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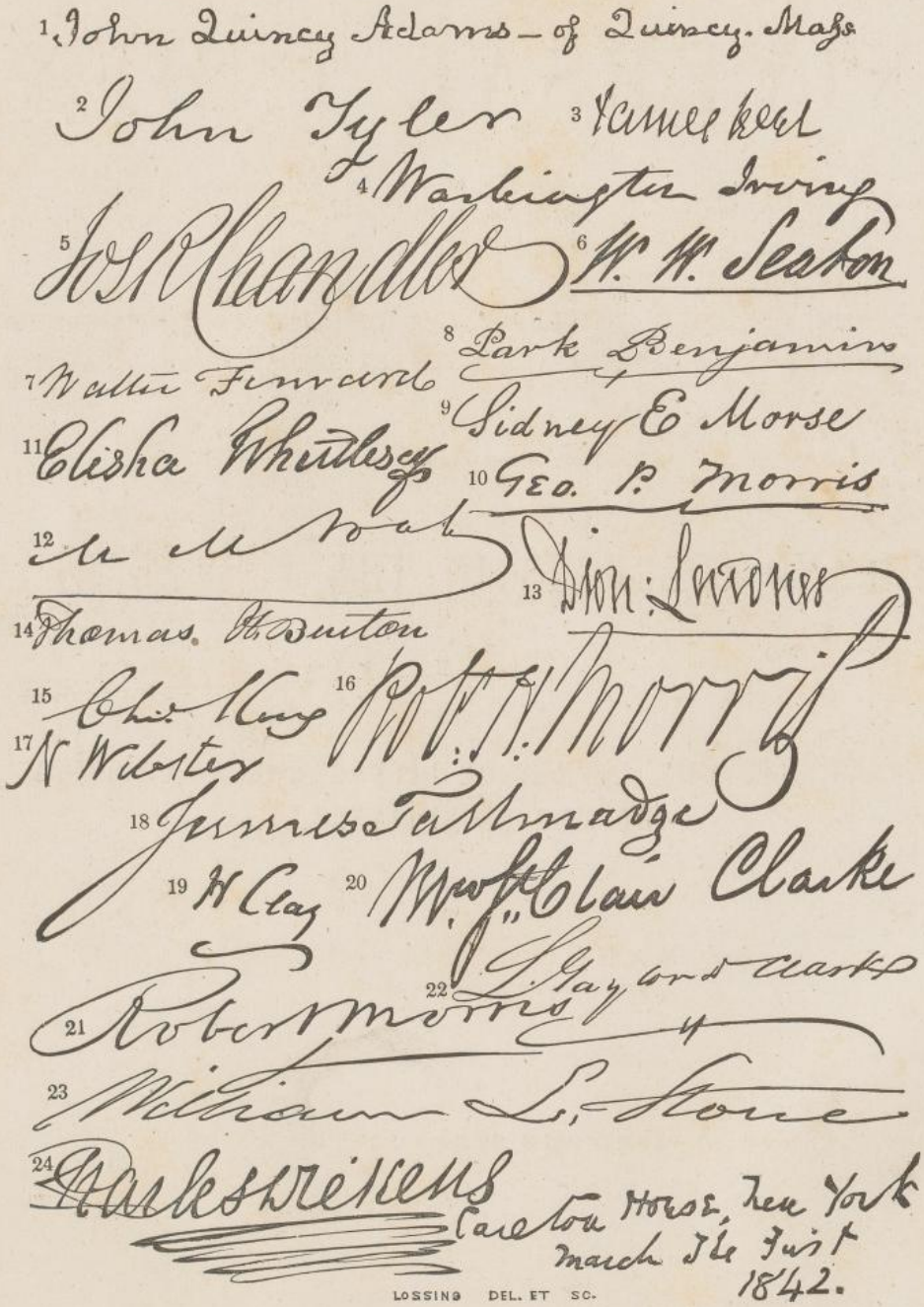
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2. President of the United States.
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5. Editor of United States Gazette, Philadelphia.
6. Mayor of Washington, and Ed. Nat. Intelligenc
7. Secretary of the Treasury of the United States
8. Editor of New World.
9. Editor of New York Observer
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11. Auditor of General Post Office.
12. Formerly Editor, now Judge.
13. Editor of Encyclopedia, Professor, etc.
14. United States Senator from Missouri.
15. Editor New York American.
16. Mayor of the City of New York.
17. Author of Dictionary, etc.
18. President of the Home League.
19. United States Senator from Kentucky.
20. Clerk of House of Representatives.
21. Editor of Pennsylvania Enquirer.
22. Editor of the Knickerbocker.
23. Editor of Commercial Advertiser.
24. Boz.

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A

UNIVERSAL INDEX,

WITH DIRECTIONS

FOR SAVING TIME, ACQUIRING KNOWLEDGE, AND HAVING IT AT COMMAND THROUGH LIFE, BY MEANS OF AN APPROPRIATE ALPHABETICAL AND NUMERICAL KEY:

DESIGNED FOR THE USE OF

SCHOOLS AND COLLEGES IN THE UNITED STATES,

AND FOR

PROFESSIONAL MEN, LOVERS OF LITERATURE AND SCIENCE, AND MEN OF BUSINESS.

BY MARCUS T. C. GOULD,
STENOGRAPHIC REPORTER, &C., &C.

TENTH REVISED AND STEREOTYPED EDITION.

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KEY

TO GOULD'S UNIVERSAL INDEX,

GRADUATED FOR A BLANK-BOOK OF THREE HUNDRED PAGES.

MISCELLANEOUS.

