solace as it was to the ageing statesman Grey of Fallodon. Today the interest in natural history is as strong as ever—witness almost any publisher's catalogue—but it has its dangers, in particular the tendency to separate "natural history" from "science" and to leave the former too much to the amateur. In these times of narrow specialization, it is not always easy for a professional scientist to be also a good naturalist, though some of them still manage it. And if a contemplation of the life of John Ray acts as a fresh inspiration to go for knowledge to the living things themselves, and to see the detail in its proper setting, that will but be one more debt owed to a great Englishman.

Johnson, F.R. (1937) 342.2.c.50.2 1.  
A History of the English Scientific Writings from 1500 to 1643 3.

Baltimore number of scientific works in vernacular in Elizabethan Engl., extending well to the 17th class. The number of popular scientific books printed in the vernacular during this period provide only a rough approximation of the actual number of scientific works printed in the vernacular in any other country.

Approx. 90% of scientific works in Engl were published in vernacular, so far as Johnson can determine, and this count can claim nearly a half a proportion of the period 1500 to 1640.

pp 40-41.  
De Caedo Aristotle is again mentioned the doctrine of Democritus the atomistic school, philosophy, and their assertion that there was an infinite number of worlds, strain theory, & atomic constitution of matter.

[The view is anti-Aristotelian in being an atomist. (H.A.)  
Plato had been inclined to treat the doctrine of atoms as a hypothesis.  
The function of the universe became a fundamental principle in Aristotle's cosmology. Aristotle however finite in extent.  
Not only exists beyond the sphere of fixed stars.  
This finite universe is eternal.

See De Caedo I.7. p 275<sup>b</sup> I 8 p 278<sup>a</sup> II.1 p 283<sup>b</sup>  
(Ref)

pp 2 Aristotle's doctrine of eternal worlds was the only feature of his cosmology (or universe) rejected by Christian philosophers. It was the main ground of nearly all the religious attacks on his natural philosophy.  
Aristotle = clergy of Rome

See Singer. Hist. Sci. p 155. Aristotle took in Aristotle and 15 elements of universe

Johnson PR (1927)

43  
2

p42  
Aristotle believed a a priori ground, but he also offers very sound proofs of it <sup>than</sup> the earth is spherical.

Small size, east

He also held that Cygnus and the stars were not of great size.

p42 "Because so many people today have the mistaken notion that the belief in the insignificant size of the earth dates from Copernicus, Aristotle's statements on this point deserve special attention." (See also p108)

p77  
with the legacy of Aristotle, the thirteenth-century Scholasticism at the University of Paris developed a "natural theology" which was a synthesis of Aristotelian, rather than Platonic, scientific philosophy & Christian theology. This synthesis, chiefly worked by Thomas Aquinas, resulted in the endorsement of Aristotle as the infallible dictator in all natural philosophy.

Synthesis Aristotle Christian

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p80  
It must be remembered that in the early sixteenth century a metaphysics of Greek was recognized as an indispensable part of the equipment of any scholar interested in the sciences. Much realisation of a few-hand knowledge of the ideas & discoveries of the ancient scientists was the foundation upon which further progress must be based, & this knowledge was the necessary key to such knowledge. p81

reign of, volu / fresh - w/ 10' ant.

Roger Ascham was influential in connection with the establishment of English & vernacular grammar for teaching export. p82. He writes "they counsel of Aristotle, as speaks to common people do, & to be as wise men do. Preface to Fox's opus in English Works, Roger Ascham ed. W.A. Wright. Cambridge 1906. p xiv

Vernacular

p113  
the Copernicus theory contradicted nearly every postulate in Aristotle's doctrines of simple & compound motions; & of the nature of matter wherein - 4 elements & 6 ether.

Aristotle's physics v. the Copernicus theory

Johnson F.R. (1537)

Day to mid-sixteenth century Peter Ramus was the most  
notorious opponent of Aristotle & Aristotle - academic  
clubs. In the master's account at the University of Paris he  
defended - 1536 the thesis "All that Aristotle has said is false."

1515  
Zodiacus Vitae first published in Venice about 1531

1516  
Influence of books on cosmology transferred to very great  
an ancient neo-Platonist.

1522-3

temple, Descartes (in the time about 1645) first made itself  
felt in England, & reinforced the tendencies already well established  
toward the metaphysical interpretation of the physical world &  
toward the infinity of the universe.

Descartes

1583

"In fact, in so far as the year 1645 was chosen  
year as the boundary between two eras, the year 1583 was  
chosen as the beginning of a new period. Both seem to be  
philosophy ..."

Anti-Aristotelian spirit - Boyle's view  
more radical than is usually  
believed

1589

Johnson points out that his study of Renassance astronomy in  
"he led us to a new conception of scientific spirit, the age  
no longer can we accept, for a while, the notion that excellence - only  
English science was dominated by a narrow Aristotelianism - the  
philosophical backbone of chief scientists is predominantly Platonic,  
... they emphasized the physical near elements - Platonic ideas served  
European nations in mathematics or practical arts & thus provided  
the philosophical sanction for the new experimental method. ... The ideas of  
early Christian pre-Socratic natural philosophers, particularly those of  
early atomists regarding the infinity of worlds, were also rapidly  
found repeated by the English scientists of a different order. The Aristotelian  
doctrines.

The entire tradition of science in England was, in fact, more  
gained Aristotle's transfer. Roger Bacon had been the chief  
dissenter from the rigidity of the thirteenth system of Aristotle  
science & Christian theology, & had sought to use the newly



Johnson (FR 1137)

observed scientific work, & greater Arab philosophy as a foundation of future progress rather than as material for combining a complete system of knowledge - since all scientific & technical questions should be given definite final answers, no "spurs", never loss of his resources, acquired new vigor in 15th century, to excellent end.

By the 16th century science was independent of the Church (was all accepted authorities).

In Thomas More <sup>p 290</sup> this article took the lead in advocating the unity of learned works - to vernacular.

The close <sup>291</sup> understanding & co-operation between scholars & scientists & technicians was an outstanding characteristic of scientific movement - E.g. for 1550 onward.

p 293

Upret. Hist. of Royal Soc. 1667 p 113, on the plain language to R.S. exacted. Plain language.

p 295

Thomas Digges 1571 - his advocacy, use of clear technical terms in his father's antismalari defined to use / classical technical terms.

"Let us men more than write in English tongue, & have returned to Latin or Greek names, surely lives & figures ... there ~~has~~ been ~~in~~ in deeds certain testimonies & monuments more given science countries they chiefly regard, & other languages - they chiefly favored. Ideas F. Bacon advocates was about: practical

p 296

men to print the ideas of science that are popularly associated in the works of Francis Bacon & the seventeenth century was drawing from the public mind. Ordeal, to try his waters to give the latter half) & excellent end.

This paper is the first extant reference to Johnson, F. R. (1537)

Stearns, R. F. (1943) The Scientific Spirit  
- English - Early Modern Times (C. 1600) I S. 1.  
Vol XXXIV, 1943 pp 293-307

Charles Lorge <sup>p. 293</sup> Preserved finite adaptive 1543 or 5  
natal year) modern science. (Engel in Mage Stearns, 1928  
(Opennus - Vesalius) 61, 62)

"But in England the introduction of the scientific spirit is  
frequently assigned to the era of Francis Bacon, William Gilbert &  
William Harvey. These three men, working more or less  
independently, are represented as having simultaneously  
stumbled upon the methods of experimental science in an  
independent English preparation a foundation upon which  
p. 294.

Of these 3 men introduced the scientific spirit in England,  
we find their appearance full-grown in the first part of the  
17<sup>th</sup> cent., i.e. full 60 years after its appearance elsewhere in  
Europe.

More work - the last decade or so has shown the  
inaccuracy of this view. The writer holds that the scientific spirit  
philosophy became a tradition in the 15<sup>th</sup> century in England  
p. 295 Francis Bacon's *Zodiacus vitae* (Venice, 1571, M. P. Helladay);  
transl. Elizabethan grammar school  
Elizabethan grammar school  
Wharfedale Analytic sect, or any of many times, do fall.  
) pose not for: since for the truth they may times

Let no man urge me Aristotle, for reason rules me,  
The faultful gods of us men is: let him that seeks to find  
The truth, love him, & follow him, we all his Mejeri,  
(See Foster Watson. The Zodiacus vitae. London 1908, 81-83)  
The infallibility of Aristotle was often challenged in  
scientific works before 1550 - 1600

Collecting from three men did not introduce the scientific spirit into England. This work was  
written in the morning of the English scientific spirit, not yet accepted in the English  
nation.

p. 299-300 The last several years of the 16<sup>th</sup> century were a formative period in the  
growth of scientific spirit. By 1570 the scientific spirit was not only  
embodied in English universities but had also become a prominent popular  
intellectual movement.  
F. Bacon, Gilbert & Harvey should acknowledge descent of their English scientific  
predisposition.

Syn. 7.57.4  
The Zodiack of life, written by the excellent & 8  
Christian Poet, Marcellus Palingenius Stellatus. Translated  
out of Latine into English, by Barnabie Gooze & by him  
newly recognized. Imprinted at London for Raufie Newberie  
dwelling in Fleetstreet; a little above the Conduitt. Anno  
Domini 1576

Serpens p 135  
What soever Aristotle saith, of any of them all,  
I praise not for: since from the truth they many times doe  
of- fendant, grow, & famous men, in evill chance to ~~fall~~ slide,  
And many witts with them deceivd have tryd themselves so wide:  
Let no man wide me arrogate, for reason ruleth mee,  
The fault full junk of evill men ~~is~~: let him tear seekes to find  
The truth, love her, & followe her with all his myght & mind.

Digitized by Hunt Institute for Botanical Documentation  
Francis R Johnson <sup>parts in</sup> <sup>the</sup> <sup>Admonition</sup> <sup>Tham</sup>  
in Renaissance <sup>Engl.</sup> A Study, <sup>Explic</sup> <sup>Scuderi</sup>  
Witop f 1500 07645 <sup>Bolton</sup> 1837

The grete Herball whiche sheweth parfyt knowlege & understandinge of all maner of herbes & there gracyous vertues whiche god hath ordeyned for our prosperous welfare & helth, & that heale & cure all maner of diseases & sicknesses that fall vnder the hande of god created, & a myfortune to all maner of creatures of god created, & a myfortune of many & per- & vicia maysters as Avicenna

Prepare (1/2 dram (1/2 lb.))  
 et eternall god hath gyven of his haboundante grace, vertues in all maner of herbes & cure - heale all maner of sicknesses & infyrmites to hym befalling befallyng trough the influent causes the foure elementes beforesayd, of the corrupt & corrupcyons & the venymous ayres contrarie of helth of man.

This noble worke is compiled, composed & auctorysed by dyvers & may noble doctours & exper- maysters in  
 Avicenna. Paracelsus. Constantinus.  
 Wilhelmus. Platarius. Galienus. J. Serapion. I. Serapion. I. Serapion.  
 Haly. Albertus. Bartolomeus. & many other, etc.

Medicinal herbs engraven & to find the same in the country  
 skeleton in the ~~book~~ labelled in the book is not in some adrogial

orange  
locust

Alves is a wood in hote - drye - the ii degre. This wood is founde in a floode of hys Babylone nygh whereby rennetts & cyver of Paradyse terrestie

Assa fetide ... is somme of the tree that groweth beynde the  
 De Amudo. An orange of smoky, stand for the associated use  
 pecker / costus mid

Agarius ... is an excrens that groweth nygh to the side of a sayn tree,  
 in maner of a mussheron

Allen. The word in repudic dnm

medicinal aspect

my the dnm  
then found  
cures  
maner

flaw

Judo herboll <sup>rayens dno sauce 1815</sup>  
 Anacardus is the fruit of a tree y groweth in ind. 2  
 (Even in the same some drags an unknown) see Sprague 10  
 Steamet is found in places beyond the sea, (1932)  
 especially in Ceyll. Curaçao  
Cuba bank  
Sagopenum

Use " Is stayre a Dye here  
 Asphaltum ed en bitumen Judaeum... Some say that  
 Asphaltum is made of the scumme of lake hardened in  
 Chalke in the lake of Sodom - Somow <sup>perhaps</sup> peryssted.  
 + aqua. Water.

Brage C LVIII Brage is an herbe & hath rough leaves & is  
 named Bourage. (if findes: Alberta magna <sup>quod</sup> Sprague 1932  
 part, see Alberta 485. vi. 291  
 Ca. LXVIII

De Byllose. Ox tongue, a lang de befe  
 this herbe when eat in confinement & conserwet the mynde  
 so may wyse men the daye of vdomes

To make folke merry  
 Take the root of byllose hath be soden in a spryngell in cleane  
 hony or chambray, & all they that be therein shall be merry. This  
 is to wyte that this herbe be the kynde of manes. The first  
 berete of floure dyke colour) the shyge, as Bourache.

De bedegay: Eplentyne C LXXIIII  
 Bedegay is a thorne a brece... some say that bedegay is a  
 superflyte y groweth in rose trees or roseys, but this is not so, for  
 bedegay is an herbe

De Casia lynee C XCII It is the barke of a lytell tree that  
 groweth towards the ende of babilon  
 Ca. CIII When saffron floureth - the myddes, the  
 floures spryng the dayes a small floures that be red wher is  
 saffron. : exalt - partur fl.

De Calamo aromatico. Ca. CV  
 Calamo aromatico... is the rote of a lytell tree that is lyke to a reede or  
 ryssh & hath very swete mel. It is concaved & hollow. Jordani  
Sagun.

Crete Herball  
 Ca. CVII  
 Cape Domestica, is the Commune or tansorian  
 Bepr Cap CXIX

- Ca XXXV. A cantum ut Winter cherry figure  
 Cp CXXXVI Cotyledon  
 unrecognizable figure with stems are oval points  
 names to describe :-  
 Cotyledon is an herbe ... and is called umbelatic  
 It hath round leaves & thick & graveth in coveriges  
 of dde buyldynges *find des: may byer*
- 
- Cp CXXXI Calendula, Marygolds, or reddo  
 The description is evidently intended for Marygold, "Marygold  
 make garland of it when they go to feests & bydeales";  
 in the picture is a fan requirer well flower *but consistency with figure not*
- 
- Cp CXXXII  
 Ceterach is an herbe so named. It groweth against  
 old walls & upon stones & upon dde edyfyces & stones.  
 The picture is unrecognizable but the one from which is clear down it  
 is that it cannot possibly be a fern.
- 
- Cp CXXXIII De Consolida maiore. Consolida  
 Recognizable picture  
 This herbe hath blacke wote at wards, & white wote in.  
 They seem to have been indifferent whether the figure represents  
 plant or not. For within the circum of cherry is accompanied by  
 woodcut represents plant in deeply serrate leaves.
- 
- Daucus Cp CXLIII degraded bean, or Ortes Santet's figure  
 De Dactylis. Dactylis. Cp CXLV, in some pictures used - Cp CXXVIII  
 Recognizable (under fig.) date palm  
 This chym. den. is what Hellebor is accompanied by -
- 
- Ca CLVII. The chym. den. Solonnois seed  
 recognizable figure, Solonnois seed  
 Cp CLXIII De spatula felida, yellowe flage. Trypan degnal  
 picture yet still recognizable may do for shade  
 Ca CLXXV. Recognizable shrubby. Marshmallows. Fungi under an oval tree  
 Cp CLXXX. De fungis. Marshmallows. Fungi under an oval tree  
 would do to reproduce.

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unrecognizable  
 picture  
 copy

Fructus Umbell

Cap. CXCII Panquam fructus cornu <sup>cochle</sup> "It groweth  
the sheet & hath blacke seedes triangular & zydes <sup>did</sup>  
" CXCII " <sup>fructus</sup>  
The seed, fromwell; "cleve & whyte shyngynge & kerfou  
" called grayne of y<sup>e</sup> sonne

Cap CCXV

De Iaro. Cuckowe pyatyll  
Panquam fructus Arum  
" In coll is prestio hode, fit hath as wove & Cape & tongue  
in " lyke serpent yre of dragons, but serpent yre is longer. It  
groweth in many place & drye & in hylles & under heds, & may be  
gathered in wynter & somer  
= No same fructus may be used of more than one place

Compositio descriptiva

De lilio. hylly Cap CCXXXIII

Lillio be hote & maye, than in two maners, the white & the  
tame. The white lyllyes have more seede floures, & the tame  
hath more vertue. The white have yellowe floures. And the tame  
hath white floures.

Cap CCXXXIIII De lingue avis  
Lingue avis is y<sup>e</sup> seede of asche trees that hath leaves in maner of  
byrdes tongues, & some call them keyes  
CCXLIII unnumbered, next to CCXLV

fructus. leaf four.

De lilio, Cobayll

Lilium & Cochle  
(Dus Cochle mean someth bea-jus in chear?)  
De lingue. Hoppes (sompos)

Lupulus is an herbe that groweth in hedges & rampetes in maner of a  
herbe called byrny in whyte byrny & is called hoppes, y<sup>e</sup> leaves  
therest be lyke nettles, & hath sharpe savour & taste.  
Compositio descriptiva

Cap CCXLII

Lanceolata is called lytell platayn

Cap CCCXXXVII De polipodes. Oke feure  
Polipodi ... is a wode moche lyke to feure, & groweth in wales,  
stones, upon oaks.

Plantans CCCXLIIII - CCXLV

De pede columbina. Doves foto CCC LXI  
 Pes columbina, doves foto ~~was habet~~ ... halle runde  
 called levee is like c doves foto / r + stalks + levee be reedysse,  
 the floure browne, - is stretcht on the crtic. It groweth  
 in sandy places.  
 (2. toward blue moden for u + f. H. flours) color of the  
 appears to express kind of blue)  
 Regi Ca. CCC LXII  
 Use? "bram" of purple.

Cyp CCC LXVI Rewbarbe ... there be two manners thereof.  
 One is called Rewbarbarum, because it groweth in strange  
 Countrees. And barbarum latyne is strange in englyshe, & it  
 groweth in Indee a barbaary, therefore is called Rewbarbe. The  
 other is rewponticum, because it groweth in a yle called  
 ponticum. Or because it hath a part yke savour  
 De rose mairno.

Cyp CCC LXX De rose mairno.  
 This is not properly called rosmery, but rose marines  
 as it were dewe of the tree of camomyl it groweth in places yf ze  
 fyde.

Ca CCC LXXI. find further bleabey.  
 The same further used of chery & deary moden hand Dwal  
 De Solatio restio. Cyp CCC LXXIX  
 Each of comex in  
 between byes -  
 between byes -

Chycony Ca CCC XCII  
 Sponza solis  
 penetrat, in- cloath than the sonne gooth darone.  
 Ca CCC XCIX. Apurum. the fig. in herbs - c

Cosa foun  
 Cyp. CCCC X. Serpentina; strauya called dragons, or  
 indygrass

Cyp CCCC XI Salix the wyllowe is a Comyn tree ... the  
 barke & the levee be found in medycyne.  
 For fevers. The levee of willowe is found in delay to hate in  
 fevers yf to be dronken. (Toluytes AX)



fruct Habell

Cop CCCCXIX

Serpillum is an herbe so called because it is supple & predeth in the earth. ... it is like Pyrethrum both leaves be whiter & smell & smell like mayanym.

Cop CCCCXLII

Syzanus is ray or cockyll

Virga pastora Cop CCCCXLII

"It bereth a tassel in the stalk like the tassel of cloth yes but it is not so hard.

fruct vine fruct CCCCXLIX

Cop CCCC LXXI (in page)

The woman <sup>(the)</sup> ~~(the)~~ Saleone fruct uelfago the law Thursday  
of y<sup>e</sup> wane of y<sup>e</sup> moone.

Cop CCCC LXXIX

Syzanus Ray, drawke, Jannell.  
an eye yll webe to y<sup>e</sup> growth in the throat. (the doctor to putre may be comflaw)

De Succaw. Syre. Ca CCCC LXXXI

(A fruct being in relecta Syre)  
The syre is made of cannes in maner of <sup>canne</sup> boll rysses, wher is full of swete pyth & is called the honey ~~canne~~. It is swete in Spayne & Cyttle  
(Describes the hartman) ryan) sugar

Cop CCCC LXXXIIII

Bos is an ~~oxe~~ ox best well known to every man. The harte of oxes fleshe ~~comfort~~ comforteth strength more a body, than fleshe of any other bests hangy. .iiii. fetes. And therefore it is very profitable for seke persones.

Delyo. Rye (opp p CCCC LXXXIX

Grete Herboll  
Colophon

Imprinted at London ~ Southwarke by me Peter  
Treveris dwellinge in the sygne of the wodow.  
In the ~~year~~ yere of our lorde god, M. D. xxvi. the xxvii day  
July

Thys booke to cures an dremt or not of diseases in scerte dres  
agnytions sendyng the pain in some member a gain type? medicine  
Cp xxx dentist or by lorde  
= To make a chylde merry / change a bondell of meynour  
+ tagant

Cop LXXIII  
De bromia. Wyldre neppe or bryony  
Bromia is also called, Cucurbitate agreste, this is wyldre  
Sowde. Some call it vicia alba. It groweth in meyst  
sandy groundes, in hedges + it hath a grete rote there be  
two kindes in the north + the south. The north bereth  
reed seede is called to blanke, the south hath a wyte reed seede.