Number of Pages to each Letter or Chapter.		Sections or vowels.	Pages of Blank Book.	Pages to each vowel.
17	A	a	1	3
		e	4	4
		i	8	5
		o	13	3
		u	16	1
		y	17	1
22	B	a	18	6
		e	24	5
		i	29	2
		o	31	5
		u	36	3
		y	39	1
34	C	a	40	12
		e	52	3
		i	55	3
		o	58	12
		u	70	3
		y	73	1
13	D	a	74	3
		e	77	3
		i	80	2
		o	82	2
		u	84	2
		y	86	1
14	E	a	87	5
		e	92	4
		i	96	3
		o	99	1
		u	100	$\frac{1}{2}$
		y	100	$\frac{1}{2}$
14	F	a	101	2
		e	103	3
		i	106	3
		o	109	5
		u	114	$\frac{1}{2}$
		y	114	$\frac{1}{2}$
2	Q	u	298–9	
9	G	a	115	3
		e	118	2
		i	120	2
		o	122	1
		u	123	$\frac{2}{3}$
		y	123	$\frac{1}{3}$
12	H	a	124	3
		e	127	2
		i	129	2
		o	131	3
		u	134	$1\frac{1}{2}$
		y	135	$\frac{1}{2}$
5	I	a	136	1
		e	137	2
		i	139	1
		o	140	$\frac{1}{3}$
		u	140	$\frac{1}{3}$
		y	140	$\frac{1}{3}$
5	J	a	141	1
		e	142	$\frac{1}{2}$
		i	142	$\frac{1}{2}$
		o	143	2
		u	145	$\frac{1}{2}$
		y	145	$\frac{1}{2}$
5	K	a	146	1
		e	147	2
		i	149	1
		o	150	$\frac{1}{3}$
		u	150	$\frac{1}{3}$
		y	150	$\frac{1}{3}$
9	L	a	151	2
		e	153	2
		i	155	2
		o	157	2
		u	159	$\frac{1}{2}$
		y	159	$\frac{1}{2}$
1	Z	a 300 | e 300 | i 300 | o 300 | u 300 | y 300		
17	M	a	160	8
		e	168	1
		i	169	2
		o	171	4
		u	175	$1\frac{2}{3}$
		y	176	$\frac{1}{3}$
8	N	a	177	1
		e	178	2
		i	180	2
		o	182	2
		u	184	$\frac{1}{2}$
		y	184	$\frac{1}{2}$
5	O	a	185	1
		e	186	2
		i	188	$\frac{1}{2}$
		o	189	1
		u	189	$\frac{1}{4}$
		y	189	$\frac{1}{4}$
22	P	a	190	7
		e	197	5
		i	202	4
		o	206	3
		u	209	2
		y	211	1
14	R	a	212	2
		e	214	3
		i	217	2
		o	219	5
		u	224	1
		y	225	1
29	S	a	226	5
		e	231	8
		i	239	10
		o	249	5
		u	254	$\frac{1}{2}$
		y	254	$\frac{1}{2}$
19	T	a	255	4
		e	259	2
		i	261	3
		o	264	7
		u	271	2
		y	273	1
3	U	a	274	1
		e	275	1
		i	276	$\frac{1}{4}$
		o	276	$\frac{1}{4}$
		u	276	$\frac{1}{4}$
		y	276	$\frac{1}{4}$
5	V	a	277	3
		e	280	$\frac{1}{2}$
		i	280	$\frac{1}{3}$
		o	281	$\frac{1}{3}$
		u	281	$\frac{1}{3}$
		y	281	$\frac{1}{3}$
14	W	a	282	3
		e	285	3
		i	288	5
		o	293	2
		u	295	$\frac{1}{3}$
		y	295	$\frac{2}{3}$
$\frac{1}{2}$	X	a	296	–
		e	296	–
		i	296	–
		o	296	–
		u	296	–
		y	296	–
$1\frac{1}{2}$	Y	a	296	–
		e	296	–
		i	297	–
		o	297	–
		u	297	–
		y	297	–

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INTRODUCTION.

An index to a book is an alphabetical arrangement of the topics treated of or discussed in it, with the page on which the several contents may be found. It is, in fact, a minute and classified table of contents.

A Universal Index is an alphabetical arrangement of the heads of everything that is valuable in one's general reading, with the name of the book and page where they may be found. It is a minute and classified table of contents to one's whole library, or circle of reading and study, or rather to those select portions thereof which may be deemed worthy of preservation. It does not properly contain facts, or opinions, or sentiments, fully written out; it would in that case be a Common-Place Book, or Album.

A well-arranged index is the most convenient and effectual substitute for a memory, however powerful or well-regulated, enabling one to find in a moment any of those scattered fragments of general knowledge which, in his hours of patient study and intellectual thrift, he has marked and labelled for future use.

To the professional man and the student such an index is not only invaluable, but indispensable; and not to these alone: there is no intelligent mechanic, farmer, or tradesman, who does not occasionally meet with hints, suggestions, or extended essays, which have an important bearing upon some branch of his business, and for which he may have no immediate use, but which in the course of time he might be willing to give a great deal to be able to find again. One moment employed in entering the matter properly in an index, would save hours, and sometimes days, of perhaps fruitless search. Such a book, then, to the student and the man of business, is one of the most simple and useful of labor-saving contrivances: and such a book the author has endeavored to present in the following pages.

EXPLANATION OF THE PLAN AND MODE OF USING THIS BOOK.

The Key on the opposite page, or one constructed on the same principles, is bound at the beginning of a blank volume of ruled paper, with a red head line, and left-hand marginal line of an inch and a half in width.

This blank-book is divided into twenty-six chapters, answering to the letters of the alphabet from A to Z, and each chapter (except Q, which is always followed by u) into six sections, answering to the six vowels, a, e, i, o, u, and y, the chapter, section, and folio, being indicated at the head of each page.

By this arrangement, this Key is a perpetual directory, pointing to the chapter, section, and page, of the blank-book, on which every entry is made, however numerous the names or various the subjects within the scope indicated. In this respect it differs entirely from other indexes, which are usually constructed to suit the entries already made; and from other alphabets, which usually occupy as many pages as there are letters; and at the same time, it differs from both, by giving at a glance a synopsis of the whole arrangement of the book, and its system of classification and apportionment.

These are based upon the result of a thorough examination of the following works, viz.: Webster's large Dictionary of the English Language, Crabbe's Universal Dictionary of Arts and Sciences, Lempriere's Classical Dictionary, M'Culloch's Commercial Dictionary, Falconer's Marine Dictionary, Tomlin's Law Dictionary, Hooper's Medical Dictionary, Cruden's Concordance, Brooks's Universal Gazetteer of the World, Directory of the City of New York, Catalogue of 14,000 Postoffices in the United States, Scripture Names of Men and Women, Index to Digests of the Laws of the United States, and of the State of New York, to the Encyclopedia Americana, and, lastly, to the catalogues of the three great libraries—that of Harvard University, at Cambridge, Mass., Philadelphia Library, and the Library of Congress, at Washington.

The capital letters, vowels, and large figures in the Key refer to the pages of the General Index or volume, the small figures show the number of names, or of pa-

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ges to which each chapter and each section is entitled, according to calculation.

When an entry or memorandum is to be made, observe the following

DIRECTIONS.

If a subject begins with A, place it in chapter A. If with M, P, L, S, W, or any other letter, put it in the chapter of the same name as the *initial letter*.

If, after the first letter of the word, the first vowel be a, let the word be put in section a, of its proper chapter; and the same of e, i, o, u, or y. In the Key, against these vowels or sections are figures referring to the page where the entry is to be made. The characteristic word, name, or subject, should be distinctly and legibly written in the left-hand margin of the book. This is particularly useful in reference; for a number of words may begin alike, as they do in a dictionary or directory, and are then to be sought in the marginal column as words are sought in a dictionary or directory.

ILLUSTRATIONS.