Ca CXXVII  
De gramme - Quercus.  
Gramen is a comyn herbe, + hath lewes lyke grasse  
of the felds, but it is somewhat sharper, that a wile boke  
predeth ferre on the earth, hath dres names.  
Ca. CCXXVIII For payne of the bethe when they be lose  
a wadge on the Jave bone

Ca CCCXXVIII "There be two maners the male, + female, +  
to female hath sharpe lewes.  
He sayeth the felle to be not in hum form, tyme for parties +  
He addeth that "Bromia" of bryonye that some hath shapen such  
figures by craft, as we have some synne herde say of Colours  
in the felds.

Ca CCXCVII Millefolly or  
is called Carpenters grasse yarare in some places

John Herball  
Ca. CCCCXXIII

Promtuo des: 178

De Soldanea.

Soldanea ... groweth in sandy grounds & on the sea brymnes, & hath small rounde leues & lytell rote myte, longe. The floure is lyke the floure of azarabachara ... The leues appere on y<sup>e</sup> earth & is lyke curate, this is dodyr.

Ca. CCCCXXVII

De Syello sancte marie. Or ladies Seale

(L.C.)

Promtuo des:

Syellum sancte marie, in Syellum Salamonis is al one herbe that is called Salamonis seale or an ladies seale. It groweth in dark shadowy places & in forests & hath leues lyke arsmere & lytell mal chyte floure, & beeth red & scdes in a rowe two two one or another in order & hath a whyte knotty rote as knechtome & fagon.

Ca CCCC LXXXII

Arabianum to ... two kyndes or Serapides saytt The male & the female & is bothe one in floure & verities in the female hath yellowe floures lyke the saffron. [This & Mandrake are sayd up. & how much is sayd of floures & such. 178]

Can you know, explain, & teach  
Melancholy is a manner of folly as than one wyll be alone  
say mesynge & fantasie ever in y<sup>e</sup> worst & nat on the best  
in makeynge of one sorowe, serues twayne whiche purpose so  
man can put hym fro thyngh which many one regard  
him fr. fo. & all y<sup>e</sup> reason of his melancholousnes &  
felyslike fantasyes

(actus em), (24)

all maner of herbes & trees in this booke comprehendyd ...  
everyche of them chaptred by hymselfe, & in every  
Chaptr dyvers clausos wherin is shewed dyvers maner  
of medycynes in one herbe comprehendyd whiche right to by  
not y<sup>e</sup> fyged & marked for the health of man

Systematizing array in an order, plus an [drawing] dress  
with an. found order alphabetical, but this is not carried on  
within the letters.

medicinal  
properties  
of herbs

Bumfels Herbal

Spiegel T. A. (1920) 67  
may be regarded <sup>p. 29</sup> either as to end of the long line of classical  
& medieval works on medicinal plants, as to the beginning of  
modern taxonomy.

In the 16th century Bumfels was virtually a competitor of the doctor  
his predecessors. The presence of leaf-like wood impressions of living plants

in many makes it possible of the four times in history, & probably  
a high percentage of specimens concerned, so that modern  
systematic botany may claim to have its start in Bumfels.

Also 260 species figured by Bumfels  
less than a century later the number of known plants had  
increased so enormously that Caspar Bauhin who undertakes the  
gigantic task of coordinating the existing nomenclature includes  
his Pinax the Theatre Botanicum about 6000 species.  
- his Pinax the Theatre Botanicum about 6000 species -  
1623

p. 81  
At any rate in the I to treat was prepared from the  
illustrations added later

p. 82 Redwood to diffusion of <sup>classical</sup> elements plants  
Old peasam woman who painted "veterales"  
have been on his name of information  
expert in <sup>(iii) 13 Eupragia</sup> to peasam woman (Botanologian  
chamber) <sup>more help for the</sup> peasam woman (Botanologian  
pp. 26, 27). <sup>articles</sup> he accepted to peasam identifiers.

Teris (leg) Phonies & Arab papers to I believe  
bolsano) & 15: 1 call 16 centers, those later bundles of  
Descendants = commentaries in Descendants, Pley, &  
now found to chief basis, Bumfels text.

p. 84 Wardley was not the only draughtsmen <sup>and engraver</sup>  
& Bumfels refers to "pictures or sculptures" i. 181 &  
& "delinatiores et sculptores" i. 217. In the  
later page he explains that in order to keep the draughtsmen &  
engravers employed he was obliged to include

Specimen TA (1528)

218

center books, which he knew nothing in the German name  
 in the prefatory paragraph, the Introduction to the *Contrafact*  
*Kreiterbuch*, Bumpf mentions that he had a few very  
 a few del of the master + younger engravers (den Meesteren  
 and *Contrafactgereren*) as it was in their power to draw  
 something like a new del to execute. In 32<sup>nd</sup> chapter, the  
 same Introduction he explains that the absence of definite  
 arrangement in the books is due to his having had to take special care  
 in the design (make) furnished it.  
 Sprague suggests that there was several *Druckplatten*  
 engraved work under Weiditz. artwork

See M. L. Green. *Hushy Plant Nomenclature*. *Kew*  
*Bull.* 1927. 403-15

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plat. <sup>change names</sup> / plants with the old name  
 (2) Bumpf to <sup>change names</sup> / plants with the old name  
 he used vernacular name <sup>apologetically</sup> only when he could not  
 help it. AA) then he does not seem to have used of other  
 of family. a plant one Latin name - study it. He called  
*buttercup* *Pes corvineus* (Raven's foot)  
 raven <sup>is actually de pede corvino in ravenus = perching etc</sup>  
<sup>pes = mensula AA) he he dis used</sup>  
~~in a plant~~ *Coronopus* ~~with~~ *Cross Galli*  
 p. 84, 85. He did not draw the modern botanical 'idea'  
 of 2000 species. - he just meant "kissed".  
 Sprague gives examples to show that anything for a family  
 difference or varietal difference might come under species difference.  
 In certain *Scrophularia* major = *Scrophularia nodosa* L. (p 97)  
 minor = *Sedum telephium* L. (p 73, 74)  
 minor = *Ranunculus Ficaria* L. (p 75)  
 i.e. makes 3 different families in groups - a way to a modern  
 into what we adopt of 3 pers 1 genus. (see my notes  
 clearly this)

Bumfets  
Grazen 1928  
p. 85

319

Juniperus / plants

Plants then in some way resemble *sericea* var *erecta* & } I cannot  
*Calabrisa*, the twisted rhizom } Phytolacca Bistorta L. } confirm  
the snake-like markings on the stem } Dracunculus vulgaris } this A.A.  
I doubt being sufficient variant of them unless to same genus.  
Some plants near Juniper (pp. 85, 86) together on account of their copious  
of heads wounds, in the Consolida, is var. hololepis  
crowd - wide extent near unrelated genus.

p. 87

Bumfets applied to the term male & female of various plants; these  
terms never thin really implied that we should not understand a  
difference, but sometimes he used them simply on account of flower  
colour difference between similar plants. For example Desmodium, he  
called it Red juniper male & the blue juniper female; the  
Arizalis avarensis L. i. 238 A. foemina Hill  
i. 153 (Lemon mauld - L) male & white did not  
implied same nettle (Lemon mauld - L) male & white did not  
(L. alba L) female; the yellow white lady Nigella i. 36  
male & Nigella alba L female (this is not a lady Nigella i. 36  
is a white checker.)  
(Lemon mauld is given by Nentzen - variety of  
Lemon alba. Better call it purple & purple of  
ordinary dead nettle. A.A.) see my notes of books to understand  
- pp 26-29.

p. 88

Bumfets herbal contains many figures which may be regarded as  
the typical types of Linnæus species.  
Some of the botanical Latin names used, & herbarists have been current  
for long time. For instance Albertus Magnus (circa 1250) in his  
De vegetalibus libri VIII, gives a description of Borago which is so far  
true it can be identified with the present figure of Bumfets - 1530 and  
the same name must have been Borago officinalis L.

p. 89.

For European plants the earliest work found cited by Linnæus was  
Cospar Bartholinus Pinax 1628, & the earliest work generally  
cited of C. Bartholinus was Bumfets herbar. [to them is done  
filiation of Bumfets & Linnæus A.A.]

Bampfes  
Fyfe, 1918

Linnaeus

1892 Linnaeus included Bampfes among the Auctores  
non recitati mentioned on the beginning of Species Plantarum, but  
the presence of the 2<sup>nd</sup> volume of the herbarium, now in the  
volume then the figures can be regarded as typifying Linnaeus  
species.

Presumably of Bampfes' species

of the 258 species & varietals - 5 herbaria, 78 var. hunc &  
Thymus, 845 Dioscorides, Clematis & other roots,  
& classical Roman period, & 49 in medical texts, it  
remains 47 by "new" - to some, not being apparently been  
described in previous works. The new species include  
Anemone nemorosa & Anemone Pulsatilla, Cardamine  
pratensis, Plantago media, Carlinia vulgaris, Bampfes  
Sua, & more important, Cardamine Pulsatilla

On the nomenclature of European flora, e.g. Anemone Pulsatilla  
Cardamine pratensis & Carlinia vulgaris were included

rather than to all, in other sheep. In Cliftonia complex in  
of full up spec. Some *Tomadina palustris* was included (one  
of Bampfes' species) was included because it was brought in to  
be drawn under the mistaken impression that it was  
Pulsatilla (*Pulsatilla hibernica*)  
Bampfes full record to deal form) Ranunculus

advocate  
15 authors  
Bampfes  
his  
actives  
in des p 23

acis

In Fyfe's work, unless 50/50 species etc by Lin &  
have been full - Fyfe & Fuchs had previously been  
full of Bampfes; none species cited, but Bampfes  
descendants in Fyfe's work. Fyfe was also previous  
mentioned in Bampfes' work







Greene, M.C. (cont<sup>d</sup>)

Herb. nomenclature

Brumf. in 2<sup>ca</sup> have three or more as good as another, to have used them more or less indifferently; In many cases he adapts one name into text & different one of the illustration.

p 407-8

~~Fuchs sometimes used many names~~  
Tragus does not seem to have attached special importance to the Latin names which are sometimes mere translations, the German. Fuchs, because he was convinced that to genus Plantago aquatica is identical with Alvum (to fuchs, uses the latter name in his text. Tragus however returned to original name Plantago aquatica because it corresponded with the German name Wasser

Wegerich but as the same term points to other plants should not be placed among the other plantains.  
"Haec Germanis Wasser Wegerich, id est, plantago aquatica (tametsi inter Plantagines non videtur commemoranda.

Fuchs had called to Fuchs Digitalis but Tragus says "Let anyone name the plant that he likes, we, in consideration of the form, to flower shall name it Caryophyllus ~~seu~~ seu seu, as long as the term being, & in the more appropriate name shall arise. Then are these terms called Digitalis." The idea that was then given to other names called bottom of Digit.

p 408

Cordus had a certain regard of priority names. He found in the text to name Eupatorium is explained by Dioscorides had been displaced by Azaronia, he proceeded next as it

p 409 In the present, nearly a century for Brumf. Herb. v. c to Capri Barchis Pinax Theodor Nelson, many new species have been described by botanists in various parts of Europe & S.

green M.L. Com?  
 Labernaemulans + Camerarius - ferny, Dodon de l'Obs  
 de l'Obs + Reticulid, d'Heuchys - France,  
 Tunn i Engl, Mettrich, Clonon + Pappus Alpinus i 1708  
 + Monardes - Spain. "Earl", these used than was names  
 pleand him, so that botanical nomenclature became gradually  
 more - more confused. es. Various authors for *Plantago* upward  
 had given the plant new names = *Plantago media* or *leuc-* 7.  
 different names, including *P. major*, *lelefolia*, *media*, *major*  
*incana*, *minor incana*.

Banks's *Pinax Theatri Botanici* was the first nomenclature,  
 a list - all plants were their synonyms. It was in a way  
 the forerunner of the Index Kewensis. It was a list of 1000  
 concordance of previous works on systematic botany

405-10  
 Banks gave the name Plantago latifolia incana  
 to the plant called *P. media*. It was a name of

species that was plurinomial + put to the man of the  
 nation - diagnostic phrase than 1 name. This  
 diagnostic phrases became very cumbersome, remaining in  
 vogue up to the time of Linnaeus.

Supplement Classifict  
 The man - natural one up to the time of Linnaeus.  
 This is - from - different between the works of Banks + than 7  
 Journifert. Banks of some names + ferny, within  
 description, but distinguished the species by diagnostic phrases.  
Journifert, on the other hand, preferred his generic name  
 names, diagnostic phrases (He could be given by *Plantago*?)  
 with the idea of the Linnaeus system.

Mon 7 Journifert's generic names are unimonomial,  
 but some are binominal, such as Ruta muraria. He does  
 not mean this for species, the very different names Ruta  
Linnaeus in 1753 replaced each to diagnostic phrases of a  
 binary name or the reform was first in 20 convenient text  
 as the use of the immediate acceptance.

Green M L and

pull Linnæus' 3 genera:-

1. The introduction of a consistent binary nomenclature of species, each species bearing two names, the first being the genus & the second the specific name.
2. The introduction of his sexual system & the first time supplied a thoroughly workable & convenient scheme of the arrangement of genera.
3. The publication of the Species Plantarum (ed. I 1753) in which he repeats Carlus Bonchar's feat of 130 yrs earlier & restoring order to systematic botany (restoring is a bad word - A.A)

The introduction of the Natural System dates from 1789 when A.C.L. de Jussieu published his celebrated *Genera Plantarum* in which many of our modern "Natural Families" are defined, though sometimes under different names.

The names of natural plant families recognized by Linnæus were many & diverse, such as *Coniferae* & *Umbellales*. Jussieu on the other hand employed very plain names, such as *Tunici* & *Polemonia*, thus emphasizing the fact that his families were aggregates around a typical genus. As to the plural form was misleading, De Candolle introduced a variety of distinctive endings of family names, including -aceae, -ineae, -arceae, -ideae. Similarly adopted the uniform termination -aceae for family names, this is now accepted in the exception of a well known name, such as *Solanales*, consistent under the *Intern. Rats.*

= An authoritative account (pp 412-13) of the system of plants 7  
Index Rarocensis







Bunfer 1532

Poen. y Ioann. Sepides & Realer  
sap

mentus Ioannes Iudicatus

my Member. Compys (purple 59)  
Xms rose

Eymon  
Cayaphete  
Wettable  
Praver  
Pelschke  
Lopp

I den f  
prens die nigt  
be reproduced  
shd be done  
for ed. 1

Penny better  
stick 5V dI

Signet of K.P.

X Breyte Weyrid p23 Platys magi p23

X Plantys Tubee p25. X Platys minor p24

X Anon 56  
Vollent wether p76 (only if the copy found)

X Drapense p80

Custys p96, 97

Be vchi - Quantis 105

X Ochsenzug p112

Brey p 113 (only if either copy found)

X Verwer p118

X Grundsch. Verber foemis p120

X 3 esser vchi p13

X Duth butters p14

X purple dendretch p15-3

X white p151

X for By p16

X Varnie (Eufygi) p168

X Gynther maye p175



Weghede (Perfoliat manus) p 102

Saxifrage p 105

X Hepatica p 150

X Leberkraut p 151

X ~~Ficaria~~ p 215

X Jauchtblum p 218

X Hyoscyamus p 224

~~Pulegium~~ 227

~~Scilla~~ p 247

X Keyrfaun p 250

X ~~Sanguinaria~~ Keyr Day p 25-4

== V. II Hedera p 7

Wild Sage p 38

~~Shrub~~ V. II p 40

Johannes p 51

Mullein p 75

Valerian p 95

X V. III. Penny. Herba sancta p 4

Tremulatis

X p 43 Affodilla - Rote Felge  
(~~Stis~~ Felis)

X P. Antuta p 45

Aspartum Angelen p 65

Dandelion p 70

Calendula p 77

Chryz p 94

X Polypody p 110

Dracontium magus p 131

Carnobis p 178

Cumula p 188

V. III

Penny p 220

Notes on 1530 ed: V.L. [L. 3. 2<sup>3</sup>]

Vd I of

Sex of plants

Verbena mascula p 119

(Verbena officinalis L.)  
Spurge p 87

Verbena foemina p 120

Senecio vulgaris L  
Spurge p 87

Pedunculate mascula = foemina - normal -  
abnormal twy made pp 182 - 181 (match of 183)

4 yls of purple & yellow distinct) ♂ & ♀

Wallwurtz weiblin p 76

(Spurge: ~~Symphyta officinalis L.~~  
p 87) var ochroleucum DC

Wallwurtz männlin p 75

(Spurge: Symphyta officinalis L  
var purpureum Pers. (p 87))

I do not see any mention in the text of the  
white colour of Wallwurtz weiblin, but the two beautiful engorgs are  
recognizable as being distinct & different of habit between the  
purple & the white.

Trazus De Thyssen 1552

Præfatio by Trazus (V \* 9. 25 - D) (2 vols)

Trazus habet habet  
basi & Adan  
sua in bestia  
noms

d ii (esta enim ista  
absoluta matre) Trazus his hinc, habet habet hinc  
Adamum primum hominem ... non solum  
cognovisse ... Adamum Putschplastum ... non solum  
divino afflatum spiritu omnes creaturas in terra cognovisse,  
sed et singulis ut supra docuimus proprias indidisse  
appellationes.

Adam te creatura "indidit his nomina, pro  
ineffabili quam e Domino Deo acceperat sapientia  
rerum & naturae cognitione.  
Adam fuit Adamus

Brief for Humboldt  
Humboldt  
cap 38  
p 100

Cum perfectiores meas ex labores stuprum gratia  
susceptos in doctrinam Otho Brunfelsius cognovisset,  
Gumbodam referentibus, Argentina cognovisset, ut coram  
Hornbachium usq ad me pedes commigrauit, sua sane  
et hoc hortos ex collectanea mea videret. Quae sane  
ita illi placuerunt ut deinceps et ipse et alii literis suis,  
ut vastum opus in admodum redigere ac Germania destituerunt,  
communicare vellem, cogitari me nunquam potuerim  
Quaquam autem quod perebani facile recusat potuerim  
ut qui tenuitate et ingenii mei exiguitate consuevis mihi  
esse, tamen ex cunctationis nullus epus exant lato labore  
locus, ita Gumbodam ut post immensis reprehensionibus quorundam  
farios demum suscipere, ac partim reprehensione urgentibus  
me abicere, partim vero bonis viris tam improbe urgentibus  
charissimae, hoc est Germania aliquo saltem modo utilis  
fuerint, nihil sane est quod magis me exhilarare possit.

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Caps X IIII  
neqz vbiu literarum admodum sequi ut veteres soleu- herbarii.  
Haber enim ea ratio multum incommodat, sequi iudico  
Ew) praefatio Cap XV. He bys in brevis bestia & dynt  
vnducti in fantant; in his vntus in pnd medium  
Proinde cum magis mei utere folia in syclo suo,  
suo ego utra, semper ostenderem, placuit vel eam  
gloriam de causam vnticam. He bys de bruta  
his fani, sed bore - netite leaf

Depis in  
helle

De Nympha 1552

Corrad Jernis prefau

Jernis admittit f. Numbes

c. iiiii Otto Brunfobius stupuer hestoriam edidit ... cum  
ambros perpulchre expressis

Books an prefau in historial & to s jernis

Books prefau :-

Quid in hesea nostri --

not fully told alphabet not

Necq; volui literarum ordinem sequi in veteris solent  
herbarii. Habet enim ea ratio multum incommodat<sup>is</sup>,  
sequi sequit iudicis.

VII p 95-6 Cap XLVIII

De Nymphaea

Duo nymphaeae <sup>partes</sup> fastigia rei herbariae scriptoribus  
unanimes consensu statuerunt. Alter candido, alter  
luteo emicat flora, utraq; in <sup>frith honds</sup> praeconis aquis stagnantibus,  
et residibus, aut nigro <sup>partes</sup> lacu <sup>partes</sup> repentibus, nascitur. Candida  
frequenter. Ea Junio <sup>partes</sup> mense, flore prodiit instar lili  
Candidi aut Rosae, multo <sup>partes</sup> lili foliorum stipatu contexta,  
ita quidem ut unius <sup>partes</sup> flos duo <sup>partes</sup> detraginta <sup>partes</sup> solis <sup>partes</sup> videatur, <sup>partes</sup> quae  
et paucioribus <sup>partes</sup> nonnunquam <sup>partes</sup> consistit, <sup>partes</sup> cui <sup>partes</sup> scilicet <sup>partes</sup> major  
singula per se <sup>partes</sup> consederata <sup>partes</sup> formae <sup>partes</sup> florum <sup>partes</sup> crocei <sup>partes</sup> sicut,  
maioris folium referunt. Et <sup>partes</sup> medio <sup>partes</sup> eluceat. Antequam  
solis figurae non multum ab simile eluceat. Antequam  
vero in <sup>partes</sup> flos erumpat, Nymphaeae quaedam <sup>partes</sup> cernuntur  
capitula, Amygdalis materis pene similia, foliis <sup>partes</sup> contexta  
ex viridi purpureo, <sup>partes</sup> quibus <sup>partes</sup> maturitate <sup>partes</sup> ruptis <sup>partes</sup> flos  
emicat frequentibus ut dixi <sup>partes</sup> foliis <sup>partes</sup> stipatus, <sup>partes</sup> croceis <sup>partes</sup> soli  
multis <sup>partes</sup> fibris <sup>partes</sup> staminibus <sup>partes</sup> sili radiis <sup>partes</sup> quibusdam <sup>partes</sup> floris  
instar <sup>partes</sup> fungo, nullo <sup>partes</sup> odore <sup>partes</sup> praeditus. Cum <sup>partes</sup> folia <sup>partes</sup> floris  
deciderint, caput <sup>partes</sup> Papaverinum <sup>partes</sup> aut <sup>partes</sup> malum <sup>partes</sup> rotundum, <sup>partes</sup> semine  
nigro <sup>partes</sup> asertum <sup>partes</sup> indurberat. Cautem <sup>partes</sup> profer <sup>partes</sup> haec <sup>partes</sup> nymphaea  
tremem, laevem, <sup>partes</sup> Iunci <sup>partes</sup> palustis <sup>partes</sup> maiores <sup>partes</sup> instar, <sup>partes</sup> folia <sup>partes</sup> vero  
lata, in <sup>partes</sup> Nymphaeae <sup>partes</sup> rotunda, <sup>partes</sup> fimo <sup>partes</sup> ac <sup>partes</sup> stibda <sup>partes</sup> veluti <sup>partes</sup> corium  
quoddam, <sup>partes</sup> Coribus <sup>partes</sup> itidem <sup>partes</sup> iuncis, <sup>partes</sup> et <sup>partes</sup> fungosis <sup>partes</sup> stylio  
nitentia. Radix eius <sup>partes</sup> brachii <sup>partes</sup> humani <sup>partes</sup> crassitudinem  
quando <sup>partes</sup> assequitur, <sup>partes</sup> nodose, <sup>partes</sup> capillamentos

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*Nymphaea alba* var. *caud*  
 multis fibris, nigra forinsecus, intus candida sistens, inodora  
 prorsus, et nullius insuper saporis.  
 descriptae *Altera Nymphaea*, foliis, caulibus, radicibusq; iam  
 aliquantum cognata est, nisi quod florem habet totum  
 luteum, nec adeo magnum ut illa. Huius conclusa Capitula,  
 antequam flores incipiat, rotunda apparent globi <sup>instar</sup>  
 foliis obducta viridibus, non aliter atque eius <sup>quae</sup> *Dotterblumen* / *peu*  
*Rigidotthe* dicitur, de qua supra lib primo, Cap ~~XLIII~~ <sup>XLIII</sup>

~~Thi 5 p 457. VI De Pedunculo, & Amore~~  
 Th 5 vst I p 142. *Calltha palustis*  
 Dotter blumen

Lb I p 112 Cap XXXV  
 De Chelidonio minor

sed age *Hirundinariam* minorem herbam Martio  
 mense profulgentem nunc Consideremus cui *Chelidonii*  
 minoris nomen impo- <sup>Descendes.</sup> En planta sub finem  
 Februarii erumpit, ad humeros colles, in vineis, et pratis  
 quibusdam herbaceo, viridib; colore conspicua. <sup>Vastitas</sup>  
 autem foliis minoribus, rotundioribus, tenerioribus, et  
 mollioribus *Hedera*, per terram sparsis, quotannis nova  
 radice, foliis et flore sicut *Satyriones* et *Aron* <sup>reversit. Zurd</sup>  
 ad radices attingit, cum illae *torosae*, ac instar grani  
 hordeacei oblongae, plerumq; ternae aut quaternae  
 acervatione multis *capillamentis*, quibus humi haerent,  
 fibratae. <sup>?</sup> Cauliculum aequi- <sup>exiguum</sup>, brevem et  
 praetenuem, flore luteo, pulcherrimo, et qui stellulam  
 plane referat emicantem, <sup>qualem Ranunculus ferre habet.</sup>  
 Maio mense marcescens, evanescit, folia floresq; amittens  
 radiculis interim usq; ad principia Februarii, anni sequentis  
 humi latantibus

Tegus  
lib II Cap c L

De Dulci radice

Prigue a Ficus  
p 545

Glycyrrhiza glabra (Medicinal plant  
India (Kaveris) 33  
Hawaii -  
to fruit)

Præstantissima hæc, nobilissimæque planta  
... Quæ admodum enim alie nature Saccharum  
prædicant ex extollunt, ita Germanis de Dulci radice  
glorari potest, imprimis vero Pabergeris æger, qui unicus  
est Germaniæ satis Glycyrrhizæ cupido ac potest.  
A pæca = fram. jul - to pæca includit 2-herb. Engl. vobis  
a (rad. cap. coil) kavia



His upris & Holy Rom  
Empire (D.S. R.)

Vd II p 935

lygert to ant. non duu nyan ber

lib I Cap C X X X VII pp 413-14 De Herba venti  
Pasque flower

Hæc vero rursus incognitam, a quasi peregrinam  
herbam præ manibus habemus, quam mulierculæ  
nostriæ herbarie Karthen-schell vocant, tel Pa Kuschel,  
quod est ei interpretatio. Campanule Culinaeput. varietas, ex  
proculdubio ratione, quod flos eius purpurei, sui intus uti  
et rosæ staminis quaedam seu capillamenta lutea  
habent, Cymbalis non admodum dissimiles sint. Invenitur  
in arenosa, arida, et argillosa terra, necnon in sylvis,  
florebat Martio mense. Radicem habet rufam capillatam,  
quem admodum Elleborus rufus adultioris, herbam vero  
Foeniculo per omnia <sup>partes</sup> similis. Maio mense flos in caput quoddam  
definit incanum, capillatum, teres, hirsutus, et quod  
Eunacei anemeli rudimentum non infeliciter exprimit, atque  
hoc illud semen est, nempe singula capillamenta quæ inferne  
instar setæ villæ caulis inserta sunt. Caulis illi  
nonnunquam Dodrantalis, ferentis ei aduentis saporis  
herba, ei quæ linguam gestata vellicat, non aliter abque Piper,  
aut Ranunculus; et Aron. Propter ferentem gustum in horto  
meo tuta ex Maese, de iniuria bestiarum manat  
illaesc

T. O.

\* ? Cymbalaria (C. c. v. l. II)  
p 805 Vd II







Good desc, cordis "a white lily or rose of many leaves  
crowded together, as <sup>than</sup> in <sup>undant</sup> on flower sometimes <sup>appears</sup> sometimes  
& consist of 2d leaves a <sup>small</sup> <sup>in</sup> <sup>flower</sup>. These leaves considered  
individually resemble in form a thumb, or the leaf of Sedum majus" <sup>see p 37</sup>

"<sup>lanceolis</sup> flore prodit instar lili candidi aut Rosae, multiplici  
foliorum stipate contento, ita quidem ut <sup>unicis</sup> unus flos  
duo detigatis foliis ceterum et paucioribus nonnunquam  
constare videatur. Quae singula per se considerate forma  
pollicem, aut Sedi minoris folium referunt.

Lesser Celandine

Ranunculus ficaria (L. Hb 32) L.

Well now, Herundinaria ~~massa~~ <sup>leaves</sup> now consider  
the herb Herundinaria <sup>men</sup> which shoots up in <sup>5</sup> months <sup>in</sup> <sup>meadow</sup>,  
where Descendo <sup>from</sup> <sup>to</sup> <sup>name</sup> Chelidonium <sup>minors</sup>. This  
plant appears <sup>in</sup> <sup>the</sup> <sup>end</sup>, February, or most hills, in vineyard  
& certain meadows, conspicuously a green colour. <sup>Minor</sup> it is <sup>clotted</sup>  
in leaves small, round, <sup>more</sup> <sup>delicate</sup> & <sup>tender</sup> <sup>of</sup> <sup>the</sup> <sup>same</sup> <sup>type</sup> <sup>as</sup> <sup>in</sup>  
spring <sup>and</sup> <sup>upon</sup> <sup>the</sup> <sup>ground</sup>. <sup>They</sup> <sup>grow</sup> <sup>in</sup> <sup>some</sup> <sup>of</sup> <sup>the</sup> <sup>meadows</sup> <sup>then</sup>  
near wet-leaves of flowers, as Satyrus & Aurea. <sup>to</sup> <sup>concern</sup> <sup>the</sup>  
root, these are fleshy, & <sup>they</sup> <sup>like</sup> <sup>a</sup> <sup>pear</sup> <sup>of</sup> <sup>barley</sup>, mostly  
crowded together by threes or fours, <sup>in</sup> <sup>my</sup> <sup>hair</sup> <sup>to</sup> <sup>which</sup> <sup>the</sup> <sup>soil</sup>  
adhere, fibrous. It <sup>arises</sup> <sup>in</sup> <sup>the</sup> <sup>stalk</sup>, slender, short, very thin  
shortly <sup>in</sup> <sup>the</sup> <sup>spring</sup> in very beautiful yellow flower, which <sup>clearly</sup> <sup>represents</sup>  
a white star, <sup>as</sup> <sup>much</sup> <sup>as</sup> Ranunculus <sup>has</sup> <sup>in</sup> <sup>the</sup> <sup>spring</sup>  
in the month of May, it dies away, <sup>leaves</sup> <sup>fall</sup> <sup>as</sup> <sup>leaves</sup> <sup>flowers</sup>,  
the <sup>beginning</sup> <sup>of</sup> <sup>February</sup> & <sup>the</sup> <sup>following</sup> <sup>year</sup>.

Ranunculus ficaria L. Hb 32

The desc of leaves & root is adapted from Descendo, in <sup>the</sup>  
flora <sup>of</sup> <sup>the</sup> <sup>meadow</sup>. II. 212 <sup>part</sup> p 227

nam quomodo modum ex historia illorum videre est, tertio demum annu Satyrus  
omnes, primo profertur flores, quos nullum ut diximus semen consequitur. Deinde  
constat Satyrus, nusquam hucus invenire, quam in montibus Iuniperum et  
natis, in quibus locis avicularum escas suas <sup>quae</sup> <sup>quere</sup> <sup>assolent</sup>.



Dati De Vigen 1552

Danius Kyber (translati) profere

Et certe studio Latinitate hos commentarios donare volumus: ut intelligant omnes nihil nobis prius esse: quam ut ei nostros homines et quoscuq[ue] alios nostra iuvenet opera.

(Pr 2) A ddequod author ipse mutandi, subtrahendi, et ad probatissimum scriptorem ex exemplis corrigendi hos commentarios potestatem mihi fecerat, maxime quod ad nomenclaturas attinet.

Latin translati. Præi under use  
thru all works may assist both our men + everyone else

v r I p 136 h t I  
Apylogia Planta certe elegantissima.

2 ~~La des~~ / ~~Pisobilla~~  
see p 30 of date

with Brumber / pms memory knew (after) (some) / center person  
Lunby tower - my archbishop labor of to  
Ayouinae, he came in foot to me at  
Hornbark & see my little garden + collectis. Then indeed please  
him so that both he himself + others in his letters mean to  
to urge me to print the von wate in ader + to commentate in  
to the Germany. He did the work of love of Germany  
say to me that such delaye him more than to me  
his work + labours shold be in any way useful "nostre  
patre charissimae"  
(his author was then not turbulent author  
which denud Latin)  
AA  
The nettle leaf was in his family seed





Sprague T.A. + M.S. 1937 (Map of this)  
The habits of *Valeus Cardus* Proc Linn Soc Lond 1936-7  
149: ser. Pt 3 pp 15 B-D  
(Under envelope)

p 158  
Curtis of the minute the arrangement of seeds - the seed vessel  
for detail account of seed of *Shyoban* Nux-vomica,  
described *Brachyle* the two distinct *Collydas*,  
Pant. in the *Tamus communis* leaves in the herb, &  
*Phascolus vulgaris* *cygnus* to see, & also to small basket  
modules on 5 vols *Lupinus albus* & *Phascolus vulgaris*

Turner's Herbal 3 parts together.  
Sel. 3. 1 .9. Dated 1568

Rest 8: Dedicating preface  
To the most noble & learned Princesses in all kinds of  
good learning, Quene Elizabeth ... VVhen Turner Doctor of  
Physicke, wished continued health of both bodye & soule  
I have dedicated it therefore unto your most excellent  
Sublimitie

*Quene Elizabeth*

I have above fortye years ago, written an Herbal: Later,  
therein were contrayned the Greke, Latine & English names of so many  
herbes & trees as I could see anye knowledge of, even being  
yet felow of Penbroke Hall in Cambridge, when as I could  
learne never or feake, netta Latine, nor English name ever  
amongen the Physicioners of anye heale a t'e, which was  
the yngnam in simple, as <sup>in</sup> tra by me was yet then vs no English  
Herbal but one, at full of unlearned Cacographies &  
fabelye names of herbes "learned of the by language of  
Italy he learned"

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I my maysters  
I dare say my life in 3<sup>rd</sup> part of preface.  
The knowledge of herbes, trees & shrubbes ... verye delectable  
Princis monde (p 3) preface *Elizabeth*

*Amatus*

*Doyn*  
Gerhardus de Wiske ... was so carefull a searcher of simples  
when he was in Italy, that he went into the mount  
A ppenine wyth manye other, to finde oute simplesses,  
whereof he onely wyth two or three other escaped deat, for all the  
other dyed either in there ~~year~~ yornage, or shortly shortly  
after that they cam home.  
p. 6. He calls Amatus Similitudo "a verye ape unto  
Matthieus his master behinde him in learninge  
If Amatus had ben Pythagoras, we bys scholars, we would  
have ben content wyth his onely saying, for the common  
Wormwood was Particula wormwode ~~the saying~~ with no any  
further autentice or reasons to prove thys sayinge  
requyryng 86

Wythall - But sayge that he is neither Pythagoras, nor we  
hys scholars, we require better authentic & reason  
A better argument about the idylfruit, & odiff. kinds &

wormwood  
p 8 new better  
we men call every herbe by the name that the ancient  
Autors have given it.

p 9  
Ponlike wormwood  
- A bush or two, the kinde groweth in Anvers in Peter  
Condensbeges garden, where as are many other strange & unknown  
herbes, had the first in any other place, Germany beside.

p 17 end  
Lucas Sijnis my magister = Bonoyse the reader, thereof Dioscorides  
p 20

Leopoldo bayne Cayes. = Scorpio, makeste her utterly  
amazed & ~~astonished~~

p 21  
Methally, & poisonous qualities of Wolffes (Armitur)  
"In our condiments much of late have received the blessing  
Wolffes bayne, therefore called Wolffes curle, take heed, that the  
poison of the bite of the herbe, one daye do not make, than the  
freshness of the flower hath some pleasure in some ~~year~~ year  
not saye, but they are warned.

Comp. vany. yam. pruin.

p 35  
a wood dogge

p 35  
Dear of that he calls Alison ? full middle  
"c small herbe of span height, & of one small red wote, growe  
many small stalkes, but have many rowelles as in wote of  
spores (= spots), set in order: + an every rowel a rowe side of  
leaves nere the toppe, these sprout the fruit a little small branch,  
which hath flowers, fruite red. The stalk is fours years,  
something sharpe. The leaves ~~and~~ in dede are not even playne  
round thor severally by them selves, but they toker on not an other  
allegation are round in order.... The flowers are bluish purple,  
appear coming about the side of the maye. The fruite groweth



even bro-ten together, herein is a little blacke seed, like  
something flou, in some top a man maye finde foure small cupls  
of litle vessels, but can synete thysede. There are more of then  
vessels founde alone.

p 36 (The Vertus)  
hony up in houses (it) is thought to be hurtfull, & a defence  
against uncharyngs both unto man & beast. in husbandry

p 37  
Amarant<sup>us</sup> is called: by him, purple velvet floure, or floure amou.

p 38  
p 40  
Stomach<sup>us</sup> is a small convenum<sup>us</sup> of the ears than star oyle be.  
Rosa Hiericho  
Stomach<sup>us</sup> is a small bush, about the quantity of a maronies  
hande, like unto a clente of popes felder into him self, litle sticks  
of wood, growing one beside & over an other, & partly it resembleth a  
net, partly a round troke bush, a rather the heade of a <sup>more</sup> ~~net~~, if  
youe at made of litle sticks, a of peeces, silver, or byss or straws  
in a round forme, it hath litle floures - hartes ear harte, & leavs  
lyke unto George.

litle ~~shrub~~ shrubbe, something less ~~above~~ above described,  
in all pointes like unto the shrub ~~described above~~ <sup>described above</sup> Rosa  
a cuticore fulgore. The same is named of to Hierusalem, Rosa  
of Jerry with them. The same is named of to Hierusalem, Rosa  
Hieracutus, than is the rose) Hiericho. The sayenge is, Rosa  
perete every year about Christenmas, wherefore some call it  
a Christenmas rose.

p 37  
Purgant. it hath the blew floure, is called the female,  
but it hath the cremestine is called the male.  
(Constant reforme of Descuride)  
Refr on p 40

p 106-7

Sclaver a fely flour. (pinks)

The garden sclavers an make so ~~pleasants~~ pleassant  
& sweet in the labours, with of man, & not by nature

p 123  
Dents by an experiment in pot ass

p 163

As four fingers & a thumb, comming for one palme, make  
not fyve hande, but all together with the rest of the hande, out of  
ye which they cum make but one hande, & altho the plant the  
leaves, in the service the leaves, in the Acorn the leaves, & in the leaves of  
palme Christi, certayne long things like fingers come forth,  
yet every one of them is not a leafe alone, but fyve or seven

come for one undivided piece, but they make but al one leafe,  
because they are rayned altogether unto an undivided  
piece of leafe, oute, the which they come. This is the Agave casto  
because altho fyve or seven leaves come oute of one fote stalk:  
yet of it there, because they are not rayned together as the  
bottom, & come not oute as it were of one palme, in this fashion of  
leafe, every longe thing is taken for a leafe alone.

Bound to Wm. Cruickshank Descendants

This part, March 1568. the paper 1564 200 times in the  
part he takes, but unknown to "adventos"

Quots "the Practitioners of fleming" p 5

Trays p 7  
Mesa.

Ruoms, A. Q. Introductio Generis in  
Rem Herbariam Episc. 1650-1695. [L. 1. 4]

46

p 30 71690 par  
ex inspeccione florum apparet ilico, ad quem ordinem,  
hoc est, ad quoddam genus summum pertineat haec  
vel illa planta: ex inspeccione florum appari ilico, ad  
quem ordinem, hoc est, ad quoddam genus summum  
pertineat haec vel illa planta: ex inspeccione fructuum  
addisemus genus cuius proximum: ex inspeccione  
foliorum, radicum etc. differentiam specifiacam.

p 32  
A little in the plants are divided into a number 1  
frump, aculeo, & primum a dicitur 1 cordis (gaultheria, a  
Casei) + is regular or irregular; simplicis or compound.  
The frump call Monopetalo; Dipetalo; ... Poly petalo.

J. S. Hanks (1944) ? Note Collecty Expeditions  
in Mexico & South America. In Systematic Classification  
of the Collection. (Imperial Bureau of Plant Breeding &  
Genetics of Canada.)

<sup>whitish</sup> Salaman <sup>p 4</sup> says <sup>that</sup> a soldier Castellanos saw potatoes  
the first time in native huts near the village of Soroesta (Colombia)

First botanical description by Gaspar Bauhin in  
Phyllogonon 1596. Same name Solanum tuberosum  
which was retained by Linnaeus.

His likely true origin is in his tubers for Cuzco  
Chusico record from Philippe de Sorey in 1588. These  
tubers which came from Italy from Chusico (1601)  
says that the potato was from the same time.  
175. No direct potatoes came from Spain in the first  
place. Salaman has shown that the ones from  
their country - 1573 or even 1570

p 7  
At the present time some 20 cultures or 150  
wild species of Potatoes have been described.

Summary p 111  
The author concludes that the plant was first  
cultivated in the region of S. Peru - N. Bolivia.  
He believes that the first introduction of potatoes  
were from the Andes, more probably Colombia, &  
not, as has so often been supposed, from Chile.