In the word Adams, A is the first letter, and a the first vowel that follows after that first letter, therefore this subject belongs to chapter A, section a, which is page 1

The word Boston, by the same rule, belongs to chapter B, section o, page 31

The word Philadelphia, to chapter P, section i, page 202

The words War and Washington, to chapter W, section a, page 282

The words Navy and Napoleon, to chapter N, section a, page 177

The words Congress and Constitution, to chapter C, section o, page 58

The word Tyler, to chapter T, section y, page 273

The word Bank, to chapter B, section a, page . 18

The word Veto, to chapter V, section e, page 280

When a word begins with a *vowel*, and has no other vowel after it, the first letter determines both the chapter and the section to which the word belongs, viz., Old should be put in O, o, and Ash in A, a.

This system is perfectly simple and easy, but as a help to those who would like to see it practically illustrated, the following examples of common entries are given. They are selected indiscriminately, but the manner of making them will not necessarily be less clear on that account.

	(This belongs to Chapter A, section e, page 4)
AMERICA,	Question of its Discovery. *Irving's Columbus—Appendix.*
	(This to Chapter A, section u, page 16)
AQUEDUCT,	Croton. with a Sketch of the most important Ancient Works. *N. Y. Herald*, vol. 7, No. 4, *Oct.* 15, 1842.
	(This to Chapter A, section o, page 13.)
ASTROLOGY,	Faith of the Aztecs in it. *Prescott's Conquest of Peru*, vol. 1, page 120.
	This to Chapter B, section u, page 36.)
BUNKER'S HILL,	British Account of the Battle. *Am. Archives*, 4th series, vol. 2, page 1092.
	(This to Chapter I, section i, page 139.
INDIANS,	Peculiar Idioms of their Language *Mather's Magnalia*, book iii.
	(This to Chapter T, section o, page 264.)
TOBACCO,	Royal Anathema against its Use. *Works of King James I*, pages 214–222.

HINTS WHICH IT WOULD BE WELL TO REMEMBER.

1. When you have once begun to use this index, pursue the matter systematically, and never omit to make proper entries of what is really worth preserving.

2. Enter nothing that is not important. Trifling matters will encumber your pages, and confuse rather than help you.

3. Always write your entries in a fair legible hand. It will often save time and trouble in referring to them afterward.

4. Should you employ abbreviations, which are often convenient for economy of space, be uniform and systematic in their use, that they may be as obvious at a glance as the word intended.

5. In case you wish to make an entry of anything when not within reach of your index, keep a memorandum of such matters in your pocket or wallet, be being sure to make it your first care to enter all such on the first opportunity.

6. In all cases where it is practicable, never sit down to read without your index at hand, that you may note down at once anything desirable to be preserved.

7. It is better not to have any reference at all than an imperfect or incorrect one. Be careful to name the page, volume, edition, &c., with precision.

It may be gratifying and perhaps instructive, to read the Lecture which follows on page 5, as it presents the advantage of *method* and the disadvantage of a want of it in a variety of imposing forms. The reader is therefore respectfully referred to it.

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LECTURE.

FRANKLIN has said that "Time is money;" that "A penny saved is worth two earned." One wiser than Franklin has said, "Take fast hold of instruction;" "Knowledge is better than fine gold;" "Wisdom is better than rubies;" "A wise man will hear, and will increase learning."

To save time and increase knowledge, then, appear to be desirable objects. But how shall they be attained? Upon this subject I will offer a few hints.

In addition to the numerous lights and aids by which we are surrounded in youth and manhood, we must have more method, more fixedness of design, as it respects the classification and arrangement of our knowledge for safe-keeping, future reference, and use; and this work must be commenced in our schools and colleges. I would recommend the *young* man who wishes to *save time*, and *treasure up useful knowledge*, to acquire the art of *short-hand*, as an invaluable *labor* and *time saving art;* it will be found an intellectual lever of manifold power. I would advise him, next, to provide a blank book, and open an account with each and every important subject, branch, or source of information, to which his attention may be from time to time directed, while at school or college, while studying a profession, or otherwise preparing himself for usefulness in active life, whether as a farmer, merchant, manufacturer, or mechanic. This blank book should be a universal index, to be filled up by himself, in such manner as to form a sure key to every important subject, fact, or circumstance, to which he may wish to recur during his future life, and to which his children may refer when he shall have passed away.

Each young man might open an account with geography, with astronomy, with logic, with rhetoric, with chemistry, geology, mineralogy, botany, and the animal kingdom; with history, ancient, modern, civil, profane, or ecclesiastical; and, if he please, with various ramifications of miscellaneous history, such as biography, mythology, memoirs, chronicles, annals, journals, genealogy, romance, fables, &c.

The merchant, who receives a bill of goods from his correspondent in London or Liverpool, is particular not only to file that bill for future reference, but to copy it entire into an invoice book, that he may at pleasure look to the quantity, quality, and price of the several articles. So, the young man who attends a lecture, or course of lectures, or reads authors for the information or knowledge which they may impart, should, at the close of every such lecture or reading, or as soon after as practicable,—at the end of an hour, a day, or a week, at the close of a chapter or volume, pass to the credit of the lecturer or author, under appropriate heads, the essential facts or ideas which may have been derived from that source—not necessarily, nor even advisedly, in the very language of the lecturer or author, but in the language of the pupil or learner, who should always aim to condense language and express ideas with the fewest words that will answer the purpose. For it is an acknowledged evil of the age in which we live, that our public men, and among them some of our great men, think too little, speak too much, and write too much. They often fill the broadside of a newspaper with words, though their ideas might find room in a nut-shell. A judicious system like the one which I propose may soon be made familiar and easy, so that everything may have a place, and everything be in its place.

The habitual mental effort, of endeavoring to grasp the substance of what we see, hear, and read—of seeking ideas rather than words—the kernel rather than the shell—the grain rather than the chaff—the gold rather than the dross; and of classifying, arranging, and expressing in our own language, and with the fewest and most appropriate words, can not fail to strengthen the

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powers of the mind and improve the faculty of memory. If, to this, we add the mechanical operation of writing down, we secure still greater advantages, and shall know more and remember more, though we never afterward look at what we have written. In addition to this, if we resort to the all-important safeguard of committing our notes, at once, to the sure keeping of a well-arranged, systematic *common-place book*, to every item in which we have an *index* or *key*, and that key be not permitted to rust for want of use, we may be able at a future time to say, we have thereby increased our knowledge four-fold, and our command over it ten-fold.