See also Hanks J.S. 1945 1 & 2  
of his 7 potatoes. Hort Bot. box XIII

SMOLLETT'S LETTER TO  
PHILIP MILLER

Mr. Lewis M. Knapp writes from Colorado College, Colorado, U.S.A. :—

Sir.—Those who are curious about Smollett's activities as editor of the *Critical Review* will be interested in the complete text of his letter to Philip Miller of Chelsea, dated January 20, 1759. A portion of this epistle was printed in the Caxton and Son, London, ca. 1935. (See item 226.) From that firm I purchased the original manuscript of the following letter, which is still in my possession. The holograph, I was told, came from Holland in a collection of letters written to prominent botanists, and such a provenance may explain the presence of "21" written in ink on both sides of the paper, and sealed. The watermarks in the stationery where the sheet was torn, and of capital letters, which appear to be EKKBAINK, presumably the name of the paper-maker. On one side of the sheet is written: "To Mr Philip Miller at his House in Chelsea." On the other side is the following communication:—

Dear Sir

If you are at Leisure I should beg as an addition to all your favours, your opinion of this late Performance of Hill's, which I send with the Bearer, together with your Essay on the Papyrus; your other Book I shall transmit one of these days. If we could have your Thoughts on the method of producing double Flowers from single, in a few days, so that they could be inserted in the number for this month, it would be a double obligation on

Sir

your obliged, humble servt

T. Smollett

The recipient of the above letter was Philip Miller, F.R.S. (1691-1771), Gardener of the Botanic Garden at Chelsea from 1722 to 1770, and also an eminent botanist, a friend of Linnaeus, and author of the "Gardener's Dictionary" and numerous other botanical works well known in his time. On the basis of this letter, and of Smollett's reference to "the ingenious Mr Philip Miller of Chelsea" in

"Humphry Clinker" (letter of Bramble, Edinburgh, August 8), we may assume that the novelist and the botanist were friendly neighbours while Smollett lived in old Chelsea.

The more particular significance, however, of Smollett's letter is what it suggests as to Miller's occasional contributions to the *Critical Review*. The "late Performance of Hill's" of which Smollett requested Miller's opinion, was the new work by Dr. John Hill entitled "A Method of Producing Double Flowers from a Single, by a Regular Course of Culture," illustrated with figures. London, 1758. As an unfavourable review of this publication appeared in the February issue of the *Critical Review*, 1759, it would seem that Miller lost no time in complying with Smollett's request to send his "Thoughts . . . in a few days." The review referred to (*Critical Review*, VII [1759], 118-123) is, I conjecture, Miller's report, except for the opening paragraph and the final sentence, in both of which words, the review is doubtless another instance of Smollett's editorial revision of material which he solicited from various experts. (See Claude E. Jones's "Smollett Studies," University of California Press, 1942, pp. 87 ff.)

In the above letter another matter which calls for brief comment is Smollett's statement that he is returning "your [Miller's] Essay on the Papyrus." Since no pamphlet or book on the papyrus seems to have been written by Miller, my belief is that Smollett was sending back Miller's copy of Count de Caylus's "Dissertation sur le Papyrus," published in Paris in 1758. Of this new book a précis, prepared no doubt by Smollett, possibly with assistance from Miller, appeared in the same number of the *Critical Review* which contained the appraisal of Hill's "Method." (See *Critical Review*, VII [February, 1759], 168-169.)

What other assistance Smollett received at this period from Miller, who, incidentally, was thirty years older than the novelist, I do not know. Should the file of the *Critical Review* containing the reviewers' names become available, more light might be shed on Miller's favours, for which Smollett, judging from this letter, was duly grateful.

49  
Ap. 11

## A GALEN TEXT

### GALEN ON MEDICAL EXPERIENCE.

First Edition of the Arabic Version with English Translation and Notes by R. WALZER. For the Trustees of the late Sir Henry Wellcome. Oxford University Press. London: Milford. 12s. 6d.

Galen is among the most interesting and least explored writers of antiquity. Of the bulk of ancient medical writings that has come down to us, about three-quarters is made up of works to which his name is attached. He is almost our only source for ancient anatomy and physiology, as well as for knowledge of the different medical "sects," and for the philosophical implications that their differences involve. He was, moreover, himself something of a philosopher, and his writings throw light on the status of the Stoic and other philosophical creeds. Further, he had an eventful life, having migrated from his birthplace at Pergamum in Asia Minor via Alexandria to Rome, where he acquired an extensive practice and was the medical attendant of two emperors. Some of his books have personal touches which give no little insight into the life and society of Rome under the Stoic emperor Marcus Aurelius. Galen was himself somewhat loosely attached to the Stoic creed. He is also one of the very few classical writers who quote the Scriptures and speak of Christianity and Judaism with respect. Certain of his writings provided the substance of medical practice for at least fourteen centuries, and his physiological and anatomical and some of his philosophical views were prevalent for an even longer period. He has provided an appreciable proportion of the technical vocabulary of modern science. Some of his works, among them that with which Dr. Walzer has to deal, have reached us in the most romantic ways, surviving only by an extraordinary series of accidents. Hardly any of Galen's works are available in English, and he has been much neglected by historians of science.

For reasons unexplained Dr. Walzer does not say a word on any of these fascinating topics. He presents a competent translation of a text which has come down in an Arabic version but has not survived in the original Greek except for two substantial fragments. Of these he gives the Greek text without an English translation. It is to be hoped that he has in mind another volume which will give something of the setting of the work.

Galen did not number literary skill among his talents. He is always verbose and here, as is usual with him, when treating philosophical topics, he is windy and repetitious. Nevertheless, important and interesting matter lies concealed in the mass of verbiage. The text of Dr. Walzer's version may be described as a highly involved argument against

complete adherence to any of the medical sects of the second century A.D. From it we can learn something concerning the dogmatist, the empiricist and the methodist schools of medical thought. Thus the work would form an admirable text for an explanation of the nature of these little-understood philosophico-medical groups. Unfortunately Dr. Walzer has here also restrained himself from imparting knowledge which he is probably better equipped for expounding than anyone in this country. We must therefore await his further volume before it will be possible for any but a minute group of extreme specialists to profit by this one.

14650

THE TIMES LITERARY SUPPLEMENT SATURDAY JANUARY 5 1946

THE

AP 12

THORNDIKE, LYNN, and BENJAMIN, FRANCIS S. (Editors.) *The Herbal of Rufinus*. Edited from the Unique Manuscript. 9x6. xliii, 476pp. University of Chicago Press. London: Cambridge University Press. 27s. 6d.

An edition of the Latin text of the late thirteenth century work of Rufinus on herbs, made from a photograph of what seems to be the only manuscript extant, in the Laurentian Library at Florence. The editors' claim for the herbal is that, although it is largely a compilation, Rufinus's own additions to the work of his authorities make his descriptive botany for particular plants "more specific and discriminating than that of any previous author, ancient or medieval."

T. A. Sprague. *A Thirteenth Century Herbal*. Notes v.1  
157 1546 pp 45 4-5

The Herbal, Rufinus. Edited by Lynn Thorndike, assisted by F. S. Benjamin Jr.  
Chicago 1915

Rufinus copied herbal not long after (1200)  
montz, title about 1200 in type.

Rufinus did not know Albertus Magnus  
mostly compendary but contains much original matter

## ADVENTURING FOR FLOWERS

PLANT-HUNTING IN CHINA. A History of Botanical Exploration in China and the Tibetan Marches. By E. H. M. Cox. Collins. 12s. 6d.

Books on plant-hunting may be written from either of two points of view, the strictly botanical, with its emphasis on the collection of herbarium material and its equal interest in all forms of plant life, or the horticultural, caring only, or at least primarily, for the beautiful or useful plants most suitable for introduction into the gardens of the writer's own country. Mr. Cox, though he realizes the importance of systematic botany and of well prepared specimens, is among the gardeners, and his book is a short account of the hunt for Chinese plants suitable for British (and to a less extent European and American) gardens.

The story is one that is bound up, and fluctuates, with the political and commercial relations of China to the outside world. For a century and a half, beginning round about the year 1700, while foreigners were confined to the immediate neighbourhood of the treaty ports, especially Canton and Macao, scarcely any collection of wild plants was possible, and the early collectors had to limit themselves principally to garden plants. The first name of any substance is that of James Cunningham, who entered the service of the East India Company as surgeon in 1698 and was sent to Amoy. Before he died, in about the year 1709, after various adventures in China, Cochinchina, and Java, he had dried specimens of some 600 species, which passed into the possession of Sir Hans Sloane. Cunningham also introduced a few plants to this country by seed, notably *Hibiscus Manihot* and *Rhus semialata* which were grown in the Chelsea Physic Garden. Another English name in the eighteenth century is that of John Bradley Blake, who went to Canton in 1766 and introduced some Chinese economic plants to Europe and America; and the same century also saw botanical work by the Jesuit missionaries, especially D'Incarville, who sent seed of the Tree of Heaven both to England and France.

About the beginning of the new century the earliest professional collectors went to China, the first to stay there any considerable time being William Kerr, after whom the well-known yellow-blossomed garden shrub *Kerria japonica* is named. Another of his introductions was the Tiger lily, which he sent to Sir Joseph Banks in 1804, and which William Townsend Aiton propagated at Kew. Other garden plants sent to England about the same period were camellias, tree peonies, and *Wistaria sinensis*. The most important addition of those times to the European flower garden was, however, the chrysanthemum, of which one variety had been successfully introduced to Marseilles in 1789, and eight others to England between 1798 and 1808, with many more rather later.

The collecting of wild plants on any considerable scale in China may be said to have begun with Robert Fortune, who was first sent there in 1843 by the Horticultural Society. But it was not until after the war of 1860 that much exploration of the interior of China became possible, and in this an important part was played by Père David, Père Delavay, and other French missionaries. With Ernest Henry Wilson (1876-1930), who worked chiefly in Szechuan, began the great modern period of Chinese plant collecting, during which English horticulture has been so vastly enriched by such men as George Forrest (1873-1932), who found *Gentiana sino-ornata* in Yunnan; Reginald Farrer (1880-1920), who had the gift of writing with infectious enthusiasm about the plants he found in Kansu and Upper Burma, and whom Mr. Cox accompanied on his last journey; and Mr. Frank Kingdon Ward, who has made Upper Burma and Yunnan his special province.

Mr. Cox has packed a great deal of information into a comparatively small space, so that readers have a rather hard task of assimilation set them, which would have been greatly eased by a general map of China, in addition to the three localized maps which the author gives.

## LONE FLIGHT

ALONE OVER THE TASMAN SEA. By

FRANCIS CHICHESTER. Allen and Unwin. 10s.

Even the stoutest-hearted and most experienced pilot would quail at the idea of attempting a solo flight over the notorious Tasman Sea in a light trainer—mainly, perhaps, because his experience would warn him of the many hazards. Yet, in the days when astronomical navigation was a little known science, Mr. Chichester set out from New Zealand with only a small sextant, a pocket chronometer and a seaman's book of nautical tables to guide him to Australia by way of two small islands which were mere specks on the map.

Mr. Chichester not only had to fly the small seaplane, but at the same time to make observations from the sun and plot his course. On the second stage of the journey—from Norfolk Island to Lord Howe Island—the radio went out of action and the vibration of a "rough" engine began to break up the flying instruments one by one, but the pilot landed without mishap, only to have his machine capsized by a gale while at anchor. This meant that the seaplane had to be completely dismantled and rebuilt. The last stage of the flight to Australia was accomplished with one magneto "dead" and the other threatening to give up the ghost at any moment.

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86 GLISSON, FRANCIS. DE RACHITIDE, sive Morbo Puerili, tractatus. Leyden, 1671. 8vo. Fine engraved frontispiece (reproduced p. 653 Major, Classic Descrip. of Disease, showing some interesting pictures of patients). 8 ll., 428 pp. with several s. Old calf, gilt back. £6.6.

replaced by Whistler and others in the description of infantile rickets, Glisson's account that had till then appeared... This, the third edition, is the best of the early editions.

### THE Hammer for the stone.

So named, for that it sheweth the most excellent least remedie that ever was known for the same.

Lately devised by WALTER CARY  
Surgeon of arte, and Student in physick.



Printed at London by John Windet for Henry Denham. 1586

No. 44. Cary, The Hammer for the Stone, 1586.

CARY, WALTER. THE HAMMER FOR THE STONE. So named, for that it sheweth most excellent remedie that ever was known for the same. Lately devised by C. Maister of arte, and student in physicke. London, by John Windet for Henry nham, 1586. 16mo. With fine woodcut on the title page, 12 ll. Printed in black ers and Italics. Brown morocco (Riviere). £105.

ly copy known, the Ham House (Earl of Dysart) copy. n very much obliged to Mr. F. S. Ferguson about the bibliographical details relating his book. There are three separate editions of it: H. Denham, 1580. Copies in the B.M. (but not in the catalogue) and Huntington ary.

H. Denham, 1581. Huntington Library. Later appended to some copies of Cary's n very much obliged to Mr. F. S. Ferguson about the bibliographical details relating his book. There are three separate editions of it: ohn Windet for Henry Denham, 1586 (this copy).

s these separate editions The Hammer for the Stone was reprinted in Cary's ll to Physicke, 1587 and 1611.

See Reproduction (orig. size) opposite.

E. WEIL, BOOKSELLER,

GIULIO. TABULAE ANATOMICAЕ LXXIIX, omnes novae nec ante hac Bucrētius XX quae deant suppletit et omnium explicationes addidit. Engraved title, 2 ll. and 97 anatomical plates, drawn by ialetti (1573-1638), the master pupil of Tinoretto; engraved by sio. Each plate with explanatory text on verso. Two books in one alf, rebound. £63.

pp. 225-26. De Feyfer, Vesal D.61. Cush. Libr. S361; C114. very good large copy.

of Casserius in 1616 he was succeeded by his pupil Adrian van der 25), known as Spiegelius. This man is the last of the great Vesalian fessors of anatomy, which began with Vesalius) and, on the death of ased to lead the world in anatomical study. We observe that the esembled the first in being a native of Brussels, and having studied

Digitized by Hunt In... Documentation

"The anatomical works of Spigelius appeared in 1627. The text describes the lobe of the liver still called 'Spigelian'..." (Singer, Anatomy).

"A wonderful union of scientific accuracy with artistic perfection was attained in the Tabulae Anatomicae of Giulio Casserio, whose 'eviscerated beauties' are as attractive to student. These of Spigelius..."

178 MALPIGHI, M. DE PULMONIBUS OBSERVATIONES ANATOMICAЕ. In: T. h. Bartholinus: De Pulmonum Substantia et Motu Distribue. Copenhagen, Typis Henrici Godiani, 1663. 8vo. 4 ll.+127 pp.+4 ll. With 2 plates. Old calf, gilt back. £17.10.

Frati, No. 11. Not in the Cushing Library.

The very rare second edition; the first edition of 1661 is of outstanding rarity and as far as I know no copy has ever been offered for sale. "Malpighi's name will always be associated with the discovery of the capillary circulation. He found that the lungs and mesentery of a frog could be so exposed beneath a microscope that the vascular pathways might be brought into view under relatively high magnification. He then saw the small communications between the ends of the arteries and the beginnings of the veins... This account is contained in the second of two letters addressed to his friend, Borelli, which were published under the title "De Pulmonibus"... In the first letter he had given an account of the bronchioles and the vesicular structure of the lung..." (Fulton). Stamp on the title, good copy.

179 MARAT

... we see urolithic landscapes. The work was published at Crema's expense and is rare." (Choulaunt-Frank, with two reproductions). When Choulaunt in 1852 considered this work rare, it is easy to conclude that it is very rare now.

#### DESCARTES AND THE CIRCULATION OF THE BLOOD.

106. REVUE MEDICO-CHIRURGICALE. 1855. IAN. 1855. IAN. BEYEROVICII EPISTOLICAE QUAESENTIIS CUM

43 CARRICHTER, BARTH. PRACTICA, auss den furnemesten Secretis, weiland des Edelen unnd Hochgelehrten Herren B.C. der Roem. Kay. May. Herrn Maximilian des Andern... Hof Doctors.—Von allerhand Leibskrankheyten: Von Ursprung der Offenen Schäden und ihrer Heylung. Strassburg, Ant. Bertram, 1590. Sm. 8vo. Title in black and red. 8 ll., 160, 183 pp. Half vellum. £5.5.

Very little is known about Bartholomaeus Carrichter, physician in body to Maximilian II and Ferdinand I. His Practica, edited by Michael Toures, a pupil of Paracelsus, is an early example of a medical handbook in a vernacular. It is interesting for its chapters on ophthalmology, dentistry, gynaecology and generally for the good humor with which the book is written. Some stains on the title and a few leaves. Very rare. Following this are two letters from a certain personage on Louvain to Descartes and his replies. The discussion is so full of interest, as the first of importance in literature following the 'De motu cordis' of 1628, that I have had the letters translated."

"Descartes was the first foreigner of distinction (though really at the time he was not known as an author) to accept Harvey's views." (William Osler).

5. ANIS FIGURIS Ed. L. Crema. 1 pp. With nine, Tinoretto's pupil. £31.10.

ad bought several to publish a few fine plates dealing in his own explanation of the beautiful abdomen cut

Animalis.

8vo. Fine engraved frontispiece (reproduced p. 653 Major, Classic Descri. of Disease, showing some interesting pictures of patients). 8 ll., 428 pp. with several woodcuts. Old calf, gilt back. £6.6.  
"Although anticipated by Whistler and others in the description of infantile rickets, Glisson's account was the fullest that had till then appeared . . . This, the third edition, is the best of the early editions, Good copy.

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45 CARY, WALTER. THE HAMMER FOR THE STONE. So named, for that it sheweth the most excellent remedie that ever was known for the same. Lately devised by W. C. Maister of arte, and student in physicke. London, by John Windet for Henry Denham, 1586. 16mo. With fine woodcut on the title page, 12 ll. Printed in black letters and Italics. Brown morocco (Riviere). £105.  
Only copy known, the Ham House (Barl of Dysart) copy.  
I am very much obliged to Mr. F. S. Ferguson about the bibliographical details relating to this book. There are three separate editions of it:  
(1). H. Denham, 1580. Copies in the B.M. (but not in the catalogue) and Huntington Library.  
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(3). John Windet for Henry Denham, 1586 (this copy).  
Besides these separate editions The Hammer for the Stone was reprinted in Cary's Farewell to Physicke, 1587 and 1611.

See Reproduction (orig. size) opposite.

E. WEIL, BOOKSELLER,

48

CASSERIO, GIULIO. TABULAE ANATOMICAЕ LXXIII, omnes novae nec ante hac visae. Daniel Bucerius XX quae deant supplevit et omnium explicationes addidit. Venice, 1627. Engraved title, 2 ll. and 97 anatomical plates, drawn by Odoardo Fialetti (1573-1638), the master pupil of Tintoretto; engraved by Francesco Valesio. Each plate with explanatory text on verso. Two books in one. £63.  
volume. Old calf, rebacked.

Choulant-Frank, pp. 225-26. De Feyfer, Vesal D.61. Cush. Libr. S361; C114. Original edition; very good large copy.

"On the death of Casserius in 1616 he was succeeded by his pupil Adrian van der Spiegel (1578-1625), known as Spiegelius. This man is the last of the great Vesalian line (of Paduan professors of anatomy, which began with Vesalius) and, on the death of the Spiegelius, Padua ceased to lead the world in anatomical study. We observe that the last of the dynasty resembled the first in being a native of Brussels, and having studied first at Louvain.

"The anatomical works of Spiegelus appeared in 1627. The text describes the lobe of the liver still called 'Spigelian' . . ." (Singer, Anatomy).

"A wonderful union of scientific accuracy with artistic perfection was attained in the Tabulae Anatomicae of Giulio Casserio, whose 'eviscerated beauties' are as attractive in appearance as their dissected parts were held to be instructive to the student. These Corregio-like plates of Casserio were incorporated in the atlas (1627) of Spiegelus . . ." (Garrison).

287 SPIGELIUS, ADRIAAN. DE FORMATU FORTU LIBER SINGULARIS, ANIS FIGURIS ORNATUS. Epistolae duae anatomicae. Tractatus de Arthritide. Ed. L. Crema. Padua, Io. Bapt. de Martinis and L. Pasquati (1626). Fol. 4 ll., 104 pp. With nine, very fine, full page engravings, after designs of Odoardo Fialetti, Tintoretto's pupil. £31.10.  
Half morocco.

Chaulant-Frank, p. 226. Cushing Library S360. Original edition, a very good copy.

"Spigelius' son-in-law, the physician Liberalis Crema of Padua, had bought several copperplates from Casserius' grandson and when in 1626 he wished to publish a few selections from the posthumous works of his father-in-law, he chose nine plates dealing with the pregnant uterus, placenta, and the child, and added them with his own explanations. These plates are among Casserius' most beautiful engravings. Four of them represent entire female figures with the abdomen cut open. At their feet we see decorative landscapes. The work was published at Crema's expense and is rare." (Choulant-Frank, with two reproductions). When Choulant in 1852 considered this work rare, it is easy to conclude that it is very rare now.

DESCARTES AND THE CIRCULATION OF THE BLOOD.

106 BEVERWIJCK, JAN VAN. JOH. BEVEROVICII EPISTOLICAE QUESTIONES CUM DOCTORUM RESPONSIS.—Accedit Medicinæ Encomium.—Rotterdam, Am. Laers, 1644.—8vo. 8 ff. + 250 pp. + 140 pp. (Contains on pp. 118-149 the exchange of letters of Descartes and Beverwijk on the Circulation of the Blood, illustrated with one figure). Vellum. £12.10.

Bibl. Osleriana 722: "Van Beverwijk was an enterprising young physician of Dordrecht, who sent questions to various distinguished people, and then published his letters and the answers. On p. 118 is a brief letter asking Descartes if it is true that he has clearly established the circulation of the blood, leaving no one any room for doubt. Descartes' reply, dated 1643, is a full acceptance of Harvey's views, except as regards the motion of the heart. Following this are two letters from a certain physician at Louvain to Descartes and his replies. The discussion is so full of interest, as the first of importance in literature following the 'De motu cordis' of 1628, that I have had the letters translated."

"Descartes was the first foreigner of distinction (though really at the time he was not known as an author) to accept Harvey's views." (William Osler).

— Animals.

CRUVEILHIER'S DISEASE

JEAN. ANATOMIE PATHOLOGIQUE volumes, consisting of 40 parts. Half calf, contemporary binding of great rarity. Garrison-Morton takes this one of the great professor of Pathological Anatomy (in vol. 2) and an early description of Cruveilhier's disease' has been given, p. 687.

of the few copies known some:

185. OBSERVATIONS GÉNÉRALES 220, 430 pp., 1 leaf. With large colours. Old calf, gilt back, gilt edges.

Well-known work in much sought after but does not mention it. Fine copy.

TRAITE COMPLET DE LA GONORRÉE d'un Mémoire sur la Construction de la Vessie. Paris, 1756. 8vo. With

there is a wormhole in the lower inner margin.

G. CH. BIBLIOTHÈQUE DES MÉDECINS Paris, 1847. 69 pp. Half cloth.

1814-1844 annotated copy of Desmoulin's Greek and Latin Medical classics, published before his death. The prospectus gives specimens of the Collection (2 Volumes) of 1851, (80 pp.) the last

Y.—BOURDET. SOINS FACILES POUR L'ÉRADICATION DES DENTS et pour faire évider sans Effort Paris, 1771. 16mo. 248 pp., 2 ll. Coloured plates and dentelles.

difficult to find such a superb copy in a modern edition of the XVIIIth century. Bourdet was a See Hirsch, Aermx Lex. I, 542.

178 MAY 25 1850

...ses of M.D., to mention a XVIIIth century ...  
...tioned, in 1712 Ant. de Jussieu's theses, etc.—Very good copy.

ICAL EPIGRAPHS.—BLANCHARD, R. EPIGRAPHÆ Medicinæ ad Medicinam Biologiam spectantium. Paris, 1800. Vellum. Half niger morocco.

...tionably begun collection of epigrams of medical men and all sorts of other literary ...  
...s, etc., of medical interest. All that has been published; complete with a

ICAL SAINTS. VADE MECUM. MISSALE ITINERANTUM, seu ...  
...de devote. (Nuremberg, W. Huber, 1510). 4to. Title printed in red and black in Gothic Letter. Fine, full

...ssel types, text printed in red and black in Gothic Letter. Fine, full ...  
...ification, dated 1510 and small woodcut of St. Veronica's head. 49

...his early missal for travellers is interesting for the historian of ...  
...the prayers against different diseases: against the plague to St. ...  
...reint epitome ("St. Anthony's fire") to St. Anthony the Healer ...  
...Apollonia (p. 36), etc.



...vous, vous le quitte ...  
...gite de l'homme ...  
...to/old anatomy ...

Chert. 5182.

4 Ashford Road,  
Cheltenham, Glos.

Jan. 19, 1954

Dear Mrs Arber,

I got your delightful paper  
this morning and read it all  
before getting up! The account  
of *Jew* and *P. J. Camerarius*  
is especially interesting to me.

Since you are interested in  
the history of terminology, you  
might like to make a note of  
a few terms used by *Plinius*  
in the 13th century.

gamba (Rufinus, p. 22, sub Ambrosia;  
p. 50, sub Aucha herba; p. 95, sub Cicuta,  
et proxim); dim. gambula, gambullo  
a stalk, stem (lat. gamba, a hoof;  
gamba it. sp. jambe fr., leg from  
the knee to the foot - see Dies  
Thym. Wörterbuch d. Romanischen Sprachen,  
ed. 3, 1, p. 198. 1869)

stipes, a stalk, stem (no apparent  
difference in meaning from gamba!)  
rapulum, lit. a little turnip, hence a  
globose head

acus, a slender straight pointed stem  
like a needle, hence a spike  
(N.B. <sup>similar</sup> racemes with short pedicels  
would be called acus)

[h.] stern a straight stem (p. 189, sub Marcagon)  
[h.] astula, lit. a little spear, hence a  
straight stem (p. 50, sub Atanasia)  
a straight rachis of a raceme (p. 63,  
sub Bursa pastoris)

Barbula, lit. little beard hence used  
for the triangular lobes of a hastate  
or sagittate leaf (p. 54, sub Barba  
Aaron)

pomum, orig. a large rounded  
fleshy fruit, hence applied to  
a rounded tuber (ibid.) and  
to the capsule of Pinguicula (p. 206, sub Pinguicula)  
promellus dim. of pomum, applied  
to the little rounded groups of  
male and female flowers in  
Arum (ibid.)

Capsula, capsulla, lit. a little  
box, hence applied to any enclosing  
structure, e.g. the capsule of Papaver  
(p. 229), and the spathe of Arum  
(p. 54, sub Barba Aaron).

pinca, lit. a pine-cone, hence applied  
to a structure of similar shape, e.g.  
the acute unopened spathe of  
Narcissus (p. 202, sub Narcissus).

N. 13. asta is not necessarily a  
straight stem — see p. 302, sub  
Papillum Salamensis, Synonyma, we  
find "facit artem flexam in arcu."

Of course Rufinus and earlier  
authors did not use an exact  
terminology: they made extensive  
use of comparisons.

Kindest regards from us  
both  
Yours sincerely

J. A. Sprague

P.S. No reply needed unless  
you want further information  
about any of these terms.

This is merely a letter of  
thanks J.A.S.

Thomson, L. (1946).

53

p xii. Rafin herbal "not long after AD 1287)

---

Simon Corda of Geneva. Synonyma medicinale

from after 1292. p xiii. Simon "had from his wife an old wife) Crete than not of the Greek names, herbs  
infirmitate virtus. He cites the "grece herbarii" more than one."

---

Dr Nicolaus Damascenus see

E. H. F. Meyer. Niculai Damasceni de  
plantis libri duo Aristoteli vulgo adscripti. 5x  
Isaacii Ben Hanain versione arabica latine vertit  
Alfredus. (Zeyher 1844)

p xi No una ms) Rafines i. t. Laurentia Kely

on - = l. n. v. e.

---

Herb. Herdell

Cop XLV

Anthera (see rose picture)

"Anthera hater = gelowe  
floure"

= See also 17 II 130 B



Christo.

1 Nov. 1944. 36  
54  
A.L.L.

My dear Mr. Arber,

Are you by any chance free on Saturday week Nov. 11  
& if so could you & Muriel have tea here that afternoon?

In the course of excavation (I'm really digging up quite a  
lot of territory - nasty messy job) I've come across two coals  
for you. So I'm sending them to Newcastle. Of course you will  
have had knowledge of them years ago.

(1) The charming wood-cut of Jean Bauhin in the De Plantis  
Romeis Absynthii (1593). I know you like him: so do I: & this is  
much nicer than the rather Assyrian likeness of Godland.

(2) "Semen Rosarum hic significat Antheram id est luteos apices  
qui sunt in Rosis": this from Pieter Condenberg on Valerius Cordus p. 283  
published Leyden 1593. Is this mention of Anthers & the male seed  
not very early? At least it is nearly a century before the (I may think)  
tale of Dr. Millington to whom Grew gave undeserved credit.  
Condenberg seems to me a very worth-while person. Turner & De l'Esclapart  
have a great respect for him.

Even if you know all about my two finds, I think you ought  
to give me a pat on the back for finding them!

At the moment I'm doing Bestiaries & the medicinals!!

Yours very sincerely

C. Raven

repld in Wood. copy of de l'Esclapart  
Huboll & Camerarius. semi  
anthera com. in my herb. 1 le  
flower in mpe. 1 le

Healy Anatomy

55

Drope F (16, v) under Shamosh Hh. 19.7.

pp 114-5.

Central joint + annual rings

see

(2) 40

Candolle, A. de (1866)

Rep. <sup>p 52</sup> sur Linnæus' views.

one) his "idées de prédilection" on <sup>the</sup> the cortex, the  
branch (found the calyx), the flower, the leaf, the corolla, the  
wood to stamens & the pith the pith.

Phil. bot. 86; Melampyris plant. in Annen.  
acad 4. p 370, 374; prolepsis, ib 6 p 336

De Candolle points out ~~that~~ he treats the root as ~~a~~  
as a hypothesis ~~in~~ as a fact.  
His theory of prolepsis in the evolution of organs prepared - he holds  
during five or six years in the uterus, the plant

Annen. acad. vol 6 p 330 et seq.

p 58

Aug A - P de Candolle described during his life time 6,350

of new species,

in V Hooker pulled up <sup>4</sup> <sup>orig. plates</sup>  
(fines. find my details <sup>over the number of plates</sup>  
differs <sup>colours</sup> have <sup>published</sup>).

Beisly, Henry SHAKESPEARE'S FLOWERS  
Theophrastus' garden as the Plants & Places  
named in his works described & defined  
Londr, Longman, Green, Luzerne, Roberts, & Green  
1866

[XXIX. 18.21] <sup>small</sup> <sup>parallel</sup>  
A few feet bore full <sup>the</sup> <sup>of</sup> <sup>the</sup> <sup>best</sup> <sup>of</sup>  
~~apparently~~ ~~strongly~~ ~~only~~ ~~from~~ ~~the~~ ~~same~~ ~~series.~~  
cultivated all the time cultivation, earlier

revised / copy / made  
Ellacombe, H. N. (1884) The Plants & Places  
Garden & crops of Theophrastus. 2<sup>nd</sup> ed. [1<sup>st</sup> ed 1878 xxvii. 75. 42]  
Londr. Satchell & Co., & Longman & Marshall.

[M.H. 2<sup>nd</sup> 12.17] (This is also an 1896 ed. &  
useless, since I think it is almost the same as crossed and  
so less easy to read. Ellacombe & I like his book better.)  
I have never seen it lost at V.C.

Savage, F. J. (n.d. ? 1928)  
The Flora & Plants of Theophrastus  
Cheltenham - E. J. Burrows & Co.  
724. d. 492. 10. Written by local man at  
Stratford

Books - ~~Ship~~ Shakespeare's flowers  
Lots up of Dr. Walt  
on 10.4)

All 3 very unscholarly but Beisly & Ellacombe  
would be worth having. No red letters since  
Theophrastus comes, but a lot of miscellaneous  
quotations for <sup>contemporary</sup> & earlier writers.

724.C.93.53 Shakespeare's Wild Flowers. E.S. Richards  
Maine Socy

58

Republic edn. Illustrations for a drop of Jacques  
Le Moyne de Moynes in V.A.  
in blue ink for the Cliff des Champs  
724.C.93.53

Shakespeare England vol I Claude Pons 1916  
Notes Hortus. plus XV. § 3. II pp 500-515.  
W. J. H. Threlton - Dyer

Al. 7 Barrmore

Oct. 22.

Al. 7.

Digitized by Herbarium Institute for Botanical Documentation

Dear Mr. Barber  
I am afraid the  
more recent books on Shakespeare  
Flora don't add a great deal  
to the earlier published ones.

I have

"Shakespeare's Flora and  
Folk-lore" by F.G. Savage  
pub. Sheffield 1923

American "The Shakespeare Garden"  
by Esther Singleton. Cecil Palmer  
New York 1923  
429.C.43.17

"Shakespeare's Garden" by  
Ernest Law. Felwyn & Blount 1922

S/S - as the  
9167

The Shakespeare Flora of Leo  
(Populatio my house some useful stuff in it)  
H. Grindon. Manchester 1883.  
XXIX. 24. 38

There is a still more recent book  
by (I think) Leann Rohde -

an old volume of the "Eleanor" -  
but this I haven't yet acquired  
or seen. The older books I

know. The older books I  
Macomber & Beisty & publis  
know. Publ. P.M.C. 93.53

I could lend you any or all  
of these (except Rohde) to look  
over, if they would be of any  
use to you.

Bulbin re  
Sincerely yours  
M. A. M. Macalister

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85

## Somerset Grows It for Yorkshire

TEAZELS *see also Henshall, T. (1946) Imp. H.C. Bull.*

By K. E. MARSDEN

AUGUST brings an event of great importance to Yorkshire's staple trade, woollen cloth manufacture, an event which is unique in view of this importance, because, with it, Yorkshire folk have little direct connection; though, without it, many of the cloths for which the shire is famed would be well-nigh unobtainable.

The event takes place in South Somerset, around the villages of Hatch Beauchamp, West Hatch and North Curry. The annual harvesting of teazels is the event; the resulting crop being sent to Yorkshire in October for use by the cloth finishers of the Broad Acres Shire.

Teazels perform a major rôle in the finishing of all good quality woollen-face cloths. Naval officers' uniforms are made from cloth of this type. The teazel, a plant of cylindrical shape, possessing diversity of flexibility from top to bottom, with greater pliability at the point of its petals than at its root, is used in the cloth-raising process.

The teazel seed is sown in March, and the teazel-beds hand-cultivated during the summer, with transplanting taking place in October. Flowering commences in the following July, with harvest one month later. Seed-time to harvest-time entails seventeen months' hard work and patience on the part of the teazel farmer.

Harvest work demands skill and experience, and the harvesters wear thick gloves as protection against the danger of their hands making contact with the prickly head of the teazels.

It is important that the head should remain intact; this being the part of the plant, by use of which the wool fibres of cloth are combed in straight



TEAZELS GROWING AT HATCH BEAUCHAMP

holders have been known to find them growing in the garden; others have used them as a hedge to protect the house-front. Those who have made the latter use

of the plant report that it thrives in heavy clay soil among cinders or between paving stones. Teazels have been cultivated in Somerset for at least eight hundred years; even there, however, somewhat of a decline has taken place during the present century. One factor has been the increased need for arable land; another, the seeming lack of younger men to take the places of the older craftsmen who have spent a whole life-time in teazel-growing. Furthermore, on the demand side, the call for teazels has lessened since the introduction of card wire raising methods into the cloth trade.

Card wire raising provides an alternative to teazel raising; use being made of pointed wire teeth, mounted on strips of a



A TEAZEL CUTTER'S KNIFE

Ap. 15 60

Mar 1940

BOOK PRIZES CURRENT

AN interesting note in a recent number of the *Journal of the Royal Horticultural Society*, November 1947 (Vol. 72, p. 450), recalls an event unique in bibliographical annals which may be fresh to some of our readers. A medical man who secured the passage of an Act of Parliament permitting him to organize a public lottery in order to dispose of his unsold works is certainly worthy of notice. Robert John Thornton (1768-1837), of Cambridge and Guy's Hospital, began practising in London in 1797, but devoted the greater part of his time to the writing of medical and botanical works. These latter have brought him lasting fame, for in spite of the unorthodox manner in which he disposed of them, they are of great merit.

The original handbill advertising the lottery is reproduced in the journal noted above. It is announced as 'A Royal Botanical Lottery for the promotion and encouragement of the Fine Arts and Science' and in a note below patrons are informed that 'This Lottery was passed with the unanimous consent of Parliament.'

Twenty thousand tickets at two guineas each were offered for sale, and ten thousand prizes. The first prize consisted of all the original paintings ('The Linnean Gallery') which had been specially executed for the illustration of his works—value £5,080. There were 199 prizes of his complete works—five volumes with hundreds of magnificent flower plates—the set valued at £80 and now worth at least £340; 200 prizes of the plates of the *Temple of Flora*, valued at £30 each (now worth £42); 600 prizes of the quarto edition of the *Temple of Flora*, valued at £15 each; 2,000 prizes of the *Flora of the United Kingdom*, five volumes valued at £10 the set; and 7,000 *Elements of Botany*, two volumes valued at £3.

The latter part of the circular states that 'The present ROYAL BOTANICAL LOTTERY will convince our ENEMIES that ENGLISHMEN can and will encourage the Fine Arts, and that this Country can produce, when en-

couraged, such Works as no other Nation can boast of.' Sir Stafford Cripps could hardly be more persuasive, but apart from this boost to national morale the circular contains the germ of an idea that may well commend itself to many of our readers. Our own observation of the bookshelves of our colleagues suggests that a GRAND HARLEY STREET LOTTERY might well prove the best means of disposing of their own literary offspring which have failed to thrive and of the accumulation of decades. We are all familiar with the problem of housing many books in a small space, but this was apparently overlooked by the medical poet, Abraham Cowley, when he said:—

May I a small house and large garden  
have!  
And a few friends, and many books,  
both true.

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Ap 16

61

The "Botanical Magazine"

Among periodicals *Curtis's Botanical Magazine* stands high in seniority and honour. The first number was published in 1787 and ever since then the magazine has continued to appear with hand-coloured plates (now amounting to 9,688) and careful scientific text. It is described as "the oldest scientific periodical of its kind with coloured illustrations," and until now it has continued the colouring of plates by hand. The founder of this venerable periodical was WILLIAM CURTIS, also known for his noble "Flora Londinensis." But whereas the "Flora" brought him only praise and seriously impoverished him, the *Botanical Magazine*, as he himself said, "brought me him pudding." Its success was immediate, and it is remarkable that the early numbers achieved a circulation of 3,000 copies, which continued throughout Curtis's life. Many distinguished botanists have edited the *Bot. Mag.* (as it is affectionately abbreviated) since Curtis's day, most notably SIR WILLIAM HOOKER and his son, SIR JOSEPH HOOKER, with the first of whom began its intimate connexion with the Royal Botanic Gardens, Kew. To-day the magazine, which since 1922 has been published for the Royal Horticultural Society, continues to be edited at Kew. As in CURTIS's time it is still intended for such horticulturists as "wish to become scientifically acquainted with the plants they cultivate."

Times change, however, even for the oldest established institutions, and the fourth part of volume 164, published within the last few days, marks the end of an epoch, the fading of an ancient craft. For some time past it has been found increasingly difficult to get the plates coloured by hand, even for a small edition, and during the war the issue of the magazine became seriously delayed. It is said that recently the craftsmen willing and competent to undertake the laborious repetitions of the artists' original tints have come only from a single family. So the old process is to be given up. A "new series" is shortly to

begin with colour plates mechanically produced and, it is to be hoped, the larger circulation which such methods will permit. The *Botanical Magazine* has a distinguished record of illustration, having numbered among its regular artists SYDENHAM EDWARDS, who was trained for the purpose by CURTIS, and WALTER HOOD FITCH, who was SIR WILLIAM HOOKER's pupil, both famous names in botanical draughtsmanship. In more recent years there has been a succession of notable women artists, including MATILDA SMITH, who from 1887 to 1920 drew 2,300 plates, and since her day the present illustrators, MISS LILIAN SNELLING and MISS STELLA ROSS-CRAIG. Thus the *Botanical Magazine* has made a large contribution to an art in which, as in other branches of natural history illustration, this country has during the past two centuries established a great and flourishing tradition. It is certain that, so far as the artist is concerned, this tradition can continue. The interest in botany and horticulture, the skill of hand and eye, have not failed. The only uncertainty is what loss, if any, the changes in methods of reproduction need entail. In this, as in so many other things, the old age of handicraft lays down its burden, and in so doing offers its challenge to the conquering age of the machine. It remains for the resource and invention of man to find a worthy answer.

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AP 17

THE TIMES LITERARY SUPPLEMENT SATURDAY JUNE 26 1948

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modelled by the

... of the Titans.  
 A connexion between the blue-green  
 (*glas*) Western Sea and the characteristic  
 "darkness" of the underworld's inhabi-  
 tants is easily explained bearing in mind  
 that in primitive languages there is the  
 utmost confusion between words for  
 "blue," "green," "dark" and "black."  
 Thus Magnus (*Farbensinn*) points out  
 that "Der Küstennubier (Red Sea  
 Sawakinese) unterscheidet alle Farben  
 des Spektrums. . . . Dagegen ist der  
 Farbensinn bei den Bergstämmen nicht  
 so gut entwickelt. Sie unterscheiden gut  
 Weiss, Schwarz, Rot, Grün; Blau wird  
 nicht sicher erkannt und fast stets mit  
 Schwarz verwechselt." That both the  
 ancient inhabitants of Wales and the  
 Greeks laboured under similar difficulties  
 is seen in the impossibility of translating  
*glas* and *glaukos* adequately into modern  
 English. "Bei vielen Volkstämmen," says  
 Magnus, "bestehen feste und präzise  
 Farbennamen nur für Weiss, Schwarz  
 und Rot." So the Romans gave the  
 British *wood* the name of their blue-green  
 glass, *vitrum*.