I commenced by recommending a course for young men; let me now add a few hints for those who are neither very young nor very old — I mean those who are old enough to have felt the want, and to appreciate the value of such a system as I am about to suggest, and not too old to profit by it, should they think proper to adopt it. I will confine myself to no particular classes or professions, for I am aware that many gentlemen of the learned professions have their *vade mecum*, their *index rerum*, &c.; that farmers and mechanics have their manuals and their companions; those who navigate rivers and lakes, have their pilot's guide; those upon the ocean their practical navigator, their instruments, and their charts; but all these are made by others. I want each individual to prepare something for himself, though all these are valuable in their respective places and to particular classes. So, for general use, is the alphabetic arrangement of a dictionary, the directory of a city, the gazetteer of a particular country, or of the world, the index to a leger of accounts, to almost every book that is published, and to the various articles in a universal encyclopedia; but there is something yet wanting, which will come directly home to the case of every individual, and which may be called by each individual *my own book*, or a key to all my own knowledge. As no one can think for us, or answer for us in the final day of account, so, neither can any one prepare for us precisely such a book as *our* circumstances require. Do not infer from this, that I would recommend the discontinuance of any of the facilities which I have named; they are all necessary and proper; and still, each individual needs the addition of a single book, to be prepared by himself, which shall be a key or index to all others, and, if properly arranged, to all the acquired knowledge of a long life. This great desideratum, though ardently desired by many, has been sought for, and attained by comparatively few. Like many important discoveries and inventions, it has remained for the present and future generations to appreciate its importance, and profit by its general adoption in academies and colleges. That this will be the case in a very few years I have no doubt, notwithstanding the wonderful tenacity of habit, sanctioned by the usage of ages. To show the blindness and inveteracy of certain literary habits, I will produce a single example, directly to the point:—

About the time that steam began to be employed in the United States for the propelling of boats, certain gentlemen in New York and Philadelphia, had commenced a republication, or an American edition of the Edinburgh Encyclopædia; but, owing to the failure of the projectors and beginners of that great literary work, it was more than twenty years in the press. During all that time, the American public felt a deep and absorbing interest in the subject of steam; and the learned article which was promised and expected in that work, was looked for with almost painful anxiety by its patrons and the public; and though it was actually written for a number of years, still it was not reached in *alphabetic order* till the year 1830. Successive numbers and volumes of the work continued to appear under different letters of the alphabet, in order, down to the long looked-for letter *S*, without the aid of which, it was shrewdly insisted by the literati who had the publication in charge, that the *word* STEAM could not be *spelled*, much less, the *subject* treated of with philosophic gravity and a well-grounded hope of success with the American people. The properties, powers, and capabilities, of this great agent, *steam* — which has since revolutionized the commercial and manufacturing world, and is now active in every land and upon every sea over the habitable globe — though then seen, heard, and felt, upon almost every American river and lake, could not be described, but the subject was actually postponed for twenty years, to give time and place to the letters A, B, C, and D; and a description of acorn, bagpipe, conchology, dentology, and other equally important and urgent subjects, through all the more favored letters of the alphabet, till the theory and practice of steam had become compara-

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tively as familiar as ploughing, hoeing, or mowing.

That very young children should acquire a habit of reading their alphabet downward, when they can not read it upward or promiscuously, is not at all surprising; but that grown-up children, men, and philosophers, should be kept in leading strings, and thus tied up to habit, is certainly surprising: but it is no less true with regard to some of the literary shackles imposed by usage and the popular routine of schools and colleges, of which I shall have occasion to speak directly. I have often heard reasons assigned, for not commencing in early life, some systematic plan of indexing and common-placing, which to me appeared equally trivial as that for neglecting the article of steam, on account of the primogeniture of certain letters of the alphabet.

It is sagely asked, who can make an index to a book, till it is written or printed? Who can make a directory to a city till he has learned who lives in it, and where they live? And how can a young man make an index to the contents of his own brain till there is something in it—to various knowledge which he has not yet acquired, or to the reading of his life till the close of it? If there be any sense in these inquiries, as well might early lexicographers have said, hundreds of years ago, when they found the many thousand words of a language in utter chaos, we can not make a dictionary of a language till the words are all made. But such folly was not insisted on; the work of analysis and classification was commenced. All words beginning with the letter A were put together in one class; all beginning with B were put in another, and so on through the alphabet, till all were arranged in classes, answering to the several letters of the alphabet. This was the first step toward that beautiful system of alphabetic arrangement, which we now find in such general use, in the various ways which I have enumerated —of course I do not include the abuses of the plan illustrated in the case of steam. But as words continued to multiply with the increase of arts, sciences, and knowledge in general, each of these great divisions became too extensive for ready reference, and necessity soon led to another valuable discovery, It was this: that all words beginning with the letter B, might, for more ready reference be appropriately placed in subdivisions, according to the particular vowel which followed after the first letter of each word, viz: ba, be, bi, bo, bu, by; and so of each letter in its turn, through the entire alphabet. This plan, taking our English alphabet of twenty-six letters, and six of them vowels, would require one hundred and fifty-six subdivisions, but for the the fact that q is always followed by u, which reduces the subdivisions to one hundred and fifty-one. And this second step was in fact the *ne plus ultra;* for the same arrangement has continued to the present time, without material change. I found this plan in use when I came upon the stage, some 30 or 40 years ago, and was told, by Barclay, Sheridan, Entick, and other dictionary-makers, that the English language then consisted of about 30,000 words: and the same plan is made to answer now, even by Noah Webster himself, who professes to know more than all who have gone before him. He has been able to gather up, spell, accent, define, and arrange under the same 151 heads, chapters, and subdivisions, no less than 80,000 words. All these words, like so many letters, papers, or documents, filed and deposited in a well-regulated series of pigeon-holes in a postoffice, or prothonotary's office, can be readily referred to, by any school-boy in the land, who has a copy of that invaluable work, Webster's Dictionary—and by-the-by, none should be without it.

I now propose that every man, both young and old, who has any regard to system, order, or arrangement, as it respects the multifarious matters of interest which have been already brought within his observation, or which may hereafter be deemed worthy of preservation, shall be enabled by the aid of a common-place book, or general index, filled up by himself, to turn to any part or portion 20 or 40 years hence, as readily as he would turn to a word in Webster's dictionary, a residence in the city of New York—or, as readily as our United States librarian puts his hand upon any volume in the great national library of Congress, at the Capitol in Washington. And who, that has witnessed the readiness with which any volume is produced from that immense collection, does not admire the system by which the keeper is led to his object with such unerring certainty, and with so little pains;—and is this the result of haphazard guess-work—is it a miracle of memory to which he is indebted? No, it is neither; it is the result of order and method—the same kind of systematic arrangement which I

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propose to teach, and to have taught, in the schools and colleges of the United States, by means of my lectures, printed instructions, index, and common-place books; for which design I asked and obtained a copyright ten years ago, and which I have lately renewed, with improvements.

I would ask, to whom are we indebted for the philosophic classification of the many thousand volumes in our national library? We are indebted to the immortal Jefferson, who, following the example of the French philosophers, had thus classified and arranged his own princely library, and whose system has been adhered to, in arranging the library of the nation, of which his now constitutes so large a portion. Following up the hints of Bacon, of Locke, and of Jefferson, a synopsis of two pages (in this work, one page) is made a key to a printed catalogue of 700 octavo pages; and this catalogue, divided into 44 chapters, is a key to as many thousand volumes, the location of each being pointed out like the number and street of a resident in the city of Philadelphia, New York, or Boston, by means of a directory.

You have seen with what readiness the merchant, or bank clerk refers to the minute items of a long account through the alphabetic arrangement of his index, and the paging of day-book, journal, and leger.

The great characteristic difference between his system and the one which I propose is, that his is confined to pounds, shillings, pence, or dollars and cents, and mine has to do with men and things—with authors, books, sciences, arts, times, places, distances, dates, amounts, facts, and circumstances—that is, with useful knowledge, rather than with dollars and cents; with knowledge of every possible variety, no matter how varied, for everything has a name, and must be spelled with letters belonging to our common alphabet, of which there are but 26, and hence *my* classification for future reference is into 26 chapters, A, B, C, D, &c.; and each of these chapters into six sections a, e, i, o, u, y.

If facts were dollars, and ideas dimes or cents, they would not be intrusted to memory alone; there would be some attempt at book-keeping in our schools and colleges, and this plan is offered as a system of such book-keeping. A blank book is provided, and by previous arithmetical calculation, the several pages are allotted to specific objects, as are the several compartments in a printer's case; and subjects, however diversified, are put in their respective places as a printer distributes his types, and they are sought for with the same certainty of success.

When we reflect upon the scrupulous exactness with which the account-books of a prudent merchant, farmer, or mechanic, are made to show the place, circumstance, or disposition of every item of his money or property; when we see a man, comparatively uneducated, turning at pleasure to all the trifling items of a long and complicated account of perhaps many years standing, is it not a matter for astonishment, that ninety-nine in the hundred of our well-educated men are unable, when called on, to refer with any degree of facility or certainty to a twentieth part of the valuable information which, in times past, they may have called their own, but of which they have now only a vague and indistinct recollection? They are as much at a loss as the printer, when by accident, his types are thrown into pi.

Days, weeks, and months, are wasted in tiresome and often fruitless search for that which has been, seen, heard, or read, and to which recurrence is desirable, but, for want of some rational and fixed design, it is perhaps lost for ever.

Why is this? Is it that the items which make up our fund of useful knowledge are so much less valuable than the items which compose our perishable earthly riches? Certainly not. It is that, with the exception of Bacon, Locke, Franklin, Jefferson, and a few others (and among our cotemporaries I would name John Quincy Adams), the literary world has been divided into two great classes, viz.: *writers* and *readers*. The first have been satisfied with writing for others to read; the second, with reading what the first have written—to do which, in this book-making age of the world, is, too often, grasping images and shadows, rather than objects and realities. By undertaking too much, they endanger all. It is like attempting to cull flowers and fruit, from the gardens and fields, which we pass on a railroad excursion. Those who have read a hundred or a thousand books, are often less learned than some of a former age who read but ten books. But our fathers have done without system, our cotemporaries are now generally without method; and from our primary schools to our colleges, and universities, the learner is permitted to revel, amid rich profusions of useful learning, comparatively without

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mental effort, and without method or design as to future reference or future want. He is permitted to lavish for the present, and depend on memory for the future. The mental labor being performed by authors and teachers, the pupil not unfrequently finds himself in after life, like the profligate heir, but little better for his inheritance. To see the absurdity of this prodigal course, we have only to refer to any of the ordinary interests and pursuits of human life, except that of acquiring and retaining useful knowledge.

Locke's plan, variously modified, has been adopted by a very few professional men; but, so far as I am informed, no one, except myself, has undertaken to prepare and bring into general use, through academies and colleges, a system of book-keeping, the objects of which are co-extensive with the vast circle of human knowledge, and still so simplified as to be adapted to the capacity of youth, and so cheap as to find its way into common schools.

The accomplished lawyer, who has an important suit to manage, and especially if well feed for it, after learning all that he can, of the merits and demerits, from his client, examines various authorities, calls into requisition all his own fund of acquired knowledge and experience, and, from all these, with all the testimony in the case, he prepares a brief for argument. This brief, in his own words, would be fit matter for his own common-place book, and should at once find its place there, for it may be useful some other day; it would occupy but little space, though embodying the result of extensive and laborious research, and could be turned to by an index at any time through life. Suppose that, from some cause the suit in question should be postponed for a number of years, and the *brief*, instead of being thus recorded in its appropriate place, should be left upon a loose scrap of paper in the ordinary way, and the paper lost — would not the lawyer have cause to regret that he had neglected the three or five minutes to his *place-book*, which would save him, now, the labor of, perhaps, as many hours, days, or weeks?

I have given this single example, of a single individual, upon a single subject, in making a single entry in his own place-book, or general index; and I desire to see each and every individual treating each and every important subject in the same systematic and thorough way through life, so far as his situation, calling, and ability, may enable him. With this resolution, this system, and laudable industry, I should have no fear but that he would become a wiser man, than if he left everything to chance, as is now the practice.

But there must be a beginning; and I am asked, how shal I begin? I will endeavor to tell you.

The merchant can open a set of books, and commence keeping accounts with a single individual upon a single page of his leger, and as his business increases, he can open a page for each additional customer, without creating any confusion. And so it is with this plan — It can be commenced by littles, not necessarily by lawyers and other learned, or professional men, but by boys at school, from whose ranks, all professions, trades, and occupations, are, and must continue to be replenished. But, as this has not been the case in schools heretofore, we must take things as we find them — not as we wish them.

We will then suppose, that the farmer, the merchant, or the mechanic, already entered upon the active duties of life, to the neglect of all system and memoranda, should now determine to open a general index, according to my advice, and in imitation of the example which I have given. Suppose he should apply his best mental faculties to a few subjects which he may think most dserving of his consideration, and record the result in the fewest words which may answer the end. Suppose that he should, at the same time, commence filing, numbering, and indexing, all important state papers and other documents which fall in his way, rather than throwing them under foot — do you not think it would richly compensate him, or his children, for the time and trouble bestowed? I think it would.

For his amusement, then, if not for his edification, let me suggest the contents of a few pages in his book — without particular regard to order, as it respects the importance of subjects, or fitness as to precedence among the subjects.

Suppose he devotes one page to agricultural interests, one to mechanic arts, one to trade and commerce, one to natural sciences, one to literature, one to politics, one to religion, one to law, one to medicine, one to proceedings in congress, one to proceedings in the legislature of his own state, one to canals and railroads — one to abolition, if he think proper — but if so, one to colo-

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nization, one to anti-masonry and masonry, one to whiggery, one to anti-whiggery, &c. — though, in my opinion, he might better substitute for the last six, the following three, viz.: one to minding his own business, one to letting the business of others alone; and thirdly, one to faith, hope, and charity.