KENNETH T. DUTFIELD.



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1050. The accurate final must have lived can (see page 256 of

Ap. 18 63

### TOYNBEE'S STUDY OF HISTORY IN THE U.S.

D. C. SOMERVELL's one-volume edition of Arnold Toynbee's *A Study of History* has been one of the outstanding publishing successes of recent years. The circulation of the English edition has been limited by the quantity of paper that could be allotted to it, and the demand for the home and export markets is far from satisfied. In the United States, where the Oxford University Press New York Branch produced its own edition, the sales have so far totalled approximately 200,000 copies since the book was published in March 1947.

In 1942 the American *Publishers' Weekly* founded an annual award—named the Carey-Thomas Award, after two prominent figures in early American publishing, Mathew Carey of Philadelphia and Isaiah Thomas of Worcester—to honour publishers for the outstanding example in each year of enterprise in producing and marketing a notable book, editorial judgement and co-operation with the author being among the factors taken into account. The Carey-Thomas Award for 1947 went to the Oxford University Press, New York, for their remarkable success in handling the abridged version of *A Study of History*.

The New York Branch has since published a volume of essays *Civilization on Trial* by the same author. The sales reached over 35,000 on the day following publication. The Oxford University Press will issue this new book in England as soon as possible.



(See page 255 of this issue.)

*BRITISH Art and the Mediterranean*, from which the illustration on page 251 of this issue comes, is a handsome folio volume surveying the relation between the artists of Mediterranean lands and those of a country on the other side of the Alps.

#### PERIODICAL

The contents comprise more than 600 reproductions of works of art from prehistoric times to the present, ranging from the late antique mystery cults in Britain, through medieval science and Chaucer, to Elizabethan literature, stage design, sculpture, architecture, and the minor arts of all periods. Though the textual matter is confined to essentials it is adequately informative and also illuminating. This book by Professor Saxl (who has recently died) and R. Wittkower (both of the Warburg Institute) is unique, and unlikely to be available again after the relatively small edition is exhausted.

OPPOSITE. Illustration from an Anglo-Saxon Herbal. About A.D. 1050. The accurate representation of the scorpion shows that the artist who drew the original must have lived in the Mediterranean region. From *British Art and the Mediterranean* (see page 256 of this issue).

Gardiner, D The Tradescant  
the limits c. 1600-1662  
- Jour. Roy. Hort. Soc. Vol 53  
p. 2, p. 308



### THE CONFIDENT CENTURY

FRANCES A. YATES: *The French Academies of the Sixteenth Century*. Warburg Institute, University of London. 50s.

Traditionally the seventeenth century is regarded as the century of academies in France, and with reason, for in the course of it were founded first the Académie Française, and then the academies of painting, architecture, science, dancing, and inscriptions. But Miss Yates has amply proved her main thesis—namely, that the spirit which produced these institutions was already alive in the sixteenth century, and that in their foundations Richelieu and Colbert did little more than develop the principles of their predecessors, the patrons of art and letters under the last Valois kings.

Miss Yates's book opens with an account of the known academies of the sixteenth century, so far as this can be pieced together from the existing evidence. Unfortunately, the crucial records were in large part destroyed in the later wars of religion, and the author is therefore obliged to draw widely on indirect sources in contemporary letters and memoirs. From this material, however, she is able to give a surprisingly complete and vivid account of the activities of Dorat, Antoine de Baif, Pontus de Tyard and their companions, who, with the spledid confidence of the

sixteenth century, attempted to systematize the whole of human knowledge into a poetico-philosophical encyclopaedia. The non-technical reader may find some parts of these early chapters a little severe, particularly those dealing with music, but Miss Yates has all the time her goal clearly in view, and the reward for industry is generously given in the later chapters.

In these the theme broadens and the topics become of more general historical interest. Perhaps the most remarkable part of the book is the courageous rehabilitation of that much discussed and much maligned character, Henry III of France. We have become used to the necessity of giving up our old picture of Catherine de Medici as a bigoted tyrant lusting after the blood of Protestants; but her third son is still chiefly known as the feeble and vicious patron of the *mignons*, whose uncertain policy led him in the end to be attacked equally by Protestants and Leaguers. Miss Yates, however, presents a quite different picture of his character. First of all he appears as the enlightened patron of a court academy in which were continued many of the best traditions of Baif and the Pleiade. Further, this academy can be demonstrated to have been transformed into a genuine, if somewhat neurotic, kind of religious institution in the Congrégation de l'Oratoire de

Notre Dame de Vie Saine established at Vincennes. This hitherto little studied organization is a startling example of the complexity of religious sentiment at the time of the Counter-Reformation. Violently mystical, and yet incorporating certain pagan symbols from the older humanist tradition, on the one hand it demanded the harshest practices of penitence, and on the other encouraged academic polish in the art of the preacher. With apparently no sense of incongruity—or perhaps indeed because of it—the scented *mignon* would retire to his monkish cell at Vincennes in preparation for a penitential procession, which would be led by the King, and in which all the greatest nobles of France would take part. Once more we see how in the later sixteenth century the borderlines between sensuality and asceticism, between mystical and physical pleasure, are blurred; and we realize how easy, and how wrong, it is to decry these religious activities as hypocritical.

In her last chapters the author traces the links which connect the academies of the reign of Henry III with the more celebrated foundations of the seventeenth century, and shows that the tradition, though growing thin in the reign of Henry IV, was yet carried on continuously to the time of Cardinal Richelieu and the foundation of the Académie Française.

## SCIENTIFIC FELLOWS

DOROTHY STIMSON: *Scientists and Amateurs. A History of the Royal Society.* Sigma Books, 15s.

Miss Dorothy Stimson dedicates this work to her students in history at Goucher College in the United States, and she modestly claims that

Those who have the time and the opportunity to look through the Royal Society's own *Record* or to refer to its treasurer's recent careful study of its administration for nearly three centuries [*The Royal Society 1660-1940*, by Sir Henry Lyons] may not need this book. But copies of neither book are readily available to an American public because of cost or scarcity, nor is either one planned for the general reader who knows little or nothing of the Royal Society at the outset.

Thanks are due to this American university teacher for supplying what the publishers rightly call "the first authoritative book for the general reader to tell the absorbing story of the world's oldest scientific body in continuous existence." If one fault may be found, it is in historical perspective. The early history of the Society is dealt with fully, but the recent years cursorily. The great names of Sir Frederick Gowland Hopkins and Lord Rutherford, for example, do not appear to be even mentioned, though they will rank with any save only Sir Isaac Newton in the presidency of the Society; and the work done by fellows in the present century is equal in scope and significance to that of their forerunners in any period of the Society's history. A critical eye will also notice one or two matters which a more precise proof-reading would have corrected; for example, Bacon cannot be "instauratio artium—restorer of the arts," and if Miss Stimson looks again at Plate 11, to which she wrongly refers us as Plate 10, she will see that she has incorrectly transcribed the legend *artium, instaurator*. But these are minor blemishes in a sympathetic, readable and well-illustrated study which may be warmly commended to students of the history of science in general and lovers of the Royal Society in particular.

Miss Stimson's title indicates the theme which runs through her history—the question whether the Society should be an association of serious scientific investigators or a club composed both of scientific experimenters and of amateurs interested in science. The former conception has prevailed since 1820, to the undoubted advantage of the Society and of science. The reform began when Sir Humphry Davy was elected president, and men of science were given a majority on the council; shortly afterward the statutes were modernized, and in particular the admission and weekly fees were substantially raised. In its early days the Society was seldom out of financial difficulties, and this was a main reason for the conferment of the fellowship on noblemen and other patrons with a love for science, but no special distinction in it; the weekly fee had remained at one shilling from the foundation until 1823, though the practice had sprung up of requiring candidates to compound for their annual dues by the payment of twenty-six guineas (later forty pounds), which in a very unscientific manner was spent as current income. Though these changes were carried out in Davy's time, and he was himself a great experimenter, he developed (perhaps through marriage to

a rich wife) many of the characteristics of the old regime. In many ways he was an inferior president to Sir Joseph Banks, who had ruled as a benevolent autocrat from 1778 to 1820; and a rumpus arose when he arranged that his own successor should be the Duke of Sussex. The election was contested, and out of 230 votes cast from a membership of 659 the Duke received only eight more than the astronomer, John F. W. Herschel. But the tide of reform had set in, and the really essential change was carried through at the instance of W. R. Grove—Miss Stimson has transposed the initials—in 1846. This was that elections should be made only once a year, that the council should recommend to the Society the most eligible part from certain privileged classes (apart from certain privileged classes) should not exceed fifteen in a year. The Society's finances were at the same time placed upon a sound basis. In this way a majority of scientific fellows was secured. The election of Prime Ministers and noblemen to the fellowship from time to time is a reminder of the "privileged classes," but the recent election of Princess Elizabeth is also a reminder of another great step which has been taken in the past few years—the opening of the fellowship to women.

This is no doubt the reform which would most have surprised the

members of the "Invisible College" who used to meet in London about 1645, and out of whose gatherings the Royal Society grew. Some of them were sent to Oxford to take the place of dons loyal to Charles I, and they there founded a Philosophical Society. But close connexion was maintained with the London members, who began to meet regularly in Gresham's College; on November 28, 1660, the formal decision was taken to found "a College for the promoting of Physico-Mathematicall Experimentall Learning"; and the following week word was given of Charles II's approval. The Society's early records are resplendent with names famous in science, letters and affairs, but there were scoffers, and its first so-called *History*, written by T. Sprat in 1667, was less a history of the young Society than a justification. Nor was its second *History*, by T. Birch in 1746, so much a history as a transcription of records. The first real *History* was that by C. R. Weld in 1848; and unless the *Record* and Sir Henry Lyons's work are so accounted, the Society has had to wait just another 100 years for another work of that description. It is in keeping with the change in the rules for the fellowship that this time the author should be a woman.



CLASSICAL ARCHITECTURE IN FRANCE

PAINTINGS AND FLOWERS

RUTH WEDGWOOD KENNEDY: *The Renaissance Painter's Garden*. New York: Oxford University Press. London: Cumberlege. £6 6s.

This in some ways delightful book is based on the principle of Sir Kenneth Clark's *Hundred Details from the National Gallery*—namely, of showing a close-up of some significant area of the picture which might otherwise escape observation. But whereas in Sir Kenneth's two volumes the details were miscellaneous and were chosen for their inherent beauty or interest, Mrs. Kennedy has specialized in those which are concerned with plants. We may all recall such obvious examples as the flowery carpet in Botticelli's "Primavera," or the lily in Gabriel's hand in many an Annunciation, but the trellised hedges of roses, the pot-plants adorning a balcony, the violet on the shore of Cythera, the fluff of the dandelion accompanied by tadpoles (plate LV) may come less readily to mind, and for these promptings in a finely produced gift-book we must be grateful.

There are, however, some criticisms which should be made. It is necessary to be severe on books of this kind.

The quality of reproduction in some of the plates, for instance, is not comparable in sharpness and clarity with the plates in Sir Kenneth's details. The fact that his details were a pre-war production should not now be allowed to stand as an excuse, more especially as the text of Mrs. Kennedy's book has been printed in America and it is therefore fair to presume, in the absence of contrary evidence, that the illustrations were produced there also, where the facilities are greater. Then, this book was surely intended to be of value to gardeners and botanists, as well as to art lovers? It should thus fulfil a double role. It should, above all, be seriously and not whimsically annotated. Mrs. Kennedy contributes an adequately informative foreword (we will not go farther than to call it adequately informative), but we must begin to shudder when she starts writing descriptive notes like this (plate XXVIII):—

Perhaps Bonifazio Veronese imagined that the baby Jesus had just stopped playing with roses picked from the hedge behind his mother's seat and had dropped them on the steps below.

This sort of woolly, Christopher-Robin writing tells nothing to any-

body, neither to the botanist nor to the gardener nor to the art critic. Mrs. Kennedy has fallen between two stools, and the reason why her book is here called a gift-book is that it is not serious enough to appeal either to the student of pictures or to the plant-lover bent upon historical research. This is the most damaging reproach we have to bring against it. Much valuable information has been obtained from early flower paintings—there need only be instanced the curious problem of the yellow centifolia rose in the Wilton Diptych, painted at a time when no double yellow rose was known to exist in Europe—and Mrs. Kennedy might have added considerably to the interest of her plates by invariably recording the colours of the flowers depicted—e.g., in plates III and XIII and XLIX and XXXV—and in giving us a closer view of the relevant detail, as in plates XXXIV and VIII, instead of showing the whole picture.

*The Renaissance Painter's Garden* must thus remain in the Christmas-present category, but at least the way has been pointed to a possible future volume, seriously undertaken, which would be of the utmost value to the historically minded botanist.

### NOTES ON SALES

A sale at Sotheby's on April 4 included Mr. Maurice Yorke's collection of botanical books notable for their coloured plates, and the bidding showed that this kind of picture-book is still in high favour with collectors. Redouté's *Roses*, three volumes, 1817-24, 169 coloured plates with a duplicate set uncoloured on buff paper, in a morocco binding by Gruel, made £540, and £460 was bid for the same artist's *Les Lilacées*, eight volumes, 1802-1816, 486 coloured plates in contemporary morocco. The *Lilies* is a less common book than the *Roses*, but the Yorke copy was not in the finest condition, many of the plates being stained in a curious way by the set-off from other plates no longer adjacent, a defacement which must have occurred before the book was bound. Other prices were Redouté's *Choix des plus belles Fleurs*, a fine copy of the later, undated edition published by Ernest Panckoucke, but containing only 140 plates instead of the normal 144, in old half-morocco (£220); Mordant de Launay's *Herbier Général de l'Amateur*, eight volumes, boards, 1816-27 (€95)—this copy contained 575 plates (not 572 as stated in the catalogue), including three bis numbered plates: copies are known which contain four of these bis plates; *Herbier de l'Amateur des Fleurs*, eight volumes, half-morocco, 1828-35 (€75); Sweet's *British Flower Garden*, seven volumes, containing 700 plates, half-calf, 1828-38 (€48); Andrews's *Botanist's Repository*, ten volumes in five, old calf,

1795-1815 (€62); Hooker and Salicbury's *Paradisus Londinensis*, contemporary morocco, 1806-1807 (€36); Loddiges's *Botanical Cabinet*, twenty volumes, 1818-1833, containing 2,000 coloured plates and handsomely bound in contemporary morocco (€78); Edwards's *Select Collection of 100 Plates of . . . Flowers which blow in our English Gardens*, old russia, 1775 (€95); Ehret, Trew and Vogel's *Plantae Selectae*, contemporary calf, 1750-53, containing 100 finely coloured plates and the three mezzotint portraits not found in all copies (€75); Elwes and Fitch's *Monograph of the Genus Lilium*, with Supplement, half-morocco, 1880-1940 (€95); Müntzing's *Nadwökeurige Beschryving der Aardgermoederen*, 1696, a fine copy in contemporary morocco of this uncommon book (€130). A second and somewhat grubby copy of Redouté's *Roses* in another ownership showed how price is determined by condition. This one could only be called a gardener's working copy, and was sold for £180.

In the same sale an unrecorded copy of the second issue of Blake's *Gates of Paradise*, presented by Henry Fuseli to Harriet Moore, a child of five, brought £320, and might have been expected to have gone higher. Of the first issue—if it is really an issue and not simply a proof or advance state—only one copy is known, and of the second only three others. Sir Walter Raleigh's first printed

work, *A Report of the truth of the fight . . . betwixt the Revenge . . . and on Armada of the King of Spain*, 1591 (€320). This was a fine copy, extracted from a volume of tracts, but the catalogue was in error in describing a leaf before the title as the original blank.

A sale in the same rooms on April 11-13 included thirty-six volumes from the Doves Press presented by T. J. Cobden-Sanderson to his wife, all finely bound at paid for the *Milton*, two volumes, in white pigskin, elaborately gilt tooled (€120), the *Shelley* (€75) and the *Keats* (€52), both in gilt-tooled morocco. The thirty-six volumes, sold in thirty-two lots, brought a total of £819.

Hodgson's held their best sale so far this season on April 21-22. The most interesting book offered was an anonymously owned copy of Juan de Capua's *Exemplario contra los engaños*, a Spanish version of the Fables of Bidpai, printed in Saragossa by Paul Hurus, April 15, 1494, and containing numerous woodcuts which appeared to be of German origin. No other copy of this edition is traceable. It was bought for £1,250 after a dogged battle. The sale catalogue mentions the Burgos edition of 1498, an extremely rare book, but does not refer to an earlier edition printed by Hurus in Saragossa and dated March 30, 1493. Of this edition only one copy is believed to be in existence, that in the *Biblioteca Nacional*, Madrid.

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Madaus, J. Deutsche Med. Wochenschrift.  
H 26, 27. Leipzig 1938

Madaus, J. Madaus Jahresbericht. 1. 1937  
Radebeul 1938

Molsch, H. Ueber den Einfluss einer  
Pflanze auf die andere.  
Anz. Akad. d. Wiss. Wien. 74. 1937  
p. 348. C. 11

On sympathy-antipathy between plants.

LT  
Barley *Cyclospora* & *Anemum* Herb. Kultur.  
Nischkorn, J. I. Herbar. Dübny, Gaudenz.

see Cunningham 1929 73  
note 3  
something on Brussels sprouts

*Brassica oleracea* *bullata gemmifera*

Sturtevant - E. C. Notes on Edible Plants.  
State N. Y. Dep. Agr. 27<sup>th</sup> ann.  
rep. Vol. 2. part 2 1919

p 112  
p 111  
Bourgeois *truncata* has been of *kunzi* B. W. near 1855  
Res. Bot. I. 167. 1874  
Refer to in *gand.* *Chou*. 1850  
Shubert has written *truncata* - the ref in *Barthelemy*,  
*Delabre* & *Label* really refer to  
*Brussels Sprouts*

*Chou*  
A. P. de Coudelle. Trans. Hort. Soc. Lond.  
Vol. V 1824  
Mém. sur les diff. espèces, Races, &  
Variétés de 5 genres *Brassica* (C. V. de)

pp 1 - 43  
p 14 - 15  
*Chou à jets*. Very commonly cultivated in  
Belgium, *Chou à jets à rijets*. *Chou*  
à melle, *têtes*, *Chou à petites pommes*.

BRUSSELS SPROUTS

70  
Le Jüeris  
Prés de l'histoire de  
la botanique.  
(autotyp)

Tidbury, G. E. The Olive Tree 1949

71

<sup>p1</sup>  
olive tree indigenous to Moluccas & to  
East Indian archipelago.

1<sup>st</sup> Refs to use of olive species in Chinese books  
of Han period dated 220 BC - 206 BC

p. 2. Now known when olives reached Europe.  
Certain they were imported to Alexandria 176 AD

Early pop. & good sketch of history not made  
by Dutch

p. 5. Not gone in Langkat until early 19<sup>th</sup> century.

p. 13 would be dead of olives in - but was  
12,000 tons per annum.

THE TIMES LITERARY SUPPLEMENT FRIDAY DECEMBER 23 1949

M. P. CHARLESWORTH: *The Lost Province*. Cardiff: University of Wales Press. 8s. 6d.

The study of Roman Britain is of perennial interest to all Englishmen with a taste for history and is subject to the constant refreshment of archaeological discovery. The freshness, however, of Dr. Charlesworth's treatment of the period comes not from new materials but from new lines of approach. He is concerned in this book (which reproduces his Gregynog Lectures for 1948) with the "worth of Britain"—its worth to imperial Rome and the worth of the Roman occupation to us. Why did the Romans decide to incorporate this remote island in their Empire? Why did they retain it so long when other apparently more vital regions were abandoned? And after they had gone how much of their influence was retained through the stresses and changes of the Dark Ages to survive permanently in English history?

Such questions have been asked many times before and have been very variously answered. It has been held that the province never greatly served the Empire, that her reputed economic wealth was illusory and that English history was as little affected by the Roman occupation as a healthy human being by an attack of measles in childhood. Against such views Dr. Charlesworth advances what may be called the positive case at its maximum pitch. For him Britain was economically "wealthy and alluring"; owing to a distorted geographical conception, it was held to round off the north-west corner of the Empire; it furnished troops of high quality and indeed constituted a "strategical reserve." Nor can the value of the British fleet be disregarded. Moreover, Britain may

have protected the Roman mainland by "drawing on itself the first fire of raiders." And at this point Dr. Charlesworth inserts an impressive appraisal of the apparatus of the British coastal defences.