I am aware that this is rather a formidable series for a beginner, and still I have named but twenty subjects, of which, I should prefer to drop six, leaving but fourteen.

Now who could not, if he would, keep an account even with *twenty* of his neighbors, upon twenty separate pages of his leger, with an alphabetical index, referring to the page of each man's account? And where a man has any considerable business or intercourse with twenty of his neighbors, would it not be better for him to keep some kind of accounts, than to trust all to memory, and keep none at all?

I have no desire to dictate the topics, or the number of them — let every one select for himself. The subjects may be varied, and increased, at pleasure, from the twenty which I have named, to forty-four, which are found sufficient on Jefferson's plan for thirty or forty thousand volumes of a library; to one hundred, which is the greatest number required by Locke with all his learning; or to one hundred and fifty-one, the number required by Noah Webster, for classifying all the words of the English language, of which he has exhibited eighty thousand.

When an appropriate book and index are provided, and a few accounts opened, the main difficulty is surmounted — all after is pleasant and profitable. As often as anything is seen, heard, or read, deserving of preservation, or future reference, let it be posted to its proper account, like an item of dollars and cents, in a leger. When a new subject occurs, open a new account, and if one page is filled, pass to the next, — without even the usual precaution, necessary in a common leger, of placing at the foot of the full page, the number of the new page to which you have removed, and at the head of the new page, the number of that from which you last came, adding in every instance, the new number to the index; for the index which I furnish is already complete. To men of business, there is of course nothing new in this, to require further explanation, but I speak for youth, as well as for men of business.

The entries in a common-place book, should stand like names, births, ages, marriages, and deaths, in a family Bible. What is thus once well done, is done for ever — it need not be done again. And in order that such a book may last through a man's life, the entries should be brief, as they are in a leger of accounts, and in short-hand if practicable — that is by all those who have learned, or can learn conveniently, that labor-saving art. Each entry should be a mere syllabus or brief of the subject to which reference is to be made. The book being a general repository, or warehouse, for intellectual goods, wares, and merchandise, the entries should be heads and skeletons of important subjects; many of which, without this artificial aid, could never be recalled by memory, for any valuable purpose; but, with it, may be brought up at any future time, with all the freshness of original conception.

While the foregoing object is satisfactorily accomplished by the short entries recommended — the general index is at the same time, employed as a key to various other books, and to numerous subjects not found in this book, except by name, and to be turned to, or sought for, according to the directions given at the time the entries are made, and in pursuance of the plan which I shall now explain. This, doubtless, will be the most important use to which the book will be applied, by a majority of those who adopt the plan; as it avoids, in a good degree, the unwelcome toil imposed by common-placing in the usual way.

The man who thinks a great deal, reads a great deal, and writes a great deal; or, in other words, the man who knows a great deal, and would know still more, and have it at command, should, in addition to the book which I have recommended, be provided with a blank book for a *diary or journal*,* — with a letter-book scrap-book, and portfolio, lettered and numbered; and also with a series of boxes or pigeon-holes, for the safe-keeping of papers, pamphlets, &c. These pigeon-holes should be lettered alphabetically, or numbered, as we see them in postoffices and other well regulated offices, public and private.

Every pamphlet, and every paper, not belonging to the fiscal or business department of a man's

* The author of this lecture, was informed by the venerable John Quincy Adams, but a few hours since, that he, in youth, acquired the art of *short writing*, which he had used less or more through life; that he had also adopted and used Locke's *common-place plan*; and for the last forty years, kept a *diary* or *journal* with few intermissions.

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affairs (which we presume to be already well cared for), should be numbered, either under some appropriate head or class, such as I have heretofore intimated, or as a prothonotary numbers his writs, his suits, his judgments, his executions, &c.; or, if no appropriate account has yet been opened in the place-book, then under the head *miscellaneous*, till at some future time, the miscellaneous items thus accumulated, are posted to their appropriate accounts.

All presidential and gubernatorial messages or addresses, and the reports from the principal departments of our national and state governments, should be regularly numbered and placed in their appropriate boxes—or for want of such repository, in packages, bundles, or files, with the numbers entered in the universal index—so that by the key, and the name of the author or subject, they can be turned to at pleasure, ten or twenty years hence.

The newspapers, containing speeches upon important subjects, by John Q. Adams, Clay, Webster, Buchanan, Benton, Calhoun, &c., might also be thus numbered and preserved, where full files of the papers are not kept; for the history of our day, would be very imperfect without the aid of these speeches—to say nothing of the aroma and spice, which they yield to political life, or the present light which they shed upon the leading topics of the age in which we live.

The present seeker of political fame, in the councils of state or nation, should not fail to open an account with, or assign a pigeon-hole in his cabinet, to each of these individuals, and from time to time, to such others as may become alike distinguished, and be thought deserving of such a provision.

By turning to the account of Andrew Jackson, had such an arrangement been entered into and pursued, from the battle of New Orleans, till the close of his administration, entries like the following, might probably be found: Battle at New Orleans, January 8, 1815, see National Intelligencer, or other document, No. — pigeon-hole No. 7; that is, supposing that each of the former presidents of the United States, had a separate box assigned him. Again: Presidential election 1825, result of, by the House of Representatives—see paper, No. —. Election 1829, result of, Intelligencer, New York Spectator, Richmond Enquirer, &c., No. —. Inauguration, inaugural address, &c., No. —. First message to congress, No. —. Removing deposites, Veto of United States Bank, Specie Circular, &c., &c., all numbered and arranged in the same order, and in the same pigeon-hole or file.

Under the head, H. Clay, or J. C. Calhoun, might be found the following entries: Speech of, on chartering U. S. Bank, 1816, paper No. —, renewing charter U. S. B. Compromise tariff, distribution surplus revenue, proceeds of public lands, northeastern boundary, steamboat Caroline, Alexander M'Leod, the Florida war, including "the blood-hounds," the bankrupt law without the hounds, &c., &c., all in similar order, with the number of each document entered in the proper account.

Upon another page, but under the appropriate heads, would be found entries like these: See Niles' Register, vol. 17, page —, Encyclopædia Americana, vol. 10, page —, Marshall's Washington, revised edition, octavo, Phila., vol. 1, page —, &c., &c. This plan would take but little writing, and occupy but little space, so that a general index, the size of a new testament for schools, would be sufficient, as an index, for John Quincy Adams, with 70 or 80 volumes of his own manuscript. In most cases, however, the entries may be made so full, especially when short-hand is used, as to supersede the necessity of future reference to other sources; and when it is apprehended that such sources may not be accessible, the entries should not fail to be so full, as to give all that is essential, upon the subject; and with a view to this, the blank books are made sufficiently large for common-place entries, and pretty extensive memoranda. The shorter plan of mere index entries, is resorted to as a saving of time, labor, and space, and when there is little doubt that the books, papers, and other sources, where the subjects may be found, will be accessible in future. After the various provisions which have been suggested, for saving common-place labor, by the systematic arrangement and indexing of papers, pamphlets, &c., if writing must be actually done, and if a subject be deserving of a longer *written* extract or memorandum, than would be appropriate for the place-book or general index, let it be written upon a separate sheet of paper, numbered and placed in its appropriate pigeon-hole, as if it were a pamphlet or newspaper, containing some important state paper—not neglecting to make,

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at the same time, a corresponding entry in the general index, as a key to future reference.

Every professional gentleman, should have, in addition to what I have named, a separate blank book, for all that appertains to his own particular profession or business; just as much as he should have a day-book and leger, for dollars and cents.

For the sake of a more familiar illustration of the nature and uses of this system, permit me to speak of myself, and some of my former labors in this line. At the age of twenty, while reading Locke on the Human Understanding, my attention was drawn to his plan of a common-place book, usually published at the close of that work.

Although the plan had been devised by him, more than one hundred and fifty years ago, and was evidently imperfect in some respects, it was the first, and only thing of the kind that I had seen. Its importance struck me most forcibly, and with some trifling modifications I adopted it as my own. I prepared a blank book and commenced taking short-hand notes, and making briefs, not only from Locke, bnt from various other works, and in the following order, viz.: from Paley's Moral Philosophy, Sheridan's Elocution, Duncan's Logic, Blair's Rhetoric, Enfield's Natural Philosophy, Ferguson's Astronomy, Stuart's Metaphysics, Vattel's Law of Nations, Montesquieu's Spirit of Laws, &c. The original stenographic notes thus taken, are still in my possession, and I often refer to them with pleasure and profit—though they are less perfect than I could desire. I have scarcely found time to read a page in either of those authors, for the last twenty-seven years; and yet I could in a few hours prepare myself for a critical examination on any one of them, by the simple aid of the short-hand skeletons, which I then prepared — in the way which I now recommend to others.

I was delighted with the plan, and astonished at the result; for I soon became convinced, that hours were worth more to me with this plan, than days had been without it. During the next few years, I used short-hand chiefly, for business memoranda, for correspondence with a few select friends, for my own compositions, the recording of letters, and occasionally the substance of a sermon, for my own edification, or the gratification of my friends.

My own life has been devoted to various branches of business, in all of which, I have found short-hand and common-placing of infinite value to me —whether as a merchant in the country — author, publisher, or booksellers in the cities — lecturer, and teacher in schools and colleges — reporter in congress, state legislatures, conventions, and courts — or as western land-agent.

During all these vicissitudes, I have necessarily had a very extensive acquaintance and intercourse with men of almost every class and profession; and have seen, in nearly all of them, a great deficiency as to method. I have heard it almost universally regretted among learned men, that they had not in early life, acquired the art of short-writing,* and been put in possession of some rational plan for referring to their various knowledge through life. These regrets, from high authorities, have more and more confirmed the opinions which I formed at an early day, as to the importance of short-writing and common-placing, and the great advantages which would result from the teaching of these branches in our schools and colleges — for both may be acquired in a week, so as to answer the purpose proposed, and by a little practice they would soon be as familiar as the principles of arithmetic and grammar.

I now repeat what I have often asserted, which has been seldom contradicted, and which can not be refuted, viz.: By the aid of these two facilities, familiarized in youth, more than half the labor of acquiring useful knowledge, and making it available through life, may be saved to the learner. Or, in other words, a person may acquire with these facilities, in a given time, quadruple the amount of useful knowledge, which it would be possible for him to acquire without these aids. Not that I have myself improved in that proportion; but what I have acquired, has been with trifling time and labor, in comparison to the amount usually bestowed by others upon the same subjects; and what I have once acquired, I shall have at command through life.

It is objected by some, that this course is too mechanical; that it will take too much labor; that the memory will be injured by it rather than improved. To these, let me say — he who learns to write five or six times as fast as he was wont, or,

* As a proof of its *labor*, *space*, and *time-saving* powers, let it be understood, that this entire *lecture*, of 13 large printed pages, prepared to be read in public, was originally written in my usual *running short-hand*, upon a single sheet of letter paper — though in ordinary common-hand, it would have required from five to eight sheets.

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as others usually write, and by judicious system, and early habit is enabled to grasp the substance of a volume — to analyze, condense, arrange in his mind, and present upon a page of his index a synopsis of the whole, while another would barely read it — does not, by this exercise, injure the memory, but invigorates the mind and improves the memory; and this is the exercise, which it is the object of the present lecture, to recommend and introduce. The mind, being released from the incumbrance of unnecessary words and space, finds more time to grow and expand, by reflecting upon, and comparing the *ideas* which *words* may have infused. The learner looks upon his synopsis of a single page, as he looks upon the map of a country, and, at a glance, the substance of a volume, is brought in view. It is true, the memory should be the repository of *ideas*, rather than of *words*, which are, at best, but the mere vehicles of thought, and always at hand, where thought is; and having performed their office of communicating ideas, they are as useless as the spelling-books, grammars, and geographies of our childhood. Having learned the ideas, we care not for the words in which they were clothed — any more than the farmer, for the chaff, which he commits to the winds, and the beasts of the field, having first secured the grain; but let us not give a certainty for an uncertainty.

The memory, while it should not be overburdened with unnecessary verbiage, should never be released from that habitual exertion on which its own health and preservation depend; for the great secret of preserving and improving the memory, consists in giving it a sufficient quantity of the right kind of aliment, affording due time for its digestion, and no more relaxation than is absolutely necessary for the restoration of its healthy functions.

The person, therefore, who adopts the facilities which I have been recommending, does not substitute them *for* memory, but employs them as its assistants — as its knowledge-bearers, to gather up, preserve, and hold in readiness for future use, that which memory need not be continually cumbered with, and to which it can not resort at pleasure, or with certainty, without some such artificial aid.

The anticipated improvement and benefits are to flow from the *mutual* and *reciprocal co-operation* of *short-writing*, *common-placing*, or *indexing* and *memory*, as auxiliaries each to the other.