For the general reader the most interesting part of the book will be the concluding section, in which the author seeks to estimate what our country has gained from the Roman period. At its broadest the debt may be seen in the unified organization which laid down the lines of future territorial development, in communications and the siting of towns (though Dr. Charlesworth does not bring into account Rome's failures in this respect—the towns which died because they served only the lines of conquest and had no roots in the countryside). But there are cultural debts, too. Dr. Charlesworth notes the "sturdy independence and individuality" of the Christians of the highland zone and suggests in passing that the Britons of the fifth century favoured Pelagianism just because it was not officially Roman. There are also more intimate debts: of flowers, vegetables and trees brought by the Romans which made themselves so much at home here that no barbarian devastations could dislodge them (among them are roses, violets, poppies, lilies, pansies and the cherry); and of language. On this score we find a fascinating selection of little-recognized derivatives, as, for instance, those from *caupo* (which include Cheapside and Chipping Campden), and of peculiar debts of Welsh vocabulary to the Roman conqueror. Remembering a similar section in his *Five Men*, we could wish that Dr. Charlesworth may one day be able to pursue this aspect of Romanization in greater detail.





**ROYAL EMBROIDERY**  
 Sir William Burrell, in his letter published on September 12, is quite correct in pointing out that the embroidered hangings from Oxburgh Hall, recently presented by the National Art-Collections Fund to the Victoria and Albert Museum, were repaired in the nineteenth century. But he exaggerates when he says "and equally because the originals can now be seen", and equally because he maintains they are of no value. The *pro-pain* panels have, of course, been restored; but all panels of this kind, where the dyes have rotted the canvases have normally been restored. The latter embroideries at Hardwicke are in the same state. The hangings are to be a museum monograph which among other questions, the all restorations will be the embroidery gone in the course of their history. At Aston, Victoria and Albert Museum.

Elizabeth Talbot  
 Details re 6 coll. by  
 1923  
 Jan 1951, the form is ok

**EMBROIDERY BY MARY QUEEN OF SCOTS**  
**GIFT TO KENSINGTON MUSEUM**

**EMBROIDERY BY MARY QUEEN OF SCOTS**

**TO THE EDITOR OF THE TIMES**

Sir—On August 24 you referred to the gift by the Art-Collections Fund to the Victoria and Albert Museum of a set of hangings on which are embroidered 30 small panels representing animals, birds, fishes, &c. These panels were by far the most important part of the hangings, the rest being velvet background, but about 60 years ago the panels were all gone over by embroiderers who either embroidered new ones altogether or so completely covered over what remained of the original panels that nothing of the originals can ever be seen. The colours of the 30 panels are therefore—as the article states—"as bright as ever" while the green velvet background is "falling into tatters."

The panels, as they now stand, being modern, have little or no value. If it was thought better to take them out and throw them away than of course nothing can be done, but if they still exist—being in the modern needlework, may I suggest, as so much is now to be done to the background, that, at the removed from the panels so that they may once more be seen as they were before being so unfortunately restored?

Yours faithfully,  
**WM. BURRELL,**  
 Hutton, Berwick-on-Tweed.  
 7th Sept 12.53

to be  
 can  
 can  
 you  
 Sept 1923

to Elizabeth come for to your workshop & to Elizabeth Shrewsbury (Bess), Hardwick. I am to include those ladies he letters in an tin about Hardwick.

to embroider in said I have come for 70 Montague, by marriage of to were some, 10 Redy fields, Alty, Braune, Mary's day, was a promise Caterlin, 1 Shrewsbury, Bess, Hardwick & "

to embroider in general see M. A. Toudain Embroidery. 1910. Chap II

to of Tam Robertson, I've seen the embroidery in the Old Oless Saint's day. This is Confusion  
 in 1 Plate E hang I 12  
 Plate D. hang I 4 & 4, America  
 apple tree  
 no leaves, flower on, all  
 present - tree

to mottoes in the embroidery of Bess, Hardwick, a copy-looks markings of a printed text, was Mary's allegorical "words"

Digitized by

Institute for Historical Documentation

matters to you, I do not  
 doubt that Sir E. has  
 been of great use to  
 you in a review.  
 Yours truly  
 W. Burrell

I can't misquote my box  
 till tomorrow. It's a bad

copy-looks markings of a printed text, was Mary's allegorical "words"

of the portrait of Mary Queen of Scots & Elizabeth Talbot  
at Oxborough Hall, Norfolk. Described as 6 collotype  
plates. Oxford. [Pivotal points] 1923

Copy lent Agnes Arber Jan 1957, she found a 5th  
Huntingley p. 3

Oxborough Hall seen by Bedingfield family since  
was built under 14th century date 1482.

Could not be dated before 1675.

The hangings are certain, being the hangings bear  
needlework panels (earthen date, in the embroidery style) to  
Elizabethan period.

[Lacro Jourdain, M. Count wife Ag 25. 1923  
& suppl. not. Sept 1923]

The panels are. I believe come from your workshop of  
Mary Queen, Scot & Elizabeth Shrewsbury, Bens, Hardwick.  
The pieces seem to be made of three panels he thinks  
with evidence on their actual embroidery

p. 4 the embroidery in said I have come from  
Crowdry, to near 70 Montague, by marriage of  
Hon. Mary Browne & one of Bedingfield's. Artz Browne,  
the Lord Montague, Mary's day, was a prominent Catholic,  
& in relation with Lord Shrewsbury, Bens, Hardwick & 4  
Hendon

On Mary Queen's embroidery in general see M. A. Jourdain  
English Sewing Embroidery. 1910. Chap II

I was agreed to A.A. by Tam Robertson, who saw the embroidery in  
1950, that they recalled Oxborough Sewing etc. This is confirmed  
by the illustration here of Plate E hang F. 7. 2  
Plate D! hang I 9 Agnes, American

apple tree  
no leaves, flowers and all  
present only tree

I believe (p. 16) can have to mention that in the embroidery of Bens, Hardwick, a  
"copy-like manner of a painted panel", as Mary's allegorical "words" see also Mary  
and the tree  
the end

74

NEW BELGIAN ISSUES  
Sept. 11 - A new series  
bearing a full-face picture of King  
former stamps, has been issued  
without glasses, showing a pro-  
the likeness. - Reuter.

CADETS SHIPS  
candidates have been  
this month to the Royal  
Cranwell - to the Royal  
D. A. S. Boulton, (Luton)  
D. A. S. Boulton, (Luton)  
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INDICATOR  
This page contains  
the names of the  
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## THORNTON AND "THE TEMPLE OF FLORA"

From a Correspondent

A new edition of  
THORNTON'S  
"THE TEMPLE  
OF FLORA"is now in preparation for publication in the autumn by  
COLLINS

with a new and full introduction by Geoffrey Grigson and bibliographical account by Handasyde Buchanan.

12 lithographic 8-colour plates.  
25 monochrome collotype plates.  
Standard edition 8 guineas, also a special limited signed edn. 15 guineas.

Ask your bookseller for full details.

## COLLINS

THORNTON (1768-1837) believed himself to have engaged upon "a national undertaking." The useful and ornamental science of botany was to be glorified nationally and was to be allied to the pleasing arts of painting and engraving. He aimed to have the best of plates, the best of calligraphic title-pages, the best of paper (Whatman's wove) and the best typography. The work would not merely equal but surpass anything produced in Paris or Italy. Though *The Temple of Flora* was part merely of the whole, it is probable that these "picturesque, botanical, coloured plates, of select plants," seemed to Thornton the crown of his immense compilation. And there can be no doubt that he based his strategy upon Alderman Boydell's Shakespeare Gallery. Boydell began with a Shakespeare Gallery, Thornton with a Linnaean Gallery. After collecting his pictures he exhibited them in 1804 in New Bond Street. The British Museum Library contains a fourth edition of the catalogue, the "Account of Dr. Thornton's Exhibition of Botanical Paintings... with the Poetic Compositions made on the different subjects and explanatory Notes."

The exhibition contained more paintings than were finally engraved and the catalogue is worth examining for the light it throws upon the notorious variations in one copy and another of *The Temple*. The catalogue also explains the high hopes by which Thornton was buoyed. It includes, for example, puffs for the *New Illustration*, so far as it had then been published, from the Professors of Botany at Edinburgh and Cambridge, and notably from Dr. Erasmus Darwin. One has, in fact, to recall Erasmus Darwin's *Loves of the Plants* and *The Economy of Vegetation* to learn how Thornton's peculiar taste in botanical poetry was formed. The poets whom Thornton persuaded to celebrate his select plants included George Shaw, the naturalist, one of the founders of the still young Linnaean Society, Charlotte Smith, Pye the Poet Laureate, and Darwin's friend, Anna Seward, the Swan of Lichfield. Like Darwin (or like another of Thornton's poetically scientific friends, Dr. Thomas Beddoes) they used elegant personification and apostrophe in a way which soon was to appear ridiculous. Thornton also claimed fantastically that he had employed "all the most eminent British artists." His team, Peter Henderson, Philip Reinegle, Abraham Peffer, and Sydenham Teast Edwards, added nothing which was vital to English art, though Edwards and Henderson were distinguished botanical draughtsmen. Nevertheless, Thornton excited from them pictures which have their enduring attraction—even splendour—in the plates of *The Temple of Flora*.

When the firm of Boydell overreached itself in the immense edition of Shakespeare, a successful attempt was made to recover the losses by an authorized lottery. Thornton likewise put his hopes in a lottery authorized in May, 1811, by 51 Geo. III Cap. 105—An Act to Enable Doctor Robert John Thornton to dispose of his Collection of Paintings, Drawings and Engravings together with several copies of Certain Books therein mentioned, by way of Chance. The text of this Act is again essential to an understanding of the variants in the plates and editions of *The Temple of Flora*. The Act was justified on the grounds that Thornton had devised a work "which might

eventually prove a national Concern and Honour," and that his sources of assistance had "entirely failed." The maximum to be raised by this "Botanical Lottery for the Promotion and Encouragement of Science" was £42,000. The appointed trustees were to destroy the copper plates within a month of the draw, which was to take place before December 31, 1813. Referees were to certify the final suitability of "certain articles and things composing the Prizes," some of which had still to be completed. Here is the explanation of the wretched quarto edition of *The Temple of Flora* (1812), and valued at £5 each, which were designated as prizes of the fourth class. The first, or Capital Prize, following the Boydell precedent, was to be the whole Linnaean Gallery, as well as "a superb copy" of each of the several books which made up the other prizes. Prizes of the second class (199 in all) each included a copy of *The Temple of Flora* and the *New Illustration*. The third class would be 200 portfolios of the plates in *The Temple*. Ten thousand prizes were offered altogether. Their total value was estimated at £67,000.

The prizes were ready—and the referees must have been satisfied—before a year had gone by. A prospectus promised the draw before June 4, 1812, if one-third of the tickets had been sold. Printed in this rare prospectus were letters from the King's Librarian, A. A. Barnard, and the President of the Imperial Academy at St. Petersburg. The letter from Russia, dated five years earlier, was an acknowledgment on behalf of the Emperor of the gift of Thornton's splendid and elaborate Botanical Works. Enclosed with it had been an imperial ring. The draw did not take place by June 4, showing that the sale of tickets was slow. Thornton, in fact, gave no official notice of the draw until the following year (*London Gazette*, No. 16711 March 13-16, 1813). It was to take place on May 6 at Cooper's Hall. Towards the end of April and in the first week of May advertisements in *The Times* flamboyantly offered tickets still unsold, announcing also that: "Every Purchaser will be presented (gratis) with an Emblematical Print containing a strong Likeness of Emperor Alexander, the illustrious Patron of Dr. Thornton's Works."

Owing to the retreat from Moscow in 1812, the Emperor was at this time a popular hero. Parliament had not long since voted £200,000 for Russian relief, so naturally Thornton and the lottery agents made the most of a slender connexion with "the Brave Cossack." Thornton, indeed, somewhat shamelessly announced that he would deliver a botanical lecture in the Argyle Rooms "for the Benefit of the Sufferers in Russia." The date chosen was May 5, the eve of the draw. Thornton would "expatiate on the great merits of Linnaeus, explain his system, and exhibit the choicest Flowers of Europe, Asia, Africa and America, and discourse on them, and display a Light obtained from Plants, equal to that of the Sun." Nothing was said of the lottery, though in another column one of the agents was advertising the tickets still (*The Times*, April 28, 1813). It is not altogether surprising that Sir J. E. Smith, who founded the Linnaean Society (to which Thornton was never elected), thought him a quack unworthy of support.

The crescendo of last-minute advertising still speaks of a lack of public interest. The Botanical Lottery had much to compete against and was no doubt less attractive to investors than the periodic State lotteries, with one of which it was drawn. No precise statement of the results has survived though Thornton's obituarist in the *Gentleman's Magazine* stated that "the results were not sufficiently successful to restore his fortune, and he was ever after a beggarly man."

His main work done, only a few glimpses of Thornton, associating, somewhat as a figure of fun, with the writers and artists of London, or publishing one or two less ambitious compilations, are to be caught from this time to his death. His association with Blake does him little credit, whether in the matter of Blake's illustrations for the re-issue of Thornton's *School Virgil* in 1824 or the comedy of his last book, *The Lord's Prayer, newly translated* (1827) which Blake so scornfully annotated. He crops up in A. T. Storey's *Life of John Linnell*

(1892) in a letter from the architect Tatham, father of Blake's friend and biographer, Frederick Tatham, expressing a poor opinion of him as a doctor. "I hear," Tatham wrote to Linnell, "you still consult that top-sawyer Thornton. He has been a thorn in my side; but I endeavour to forget his unsuccessful and expensive experiments on my poor son."

There is also evidence that Thornton was known, in a ridiculous light, to Keats, though Keats's mention of him appears without note or identification in Mr. Buxton Forman's edition of *The Letters*. Writing to Dilke from Hampstead in 1818, Keats drew up a fooling list of authors and persons in the classes of folio, foolscap, quarto, octavo and duodecimo. It begins "Folio—Parsons, Lawyers, Statesmen, Physicians out of place—Eustace—Thornton—out of practice or on their travels." Eustace was no doubt the priest, antiquary and traveller, John Chetwode Eustace, dead by that time, and Thornton, the physician out of place and out of practice, who no doubt Robert John, flamboyant in his style and his massive folios. At least it is pleasant to think of Keats turning over the plates of *The Temple of Flora* and pausing at the poisonous and foetid Dragon Arum, at the night-blooming Cereus, opening as the turret-clock (Gothic) points to midnight, or at the Shelleyan Sensitive Plant, at the large-flowering Mimosa of Jamaica, pictured with humming birds and with "one of the aborigines struck with astonishment at the peculiarities of the plant."

Thornton's folio-mindedness, culminating in *The Temple of Flora*, rather than his skill as a writer or botanist or doctor or his taste in literature and the arts, has won him a certain perpetuity. He would be gratified, no doubt, to know that the "Group of Roses" engraved after his own water-colour (which he included in the Linnaean Gallery "with extreme diffidence" and which he designed "only to express the intentions of the Author of the Temple of Flora, or Garden of Nature, in directing his Flower Pictures") is now one of the rarest of the plates and the most greatly sought after by collectors. If collectors were not perhaps over-seduced by colour, the three folio volumes of *Botanical Extracts; or The Philosophy of Botany*, copies of which formed part of the second class of prizes in the lottery, would be in greater demand for the merit of their uncoloured plates. Many of them are excellent, the Foxglove, for example, after Sydenham Edwards, or the anatomy of a pericarp after John Henderson.

Still, it is by *The Temple* that Thornton endures; and, quack or no quack, one may close with part of the encomium written, to go with his portrait in the Linnaean Gallery, by George Shaw, F.R.S., F.L.S., and Keeper of Natural History in the British Museum:

Thornton! while polish'd Darwin tells  
The loves of Flora's gaudy train,  
'Tis thine to guard from time's decay  
The fading glories of her reign.

## BERT THORNTON AND "THE TEMPLE OF FLORA"

From a Correspondent

No adequate account has been written of the publication and history of Dr. Thornton's celebrated folio, *The Temple of Flora*, or of the Botanical Lottery by which Thornton attempted to dispose of the unsold copies and of portfolios of the plates. Yet *The Temple of Flora*, or *The Garden of Nature* is the most fantastic and extravagant of all the English florilegia. Its rich plates are popular romanticism. Thornton, as we know, conceived *The Temple* as the concluding section of an immense, costly (and bombastic) work on botany. After the death of his mother and his elder brother Thornton inherited fortune enough to begin the work, which was announced in 1797 as a *New Illustration of the Sexual System of Carolus von Linnaeus*. The publication was in parts, with green covers and pink labels, and was complete by 1807, leaving Thornton a ruined man.

Robert John Thornton (1768-1837) believed himself to have engaged upon "a national undertaking." The useful and ornamental science of botany was to be glorified nationally and was to be allied to the pleasing arts of painting and engraving. He aimed to have the best of plates, the best of calligraphic title-pages, the best of paper (Whatman's wove) and the best typography. The work would not merely equal but surpass anything produced in Paris or Italy. Though *The Temple of Flora* was part merely of the whole, it is probable that these "picturesque, botanical, coloured plates, of select plants, seemed to Thornton the crown of his immense compilation. And there can be no doubt that he based his strategy upon Alderman Boydell's Shakespeare. Boydell began with a Shakespeare Gallery, Thornton with a Linnaean Gallery. After collecting his pictures he exhibited them in 1804 in New Bond Street. The British Museum Library contains a fourth edition of the catalogue, the "Account of Dr. Thornton's Exhibition of Botanical Paintings," with the Poetic Compositions made on the different subjects and explanatory Notes."

The exhibition contained more paintings than were finally engraved and the catalogue is worth examining for the light it throws upon the notorious variations in one copy and another of *The Temple*. The catalogue also explains the high hopes by which Thornton was buoyed. It includes, for example, puffs for the *New Illustration*, so far as it had then been published, from the Professors of Botany at Edinburgh and Cambridge, and notably from Dr. Erasmus Darwin. One has, in fact, to recall Erasmus Darwin's *Loves of the Plants* and *The Economy of Vegetation* to learn how Thornton's peculiar taste in botanical poetry was formed. The poets whom Thornton persuaded to celebrate his select plants included George Shaw, the naturalist, one of the founders of the still young Linnaean Society, Charlotte Smith, the Poet Laureate, and Darwin's friend, Anna Seward, the Swan of Lichfield. Like Darwin (or like another of Thornton's poetically scientific friends, Dr. Thomas Beddoe), they used elegant personification and apostrophe in a way which soon was to appear ridiculous. Thornton also claimed fantastically that he had employed "all the most eminent British artists." His team, Peter Henderson, Philip Reinagle, Abraham Peffer, and Sydenham Edwards, added nothing which was vital to English art, though Edwards and Henderson were distinguished botanical draughtsmen. Nevertheless, Thornton enticed from them pictures which have their enduring attraction—even splendour—in the plates of *The Temple of Flora*.

When the firm of Boydell overreached itself in the immense edition of Shakespeare, a successful attempt was made to recover the losses by an authorized lottery. Thornton likewise put his hopes in a lottery authorized in May, 1811, by 51 Geo. III Cap. 103—"An Act to Enable Doctor Robert John Thornton to dispose of his Collection of Paintings, Drawings and Engravings together with several copies of Certain Books Chance." The text of this Act is again essential to an understanding of the variants in the plates and editions of *The Temple of Flora*. The Act was justified on the grounds that Thornton had devised a work "which might

eventually prove a national Concern and Honour," and that his sources of assistance had "entirely failed." The maximum to be raised by this "Botanical Lottery for the Promotion and Encouragement of Science" was £20,000. The appointed trustees were to destroy the copper plates within a month of the draw, which was to take place before December 1, 1813. Referees were to certify the final suitability of "certain articles and things composing the Prizes," some of which had still to be completed. Here is the explanation of the wretched quarto edition of *The Temple of Flora* (1812), of which 600 sets "richly coloured" and valued at £15 each were designated as prizes of the fourth class. The first, or Capital Prize, following the Boydell precedent, was to be the whole Linnaean Gallery, as well as "a superb copy" of each of the several books which made up the other prizes. Prizes of the second class (199 in all) each included a copy of *The Temple of Flora* and the *New Illustration*. The third class would be 200 portfolios of the plates in *The Temple*. Ten thousand prizes were offered altogether. Their total value was estimated at £67,000.