Suppose it were desirable, for a particular object, to refer to the *written account* of some distinguished individual who stands conspicuous upon the page of history, ancient or modern; the orators, Demosthenes or Cicero; the poets, Homer or Virgil; the philosophers, lawgivers, wise men, historians, or celebrated writers, of antiquity, Socrates, Plato, Diogenes, Epicurus, Solon, Seneca, Josephus, Pliny; or to the emperors, kings, conquerors, presidents, and generals, of the world at large, Alexander the Great, Julius Cæsar, Hannibal, Cincinnatus, Scipio, Washington, Bonaparte, Bolivar; or to the Henrys, the Edwards, the Richards, the Georges, the Williams, or the Queens of England: without some kind of system or method, more than is usually adopted at schools and colleges, or practised by those who read professedly for the purpose of future benefit, there might be very great inconvenience in turning, at once, to the subject proposed, because you must look to the history of Greece, of Rome, England, France, North America, South America; you must resort to various volumes, and probably beyond your own library — and thousands there are who have no library. But, upon my plan, every young man should have all such subjects arranged in his place-book, or general index, while at school, so that, in all after-life, he could turn to them as he would turn to a word in a dictionary.

A word further: Suppose you would know the latitude, logitude, boundaries, extent of territory, population, form of government, amount of revenue, of national debt, number of the army or navy of any country in Europe, or the population of any European city; the time of any great naval battle among the European powers; or if you would refer to some feature in the Constitution of the United States, or of any individual state; to the organization and general business arrangements of any of the various departments of our national government, from the executive downward; or if even you would look to the components of the British parliament — *the peers* — of blood-royal, the archbishops, dukes, marquises, earls, viscounts, bishops, barons — or the *commons*, and the relative number representing England, Scotland, Ireland, and Wales; however miscellaneous and *dissimilar*, in all respects, these several subjects may appear, they are all alike simple in an index.

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As a proof of the simplicity and efficiency of this system, so far as my own reading and knowledge are concerned, it affords me pleasure to answer any interrogatories which may be put upon any of the subjects named, or other topics upon which I have ever read, deeming the subject-matter worthy of preservation.

DIFFERENT SYSTEMS AND MODES OF CLASSIFICATION.

I now close my instructions and hints to young men, by referring to several modes of classification, and to Chancellor Kent's course of reading.

SYSTEM OF DR. LOCKE.

As to Locke's system of common-placing, to which I have alluded, I must be permitted to say — however clear the ideas of that author were upon other subjects, he was not fortunate in the description of his own method of common-placing; for not one in twenty has been able to understand and practise it, without perplexity and blunders. It was only adapted to his own use, and the use of those like himself, who read, think, and write, continually. Various modifications and imitations have been recommended and adopted, without material improvement.

CLASSIFICATION OF PHILADELPHIA LIBRARY, FOUNDED 1731.

The catalogue of this immense library, extends through two octavo volumes, or 1,048 pages. The whole is divided into *five classes*, and these classes into 181 minor divisions, viz.:—

1. Religion	into 20	subdivisions.	requiring	20	alphabets.
2. Jurisprudence	18	"	"	18	"
3. Science and Arts	58	"	"	58	"
4. Belles-Lettres	33	"	"	33	"
5. History	52	"	"	52	"
				181	

By a synopsis of three pages, we are shown the particular page of the general catalogue upon which each subdivision commences; and from that commencement, all the particular works belonging to that subdivision are ranged in alphabetic order; and in that arrangement is shown the number of the volume in the *entire library*, instead of the number in a particular subdivision; but still, the alphabetic series is resorted to no less than 181 *times* — and once for the names of authors, making 182.

JEFFERSON'S SYNOPSIS, AND THE CLASSIFICATION OF BOOKS IN CONGRESS LIBRARY, WASHINGTON CITY.

Having alluded to the philosophic synopsis or classification of Mr. Jefferson, I have thought best to exhibit it entire, being unwilling to keep back anything which may be useful, and believing as I do, that it may lead to reflection, examination, and improvement.

It will be seen, that this classification has furnished matter, for forty-four distinct chapters, and the present library of Congress is thus divided.

Mr. Jefferson says, Books may be classed according to the faculties of the mind employed on them. These are—

I. MEMORY. II. REASON. III. IMAGINATION.

Which are applied respectively to—

I. HISTORY. II. PHILOSOPHY. III. FINE ARTS.

					Chap.
I. HISTORY.	Civil....	Civil proper.	Ancient.....	Ancient History.....	1
			Modern.....	Foreign.....	2
				British.....	3
				American.....	4
		Ecclesiastical.....		Ecclesiastical.....	5
	Natural	Physics.....		Natural Philosophy...	6
				Agriculture.....	7
				Chemistry.....	8
				Surgery.....	9
				Medicine.....	10
		Natural History proper.	Animals....	Anatomy.....	11
				Zoology.....	12
			Vegetables..	Botany.....	13
			Minerals....	Mineralogy.....	14
		Occupations of Man.....		Technical Arts.....	15
II. PHILOSOPHY.	Moral..	Ethics.....		Moral Philosphy....	16
				Law of Nature, &c..	
		Religious.....		Religion.....	17
		Jurisprudence.....		Common Law, &c....	18
				Com Law—Reports..	19
				Equity.....	20
				Ecclesiastical.....	21
				Law, Merchant, &c...	22
				Codes, Statutes.....	23
		Economical.....		Politics.....	24
				Commerce.....	
	Mathematical.	Pure.....		Arithmetic.....	25
				Geometry.....	26
		Physico-Mathematical....		Mechanics.....	27
				Statics.....	
				Dynamics.....	
				Pneumatics.....	
				Phonics.....	
				Optics.....	
				Astronomy.....	28
				Geography.....	29
III. FINE ARTS.		Architecture.....		Architecture.....	30
		Gardening.....		Gardening.....	31
		Painting.....		Painting.....	
		Sculpture.....		Sculpture.....	
		Music.....		Music.....	32
		Poetry.....		Epic.....	33
		Romance.....		Tales, Fables.....	34
		Poetry.....		Pastorals.....	35
				Odes.....	
				Elegies.....	
				Didactic.....	36
		Tragedy.....		Tragedy.....	37
		Comedy.....		Comedy.....	38
		Dialogue.....		Dialogue.....	39
		Epistles.....		Epistles.....	
		Oratory.....		Logic.....	40
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H.C. Schumacher Altona 1821 4to

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Parallax of α Lyrae Phil. Trans. 1822
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M. Weisse ~~Cat.~~ Stellarum Fixarum Petropoli 1846

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1848phae.proj..253.

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Segour See Du Segour

Smeaton J. On the graduation of Astronomical Instruments
Phil. Trans. 1785

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Somerville M. Physical Geography 1 Vol. 8vo Phil. 1848

Society Royal Report on Physics 1 Vol 8vo London 1840

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Elements of Astronomy 1 Vol 8vo Philadelphia 1811

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Mechanics Vol. I in 1 Vol. 8vo Cambridge 1819
On the Position of the Apsides of Orbits of great Excentricity Phil. Trans.

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Wollaston W. H. On the finite extent of the Atmosphere
Phil. Trans 1822

Wollaston J. Astronomical Observations made at Chislehurst
in Kent in the course of the year 1773 Phil. Trans. 1774

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