The prizes were ready—and the referees must have been satisfied—before a year had gone by. A prospectus promised the draw before June 4, 1812, if one-third of the tickets had been sold. Printed in this rare prospectus were letters from the King's Librarian, F. A. Barnard, and the President of the Imperial Academy at St. Petersburg. The letter from Russia, dated five years earlier, was an acknowledgment on behalf of the Emperor of the gift of Thornton's "splendid and elaborate Botanical Works." Enclosed with it had been an imperial ring. The draw did not take place by June 4, showing that the sale of tickets was slow. Thornton, in fact, gave no official notice of the draw until the following year (*London Gazette*, No. 16711, March 13-16, 1813). It was to take place on May 6, at Cooper's Hall. Thornton's eagerness of April added in the first week of May, advertisements in *The Times* flamboyantly offered tickets still unsold, announcing also that: "Every Purchaser will be presented (gratis) with an Emblematical Print, containing a strong Likeness of Emperor Alexander, the illustrious Patron of Dr. Thornton's Works."

Owing to the retreat from Moscow in 1812, the Emperor was at this time a popular hero. Parliament had not long since voted £300,000 for Russian relief, so naturally Thornton and the lottery agents made the most of a slender connexion with "the Brave Cossack." Thornton, indeed, somewhat shamelessly announced that he would deliver a botanical lecture in the Apollo Rooms "for the Benefit of the Sufferers in Russia." The date chosen was May 5, the eve of the draw. Thornton would "expatiate on the great merits of Linnaeus, explain his system, and exhibit the choicest Flowers of Europe, Asia, Africa and America, and discourse on them, and display a Light obtained from Plants, equal to that of the Sun." Nothing was said of the lottery, though in another column one of the agents was advertising the tickets still (*The Times*, April 28, 1813). It is not altogether surprising that Sir J. E. Smith, who founded the Linnaean Society (to which Thornton was never elected), thought him a quack unworthy of support.

The crescendo of last-minute advertising all speaks of a lack of public interest. The Botanical Lottery had much to compete against and was no doubt less attractive to investors than the periodic State lotteries, with one of which it was drawn. No precise statement of the results has survived, though Thornton's obituarist in the *Gentleman's Magazine* stated that "the results were not sufficiently successful to restore his fortune, and he was ever after a beggarly man."

His main work done, only a few glimpses of Thornton, associating, somewhat as a figure of fun, with the writers and artists of London, or publishing one or two less ambitious compilations, are to be caught from this time to his death. His association with Blake does him little credit, whether in the matter of Blake's illustrations for the re-issue of Thornton's *School Virgil* in 1824 or the comedy of his last book, *The Lord's Prayer, newly translated* (1827) which Blake so scornfully annotated. He crops up in A. T. Storey's *Life of John Linnell*

(1892) in a letter from the architect Tatham, father of Blake's friend and biographer, Frederick Tatham, expressing a poor opinion of him as a doctor. "I hear," Tatham wrote to Linnell, "you still consult that top-sawyer Thornton. He has been a thorn in my side; but I endeavour to forget his unsuccessful and expensive experiments on my poor son."

There is also evidence that Thornton was known, in a ridiculous light, to Keats, though Keats's mention of him appears without note or identification in Mr. Buxton Forman's edition of *The Letters*. Writing to Dilke from Hampstead in 1818, Keats drew up a fooling list of authors and persons in the classes of folio, foolscap, quarto, octavo and duodecimo. It begins "Folio—Parsons, Lawyers, Statesmen, Physicians out of place—ut—Eustace

—Thornton—out of practice or on their travels." Eustace was no doubt the priest, antiquary and traveller, John Chetwode Eustace, dead by that time, and Thornton, the physician out of place and out of practice, was no doubt Robert John, flamboyant in his style and his massive folio. At least it is pleasant to think of Keats turning over the plates of *The Temple of Flora* and pausing at the poisonous and foetid Dragon Arum, at the night-blowing Cereus, opening as the turret-clock (Gothic) points to midnight, or at the Shelleyan *Sensory Plants*, the large-flowering Mimosa of Jamaica, pictured with humming birds and with "one of the aborigines struck with astonishment at the peculiarities of the plant."

Thornton's folio-mindedness, culminating in *The Temple of Flora*, rather than his skill as a writer or botanist or doctor or his taste in literature and the arts, has won him a certain perpetuity. He would be gratified, no doubt, to know that the "Group of Roses" engraved after his own water-colour (which he included in the Linnaean Gallery) "with extreme diffidence" and which he designed "only to express the intentions of the Author of the Temple of Flora, or Garden of Nature, in directing his Flower Pictures" is now one of the rarest of the plates and the most greatly sought after by collectors. If collectors were not perhaps over-reduced by colour, the three folio volumes of *Botanical Extracts*; or *The Philosophy of Botany*, copies of which formed part of the second class of prizes in the lottery, would be in greater demand for the merit of their uncoloured plates. Many of them are excellent, the Foxglove, for example, after Sydenham Edwards, or the anatomy of a pericarp after John Henderson.

Still, it is by *The Temple* that Thornton endures; and, quack or no quack, one may close with part of the encomium written, to go with his portrait in the Linnaean Gallery, by George Shaw, F.R.S., F.L.S., and Keeper of Natural History in the British Museum:

Thornton! while pollen'd Darwin tells  
The loves of Flora's gaudy train,  
'Tis thine to guard from time's decay  
The fading glories of her reign.

## SEVENTEENTH-CENTURY NATURALIST

GEOFFREY KEYNES: *John Ray*. A Bibliography. Faber and Faber, 50s.

During the nine years that have elapsed since Canon Raven's *John Ray, Naturalist*, first appeared, interest in Ray's life and works has been greatly quickened, and collectors have paid increasing attention to his books. Now Mr. Geoffrey Keynes comes forward with a definitive bibliography, and in so doing pays graceful and deserved tribute not only to Canon Raven for the stimulus of his book and for the detailed information contained in it about Ray's various works but also to Mr. Hugh Macdonald, who, having, unknown to Mr. Keynes, also started on a similar bibliography, retired in Mr. Keynes's favour, and with characteristic generosity placed his own notes at the other's disposal. Mr. Keynes modestly does not record in the present bibliography his own preliminary *Handlist of John Ray's Works* which he had privately printed in a few copies for Canon Raven in 1944, although it must undoubtedly have served as a useful basis for the larger work and contributed to its greater accuracy: it should, however, have its place in the Ray canon.

Mr. Keynes has listed Ray's works under 23 main headings, with 108 separate editions and variants, and in his now familiar bio-bibliographical manner has prefaced each purely bibliographical description with a fascinating account of the growth, publication and consequent reception of each book, so that we never forget the author himself and are impressed, as Mr. Keynes has been, with his loyalty to friends, his modesty and his integrity. Ray's versatility has the advantage of attracting collectors of diverse interests, and as only a few of his books can be called really rare, representative collections can still be assembled. Although there are no great bibliographical problems to be unravelled, Mr. Keynes has succeeded in differentiating a number of editions and variants for the first time, and is always illuminating. In a short review only a few points can be recorded. Of the *Catalogus Plantarum Circa Cantabrigiam*, 1660, 18 copies with the Cambridge imprint have been recorded, as against only four with the London one. Of books that Ray himself lists as having used for his *Collection of English Proverbs*, it is noteworthy that *The Children's Dictionary*, "a book well known formerly in schools" (Ray's own phrase), appears from the *S.T.C.* and *Wing* not to have survived in a single copy, while Ray's own *Dictionariolum Trilingue* is represented by an average of only two copies for each of its 12 editions.

ledged, is adjudged "one of the fairest monuments that mark the progress of scientific history," and the *Historia Plantarum* "Ray's greatest work." Mr. Keynes, who writes of the latter, "In June, 1685, Robinson was evidently urging on Ray the publication of Proposals for the new work, but Ray cautiously resisted this," does not seem aware that such a *Proposal* was actually published in the form of a broadside in 1685, for the Guildhall Library possessed a copy which was unfortunately destroyed in the recent war. *The Wisdom of God* was Ray's most popular work; it reached a thirteenth edition by 1762, was reprinted six more times, and was plagiarized by Paley. The amusing story is told of the sumptuous production by the Royal Society of the *De Historia Piscium*, and of how it strained the resources of the society so much that several of its officers received their salaries in the form of 50 or more copies of a volume that had proved unsaleable. In his preface to *Miscellaneous Discourses* Ray excuses his haste in "huddling up and tumbling out Books" by saying:

"Posthumous Pieces generally prove inferior to those put out by the authors in their lives."

Mr. Keynes has not sought to locate copies of Ray's books outside the libraries of the British Isles, but a glance at the uncorrected proofs of the still unpublished third volume of *Wing* bears out the general inference of rarity already indicated, and also reveals the very respectable holdings of the Bibliothèque Nationale, thus testifying to Ray's reputation on the Continent. But an inquiry abroad might have located copies coloured by hand said to exist of the Paris reprint of the *Synopsis Avium*. The Bibliography has been well printed at the Oxford Press, and although its greenish grey paper will not appeal to all, it is handsomely produced, and has reproductions of the more important title-pages and variants, and three collotypes, two of portraits of Ray—an attractive pastel by William Faithorne, and a painting attributed to Mary Beale—and one of a page annotated by Ray of his printed *Catalogus Plantarum Angliæ*.

Ray complains that the bookseller concerned in his *Collection of English Words* was "so stingy and sordid as not to allow me copies for my friends." Of this same curious hotch-potch Skeat, its later editor, pointed out its interest as a source of technical terms used in Ray's day, while Mr. Keynes draws attention to Ray's role as an unregarded pioneer in the reform of English spelling. Willughby's *Ornithologia*, in which Ray's major share is now acknow-

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## A PIONEER OF PRINTING

HELLMUT LEHMANN-HAUPT: *Peter Schoeffer of Gernsheim and Mainz. With a List of his Surviving Books and Broad-sides. Rochester, New York: Leo Hart. 55.*

The literature on the history of the art of printing has become so voluminous and so scattered in a multitude of papers and publications, in periodicals and collections that an up-to-date monograph on any one of its early masters is welcome to our shelves. What printer could more suitably form the subject of such a study than Peter Schoeffer, the younger associate of Gutenberg and Fust? Whatever share, if any, he may have had in the original invention, there can be no doubt that from 1460 onwards, and as sole proprietor of the press after his father-in-law John Fust's death in 1466, Schoeffer was the first man to run a printing establishment as a commercial enterprise. Every step he took in carrying on his business necessarily made him a pioneer and a forerunner of technical and commercial practices observed by subsequent printers. That his example was sound is proved by the fact that, when he died in 1502 in the fullness of years, he was a man of wealth and position, leaving a prosperous and well-established business to the second of his four sons.

Dr. Lehmann-Haupt is right not to devote much space to the discussion of the initial steps of the invention or to the many discordant opinions of various "authorities" on Schoeffer's claim to an essential part in its development to full practicability. All such debating is pure guesswork; we have no valid evidence of the respective shares of Gutenberg, Fust and Schoeffer in the invention. All we know is that the period of fruitless experimentation was protracted and expensive, and that by August, 1457, in the colophon of the magnificent *Psalter*, Schoeffer's name appears as a partner side by side with that of Fust. By 1455 Gutenberg had been eliminated. That Fust was financing the whole enterprise is certain; whether from that fact we must necessarily conclude that he cannot have been able to use his hands or brains as well is a matter of opinion. The 42-line Bible bears no name at all. Since the Gutenberg-Fust team has left us no indisputable evidence of any matured accomplishment and the Fust-Schoeffer team appears on the scene with the masterly achievement of the 1457 *Psalter*, it is open to argue any degree of merit one chooses for Schoeffer's practical contribution to the result.

These sterile debates are left aside and Dr. Lehmann-Haupt concentrates on the activities of Schoeffer as a printer, publisher and bookseller during his long and successful career from 1457 to 1502. He does, however, discuss in some detail the knotty problem of the technical *tour de force* of

the 1457 *Psalter*: the elaborate initials printed in colours. It may be hoped that new enlightenment on this mystery will soon be received from Dr. I. Masson, of Leeds; here we are given an abstract in English of Wallau's theories as set out in a *Gutenberg-Festschrift* of 1900. A reference at least to the brief account of the matter (with two excellent reproductions) in J. E. Hodgkin's *Rariora*, 1902 (II, pp. 30-2) would have been apposite.

Before he embarked on his printing activities Schoeffer had been working as a scrivener of text-books in Paris University. A reproduction of the fine calligraphic colophon with which he signed an Aristotle in 1449 is given from an engraving made in 1760; for the book itself perished in 1871. Another specimen of his formal writing is given in fig. 6, reproduced from van der Linde's *Gutenberg*. It is somewhat unfortunate that below this entry of donation in red ink Dr. Lehmann-Haupt has left standing the receipt signed by Schoeffer in 1468 which he had himself reproduced as fig. 4, and which in van der Linde is found on the same plate. What is worse, he betrays in the facing text ("This statement is signed at the bottom in his usual everyday handwriting") that he has not noticed the hybrid nature of his reproduction and has not been alarmed by the appearance of a receipt dated 1468 in a book printed in 1472.

In the chapter on Schoeffer's achievements as a book designer the limiting influence of the current manuscript books on the freedom of the printer to compose his page and its decoration is brilliantly set out without the author's falling into the common misconception that the first printers were "forging manuscripts." Not only in form but also in subject-matter and content the printer had to supply what the public required. If Schoeffer devoted his best efforts to the production of stately folios of Canon Law it may not have been due to a vivid interest in the subject acquired in his university days, as Dr. Lehmann-Haupt seems to think, but rather because he had had occasion to observe in Paris what high prices the Canonists were willing to pay for their text-books. The abrupt cessation of his activities in this field in 1479 finds its natural explanation in the appearance of the Venice and Basle editions of the *Decretals*, less sumptuous and undoubtedly much cheaper, with which Schoeffer would not or could not compete.

The survey of the specialities favoured by Schoeffer as a publisher makes an interesting study. In fine liturgical printing the creator of the 1457 *Psalter* remained supreme throughout his life. The versatility with which he turned to other difficult problems, such as the first of all Herbals, is duly brought out. Dr. Lehmann-Haupt, who for some time after

1945 was stationed with the American forces in Berlin, was able to examine the material assembled by the Kommission für den Gesamtkatalog der Wiegendrucke, and so could obtain an up-to-date list of Schoeffer's known publications, which brings the total from the 114 recorded by Burger in his *Index*, to 253. The preponderant majority of these latter-day discoveries are, however, not "books" but broadsides found in the files of German archives. The great number of such small and ephemeral impressions reveals the rapid adoption of the new methods of multiplication by the shancers, both ecclesiastical and secular, for bringing their enactments to the notice of the public. Other such pamphlets and single sheets of a less official character testify to the early emergence of the "news-sheet" and the beginnings of journalism.

Dr. Lehmann-Haupt's study assembles most of the known facts about Schoeffer and his press from a great variety of sources and publications, mostly, of course, German and therefore not everywhere accessible. He has rendered a most praiseworthy service in presenting the result of his researches in compact form, admirably printed and illustrated with excellent reproductions.

## THE 42-LINE BIBLE

*Antiquarian Bookman*, the weekly magazine of the antiquarian book trade in the United States, has issued with its number dated November 18 a "Special Bible Supplement in honor of the 500th Birthday of the First Printing of the First Printed Book, the Gutenberg Bible." There are articles about Gutenberg, who is throughout stated to be the printer of the Bible which still commonly bears his name; and the reader is not burdened with any consideration of the theory, widely held by responsible incunabulists, that it was in fact printed by Fust and Schoeffer. There is a chronology of the Bible from 2000 B.C. to A.D. 1950, and an alphabetical list of interesting, significant or curious editions. Best of all, there is an up-to-date census of copies of the 42-line Bible, compiled by Mr. Edward Lazare: based on those of Schwenke (1923), De Ricci (1911), Reichner (1927), and H. L. Johnson (1932), but with several corrections besides those necessitated by changes of ownership. Of the 45 copies recorded here (one other was broken up by Gabriel Wells in 1921), 12 are on vellum and 33 on paper. Four of the vellum copies and 17 of the paper copies are perfect. Of the total number, perfect and imperfect, 12 are stated to be in the United States, 11 in Germany, nine in Great Britain, four in France; there are two each in Italy and Spain, and single copies in Austria, Denmark, Poland, Portugal and Switzerland. Two copies, and two half copies, are in private hands.

History and Bibliography of Botanical Book Illustration

*Die botanische Buchillustration*

IHRE GESCHICHTE UND BIBLIOGRAPHIE

by

Dr. CLAUS NISSEN

Two volumes in 4to.

THIS WORK, written in German by the librarian of the Mainz City Library, is the first attempt to present a complete survey of the History and Bibliography of Botanical Illustration of all countries from the invention of printing down to the present day. Every librarian, book-collector, bookseller and botanist knows how difficult it is to collate old botanical books. There was until recently no reliable reference work which could be consulted to find out whether a work containing botanical plates was complete or defective, or to identify the artists and the publishers, or to distinguish between first and later editions. There was no complete survey to show the various literary, artistic and scientific aspects of old botanical works.

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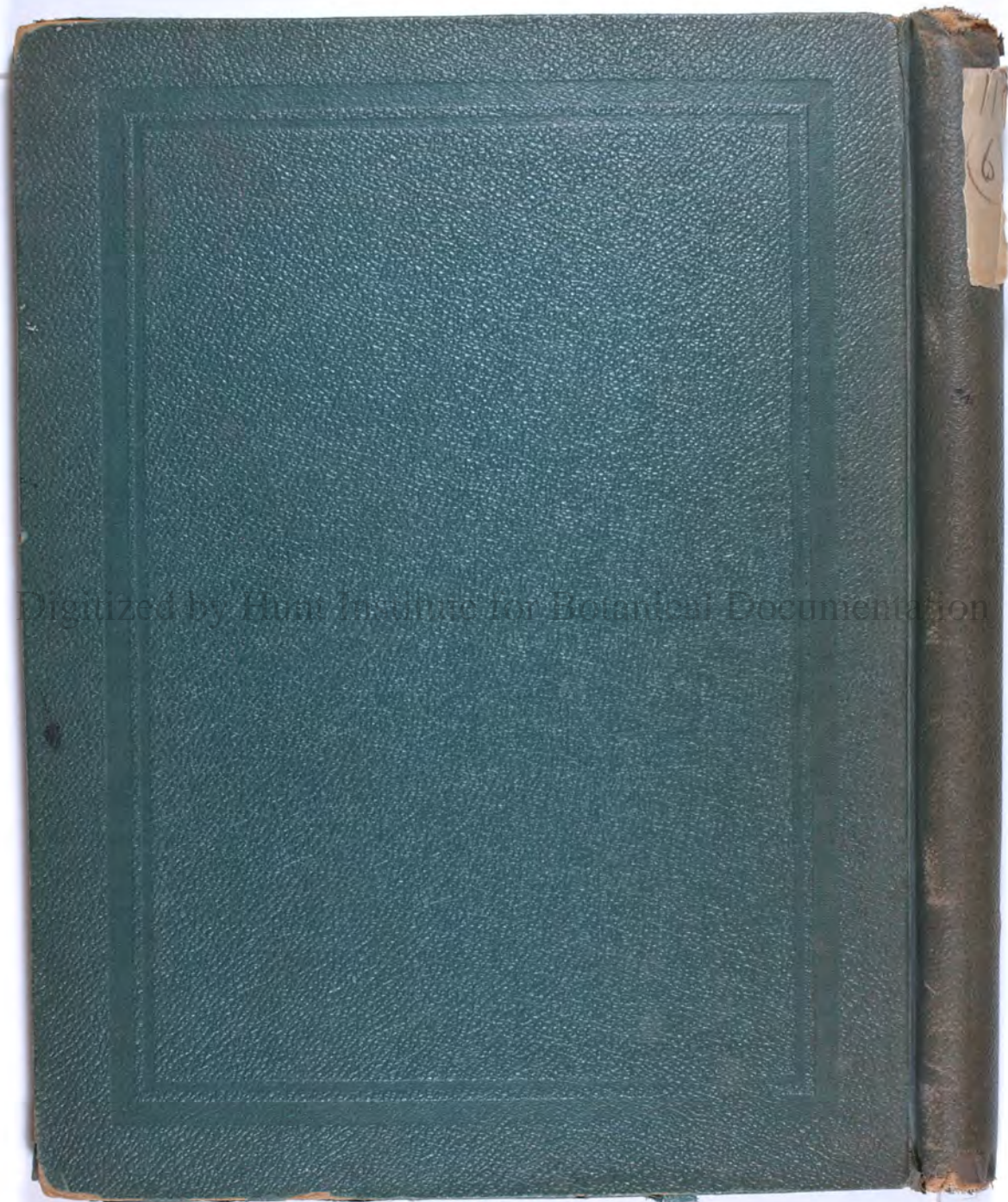
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(F. E. Day, Arushu Curator)  
near Easton Ave.

Day, F. E. (1950) Mesopotamian Manuscripts of  
Dioscorides. Bull. Meluphot Museum of Art.

May. pp 274 — 280

Deeds were copy of MS of Dioscorides for the Mashhad  
shrine, which I think belongs to be of the 3rd quarter 1 to 12 C.  
The Melup. Mus. has one page of a 13th cent. MS.  
(my change expression - commercial sheets an expansion)



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